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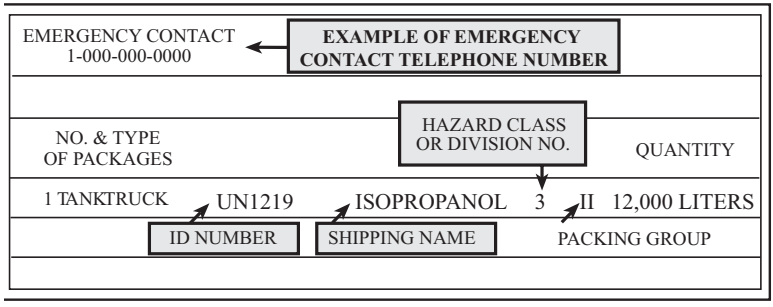
2008 Emergency Response Guidebook

A GUIDEBOOK
FOR FIRST RESPONDERS
DURING THE INITIAL PHASE
OF A DANGEROUS GOODS/
HAZARDOUS MATERIALS
TRANSPORTATION INCIDENT

SHIPPING DOCUMENTS (PAPERS)*

The shipping document provides vital information when responding to a hazardous materials/dangerous goods** incident. The shipping document contains information needed to identify the materials involved. Use this information to initiate protective actions for your own safety and the safety of the public. The shipping document contains the 4-digit ID number (see yellow-bordered pages) preceded by the letters UN or NA, the proper shipping name (see blue-bordered pages), the hazard class or division of the material(s), and, where appropriate, the Packing Group. The shipping document will also display a 24-hour emergency response telephone number. In addition, there must be information available that describes the hazards of the material which can be used in the mitigation of an incident. The information must be entered on or be with the shipping document. This requirement may be satisfied by attaching a guide from the ERG2008 to the shipping document, or by having the entire guidebook available for ready reference. Shipping documents are required for most dangerous goods in transportation. Shipping documents are kept in

- the cab of the motor vehicle,
- the possession of the train crew member,
- a holder on the bridge of a vessel, or
- an aircraft pilot's possession.



EXAMPLE OF PLACARD AND PANEL WITH ID NUMBER

The 4-digit ID Number may be shown on the diamond-shaped placard or on an adjacent orange panel displayed on the ends and sides of a cargo tank, vehicle or rail car.

A Numbered Placard or A Placard and an Orange Panel

* For the purposes of this guidebook, the terms shipping document/shipping paper are synonymous.
** For the purposes of this guidebook, the terms hazardous materials/dangerous goods are synonymous.

BEFORE AN EMERGENCY – BECOME FAMILIAR WITH THIS GUIDEBOOK! In the U.S., according to the requirements of the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA, 29 CFR 1910.120), and regulations issued by the U.S. Environmental Protection Agency (EPA, 40 CFR Part 311), first responders must be trained regarding the use of this guidebook.

RESIST RUSHING IN !
APPROACH INCIDENT FROM UPWIND
STAY CLEAR OF ALL SPILLS, VAPORS, FUMES, SMOKE AND SUSPICIOUS SOURCES

HOW TO USE THIS GUIDEBOOK DURING AN INCIDENT INVOLVING DANGEROUS GOODS

STEP ONE: **IDENTIFY THE MATERIAL.** USE **ANY** OF THE FOLLOWING:

- **IDENTIFICATION NUMBER (4-DIGIT ID) FROM** A PLACARD, ORANGE PANEL, SHIPPING PAPER OR PACKAGE (after UN/NA)
- **NAME OF THE MATERIAL FROM** A SHIPPING DOCUMENT OR PACKAGE

STEP TWO: **IDENTIFY 3-DIGIT GUIDE NUMBER** USE:

- ID NUMBER INDEX in yellow-bordered pages or
- NAME OF MATERIAL INDEX in blue-bordered pages

Guide number supplemented with the letter "**P**" indicates that the material may undergo violent polymerization if subjected to heat or contamination.

INDEX ENTRIES HIGHLIGHTED IN GREEN are TIH (Toxic Inhalation Hazard) material, a chemical warfare agent or a Dangerous Water Reactive Material (produces toxic gas upon contact with water). **IDENTIFY ID NUMBER AND NAME OF MATERIAL** IN TABLE 1 – INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES (the green-bordered pages). **IF NECESSARY, BEGIN PROTECTIVE ACTIONS IMMEDIATELY** (see Protective Actions page 296). If no protective action required, use the information jointly with the 3-digit guide.

STEP THREE: **TURN TO THE NUMBERED GUIDE** (the orange-bordered pages) **READ CAREFULLY.**

USE GUIDE 112 FOR ALL EXPLOSIVES EXCEPT FOR EXPLOSIVES 1.4 (EXPLOSIVES C) WHERE GUIDE 114 IS TO BE CONSULTED.

NOTE: IF ABOVE STEPS CANNOT BE COMPLETED AND PLACARD IS VISIBLE: Turn to pages 16-17; use 3-digit guide next to placard; PROCEED TO NUMBERED GUIDE (orange-bordered pages). If shipping document is available, call emergency response telephone number listed. If document or emergency response telephone is not available, IMMEDIATELY CALL the appropriate **emergency response agency listed in the back of this guidebook**. Provide as much information as possible, such as the name of the carrier (trucking company or railroad) and vehicule number. **IF A REFERENCE TO A GUIDE CANNOT BE FOUND AND THIS INCIDENT IS BELIEVED TO INVOLVE DANGEROUS GOODS**, TURN TO **GUIDE 111** NOW, AND USE IT UNTIL ADDITIONAL INFORMATION BECOMES AVAILABLE.

AS A LAST RESORT: IF ONLY THE CONTAINER CAN BE IDENTIFIED, CONSULT THE TABLE OF RAIL CAR AND ROAD TRAILER IDENTIFICATION CHART (pages18-19). REMEMBER THAT THE INFORMATION ASSOCIATED WITH THESE CONTAINERS IS FOR WORST CASE SCENARIOS.

ERG2008 USER'S GUIDE

The 2008 Emergency Response Guidebook (ERG2008) was developed jointly by Transport Canada (TC), the U.S. Department of Transportation (DOT), the Secretariat of Transport and Communications of Mexico (SCT) and with the collaboration of CIQUIME (Centro de Información Química para Emergencias) of Argentina, for use by fire fighters, police, and other emergency services personnel who may be the first to arrive at the scene of a transportation incident involving dangerous goods. **It is primarily a guide to aid first responders in quickly identifying the specific or generic hazards of the material(s) involved in the incident, and protecting themselves and the general public during the initial response phase of the incident.** For the purposes of this guidebook, the "initial response phase" is that period following arrival at the scene of an incident during which the presence and/or identification of dangerous goods is confirmed, protective actions and area securement are initiated, and assistance of qualified personnel is requested. It is not intended to provide information on the physical or chemical properties of dangerous goods.

This guidebook will assist responders in making initial decisions upon arriving at the scene of a dangerous goods incident. It should not be considered as a substitute for emergency response training, knowledge or sound judgment. ERG2008 does not address all possible circumstances that may be associated with a dangerous goods incident. It is primarily designed for use at a dangerous goods incident occurring on a highway or railroad. Be mindful that there may be limited value in its application at fixed facility locations.

ERG2008 incorporates dangerous goods lists from the most recent United Nations Recommendations as well as from other international and national regulations. Explosives are not listed individually by either proper shipping name or ID Number. They do, however, appear under the general heading "Explosives" on the first page of the ID Number index (yellow-bordered pages) and alphabetically in the Name of Material index (blue-bordered pages). Also, the letter **"P"** following the guide number in the yellow-bordered and blue-bordered pages identifies those materials which present a polymerization hazard under certain conditions, for example: Acrolein, stabilized **131P**.

First responders at the scene of a dangerous goods incident should seek additional specific information about any material in question as soon as possible. The information received by contacting the appropriate emergency response agency, by calling the emergency response telephone number on the shipping document, or by consulting the information on or accompanying the shipping document, may be more specific and accurate than this guidebook in providing guidance for the materials involved.

BEFORE AN EMERGENCY – BECOME FAMILIAR WITH THIS GUIDEBOOK! In the U.S., according to the requirements of the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA, 29 CFR 1910.120), and regulations issued by the U.S. Environmental Protection Agency (EPA, 40 CFR Part 311), first responders must be trained regarding the use of this guidebook.

GUIDEBOOK CONTENTS

1-Yellow-bordered pages: Index list of dangerous goods in numerical order of ID number. This section quickly identifies the guide to be consulted from the ID Number of the material involved. This list displays the 4-digit ID number of the material followed by its assigned emergency response guide and the material name.

For example:	**ID No.**	**GUIDE No.**	**Name of Material**
	1090	**127**	Acetone

2-Blue-bordered pages: Index list of dangerous goods in alphabetical order of material name. This section quickly identifies the guide to be consulted from the name of the material involved. This list displays the name of the material followed by its assigned emergency response guide and 4-digit ID number.

For example:	**Name of Material**	**GUIDE No.**	**ID No.**
	Sulfuric acid	**137**	1830

3-Orange-bordered pages: This section is the most important section of the guidebook because it is where all safety recommendations are provided. It comprises a total of 62 individual guides, presented in a two-page format. Each guide provides safety recommendations and emergency response information to protect yourself and the public. The left hand page provides safety related information whereas the right hand page provides emergency response guidance and activities for fire situations, spill or leak incidents and first aid. Each guide is designed to cover a group of materials which possess similar chemical and toxicological characteristics.

The guide title identifies the general hazards of the dangerous goods covered.

For example: **GUIDE 124** - Gases-Toxic and/or Corrosive-Oxidizing.

Each guide is divided into three main sections: the first section describes **potential hazards** that the material may display in terms of fire/explosion and health effects upon exposure. The highest potential is listed first. The emergency responder should consult this section first. This allows the responder to make decisions regarding the protection of the emergency response team as well as the surrounding population.

The second section outlines suggested **public safety** measures based on the situation at hand. It provides general information regarding immediate isolation of the incident site, recommended type of protective clothing and respiratory protection. Suggested evacuation distances are listed for small and large spills and for fire situations (fragmentation hazard). It also directs the reader to consult the tables listing Toxic Inhalation Hazard (TIH) materials, chemical warfare agents and water-reactive materials (green-bordered pages) when the material is highlighted in the yellow-bordered and blue-bordered pages.

The third section covers **emergency response** actions, including first aid. It outlines special precautions for incidents which involve fire, spill or chemical exposure. Several

recommendations are listed under each part which will further assist in the decision making process. The information on first aid is general guidance prior to seeking medical care.

4-Green-bordered pages: This section contains two tables. Table 1 lists, by ID number order, TIH materials, including certain chemical warfare agents, and water-reactive materials which produce toxic gases upon contact with water. This table provides two different types of recommended safe distances which are "Initial isolation distances" and "Protective action distances." The materials are highlighted in green for easy identification in both numeric (yellow-bordered pages) and alphabetic (blue-bordered pages) lists of the guidebook. This table provides distances for both small (approximately 200 liters or less for liquids and 300 kilograms or less for solids when spilled in water) and large spills (more than 200 liters for liquids and more than 300 kilograms for solids when spilled in water) for all highlighted materials. The list is further subdivided into daytime and nighttime situations. This is necessary due to varying atmospheric conditions which greatly affect the size of the hazardous area. The distances change from daytime to nighttime due to different mixing and dispersion conditions in the air. During the night, the air is generally calmer and this causes the material to disperse less and therefore create a toxic zone which is greater than would usually occur during the day. During the day, a more active atmosphere will cause a greater dispersion of the material resulting in a lower concentration of the material in the surrounding air. The actual area where toxic levels are reached will be smaller (due to increased dispersion). In fact, it is the quantity or concentration of the material vapor that poses problems not its mere presence. Table 2 lists, by ID number order, materials which produce large amounts of Toxic Inhalation Hazard (TIH) gases when spilled in water and identifies the TIH gases produced. These Water Reactive materials are easily identified in Table 1 as their name is immediately followed by (when spilled in water). Note, however, if this material is NOT spilled in water, Table 1 and Table 2 do not apply and safety distances will be found within the appropriate orange guide.

The "Initial Isolation Distance" is a distance within which all persons should be considered for evacuation in all directions from the actual spill/leak source. It is a distance (radius) which defines a circle (Initial Isolation Zone) within which persons may be exposed to dangerous concentrations upwind of the source and may be exposed to life threatening concentrations downwind of the source. For example, in the case of Compressed gas, toxic, n.o.s., ID No. 1955, Inhalation Hazard Zone A, the isolation distance for small spills is 100 meters, therefore, representing an evacuation circle of 200 meters in diameter.

For the same material, the "Protective Action Distance" for a small spill is 0.5 kilometers for a daytime incident and 2.1 kilometers for a nighttime incident, these distances represent a downwind distance from the spill/leak source within which Protective Actions could be implemented. Protective Actions are those steps taken to preserve the health and safety of emergency responders and the public. People in this area could be evacuated and/or sheltered in-place. For more information, consult pages 293 to 299.

What is a TIH? It is a gas or volatile liquid which is known to be so toxic to humans as to pose a hazard to health during transportation, or in the absence of adequate data on human

toxicity, is presumed to be toxic to humans because when tested on laboratory animals it has a Lethal Concentration 50 (LC50) value of not more than 5000 ppm.

It is important to note that even though the term zone is used, the hazard zones do not represent any actual area or distance. The assignment of the zones is strictly a function of their Lethal Concentration 50 (LC50); for example, TIH Zone A is more toxic than Zone D. All distances which are listed in the green-bordered pages are calculated by the use of mathematical models for each TIH material. For the assignment of hazard zones refer to the glossary.

ISOLATION AND EVACUATION DISTANCES

Isolation or evacuation distances are shown in the guides (orange-bordered pages) and in the Table 1 - Initial Isolation and Protective Action Distances (green-bordered pages). This may confuse users not thoroughly familiar with ERG2008.

It is important to note that some guides refer only to non-TIH materials (36 guides), some refer to both TIH and non-TIH materials (21 guides) and some (5 guides) refer only to TIH or Water-reactive materials (WRM). A guide refers to both TIH and non-TIH materials (for example see GUIDE 131) when the following sentence appears under the title EVACUATION-Spill: “See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under ‘PUBLIC SAFETY.’” A guide refers only to TIH or WRM materials (for example see GUIDE 124) when the following sentence appears under the title EVACUATION-Spill: “See Table 1 - Initial Isolation and Protective Action Distances”. If the previous sentences do not appear in a guide, then this particular guide refers only to non-TIH materials (for example see GUIDE 128).

In order to identify appropriate isolation and protective action distances, use the following:

If you are dealing with a **TIH/WRM/Chemical warfare** material (highlighted entries in the index lists), the isolation and evacuation distances are found directly in the green-bordered pages. The guides (orange-bordered pages) also remind the user to refer to the green-bordered pages for evacuation specific information involving highlighted materials.

If you are dealing with a **non-TIH material but the guide refers to both TIH and non-TIH materials**, an immediate isolation distance is provided under the heading PUBLIC SAFETY as a precautionary measure to prevent injuries. It applies to the non-TIH materials only. In addition, for evacuation purposes, the guide informs the user under the title EVACUATION-Spill to increase, for non-highlighted materials, in the downwind direction, if necessary, the immediate isolation distance listed under “PUBLIC SAFETY”. For example, GUIDE 131 – Flammable Liquids-Toxic, instructs the user to: "As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions." In case of a large spill, the isolation area could be expanded from 50 meters to a distance deemed as safe by the On-scene commander and emergency responders.

If you are dealing with a **non-TIH material and the guide refers only to non-TIH materials**, the immediate isolation and evacuation distances are specified as actual distances in the guide (orange-bordered pages) and are not referenced in the green-bordered pages.

SAFETY PRECAUTIONS

APPROACH CAUTIOUSLY FROM UPWIND. If wind direction allows, consider approaching the incident from uphill. Resist the urge to rush in; others cannot be helped until the situation has been fully assessed.

SECURE THE SCENE. Without entering the immediate hazard area, isolate the area and assure the safety of people and the environment, keep people away from the scene and outside the safety perimeter. Allow enough room to move and remove your own equipment.

IDENTIFY THE HAZARDS. Placards, container labels, shipping documents, material safety data sheets, Rail Car and Road Trailer Identification Charts, and/or knowledgeable persons on the scene are valuable information sources. Evaluate all available information and consult the recommended guide to reduce immediate risks. **Additional information, provided by the shipper or obtained from another authoritative source, may change some of the emphasis or details found in the guide.** Remember, the guide provides only the most important and worst case scenario information for the initial response in relation to a family or class of dangerous goods. As more material-specific information becomes available, the response should be tailored to the situation.

ASSESS THE SITUATION. Consider the following:

- Is there a fire, a spill or a leak?
- What are the weather conditions?
- What is the terrain like?
- Who/what is at risk: people, property or the environment?
- What actions should be taken: Is an evacuation necessary? Is diking necessary? What resources (human and equipment) are required and are readily available?
- What can be done immediately?

OBTAIN HELP. Advise your headquarters to notify responsible agencies and call for assistance from qualified personnel.

DECIDE ON SITE ENTRY. Any efforts made to rescue persons, protect property or the environment must be weighed against the possibility that you could become part of the problem. Enter the area only when wearing appropriate protective gear (see PROTECTIVE CLOTHING, page 348).

RESPOND. Respond in an appropriate manner. Establish a command post and lines of communication. Rescue casualties where possible and evacuate if necessary. Maintain control of the site. Continually reassess the situation and modify the response accordingly. The first duty is to consider the safety of people in the immediate area, including your own.

ABOVE ALL. Do not walk into or touch spilled material. Avoid inhalation of fumes, smoke and vapors, even if no dangerous goods are known to be involved. Do not assume that gases or vapors are harmless because of lack of a smell—odorless gases or vapors may be harmful. Use **CAUTION** when handling empty containers because they may still present hazards until they are cleaned and purged of all residues.

WHO TO CALL FOR ASSISTANCE

Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Follow the steps outlined in your organization's standard operating procedures and/or local emergency response plan for obtaining qualified assistance. Generally, the notification sequence and requests for technical information beyond what is available in this guidebook should occur in the following order:

1. ORGANIZATION/AGENCY

Notify your organization/agency. This will set in motion a series of events based upon the information provided. Actions may range from dispatching additional trained personnel to the scene to activating the local emergency response plan. Ensure that local fire and police departments have been notified.

2. EMERGENCY RESPONSE TELEPHONE NUMBER

Locate and call the telephone number listed on the shipping document. The person answering the phone at the listed emergency response number must be knowledgeable of the materials and mitigation actions to be taken, or must have immediate access to a person who has the required knowledge.

3. NATIONAL ASSISTANCE

Contact the appropriate emergency response agency listed on the inside back cover of this guidebook when the emergency response telephone number is not available from the shipping papers. Upon receipt of a call describing the nature of the incident, the agency will provide immediate advice on handling the early stages of the incident. The agency will also contact the shipper or manufacturer of the material for more detailed information and request on-scene assistance when necessary.

Collect and provide as much of the following information as can safely be obtained to your chain-of-command and specialists contacted for technical guidance:

Your name, call back telephone number, FAX number
Location and nature of problem (spill, fire, etc.)
Name and identification number of material(s) involved
Shipper/consignee/point of origin
Carrier name, rail car or truck number
Container type and size
Quantity of material transported/released
Local conditions (weather, terrain, proximity to schools, hospitals, waterways, etc.)
Injuries and exposures
Local emergency services that have been notified

CANADA

1. CANUTEC

CANUTEC is the **Canadian Transport Emergency Centre** operated by the Transport Dangerous Goods Directorate of Transport Canada.
CANUTEC provides a national bilingual (French and English) advisory service and is staffed by professional scientists experienced and trained in interpreting technical information and providing emergency response advice.

In an emergency, CANUTEC may be called collect at
613-996-6666 (24 hours)
***666 cellular (Press Star 666, Canada only)**

In a non-emergency situation, please call the information line at 613-992-4624 (24 hours).

2. PROVINCIAL AGENCIES

Although technical information and emergency response assistance can be obtained from **CANUTEC,** there are federal and provincial regulations requiring the reporting of dangerous goods incidents to certain authorities.

The following list of provincial agencies is supplied for your convenience.

Province	Emergency Authority and/or Telephone Number
Alberta	Local Police and Provincial Authorities 1-800-272-9600* or 780-422-9600
British Columbia	Local Police and Provincial Authorities 1-800-663-3456
Manitoba	Provincial Authority 204-945-4888 and Local Police or fire brigade, as appropriate
New Brunswick	Local Police or 1-800-565-1633** or 902-426-6030
Newfoundland and Labrador	Local Police and 709-772-2083
Northwest Territories	867-920-8130
Nova Scotia	Local Police or 1-800-565-1633** or 902-426-6030
Nunavut Territory	Local Police and 1-800-693-1666 or 867-979-6262
Ontario	Local Police
Prince Edward Island	Local Police or 1-800-565-1633** or 902-426-6030
Quebec	Local Police
Saskatchewan	Local Police or 1-800-667-7525
Yukon Territory	867-667-7244

* This number is not accessible from outside Alberta.
** This number is not accessible from outside of New Brunswick, Nova Scotia or Prince Edward Island.

NOTE:

1. The appropriate federal agency must be notified in the case of rail, air or marine incidents.

2. The nearest police department must be notified in the case of lost, stolen or misplaced explosives, radioactive materials or infectious substances.

3. **CANUTEC must** be notified in the case of:

   a. lost, stolen or misplaced infectious substances;
   b. an incident involving infectious substances;
   c. an accidental release from a cylinder that has suffered a catastrophic failure;
   d. an incident where the shipping documents display **CANUTEC's** telephone number 613-996-6666 as the emergency telephone number; or
   e. a dangerous goods incident in which a railway vehicle, a ship, an aircraft, an aerodrome or an air cargo facility is involved.

UNITED STATES

1. **CHEMTREC®**, a 24-hour emergency response communication service, can be reached as follows:

CALL **CHEMTREC®** (24 hours)
1-800-424-9300
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
For calls originating elsewhere:
703-527-3887 (Collect calls are accepted)

2. **CHEMTEL, INC.**, a 24-hour emergency response communication service, can be reached as follows:

CALL **CHEMTEL, INC.** (24 hours)
1-888-255-3924
(Toll-free in the U.S., Canada, Puerto Rico and the U.S. Virgin Islands)
For calls originating elsewhere:
813-248-0585 (Collect calls are accepted)

3. **INFOTRAC**, a 24-hour emergency response communication service, can be reached as follows:

CALL **INFOTRAC** (24 hours)
1-800-535-5053
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
For calls originating elsewhere:
352-323-3500 (Collect calls are accepted)

4. **3E COMPANY**, a 24-hour emergency response communication service, can be reached as follows:

CALL **3E COMPANY** (24 hours)
1-800-451-8346
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
For calls originating elsewhere:
760-602-8703 (Collect calls are accepted)

The emergency response information services shown above have requested to be listed as providers of emergency response information and have agreed to provide emergency response information to all callers. They maintain periodically updated lists of state and Federal radiation authorities who provide information and technical assistance on handling incidents involving radioactive materials.

5. **MILITARY SHIPMENTS**
For assistance at incidents involving materials being shipped by, for, or to the Department of Defense (DOD), call one of the following numbers (24 hours):

703-697-0218 (call collect) (U.S. Army Operations Center) for incidents involving explosives and ammunition.

1-800-851-8061 (toll-free in the U.S.) (Defense Logistics Agency) for incidents involving dangerous goods other than explosives and ammunition.

6. **NATIONWIDE POISON CONTROL CENTER** (United States Only)

Emergency and information calls are answered by the nearest Poison Center (24 hours):

1-800-222-1222 (toll-free in the U.S.).

The above numbers are for **emergencies** only.

NATIONAL RESPONSE CENTER (NRC)

The NRC, which is operated by the U.S. Coast Guard, receives reports required when dangerous goods and hazardous substances are spilled. After receiving notification of an incident, the NRC will immediately notify the appropriate Federal On-Scene Coordinator and concerned Federal agencies. Federal law requires that anyone who releases into the environment a reportable quantity of a hazardous substance (including oil when water is, or may be affected) or a material identified as a marine pollutant, must **immediately** notify the NRC. When in doubt as to whether the amount released equals the required reporting levels for these materials, the NRC should be notified.

CALL **NRC** (24 hours)
1-800-424-8802
(Toll-free in the U.S., Canada, and the U.S. Virgin Islands)
202-267-2675 in the District of Columbia

Calling the emergency response telephone number, CHEMTREC®, CHEMTEL, INC., INFOTRAC or 3E COMPANY, does not constitute compliance with regulatory requirements to call the NRC.

MEXICO

1. **SETIQ** (Emergency Transportation System for the Chemical Industry), a service of the National Association of Chemical Industries (ANIQ), can be reached as follows:

CALL **SETIQ** (24 hours)
01-800-00-214-00 in the Mexican Republic
For calls originating in Mexico City and the Metropolitan Area
5559-1588
For calls originating elsewhere, call
+52-55-5559-1588

2. **CENACOM**, the National Center for Communications of the Civil Protection Agency, can be reached as follows:

CALL **CENACOM** (24 hours)
01-800-00-413-00 in the Mexican Republic
For calls originating in Mexico City and the Metropolitan Area
5128-0000 exts. 11470, 11471, 11472, 11473, 11474, 11475, 11476 and 11477
For calls originating elsewhere, call
+52-55-5128-0000 exts. 11470, 11471, 11472, 11474, 11475 and 11476

ARGENTINA

1. **CIQUIME** (Chemistry Information Center for Emergencies) a 24-hour emergency response information service, can be reached as follows:

CALL **CIQUIME** (24 hours)
0-800-222-2933 in the Republic of Argentina

For calls originating elsewhere, call
+54-11-4613-1100

BRAZIL

1. **PRÓ-QUÍMICA** a 24-hour emergency response information service, can be reached as follows:

CALL **PRÓ-QUÍMICA** (24 hours)
0-800-118270 in the Federal Republic of Brazil

For calls originating elsewhere, call
+55-11-232-1144

COLOMBIA

1. **CISPROQUIM** a 24-hour emergency response information service, can be reached as follows:

CALL **CISPROQUIM** (24 hours)
01-800-091-6012 in Colombia
For calls originating in Bogotá, Colombia call
288-6012
For calls originating elsewhere, call
+57-1-288-6012

HAZARD CLASSIFICATION SYSTEM

The hazard class of dangerous goods is indicated either by its class (or division) number or name. Placards are used to identify the class or division of a material. The hazard class or division number must be displayed in the lower corner of a placard and is required for both primary and subsidiary hazard classes and divisions, if applicable. For other than Class 7 or the OXYGEN placard, text indicating a hazard (for example, "CORROSIVE") is not required. Text is shown only in the U.S. The hazard class or division number and subsidiary hazard classes or division numbers placed in parentheses (when applicable), must appear on the shipping document after each proper shipping name.

Class 1 - Explosives

Division 1.1	Explosives with a mass explosion hazard
Division 1.2	Explosives with a projection hazard
Division 1.3	Explosives with predominantly a fire hazard
Division 1.4	Explosives with no significant blast hazard
Division 1.5	Very insensitive explosives with a mass explosion hazard
Division 1.6	Extremely insensitive articles

Class 2 - Gases

Division 2.1	Flammable gases
Division 2.2	Non-flammable, non-toxic* gases
Division 2.3	Toxic* gases

Class 3 - Flammable liquids (and Combustible liquids [U.S.]**)**

Class 4 - Flammable solids; Spontaneously combustible materials; and Dangerous when wet materials/Water-reactive substances

Division 4.1	Flammable solids
Division 4.2	Spontaneously combustible materials
Division 4.3	Water-reactive substances/Dangerous when wet materials

Class 5 - Oxidizing substances and Organic peroxides

Division 5.1	Oxidizing substances
Division 5.2	Organic peroxides

Class 6 - Toxic* substances and Infectious substances

Division 6.1	Toxic*substances
Division 6.2	Infectious substances

Class 7 - Radioactive materials

Class 8 - Corrosive substances

Class 9 - Miscellaneous hazardous materials/Products, Substances or Organisms

* The words "poison" or "poisonous" are synonymous with the word "toxic".

INTRODUCTION TO THE TABLE OF PLACARDS

USE THIS TABLE ONLY IF YOU HAVE NOT BEEN ABLE TO IDENTIFY THE MATERIAL(S) IN TRANSPORT BY ID NUMBER OR SHIPPING NAME

The next two pages display the placards used on transport vehicles carrying dangerous goods. As you approach a reported or suspected dangerous goods incident involving a placarded vehicle:

1. **Approach the incident cautiously from upwind to a point from which you can safely identify and/or read the placard or orange panel information.** If wind direction allows, consider approaching the incident from uphill. Use binoculars, if available.

2. **Match the vehicle placard(s) with one of the placards displayed on the next two pages.**

3. **Consult the numbered guide associated with the sample placard. Use that information for now.** For example, a FLAMMABLE (Class 3) placard leads to GUIDE **127**. A CORROSIVE (Class 8) placard leads to GUIDE **153**. If multiple placards point to more than one guide, initially use the most conservative guide (i.e., the guide requiring the greatest degree of protective actions).

4. **Remember that the guides associated with the placards provide the most significant risk and/or hazard information.**

5. **When specific information,** such as ID number or shipping name, **becomes available, the more specific guide recommended for that material must be consulted.**

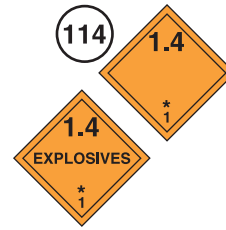
6. **If GUIDE 111 is being used because only the DANGER/DANGEROUS placard is displayed or the nature of the spilled, leaking, or burning material is not known, as soon as possible, get more specific information concerning the material(s) involved.**

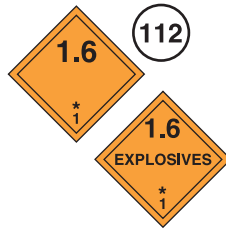
7. **Asterisks (*) on orange placards represent explosives "Compatibility Group" letters; refer to the Glossary (page 357).**

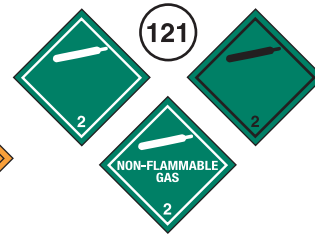
8. **Double asterisks (**) on orange placards represent the division of the explosive.**

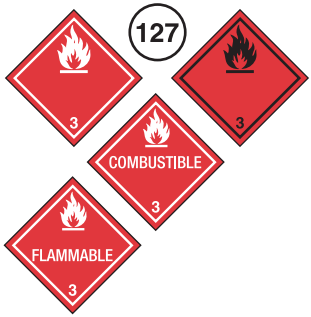
TABLE OF PLACARDS AND INITIAL

USE THIS TABLE ONLY IF MATERIALS CANNOT BE SPECIFICALLY IDENTIFIED BY



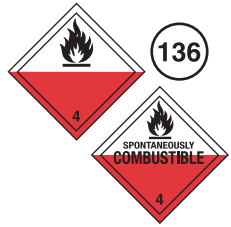


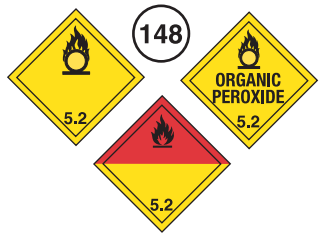


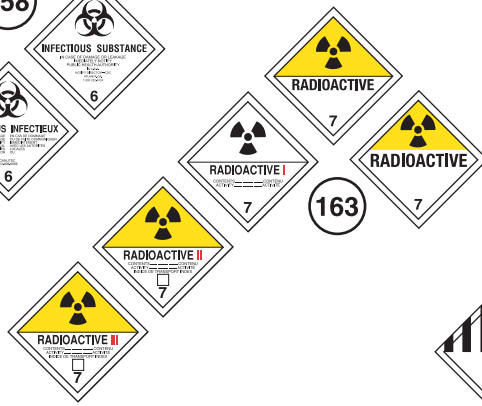


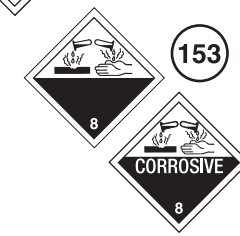
RESPONSE GUIDE TO USE ON-SCENE

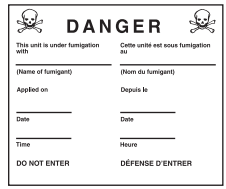
USING THE SHIPPING DOCUMENT, NUMBERED PLACARD, OR ORANGE PANEL NUMBER



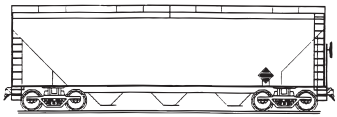




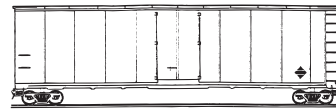




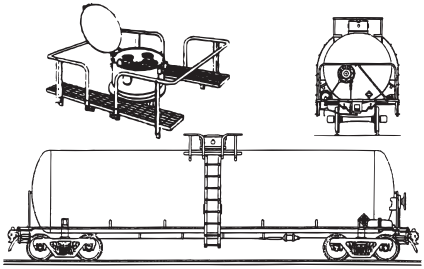
RAIL CAR IDENTIFICATION CHART*



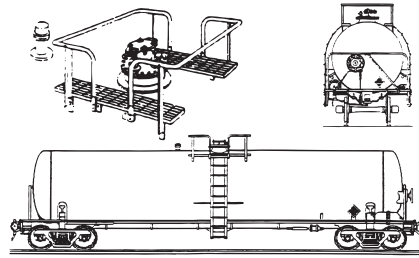
Hopper Car
Dry Bulk
140



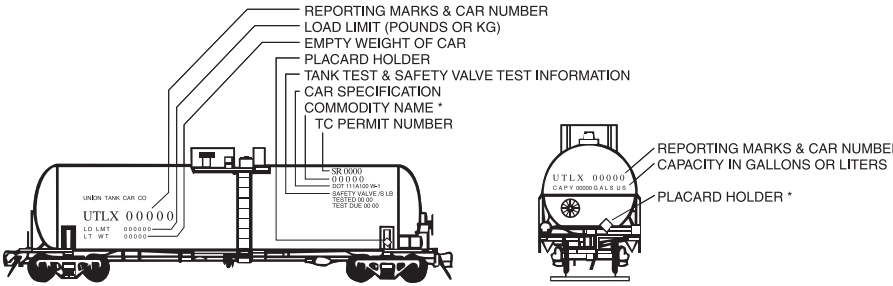
Box Car
Mixed Cargo
111



Pressure Tank Car
Compressed Liquefied Gases
117



Low Pressure Tank Car
Liquids
131



CAUTION: Emergency response personnel must be aware that rail tank cars vary widely in construction, fittings and purpose. Tank cars could transport products that may be solids, liquids or gases. The products may be under pressure. It is essential that products be identified by consulting shipping documents or train consist or contacting dispatch centers before emergency response is initiated.

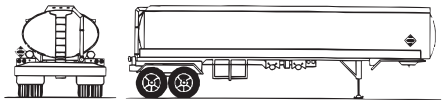
The information stenciled on the sides or ends of tank cars, as illustrated above, may be used to identify the product utilizing:

a. the commodity name shown; or

b. the other information shown, especially reporting marks and car number which, when supplied to a dispatch center, will facilitate the identification of the product.

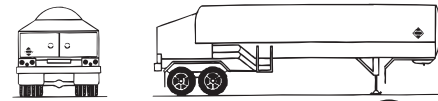
* **The recommended guides should be considered as last resort if the material cannot be identified by any other means**.

ROAD TRAILER IDENTIFICATION CHART*



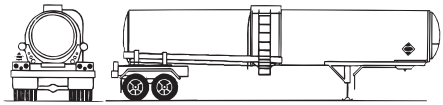
DOT406, TC406, SCT-306
Non-pressure Liquid Tank
(MC306, TC306)

131



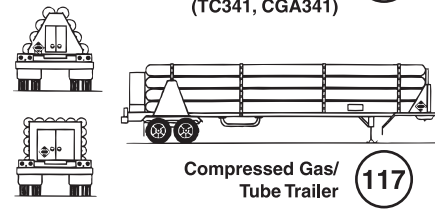
MC338, TC338, SCT-338
Cryogenic Liquid Tank
(TC341, CGA341)

117



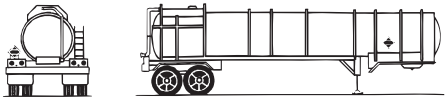
DOT407, TC407, SCT-307
Low Pressure Chemical Tank
(MC307, TC307)

137



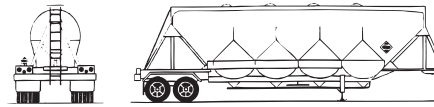
Compressed Gas/
Tube Trailer

117



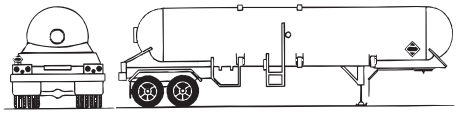
DOT412, TC412, SCT-312
Corrosive Liquid Tank
(MC312, TC312)

137



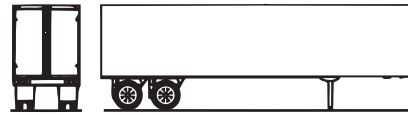
Dry Bulk Cargo
Trailer

134



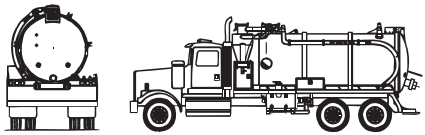
MC331, TC331, SCT-331
High Pressure Tank

117



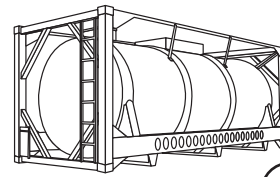
Mixed Cargo

111



DOT407, TC407, DOT412, TC412
Vacuum Loaded Tank
(TC350)

137



Intermodal Tank

117

CAUTION: This chart depicts only the most general shapes of road trailers. Emergency response personnel must be aware that there are many variations of road trailers, not illustrated above, that are used for shipping chemical products. The suggested guides are for the most hazardous products that may be transported in these trailer types.

* **The recommended guides should be considered as last resort if the material cannot be identified by any other means.**

HAZARD IDENTIFICATION CODES
DISPLAYED ON SOME INTERMODAL CONTAINERS

Hazard identification codes, referred to as "hazard identification numbers" (also referred to as the Kemler Code) under European and some South American regulations, may be found in the top half of an orange panel on some intermodal bulk containers. The 4-digit identification number is in the bottom half of the orange panel.

The hazard identification code in the top half of the orange panel consists of two or three digits. In general, the digits indicate the following hazards:

2 - EMISSION OF GAS DUE TO PRESSURE OR CHEMICAL REACTION

3 - FLAMMABILITY OF LIQUIDS (VAPORS) AND GASES OR SELF-HEATING LIQUID

4 - FLAMMABILITY OF SOLIDS OR SELF-HEATING SOLID

5 - OXIDIZING (FIRE-INTENSIFYING) EFFECT

6 - TOXICITY OR RISK OF INFECTION

7 - RADIOACTIVITY

8 - CORROSIVITY

9 - MISCELLANEOUS DANGEROUS SUBSTANCE

- Doubling of a digit indicates an intensification of that particular hazard (i.e. 33, 66, 88).
- Where the hazard associated with a material can be adequately indicated by a single digit, the digit is followed by a zero (i.e. 30, 40, 50).
- A hazard identification code prefixed by the letter "X" indicates that the material will react dangerously with water (i.e. X88).
- When 9 appears as a 2nd or 3rd digit, this may present a risk of spontaneous violent reaction.

HAZARD IDENTIFICATION CODES
DISPLAYED ON SOME INTERMODAL CONTAINERS

The hazard identification codes listed below have the following meanings:

20	Asphyxiant gas
22	Refrigerated liquefied gas, asphyxiant
223	Refrigerated liquefied gas, flammable
225	Refrigerated liquefied gas, oxidizing (fire-intensifying)
23	Flammable gas
236	Flammable gas, toxic
239	Flammable gas which can spontaneously lead to violent reaction
25	Oxidizing (fire-intensifying) gas
26	Toxic gas
263	Toxic gas, flammable
265	Toxic gas, oxidizing (fire-intensifying)
266	Highly toxic gas
268	Toxic gas, corrosive
30	Flammable liquid
323	Flammable liquid which reacts with water, emitting flammable gas
X323	Flammable liquid which reacts dangerously with water, emitting flammable gas
33	Highly flammable liquid
333	Pyrophoric liquid
X333	Pyrophoric liquid which reacts dangerously with water
336	Highly flammable liquid, toxic
338	Highly flammable liquid, corrosive
X338	Highly flammable liquid, corrosive, which reacts dangerously with water
339	Highly flammable liquid which can spontaneously lead to violent reaction
36	Flammable liquid, toxic, or self-heating liquid, toxic
362	Flammable liquid, toxic, which reacts with water, emitting flammable gas
X362	Flammable liquid, toxic, which reacts dangerously with water, emitting flammable gas
368	Flammable liquid, toxic, corrosive
38	Flammable liquid, corrosive or self-heating liquid, corrosive
382	Flammable liquid, corrosive, which reacts with water, emitting flammable gas
X382	Flammable liquid, corrosive, which reacts dangerously with water, emitting flammable gas
39	Flammable liquid which can spontaneously lead to violent reaction
40	Flammable solid, or self-reactive material, or self-heating material
423	Solid which reacts with water, emitting flammable gas

HAZARD IDENTIFICATION CODES
DISPLAYED ON SOME INTERMODAL CONTAINERS

X423	Flammable solid which reacts dangerously with water, emitting flammable gas
43	Spontaneously flammable (pyrophoric) solid
44	Flammable solid, in the molten state at an elevated temperature
446	Flammable solid, toxic, in the molten state at an elevated temperature
46	Flammable solid, toxic, or self-heating solid, toxic
462	Toxic solid which reacts with water, emitting flammable gas
X462	Solid which reacts dangerously with water, emitting toxic gas
48	Flammable or self-heating solid, corrosive
482	Corrosive solid which reacts with water, emitting flammable gas
X482	Solid which reacts dangerously with water, emitting corrosive gas
50	Oxidizing (fire-intensifying) substance
539	Flammable organic peroxide
55	Strongly oxidizing (fire-intensifying) substance
556	Strongly oxidizing (fire-intensifying) substance, toxic
558	Strongly oxidizing (fire-intensifying) substance, corrosive
559	Strongly oxidizing (fire-intensifying) substance which can spontaneously lead to violent reaction
56	Oxidizing (fire-intensifying) substance, toxic
568	Oxidizing (fire-intensifying) substance, toxic, corrosive
58	Oxidizing (fire-intensifying) substance, corrosive
59	Oxidizing (fire intensifying) substance which can spontaneously lead to violent reaction
60	Toxic material
606	Infectious substance
623	Toxic liquid which reacts with water, emitting flammable gas
63	Toxic liquid, flammable
638	Toxic liquid, flammable, corrosive
639	Toxic liquid, flammable, which can spontaneously lead to violent reaction
64	Toxic solid, flammable or self-heating
642	Toxic solid which reacts with water, emitting flammable gas
65	Toxic material, oxidizing (fire-intensifying)
66	Highly toxic material
663	Highly toxic liquid, flammable
664	Highly toxic solid, flammable or self-heating
665	Highly toxic material, oxidizing (fire-intensifying)
668	Highly toxic material, corrosive

HAZARD IDENTIFICATION CODES
DISPLAYED ON SOME INTERMODAL CONTAINERS

669	Highly toxic material which can spontaneously lead to violent reaction
68	Toxic material, corrosive
69	Toxic material which can spontaneously lead to violent reaction
70	Radioactive material
72	Radioactive gas
723	Radioactive gas, flammable
73	Radioactive liquid, flammable
74	Radioactive solid, flammable
75	Radioactive material, oxidizing (fire-intensifying)
76	Radioactive material, toxic
78	Radioactive material, corrosive
80	Corrosive material
X80	Corrosive material which reacts dangerously with water
823	Corrosive liquid which reacts with water, emitting flammable gas
83	Corrosive liquid, flammable
X83	Corrosive liquid, flammable, which reacts dangerously with water
839	Corrosive liquid, flammable, which can spontaneously lead to violent reaction
X839	Corrosive liquid, flammable, which can spontaneously lead to violent reaction and which reacts dangerously with water
84	Corrosive solid, flammable or self-heating
842	Corrosive solid which reacts with water, emitting flammable gas
85	Corrosive material, oxidizing (fire-intensifying)
856	Corrosive material, oxidizing (fire-intensifying) and toxic
86	Corrosive material, toxic
88	Highly corrosive material
X88	Highly corrosive material which reacts dangerously with water
883	Highly corrosive liquid, flammable
884	Highly corrosive solid, flammable or self-heating
885	Highly corrosive material, oxidizing (fire-intensifying)
886	Highly corrosive material, toxic
X886	Highly corrosive material, toxic, which reacts dangerously with water
89	Corrosive material which can spontaneously lead to violent reaction
90	Miscellaneous dangerous substance; environmentally hazardous substance
99	Miscellaneous dangerous substance transported at elevated temperature

PIPELINE TRANSPORTATION

Hazardous materials are transported in North America through millions of miles of underground pipelines. Products commonly transported through these pipeline systems include natural gas, crude oil, gasoline, diesel fuel, and jet fuel. Although the pipelines are buried, there are aboveground structures and signs indicating the presence of underground pipelines.

Liquid Pipelines

Surface indications of a liquid pipeline leak can include:

- Liquids bubbling from the ground
- “Oil slick” on flowing or standing water
- Flames that appear to be coming from the ground
- Vapor clouds

Structures – Storage Tanks, Valves, Pump Stations, Aerial Patrol Markers

Signs – Will often appear at road, railroad, and water crossings. Signs may also be posted at property boundaries. The signs will include the operator’s name, product transported, and an emergency phone number for the operator. Warning, Caution, or Danger will appear on the signs.

Gas Pipelines

Surface indications of a gas pipeline leak can include:

- Hissing, roaring, or blowing sound
- Dirt or water being blown in the air
- Continuous bubbling in wet or flooded areas
- Flames that appear to be coming from the ground
- Dead or brown vegetation in an otherwise green field
- In winter, melted snow over the pipeline

Gas **Transmission** pipelines are large-diameter, steel lines transporting flammable, toxic, or corrosive gas at very high pressure.

Structures – Compressor Station Buildings, Valves, Metering Stations, and Aerial Patrol Markers

Signs – Will often appear at road, railroad, and water crossings. Signs may also be posted at property boundaries. The signs will include the operator's name, product transported, and an emergency phone number for the operator. Warning, Caution, or Danger will appear on the signs.

Natural gas **Distribution** pipelines are typically smaller-diameter, lower-pressure pipelines and may be steel, plastic, or cast iron. Natural gas is delivered directly to customers through distribution pipelines.

Regulator stations, customer meters & regulators, and valve box covers are generally the only aboveground indications of gas distribution pipelines.

Should you notice a leak or a spill, remember to only approach from upwind and uphill, identify the emergency telephone number for the company and then call that number as well as 911. Be cautious concerning the risks of asphyxiation, flammability as well as the danger of a potential explosion.

If you know the material involved, identify the three-digit guide number by looking up the name in the alphabetical list (blue-bordered pages) and then by using the three-digit guide number, consult the recommendations outlined in the recommended guide.

Note: If an entry is highlighted in green in either the yellow-bordered or blue-bordered pages AND THERE IS NO FIRE, go directly to Table 1 - Initial Isolation and Protective Action Distances (green bordered pages) and look up the ID number and name of material to obtain initial isolation and protective action distances. IF THERE IS A FIRE, or IF A FIRE IS INVOLVED, ALSO CONSULT the assigned guide (orange-bordered pages) and apply as appropriate the evacuation information shown under PUBLIC SAFETY. Please remember that, if the name in Table 1 is shown with (when spilled in water), and the material has not been spilled in water, Table 1 does not apply and safety distances can be found within the appropriate guide.

ID No.	Guide No.	Name of Material
——	**112**	Ammonium nitrate-fuel oil mixtures
——	**158**	Biological agents
——	**112**	Blasting agent, n.o.s.
——	**112**	Explosive A
——	**112**	Explosive B
——	**114**	Explosive C
——	**112**	Explosives, division 1.1, 1.2, 1.3, 1.5 or 1.6
——	**114**	Explosives, division 1.4
——	**153**	Toxins
1001	**116**	Acetylene
1001	**116**	Acetylene, dissolved
1002	**122**	Air, compressed
1003	**122**	Air, refrigerated liquid (cryogenic liquid)
1003	**122**	Air, refrigerated liquid (cryogenic liquid), non-pressurized
1005	**125**	Ammonia, anhydrous
1005	**125**	Anhydrous ammonia
1006	**121**	Argon
1006	**121**	Argon, compressed
1008	**125**	Boron trifluoride
1008	**125**	Boron trifluoride, compressed
1009	**126**	Bromotrifluoromethane
1009	**126**	Refrigerant gas R-13B1
1010	**116P**	Butadienes, stabilized
1010	**116P**	Butadienes and hydrocarbon mixture, stabilized
1011	**115**	Butane
1011	**115**	Butane mixture
1012	**115**	Butylene
1013	**120**	Carbon dioxide
1013	**120**	Carbon dioxide, compressed
1014	**122**	Carbon dioxide and Oxygen mixture
1014	**122**	Carbon dioxide and Oxygen mixture, compressed
1014	**122**	Oxygen and Carbon dioxide mixture
1014	**122**	Oxygen and Carbon dioxide mixture, compressed
1015	**126**	Carbon dioxide and Nitrous oxide mixture
1015	**126**	Nitrous oxide and Carbon dioxide mixture
1016	**119**	Carbon monoxide
1016	**119**	Carbon monoxide, compressed
1017	**124**	Chlorine
1018	**126**	Chlorodifluoromethane
1018	**126**	Refrigerant gas R-22
1020	**126**	Chloropentafluoroethane
1020	**126**	Refrigerant gas R-115
1021	**126**	1-Chloro-1,2,2,2-tetrafluoroethane
1021	**126**	Chlorotetrafluoroethane
1021	**126**	Refrigerant gas R-124
1022	**126**	Chlorotrifluoromethane
1022	**126**	Refrigerant gas R-13
1023	**119**	Coal gas
1023	**119**	Coal gas, compressed
1026	**119**	Cyanogen
1026	**119**	Cyanogen gas
1027	**115**	Cyclopropane
1028	**126**	Dichlorodifluoromethane
1028	**126**	Refrigerant gas R-12
1029	**126**	Dichlorofluoromethane
1029	**126**	Refrigerant gas R-21

ID No.	Guide No.	Name of Material
1030	**115**	1,1-Difluoroethane
1030	**115**	Difluoroethane
1030	**115**	Refrigerant gas R-152a
1032	**118**	Dimethylamine, anhydrous
1033	**115**	Dimethyl ether
1035	**115**	Ethane
1035	**115**	Ethane, compressed
1036	**118**	Ethylamine
1037	**115**	Ethyl chloride
1038	**115**	Ethylene, refrigerated liquid (cryogenic liquid)
1039	**115**	Ethyl methyl ether
1039	**115**	Methyl ethyl ether
1040	**119P**	Ethylene oxide
1040	**119P**	Ethylene oxide with Nitrogen
1041	**115**	Carbon dioxide and Ethylene oxide mixture, with more than 9% but not more than 87% Ethylene oxide
1041	**115**	Carbon dioxide and Ethylene oxide mixtures, with more than 6% Ethylene oxide
1041	**115**	Ethylene oxide and Carbon dioxide mixture, with more than 9% but not more than 87% Ethylene oxide
1041	**115**	Ethylene oxide and Carbon dioxide mixtures, with more than 6 % Ethylene oxide
1043	**125**	Fertilizer, ammoniating solution, with free Ammonia
1044	**126**	Fire extinguishers with compressed gas
1044	**126**	Fire extinguishers with liquefied gas
1045	**124**	Fluorine
1045	**124**	Fluorine, compressed
1046	**121**	Helium
1046	**121**	Helium, compressed
1048	**125**	Hydrogen bromide, anhydrous
1049	**115**	Hydrogen
1049	**115**	Hydrogen, compressed
1050	**125**	Hydrogen chloride, anhydrous
1051	**117**	AC
1051	**117**	Hydrocyanic acid, aqueous solutions, with more than 20% Hydrogen cyanide
1051	**117**	Hydrogen cyanide, anhydrous, stabilized
1051	**117**	Hydrogen cyanide, stabilized
1052	**125**	Hydrogen fluoride, anhydrous
1053	**117**	Hydrogen sulfide
1053	**117**	Hydrogen sulphide
1055	**115**	Isobutylene
1056	**121**	Krypton
1056	**121**	Krypton, compressed
1057	**115**	Lighter refills (cigarettes) (flammable gas)
1057	**115**	Lighters (cigarettes) (flammable gas)
1058	**120**	Liquefied gases, non-flammable, charged with Nitrogen, Carbon dioxide or Air
1060	**116P**	Methylacetylene and Propadiene mixture, stabilized
1060	**116P**	Propadiene and Methylacetylene mixture, stabilized
1061	**118**	Methylamine, anhydrous
1062	**123**	Methyl bromide
1063	**115**	Methyl chloride

ID No.	Guide No.	Name of Material
1063	115	Refrigerant gas R-40
1064	117	Methyl mercaptan
1065	121	Neon
1065	121	Neon, compressed
1066	121	Nitrogen
1066	121	Nitrogen, compressed
1067	124	Dinitrogen tetroxide
1067	124	Nitrogen dioxide
1069	125	Nitrosyl chloride
1070	122	Nitrous oxide
1070	122	Nitrous oxide, compressed
1071	119	Oil gas
1071	119	Oil gas, compressed
1072	122	Oxygen
1072	122	Oxygen, compressed
1073	122	Oxygen, refrigerated liquid (cryogenic liquid)
1075	115	Butane
1075	115	Butane mixture
1075	115	Butylene
1075	115	Isobutane
1075	115	Isobutane mixture
1075	115	Isobutylene
1075	115	Liquefied petroleum gas
1075	115	LPG
1075	115	Petroleum gases, liquefied
1075	115	Propane
1075	115	Propane mixture
1075	115	Propylene
1076	125	CG
1076	125	Diphosgene
1076	125	DP
1076	125	Phosgene

ID No.	Guide No.	Name of Material
1077	115	Propylene
1078	126	Dispersant gas, n.o.s.
1078	126	Refrigerant gas, n.o.s.
1079	125	Sulfur dioxide
1079	125	Sulphur dioxide
1080	126	Sulfur hexafluoride
1080	126	Sulphur hexafluoride
1081	116P	Tetrafluoroethylene, stabilized
1082	119P	Trifluorochloroethylene, stabilized
1083	118	Trimethylamine, anhydrous
1085	116P	Vinyl bromide, stabilized
1086	116P	Vinyl chloride, stabilized
1087	116P	Vinyl methyl ether, stabilized
1088	127	Acetal
1089	129	Acetaldehyde
1090	127	Acetone
1091	127	Acetone oils
1092	131P	Acrolein, stabilized
1093	131P	Acrylonitrile, stabilized
1098	131	Allyl alcohol
1099	131	Allyl bromide
1100	131	Allyl chloride
1104	129	Amyl acetates
1105	129	Amyl alcohols
1105	129	Pentanols
1106	132	Amylamines
1107	129	Amyl chloride
1108	128	n-Amylene
1108	128	1-Pentene
1109	129	Amyl formates
1110	127	n-Amyl methyl ketone
1110	127	Amyl methyl ketone

ID No.	Guide No.	Name of Material
1110	**127**	Methyl amyl ketone
1111	**130**	Amyl mercaptan
1112	**140**	Amyl nitrate
1113	**129**	Amyl nitrite
1114	**130**	Benzene
1120	**129**	Butanols
1123	**129**	Butyl acetates
1125	**132**	n-Butylamine
1126	**130**	1-Bromobutane
1126	**130**	n-Butyl bromide
1127	**130**	Butyl chloride
1127	**130**	Chlorobutanes
1128	**129**	n-Butyl formate
1129	**129**	Butyraldehyde
1130	**128**	Camphor oil
1131	**131**	Carbon bisulfide
1131	**131**	Carbon bisulphide
1131	**131**	Carbon disulfide
1131	**131**	Carbon disulphide
1133	**128**	Adhesives (flammable)
1134	**130**	Chlorobenzene
1135	**131**	Ethylene chlorohydrin
1136	**128**	Coal tar distillates, flammable
1139	**127**	Coating solution
1143	**131P**	Crotonaldehyde
1143	**131P**	Crotonaldehyde, stabilized
1144	**128**	Crotonylene
1145	**128**	Cyclohexane
1146	**128**	Cyclopentane
1147	**130**	Decahydronaphthalene
1148	**129**	Diacetone alcohol
1149	**128**	Butyl ethers
1149	**128**	Dibutyl ethers

ID No.	Guide No.	Name of Material
1150	**130P**	1,2-Dichloroethylene
1150	**130P**	Dichloroethylene
1152	**130**	Dichloropentanes
1153	**127**	Ethylene glycol diethyl ether
1154	**132**	Diethylamine
1155	**127**	Diethyl ether
1155	**127**	Ethyl ether
1156	**127**	Diethyl ketone
1157	**128**	Diisobutyl ketone
1158	**132**	Diisopropylamine
1159	**127**	Diisopropyl ether
1160	**132**	Dimethylamine, aqueous solution
1160	**132**	Dimethylamine, solution
1161	**129**	Dimethyl carbonate
1162	**155**	Dimethyldichlorosilane
1163	**131**	1,1-Dimethylhydrazine
1163	**131**	Dimethylhydrazine, unsymmetrical
1164	**130**	Dimethyl sulfide
1164	**130**	Dimethyl sulphide
1165	**127**	Dioxane
1166	**127**	Dioxolane
1167	**128P**	Divinyl ether, stabilized
1169	**127**	Extracts, aromatic, liquid
1170	**127**	Ethanol
1170	**127**	Ethanol, solution
1170	**127**	Ethyl alcohol
1170	**127**	Ethyl alcohol, solution
1171	**127**	Ethylene glycol monoethyl ether
1172	**129**	Ethylene glycol monoethyl ether acetate
1173	**129**	Ethyl acetate
1175	**130**	Ethylbenzene

ID No.	Guide No.	Name of Material
1176	**129**	Ethyl borate
1177	**130**	2-Ethylbutyl acetate
1177	**130**	Ethylbutyl acetate
1178	**130**	2-Ethylbutyraldehyde
1179	**127**	Ethyl butyl ether
1180	**130**	Ethyl butyrate
1181	**155**	Ethyl chloroacetate
1182	**155**	Ethyl chloroformate
1183	**139**	Ethyldichlorosilane
1184	**131**	Ethylene dichloride
1185	**131P**	Ethyleneimine, stabilized
1188	**127**	Ethylene glycol monomethyl ether
1189	**129**	Ethylene glycol monomethyl ether acetate
1190	**129**	Ethyl formate
1191	**129**	Ethylhexaldehydes
1191	**129**	Octyl aldehydes
1192	**129**	Ethyl lactate
1193	**127**	Ethyl methyl ketone
1193	**127**	Methyl ethyl ketone
1194	**131**	Ethyl nitrite, solution
1195	**129**	Ethyl propionate
1196	**155**	Ethyltrichlorosilane
1197	**127**	Extracts, flavoring, liquid
1197	**127**	Extracts, flavouring, liquid
1198	**132**	Formaldehyde, solution, flammable
1198	**132**	Formaldehyde, solutions (Formalin)
1199	**132P**	Furaldehydes
1199	**132P**	Furfural
1199	**132P**	Furfuraldehydes
1201	**127**	Fusel oil

ID No.	Guide No.	Name of Material
1202	**128**	Diesel fuel
1202	**128**	Fuel oil
1202	**128**	Fuel oil, no. 1,2,4,5,6
1202	**128**	Gas oil
1202	**128**	Heating oil, light
1203	**128**	Gasohol
1203	**128**	Gasoline
1203	**128**	Motor spirit
1203	**128**	Petrol
1204	**127**	Nitroglycerin, solution in alcohol, with not more than 1% Nitroglycerin
1206	**128**	Heptanes
1207	**130**	Hexaldehyde
1208	**128**	Hexanes
1208	**128**	Neohexane
1210	**129**	Ink, printer's, flammable
1210	**129**	Printing ink, flammable
1210	**129**	Printing ink related material
1212	**129**	Isobutanol
1212	**129**	Isobutyl alcohol
1213	**129**	Isobutyl acetate
1214	**132**	Isobutylamine
1216	**128**	Isooctenes
1218	**130P**	Isoprene, stabilized
1219	**129**	Isopropanol
1219	**129**	Isopropyl alcohol
1220	**129**	Isopropyl acetate
1221	**132**	Isopropylamine
1222	**130**	Isopropyl nitrate
1223	**128**	Kerosene
1224	**127**	Ketones, liquid, n.o.s.

ID No.	Guide No.	Name of Material
1226	**128**	Lighters for cigars, cigarettes (flammable liquid)
1228	**131**	Mercaptan mixture, liquid, flammable, poisonous, n.o.s.
1228	**131**	Mercaptan mixture, liquid, flammable, toxic, n.o.s.
1228	**131**	Mercaptans, liquid, flammable, poisonous, n.o.s.
1228	**131**	Mercaptans, liquid, flammable, toxic, n.o.s.
1229	**129**	Mesityl oxide
1230	**131**	Methanol
1230	**131**	Methyl alcohol
1231	**129**	Methyl acetate
1233	**130**	Methylamyl acetate
1234	**127**	Methylal
1235	**132**	Methylamine, aqueous solution
1237	**129**	Methyl butyrate
1238	**155**	Methyl chloroformate
1239	**131**	Methyl chloromethyl ether
1242	**139**	Methyldichlorosilane
1243	**129**	Methyl formate
1244	**131**	Methylhydrazine
1245	**127**	Methyl isobutyl ketone
1246	**127P**	Methyl isopropenyl ketone, stabilized
1247	**129P**	Methyl methacrylate monomer, stabilized
1248	**129**	Methyl propionate
1249	**127**	Methyl propyl ketone
1250	**155**	Methyltrichlorosilane
1251	**131P**	Methyl vinyl ketone, stabilized
1259	**131**	Nickel carbonyl
1261	**129**	Nitromethane
1262	**128**	Isooctane
1262	**128**	Octanes
1263	**128**	Paint (flammable)
1263	**128**	Paint related material (flammable)
1264	**129**	Paraldehyde
1265	**128**	Isopentane
1265	**128**	n-Pentane
1265	**128**	Pentanes
1266	**127**	Perfumery products, with flammable solvents
1267	**128**	Petroleum crude oil
1268	**128**	Petroleum distillates, n.o.s.
1268	**128**	Petroleum products, n.o.s.
1270	**128**	Oil, petroleum
1270	**128**	Petroleum oil
1272	**129**	Pine oil
1274	**129**	n-Propanol
1274	**129**	normal Propyl alcohol
1274	**129**	Propyl alcohol, normal
1275	**129**	Propionaldehyde
1276	**129**	n-Propyl acetate
1277	**132**	Monopropylamine
1277	**132**	Propylamine
1278	**129**	1-Chloropropane
1278	**129**	Propyl chloride
1279	**130**	1,2-Dichloropropane
1279	**130**	Dichloropropane
1279	**130**	Propylene dichloride
1280	**127P**	Propylene oxide
1281	**129**	Propyl formates
1282	**129**	Pyridine
1286	**127**	Rosin oil

ID No.	Guide No.	Name of Material
1287	**127**	Rubber solution
1288	**128**	Shale oil
1289	**132**	Sodium methylate, solution in alcohol
1292	**129**	Ethyl silicate
1292	**129**	Tetraethyl silicate
1293	**127**	Tinctures, medicinal
1294	**130**	Toluene
1295	**139**	Trichlorosilane
1296	**132**	Triethylamine
1297	**132**	Trimethylamine, aqueous solution
1298	**155**	Trimethylchlorosilane
1299	**128**	Turpentine
1300	**128**	Turpentine substitute
1301	**129P**	Vinyl acetate, stabilized
1302	**127P**	Vinyl ethyl ether, stabilized
1303	**130P**	Vinylidene chloride, stabilized
1304	**127P**	Vinyl isobutyl ether, stabilized
1305	**155P**	Vinyltrichlorosilane
1305	**155P**	Vinyltrichlorosilane, stabilized
1306	**129**	Wood preservatives, liquid
1307	**130**	Xylenes
1308	**170**	Zirconium metal, liquid suspension
1308	**170**	Zirconium suspended in a flammable liquid
1308	**170**	Zirconium suspended in a liquid (flammable)
1309	**170**	Aluminum powder, coated
1310	**113**	Ammonium picrate, wetted with not less than 10% water
1312	**133**	Borneol
1313	**133**	Calcium resinate

ID No.	Guide No.	Name of Material
1314	**133**	Calcium resinate, fused
1318	**133**	Cobalt resinate, precipitated
1320	**113**	Dinitrophenol, wetted with not less than 15% water
1321	**113**	Dinitrophenolates, wetted with not less than 15% water
1322	**113**	Dinitroresorcinol, wetted with not less than 15% water
1323	**170**	Ferrocerium
1324	**133**	Films, nitrocellulose base
1325	**133**	Flammable solid, n.o.s.
1325	**133**	Flammable solid, organic, n.o.s.
1325	**133**	Fusee (rail or highway)
1325	**133**	Medicines, flammable, solid, n.o.s.
1326	**170**	Hafnium powder, wetted with not less than 25% water
1327	**133**	Bhusa, wet, damp or contaminated with oil
1327	**133**	Hay, wet, damp or contaminated with oil
1327	**133**	Straw, wet, damp or contaminated with oil
1328	**133**	Hexamethylenetetramine
1328	**133**	Hexamine
1330	**133**	Manganese resinate
1331	**133**	Matches, “strike anywhere”
1332	**133**	Metaldehyde
1333	**170**	Cerium, slabs, ingots or rods
1334	**133**	Naphthalene, crude
1334	**133**	Naphthalene, refined
1336	**113**	Nitroguanidine (Picrite), wetted with not less than 20% water
1336	**113**	Nitroguanidine, wetted with not less than 20% water

ID No.	Guide No.	Name of Material
1336	**113**	Picrite, wetted
1337	**113**	Nitrostarch, wetted with not less than 20% water
1337	**113**	Nitrostarch, wetted with not less than 30% solvent
1338	**133**	Phosphorus, amorphous
1338	**133**	Phosphorus, amorphous, red
1338	**133**	Red phosphorus
1338	**133**	Red phosphorus, amorphous
1339	**139**	Phosphorus heptasulfide, free from yellow and white Phosphorus
1339	**139**	Phosphorus heptasulphide, free from yellow and white Phosphorus
1340	**139**	Phosphorus pentasulfide, free from yellow and white Phosphorus
1340	**139**	Phosphorus pentasulphide, free from yellow and white Phosphorus
1341	**139**	Phosphorus sesquisulfide, free from yellow and white Phosphorus
1341	**139**	Phosphorus sesquisulphide, free from yellow and white Phosphorus
1343	**139**	Phosphorus trisulfide, free from yellow and white Phosphorus
1343	**139**	Phosphorus trisulphide, free from yellow and white Phosphorus
1344	**113**	Picric acid, wet, with not less than 10% water
1344	**113**	Picric acid, wetted with not less than 30% water
1344	**113**	Trinitrophenol, wetted with not less than 30% water
1345	**133**	Rubber scrap, powdered or granulated
1345	**133**	Rubber shoddy, powdered or granulated
1346	**170**	Silicon powder, amorphous
1347	**113**	Silver picrate, wetted with not less than 30% water
1348	**113**	Sodium dinitro-o-cresolate, wetted with not less than 15% water
1348	**113**	Sodium dinitro-ortho-cresolate, wetted
1349	**113**	Sodium picramate, wetted with not less than 20% water
1350	**133**	Sulfur
1350	**133**	Sulphur
1352	**170**	Titanium powder, wetted with not less than 25% water
1353	**133**	Fabrics impregnated with weakly nitrated Nitrocellulose, n.o.s.
1353	**133**	Fibers impregnated with weakly nitrated Nitrocellulose, n.o.s.
1353	**133**	Fibres impregnated with weakly nitrated Nitrocellulose, n.o.s.
1353	**133**	Toe puffs, nitrocellulose base
1354	**113**	Trinitrobenzene, wetted with not less than 30% water
1355	**113**	Trinitrobenzoic acid, wetted with not less than 30% water
1356	**113**	TNT, wetted with not less than 30% water
1356	**113**	Trinitrotoluene, wetted with not less than 30% water
1357	**113**	Urea nitrate, wetted with not less than 20% water
1358	**170**	Zirconium metal, powder, wet

ID No.	Guide No.	Name of Material
1358	**170**	Zirconium powder, wetted with not less than 25% water
1360	**139**	Calcium phosphide
1361	**133**	Carbon, animal or vegetable origin
1361	**133**	Charcoal
1362	**133**	Carbon, activated
1363	**135**	Copra
1364	**133**	Cotton waste, oily
1365	**133**	Cotton
1365	**133**	Cotton, wet
1366	**135**	Diethylzinc
1369	**135**	p-Nitrosodimethylaniline
1370	**135**	Dimethylzinc
1372	**133**	Fiber, animal or vegetable, n.o.s., burnt, wet or damp
1372	**133**	Fibers, animal or vegetable, burnt, wet or damp
1372	**133**	Fibres, animal or vegetable, burnt, wet or damp
1373	**133**	Fabrics, animal or vegetable or synthetic, n.o.s. with oil
1373	**133**	Fibers, animal or vegetable or synthetic, n.o.s. with oil
1373	**133**	Fibres, animal or vegetable or synthetic, n.o.s. with oil
1374	**133**	Fish meal, unstabilized
1374	**133**	Fish scrap, unstabilized
1376	**135**	Iron oxide, spent
1376	**135**	Iron sponge, spent
1378	**170**	Metal catalyst, wetted
1379	**133**	Paper, unsaturated oil treated
1380	**135**	Pentaborane
1381	**136**	Phosphorus, white, dry or under water or in solution
1381	**136**	Phosphorus, yellow, dry or under water or in solution
1381	**136**	White phosphorus, dry
1381	**136**	White phosphorus, in solution
1381	**136**	White phosphorus, under water
1381	**136**	Yellow phosphorus, dry
1381	**136**	Yellow phosphorus, in solution
1381	**136**	Yellow phosphorus, under water
1382	**135**	Potassium sulfide, anhydrous
1382	**135**	Potassium sulfide, with less than 30% water of crystallization
1382	**135**	Potassium sulfide, with less than 30% water of hydration
1382	**135**	Potassium sulphide, anhydrous
1382	**135**	Potassium sulphide, with less than 30% water of crystallization
1382	**135**	Potassium sulphide, with less than 30% water of hydration
1383	**135**	Aluminum powder, pyrophoric
1383	**135**	Pyrophoric alloy, n.o.s.
1383	**135**	Pyrophoric metal, n.o.s.
1384	**135**	Sodium dithionite
1384	**135**	Sodium hydrosulfite
1384	**135**	Sodium hydrosulphite
1385	**135**	Sodium sulfide, anhydrous
1385	**135**	Sodium sulfide, with less than 30% water of crystallization
1385	**135**	Sodium sulphide, anhydrous
1385	**135**	Sodium sulphide, with less than 30% water of crystallization
1386	**135**	Seed cake, with more than 1.5% oil and not more than 11% moisture
1387	**133**	Wool waste, wet

ID No.	Guide No.	Name of Material
1389	**138**	Alkali metal amalgam
1389	**138**	Alkali metal amalgam, liquid
1389	**138**	Alkali metal amalgam, solid
1390	**139**	Alkali metal amides
1391	**138**	Alkali metal dispersion
1391	**138**	Alkaline earth metal dispersion
1392	**138**	Alkaline earth metal amalgam
1392	**138**	Alkaline earth metal amalgam, liquid
1393	**138**	Alkaline earth metal alloy, n.o.s.
1394	**138**	Aluminum carbide
1395	**139**	Aluminum ferrosilicon powder
1396	**138**	Aluminum powder, uncoated
1397	**139**	Aluminum phosphide
1398	**138**	Aluminum silicon powder, uncoated
1400	**138**	Barium
1401	**138**	Calcium
1402	**138**	Calcium carbide
1403	**138**	Calcium cyanamide, with more than 0.1% Calcium carbide
1404	**138**	Calcium hydride
1405	**138**	Calcium silicide
1406	**138**	Calcium silicon
1407	**138**	Caesium
1407	**138**	Cesium
1408	**139**	Ferrosilicon
1409	**138**	Hydrides, metal, n.o.s.
1409	**138**	Metal hydrides, water-reactive, n.o.s.
1410	**138**	Lithium aluminum hydride
1411	**138**	Lithium aluminum hydride, ethereal
1412	**139**	Lithium amide
1413	**138**	Lithium borohydride
1414	**138**	Lithium hydride
1415	**138**	Lithium
1417	**138**	Lithium silicon
1418	**138**	Magnesium alloys powder
1418	**138**	Magnesium powder
1419	**139**	Magnesium aluminum phosphide
1420	**138**	Potassium, metal alloys
1420	**138**	Potassium, metal alloys, liquid
1421	**138**	Alkali metal alloy, liquid, n.o.s.
1422	**138**	Potassium sodium alloys
1422	**138**	Potassium sodium alloys, liquid
1422	**138**	Sodium potassium alloys
1422	**138**	Sodium potassium alloys, liquid
1423	**138**	Rubidium
1423	**138**	Rubidium metal
1426	**138**	Sodium borohydride
1427	**138**	Sodium hydride
1428	**138**	Sodium
1431	**138**	Sodium methylate
1431	**138**	Sodium methylate, dry
1432	**139**	Sodium phosphide
1433	**139**	Stannic phosphides
1435	**138**	Zinc ashes
1435	**138**	Zinc dross
1435	**138**	Zinc residue
1435	**138**	Zinc skimmings
1436	**138**	Zinc dust
1436	**138**	Zinc powder
1437	**138**	Zirconium hydride
1438	**140**	Aluminum nitrate
1439	**141**	Ammonium dichromate

ID No.	Guide No.	Name of Material
1442	**143**	Ammonium perchlorate
1444	**140**	Ammonium persulfate
1444	**140**	Ammonium persulphate
1445	**141**	Barium chlorate
1445	**141**	Barium chlorate, solid
1446	**141**	Barium nitrate
1447	**141**	Barium perchlorate
1447	**141**	Barium perchlorate, solid
1448	**141**	Barium permanganate
1449	**141**	Barium peroxide
1450	**141**	Bromates, inorganic, n.o.s.
1451	**140**	Caesium nitrate
1451	**140**	Cesium nitrate
1452	**140**	Calcium chlorate
1453	**140**	Calcium chlorite
1454	**140**	Calcium nitrate
1455	**140**	Calcium perchlorate
1456	**140**	Calcium permanganate
1457	**140**	Calcium peroxide
1458	**140**	Borate and Chlorate mixtures
1458	**140**	Chlorate and Borate mixtures
1459	**140**	Chlorate and Magnesium chloride mixture
1459	**140**	Chlorate and Magnesium chloride mixture, solid
1459	**140**	Magnesium chloride and Chlorate mixture
1459	**140**	Magnesium chloride and Chlorate mixture, solid
1461	**140**	Chlorates, inorganic, n.o.s.
1462	**143**	Chlorites, inorganic, n.o.s.
1463	**141**	Chromic acid, solid
1463	**141**	Chromium trioxide, anhydrous
1465	**140**	Didymium nitrate

ID No.	Guide No.	Name of Material
1466	**140**	Ferric nitrate
1467	**143**	Guanidine nitrate
1469	**141**	Lead nitrate
1470	**141**	Lead perchlorate
1470	**141**	Lead perchlorate, solid
1470	**141**	Lead perchlorate, solution
1471	**140**	Lithium hypochlorite, dry
1471	**140**	Lithium hypochlorite mixture
1471	**140**	Lithium hypochlorite mixtures, dry
1472	**143**	Lithium peroxide
1473	**140**	Magnesium bromate
1474	**140**	Magnesium nitrate
1475	**140**	Magnesium perchlorate
1476	**140**	Magnesium peroxide
1477	**140**	Nitrates, inorganic, n.o.s.
1479	**140**	Oxidizing solid, n.o.s.
1481	**140**	Perchlorates, inorganic, n.o.s.
1482	**140**	Permanganates, inorganic, n.o.s.
1483	**140**	Peroxides, inorganic, n.o.s.
1484	**140**	Potassium bromate
1485	**140**	Potassium chlorate
1486	**140**	Potassium nitrate
1487	**140**	Potassium nitrate and Sodium nitrite mixture
1487	**140**	Sodium nitrite and Potassium nitrate mixture
1488	**140**	Potassium nitrite
1489	**140**	Potassium perchlorate
1490	**140**	Potassium permanganate
1491	**144**	Potassium peroxide
1492	**140**	Potassium persulfate
1492	**140**	Potassium persulphate

ID No.	Guide No.	Name of Material
1493	**140**	Silver nitrate
1494	**141**	Sodium bromate
1495	**140**	Sodium chlorate
1496	**143**	Sodium chlorite
1498	**140**	Sodium nitrate
1499	**140**	Potassium nitrate and Sodium nitrate mixture
1499	**140**	Sodium nitrate and Potassium nitrate mixture
1500	**140**	Sodium nitrite
1502	**140**	Sodium perchlorate
1503	**140**	Sodium permanganate
1504	**144**	Sodium peroxide
1505	**140**	Sodium persulfate
1505	**140**	Sodium persulphate
1506	**143**	Strontium chlorate
1506	**143**	Strontium chlorate, solid
1506	**143**	Strontium chlorate, solution
1507	**140**	Strontium nitrate
1508	**140**	Strontium perchlorate
1509	**143**	Strontium peroxide
1510	**143**	Tetranitromethane
1511	**140**	Urea hydrogen peroxide
1512	**140**	Zinc ammonium nitrite
1513	**140**	Zinc chlorate
1514	**140**	Zinc nitrate
1515	**140**	Zinc permanganate
1516	**143**	Zinc peroxide
1517	**113**	Zirconium picramate, wetted with not less than 20% water
1541	**155**	Acetone cyanohydrin, stabilized
1544	**151**	Alkaloids, solid, n.o.s. (poisonous)

ID No.	Guide No.	Name of Material
1544	**151**	Alkaloid salts, solid, n.o.s. (poisonous)
1545	**155**	Allyl isothiocyanate, stabilized
1546	**151**	Ammonium arsenate
1547	**153**	Aniline
1548	**153**	Aniline hydrochloride
1549	**157**	Antimony compound, inorganic, n.o.s.
1549	**157**	Antimony compound, inorganic, solid, n.o.s.
1549	**157**	Antimony tribromide, solid
1549	**157**	Antimony tribromide, solution
1549	**157**	Antimony trifluoride, solid
1549	**157**	Antimony trifluoride, solution
1550	**151**	Antimony lactate
1551	**151**	Antimony potassium tartrate
1553	**154**	Arsenic acid, liquid
1554	**154**	Arsenic acid, solid
1555	**151**	Arsenic bromide
1556	**152**	Arsenic compound, liquid, n.o.s.
1556	**152**	Arsenic compound, liquid, n.o.s., inorganic
1556	**152**	MD
1556	**152**	Methyldichloroarsine
1556	**152**	PD
1557	**152**	Arsenic compound, solid, n.o.s.
1557	**152**	Arsenic compound, solid, n.o.s., inorganic
1557	**152**	Arsenic sulfide
1557	**152**	Arsenic sulphide
1557	**152**	Arsenic trisulfide
1557	**152**	Arsenic trisulphide
1558	**152**	Arsenic
1559	**151**	Arsenic pentoxide

ID No.	Guide No.	Name of Material
1560	157	Arsenic chloride
1560	157	Arsenic trichloride
1561	151	Arsenic trioxide
1562	152	Arsenical dust
1564	154	Barium compound, n.o.s.
1565	157	Barium cyanide
1566	154	Beryllium compound, n.o.s.
1567	134	Beryllium powder
1569	131	Bromoacetone
1570	152	Brucine
1571	113	Barium azide, wetted with not less than 50% water
1572	151	Cacodylic acid
1573	151	Calcium arsenate
1574	151	Calcium arsenate and Calcium arsenite mixture, solid
1574	151	Calcium arsenite, solid
1574	151	Calcium arsenite and Calcium arsenate mixture, solid
1575	157	Calcium cyanide
1577	153	Chlorodinitrobenzenes
1577	153	Chlorodinitrobenzenes, liquid
1577	153	Chlorodinitrobenzenes, solid
1577	153	Dinitrochlorobenzenes
1578	152	Chloronitrobenzenes
1578	152	Chloronitrobenzenes, liquid
1578	152	Chloronitrobenzenes, solid
1579	153	4-Chloro-o-toluidine hydrochloride
1579	153	4-Chloro-o-toluidine hydrochloride, solid
1580	154	Chloropicrin
1581	123	Chloropicrin and Methyl bromide mixture
1581	123	Methyl bromide and Chloropicrin mixture
1582	119	Chloropicrin and Methyl chloride mixture
1582	119	Methyl chloride and Chloropicrin mixture
1583	154	Chloropicrin mixture, n.o.s.
1585	151	Copper acetoarsenite
1586	151	Copper arsenite
1587	151	Copper cyanide
1588	157	Cyanides, inorganic, n.o.s.
1588	157	Cyanides, inorganic, solid, n.o.s.
1589	125	CK
1589	125	Cyanogen chloride, stabilized
1590	153	Dichloroanilines
1590	153	Dichloroanilines, liquid
1590	153	Dichloroanilines, solid
1591	152	o-Dichlorobenzene
1593	160	Dichloromethane
1593	160	Methylene chloride
1594	152	Diethyl sulfate
1594	152	Diethyl sulphate
1595	156	Dimethyl sulfate
1595	156	Dimethyl sulphate
1596	153	Dinitroanilines
1597	152	Dinitrobenzenes
1597	152	Dinitrobenzenes, liquid
1597	152	Dinitrobenzenes, solid
1598	153	Dinitro-o-cresol
1599	153	Dinitrophenol, solution
1600	152	Dinitrotoluenes, molten
1601	151	Disinfectant, solid, poisonous, n.o.s.
1601	151	Disinfectant, solid, toxic, n.o.s.

ID No.	Guide No.	Name of Material
1601	**151**	Disinfectants, solid, n.o.s. (poisonous)
1602	**151**	Dye, liquid, poisonous, n.o.s.
1602	**151**	Dye, liquid, toxic, n.o.s.
1602	**151**	Dye intermediate, liquid, poisonous, n.o.s.
1602	**151**	Dye intermediate, liquid, toxic, n.o.s.
1603	**155**	Ethyl bromoacetate
1604	**132**	Ethylenediamine
1605	**154**	Ethylene dibromide
1606	**151**	Ferric arsenate
1607	**151**	Ferric arsenite
1608	**151**	Ferrous arsenate
1610	**159**	Halogenated irritating liquid, n.o.s.
1611	**151**	Hexaethyl tetraphosphate
1611	**151**	Hexaethyl tetraphosphate, liquid
1611	**151**	Hexaethyl tetraphosphate, solid
1612	**123**	Hexaethyl tetraphosphate and compressed gas mixture
1613	**154**	Hydrocyanic acid, aqueous solution, with less than 5% Hydrogen cyanide
1613	**154**	Hydrocyanic acid, aqueous solution, with not more than 20% Hydrogen cyanide
1613	**154**	Hydrogen cyanide, aqueous solution, with not more than 20% Hydrogen cyanide
1614	**152**	Hydrogen cyanide, stabilized (absorbed)
1616	**151**	Lead acetate
1617	**151**	Lead arsenates
1618	**151**	Lead arsenites
1620	**151**	Lead cyanide
1621	**151**	London purple

ID No.	Guide No.	Name of Material
1622	**151**	Magnesium arsenate
1623	**151**	Mercuric arsenate
1624	**154**	Mercuric chloride
1625	**141**	Mercuric nitrate
1626	**157**	Mercuric potassium cyanide
1627	**141**	Mercurous nitrate
1629	**151**	Mercury acetate
1630	**151**	Mercury ammonium chloride
1631	**154**	Mercury benzoate
1634	**154**	Mercuric bromide
1634	**154**	Mercurous bromide
1634	**154**	Mercury bromides
1636	**154**	Mercuric cyanide
1636	**154**	Mercury cyanide
1637	**151**	Mercury gluconate
1638	**151**	Mercury iodide
1639	**151**	Mercury nucleate
1640	**151**	Mercury oleate
1641	**151**	Mercury oxide
1642	**151**	Mercuric oxycyanide
1642	**151**	Mercury oxycyanide, desensitized
1643	**151**	Mercury potassium iodide
1644	**151**	Mercury salicylate
1645	**151**	Mercuric sulfate
1645	**151**	Mercuric sulphate
1645	**151**	Mercury sulfate
1645	**151**	Mercury sulphate
1646	**151**	Mercury thiocyanate
1647	**151**	Ethylene dibromide and Methyl bromide mixture, liquid
1647	**151**	Methyl bromide and Ethylene dibromide mixture, liquid
1648	**127**	Acetonitrile

ID No.	Guide No.	Name of Material
1648	**127**	Methyl cyanide
1649	**131**	Motor fuel anti-knock mixture
1649	**131**	Tetraethyl lead, liquid
1650	**153**	beta-Naphthylamine
1650	**153**	beta-Naphthylamine, solid
1650	**153**	Naphthylamine (beta)
1650	**153**	Naphthylamine (beta), solid
1651	**153**	Naphthylthiourea
1652	**153**	Naphthylurea
1653	**151**	Nickel cyanide
1654	**151**	Nicotine
1655	**151**	Nicotine compound, solid, n.o.s.
1655	**151**	Nicotine preparation, solid, n.o.s.
1656	**151**	Nicotine hydrochloride
1656	**151**	Nicotine hydrochloride, liquid
1656	**151**	Nicotine hydrochloride, solid
1656	**151**	Nicotine hydrochloride, solution
1657	**151**	Nicotine salicylate
1658	**151**	Nicotine sulfate, solid
1658	**151**	Nicotine sulfate, solution
1658	**151**	Nicotine sulphate, solid
1658	**151**	Nicotine sulphate, solution
1659	**151**	Nicotine tartrate
1660	**124**	Nitric oxide
1660	**124**	Nitric oxide, compressed
1661	**153**	Nitroanilines
1662	**152**	Nitrobenzene
1663	**153**	Nitrophenols
1664	**152**	Nitrotoluenes
1664	**152**	Nitrotoluenes, liquid
1664	**152**	Nitrotoluenes, solid
1665	**152**	Nitroxylenes
1665	**152**	Nitroxylenes, liquid
1665	**152**	Nitroxylenes, solid
1669	**151**	Pentachloroethane
1670	**157**	Perchloromethyl mercaptan
1671	**153**	Phenol, solid
1672	**151**	Phenylcarbylamine chloride
1673	**153**	Phenylenediamines
1674	**151**	Phenylmercuric acetate
1677	**151**	Potassium arsenate
1678	**154**	Potassium arsenite
1679	**157**	Potassium cuprocyanide
1680	**157**	Potassium cyanide
1680	**157**	Potassium cyanide, solid
1683	**151**	Silver arsenite
1684	**151**	Silver cyanide
1685	**151**	Sodium arsenate
1686	**154**	Sodium arsenite, aqueous solution
1687	**153**	Sodium azide
1688	**152**	Sodium cacodylate
1689	**157**	Sodium cyanide
1689	**157**	Sodium cyanide, solid
1690	**154**	Sodium fluoride
1690	**154**	Sodium fluoride, solid
1691	**151**	Strontium arsenite
1692	**151**	Strychnine
1692	**151**	Strychnine salts
1693	**159**	Tear gas devices
1693	**159**	Tear gas substance, liquid, n.o.s.
1693	**159**	Tear gas substance, solid, n.o.s.
1694	**159**	Bromobenzyl cyanides
1694	**159**	Bromobenzyl cyanides, liquid
1694	**159**	Bromobenzyl cyanides, solid
1694	**159**	CA

ID No.	Guide No.	Name of Material
1695	**131**	Chloroacetone, stabilized
1697	**153**	Chloroacetophenone
1697	**153**	Chloroacetophenone, liquid
1697	**153**	Chloroacetophenone, solid
1697	**153**	CN
1698	**154**	Adamsite
1698	**154**	Diphenylamine chloroarsine
1698	**154**	DM
1699	**151**	DA
1699	**151**	Diphenylchloroarsine
1699	**151**	Diphenylchloroarsine, liquid
1699	**151**	Diphenylchloroarsine, solid
1700	**159**	Tear gas candles
1700	**159**	Tear gas grenades
1701	**152**	Xylyl bromide
1701	**152**	Xylyl bromide, liquid
1702	**151**	1,1,2,2-Tetrachloroethane
1702	**151**	Tetrachloroethane
1704	**153**	Tetraethyl dithiopyrophosphate
1704	**153**	Tetraethyl dithiopyrophosphate, mixture, dry or liquid
1707	**151**	Thallium compound, n.o.s.
1707	**151**	Thallium sulfate, solid
1707	**151**	Thallium sulphate, solid
1708	**153**	Toluidines
1708	**153**	Toluidines, liquid
1708	**153**	Toluidines, solid
1709	**151**	2,4-Toluenediamine
1709	**151**	2,4-Toluylenediamine
1709	**151**	2,4-Toluylenediamine, solid
1710	**160**	Trichloroethylene
1711	**153**	Xylidines
1711	**153**	Xylidines, liquid
1711	**153**	Xylidines, solid
1712	**151**	Zinc arsenate
1712	**151**	Zinc arsenate and Zinc arsenite mixture
1712	**151**	Zinc arsenite
1712	**151**	Zinc arsenite and Zinc arsenate mixture
1713	**151**	Zinc cyanide
1714	**139**	Zinc phosphide
1715	**137**	Acetic anhydride
1716	**156**	Acetyl bromide
1717	**155**	Acetyl chloride
1718	**153**	Acid butyl phosphate
1718	**153**	Butyl acid phosphate
1719	**154**	Caustic alkali liquid, n.o.s.
1722	**155**	Allyl chlorocarbonate
1722	**155**	Allyl chloroformate
1723	**132**	Allyl iodide
1724	**155**	Allyltrichlorosilane, stabilized
1725	**137**	Aluminum bromide, anhydrous
1726	**137**	Aluminum chloride, anhydrous
1727	**154**	Ammonium bifluoride, solid
1727	**154**	Ammonium hydrogendifluoride, solid
1727	**154**	Ammonium hydrogen fluoride, solid
1728	**155**	Amyltrichlorosilane
1729	**156**	Anisoyl chloride
1730	**157**	Antimony pentachloride, liquid
1731	**157**	Antimony pentachloride, solution
1732	**157**	Antimony pentafluoride
1733	**157**	Antimony trichloride
1733	**157**	Antimony trichloride, liquid

ID No.	Guide No.	Name of Material
1733	**157**	Antimony trichloride, solid
1733	**157**	Antimony trichloride, solution
1736	**137**	Benzoyl chloride
1737	**156**	Benzyl bromide
1738	**156**	Benzyl chloride
1739	**137**	Benzyl chloroformate
1740	**154**	Hydrogendifluorides, n.o.s.
1740	**154**	Hydrogendifluorides, solid, n.o.s.
1741	**125**	Boron trichloride
1742	**157**	Boron trifluoride acetic acid complex
1742	**157**	Boron trifluoride acetic acid complex, liquid
1743	**157**	Boron trifluoride propionic acid complex
1743	**157**	Boron trifluoride propionic acid complex, liquid
1744	**154**	Bromine
1744	**154**	Bromine, solution
1744	**154**	Bromine, solution (Inhalation Hazard Zone A)
1744	**154**	Bromine, solution (Inhalation Hazard Zone B)
1745	**144**	Bromine pentafluoride
1746	**144**	Bromine trifluoride
1747	**155**	Butyltrichlorosilane
1748	**140**	Calcium hypochlorite, dry
1748	**140**	Calcium hypochlorite mixture, dry, with more than 39% available Chlorine (8.8% available Oxygen)
1749	**124**	Chlorine trifluoride
1750	**153**	Chloroacetic acid, liquid
1750	**153**	Chloroacetic acid, solution
1751	**153**	Chloroacetic acid, solid
1752	**156**	Chloroacetyl chloride
1753	**156**	Chlorophenyltrichlorosilane
1754	**137**	Chlorosulfonic acid
1754	**137**	Chlorosulfonic acid and Sulfur trioxide mixture
1754	**137**	Chlorosulphonic acid
1754	**137**	Chlorosulphonic acid and Sulphur trioxide mixture
1754	**137**	Sulfur trioxide and Chlorosulfonic acid mixture
1754	**137**	Sulphur trioxide and Chlorosulphonic acid mixture
1755	**154**	Chromic acid, solution
1756	**154**	Chromic fluoride, solid
1757	**154**	Chromic fluoride, solution
1758	**137**	Chromium oxychloride
1759	**154**	Corrosive solid, n.o.s.
1759	**154**	Ferrous chloride, solid
1759	**154**	Medicines, corrosive, solid, n.o.s.
1760	**154**	Chemical kit
1760	**154**	Compound, cleaning liquid (corrosive)
1760	**154**	Compound, tree or weed killing, liquid (corrosive)
1760	**154**	Corrosive liquid, n.o.s.
1760	**154**	Ferrous chloride, solution
1760	**154**	Medicines, corrosive, liquid, n.o.s.
1760	**154**	Titanium sulfate, solution
1760	**154**	Titanium sulphate, solution
1761	**154**	Cupriethylenediamine, solution
1762	**156**	Cyclohexenyltrichlorosilane
1763	**156**	Cyclohexyltrichlorosilane
1764	**153**	Dichloroacetic acid

ID No.	Guide No.	Name of Material
1765	**156**	Dichloroacetyl chloride
1766	**156**	Dichlorophenyltrichlorosilane
1767	**155**	Diethyldichlorosilane
1768	**154**	Difluorophosphoric acid, anhydrous
1769	**156**	Diphenyldichlorosilane
1770	**153**	Diphenylmethyl bromide
1771	**156**	Dodecyltrichlorosilane
1773	**157**	Ferric chloride
1773	**157**	Ferric chloride, anhydrous
1774	**154**	Fire extinguisher charges, corrosive liquid
1775	**154**	Fluoboric acid
1775	**154**	Fluoroboric acid
1776	**154**	Fluorophosphoric acid, anhydrous
1777	**137**	Fluorosulfonic acid
1777	**137**	Fluorosulphonic acid
1778	**154**	Fluorosilicic acid
1778	**154**	Fluosilicic acid
1778	**154**	Hydrofluorosilicic acid
1779	**153**	Formic acid
1779	**153**	Formic acid, with more than 85% acid
1780	**156**	Fumaryl chloride
1781	**156**	Hexadecyltrichlorosilane
1782	**154**	Hexafluorophosphoric acid
1783	**153**	Hexamethylenediamine, solution
1784	**156**	Hexyltrichlorosilane
1786	**157**	Hydrofluoric acid and Sulfuric acid mixture
1786	**157**	Hydrofluoric acid and Sulphuric acid mixture
1786	**157**	Sulfuric acid and Hydrofluoric acid mixture
1786	**157**	Sulphuric acid and Hydrofluoric acid mixture
1787	**154**	Hydriodic acid
1787	**154**	Hydriodic acid, solution
1788	**154**	Hydrobromic acid
1788	**154**	Hydrobromic acid, solution
1789	**157**	Hydrochloric acid
1789	**157**	Hydrochloric acid, solution
1789	**157**	Muriatic acid
1790	**157**	Hydrofluoric acid
1790	**157**	Hydrofluoric acid, solution
1791	**154**	Hypochlorite solution
1791	**154**	Hypochlorite solution, with more than 5% available Chlorine
1792	**157**	Iodine monochloride
1793	**153**	Isopropyl acid phosphate
1794	**154**	Lead sulfate, with more than 3% free acid
1794	**154**	Lead sulphate, with more than 3% free acid
1796	**157**	Nitrating acid mixture
1798	**157**	Aqua regia
1798	**157**	Nitrohydrochloric acid
1799	**156**	Nonyltrichlorosilane
1800	**156**	Octadecyltrichlorosilane
1801	**156**	Octyltrichlorosilane
1802	**140**	Perchloric acid, with not more than 50% acid
1803	**153**	Phenolsulfonic acid, liquid
1803	**153**	Phenolsulphonic acid, liquid
1804	**156**	Phenyltrichlorosilane
1805	**154**	Phosphoric acid

ID No.	Guide No.	Name of Material
1805	**154**	Phosphoric acid, liquid
1805	**154**	Phosphoric acid, solid
1805	**154**	Phosphoric acid, solution
1806	**137**	Phosphorus pentachloride
1807	**137**	Phosphorus pentoxide
1808	**137**	Phosphorus tribromide
1809	**137**	Phosphorus trichloride
1810	**137**	Phosphorus oxychloride
1811	**154**	Potassium hydrogendifluoride
1811	**154**	Potassium hydrogen difluoride, solid
1812	**154**	Potassium fluoride
1812	**154**	Potassium fluoride, solid
1813	**154**	Caustic potash, dry, solid
1813	**154**	Potassium hydroxide, dry, solid
1813	**154**	Potassium hydroxide, flake
1813	**154**	Potassium hydroxide, solid
1814	**154**	Caustic potash, liquid
1814	**154**	Caustic potash, solution
1814	**154**	Potassium hydroxide, solution
1815	**132**	Propionyl chloride
1816	**155**	Propyltrichlorosilane
1817	**137**	Pyrosulfuryl chloride
1817	**137**	Pyrosulphuryl chloride
1818	**157**	Silicon tetrachloride
1819	**154**	Sodium aluminate, solution
1823	**154**	Caustic soda, bead
1823	**154**	Caustic soda, flake
1823	**154**	Caustic soda, granular
1823	**154**	Caustic soda, solid
1823	**154**	Sodium hydroxide, bead
1823	**154**	Sodium hydroxide, dry
1823	**154**	Sodium hydroxide, flake

ID No.	Guide No.	Name of Material
1823	**154**	Sodium hydroxide, granular
1823	**154**	Sodium hydroxide, solid
1824	**154**	Caustic soda, solution
1824	**154**	Sodium hydroxide, solution
1825	**157**	Sodium monoxide
1826	**157**	Nitrating acid mixture, spent
1827	**137**	Stannic chloride, anhydrous
1827	**137**	Tin tetrachloride
1828	**137**	Sulfur chlorides
1828	**137**	Sulphur chlorides
1829	**137**	Sulfur trioxide, inhibited
1829	**137**	Sulfur trioxide, stabilized
1829	**137**	Sulfur trioxide, uninhibited
1829	**137**	Sulphur trioxide, inhibited
1829	**137**	Sulphur trioxide, stabilized
1829	**137**	Sulphur trioxide, uninhibited
1830	**137**	Sulfuric acid
1830	**137**	Sulfuric acid, with more than 51% acid
1830	**137**	Sulphuric acid
1830	**137**	Sulphuric acid, with more than 51% acid
1831	**137**	Sulfuric acid, fuming
1831	**137**	Sulfuric acid, fuming, with less than 30% free Sulfur trioxide
1831	**137**	Sulfuric acid, fuming, with not less than 30% free Sulfur trioxide
1831	**137**	Sulphuric acid, fuming
1831	**137**	Sulphuric acid, fuming, with less than 30% free Sulphur trioxide
1831	**137**	Sulphuric acid, fuming, with not less than 30% free Sulphur trioxide
1832	**137**	Sulfuric acid, spent

ID No.	Guide No.	Name of Material
1832	**137**	Sulphuric acid, spent
1833	**154**	Sulfurous acid
1833	**154**	Sulphurous acid
1834	**137**	Sulfuryl chloride
1834	**137**	Sulphuryl chloride
1835	**153**	Tetramethylammonium hydroxide
1835	**153**	Tetramethylammonium hydroxide, solution
1836	**137**	Thionyl chloride
1837	**157**	Thiophosphoryl chloride
1838	**137**	Titanium tetrachloride
1839	**153**	Trichloroacetic acid
1840	**154**	Zinc chloride, solution
1841	**171**	Acetaldehyde ammonia
1843	**141**	Ammonium dinitro-o-cresolate
1843	**141**	Ammonium dinitro-o-cresolate, solid
1845	**120**	Carbon dioxide, solid
1845	**120**	Dry ice
1846	**151**	Carbon tetrachloride
1847	**153**	Potassium sulfide, hydrated, with not less than 30% water of crystallization
1847	**153**	Potassium sulfide, hydrated, with not less than 30% water of hydration
1847	**153**	Potassium sulphide, hydrated, with not less than 30% water of crystallization
1847	**153**	Potassium sulphide, hydrated, with not less than 30% water of hydration
1848	**132**	Propionic acid
1848	**132**	Propionic acid, with not less than 10% and less than 90% acid

ID No.	Guide No.	Name of Material
1849	**153**	Sodium sulfide, hydrated, with not less than 30% water
1849	**153**	Sodium sulphide, hydrated, with not less than 30% water
1851	**151**	Medicine, liquid, poisonous, n.o.s.
1851	**151**	Medicine, liquid, toxic, n.o.s.
1854	**135**	Barium alloys, pyrophoric
1855	**135**	Calcium, metal and alloys, pyrophoric
1855	**135**	Calcium, pyrophoric
1855	**135**	Calcium alloys, pyrophoric
1856	**133**	Rags, oily
1857	**133**	Textile waste, wet
1858	**126**	Hexafluoropropylene
1858	**126**	Refrigerant gas R-1216
1859	**125**	Silicon tetrafluoride
1859	**125**	Silicon tetrafluoride, compressed
1860	**116P**	Vinyl fluoride, stabilized
1862	**130**	Ethyl crotonate
1863	**128**	Fuel, aviation, turbine engine
1865	**131**	n-Propyl nitrate
1866	**127**	Resin solution
1868	**134**	Decaborane
1869	**138**	Magnesium
1869	**138**	Magnesium, in pellets, turnings or ribbons
1869	**138**	Magnesium alloys, with more than 50% Magnesium, in pellets, turnings or ribbons
1870	**138**	Potassium borohydride
1871	**170**	Titanium hydride
1872	**141**	Lead dioxide
1873	**143**	Perchloric acid, with more than 50% but not more than 72% acid

ID No.	Guide No.	Name of Material
1884	**157**	Barium oxide
1885	**153**	Benzidine
1886	**156**	Benzylidene chloride
1887	**160**	Bromochloromethane
1888	**151**	Chloroform
1889	**157**	Cyanogen bromide
1891	**131**	Ethyl bromide
1892	**151**	ED
1892	**151**	Ethyldichloroarsine
1894	**151**	Phenylmercuric hydroxide
1895	**151**	Phenylmercuric nitrate
1897	**160**	Perchloroethylene
1897	**160**	Tetrachloroethylene
1898	**156**	Acetyl iodide
1902	**153**	Diisooctyl acid phosphate
1903	**153**	Disinfectant, liquid, corrosive, n.o.s.
1903	**153**	Disinfectants, corrosive, liquid, n.o.s.
1905	**154**	Selenic acid
1906	**153**	Acid, sludge
1906	**153**	Sludge acid
1907	**154**	Soda lime, with more than 4% Sodium hydroxide
1908	**154**	Chlorite solution
1908	**154**	Chlorite solution, with more than 5% available Chlorine
1908	**154**	Sodium chlorite, solution, with more than 5% available Chlorine
1910	**157**	Calcium oxide
1911	**119**	Diborane
1911	**119**	Diborane, compressed
1911	**119**	Diborane mixtures

ID No.	Guide No.	Name of Material
1912	**115**	Methyl chloride and Methylene chloride mixture
1912	**115**	Methylene chloride and Methyl chloride mixture
1913	**120**	Neon, refrigerated liquid (cryogenic liquid)
1914	**130**	Butyl propionates
1915	**127**	Cyclohexanone
1916	**152**	2,2'-Dichlorodiethyl ether
1916	**152**	Dichloroethyl ether
1917	**129P**	Ethyl acrylate, stabilized
1918	**130**	Cumene
1918	**130**	Isopropylbenzene
1919	**129P**	Methyl acrylate, stabilized
1920	**128**	Nonanes
1921	**131P**	Propyleneimine, stabilized
1922	**132**	Pyrrolidine
1923	**135**	Calcium dithionite
1923	**135**	Calcium hydrosulfite
1923	**135**	Calcium hydrosulphite
1928	**135**	Methyl magnesium bromide in Ethyl ether
1929	**135**	Potassium dithionite
1929	**135**	Potassium hydrosulfite
1929	**135**	Potassium hydrosulphite
1931	**171**	Zinc dithionite
1931	**171**	Zinc hydrosulfite
1931	**171**	Zinc hydrosulphite
1932	**135**	Zirconium scrap
1935	**157**	Cyanide solution, n.o.s.
1938	**156**	Bromoacetic acid
1938	**156**	Bromoacetic acid, solution
1939	**137**	Phosphorus oxybromide
1939	**137**	Phosphorus oxybromide, solid

ID No.	Guide No.	Name of Material
1940	**153**	Thioglycolic acid
1941	**171**	Dibromodifluoromethane
1942	**140**	Ammonium nitrate, with not more than 0.2% combustible substances
1944	**133**	Matches, safety
1945	**133**	Matches, wax “vesta”
1950	**126**	Aerosol dispensers
1950	**126**	Aerosols
1951	**120**	Argon, refrigerated liquid (cryogenic liquid)
1952	**126**	Carbon dioxide and Ethylene oxide mixtures, with not more than 6% Ethylene oxide
1952	**126**	Carbon dioxide and Ethylene oxide mixtures, with not more than 9% Ethylene oxide
1952	**126**	Ethylene oxide and Carbon dioxide mixtures, with not more than 6% Ethylene oxide
1952	**126**	Ethylene oxide and Carbon dioxide mixtures, with not more than 9% Ethylene oxide
1953	**119**	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone A)
1953	**119**	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone B)
1953	**119**	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone C)
1953	**119**	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone D)
1953	**119**	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone A)
1953	**119**	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone B)
1953	**119**	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone C)
1953	**119**	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone D)
1953	**119**	Compressed gas, poisonous, flammable, n.o.s.
1953	**119**	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)
1953	**119**	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)
1953	**119**	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)
1953	**119**	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)
1953	**119**	Compressed gas, toxic, flammable, n.o.s.
1953	**119**	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)
1953	**119**	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)
1953	**119**	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)
1953	**119**	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)
1954	**115**	Compressed gas, flammable, n.o.s.
1954	**115**	Dispersant gas, n.o.s. (flammable)

ID No.	Guide No.	Name of Material
1954	**115**	Insecticide gas, flammable, n.o.s.
1954	**115**	Refrigerant gas, n.o.s. (flammable)
1954	**115**	Refrigerating machines, containing flammable, non-poisonous, non-corrosive, liquefied gas
1955	**123**	Compressed gas, poisonous, n.o.s.
1955	**123**	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone A)
1955	**123**	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone B)
1955	**123**	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone C)
1955	**123**	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone D)
1955	**123**	Compressed gas, toxic, n.o.s.
1955	**123**	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone A)
1955	**123**	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone B)
1955	**123**	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone C)
1955	**123**	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone D)
1955	**123**	Organic phosphate compound mixed with compressed gas
1955	**123**	Organic phosphate mixed with compressed gas
1955	**123**	Organic phosphorus compound mixed with compressed gas
1956	**126**	Accumulators, pressurized, pneumatic or hydraulic
1956	**126**	Compressed gas, n.o.s.
1956	**126**	Hexafluoropropylene oxide
1957	**115**	Deuterium
1957	**115**	Deuterium, compressed
1958	**126**	1,2-Dichloro-1,1,2,2-tetrafluoroethane
1958	**126**	Dichlorotetrafluoroethane
1958	**126**	Refrigerant gas R-114
1959	**116P**	1,1-Difluoroethylene
1959	**116P**	Refrigerant gas R-1132a
1960	**115**	Engine starting fluid
1961	**115**	Ethane, refrigerated liquid
1961	**115**	Ethane-Propane mixture, refrigerated liquid
1961	**115**	Propane-Ethane mixture, refrigerated liquid
1962	**116P**	Ethylene
1962	**116P**	Ethylene, compressed
1963	**120**	Helium, refrigerated liquid (cryogenic liquid)
1964	**115**	Hydrocarbon gas, compressed, n.o.s.
1964	**115**	Hydrocarbon gas mixture, compressed, n.o.s.
1965	**115**	Hydrocarbon gas, liquefied, n.o.s.
1965	**115**	Hydrocarbon gas mixture, liquefied, n.o.s.
1966	**115**	Hydrogen, refrigerated liquid (cryogenic liquid)
1967	**123**	Insecticide gas, poisonous, n.o.s.
1967	**123**	Insecticide gas, toxic, n.o.s.
1967	**123**	Parathion and compressed gas mixture
1968	**126**	Insecticide gas, n.o.s.

ID No.	Guide No.	Name of Material
1969	**115**	Isobutane
1969	**115**	Isobutane mixture
1970	**120**	Krypton, refrigerated liquid (cryogenic liquid)
1971	**115**	Methane
1971	**115**	Methane, compressed
1971	**115**	Natural gas, compressed
1972	**115**	Liquefied natural gas (cryogenic liquid)
1972	**115**	LNG (cryogenic liquid)
1972	**115**	Methane, refrigerated liquid (cryogenic liquid)
1972	**115**	Natural gas, refrigerated liquid (cryogenic liquid)
1973	**126**	Chlorodifluoromethane and Chloropentafluoroethane mixture
1973	**126**	Chloropentafluoroethane and Chlorodifluoromethane mixture
1973	**126**	Refrigerant gas R-502
1974	**126**	Bromochlorodifluoromethane
1974	**126**	Chlorodifluorobromomethane
1974	**126**	Refrigerant gas R-12B1
1975	**124**	Dinitrogen tetroxide and Nitric oxide mixture
1975	**124**	Nitric oxide and Dinitrogen tetroxide mixture
1975	**124**	Nitric oxide and Nitrogen dioxide mixture
1975	**124**	Nitric oxide and Nitrogen tetroxide mixture
1975	**124**	Nitrogen dioxide and Nitric oxide mixture
1975	**124**	Nitrogen tetroxide and Nitric oxide mixture

ID No.	Guide No.	Name of Material
1976	**126**	Octafluorocyclobutane
1976	**126**	Refrigerant gas RC-318
1977	**120**	Nitrogen, refrigerated liquid (cryogenic liquid)
1978	**115**	Propane
1978	**115**	Propane mixture
1979	**121**	Rare gases mixture
1979	**121**	Rare gases mixture, compressed
1980	**121**	Oxygen and Rare gases mixture
1980	**121**	Oxygen and Rare gases mixture, compressed
1980	**121**	Rare gases and Oxygen mixture
1980	**121**	Rare gases and Oxygen mixture, compressed
1981	**121**	Nitrogen and Rare gases mixture
1981	**121**	Nitrogen and Rare gases mixture, compressed
1981	**121**	Rare gases and Nitrogen mixture
1981	**121**	Rare gases and Nitrogen mixture, compressed
1982	**126**	Refrigerant gas R-14
1982	**126**	Refrigerant gas R-14, compressed
1982	**126**	Tetrafluoromethane
1982	**126**	Tetrafluoromethane, compressed
1983	**126**	1-Chloro-2,2,2-trifluoroethane
1983	**126**	Chlorotrifluoroethane
1983	**126**	Refrigerant gas R-133a
1984	**126**	Refrigerant gas R-23
1984	**126**	Trifluoromethane
1986	**131**	Alcohols, flammable, poisonous, n.o.s.
1986	**131**	Alcohols, flammable, toxic, n.o.s.

ID No.	Guide No.	Name of Material
1986	**131**	Alcohols, poisonous, n.o.s.
1986	**131**	Alcohols, toxic, n.o.s.
1986	**131**	Denatured alcohol (toxic)
1986	**131**	Propargyl alcohol
1987	**127**	Alcohols, n.o.s.
1987	**127**	Denatured alcohol
1988	**131**	Aldehydes, flammable, poisonous, n.o.s.
1988	**131**	Aldehydes, flammable, toxic, n.o.s.
1988	**131**	Aldehydes, poisonous, n.o.s.
1988	**131**	Aldehydes, toxic, n.o.s.
1989	**129**	Aldehydes, n.o.s.
1990	**129**	Benzaldehyde
1991	**131P**	Chloroprene, stabilized
1992	**131**	Flammable liquid, poisonous, n.o.s.
1992	**131**	Flammable liquid, toxic, n.o.s.
1993	**128**	Combustible liquid, n.o.s.
1993	**128**	Compound, cleaning liquid (flammable)
1993	**128**	Compound, tree or weed killing, liquid (flammable)
1993	**128**	Diesel fuel
1993	**128**	Flammable liquid, n.o.s.
1993	**128**	Fuel oil
1993	**128**	Medicines, flammable, liquid, n.o.s.
1993	**128**	Refrigerating machine
1994	**131**	Iron pentacarbonyl
1999	**130**	Asphalt
1999	**130**	Tars, liquid
2000	**133**	Celluloid, in blocks, rods, rolls, sheets, tubes, etc., except scrap

ID No.	Guide No.	Name of Material
2001	**133**	Cobalt naphthenates, powder
2002	**135**	Celluloid, scrap
2003	**135**	Metal alkyls, n.o.s.
2003	**135**	Metal alkyls, water-reactive, n.o.s.
2003	**135**	Metal aryls, n.o.s
2003	**135**	Metal aryls, water-reactive, n.o.s.
2004	**135**	Magnesium diamide
2005	**135**	Magnesium diphenyl
2006	**135**	Plastic, nitrocellulose-based, spontaneously combustible, n.o.s.
2006	**135**	Plastics, nitrocellulose-based, self-heating, n.o.s.
2008	**135**	Zirconium powder, dry
2009	**135**	Zirconium, dry, finished sheets, strips or coiled wire
2010	**138**	Magnesium hydride
2011	**139**	Magnesium phosphide
2012	**139**	Potassium phosphide
2013	**139**	Strontium phosphide
2014	**140**	Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide (stabilized as necessary)
2015	**143**	Hydrogen peroxide, aqueous solution, stabilized, with more than 60% Hydrogen peroxide
2015	**143**	Hydrogen peroxide, stabilized
2016	**151**	Ammunition, poisonous, non-explosive
2016	**151**	Ammunition, toxic, non-explosive

ID No.	Guide No.	Name of Material
2017	**159**	Ammunition, tear-producing, non-explosive
2018	**152**	Chloroanilines, solid
2019	**152**	Chloroanilines, liquid
2020	**153**	Chlorophenols, solid
2021	**153**	Chlorophenols, liquid
2022	**153**	Cresylic acid
2023	**131P**	1-Chloro-2,3-epoxypropane
2023	**131P**	Epichlorohydrin
2024	**151**	Mercury compound, liquid, n.o.s.
2025	**151**	Mercury compound, solid, n.o.s.
2026	**151**	Phenylmercuric compound, n.o.s.
2027	**151**	Sodium arsenite, solid
2028	**153**	Bombs, smoke, non-explosive, with corrosive liquid, without initiating device
2029	**132**	Hydrazine, anhydrous
2029	**132**	Hydrazine, aqueous solutions, with more than 64% Hydrazine
2030	**153**	Hydrazine, aqueous solution, with more than 37% Hydrazine
2030	**153**	Hydrazine, aqueous solution, with not less than 37% but not more than 64% Hydrazine
2030	**153**	Hydrazine hydrate
2031	**157**	Nitric acid, other than red fuming
2032	**157**	Nitric acid, fuming
2032	**157**	Nitric acid, red fuming
2033	**154**	Potassium monoxide
2034	**115**	Hydrogen and Methane mixture, compressed
2034	**115**	Methane and Hydrogen mixture, compressed
2035	**115**	Refrigerant gas R-143a
2035	**115**	1,1,1-Trifluoroethane
2035	**115**	Trifluoroethane, compressed
2036	**121**	Xenon
2036	**121**	Xenon, compressed
2037	**115**	Gas cartridges
2037	**115**	Receptacles, small, containing gas
2038	**152**	Dinitrotoluenes
2038	**152**	Dinitrotoluenes, liquid
2038	**152**	Dinitrotoluenes, solid
2044	**115**	2,2-Dimethylpropane
2045	**130**	Isobutyl aldehyde
2045	**130**	Isobutyraldehyde
2046	**130**	Cymenes
2047	**129**	Dichloropropenes
2048	**130**	Dicyclopentadiene
2049	**130**	Diethylbenzene
2050	**128**	Diisobutylene, isomeric compounds
2051	**132**	2-Dimethylaminoethanol
2051	**132**	Dimethylethanolamine
2052	**128**	Dipentene
2053	**129**	Methylamyl alcohol
2053	**129**	Methyl isobutyl carbinol
2053	**129**	M.I.B.C.
2054	**132**	Morpholine
2055	**128P**	Styrene monomer, stabilized
2056	**127**	Tetrahydrofuran
2057	**128**	Tripropylene
2058	**129**	Valeraldehyde
2059	**127**	Nitrocellulose, solution, flammable
2059	**127**	Nitrocellulose, solution, in a flammable liquid

ID No.	Guide No.	Name of Material
2067	**140**	Ammonium nitrate fertilizers
2068	**140**	Ammonium nitrate fertilizers, with Calcium carbonate
2069	**140**	Ammonium nitrate fertilizers, with Ammonium sulfate
2069	**140**	Ammonium nitrate fertilizers, with Ammonium sulphate
2069	**140**	Ammonium nitrate mixed fertilizers
2070	**143**	Ammonium nitrate fertilizers, with Phosphate or Potash
2071	**140**	Ammonium nitrate fertilizer, with not more than 0.4% combustible material
2071	**140**	Ammonium nitrate fertilizers
2072	**140**	Ammonium nitrate fertilizer, n.o.s.
2072	**140**	Ammonium nitrate fertilizers
2073	**125**	Ammonia, solution, with more than 35% but not more than 50% Ammonia
2074	**153P**	Acrylamide
2074	**153P**	Acrylamide, solid
2075	**153**	Chloral, anhydrous, stabilized
2076	**153**	Cresols
2076	**153**	Cresols, liquid
2076	**153**	Cresols, solid
2077	**153**	alpha-Naphthylamine
2077	**153**	Naphthylamine (alpha)
2078	**156**	Toluene diisocyanate
2079	**154**	Diethylenetriamine
2186	**125**	Hydrogen chloride, refrigerated liquid
2187	**120**	Carbon dioxide, refrigerated liquid
2188	**119**	Arsine
2188	**119**	SA

ID No.	Guide No.	Name of Material
2189	**119**	Dichlorosilane
2190	**124**	Oxygen difluoride
2190	**124**	Oxygen difluoride, compressed
2191	**123**	Sulfuryl fluoride
2191	**123**	Sulphuryl fluoride
2192	**119**	Germane
2193	**126**	Hexafluoroethane
2193	**126**	Hexafluoroethane, compressed
2193	**126**	Refrigerant gas R-116
2193	**126**	Refrigerant gas R-116, compressed
2194	**125**	Selenium hexafluoride
2195	**125**	Tellurium hexafluoride
2196	**125**	Tungsten hexafluoride
2197	**125**	Hydrogen iodide, anhydrous
2198	**125**	Phosphorus pentafluoride
2198	**125**	Phosphorus pentafluoride, compressed
2199	**119**	Phosphine
2200	**116P**	Propadiene, stabilized
2201	**122**	Nitrous oxide, refrigerated liquid
2202	**117**	Hydrogen selenide, anhydrous
2203	**116**	Silane
2203	**116**	Silane, compressed
2204	**119**	Carbonyl sulfide
2204	**119**	Carbonyl sulphide
2205	**153**	Adiponitrile
2206	**155**	Isocyanate solution, poisonous, n.o.s.
2206	**155**	Isocyanate solution, toxic, n.o.s.
2206	**155**	Isocyanate solutions, n.o.s.
2206	**155**	Isocyanates, n.o.s.
2206	**155**	Isocyanates, poisonous, n.o.s.

ID No.	Guide No.	Name of Material
2206	**155**	Isocyanates, toxic, n.o.s.
2208	**140**	Bleaching powder
2208	**140**	Calcium hypochlorite mixture, dry, with more than 10% but not more than 39% available Chlorine
2209	**132**	Formaldehyde, solutions (Formalin) (corrosive)
2210	**135**	Maneb
2210	**135**	Maneb preparation, with not less than 60% Maneb
2211	**133**	Polymeric beads, expandable
2211	**133**	Polystyrene beads, expandable
2212	**171**	Asbestos
2212	**171**	Asbestos, blue
2212	**171**	Asbestos, brown
2212	**171**	Blue asbestos
2212	**171**	Brown asbestos
2213	**133**	Paraformaldehyde
2214	**156**	Phthalic anhydride
2215	**156**	Maleic acid
2215	**156**	Maleic anhydride
2215	**156**	Maleic anhydride, molten
2216	**171**	Fish meal, stabilized
2216	**171**	Fish scrap, stabilized
2217	**135**	Seed cake, with not more than 1.5% oil and not more than 11% moisture
2218	**132P**	Acrylic acid, stabilized
2219	**129**	Allyl glycidyl ether
2222	**128**	Anisole
2224	**152**	Benzonitrile
2225	**156**	Benzenesulfonyl chloride
2225	**156**	Benzenesulphonyl chloride

ID No.	Guide No.	Name of Material
2226	**156**	Benzotrichloride
2227	**130P**	n-Butyl methacrylate, stabilized
2232	**153**	Chloroacetaldehyde
2232	**153**	2-Chloroethanal
2233	**152**	Chloroanisidines
2234	**130**	Chlorobenzotrifluorides
2235	**153**	Chlorobenzyl chlorides
2235	**153**	Chlorobenzyl chlorides, liquid
2236	**156**	3-Chloro-4-methylphenyl isocyanate
2236	**156**	3-Chloro-4-methylphenyl isocyanate, liquid
2237	**153**	Chloronitroanilines
2238	**129**	Chlorotoluenes
2239	**153**	Chlorotoluidines
2239	**153**	Chlorotoluidines, liquid
2239	**153**	Chlorotoluidines, solid
2240	**154**	Chromosulfuric acid
2240	**154**	Chromosulphuric acid
2241	**128**	Cycloheptane
2242	**128**	Cycloheptene
2243	**130**	Cyclohexyl acetate
2244	**129**	Cyclopentanol
2245	**128**	Cyclopentanone
2246	**128**	Cyclopentene
2247	**128**	n-Decane
2248	**132**	Di-n-butylamine
2249	**131**	Dichlorodimethyl ether, symmetrical
2250	**156**	Dichlorophenyl isocyanates
2251	**128P**	Bicyclo[2.2.1]hepta-2,5-diene, stabilized
2251	**128P**	2,5-Norbornadiene, stabilized
2252	**127**	1,2-Dimethoxyethane

ID No.	Guide No.	Name of Material
2253	153	N,N-Dimethylaniline
2254	133	Matches, fusee
2256	130	Cyclohexene
2257	138	Potassium
2257	138	Potassium, metal
2258	132	1,2-Propylenediamine
2258	132	1,3-Propylenediamine
2259	153	Triethylenetetramine
2260	132	Tripropylamine
2261	153	Xylenols
2261	153	Xylenols, solid
2262	156	Dimethylcarbamoyl chloride
2263	128	Dimethylcyclohexanes
2264	132	N,N-Dimethylcyclohexylamine
2264	132	Dimethylcyclohexylamine
2265	129	N,N-Dimethylformamide
2266	132	Dimethyl-N-propylamine
2267	156	Dimethyl thiophosphoryl chloride
2269	153	3,3'-Iminodipropylamine
2270	132	Ethylamine, aqueous solution, with not less than 50% but not more than 70% Ethylamine
2271	128	Ethyl amyl ketone
2272	153	N-Ethylaniline
2273	153	2-Ethylaniline
2274	153	N-Ethyl-N-benzylaniline
2275	129	2-Ethylbutanol
2276	132	2-Ethylhexylamine
2277	130P	Ethyl methacrylate
2277	130P	Ethyl methacrylate, stabilized
2278	128	n-Heptene
2279	151	Hexachlorobutadiene
2280	153	Hexamethylenediamine, solid
2281	156	Hexamethylene diisocyanate
2282	129	Hexanols
2283	130P	Isobutyl methacrylate, stabilized
2284	131	Isobutyronitrile
2285	156	Isocyanatobenzotrifluorides
2286	128	Pentamethylheptane
2287	128	Isoheptenes
2288	128	Isohexenes
2289	153	Isophoronediamine
2290	156	IPDI
2290	156	Isophorone diisocyanate
2291	151	Lead compound, soluble, n.o.s.
2293	128	4-Methoxy-4-methylpentan-2-one
2294	153	N-Methylaniline
2295	155	Methyl chloroacetate
2296	128	Methylcyclohexane
2297	128	Methylcyclohexanone
2298	128	Methylcyclopentane
2299	155	Methyl dichloroacetate
2300	153	2-Methyl-5-ethylpyridine
2301	128	2-Methylfuran
2302	127	5-Methylhexan-2-one
2303	128	Isopropenylbenzene
2304	133	Naphthalene, molten
2305	153	Nitrobenzenesulfonic acid
2305	153	Nitrobenzenesulphonic acid
2306	152	Nitrobenzotrifluorides
2306	152	Nitrobenzotrifluorides, liquid
2307	152	3-Nitro-4-chlorobenzotrifluoride
2308	157	Nitrosylsulfuric acid
2308	157	Nitrosylsulfuric acid, liquid
2308	157	Nitrosylsulfuric acid, solid
2308	157	Nitrosylsulphuric acid

ID No.	Guide No.	Name of Material
2308	**157**	Nitrosylsulphuric acid, liquid
2308	**157**	Nitrosylsulphuric acid, solid
2309	**128P**	Octadiene
2310	**131**	Pentan-2,4-dione
2310	**131**	2,4-Pentanedione
2310	**131**	Pentane-2,4-dione
2311	**153**	Phenetidines
2312	**153**	Phenol, molten
2313	**129**	Picolines
2315	**171**	Articles containing Polychlorinated biphenyls (PCB)
2315	**171**	PCB
2315	**171**	Polychlorinated biphenyls
2315	**171**	Polychlorinated biphenyls, liquid
2315	**171**	Polychlorinated biphenyls, solid
2316	**157**	Sodium cuprocyanide, solid
2317	**157**	Sodium cuprocyanide, solution
2318	**135**	Sodium hydrosulfide, solid, with less than 25% water of crystallization
2318	**135**	Sodium hydrosulfide, with less than 25% water of crystallization
2318	**135**	Sodium hydrosulphide, solid, with less than 25% water of crystallization
2318	**135**	Sodium hydrosulphide, with less than 25% water of crystallization
2319	**128**	Terpene hydrocarbons, n.o.s.
2320	**153**	Tetraethylenepentamine
2321	**153**	Trichlorobenzenes, liquid
2322	**152**	Trichlorobutene
2323	**130**	Triethyl phosphite
2324	**128**	Triisobutylene
2325	**129**	1,3,5-Trimethylbenzene
2326	**153**	Trimethylcyclohexylamine
2327	**153**	Trimethylhexamethylenediamines
2328	**156**	Trimethylhexamethylene diisocyanate
2329	**130**	Trimethyl phosphite
2330	**128**	Undecane
2331	**154**	Zinc chloride, anhydrous
2332	**129**	Acetaldehyde oxime
2333	**131**	Allyl acetate
2334	**131**	Allylamine
2335	**131**	Allyl ethyl ether
2336	**131**	Allyl formate
2337	**131**	Phenyl mercaptan
2338	**127**	Benzotrifluoride
2339	**130**	2-Bromobutane
2340	**130**	2-Bromoethyl ethyl ether
2341	**130**	1-Bromo-3-methylbutane
2342	**130**	Bromomethylpropanes
2343	**130**	2-Bromopentane
2344	**129**	2-Bromopropane
2344	**129**	Bromopropanes
2345	**130**	3-Bromopropyne
2346	**127**	Butanedione
2346	**127**	Diacetyl
2347	**130**	Butyl mercaptan
2348	**129P**	Butyl acrylates, stabilized
2350	**127**	Butyl methyl ether
2351	**129**	Butyl nitrites
2352	**127P**	Butyl vinyl ether, stabilized
2353	**132**	Butyryl chloride
2354	**131**	Chloromethyl ethyl ether
2356	**129**	2-Chloropropane

ID No.	Guide No.	Name of Material
2357	132	Cyclohexylamine
2358	128P	Cyclooctatetraene
2359	132	Diallylamine
2360	131P	Diallyl ether
2361	132	Diisobutylamine
2362	130	1,1-Dichloroethane
2363	129	Ethyl mercaptan
2364	128	n-Propyl benzene
2366	128	Diethyl carbonate
2367	130	alpha-Methylvaleraldehyde
2367	130	Methyl valeraldehyde (alpha)
2368	128	alpha-Pinene
2368	128	Pinene (alpha)
2369	152	Ethylene glycol monobutyl ether
2370	128	1-Hexene
2371	128	Isopentenes
2372	129	1,2-Di-(dimethylamino)ethane
2373	127	Diethoxymethane
2374	127	3,3-Diethoxypropene
2375	129	Diethyl sulfide
2375	129	Diethyl sulphide
2376	127	2,3-Dihydropyran
2377	127	1,1-Dimethoxyethane
2378	131	2-Dimethylaminoacetonitrile
2379	132	1,3-Dimethylbutylamine
2380	127	Dimethyldiethoxysilane
2381	130	Dimethyl disulfide
2381	130	Dimethyl disulphide
2382	131	1,2-Dimethylhydrazine
2382	131	Dimethylhydrazine, symmetrical
2383	132	Dipropylamine
2384	127	Di-n-propyl ether
2384	127	Dipropyl ether

ID No.	Guide No.	Name of Material
2385	129	Ethyl isobutyrate
2386	132	1-Ethylpiperidine
2387	130	Fluorobenzene
2388	130	Fluorotoluenes
2389	128	Furan
2390	129	2-Iodobutane
2391	129	Iodomethylpropanes
2392	129	Iodopropanes
2393	129	Isobutyl formate
2394	129	Isobutyl propionate
2395	132	Isobutyryl chloride
2396	131P	Methacrylaldehyde, stabilized
2397	127	3-Methylbutan-2-one
2398	127	Methyl tert-butyl ether
2399	132	1-Methylpiperidine
2400	130	Methyl isovalerate
2401	132	Piperidine
2402	130	Propanethiols
2403	129P	Isopropenyl acetate
2404	131	Propionitrile
2405	129	Isopropyl butyrate
2406	127	Isopropyl isobutyrate
2407	155	Isopropyl chloroformate
2409	129	Isopropyl propionate
2410	129	1,2,3,6-Tetrahydropyridine
2410	129	1,2,5,6-Tetrahydropyridine
2411	131	Butyronitrile
2412	130	Tetrahydrothiophene
2413	128	Tetrapropyl orthotitanate
2414	130	Thiophene
2416	129	Trimethyl borate
2417	125	Carbonyl fluoride
2417	125	Carbonyl fluoride, compressed

ID No.	Guide No.	Name of Material
2418	**125**	Sulfur tetrafluoride
2418	**125**	Sulphur tetrafluoride
2419	**116**	Bromotrifluoroethylene
2420	**125**	Hexafluoroacetone
2421	**124**	Nitrogen trioxide
2422	**126**	Octafluorobut-2-ene
2422	**126**	Refrigerant gas R-1318
2424	**126**	Octafluoropropane
2424	**126**	Refrigerant gas R-218
2426	**140**	Ammonium nitrate, liquid (hot concentrated solution)
2427	**140**	Potassium chlorate, aqueous solution
2427	**140**	Potassium chlorate, solution
2428	**140**	Sodium chlorate, aqueous solution
2429	**140**	Calcium chlorate, aqueous solution
2429	**140**	Calcium chlorate, solution
2430	**153**	Alkyl phenols, solid, n.o.s. (including C2-C12 homologues)
2431	**153**	Anisidines
2431	**153**	Anisidines, liquid
2431	**153**	Anisidines, solid
2432	**153**	N,N-Diethylaniline
2433	**152**	Chloronitrotoluenes
2433	**152**	Chloronitrotoluenes, liquid
2433	**152**	Chloronitrotoluenes, solid
2434	**156**	Dibenzyldichlorosilane
2435	**156**	Ethylphenyldichlorosilane
2436	**129**	Thioacetic acid
2437	**156**	Methylphenyldichlorosilane
2438	**132**	Trimethylacetyl chloride

ID No.	Guide No.	Name of Material
2439	**154**	Sodium hydrogendifluoride
2440	**154**	Stannic chloride, pentahydrate
2440	**154**	Tin tetrachloride, pentahydrate
2441	**135**	Titanium trichloride, pyrophoric
2441	**135**	Titanium trichloride mixture, pyrophoric
2442	**156**	Trichloroacetyl chloride
2443	**137**	Vanadium oxytrichloride
2444	**137**	Vanadium tetrachloride
2445	**135**	Lithium alkyls
2445	**135**	Lithium alkyls, liquid
2446	**153**	Nitrocresols
2446	**153**	Nitrocresols, solid
2447	**136**	Phosphorus, white, molten
2447	**136**	White phosphorus, molten
2447	**136**	Yellow phosphorus, molten
2448	**133**	Sulfur, molten
2448	**133**	Sulphur, molten
2451	**122**	Nitrogen trifluoride
2451	**122**	Nitrogen trifluoride, compressed
2452	**116P**	Ethylacetylene, stabilized
2453	**115**	Ethyl fluoride
2453	**115**	Refrigerant gas R-161
2454	**115**	Methyl fluoride
2454	**115**	Refrigerant gas R-41
2455	**116**	Methyl nitrite
2456	**130P**	2-Chloropropene
2457	**128**	2,3-Dimethylbutane
2458	**130**	Hexadiene
2459	**128**	2-Methyl-1-butene
2460	**128**	2-Methyl-2-butene
2461	**128**	Methylpentadiene
2463	**138**	Aluminum hydride

ID No.	Guide No.	Name of Material
2464	**141**	Beryllium nitrate
2465	**140**	Dichloroisocyanuric acid, dry
2465	**140**	Dichloroisocyanuric acid salts
2465	**140**	Sodium dichloroisocyanurate
2465	**140**	Sodium dichloro-s-triazinetrione
2466	**143**	Potassium superoxide
2467	**140**	Sodium percarbonates
2468	**140**	Trichloroisocyanuric acid, dry
2468	**140**	(mono)-(Trichloro)-tetra-(monopotassium dichloro)-penta-s-triazinetrione, dry
2469	**140**	Zinc bromate
2470	**152**	Phenylacetonitrile, liquid
2471	**154**	Osmium tetroxide
2473	**154**	Sodium arsanilate
2474	**157**	Thiophosgene
2475	**157**	Vanadium trichloride
2477	**131**	Methyl isothiocyanate
2478	**155**	Isocyanate solution, flammable, poisonous, n.o.s.
2478	**155**	Isocyanate solution, flammable, toxic, n.o.s.
2478	**155**	Isocyanate solutions, n.o.s.
2478	**155**	Isocyanates, flammable, poisonous, n.o.s.
2478	**155**	Isocyanates, flammable, toxic, n.o.s.
2478	**155**	Isocyanates, n.o.s.
2480	**155**	Methyl isocyanate
2481	**155**	Ethyl isocyanate
2482	**155**	n-Propyl isocyanate
2483	**155**	Isopropyl isocyanate
2484	**155**	tert-Butyl isocyanate
2485	**155**	n-Butyl isocyanate

ID No.	Guide No.	Name of Material
2486	**155**	Isobutyl isocyanate
2487	**155**	Phenyl isocyanate
2488	**155**	Cyclohexyl isocyanate
2490	**153**	Dichloroisopropyl ether
2491	**153**	Ethanolamine
2491	**153**	Ethanolamine, solution
2491	**153**	Monoethanolamine
2493	**132**	Hexamethyleneimine
2495	**144**	Iodine pentafluoride
2496	**156**	Propionic anhydride
2498	**129**	1,2,3,6-Tetrahydrobenzaldehyde
2501	**152**	1-Aziridinyl phosphine oxide (Tris)
2501	**152**	Tri-(1-aziridinyl)phosphine oxide, solution
2501	**152**	Tris-(1-aziridinyl)phosphine oxide, solution
2502	**132**	Valeryl chloride
2503	**137**	Zirconium tetrachloride
2504	**159**	Acetylene tetrabromide
2504	**159**	Tetrabromoethane
2505	**154**	Ammonium fluoride
2506	**154**	Ammonium hydrogen sulfate
2506	**154**	Ammonium hydrogen sulphate
2507	**154**	Chloroplatinic acid, solid
2508	**156**	Molybdenum pentachloride
2509	**154**	Potassium hydrogen sulfate
2509	**154**	Potassium hydrogen sulphate
2511	**153**	2-Chloropropionic acid
2511	**153**	2-Chloropropionic acid, solid
2511	**153**	2-Chloropropionic acid, solution
2512	**152**	Aminophenols
2513	**156**	Bromoacetyl bromide

ID No.	Guide No.	Name of Material
2514	**130**	Bromobenzene
2515	**159**	Bromoform
2516	**151**	Carbon tetrabromide
2517	**115**	1-Chloro-1,1-difluoroethane
2517	**115**	Chlorodifluoroethanes
2517	**115**	Difluorochloroethanes
2517	**115**	Refrigerant gas R-142b
2518	**153**	1,5,9-Cyclododecatriene
2520	**130P**	Cyclooctadienes
2521	**131P**	Diketene, stabilized
2522	**153P**	2-Dimethylaminoethyl methacrylate
2522	**153P**	Dimethylaminoethyl methacrylate
2524	**129**	Ethyl orthoformate
2525	**156**	Ethyl oxalate
2526	**132**	Furfurylamine
2527	**129P**	Isobutyl acrylate, stabilized
2528	**130**	Isobutyl isobutyrate
2529	**132**	Isobutyric acid
2530	**132**	Isobutyric anhydride
2531	**153P**	Methacrylic acid, stabilized
2533	**156**	Methyl trichloroacetate
2534	**119**	Methylchlorosilane
2535	**132**	4-Methylmorpholine
2535	**132**	N-Methylmorpholine
2535	**132**	Methylmorpholine
2536	**127**	Methyltetrahydrofuran
2538	**133**	Nitronaphthalene
2541	**128**	Terpinolene
2542	**153**	Tributylamine
2545	**135**	Hafnium powder, dry
2546	**135**	Titanium powder, dry

ID No.	Guide No.	Name of Material
2547	**143**	Sodium superoxide
2548	**124**	Chlorine pentafluoride
2552	**151**	Hexafluoroacetone hydrate
2552	**151**	Hexafluoroacetone hydrate, liquid
2554	**130P**	Methylallyl chloride
2555	**113**	Nitrocellulose with water, not less than 25% water
2556	**113**	Nitrocellulose with alcohol
2556	**113**	Nitrocellulose with not less than 25% alcohol
2557	**133**	Nitrocellulose
2557	**133**	Nitrocellulose mixture, without pigment
2557	**133**	Nitrocellulose mixture, without plasticizer
2557	**133**	Nitrocellulose mixture, with pigment
2557	**133**	Nitrocellulose mixture, with pigment and plasticizer
2557	**133**	Nitrocellulose mixture, with plasticizer
2558	**131**	Epibromohydrin
2560	**129**	2-Methylpentan-2-ol
2561	**128**	3-Methyl-1-butene
2564	**153**	Trichloroacetic acid, solution
2565	**153**	Dicyclohexylamine
2567	**154**	Sodium pentachlorophenate
2570	**154**	Cadmium compound
2571	**156**	Alkylsulfuric acids
2571	**156**	Alkylsulphuric acids
2571	**156**	Ethylsulfuric acid
2571	**156**	Ethylsulphuric acid
2572	**153**	Phenylhydrazine
2573	**141**	Thallium chlorate

ID No.	Guide No.	Name of Material
2574	**151**	Tricresyl phosphate
2576	**137**	Phosphorus oxybromide, molten
2577	**156**	Phenylacetyl chloride
2578	**157**	Phosphorus trioxide
2579	**153**	Piperazine
2580	**154**	Aluminum bromide, solution
2581	**154**	Aluminum chloride, solution
2582	**154**	Ferric chloride, solution
2583	**153**	Alkyl sulfonic acids, solid, with more than 5% free Sulfuric acid
2583	**153**	Alkyl sulphonic acids, solid, with more than 5% free Sulphuric acid
2583	**153**	Aryl sulfonic acids, solid, with more than 5% free Sulfuric acid
2583	**153**	Aryl sulphonic acids, solid, with more than 5% free Sulphuric acid
2584	**153**	Alkyl sulfonic acids, liquid, with more than 5% free Sulfuric acid
2584	**153**	Alkyl sulphonic acids, liquid, with more than 5% free Sulphuric acid
2584	**153**	Aryl sulfonic acids, liquid, with more than 5% free Sulfuric acid
2584	**153**	Aryl sulphonic acids, liquid, with more than 5% free Sulphuric acid
2584	**153**	Dodecylbenzenesulfonic acid
2584	**153**	Dodecylbenzenesulphonic acid
2585	**153**	Alkyl sulfonic acids, solid, with not more than 5% free Sulfuric acid
2585	**153**	Alkyl sulphonic acids, solid, with not more than 5% free Sulphuric acid
2585	**153**	Aryl sulfonic acids, solid, with not more than 5% free Sulfuric acid
2585	**153**	Aryl sulphonic acids, solid, with not more than 5% free Sulphuric acid
2586	**153**	Alkyl sulfonic acids, liquid, with not more than 5% free Sulfuric acid
2586	**153**	Alkyl sulphonic acids, liquid, with not more than 5% free Sulphuric acid
2586	**153**	Aryl sulfonic acids, liquid, with not more than 5% free Sulfuric acid
2586	**153**	Aryl sulphonic acids, liquid, with not more than 5% free Sulphuric acid
2587	**153**	Benzoquinone
2588	**151**	Pesticide, solid, poisonous
2588	**151**	Pesticide, solid, poisonous, n.o.s.
2588	**151**	Pesticide, solid, toxic, n.o.s.
2589	**155**	Vinyl chloroacetate
2590	**171**	Asbestos, white
2590	**171**	White asbestos
2591	**120**	Xenon, refrigerated liquid (cryogenic liquid)
2599	**126**	Chlorotrifluoromethane and Trifluoromethane azeotropic mixture with approximately 60% Chlorotrifluoromethane
2599	**126**	Refrigerant gas R-13 and Refrigerant gas R-23 azeotropic mixture with 60% Refrigerant gas R-13

ID No.	Guide No.	Name of Material
2599	**126**	Refrigerant gas R-23 and Refrigerant gas R-13 azeotropic mixture with 60% Refrigerant gas R-13
2599	**126**	Refrigerant gas R-503 (azeotropic mixture of Refrigerant gas R-13 and Refrigerant gas R-23 with approximately 60% Refrigerant gas R-13)
2599	**126**	Trifluoromethane and Chlorotrifluoromethane azeotropic mixture with approximately 60% Chlorotrifluoromethane
2600	**119**	Carbon monoxide and Hydrogen mixture
2600	**119**	Carbon monoxide and Hydrogen mixture, compressed
2600	**119**	Hydrogen and Carbon monoxide mixture
2600	**119**	Hydrogen and Carbon monoxide mixture, compressed
2601	**115**	Cyclobutane
2602	**126**	Dichlorodifluoromethane and Difluoroethane azeotropic mixture with approximately 74% Dichlorodifluoromethane
2602	**126**	Difluoroethane and Dichlorodifluoromethane azeotropic mixture with approximately 74% Dichlorodifluoromethane
2602	**126**	Refrigerant gas R-12 and Refrigerant gas R-152a azeotropic mixture with 74% Refrigerant gas R-12
2602	**126**	Refrigerant gas R-152a and Refrigerant gas R-12 azeotropic mixture with 74% Refrigerant gas R-12
2602	**126**	Refrigerant gas R-500 (azeotropic mixture of Refrigerant gas R-12 and Refrigerant gas R-152a with approximately 74% Refrigerant gas R-12)
2603	**131**	Cycloheptatriene
2604	**132**	Boron trifluoride diethyl etherate
2605	**155**	Methoxymethyl isocyanate
2606	**155**	Methyl orthosilicate
2607	**129P**	Acrolein dimer, stabilized
2608	**129**	Nitropropanes
2609	**156**	Triallyl borate
2610	**132**	Triallylamine
2611	**131**	Propylene chlorohydrin
2612	**127**	Methyl propyl ether
2614	**129**	Methallyl alcohol
2615	**127**	Ethyl propyl ether
2616	**129**	Triisopropyl borate
2617	**129**	Methylcyclohexanols
2618	**130P**	Vinyltoluenes, stabilized
2619	**132**	Benzyldimethylamine
2620	**130**	Amyl butyrates
2621	**127**	Acetyl methyl carbinol
2622	**131P**	Glycidaldehyde
2623	**133**	Firelighters, solid, with flammable liquid
2624	**138**	Magnesium silicide
2626	**140**	Chloric acid, aqueous solution, with not more than 10% Chloric acid
2627	**140**	Nitrites, inorganic, n.o.s.
2628	**151**	Potassium fluoroacetate
2629	**151**	Sodium fluoroacetate
2630	**151**	Selenates

ID No.	Guide No.	Name of Material
2630	151	Selenites
2630	151	Sodium selenite
2642	154	Fluoroacetic acid
2643	155	Methyl bromoacetate
2644	151	Methyl iodide
2645	153	Phenacyl bromide
2646	151	Hexachlorocyclopentadiene
2647	153	Malononitrile
2648	154	1,2-Dibromobutan-3-one
2649	153	1,3-Dichloroacetone
2650	153	1,1-Dichloro-1-nitroethane
2651	153	4,4'-Diaminodiphenylmethane
2653	156	Benzyl iodide
2655	151	Potassium fluorosilicate
2655	151	Potassium silicofluoride
2656	154	Quinoline
2657	153	Selenium disulfide
2657	153	Selenium disulphide
2658	152	Selenium powder
2659	151	Sodium chloroacetate
2660	153	Mononitrotoluidines
2660	153	Nitrotoluidines (mono)
2661	153	Hexachloroacetone
2662	153	Hydroquinone
2662	153	Hydroquinone, solid
2664	160	Dibromomethane
2666	156	Ethyl cyanoacetate
2667	152	Butyltoluenes
2668	131	Chloroacetonitrile
2669	152	Chlorocresols
2669	152	Chlorocresols, liquid
2669	152	Chlorocresols, solid
2669	152	Chlorocresols, solution

ID No.	Guide No.	Name of Material
2670	157	Cyanuric chloride
2671	153	Aminopyridines
2672	154	Ammonia, solution, with more than 10% but not more than 35% Ammonia
2672	154	Ammonium hydroxide
2672	154	Ammonium hydroxide, with more than 10% but not more than 35% Ammonia
2673	151	2-Amino-4-chlorophenol
2674	154	Sodium fluorosilicate
2674	154	Sodium silicofluoride
2676	119	Stibine
2677	154	Rubidium hydroxide, solution
2678	154	Rubidium hydroxide
2678	154	Rubidium hydroxide, solid
2679	154	Lithium hydroxide, solution
2680	154	Lithium hydroxide
2680	154	Lithium hydroxide, monohydrate
2680	154	Lithium hydroxide, solid
2681	154	Caesium hydroxide, solution
2681	154	Cesium hydroxide, solution
2682	157	Caesium hydroxide
2682	157	Cesium hydroxide
2683	132	Ammonium sulfide, solution
2683	132	Ammonium sulphide, solution
2684	132	3-Diethylaminopropylamine
2684	132	Diethylaminopropylamine
2685	132	N,N-Diethylethylenediamine
2686	132	2-Diethylaminoethanol
2686	132	Diethylaminoethanol
2687	133	Dicyclohexylammonium nitrite
2688	159	1-Bromo-3-chloropropane
2688	159	1-Chloro-3-bromopropane

ID No.	Guide No.	Name of Material
2689	**153**	Glycerol alpha-monochlorohydrin
2690	**152**	N,n-Butylimidazole
2691	**137**	Phosphorus pentabromide
2692	**157**	Boron tribromide
2693	**154**	Bisulfites, aqueous solution, n.o.s.
2693	**154**	Bisulfites, inorganic, aqueous solution, n.o.s.
2693	**154**	Bisulphites, aqueous solution, n.o.s.
2693	**154**	Bisulphites, inorganic, aqueous solution, n.o.s.
2698	**156**	Tetrahydrophthalic anhydrides
2699	**154**	Trifluoroacetic acid
2705	**153P**	1-Pentol
2707	**127**	Dimethyldioxanes
2708	**127**	Butoxyl
2709	**128**	Butylbenzenes
2710	**128**	Dipropyl ketone
2711	**129**	Dibromobenzene
2713	**153**	Acridine
2714	**133**	Zinc resinate
2715	**133**	Aluminum resinate
2716	**153**	1,4-Butynediol
2717	**133**	Camphor
2717	**133**	Camphor, synthetic
2719	**141**	Barium bromate
2720	**141**	Chromium nitrate
2721	**141**	Copper chlorate
2722	**140**	Lithium nitrate
2723	**140**	Magnesium chlorate
2724	**140**	Manganese nitrate
2725	**140**	Nickel nitrate

ID No.	Guide No.	Name of Material
2726	**140**	Nickel nitrite
2727	**141**	Thallium nitrate
2728	**140**	Zirconium nitrate
2729	**152**	Hexachlorobenzene
2730	**152**	Nitroanisoles
2730	**152**	Nitroanisoles, liquid
2730	**152**	Nitroanisoles, solid
2732	**152**	Nitrobromobenzenes
2732	**152**	Nitrobromobenzenes, liquid
2732	**152**	Nitrobromobenzenes, solid
2733	**132**	Alkylamines, n.o.s.
2733	**132**	Amines, flammable, corrosive, n.o.s.
2733	**132**	Polyalkylamines, n.o.s.
2733	**132**	Polyamines, flammable, corrosive, n.o.s.
2734	**132**	Alkylamines, n.o.s.
2734	**132**	Amines, liquid, corrosive, flammable, n.o.s.
2734	**132**	Polyalkylamines, n.o.s.
2734	**132**	Polyamines, liquid, corrosive, flammable, n.o.s.
2735	**153**	Alkylamines, n.o.s.
2735	**153**	Amines, liquid, corrosive, n.o.s.
2735	**153**	Polyalkylamines, n.o.s.
2735	**153**	Polyamines, liquid, corrosive, n.o.s.
2738	**153**	N-Butylaniline
2739	**156**	Butyric anhydride
2740	**155**	n-Propyl chloroformate
2741	**141**	Barium hypochlorite, with more than 22% available Chlorine
2742	**155**	sec-Butyl chloroformate
2742	**155**	Chloroformates, n.o.s.

ID No.	Guide No.	Name of Material
2742	**155**	Chloroformates, poisonous, corrosive, flammable, n.o.s.
2742	**155**	Chloroformates, toxic, corrosive, flammable, n.o.s.
2742	**155**	Isobutyl chloroformate
2743	**155**	n-Butyl chloroformate
2744	**155**	Cyclobutyl chloroformate
2745	**157**	Chloromethyl chloroformate
2746	**156**	Phenyl chloroformate
2747	**156**	tert-Butylcyclohexyl chloroformate
2748	**156**	2-Ethylhexyl chloroformate
2749	**130**	Tetramethylsilane
2750	**153**	1,3-Dichloropropanol-2
2751	**155**	Diethylthiophosphoryl chloride
2752	**127**	1,2-Epoxy-3-ethoxypropane
2753	**153**	N-Ethylbenzyltoluidines
2753	**153**	N-Ethylbenzyltoluidines, liquid
2753	**153**	N-Ethylbenzyltoluidines, solid
2754	**153**	N-Ethyltoluidines
2757	**151**	Carbamate pesticide, solid, poisonous
2757	**151**	Carbamate pesticide, solid, toxic
2758	**131**	Carbamate pesticide, liquid, flammable, poisonous
2758	**131**	Carbamate pesticide, liquid, flammable, toxic
2759	**151**	Arsenical pesticide, solid, poisonous
2759	**151**	Arsenical pesticide, solid, toxic
2760	**131**	Arsenical pesticide, liquid, flammable, poisonous
2760	**131**	Arsenical pesticide, liquid, flammable, toxic

ID No.	Guide No.	Name of Material
2761	**151**	Aldrin, solid
2761	**151**	Dieldrin
2761	**151**	Organochlorine pesticide, solid, poisonous
2761	**151**	Organochlorine pesticide, solid, toxic
2762	**131**	Aldrin, liquid
2762	**131**	Organochlorine pesticide, liquid, flammable, poisonous
2762	**131**	Organochlorine pesticide, liquid, flammable, toxic
2763	**151**	Triazine pesticide, solid, poisonous
2763	**151**	Triazine pesticide, solid, toxic
2764	**131**	Triazine pesticide, liquid, flammable, poisonous
2764	**131**	Triazine pesticide, liquid, flammable, toxic
2765	**152**	Phenoxy pesticide, solid, poisonous
2765	**152**	Phenoxy pesticide, solid, toxic
2766	**131**	Phenoxy pesticide, liquid, flammable, poisonous
2766	**131**	Phenoxy pesticide, liquid, flammable, toxic
2767	**151**	Phenyl urea pesticide, solid, poisonous
2767	**151**	Phenyl urea pesticide, solid, toxic
2768	**131**	Phenyl urea pesticide, liquid, flammable, poisonous
2768	**131**	Phenyl urea pesticide, liquid, flammable, toxic
2769	**151**	Benzoic derivative pesticide, solid, poisonous
2769	**151**	Benzoic derivative pesticide, solid, toxic

ID No.	Guide No.	Name of Material
2770	**131**	Benzoic derivative pesticide, liquid, flammable, poisonous
2770	**131**	Benzoic derivative pesticide, liquid, flammable, toxic
2771	**151**	Dithiocarbamate pesticide, solid, poisonous
2771	**151**	Dithiocarbamate pesticide, solid, toxic
2771	**151**	Thiocarbamate pesticide, solid, poisonous
2771	**151**	Thiocarbamate pesticide, solid, toxic
2772	**131**	Dithiocarbamate pesticide, liquid, flammable, poisonous
2772	**131**	Dithiocarbamate pesticide, liquid, flammable, toxic
2772	**131**	Thiocarbamate pesticide, liquid, flammable, poisonous
2772	**131**	Thiocarbamate pesticide, liquid, flammable, toxic
2773	**151**	Phthalimide derivative pesticide, solid, poisonous
2773	**151**	Phthalimide derivative pesticide, solid, toxic
2774	**131**	Phthalimide derivative pesticide, liquid, flammable, poisonous
2774	**131**	Phthalimide derivative pesticide, liquid, flammable, toxic
2775	**151**	Copper based pesticide, solid, poisonous
2775	**151**	Copper based pesticide, solid, toxic
2776	**131**	Copper based pesticide, liquid, flammable, poisonous
2776	**131**	Copper based pesticide, liquid, flammable, toxic
2777	**151**	Mercury based pesticide, solid, poisonous
2777	**151**	Mercury based pesticide, solid, toxic
2778	**131**	Mercury based pesticide, liquid, flammable, poisonous
2778	**131**	Mercury based pesticide, liquid, flammable, toxic
2779	**153**	Substituted nitrophenol pesticide, solid, poisonous
2779	**153**	Substituted nitrophenol pesticide, solid, toxic
2780	**131**	Substituted nitrophenol pesticide, liquid, flammable, poisonous
2780	**131**	Substituted nitrophenol pesticide, liquid, flammable, toxic
2781	**151**	Bipyridilium pesticide, solid, poisonous
2781	**151**	Bipyridilium pesticide, solid, toxic
2782	**131**	Bipyridilium pesticide, liquid, flammable, poisonous
2782	**131**	Bipyridilium pesticide, liquid, flammable, toxic
2783	**152**	Methyl parathion, solid
2783	**152**	Organophosphorus pesticide, solid, poisonous
2783	**152**	Organophosphorus pesticide, solid, toxic
2783	**152**	Parathion
2783	**152**	Tetraethyl pyrophosphate, solid
2784	**131**	Organophosphorus pesticide, liquid, flammable, poisonous
2784	**131**	Organophosphorus pesticide, liquid, flammable, toxic
2785	**152**	4-Thiapentanal
2785	**152**	Thia-4-pentanal

ID No.	Guide No.	Name of Material
2786	**153**	Organotin pesticide, solid, poisonous
2786	**153**	Organotin pesticide, solid, toxic
2787	**131**	Organotin pesticide, liquid, flammable, poisonous
2787	**131**	Organotin pesticide, liquid, flammable, toxic
2788	**153**	Organotin compound, liquid, n.o.s.
2789	**132**	Acetic acid, glacial
2789	**132**	Acetic acid, solution, more than 80% acid
2790	**153**	Acetic acid, solution, more than 10% but not more than 80% acid
2793	**170**	Ferrous metal borings, shavings, turnings or cuttings
2794	**154**	Batteries, wet, filled with acid
2795	**154**	Batteries, wet, filled with alkali
2796	**157**	Battery fluid, acid
2796	**157**	Sulfuric acid, with not more than 51% acid
2796	**157**	Sulphuric acid, with not more than 51% acid
2797	**154**	Battery fluid, alkali
2797	**154**	Battery fluid, alkali, with battery
2797	**154**	Battery fluid, alkali, with electronic equipment or actuating device
2798	**137**	Benzene phosphorus dichloride
2798	**137**	Phenylphosphorus dichloride
2799	**137**	Benzene phosphorus thiodichloride
2799	**137**	Phenylphosphorus thiodichloride
2800	**154**	Batteries, wet, non-spillable
2801	**154**	Dye, liquid, corrosive, n.o.s.

ID No.	Guide No.	Name of Material
2801	**154**	Dye intermediate, liquid, corrosive, n.o.s.
2802	**154**	Copper chloride
2803	**172**	Gallium
2805	**138**	Lithium hydride, fused solid
2806	**138**	Lithium nitride
2807	**171**	Magnetized material
2809	**172**	Mercury
2809	**172**	Mercury metal
2810	**153**	Buzz
2810	**153**	BZ
2810	**153**	Compound, tree or weed killing, liquid (toxic)
2810	**153**	CS
2810	**153**	DC
2810	**153**	GA
2810	**153**	GB
2810	**153**	GD
2810	**153**	GF
2810	**153**	H
2810	**153**	HD
2810	**153**	HL
2810	**153**	HN-1
2810	**153**	HN-2
2810	**153**	HN-3
2810	**153**	L (Lewisite)
2810	**153**	Lewisite
2810	**153**	Mustard
2810	**153**	Mustard Lewisite
2810	**153**	Poison B, liquid, n.o.s.
2810	**153**	Poisonous liquid, n.o.s.
2810	**153**	Poisonous liquid, n.o.s. (Inhalation Hazard Zone A)

ID No.	Guide No.	Name of Material
2810	**153**	Poisonous liquid, n.o.s. (Inhalation Hazard Zone B)
2810	**153**	Poisonous liquid, organic, n.o.s.
2810	**153**	Poisonous liquid, organic, n.o.s. (Inhalation Hazard Zone A)
2810	**153**	Poisonous liquid, organic, n.o.s. (Inhalation Hazard Zone B)
2810	**153**	Sarin
2810	**153**	Soman
2810	**153**	Tabun
2810	**153**	Thickened GD
2810	**153**	Toxic liquid, n.o.s.
2810	**153**	Toxic liquid, n.o.s. (Inhalation Hazard Zone A)
2810	**153**	Toxic liquid, n.o.s. (Inhalation Hazard Zone B)
2810	**153**	Toxic liquid, organic, n.o.s.
2810	**153**	Toxic liquid, organic, n.o.s. (Inhalation Hazard Zone A)
2810	**153**	Toxic liquid, organic, n.o.s. (Inhalation Hazard Zone B)
2810	**153**	VX
2811	**154**	CX
2811	**154**	Poisonous solid, organic, n.o.s.
2811	**154**	Selenium oxide
2811	**154**	Toxic solid, organic, n.o.s.
2812	**154**	Sodium aluminate, solid
2813	**138**	Water-reactive solid, n.o.s.
2814	**158**	Infectious substance, affecting humans
2815	**153**	N-Aminoethylpiperazine
2817	**154**	Ammonium bifluoride, solution
2817	**154**	Ammonium hydrogendifluoride, solution
2817	**154**	Ammonium hydrogen fluoride, solution
2818	**154**	Ammonium polysulfide, solution
2818	**154**	Ammonium polysulphide, solution
2819	**153**	Amyl acid phosphate
2820	**153**	Butyric acid
2821	**153**	Phenol solution
2822	**153**	2-Chloropyridine
2823	**153**	Crotonic acid
2823	**153**	Crotonic acid, liquid
2823	**153**	Crotonic acid, solid
2826	**155**	Ethyl chlorothioformate
2829	**153**	Caproic acid
2829	**153**	Hexanoic acid
2830	**139**	Lithium ferrosilicon
2831	**160**	1,1,1-Trichloroethane
2834	**154**	Phosphorous acid
2834	**154**	Phosphorous acid, ortho
2835	**138**	Sodium aluminum hydride
2837	**154**	Bisulfates, aqueous solution
2837	**154**	Bisulphates, aqueous solution
2837	**154**	Sodium bisulfate, solution
2837	**154**	Sodium bisulphate, solution
2837	**154**	Sodium hydrogen sulfate, solution
2837	**154**	Sodium hydrogen sulphate, solution
2838	**129P**	Vinyl butyrate, stabilized
2839	**153**	Aldol
2840	**129**	Butyraldoxime
2841	**131**	Di-n-amylamine
2842	**129**	Nitroethane
2844	**138**	Calcium manganese silicon
2845	**135**	Ethyl phosphonous dichloride, anhydrous

ID No.	Guide No.	Name of Material
2845	**135**	Methyl phosphonous dichloride
2845	**135**	Pyrophoric liquid, n.o.s.
2845	**135**	Pyrophoric liquid, organic, n.o.s.
2846	**135**	Pyrophoric solid, n.o.s.
2846	**135**	Pyrophoric solid, organic, n.o.s.
2849	**153**	3-Chloropropanol-1
2850	**128**	Propylene tetramer
2851	**157**	Boron trifluoride, dihydrate
2852	**113**	Dipicryl sulfide, wetted with not less than 10% water
2852	**113**	Dipicryl sulphide, wetted with not less than 10% water
2853	**151**	Magnesium fluorosilicate
2853	**151**	Magnesium silicofluoride
2854	**151**	Ammonium fluorosilicate
2854	**151**	Ammonium silicofluoride
2855	**151**	Zinc fluorosilicate
2855	**151**	Zinc silicofluoride
2856	**151**	Fluorosilicates, n.o.s.
2856	**151**	Silicofluorides, n.o.s.
2857	**126**	Refrigerating machines, containing Ammonia solutions (UN2672)
2857	**126**	Refrigerating machines, containing non-flammable, non-poisonous gases
2857	**126**	Refrigerating machines, containing non-flammable, non-toxic gases
2858	**170**	Zirconium, dry, coiled wire, finished metal sheets or strips
2859	**154**	Ammonium metavanadate
2861	**151**	Ammonium polyvanadate
2862	**151**	Vanadium pentoxide

ID No.	Guide No.	Name of Material
2863	**154**	Sodium ammonium vanadate
2864	**151**	Potassium metavanadate
2865	**154**	Hydroxylamine sulfate
2865	**154**	Hydroxylamine sulphate
2869	**157**	Titanium trichloride mixture
2870	**135**	Aluminum borohydride
2870	**135**	Aluminum borohydride in devices
2871	**170**	Antimony powder
2872	**159**	Dibromochloropropanes
2873	**153**	Dibutylaminoethanol
2874	**153**	Furfuryl alcohol
2875	**151**	Hexachlorophene
2876	**153**	Resorcinol
2878	**170**	Titanium sponge granules
2878	**170**	Titanium sponge powders
2879	**157**	Selenium oxychloride
2880	**140**	Calcium hypochlorite, hydrated, with not less than 5.5% but not more than 16% water
2880	**140**	Calcium hypochlorite, hydrated mixture, with not less than 5.5% but not more than 16% water
2881	**135**	Metal catalyst, dry
2881	**135**	Nickel catalyst, dry
2900	**158**	Infectious substance, affecting animals only
2901	**124**	Bromine chloride
2902	**151**	Pesticide, liquid, poisonous, n.o.s.
2902	**151**	Pesticide, liquid, toxic, n.o.s.
2903	**131**	Pesticide, liquid, poisonous, flammable, n.o.s.
2903	**131**	Pesticide, liquid, toxic, flammable, n.o.s.

ID No.	Guide No.	Name of Material
2904	**154**	Chlorophenates, liquid
2904	**154**	Chlorophenolates, liquid
2904	**154**	Phenolates, liquid
2905	**154**	Chlorophenates, solid
2905	**154**	Chlorophenolates, solid
2905	**154**	Phenolates, solid
2907	**133**	Isosorbide dinitrate mixture
2908	**161**	Radioactive material, excepted package, empty packaging
2909	**161**	Radioactive material, excepted package, articles manufactured from depleted Uranium
2909	**161**	Radioactive material, excepted package, articles manufactured from natural Thorium
2909	**161**	Radioactive material, excepted package, articles manufactured from natural Uranium
2910	**161**	Radioactive material, excepted package, articles manufactured from depleted Uranium
2910	**161**	Radioactive material, excepted package, articles manufactured from natural Thorium
2910	**161**	Radioactive material, excepted package, articles manufactured from natural Uranium
2910	**161**	Radioactive material, excepted package, empty packaging
2910	**161**	Radioactive material, excepted package, instruments or articles

ID No.	Guide No.	Name of Material
2910	**161**	Radioactive material, excepted package, limited quantity of material
2911	**161**	Radioactive material, excepted package, instruments or articles
2912	**162**	Radioactive material, low specific activity (LSA), n.o.s.
2912	**162**	Radioactive material, low specific activity (LSA-I) non fissile or fissile-excepted
2913	**162**	Radioactive material, surface contaminated objects (SCO)
2913	**162**	Radioactive material, surface contaminated objects (SCO-I) non fissile or fissile-excepted
2913	**162**	Radioactive material, surface contaminated objects (SCO-II) non fissile or fissile-excepted
2915	**163**	Radioactive material, Type A package non-special form, non fissile or fissile-excepted
2916	**163**	Radioactive material, Type B(U) package non fissile or fissile-excepted
2917	**163**	Radioactive material, Type B(M) package non fissile or fissile-excepted
2918	**165**	Radioactive material, fissile, n.o.s.
2919	**163**	Radioactive material, transported under special arrangement non fissile or fissile-excepted
2920	**132**	Corrosive liquid, flammable, n.o.s.
2920	**132**	Dichlorobutene
2921	**134**	Corrosive solid, flammable, n.o.s.

ID No.	Guide No.	Name of Material
2922	154	Corrosive liquid, poisonous, n.o.s.
2922	154	Corrosive liquid, toxic, n.o.s.
2922	154	Sodium hydrosulfide, solution
2922	154	Sodium hydrosulphide, solution
2923	154	Corrosive solid, poisonous, n.o.s.
2923	154	Corrosive solid, toxic, n.o.s.
2924	132	Flammable liquid, corrosive, n.o.s
2925	134	Flammable solid, corrosive, n.o.s.
2925	134	Flammable solid, corrosive, organic, n.o.s.
2926	134	Flammable solid, poisonous, n.o.s.
2926	134	Flammable solid, poisonous, organic, n.o.s.
2926	134	Flammable solid, toxic, organic, n.o.s.
2927	154	Ethyl phosphonothioic dichloride, anhydrous
2927	154	Ethyl phosphorodichloridate
2927	154	Poisonous liquid, corrosive, n.o.s.
2927	154	Poisonous liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)
2927	154	Poisonous liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)
2927	154	Poisonous liquid, corrosive, organic, n.o.s.
2927	154	Poisonous liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone A)
2927	154	Poisonous liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone B)
2927	154	Toxic liquid, corrosive, n.o.s.
2927	154	Toxic liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)
2927	154	Toxic liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)
2927	154	Toxic liquid, corrosive, organic, n.o.s.
2927	154	Toxic liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone A)
2927	154	Toxic liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone B)
2928	154	Poisonous solid, corrosive, n.o.s.
2928	154	Toxic solid, corrosive, organic, n.o.s.
2929	131	Poisonous liquid, flammable, n.o.s.
2929	131	Poisonous liquid, flammable, n.o.s. (Inhalation Hazard Zone A)
2929	131	Poisonous liquid, flammable, n.o.s. (Inhalation Hazard Zone B)
2929	131	Poisonous liquid, flammable, organic, n.o.s.
2929	131	Poisonous liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone A)
2929	131	Poisonous liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone B)
2929	131	Toxic liquid, flammable, n.o.s.
2929	131	Toxic liquid, flammable, n.o.s. (Inhalation Hazard Zone A)
2929	131	Toxic liquid, flammable, n.o.s. (Inhalation Hazard Zone B)
2929	131	Toxic liquid, flammable, organic, n.o.s.

ID No.	Guide No.	Name of Material
2929	131	Toxic liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone A)
2929	131	Toxic liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone B)
2930	134	Poisonous solid, flammable, n.o.s.
2930	134	Poisonous solid, flammable, organic, n.o.s.
2930	134	Toxic solid, flammable, n.o.s.
2930	134	Toxic solid, flammable, organic, n.o.s.
2931	151	Vanadyl sulfate
2931	151	Vanadyl sulphate
2933	129	Methyl 2-chloropropionate
2934	129	Isopropyl 2-chloropropionate
2935	129	Ethyl 2-chloropropionate
2936	153	Thiolactic acid
2937	153	alpha-Methylbenzyl alcohol
2937	153	alpha-Methylbenzyl alcohol, liquid
2937	153	Methylbenzyl alcohol (alpha)
2938	152	Methyl benzoate
2940	135	Cyclooctadiene phosphines
2940	135	9-Phosphabicyclononanes
2941	153	Fluoroanilines
2942	153	2-Trifluoromethylaniline
2943	129	Tetrahydrofurfurylamine
2945	132	N-Methylbutylamine
2946	153	2-Amino-5-diethylaminopentane
2947	155	Isopropyl chloroacetate
2948	153	3-Trifluoromethylaniline
2949	154	Sodium hydrosulfide, with not less than 25% water of crystallization
2949	154	Sodium hydrosulphide, with not less than 25% water of crystallization
2950	138	Magnesium granules, coated
2956	149	5-tert-Butyl-2,4,6-trinitro-m-xylene
2956	149	Musk xylene
2965	139	Boron trifluoride dimethyl etherate
2966	153	Thioglycol
2967	154	Sulfamic acid
2967	154	Sulphamic acid
2968	135	Maneb, stabilized
2968	135	Maneb preparation, stabilized
2969	171	Castor beans, meal, pomace or flake
2974	164	Radioactive material, special form, n.o.s.
2975	162	Thorium metal, pyrophoric
2976	162	Thorium nitrate, solid
2977	166	Radioactive material, Uranium hexafluoride, fissile
2977	166	Uranium hexafluoride, fissile containing more than 1% Uranium-235
2978	166	Radioactive material, Uranium hexafluoride
2978	166	Uranium hexafluoride
2978	166	Uranium hexafluoride non fissile or fissile-excepted
2979	162	Uranium metal, pyrophoric
2980	162	Uranyl nitrate, hexahydrate, solution
2981	162	Uranyl nitrate, solid
2982	163	Radioactive material, n.o.s.

ID No.	Guide No.	Name of Material
2983	**129P**	Ethylene oxide and Propylene oxide mixture, with not more than 30% Ethylene oxide
2983	**129P**	Propylene oxide and Ethylene oxide mixture, with not more than 30% Ethylene oxide
2984	**140**	Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide
2985	**155**	Chlorosilanes, flammable, corrosive, n.o.s.
2985	**155**	Chlorosilanes, n.o.s.
2986	**155**	Chlorosilanes, corrosive, flammable, n.o.s.
2986	**155**	Chlorosilanes, n.o.s.
2987	**156**	Chlorosilanes, corrosive, n.o.s.
2987	**156**	Chlorosilanes, n.o.s.
2988	**139**	Chlorosilanes, n.o.s.
2988	**139**	Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.
2989	**133**	Lead phosphite, dibasic
2990	**171**	Life-saving appliances, self-inflating
2991	**131**	Carbamate pesticide, liquid, poisonous, flammable
2991	**131**	Carbamate pesticide, liquid, toxic, flammable
2992	**151**	Carbamate pesticide, liquid, poisonous
2992	**151**	Carbamate pesticide, liquid, toxic
2993	**131**	Arsenical pesticide, liquid, poisonous, flammable
2993	**131**	Arsenical pesticide, liquid, toxic, flammable
2994	**151**	Arsenical pesticide, liquid, poisonous
2994	**151**	Arsenical pesticide, liquid, toxic
2995	**131**	Organochlorine pesticide, liquid, poisonous, flammable
2995	**131**	Organochlorine pesticide, liquid, toxic, flammable
2996	**151**	Organochlorine pesticide, liquid, poisonous
2996	**151**	Organochlorine pesticide, liquid, toxic
2997	**131**	Triazine pesticide, liquid, poisonous, flammable
2997	**131**	Triazine pesticide, liquid, toxic, flammable
2998	**151**	Triazine pesticide, liquid, poisonous
2998	**151**	Triazine pesticide, liquid, toxic
2999	**131**	Phenoxy pesticide, liquid, poisonous, flammable
2999	**131**	Phenoxy pesticide, liquid, toxic, flammable
3000	**152**	Phenoxy pesticide, liquid, poisonous
3000	**152**	Phenoxy pesticide, liquid, toxic
3001	**131**	Phenyl urea pesticide, liquid, poisonous, flammable
3001	**131**	Phenyl urea pesticide, liquid, toxic, flammable
3002	**151**	Phenyl urea pesticide, liquid, poisonous
3002	**151**	Phenyl urea pesticide, liquid, toxic
3003	**131**	Benzoic derivative pesticide, liquid, poisonous, flammable
3003	**131**	Benzoic derivative pesticide, liquid, toxic, flammable
3004	**151**	Benzoic derivative pesticide, liquid, poisonous

ID No.	Guide No.	Name of Material
3004	**151**	Benzoic derivative pesticide, liquid, toxic
3005	**131**	Dithiocarbamate pesticide, liquid, poisonous, flammable
3005	**131**	Dithiocarbamate pesticide, liquid, toxic, flammable
3005	**131**	Thiocarbamate pesticide, liquid, poisonous, flammable
3005	**131**	Thiocarbamate pesticide, liquid, toxic, flammable
3006	**151**	Dithiocarbamate pesticide, liquid, poisonous
3006	**151**	Dithiocarbamate pesticide, liquid, toxic
3006	**151**	Thiocarbamate pesticide, liquid, poisonous
3006	**151**	Thiocarbamate pesticide, liquid, toxic
3007	**131**	Phthalimide derivative pesticide, liquid, poisonous, flammable
3007	**131**	Phthalimide derivative pesticide, liquid, toxic, flammable
3008	**151**	Phthalimide derivative pesticide, liquid, poisonous
3008	**151**	Phthalimide derivative pesticide, liquid, toxic
3009	**131**	Copper based pesticide, liquid, poisonous, flammable
3009	**131**	Copper based pesticide, liquid, toxic, flammable
3010	**151**	Copper based pesticide, liquid, poisonous
3010	**151**	Copper based pesticide, liquid, toxic
3011	**131**	Mercury based pesticide, liquid, poisonous, flammable
3011	**131**	Mercury based pesticide, liquid, toxic, flammable
3012	**151**	Mercury based pesticide, liquid, poisonous
3012	**151**	Mercury based pesticide, liquid, toxic
3013	**131**	Substituted nitrophenol pesticide, liquid, poisonous, flammable
3013	**131**	Substituted nitrophenol pesticide, liquid, toxic, flammable
3014	**153**	Substituted nitrophenol pesticide, liquid, poisonous
3014	**153**	Substituted nitrophenol pesticide, liquid, toxic
3015	**131**	Bipyridilium pesticide, liquid, poisonous, flammable
3015	**131**	Bipyridilium pesticide, liquid, toxic, flammable
3016	**151**	Bipyridilium pesticide, liquid, poisonous
3016	**151**	Bipyridilium pesticide, liquid, toxic
3017	**131**	Organophosphorus pesticide, liquid, poisonous, flammable
3017	**131**	Organophosphorus pesticide, liquid, toxic, flammable
3018	**152**	Methyl parathion, liquid
3018	**152**	Organophosphorus pesticide, liquid, poisonous
3018	**152**	Organophosphorus pesticide, liquid, toxic
3018	**152**	Tetraethyl pyrophosphate, liquid
3019	**131**	Organotin pesticide, liquid, poisonous, flammable
3019	**131**	Organotin pesticide, liquid, toxic, flammable
3020	**153**	Organotin pesticide, liquid, poisonous

ID No.	Guide No.	Name of Material
3020	**153**	Organotin pesticide, liquid, toxic
3021	**131**	Pesticide, liquid, flammable, poisonous, n.o.s.
3021	**131**	Pesticide, liquid, flammable, toxic, n.o.s.
3022	**127P**	1,2-Butylene oxide, stabilized
3023	**131**	2-Methyl-2-heptanethiol
3023	**131**	tert-Octyl mercaptan
3024	**131**	Coumarin derivative pesticide, liquid, flammable, poisonous
3024	**131**	Coumarin derivative pesticide, liquid, flammable, toxic
3025	**131**	Coumarin derivative pesticide, liquid, poisonous, flammable
3025	**131**	Coumarin derivative pesticide, liquid, toxic, flammable
3026	**151**	Coumarin derivative pesticide, liquid, poisonous
3026	**151**	Coumarin derivative pesticide, liquid, toxic
3027	**151**	Coumarin derivative pesticide, solid, poisonous
3027	**151**	Coumarin derivative pesticide, solid, toxic
3028	**154**	Batteries, dry, containing Potassium hydroxide solid
3048	**157**	Aluminum phosphide pesticide
3049	**138**	Metal alkyl halides, n.o.s.
3049	**138**	Metal alkyl halides, water-reactive, n.o.s.
3049	**138**	Metal aryl halides, n.o.s.
3049	**138**	Metal aryl halides, water-reactive, n.o.s.
3050	**138**	Metal alkyl hydrides, n.o.s.
3050	**138**	Metal alkyl hydrides, water-reactive, n.o.s.
3050	**138**	Metal aryl hydrides, n.o.s.
3050	**138**	Metal aryl hydrides, water-reactive, n.o.s.
3051	**135**	Aluminum alkyls
3052	**135**	Aluminum alkyl halides
3052	**135**	Aluminum alkyl halides, liquid
3052	**135**	Aluminum alkyl halides, solid
3053	**135**	Magnesium alkyls
3054	**129**	Cyclohexanethiol
3054	**129**	Cyclohexyl mercaptan
3055	**154**	2-(2-Aminoethoxy)ethanol
3056	**129**	n-Heptaldehyde
3057	**125**	Trifluoroacetyl chloride
3064	**127**	Nitroglycerin, solution in alcohol, with more than 1% but not more than 5% Nitroglycerin
3065	**127**	Alcoholic beverages
3066	**153**	Paint (corrosive)
3066	**153**	Paint related material (corrosive)
3070	**126**	Dichlorodifluoromethane and Ethylene oxide mixture, with not more than 12.5% Ethylene oxide
3070	**126**	Dichlorodifluoromethane and Ethylene oxide mixtures, with not more than 12% Ethylene oxide
3070	**126**	Ethylene oxide and Dichlorodifluoromethane mixture, with not more than 12.5% Ethylene oxide
3070	**126**	Ethylene oxide and Dichlorodifluoromethane mixtures, with not more than 12% Ethylene oxide

ID No.	Guide No.	Name of Material
3071	**131**	Mercaptan mixture, liquid, poisonous, flammable, n.o.s.
3071	**131**	Mercaptan mixture, liquid, toxic, flammable, n.o.s.
3071	**131**	Mercaptans, liquid, poisonous, flammable, n.o.s.
3071	**131**	Mercaptans, liquid, toxic, flammable, n.o.s.
3072	**171**	Life-saving appliances, not self-inflating
3073	**131P**	Vinylpyridines, stabilized
3076	**138**	Aluminum alkyl hydrides
3077	**171**	Environmentally hazardous substances, solid, n.o.s.
3077	**171**	Hazardous waste, solid, n.o.s.
3077	**171**	Other regulated substances, solid, n.o.s.
3078	**138**	Cerium, turnings or gritty powder
3079	**131P**	Methacrylonitrile, stabilized
3080	**155**	Isocyanate solution, poisonous, flammable, n.o.s.
3080	**155**	Isocyanate solution, toxic, flammable, n.o.s.
3080	**155**	Isocyanate solutions, n.o.s.
3080	**155**	Isocyanates, n.o.s.
3080	**155**	Isocyanates, poisonous, flammable, n.o.s.
3080	**155**	Isocyanates, toxic, flammable, n.o.s.
3082	**171**	Environmentally hazardous substances, liquid, n.o.s.
3082	**171**	Hazardous waste, liquid, n.o.s.
3082	**171**	Other regulated substances, liquid, n.o.s.
3083	**124**	Perchloryl fluoride

ID No.	Guide No.	Name of Material
3084	**140**	Corrosive solid, oxidizing, n.o.s.
3085	**140**	Oxidizing solid, corrosive, n.o.s.
3086	**141**	Poisonous solid, oxidizing, n.o.s.
3086	**141**	Toxic solid, oxidizing, n.o.s.
3087	**141**	Oxidizing solid, poisonous, n.o.s.
3087	**141**	Oxidizing solid, toxic, n.o.s.
3088	**135**	Self-heating solid, organic, n.o.s.
3089	**170**	Metal powder, flammable, n.o.s.
3090	**138**	Lithium batteries
3090	**138**	Lithium batteries, liquid or solid cathode
3090	**138**	Lithium metal batteries (including lithium alloy batteries)
3091	**138**	Lithium batteries contained in equipment
3091	**138**	Lithium batteries packed with equipment
3091	**138**	Lithium metal batteries contained in equipment (including lithium alloy batteries)
3091	**138**	Lithium metal batteries packed with equipment (including lithium alloy batteries)
3092	**129**	1-Methoxy-2-propanol
3093	**140**	Corrosive liquid, oxidizing, n.o.s.
3094	**138**	Corrosive liquid, water-reactive, n.o.s.
3094	**138**	Corrosive liquid, which in contact with water emits flammable gases, n.o.s.
3095	**136**	Corrosive solid, self-heating, n.o.s.
3096	**138**	Corrosive solid, water-reactive, n.o.s.

ID No.	Guide No.	Name of Material
3096	**138**	Corrosive solid, which in contact with water emits flammable gases, n.o.s.
3097	**140**	Flammable solid, oxidizing, n.o.s.
3098	**140**	Oxidizing liquid, corrosive, n.o.s.
3099	**142**	Oxidizing liquid, poisonous, n.o.s.
3099	**142**	Oxidizing liquid, toxic, n.o.s.
3100	**135**	Oxidizing solid, self-heating, n.o.s.
3101	**146**	Organic peroxide type B, liquid
3102	**146**	Organic peroxide type B, solid
3103	**146**	Organic peroxide type C, liquid
3104	**146**	Organic peroxide type C, solid
3105	**145**	Organic peroxide type D, liquid
3106	**145**	Organic peroxide type D, solid
3107	**145**	Organic peroxide type E, liquid
3108	**145**	Organic peroxide type E, solid
3109	**145**	Organic peroxide type F, liquid
3110	**145**	Organic peroxide type F, solid
3111	**148**	Organic peroxide type B, liquid, temperature controlled
3112	**148**	Organic peroxide type B, solid, temperature controlled
3113	**148**	Organic peroxide type C, liquid, temperature controlled
3114	**148**	Organic peroxide type C, solid, temperature controlled
3115	**148**	Organic peroxide type D, liquid, temperature controlled
3116	**148**	Organic peroxide type D, solid, temperature controlled
3117	**148**	Organic peroxide type E, liquid, temperature controlled
3118	**148**	Organic peroxide type E, solid, temperature controlled
3119	**148**	Organic peroxide type F, liquid, temperature controlled
3120	**148**	Organic peroxide type F, solid, temperature controlled
3121	**144**	Oxidizing solid, water-reactive, n.o.s.
3122	**142**	Poisonous liquid, oxidizing, n.o.s.
3122	**142**	Poisonous liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3122	**142**	Poisonous liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3122	**142**	Toxic liquid, oxidizing, n.o.s.
3122	**142**	Toxic liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3122	**142**	Toxic liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3123	**139**	Poisonous liquid, water-reactive, n.o.s.
3123	**139**	Poisonous liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)
3123	**139**	Poisonous liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)
3123	**139**	Poisonous liquid, which in contact with water emits flammable gases, n.o.s.
3123	**139**	Poisonous liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone A)
3123	**139**	Poisonous liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone B)

ID No.	Guide No.	Name of Material
3123	**139**	Toxic liquid, water-reactive, n.o.s.
3123	**139**	Toxic liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)
3123	**139**	Toxic liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)
3123	**139**	Toxic liquid, which in contact with water emits flammable gases, n.o.s.
3123	**139**	Toxic liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone A)
3123	**139**	Toxic liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone B)
3124	**136**	Poisonous solid, self-heating, n.o.s.
3124	**136**	Toxic solid, self-heating, n.o.s.
3125	**139**	Poisonous solid, water-reactive, n.o.s.
3125	**139**	Poisonous solid, which in contact with water emits flammable gases, n.o.s.
3125	**139**	Toxic solid, water-reactive, n.o.s.
3125	**139**	Toxic solid, which in contact with water emits flammable gases, n.o.s.
3126	**136**	Self-heating solid, corrosive, organic, n.o.s.
3127	**135**	Self-heating solid, oxidizing, n.o.s.
3128	**136**	Self-heating solid, poisonous, organic, n.o.s.
3128	**136**	Self-heating solid, toxic, organic, n.o.s.
3129	**138**	Water-reactive liquid, corrosive, n.o.s.
3130	**139**	Water-reactive liquid, poisonous, n.o.s.
3130	**139**	Water-reactive liquid, toxic, n.o.s.
3131	**138**	Water-reactive solid, corrosive, n.o.s.
3132	**138**	Water-reactive solid, flammable, n.o.s.
3133	**138**	Water-reactive solid, oxidizing, n.o.s.
3134	**139**	Water-reactive solid, poisonous, n.o.s.
3134	**139**	Water-reactive solid, toxic, n.o.s.
3135	**138**	Water-reactive solid, self-heating, n.o.s.
3136	**120**	Trifluoromethane, refrigerated liquid
3137	**140**	Oxidizing solid, flammable, n.o.s.
3138	**115**	Acetylene, Ethylene and Propylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene
3138	**115**	Ethylene, Acetylene and Propylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene

ID No.	Guide No.	Name of Material
3138	**115**	Propylene, Ethylene and Acetylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene
3139	**140**	Oxidizing liquid, n.o.s.
3140	**151**	Alkaloids, liquid, n.o.s. (poisonous)
3140	**151**	Alkaloid salts, liquid, n.o.s. (poisonous)
3141	**157**	Antimony compound, inorganic, liquid, n.o.s.
3142	**151**	Disinfectant, liquid, poisonous, n.o.s.
3142	**151**	Disinfectant, liquid, toxic, n.o.s.
3142	**151**	Disinfectants, liquid, n.o.s. (poisonous)
3143	**151**	Dye, solid, poisonous, n.o.s.
3143	**151**	Dye, solid, toxic, n.o.s.
3143	**151**	Dye intermediate, solid, poisonous, n.o.s.
3143	**151**	Dye intermediate, solid, toxic, n.o.s.
3144	**151**	Nicotine compound, liquid, n.o.s.
3144	**151**	Nicotine preparation, liquid, n.o.s.
3145	**153**	Alkyl phenols, liquid, n.o.s. (including C2-C12 homologues)
3146	**153**	Organotin compound, solid, n.o.s.
3147	**154**	Dye, solid, corrosive, n.o.s.
3147	**154**	Dye intermediate, solid, corrosive, n.o.s.
3148	**138**	Water-reactive liquid, n.o.s.
3149	**140**	Hydrogen peroxide and Peroxyacetic acid mixture, with acid(s), water and not more than 5% Peroxyacetic acid, stabilized
3150	**115**	Devices, small, hydrocarbon gas powered, with release device
3150	**115**	Hydrocarbon gas refills for small devices, with release device
3151	**171**	Polyhalogenated biphenyls, liquid
3151	**171**	Polyhalogenated terphenyls, liquid
3152	**171**	Polyhalogenated biphenyls, solid
3152	**171**	Polyhalogenated terphenyls, solid
3153	**115**	Perfluoromethyl vinyl ether
3153	**115**	Perfluoro(methyl vinyl ether)
3154	**115**	Perfluoroethyl vinyl ether
3154	**115**	Perfluoro(ethyl vinyl ether)
3155	**154**	Pentachlorophenol
3156	**122**	Compressed gas, oxidizing, n.o.s.
3157	**122**	Liquefied gas, oxidizing, n.o.s.
3158	**120**	Gas, refrigerated liquid, n.o.s.
3159	**126**	Refrigerant gas R-134a
3159	**126**	1,1,1,2-Tetrafluoroethane
3160	**119**	Liquefied gas, poisonous, flammable, n.o.s.
3160	**119**	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)
3160	**119**	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)

ID No.	Guide No.	Name of Material
3160	**119**	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)
3160	**119**	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)
3160	**119**	Liquefied gas, toxic, flammable, n.o.s.
3160	**119**	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)
3160	**119**	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)
3160	**119**	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)
3160	**119**	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)
3161	**115**	Liquefied gas, flammable, n.o.s.
3162	**123**	Liquefied gas, poisonous, n.o.s.
3162	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone A)
3162	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone B)
3162	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone C)
3162	**123**	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone D)
3162	**123**	Liquefied gas, toxic, n.o.s.
3162	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone A)
3162	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone B)
3162	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone C)
3162	**123**	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone D)

ID No.	Guide No.	Name of Material
3163	**126**	Liquefied gas, n.o.s.
3164	**126**	Articles, pressurized, hydraulic (containing non-flammable gas)
3164	**126**	Articles, pressurized, pneumatic (containing non-flammable gas)
3165	**131**	Aircraft hydraulic power unit fuel tank
3166	**128**	Engines, internal combustion, flammable gas powered
3166	**128**	Engines, internal combustion, flammable liquid powered
3166	**128**	Engines, internal combustion, including when fitted in machinery or vehicles
3166	**128**	Vehicle, flammable gas powered
3166	**128**	Vehicle, flammable liquid powered
3167	**115**	Gas sample, non-pressurized, flammable, n.o.s., not refrigerated liquid
3168	**119**	Gas sample, non-pressurized, poisonous, flammable, n.o.s., not refrigerated liquid
3168	**119**	Gas sample, non-pressurized, toxic, flammable, n.o.s., not refrigerated liquid
3169	**123**	Gas sample, non-pressurized, poisonous, n.o.s., not refrigerated liquid
3169	**123**	Gas sample, non-pressurized, toxic, n.o.s., not refrigerated liquid
3170	**138**	Aluminum dross
3170	**138**	Aluminum processing by-products
3170	**138**	Aluminum remelting by-products

ID No.	Guide No.	Name of Material
3170	**138**	Aluminum smelting by-products
3171	**154**	Battery-powered equipment (wet battery)
3171	**154**	Battery-powered vehicle (wet battery)
3171	**154**	Wheelchair, electric, with batteries
3172	**153**	Toxins, extracted from living sources, liquid, n.o.s.
3172	**153**	Toxins, extracted from living sources, n.o.s.
3172	**153**	Toxins, extracted from living sources, solid, n.o.s.
3174	**135**	Titanium disulfide
3174	**135**	Titanium disulphide
3175	**133**	Solids containing flammable liquid, n.o.s.
3176	**133**	Flammable solid, organic, molten, n.o.s.
3178	**133**	Flammable solid, inorganic, n.o.s.
3178	**133**	Smokeless powder for small arms
3179	**134**	Flammable solid, poisonous, inorganic, n.o.s.
3179	**134**	Flammable solid, toxic, inorganic, n.o.s.
3180	**134**	Flammable solid, corrosive, inorganic, n.o.s.
3180	**134**	Flammable solid, inorganic, corrosive, n.o.s.
3181	**133**	Metal salts of organic compounds, flammable, n.o.s.
3182	**170**	Metal hydrides, flammable, n.o.s.
3183	**135**	Self-heating liquid, organic, n.o.s.
3184	**136**	Self-heating liquid, poisonous, organic, n.o.s.
3184	**136**	Self-heating liquid, toxic, organic, n.o.s.
3185	**136**	Self-heating liquid, corrosive, organic, n.o.s.
3186	**135**	Self-heating liquid, inorganic, n.o.s.
3187	**136**	Self-heating liquid, poisonous, inorganic, n.o.s.
3187	**136**	Self-heating liquid, toxic, inorganic, n.o.s.
3188	**136**	Self-heating liquid, corrosive, inorganic, n.o.s.
3189	**135**	Metal powder, self-heating, n.o.s.
3189	**135**	Self-heating metal powders, n.o.s.
3190	**135**	Self-heating solid, inorganic, n.o.s.
3191	**136**	Self-heating solid, inorganic, poisonous, n.o.s.
3191	**136**	Self-heating solid, inorganic, toxic, n.o.s.
3191	**136**	Self-heating solid, poisonous, inorganic, n.o.s.
3191	**136**	Self-heating solid, toxic, inorganic, n.o.s.
3192	**136**	Self-heating solid, corrosive, inorganic, n.o.s.
3194	**135**	Pyrophoric liquid, inorganic, n.o.s.
3200	**135**	Pyrophoric solid, inorganic, n.o.s.
3203	**135**	Pyrophoric organometallic compound, n.o.s.
3203	**135**	Pyrophoric organometallic compound, water-reactive, n.o.s.
3205	**135**	Alkaline earth metal alcoholates, n.o.s.
3206	**136**	Alkali metal alcoholates, self-heating, corrosive, n.o.s.

ID No.	Guide No.	Name of Material
3207	**138**	Organometallic compound, water-reactive, flammable, n.o.s.
3207	**138**	Organometallic compound dispersion, water-reactive, flammable, n.o.s.
3207	**138**	Organometallic compound solution, water-reactive, flammable, n.o.s.
3208	**138**	Metallic substance, water-reactive, n.o.s.
3209	**138**	Metallic substance, water-reactive, self-heating, n.o.s.
3210	**140**	Chlorates, inorganic, aqueous solution, n.o.s.
3211	**140**	Perchlorates, inorganic, aqueous solution, n.o.s.
3212	**140**	Hypochlorites, inorganic, n.o.s.
3213	**140**	Bromates, inorganic, aqueous solution, n.o.s.
3214	**140**	Permanganates, inorganic, aqueous solution, n.o.s.
3215	**140**	Persulfates, inorganic, n.o.s.
3215	**140**	Persulphates, inorganic, n.o.s.
3216	**140**	Persulfates, inorganic, aqueous solution, n.o.s.
3216	**140**	Persulphates, inorganic, aqueous solution, n.o.s.
3217	**140**	Percarbonates, inorganic, n.o.s.
3218	**140**	Nitrates, inorganic, aqueous solution, n.o.s.
3219	**140**	Nitrites, inorganic, aqueous solution, n.o.s.
3220	**126**	Pentafluoroethane
3220	**126**	Refrigerant gas R-125
3221	**149**	Self-reactive liquid type B
3222	**149**	Self-reactive solid type B
3223	**149**	Self-reactive liquid type C
3224	**149**	Self-reactive solid type C
3225	**149**	Self-reactive liquid type D
3226	**149**	Self-reactive solid type D
3227	**149**	Self-reactive liquid type E
3228	**149**	Self-reactive solid type E
3229	**149**	Self-reactive liquid type F
3230	**149**	Self-reactive solid type F
3231	**150**	Self-reactive liquid type B, temperature controlled
3232	**150**	Self-reactive solid type B, temperature controlled
3233	**150**	Self-reactive liquid type C, temperature controlled
3234	**150**	Self-reactive solid type C, temperature controlled
3235	**150**	Self-reactive liquid type D, temperature controlled
3236	**150**	Self-reactive solid type D, temperature controlled
3237	**150**	Self-reactive liquid type E, temperature controlled
3238	**150**	Self-reactive solid type E, temperature controlled
3239	**150**	Self-reactive liquid type F, temperature controlled
3240	**150**	Self-reactive solid type F, temperature controlled
3241	**133**	2-Bromo-2-nitropropane-1, 3-diol
3242	**149**	Azodicarbonamide
3243	**151**	Solids containing poisonous liquid, n.o.s.
3243	**151**	Solids containing toxic liquid, n.o.s.
3244	**154**	Solids containing corrosive liquid, n.o.s.

ID No.	Guide No.	Name of Material
3245	**171**	Genetically modified micro-organisms
3245	**171**	Genetically modified organisms
3246	**156**	Methanesulfonyl chloride
3246	**156**	Methanesulphonyl chloride
3247	**140**	Sodium peroxoborate, anhydrous
3248	**131**	Medicine, liquid, flammable, poisonous, n.o.s.
3248	**131**	Medicine, liquid, flammable, toxic, n.o.s.
3249	**151**	Medicine, solid, poisonous, n.o.s.
3249	**151**	Medicine, solid, toxic, n.o.s.
3250	**153**	Chloroacetic acid, molten
3251	**133**	Isosorbide-5-mononitrate
3252	**115**	Difluoromethane
3252	**115**	Refrigerant gas R-32
3253	**154**	Disodium trioxosilicate
3253	**154**	Disodium trioxosilicate, pentahydrate
3254	**135**	Tributylphosphane
3254	**135**	Tributylphosphine
3255	**135**	tert-Butyl hypochlorite
3256	**128**	Elevated temperature liquid, flammable, n.o.s., with flash point above 37.8°C (100°F), at or above its flash point
3256	**128**	Elevated temperature liquid, flammable, n.o.s., with flash point above 60.5°C (141°F), at or above its flash point
3257	**128**	Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point
3258	**171**	Elevated temperature solid, n.o.s., at or above 240°C (464°F)
3259	**154**	Amines, solid, corrosive, n.o.s.
3259	**154**	Polyamines, solid, corrosive, n.o.s.
3260	**154**	Corrosive solid, acidic, inorganic, n.o.s.
3261	**154**	Corrosive solid, acidic, organic, n.o.s.
3262	**154**	Corrosive solid, basic, inorganic, n.o.s.
3263	**154**	Corrosive solid, basic, organic, n.o.s.
3264	**154**	Corrosive liquid, acidic, inorganic, n.o.s.
3265	**153**	Corrosive liquid, acidic, organic, n.o.s.
3266	**154**	Corrosive liquid, basic, inorganic, n.o.s.
3267	**153**	Corrosive liquid, basic, organic, n.o.s.
3268	**171**	Air bag inflators
3268	**171**	Air bag inflators, pyrotechnic
3268	**171**	Air bag modules
3268	**171**	Air bag modules, pyrotechnic
3268	**171**	Seat-belt modules
3268	**171**	Seat-belt pre-tensioners
3268	**171**	Seat-belt pre-tensioners, pyrotechnic
3269	**128**	Polyester resin kit
3270	**133**	Nitrocellulose membrane filters
3271	**127**	Ethers, n.o.s.
3272	**127**	Esters, n.o.s.
3273	**131**	Nitriles, flammable, poisonous, n.o.s.

ID No.	Guide No.	Name of Material
3273	**131**	Nitriles, flammable, toxic, n.o.s.
3274	**132**	Alcoholates solution, n.o.s., in alcohol
3275	**131**	Nitriles, poisonous, flammable, n.o.s.
3275	**131**	Nitriles, toxic, flammable, n.o.s.
3276	**151**	Nitriles, poisonous, liquid, n.o.s.
3276	**151**	Nitriles, poisonous, n.o.s.
3276	**151**	Nitriles, toxic, liquid, n.o.s.
3276	**151**	Nitriles, toxic, n.o.s.
3277	**154**	Chloroformates, poisonous, corrosive, n.o.s.
3277	**154**	Chloroformates, toxic, corrosive, n.o.s.
3278	**151**	Organophosphorus compound, poisonous, liquid, n.o.s.
3278	**151**	Organophosphorus compound, poisonous, n.o.s.
3278	**151**	Organophosphorus compound, toxic, liquid, n.o.s.
3278	**151**	Organophosphorus compound, toxic, n.o.s.
3279	**131**	Organophosphorus compound, poisonous, flammable, n.o.s.
3279	**131**	Organophosphorus compound, toxic, flammable, n.o.s.
3280	**151**	Organoarsenic compound, liquid, n.o.s.
3280	**151**	Organoarsenic compound, n.o.s.
3281	**151**	Metal carbonyls, liquid, n.o.s.
3281	**151**	Metal carbonyls, n.o.s.
3282	**151**	Organometallic compound, poisonous, liquid, n.o.s.
3282	**151**	Organometallic compound, poisonous, n.o.s.
3282	**151**	Organometallic compound, toxic, liquid, n.o.s.
3282	**151**	Organometallic compound, toxic, n.o.s.
3283	**151**	Selenium compound, n.o.s.
3283	**151**	Selenium compound, solid, n.o.s.
3284	**151**	Tellurium compound, n.o.s.
3285	**151**	Vanadium compound, n.o.s.
3286	**131**	Flammable liquid, poisonous, corrosive, n.o.s.
3286	**131**	Flammable liquid, toxic, corrosive, n.o.s.
3287	**151**	Poisonous liquid, inorganic, n.o.s.
3287	**151**	Poisonous liquid, inorganic, n.o.s. (Inhalation Hazard Zone A)
3287	**151**	Poisonous liquid, inorganic, n.o.s. (Inhalation Hazard Zone B)
3287	**151**	Toxic liquid, inorganic, n.o.s.
3287	**151**	Toxic liquid, inorganic, n.o.s. (Inhalation Hazard Zone A)
3287	**151**	Toxic liquid, inorganic, n.o.s. (Inhalation Hazard Zone B)
3288	**151**	Poisonous solid, inorganic, n.o.s.
3288	**151**	Toxic solid, inorganic, n.o.s.
3289	**154**	Poisonous liquid, corrosive, inorganic, n.o.s.
3289	**154**	Poisonous liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone A)
3289	**154**	Poisonous liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone B)

ID No.	Guide No.	Name of Material
3289	**154**	Toxic liquid, corrosive, inorganic, n.o.s.
3289	**154**	Toxic liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone A)
3289	**154**	Toxic liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone B)
3290	**154**	Poisonous solid, corrosive, inorganic, n.o.s.
3290	**154**	Toxic solid, corrosive, inorganic, n.o.s.
3291	**158**	(Bio)Medical waste, n.o.s.
3291	**158**	Clinical waste, unspecified, n.o.s.
3291	**158**	Medical waste, n.o.s.
3291	**158**	Regulated medical waste, n.o.s.
3292	**138**	Batteries, containing Sodium
3292	**138**	Cells, containing Sodium
3293	**152**	Hydrazine, aqueous solution, with not more than 37% Hydrazine
3294	**131**	Hydrogen cyanide, solution in alcohol, with not more than 45% Hydrogen cyanide
3295	**128**	Hydrocarbons, liquid, n.o.s.
3296	**126**	Heptafluoropropane
3296	**126**	Refrigerant gas R-227
3297	**126**	Chlorotetrafluoroethane and Ethylene oxide mixture, with not more than 8.8% Ethylene oxide
3297	**126**	Ethylene oxide and Chlorotetrafluoroethane mixture, with not more than 8.8% Ethylene oxide
3298	**126**	Ethylene oxide and Pentafluoroethane mixture, with not more than 7.9% Ethylene oxide
3298	**126**	Pentafluoroethane and Ethylene oxide mixture, with not more than 7.9% Ethylene oxide
3299	**126**	Ethylene oxide and Tetrafluoroethane mixture, with not more than 5.6% Ethylene oxide
3299	**126**	Tetrafluoroethane and Ethylene oxide mixture, with not more than 5.6% Ethylene oxide
3300	**119P**	Carbon dioxide and Ethylene oxide mixture, with more than 87% Ethylene oxide
3300	**119P**	Ethylene oxide and Carbon dioxide mixture, with more than 87% Ethylene oxide
3301	**136**	Corrosive liquid, self-heating, n.o.s.
3302	**152**	2-Dimethylaminoethyl acrylate
3303	**124**	Compressed gas, poisonous, oxidizing, n.o.s.
3303	**124**	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3303	**124**	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3303	**124**	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)
3303	**124**	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)
3303	**124**	Compressed gas, toxic, oxidizing, n.o.s.

ID No.	Guide No.	Name of Material
3303	**124**	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3303	**124**	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3303	**124**	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)
3303	**124**	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)
3304	**123**	Compressed gas, poisonous, corrosive, n.o.s.
3304	**123**	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)
3304	**123**	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)
3304	**123**	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)
3304	**123**	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)
3304	**123**	Compressed gas, toxic, corrosive, n.o.s.
3304	**123**	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)
3304	**123**	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)
3304	**123**	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)
3304	**123**	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)

ID No.	Guide No.	Name of Material
3305	**119**	Compressed gas, poisonous, flammable, corrosive, n.o.s.
3305	**119**	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)
3305	**119**	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)
3305	**119**	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)
3305	**119**	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)
3305	**119**	Compressed gas, toxic, flammable, corrosive, n.o.s.
3305	**119**	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)
3305	**119**	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)
3305	**119**	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)
3305	**119**	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)
3306	**124**	Compressed gas, poisonous, oxidizing, corrosive, n.o.s.
3306	**124**	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)
3306	**124**	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)
3306	**124**	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)

ID No.	Guide No.	Name of Material
3306	**124**	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)
3306	**124**	Compressed gas, toxic, oxidizing, corrosive, n.o.s.
3306	**124**	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)
3306	**124**	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)
3306	**124**	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)
3306	**124**	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)
3307	**124**	Liquefied gas, poisonous, oxidizing, n.o.s.
3307	**124**	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3307	**124**	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3307	**124**	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)
3307	**124**	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)
3307	**124**	Liquefied gas, toxic, oxidizing, n.o.s.
3307	**124**	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3307	**124**	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)

ID No.	Guide No.	Name of Material
3307	**124**	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)
3307	**124**	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)
3308	**123**	Liquefied gas, poisonous, corrosive, n.o.s.
3308	**123**	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)
3308	**123**	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)
3308	**123**	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)
3308	**123**	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)
3308	**123**	Liquefied gas, toxic, corrosive, n.o.s.
3308	**123**	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)
3308	**123**	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)
3308	**123**	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)
3308	**123**	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)
3309	**119**	Liquefied gas, poisonous, flammable, corrosive, n.o.s.
3309	**119**	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)

ID No.	Guide No.	Name of Material
3309	**119**	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)
3309	**119**	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)
3309	**119**	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)
3309	**119**	Liquefied gas, toxic, flammable, corrosive, n.o.s.
3309	**119**	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)
3309	**119**	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)
3309	**119**	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)
3309	**119**	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)
3310	**124**	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s.
3310	**124**	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)
3310	**124**	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)
3310	**124**	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)
3310	**124**	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)
3310	**124**	Liquefied gas, toxic, oxidizing, corrosive, n.o.s.
3310	**124**	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)
3310	**124**	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)
3310	**124**	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)
3310	**124**	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)
3311	**122**	Gas, refrigerated liquid, oxidizing, n.o.s.
3312	**115**	Gas, refrigerated liquid, flammable, n.o.s.
3313	**135**	Organic pigments, self-heating
3314	**171**	Plastic molding compound
3314	**171**	Plastics moulding compound
3315	**151**	Chemical sample, poisonous
3315	**151**	Chemical sample, poisonous liquid
3315	**151**	Chemical sample, poisonous solid
3315	**151**	Chemical sample, toxic
3315	**151**	Chemical sample, toxic liquid
3315	**151**	Chemical sample, toxic solid
3316	**171**	Chemical kit
3316	**171**	First aid kit
3317	**113**	2-Amino-4,6-dinitrophenol, wetted with not less than 20% water
3318	**125**	Ammonia solution, with more than 50% Ammonia
3319	**113**	Nitroglycerin mixture, desensitized, solid, n.o.s., with more than 2% but not more than 10% Nitroglycerin

ID No.	Guide No.	Name of Material
3319	**113**	Nitroglycerin mixture with more than 2% but not more than 10% Nitroglycerin, desensitized
3320	**157**	Sodium borohydride and Sodium hydroxide solution, with not more than 12% Sodium borohydride and not more than 40% Sodium hydroxide
3321	**162**	Radioactive material, low specific activity (LSA-II) non fissile or fissile-excepted
3322	**162**	Radioactive material, low specific activity (LSA-III) non fissile or fissile-excepted
3323	**163**	Radioactive material, Type C package
3324	**165**	Radioactive material, low specific activity (LSA-II), fissile
3325	**165**	Radioactive material, low specific activity (LSA-III), fissile
3326	**165**	Radioactive material, surface contaminated objects (SCO-I), fissile
3326	**165**	Radioactive material, surface contaminated objects (SCO-II), fissile
3327	**165**	Radioactive material, Type A package, fissile, non-special form
3328	**165**	Radioactive material, Type B(U) package, fissile
3329	**165**	Radioactive material, Type B(M) package, fissile
3330	**165**	Radioactive material, Type C package, fissile
3331	**165**	Radioactive material, transported under special arrangement, fissile
3332	**164**	Radioactive material, Type A package, special form, non fissile or fissile-excepted
3333	**165**	Radioactive material, Type A package, special form, fissile
3334	**171**	Aviation regulated liquid, n.o.s.
3334	**171**	Self-defense spray, non-pressurized
3335	**171**	Aviation regulated solid, n.o.s.
3336	**130**	Mercaptan mixture, liquid, flammable, n.o.s.
3336	**130**	Mercaptans, liquid, flammable, n.o.s.
3337	**126**	Refrigerant gas R-404A
3338	**126**	Refrigerant gas R-407A
3339	**126**	Refrigerant gas R-407B
3340	**126**	Refrigerant gas R-407C
3341	**135**	Thiourea dioxide
3342	**135**	Xanthates
3343	**113**	Nitroglycerin mixture, desensitized, liquid, flammable, n.o.s., with not more than 30% Nitroglycerin
3344	**113**	Pentaerythrite tetranitrate mixture, desensitized, solid, n.o.s., with more than 10% but not more than 20% PETN
3344	**113**	Pentaerythritol tetranitrate mixture, desensitized, solid, n.o.s., with more than 10% but not more than 20% PETN
3344	**113**	PETN mixture, desensitized, solid, n.o.s., with more than 10% but not more than 20% PETN
3345	**153**	Phenoxyacetic acid derivative pesticide, solid, poisonous

ID No.	Guide No.	Name of Material
3345	**153**	Phenoxyacetic acid derivative pesticide, solid, toxic
3346	**131**	Phenoxyacetic acid derivative pesticide, liquid, flammable, poisonous
3346	**131**	Phenoxyacetic acid derivative pesticide, liquid, flammable, toxic
3347	**131**	Phenoxyacetic acid derivative pesticide, liquid, poisonous, flammable
3347	**131**	Phenoxyacetic acid derivative pesticide, liquid, toxic, flammable
3348	**153**	Phenoxyacetic acid derivative pesticide, liquid, poisonous
3348	**153**	Phenoxyacetic acid derivative pesticide, liquid, toxic
3349	**151**	Pyrethroid pesticide, solid, poisonous
3349	**151**	Pyrethroid pesticide, solid, toxic
3350	**131**	Pyrethroid pesticide, liquid, flammable, poisonous
3350	**131**	Pyrethroid pesticide, liquid, flammable, toxic
3351	**131**	Pyrethroid pesticide, liquid, poisonous, flammable
3351	**131**	Pyrethroid pesticide, liquid, toxic, flammable
3352	**151**	Pyrethroid pesticide, liquid, poisonous
3352	**151**	Pyrethroid pesticide, liquid, toxic
3353	**126**	Air bag inflators, compressed gas
3353	**126**	Air bag modules, compressed gas
3353	**126**	Seat-belt pre-tensioners, compressed gas
3354	**115**	Insecticide gas, flammable, n.o.s.
3355	**119**	Insecticide gas, poisonous, flammable, n.o.s.
3355	**119**	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)
3355	**119**	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)
3355	**119**	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)
3355	**119**	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)
3355	**119**	Insecticide gas, toxic, flammable, n.o.s.
3355	**119**	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)
3355	**119**	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)
3355	**119**	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)
3355	**119**	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)
3356	**140**	Oxygen generator, chemical
3356	**140**	Oxygen generator, chemical, spent
3357	**113**	Nitroglycerin mixture, desensitized, liquid, n.o.s., with not more than 30% Nitroglycerin
3358	**115**	Refrigerating machines, containing flammable, non-poisonous, liquefied gases

ID No.	Guide No.	Name of Material
3358	**115**	Refrigerating machines, containing flammable, non-toxic, liquefied gases
3359	**171**	Fumigated unit
3360	**133**	Fibers, vegetable, dry
3360	**133**	Fibres, vegetable, dry
3361	**156**	Chlorosilanes, poisonous, corrosive, n.o.s.
3361	**156**	Chlorosilanes, toxic, corrosive, n.o.s.
3362	**155**	Chlorosilanes, poisonous, corrosive, flammable, n.o.s.
3362	**155**	Chlorosilanes, toxic, corrosive, flammable, n.o.s.
3363	**171**	Dangerous goods in apparatus
3363	**171**	Dangerous goods in machinery
3364	**113**	Picric acid, wetted with not less than 10% water
3364	**113**	Trinitrophenol, wetted with not less than 10% water
3365	**113**	Picryl chloride, wetted with not less than 10% water
3365	**113**	Trinitrochlorobenzene, wetted with not less than 10% water
3366	**113**	TNT, wetted with not less than 10% water
3366	**113**	Trinitrotoluene, wetted with not less than 10% water
3367	**113**	Trinitrobenzene, wetted with not less than 10% water
3368	**113**	Trinitrobenzoic acid, wetted with not less than 10% water
3369	**113**	Sodium dinitro-o-cresolate, wetted with not less than 10% water
3370	**113**	Urea nitrate, wetted with not less than 10% water

ID No.	Guide No.	Name of Material
3371	**129**	2-Methylbutanal
3372	**138**	Organometallic compound, solid, water-reactive, flammable, n.o.s.
3373	**158**	Biological substance, category B
3373	**158**	Clinical specimens
3373	**158**	Diagnostic specimens
3374	**116**	Acetylene, solvent free
3375	**140**	Ammonium nitrate emulsion
3375	**140**	Ammonium nitrate gel
3375	**140**	Ammonium nitrate suspension
3376	**113**	4-Nitrophenylhydrazine, with not less than 30% water
3377	**140**	Sodium perborate monohydrate
3378	**140**	Sodium carbonate peroxyhydrate
3379	**128**	Desensitized explosive, liquid, n.o.s.
3380	**133**	Desensitized explosive, solid, n.o.s.
3381	**151**	Poisonous by inhalation liquid, n.o.s. (Inhalation Hazard Zone A)
3381	**151**	Toxic by inhalation liquid, n.o.s. (Inhalation Hazard Zone A)
3382	**151**	Poisonous by inhalation liquid, n.o.s. (Inhalation Hazard Zone B)
3382	**151**	Toxic by inhalation liquid, n.o.s. (Inhalation Hazard Zone B)
3383	**131**	Poisonous by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone A)
3383	**131**	Toxic by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone A)

ID No.	Guide No.	Name of Material
3384	**131**	Poisonous by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone B)
3384	**131**	Toxic by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone B)
3385	**139**	Poisonous by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)
3385	**139**	Toxic by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)
3386	**139**	Poisonous by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)
3386	**139**	Toxic by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)
3387	**142**	Poisonous by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3387	**142**	Toxic by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)
3388	**142**	Poisonous by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3388	**142**	Toxic by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)
3389	**154**	Poisonous by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)
3389	**154**	Toxic by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)
3390	**154**	Poisonous by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)
3390	**154**	Toxic by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)
3391	**135**	Organometallic substance, solid, pyrophoric
3392	**135**	Organometallic substance, liquid, pyrophoric
3393	**135**	Organometallic substance, solid, pyrophoric, water-reactive
3394	**135**	Organometallic substance, liquid, pyrophoric, water-reactive
3395	**135**	Organometallic substance, solid, water-reactive
3396	**138**	Organometallic substance, solid, water-reactive, flammable
3397	**138**	Organometallic substance, solid, water-reactive, self-heating
3398	**135**	Organometallic substance, liquid, water-reactive
3399	**138**	Organometallic substance, liquid, water-reactive, flammable
3400	**138**	Organometallic substance, solid, self-heating
3401	**138**	Alkali metal amalgam, solid
3402	**138**	Alkaline earth metal amalgam, solid
3403	**138**	Potassium, metal alloys, solid
3404	**138**	Potassium sodium alloys, solid
3404	**138**	Sodium potassium alloys, solid
3405	**141**	Barium chlorate, solution
3406	**141**	Barium perchlorate, solution
3407	**140**	Chlorate and Magnesium chloride mixture, solution

ID No.	Guide No.	Name of Material
3407	**140**	Magnesium chloride and Chlorate mixture, solution
3408	**141**	Lead perchlorate, solution
3409	**152**	Chloronitrobenzenes, liquid
3410	**153**	4-Chloro-o-toluidine hydrochloride, solution
3411	**153**	beta-Naphthylamine, solution
3411	**153**	Naphthylamine (beta), solution
3412	**153**	Formic acid, with not less than 5% but less than 10% acid
3412	**153**	Formic acid, with not less than 10% but not more than 85% acid
3413	**157**	Potassium cyanide, solution
3414	**157**	Sodium cyanide, solution
3415	**154**	Sodium fluoride, solution
3416	**153**	Chloroacetophenone, liquid
3417	**152**	Xylyl bromide, solid
3418	**151**	2,4-Toluylenediamine, solution
3419	**157**	Boron trifluoride acetic acid complex, solid
3420	**157**	Boron trifluoride propionic acid complex, solid
3421	**154**	Potassium hydrogen difluoride, solution
3422	**154**	Potassium fluoride, solution
3423	**153**	Tetramethylammonium hydroxide, solid
3424	**141**	Ammonium dinitro-o-cresolate, solution
3425	**156**	Bromoacetic acid, solid
3426	**153P**	Acrylamide, solution
3427	**153**	Chlorobenzyl chlorides, solid
3428	**156**	3-Chloro-4-methylphenyl isocyanate, solid
3429	**153**	Chlorotoluidines, liquid
3430	**153**	Xylenols, liquid
3431	**152**	Nitrobenzotrifluorides, solid
3432	**171**	Polychlorinated biphenyls, solid
3433	**135**	Lithium alkyls, solid
3434	**153**	Nitrocresols, liquid
3435	**153**	Hydroquinone, solution
3436	**151**	Hexafluoroacetone hydrate, solid
3437	**152**	Chlorocresols, solid
3438	**153**	alpha-Methylbenzyl alcohol, solid
3439	**151**	Nitriles, poisonous, solid, n.o.s.
3439	**151**	Nitriles, toxic, solid, n.o.s.
3440	**151**	Selenium compound, liquid, n.o.s.
3441	**153**	Chlorodinitrobenzenes, solid
3442	**153**	Dichloroanilines, solid
3443	**152**	Dinitrobenzenes, solid
3444	**151**	Nicotine hydrochloride, solid
3445	**151**	Nicotine sulfate, solid
3445	**151**	Nicotine sulphate, solid
3446	**152**	Nitrotoluenes, solid
3447	**152**	Nitroxylenes, solid
3448	**159**	Tear gas substance, solid, n.o.s.
3449	**159**	Bromobenzyl cyanides, solid
3450	**151**	Diphenylchloroarsine, solid
3451	**153**	Toluidines, solid
3452	**153**	Xylidines, solid
3453	**154**	Phosphoric acid, solid
3454	**152**	Dinitrotoluenes, solid
3455	**153**	Cresols, solid
3456	**157**	Nitrosylsulfuric acid, solid
3456	**157**	Nitrosylsulphuric acid, solid

ID No.	Guide No.	Name of Material
3457	**152**	Chloronitrotoluenes, solid
3458	**152**	Nitroanisoles, solid
3459	**152**	Nitrobromobenzenes, solid
3460	**153**	N-Ethylbenzyltoluidines, solid
3461	**135**	Aluminum alkyl halides, solid
3462	**153**	Toxins, extracted from living sources, solid, n.o.s.
3463	**132**	Propionic acid, with not less than 90% acid
3464	**151**	Organophosphorus compound, poisonous, solid, n.o.s.
3464	**151**	Organophosphorus compound, toxic, solid, n.o.s.
3465	**151**	Organoarsenic compound, solid, n.o.s.
3466	**151**	Metal carbonyls, solid, n.o.s.
3467	**151**	Organometallic compound, poisonous, solid, n.o.s.
3467	**151**	Organometallic compound, toxic, solid, n.o.s.
3468	**115**	Hydrogen in a metal hydride storage system
3468	**115**	Hydrogen in a metal hydride storage system contained in equipment
3468	**115**	Hydrogen in a metal hydride storage system packed with equipment
3469	**132**	Paint, flammable, corrosive
3469	**132**	Paint related material, flammable, corrosive
3470	**132**	Paint, corrosive, flammable
3470	**132**	Paint related material, corrosive, flammable
3471	**154**	Hydrogendifluorides, solution, n.o.s.

ID No.	Guide No.	Name of Material
3472	**153**	Crotonic acid, liquid
3473	**128**	Fuel cell cartridges contained in equipment, containing flammable liquids
3473	**128**	Fuel cell cartridges containing flammable liquids
3473	**128**	Fuel cell cartridges packed with equipment, containing flammable liquids
3474	**113**	1-Hydroxybenzotriazole, anhydrous, wetted with not less than 20% water
3475	**127**	Ethanol and gasoline mixture, with more than 10% ethanol
3475	**127**	Ethanol and motor spirit mixture, with more than 10% ethanol
3475	**127**	Ethanol and petrol mixture, with more than 10% ethanol
3475	**127**	Gasoline and ethanol mixture, with more than 10% ethanol
3475	**127**	Motor spirit and ethanol mixture, with more than 10% ethanol
3475	**127**	Petrol and ethanol mixture, with more than 10% ethanol
3476	**138**	Fuel cell cartridges contained in equipment, containing water-reactive substances
3476	**138**	Fuel cell cartridges, containing water-reactive substances
3476	**138**	Fuel cell cartridges packed with equipment, containing water-reactive substances
3477	**153**	Fuel cell cartridges contained in equipment, containing corrosive substances
3477	**153**	Fuel cell cartridges, containing corrosive substances

ID No.	Guide No.	Name of Material
3477	**153**	Fuel cell cartridges packed with equipment, containing corrosive substances
3478	**115**	Fuel cell cartridges contained in equipment, containing liquefied flammable gas
3478	**115**	Fuel cell cartridges, containing liquefied flammable gas
3478	**115**	Fuel cell cartridges packed with equipment, containing liquefied flammable gas
3479	**115**	Fuel cell cartridges contained in equipment, containing hydrogen in metal hydride
3479	**115**	Fuel cell cartridges, containing hydrogen in metal hydride
3479	**115**	Fuel cell cartridges packed with equipment, containing hydrogen in metal hydride
3480	**147**	Lithium ion batteries (including lithium ion polymer batteries)
3481	**147**	Lithium ion batteries contained in equipment (including lithium ion polymer batteries)
3481	**147**	Lithium ion batteries packed with equipment (including lithium ion polymer batteries)
8000	**171**	Consumer commodity
8013	**171**	Gas generator assemblies
8038	**171**	Heat producing article
9035	**123**	Gas identification set
9163	**171**	Zirconium sulfate
9163	**171**	Zirconium sulphate
9191	**143**	Chlorine dioxide, hydrate, frozen
9192	**167**	Fluorine, refrigerated liquid (cryogenic liquid)
9195	**135**	Metal alkyl, solution, n.o.s.
9202	**168**	Carbon monoxide, refrigerated liquid (cryogenic liquid)
9206	**137**	Methyl phosphonic dichloride
9260	**169**	Aluminum, molten
9263	**156**	Chloropivaloyl chloride
9264	**151**	3,5-Dichloro-2,4,6-trifluoropyridine
9269	**132**	Trimethoxysilane
9279	**115**	Hydrogen absorbed in metal hydride

Note: If an entry is highlighted in green in either the yellow-bordered or blue-bordered pages AND THERE IS NO FIRE, go directly to Table 1 - Initial Isolation and Protective Action Distances (green bordered pages) and look up the ID number and name of material to obtain initial isolation and protective action distances. IF THERE IS A FIRE, or IF A FIRE IS INVOLVED, ALSO CONSULT the assigned guide (orange-bordered pages) and apply as appropriate the evacuation information shown under PUBLIC SAFETY. Please remember that, if the name in Table 1 is shown with (when spilled in water), and the material has not been spilled in water, Table 1 does not apply and safety distances can be found within the appropriate guide.

Name of Material	Guide No.	ID No.
AC	**117**	1051
Accumulators, pressurized, pneumatic or hydraulic	**126**	1956
Acetal	**127**	1088
Acetaldehyde	**129**	1089
Acetaldehyde ammonia	**171**	1841
Acetaldehyde oxime	**129**	2332
Acetic acid, glacial	**132**	2789
Acetic acid, solution, more than 10% but not more than 80% acid	**153**	2790
Acetic acid, solution, more than 80% acid	**132**	2789
Acetic anhydride	**137**	1715
Acetone	**127**	1090
Acetone cyanohydrin, stabilized	**155**	1541
Acetone oils	**127**	1091
Acetonitrile	**127**	1648
Acetyl bromide	**156**	1716
Acetyl chloride	**155**	1717
Acetylene	**116**	1001
Acetylene, dissolved	**116**	1001
Acetylene, solvent free	**116**	3374
Acetylene, Ethylene and Propylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene	**115**	3138
Acetylene tetrabromide	**159**	2504
Acetyl iodide	**156**	1898
Acetyl methyl carbinol	**127**	2621
Acid, sludge	**153**	1906
Acid butyl phosphate	**153**	1718
Acridine	**153**	2713
Acrolein, stabilized	**131P**	1092
Acrolein dimer, stabilized	**129P**	2607

Name of Material	Guide No.	ID No.
Acrylamide	**153P**	2074
Acrylamide, solid	**153P**	2074
Acrylamide, solution	**153P**	3426
Acrylic acid, stabilized	**132P**	2218
Acrylonitrile, stabilized	**131P**	1093
Adamsite	**154**	1698
Adhesives (flammable)	**128**	1133
Adiponitrile	**153**	2205
Aerosol dispensers	**126**	1950
Aerosols	**126**	1950
Air, compressed	**122**	1002
Air, refrigerated liquid (cryogenic liquid)	**122**	1003
Air, refrigerated liquid (cryogenic liquid), non-pressurized	**122**	1003
Air bag inflators	**171**	3268
Air bag inflators, compressed gas	**126**	3353
Air bag inflators, pyrotechnic	**171**	3268
Air bag modules	**171**	3268
Air bag modules, compressed gas	**126**	3353
Air bag modules, pyrotechnic	**171**	3268
Aircraft hydraulic power unit fuel tank	**131**	3165
Alcoholates solution, n.o.s., in alcohol	**132**	3274
Alcoholic beverages	**127**	3065
Alcohols, flammable, poisonous, n.o.s.	**131**	1986
Alcohols, flammable, toxic, n.o.s.	**131**	1986
Alcohols, n.o.s.	**127**	1987
Alcohols, poisonous, n.o.s.	**131**	1986
Alcohols, toxic, n.o.s.	**131**	1986
Aldehydes, flammable, poisonous, n.o.s.	**131**	1988

Name of Material	Guide No.	ID No.
Aldehydes, flammable, toxic, n.o.s.	**131**	1988
Aldehydes, n.o.s.	**129**	1989
Aldehydes, poisonous, n.o.s.	**131**	1988
Aldehydes, toxic, n.o.s.	**131**	1988
Aldol	**153**	2839
Aldrin, liquid	**131**	2762
Aldrin, solid	**151**	2761
Alkali metal alcoholates, self-heating, corrosive, n.o.s.	**136**	3206
Alkali metal alloy, liquid, n.o.s.	**138**	1421
Alkali metal amalgam	**138**	1389
Alkali metal amalgam, liquid	**138**	1389
Alkali metal amalgam, solid	**138**	1389
Alkali metal amalgam, solid	**138**	3401
Alkali metal amides	**139**	1390
Alkali metal dispersion	**138**	1391
Alkaline earth metal alcoholates, n.o.s.	**135**	3205
Alkaline earth metal alloy, n.o.s.	**138**	1393
Alkaline earth metal amalgam	**138**	1392
Alkaline earth metal amalgam, liquid	**138**	1392
Alkaline earth metal amalgam, solid	**138**	3402
Alkaline earth metal dispersion	**138**	1391
Alkaloids, liquid, n.o.s. (poisonous)	**151**	3140
Alkaloids, solid, n.o.s. (poisonous)	**151**	1544
Alkaloid salts, liquid, n.o.s. (poisonous)	**151**	3140
Alkaloid salts, solid, n.o.s. (poisonous)	**151**	1544
Alkylamines, n.o.s.	**132**	2733
Alkylamines, n.o.s.	**132**	2734
Alkylamines, n.o.s.	**153**	2735
Alkyl phenols, liquid, n.o.s. (including C2-C12 homologues)	**153**	3145
Alkyl phenols, solid, n.o.s. (including C2-C12 homologues)	**153**	2430
Alkyl sulfonic acids, liquid, with more than 5% free Sulfuric acid	**153**	2584
Alkyl sulfonic acids, liquid, with not more than 5% free Sulfuric acid	**153**	2586
Alkyl sulfonic acids, solid, with more than 5% free Sulfuric acid	**153**	2583
Alkyl sulfonic acids, solid, with not more than 5% free Sulfuric acid	**153**	2585
Alkylsulfuric acids	**156**	2571
Alkyl sulphonic acids, liquid, with more than 5% free Sulphuric acid	**153**	2584
Alkyl sulphonic acids, liquid, with not more than 5% free Sulphuric acid	**153**	2586
Alkyl sulphonic acids, solid, with more than 5% free Sulphuric acid	**153**	2583
Alkyl sulphonic acids, solid, with not more than 5% free Sulphuric acid	**153**	2585
Alkylsulphuric acids	**156**	2571
Allyl acetate	**131**	2333
Allyl alcohol	**131**	1098
Allylamine	**131**	2334
Allyl bromide	**131**	1099

Name of Material	Guide No.	ID No.
Allyl chloride	131	1100
Allyl chlorocarbonate	155	1722
Allyl chloroformate	155	1722
Allyl ethyl ether	131	2335
Allyl formate	131	2336
Allyl glycidyl ether	129	2219
Allyl iodide	132	1723
Allyl isothiocyanate, stabilized	155	1545
Allyltrichlorosilane, stabilized	155	1724
Aluminum, molten	169	9260
Aluminum alkyl halides	135	3052
Aluminum alkyl halides, liquid	135	3052
Aluminum alkyl halides, solid	135	3052
Aluminum alkyl halides, solid	135	3461
Aluminum alkyl hydrides	138	3076
Aluminum alkyls	135	3051
Aluminum borohydride	135	2870
Aluminum borohydride in devices	135	2870
Aluminum bromide, anhydrous	137	1725
Aluminum bromide, solution	154	2580
Aluminum carbide	138	1394
Aluminum chloride, anhydrous	137	1726
Aluminum chloride, solution	154	2581
Aluminum dross	138	3170
Aluminum ferrosilicon powder	139	1395
Aluminum hydride	138	2463
Aluminum nitrate	140	1438
Aluminum phosphide	139	1397
Aluminum phosphide pesticide	157	3048
Aluminum powder, coated	170	1309
Aluminum powder, pyrophoric	135	1383
Aluminum powder, uncoated	138	1396

Name of Material	Guide No.	ID No.
Aluminum processing by-products	138	3170
Aluminum remelting by-products	138	3170
Aluminum resinate	133	2715
Aluminum silicon powder, uncoated	138	1398
Aluminum smelting by-products	138	3170
Amines, flammable, corrosive, n.o.s.	132	2733
Amines, liquid, corrosive, flammable, n.o.s.	132	2734
Amines, liquid, corrosive, n.o.s.	153	2735
Amines, solid, corrosive, n.o.s.	154	3259
2-Amino-4-chlorophenol	151	2673
2-Amino-5-diethylaminopentane	153	2946
2-Amino-4,6-dinitrophenol, wetted with not less than 20% water	113	3317
2-(2-Aminoethoxy)ethanol	154	3055
N-Aminoethylpiperazine	153	2815
Aminophenols	152	2512
Aminopyridines	153	2671
Ammonia, anhydrous	125	1005
Ammonia, solution, with more than 10% but not more than 35% Ammonia	154	2672
Ammonia, solution, with more than 35% but not more than 50% Ammonia	125	2073
Ammonia solution, with more than 50% Ammonia	125	3318
Ammonium arsenate	151	1546
Ammonium bifluoride, solid	154	1727
Ammonium bifluoride, solution	154	2817
Ammonium dichromate	141	1439
Ammonium dinitro-o-cresolate	141	1843

Name of Material	Guide No.	ID No.
Ammonium dinitro-o-cresolate, solid	**141**	1843
Ammonium dinitro-o-cresolate, solution	**141**	3424
Ammonium fluoride	**154**	2505
Ammonium fluorosilicate	**151**	2854
Ammonium hydrogendifluoride, solid	**154**	1727
Ammonium hydrogendifluoride, solution	**154**	2817
Ammonium hydrogen fluoride, solid	**154**	1727
Ammonium hydrogen fluoride, solution	**154**	2817
Ammonium hydrogen sulfate	**154**	2506
Ammonium hydrogen sulphate	**154**	2506
Ammonium hydroxide	**154**	2672
Ammonium hydroxide, with more than 10% but not more than 35% Ammonia	**154**	2672
Ammonium metavanadate	**154**	2859
Ammonium nitrate, liquid (hot concentrated solution)	**140**	2426
Ammonium nitrate, with not more than 0.2% combustible substances	**140**	1942
Ammonium nitrate emulsion	**140**	3375
Ammonium nitrate fertilizer, n.o.s.	**140**	2072
Ammonium nitrate fertilizer, with not more than 0.4% combustible material	**140**	2071
Ammonium nitrate fertilizers	**140**	2067
Ammonium nitrate fertilizers	**140**	2071
Ammonium nitrate fertilizers	**140**	2072
Ammonium nitrate fertilizers, with Ammonium sulfate	**140**	2069
Ammonium nitrate fertilizers, with Ammonium sulphate	**140**	2069
Ammonium nitrate fertilizers, with Calcium carbonate	**140**	2068
Ammonium nitrate fertilizers, with Phosphate or Potash	**143**	2070
Ammonium nitrate-fuel oil mixtures	**112**	——
Ammonium nitrate gel	**140**	3375
Ammonium nitrate mixed fertilizers	**140**	2069
Ammonium nitrate suspension	**140**	3375
Ammonium perchlorate	**143**	1442
Ammonium persulfate	**140**	1444
Ammonium persulphate	**140**	1444
Ammonium picrate, wetted with not less than 10% water	**113**	1310
Ammonium polysulfide, solution	**154**	2818
Ammonium polysulphide, solution	**154**	2818
Ammonium polyvanadate	**151**	2861
Ammonium silicofluoride	**151**	2854
Ammonium sulfide, solution	**132**	2683
Ammonium sulphide, solution	**132**	2683
Ammunition, poisonous, non-explosive	**151**	2016
Ammunition, tear-producing, non-explosive	**159**	2017
Ammunition, toxic, non-explosive	**151**	2016
Amyl acetates	**129**	1104
Amyl acid phosphate	**153**	2819
Amyl alcohols	**129**	1105
Amylamines	**132**	1106
Amyl butyrates	**130**	2620
Amyl chloride	**129**	1107

Name of Material	Guide No.	ID No.
n-Amylene	**128**	1108
Amyl formates	**129**	1109
Amyl mercaptan	**130**	1111
n-Amyl methyl ketone	**127**	1110
Amyl methyl ketone	**127**	1110
Amyl nitrate	**140**	1112
Amyl nitrite	**129**	1113
Amyltrichlorosilane	**155**	1728
Anhydrous ammonia	**125**	1005
Aniline	**153**	1547
Aniline hydrochloride	**153**	1548
Anisidines	**153**	2431
Anisidines, liquid	**153**	2431
Anisidines, solid	**153**	2431
Anisole	**128**	2222
Anisoyl chloride	**156**	1729
Antimony compound, inorganic, liquid, n.o.s.	**157**	3141
Antimony compound, inorganic, n.o.s.	**157**	1549
Antimony compound, inorganic, solid, n.o.s.	**157**	1549
Antimony lactate	**151**	1550
Antimony pentachloride, liquid	**157**	1730
Antimony pentachloride, solution	**157**	1731
Antimony pentafluoride	**157**	1732
Antimony potassium tartrate	**151**	1551
Antimony powder	**170**	2871
Antimony tribromide, solid	**157**	1549
Antimony tribromide, solution	**157**	1549
Antimony trichloride	**157**	1733
Antimony trichloride, liquid	**157**	1733
Antimony trichloride, solid	**157**	1733

Name of Material	Guide No.	ID No.
Antimony trichloride, solution	**157**	1733
Antimony trifluoride, solid	**157**	1549
Antimony trifluoride, solution	**157**	1549
Aqua regia	**157**	1798
Argon	**121**	1006
Argon, compressed	**121**	1006
Argon, refrigerated liquid (cryogenic liquid)	**120**	1951
Arsenic	**152**	1558
Arsenic acid, liquid	**154**	1553
Arsenic acid, solid	**154**	1554
Arsenical dust	**152**	1562
Arsenical pesticide, liquid, flammable, poisonous	**131**	2760
Arsenical pesticide, liquid, flammable, toxic	**131**	2760
Arsenical pesticide, liquid, poisonous	**151**	2994
Arsenical pesticide, liquid, poisonous, flammable	**131**	2993
Arsenical pesticide, liquid, toxic	**151**	2994
Arsenical pesticide, liquid, toxic, flammable	**131**	2993
Arsenical pesticide, solid, poisonous	**151**	2759
Arsenical pesticide, solid, toxic	**151**	2759
Arsenic bromide	**151**	1555
Arsenic chloride	**157**	1560
Arsenic compound, liquid, n.o.s.	**152**	1556
Arsenic compound, liquid, n.o.s., inorganic	**152**	1556
Arsenic compound, solid, n.o.s.	**152**	1557
Arsenic compound, solid, n.o.s., inorganic	**152**	1557
Arsenic pentoxide	**151**	1559
Arsenic sulfide	**152**	1557

Name of Material	Guide No.	ID No.
Arsenic sulphide	**152**	1557
Arsenic trichloride	**157**	1560
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Cadmium compound	**154**	2570
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Calcium alloys, pyrophoric	**135**	1855
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Calcium arsenate and Calcium arsenite mixture, solid	**151**	1574
Calcium arsenite, solid	**151**	1574
Calcium arsenite and Calcium arsenate mixture, solid	**151**	1574
Calcium carbide	**138**	1402
Calcium chlorate	**140**	1452
Calcium chlorate, aqueous solution	**140**	2429
Calcium chlorate, solution	**140**	2429
Calcium chlorite	**140**	1453
Calcium cyanamide, with more than 0.1% Calcium carbide	**138**	1403
Calcium cyanide	**157**	1575
Calcium dithionite	**135**	1923
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Calcium hypochlorite, dry	**140**	1748
Calcium hypochlorite, hydrated, with not less than 5.5% but not more than 16% water	**140**	2880
Calcium hypochlorite, hydrated mixture, with not less than 5.5% but not more than 16% water	**140**	2880
Calcium hypochlorite mixture, dry, with more than 10% but not more than 39% available Chlorine	**140**	2208
Calcium hypochlorite mixture, dry, with more than 39% available Chlorine (8.8% available Oxygen)	**140**	1748
Calcium manganese silicon	**138**	2844
Calcium nitrate	**140**	1454
Calcium oxide	**157**	1910
Calcium perchlorate	**140**	1455
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Calcium peroxide	**140**	1457
Calcium phosphide	**139**	1360
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Carbamate pesticide, liquid, flammable, poisonous	**131**	2758
Carbamate pesticide, liquid, flammable, toxic	**131**	2758
Carbamate pesticide, liquid, poisonous	**151**	2992
Carbamate pesticide, liquid, poisonous, flammable	**131**	2991
Carbamate pesticide, liquid, toxic	**151**	2992
Carbamate pesticide, liquid, toxic, flammable	**131**	2991
Carbamate pesticide, solid, poisonous	**151**	2757
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Carbon dioxide, compressed	**120**	1013
Carbon dioxide, refrigerated liquid	**120**	2187
Carbon dioxide, solid	**120**	1845
Carbon dioxide and Ethylene oxide mixture, with more than 9% but not more than 87% Ethylene oxide	**115**	1041
Carbon dioxide and Ethylene oxide mixture, with more than 87% Ethylene oxide	**119P**	3300
Carbon dioxide and Ethylene oxide mixtures, with more than 6% Ethylene oxide	**115**	1041
Carbon dioxide and Ethylene oxide mixtures, with not more than 6% Ethylene oxide	**126**	1952
Carbon dioxide and Ethylene oxide mixtures, with not more than 9% Ethylene oxide	**126**	1952
Carbon dioxide and Nitrous oxide mixture	**126**	1015
Carbon dioxide and Oxygen mixture	**122**	1014
Carbon dioxide and Oxygen mixture, compressed	**122**	1014
Carbon disulfide	**131**	1131
Carbon disulphide	**131**	1131
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Carbon monoxide, compressed	**119**	1016
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Carbon monoxide and Hydrogen mixture, compressed	**119**	2600
Carbon tetrabromide	**151**	2516
Carbon tetrachloride	**151**	1846
Carbonyl fluoride	**125**	2417
Carbonyl fluoride, compressed	**125**	2417
Carbonyl sulfide	**119**	2204
Carbonyl sulphide	**119**	2204
Castor beans, meal, pomace or flake	**171**	2969
Caustic alkali liquid, n.o.s.	**154**	1719
Caustic potash, dry, solid	**154**	1813
Caustic potash, liquid	**154**	1814
Caustic potash, solution	**154**	1814
Caustic soda, bead	**154**	1823
Caustic soda, flake	**154**	1823
Caustic soda, granular	**154**	1823
Caustic soda, solid	**154**	1823
Caustic soda, solution	**154**	1824
Cells, containing Sodium	**138**	3292
Celluloid, in blocks, rods, rolls, sheets, tubes, etc., except scrap	**133**	2000
Celluloid, scrap	**135**	2002
Cerium, slabs, ingots or rods	**170**	1333
Cerium, turnings or gritty powder	**138**	3078
Cesium	**138**	1407
Cesium hydroxide	**157**	2682
Cesium hydroxide, solution	**154**	2681
Cesium nitrate	**140**	1451
CG	**125**	1076
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Chemical sample, toxic liquid	**151**	3315
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Chlorate and Magnesium chloride mixture	**140**	1459
Chlorate and Magnesium chloride mixture, solid	**140**	1459
Chlorate and Magnesium chloride mixture, solution	**140**	3407
Chlorates, inorganic, aqueous solution, n.o.s.	**140**	3210
Chlorates, inorganic, n.o.s.	**140**	1461
Chloric acid, aqueous solution, with not more than 10% Chloric acid	**140**	2626
Chlorine	**124**	1017
Chlorine dioxide, hydrate, frozen	**143**	9191
Chlorine pentafluoride	**124**	2548
Chlorine trifluoride	**124**	1749
Chlorite solution	**154**	1908
Chlorite solution, with more than 5% available Chlorine	**154**	1908
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Chloroacetic acid, liquid	**153**	1750
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Chloroacetic acid, solid	**153**	1751
Chloroacetic acid, solution	**153**	1750
Chloroacetone, stabilized	**131**	1695
Chloroacetonitrile	**131**	2668
Chloroacetophenone	**153**	1697
Chloroacetophenone, liquid	**153**	1697
Chloroacetophenone, liquid	**153**	3416
Chloroacetophenone, solid	**153**	1697
Chloroacetyl chloride	**156**	1752
Chloroanilines, liquid	**152**	2019
Chloroanilines, solid	**152**	2018
Chloroanisidines	**152**	2233
Chlorobenzene	**130**	1134
Chlorobenzotrifluorides	**130**	2234
Chlorobenzyl chlorides	**153**	2235
Chlorobenzyl chlorides, liquid	**153**	2235
Chlorobenzyl chlorides, solid	**153**	3427
1-Chloro-3-bromopropane	**159**	2688
Chlorobutanes	**130**	1127
Chlorocresols	**152**	2669
Chlorocresols, liquid	**152**	2669
Chlorocresols, solid	**152**	2669
Chlorocresols, solid	**152**	3437
Chlorocresols, solution	**152**	2669
Chlorodifluorobromomethane	**126**	1974
1-Chloro-1,1-difluoroethane	**115**	2517
Chlorodifluoroethanes	**115**	2517
Chlorodifluoromethane	**126**	1018
Chlorodifluoromethane and Chloropentafluoroethane mixture	**126**	1973
Chlorodinitrobenzenes	**153**	1577
Chlorodinitrobenzenes, liquid	**153**	1577
Chlorodinitrobenzenes, solid	**153**	1577

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1-Chloro-2,3-epoxypropane	**131P**	2023
2-Chloroethanal	**153**	2232
Chloroform	**151**	1888
Chloroformates, n.o.s.	**155**	2742
Chloroformates, poisonous, corrosive, flammable, n.o.s.	**155**	2742
Chloroformates, poisonous, corrosive, n.o.s.	**154**	3277
Chloroformates, toxic, corrosive, flammable, n.o.s.	**155**	2742
Chloroformates, toxic, corrosive, n.o.s.	**154**	3277
Chloromethyl chloroformate	**157**	2745
Chloromethyl ethyl ether	**131**	2354
3-Chloro-4-methylphenyl isocyanate	**156**	2236
3-Chloro-4-methylphenyl isocyanate, liquid	**156**	2236
3-Chloro-4-methylphenyl isocyanate, solid	**156**	3428
Chloronitroanilines	**153**	2237
Chloronitrobenzenes	**152**	1578
Chloronitrobenzenes, liquid	**152**	1578
Chloronitrobenzenes, liquid	**152**	3409
Chloronitrobenzenes, solid	**152**	1578
Chloronitrotoluenes	**152**	2433
Chloronitrotoluenes, liquid	**152**	2433
Chloronitrotoluenes, solid	**152**	2433
Chloronitrotoluenes, solid	**152**	3457
Chloropentafluoroethane	**126**	1020
Chloropentafluoroethane and Chlorodifluoromethane mixture	**126**	1973
Chlorophenates, liquid	**154**	2904
Chlorophenates, solid	**154**	2905
Chlorophenolates, liquid	**154**	2904
Chlorophenolates, solid	**154**	2905
Chlorophenols, liquid	**153**	2021
Chlorophenols, solid	**153**	2020
Chlorophenyltrichlorosilane	**156**	1753
Chloropicrin	**154**	1580
Chloropicrin and Methyl bromide mixture	**123**	1581
Chloropicrin and Methyl chloride mixture	**119**	1582
Chloropicrin mixture, n.o.s.	**154**	1583
Chloropivaloyl chloride	**156**	9263
Chloroplatinic acid, solid	**154**	2507
Chloroprene, stabilized	**131P**	1991
1-Chloropropane	**129**	1278
2-Chloropropane	**129**	2356
3-Chloropropanol-1	**153**	2849
2-Chloropropene	**130P**	2456
2-Chloropropionic acid	**153**	2511
2-Chloropropionic acid, solid	**153**	2511
2-Chloropropionic acid, solution	**153**	2511
2-Chloropyridine	**153**	2822
Chlorosilanes, corrosive, flammable, n.o.s.	**155**	2986
Chlorosilanes, corrosive, n.o.s.	**156**	2987
Chlorosilanes, flammable, corrosive, n.o.s.	**155**	2985
Chlorosilanes, n.o.s.	**155**	2985
Chlorosilanes, n.o.s.	**155**	2986
Chlorosilanes, n.o.s.	**156**	2987
Chlorosilanes, n.o.s.	**139**	2988
Chlorosilanes, poisonous, corrosive, flammable, n.o.s.	**155**	3362

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Chlorosilanes, poisonous, corrosive, n.o.s.	**156**	3361
Chlorosilanes, toxic, corrosive flammable, n.o.s.	**155**	3362
Chlorosilanes, toxic, corrosive, n.o.s.	**156**	3361
Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.	**139**	2988
Chlorosulfonic acid	**137**	1754
Chlorosulfonic acid and Sulfur trioxide mixture	**137**	1754
Chlorosulphonic acid	**137**	1754
Chlorosulphonic acid and Sulphur trioxide mixture	**137**	1754
1-Chloro-1,2,2,2-tetrafluoroethane	**126**	1021
Chlorotetrafluoroethane	**126**	1021
Chlorotetrafluoroethane and Ethylene oxide mixture, with not more than 8.8% Ethylene oxide	**126**	3297
Chlorotoluenes	**129**	2238
4-Chloro-o-toluidine hydrochloride	**153**	1579
4-Chloro-o-toluidine hydrochloride, solid	**153**	1579
4-Chloro-o-toluidine hydrochloride, solution	**153**	3410
Chlorotoluidines	**153**	2239
Chlorotoluidines, liquid	**153**	2239
Chlorotoluidines, liquid	**153**	3429
Chlorotoluidines, solid	**153**	2239
1-Chloro-2,2,2-trifluoroethane	**126**	1983
Chlorotrifluoroethane	**126**	1983
Chlorotrifluoromethane	**126**	1022
Chlorotrifluoromethane and Trifluoromethane azeotropic mixture with approximately 60% Chlorotrifluoromethane	**126**	2599
Chromic acid, solid	**141**	1463
Chromic acid, solution	**154**	1755
Chromic fluoride, solid	**154**	1756
Chromic fluoride, solution	**154**	1757
Chromium nitrate	**141**	2720
Chromium oxychloride	**137**	1758
Chromium trioxide, anhydrous	**141**	1463
Chromosulfuric acid	**154**	2240
Chromosulphuric acid	**154**	2240
CK	**125**	1589
Clinical specimens	**158**	3373
Clinical waste, unspecified, n.o.s.	**158**	3291
CN	**153**	1697
Coal gas	**119**	1023
Coal gas, compressed	**119**	1023
Coal tar distillates, flammable	**128**	1136
Coating solution	**127**	1139
Cobalt naphthenates, powder	**133**	2001
Cobalt resinate, precipitated	**133**	1318
Combustible liquid, n.o.s.	**128**	1993
Compound, cleaning liquid (corrosive)	**154**	1760
Compound, cleaning liquid (flammable)	**128**	1993
Compound, tree or weed killing, liquid (corrosive)	**154**	1760
Compound, tree or weed killing, liquid (flammable)	**128**	1993
Compound, tree or weed killing, liquid (toxic)	**153**	2810

Name of Material	Guide No.	ID No.
Compressed gas, flammable, n.o.s.	**115**	1954
Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone A)	**119**	1953
Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone B)	**119**	1953
Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone C)	**119**	1953
Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone D)	**119**	1953
Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone A)	**119**	1953
Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone B)	**119**	1953
Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone C)	**119**	1953
Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone D)	**119**	1953
Compressed gas, n.o.s.	**126**	1956
Compressed gas, oxidizing, n.o.s.	**122**	3156
Compressed gas, poisonous, corrosive, n.o.s.	**123**	3304
Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)	**123**	3304
Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	**123**	3304
Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	**123**	3304
Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	**123**	3304
Compressed gas, poisonous, flammable, corrosive, n.o.s.	**119**	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	**119**	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	**119**	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	**119**	3305
Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	**119**	3305
Compressed gas, poisonous, flammable, n.o.s.	**119**	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	**119**	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	**119**	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	**119**	1953
Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	**119**	1953
Compressed gas, poisonous, n.o.s.	**123**	1955
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	**123**	1955
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	**123**	1955

Name of Material	Guide No.	ID No.
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	**123**	1955
Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	**123**	1955
Compressed gas, poisonous, oxidizing, corrosive, n.o.s.	**124**	3306
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	**124**	3306
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	**124**	3306
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	**124**	3306
Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	**124**	3306
Compressed gas, poisonous, oxidizing, n.o.s.	**124**	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)	**124**	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	**124**	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	**124**	3303
Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)	**124**	3303
Compressed gas, toxic, corrosive, n.o.s.	**123**	3304
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	**123**	3304
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	**123**	3304
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	**123**	3304
Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	**123**	3304
Compressed gas, toxic, flammable, corrosive, n.o.s.	**119**	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	**119**	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	**119**	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	**119**	3305
Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	**119**	3305
Compressed gas, toxic, flammable, n.o.s.	**119**	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	**119**	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	**119**	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	**119**	1953
Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	**119**	1953
Compressed gas, toxic, n.o.s.	**123**	1955

Name of Material	Guide No.	ID No.
Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone A)	**123**	1955
Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone B)	**123**	1955
Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone C)	**123**	1955
Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone D)	**123**	1955
Compressed gas, toxic, oxidizing, corrosive, n.o.s.	**124**	3306
Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	**124**	3306
Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	**124**	3306
Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	**124**	3306
Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	**124**	3306
Compressed gas, toxic, oxidizing, n.o.s.	**124**	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)	**124**	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	**124**	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)	**124**	3303
Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)	**124**	3303
Consumer commodity	**171**	8000
Copper acetoarsenite	**151**	1585
Copper arsenite	**151**	1586
Copper based pesticide, liquid, flammable, poisonous	**131**	2776
Copper based pesticide, liquid, flammable, toxic	**131**	2776
Copper based pesticide, liquid, poisonous	**151**	3010
Copper based pesticide, liquid, poisonous, flammable	**131**	3009
Copper based pesticide, liquid, toxic	**151**	3010
Copper based pesticide, liquid, toxic, flammable	**131**	3009
Copper based pesticide, solid, poisonous	**151**	2775
Copper based pesticide, solid, toxic	**151**	2775
Copper chlorate	**141**	2721
Copper chloride	**154**	2802
Copper cyanide	**151**	1587
Copra	**135**	1363
Corrosive liquid, acidic, inorganic, n.o.s.	**154**	3264
Corrosive liquid, acidic, organic, n.o.s.	**153**	3265
Corrosive liquid, basic, inorganic, n.o.s.	**154**	3266
Corrosive liquid, basic, organic, n.o.s.	**153**	3267
Corrosive liquid, flammable, n.o.s.	**132**	2920
Corrosive liquid, n.o.s.	**154**	1760
Corrosive liquid, oxidizing, n.o.s.	**140**	3093
Corrosive liquid, poisonous, n.o.s.	**154**	2922

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Corrosive liquid, self-heating, n.o.s.	**136**	3301
Corrosive liquid, toxic, n.o.s.	**154**	2922
Corrosive liquid, water-reactive, n.o.s.	**138**	3094
Corrosive liquid, which in contact with water emits flammable gases, n.o.s.	**138**	3094
Corrosive solid, acidic, inorganic, n.o.s.	**154**	3260
Corrosive solid, acidic, organic, n.o.s.	**154**	3261
Corrosive solid, basic, inorganic, n.o.s.	**154**	3262
Corrosive solid, basic, organic, n.o.s.	**154**	3263
Corrosive solid, flammable, n.o.s.	**134**	2921
Corrosive solid, n.o.s.	**154**	1759
Corrosive solid, oxidizing, n.o.s.	**140**	3084
Corrosive solid, poisonous, n.o.s.	**154**	2923
Corrosive solid, self-heating, n.o.s.	**136**	3095
Corrosive solid, toxic, n.o.s.	**154**	2923
Corrosive solid, water-reactive, n.o.s.	**138**	3096
Corrosive solid, which in contact with water emits flammable gases, n.o.s.	**138**	3096
Cotton	**133**	1365
Cotton, wet	**133**	1365
Cotton waste, oily	**133**	1364
Coumarin derivative pesticide, liquid, flammable, poisonous	**131**	3024
Coumarin derivative pesticide, liquid, flammable, toxic	**131**	3024
Coumarin derivative pesticide, liquid, poisonous	**151**	3026
Coumarin derivative pesticide, liquid, poisonous, flammable	**131**	3025
Coumarin derivative pesticide, liquid, toxic	**151**	3026
Coumarin derivative pesticide, liquid, toxic, flammable	**131**	3025
Coumarin derivative pesticide, solid, poisonous	**151**	3027
Coumarin derivative pesticide, solid, toxic	**151**	3027
Cresols	**153**	2076
Cresols, liquid	**153**	2076
Cresols, solid	**153**	2076
Cresols, solid	**153**	3455
Cresylic acid	**153**	2022
Crotonaldehyde	**131P**	1143
Crotonaldehyde, stabilized	**131P**	1143
Crotonic acid	**153**	2823
Crotonic acid, liquid	**153**	2823
Crotonic acid, liquid	**153**	3472
Crotonic acid, solid	**153**	2823
Crotonylene	**128**	1144
CS	**153**	2810
Cumene	**130**	1918
Cupriethylenediamine, solution	**154**	1761
CX	**154**	2811
Cyanide solution, n.o.s.	**157**	1935
Cyanides, inorganic, n.o.s.	**157**	1588
Cyanides, inorganic, solid, n.o.s.	**157**	1588
Cyanogen	**119**	1026
Cyanogen bromide	**157**	1889

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Cyanogen chloride, stabilized	125	1589
Cyanogen gas	119	1026
Cyanuric chloride	157	2670
Cyclobutane	115	2601
Cyclobutyl chloroformate	155	2744
1,5,9-Cyclododecatriene	153	2518
Cycloheptane	128	2241
Cycloheptatriene	131	2603
Cycloheptene	128	2242
Cyclohexane	128	1145
Cyclohexanethiol	129	3054
Cyclohexanone	127	1915
Cyclohexene	130	2256
Cyclohexenyltrichlorosilane	156	1762
Cyclohexyl acetate	130	2243
Cyclohexylamine	132	2357
Cyclohexyl isocyanate	155	2488
Cyclohexyl mercaptan	129	3054
Cyclohexyltrichlorosilane	156	1763
Cyclooctadiene phosphines	135	2940
Cyclooctadienes	130P	2520
Cyclooctatetraene	128P	2358
Cyclopentane	128	1146
Cyclopentanol	129	2244
Cyclopentanone	128	2245
Cyclopentene	128	2246
Cyclopropane	115	1027
Cymenes	130	2046
DA	151	1699
Dangerous goods in apparatus	171	3363
Dangerous goods in machinery	171	3363
DC	153	2810

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Decaborane	134	1868
Decahydronaphthalene	130	1147
n-Decane	128	2247
Denatured alcohol	127	1987
Denatured alcohol (toxic)	131	1986
Desensitized explosive, liquid, n.o.s.	128	3379
Desensitized explosive, solid, n.o.s.	133	3380
Deuterium	115	1957
Deuterium, compressed	115	1957
Devices, small, hydrocarbon gas powered, with release device	115	3150
Diacetone alcohol	129	1148
Diacetyl	127	2346
Diagnostic specimens	158	3373
Diallylamine	132	2359
Diallyl ether	131P	2360
4,4'-Diaminodiphenylmethane	153	2651
Di-n-amylamine	131	2841
Dibenzyldichlorosilane	156	2434
Diborane	119	1911
Diborane, compressed	119	1911
Diborane mixtures	119	1911
Dibromobenzene	129	2711
1,2-Dibromobutan-3-one	154	2648
Dibromochloropropanes	159	2872
Dibromodifluoromethane	171	1941
Dibromomethane	160	2664
Di-n-butylamine	132	2248
Dibutylaminoethanol	153	2873
Dibutyl ethers	128	1149
Dichloroacetic acid	153	1764
1,3-Dichloroacetone	153	2649

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Dichloroacetyl chloride	**156**	1765
Dichloroanilines	**153**	1590
Dichloroanilines, liquid	**153**	1590
Dichloroanilines, solid	**153**	1590
Dichloroanilines, solid	**153**	3442
o-Dichlorobenzene	**152**	1591
Dichlorobutene	**132**	2920
2,2'-Dichlorodiethyl ether	**152**	1916
Dichlorodifluoromethane	**126**	1028
Dichlorodifluoromethane and Difluoroethane azeotropic mixture with approximately 74% Dichlorodifluoromethane	**126**	2602
Dichlorodifluoromethane and Ethylene oxide mixture, with not more than 12.5% Ethylene oxide	**126**	3070
Dichlorodifluoromethane and Ethylene oxide mixture, with not more than 12% Ethylene oxide	**126**	3070
Dichlorodimethyl ether, symmetrical	**131**	2249
1,1-Dichloroethane	**130**	2362
1,2-Dichloroethylene	**130P**	1150
Dichloroethylene	**130P**	1150
Dichloroethyl ether	**152**	1916
Dichlorofluoromethane	**126**	1029
Dichloroisocyanuric acid, dry	**140**	2465
Dichloroisocyanuric acid salts	**140**	2465
Dichloroisopropyl ether	**153**	2490
Dichloromethane	**160**	1593
1,1-Dichloro-1-nitroethane	**153**	2650
Dichloropentanes	**130**	1152
Dichlorophenyl isocyanates	**156**	2250

Name of Material	Guide No.	ID No.
Dichlorophenyltrichlorosilane	**156**	1766
1,2-Dichloropropane	**130**	1279
Dichloropropane	**130**	1279
1,3-Dichloropropanol-2	**153**	2750
Dichloropropenes	**129**	2047
Dichlorosilane	**119**	2189
1,2-Dichloro-1,1,2,2-tetrafluoroethane	**126**	1958
Dichlorotetrafluoroethane	**126**	1958
3,5-Dichloro-2,4,6-trifluoropyridine	**151**	9264
Dicyclohexylamine	**153**	2565
Dicyclohexylammonium nitrite	**133**	2687
Dicyclopentadiene	**130**	2048
1,2-Di-(dimethylamino)ethane	**129**	2372
Didymium nitrate	**140**	1465
Dieldrin	**151**	2761
Diesel fuel	**128**	1202
Diesel fuel	**128**	1993
Diethoxymethane	**127**	2373
3,3-Diethoxypropene	**127**	2374
Diethylamine	**132**	1154
2-Diethylaminoethanol	**132**	2686
Diethylaminoethanol	**132**	2686
3-Diethylaminopropylamine	**132**	2684
Diethylaminopropylamine	**132**	2684
N,N-Diethylaniline	**153**	2432
Diethylbenzene	**130**	2049
Diethyl carbonate	**128**	2366
Diethyldichlorosilane	**155**	1767
Diethylenetriamine	**154**	2079
Diethyl ether	**127**	1155
N,N-Diethylethylenediamine	**132**	2685

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Diethyl ketone	**127**	1156
Diethyl sulfate	**152**	1594
Diethyl sulfide	**129**	2375
Diethyl sulphate	**152**	1594
Diethyl sulphide	**129**	2375
Diethylthiophosphoryl chloride	**155**	2751
Diethylzinc	**135**	1366
Difluorochloroethanes	**115**	2517
1,1-Difluoroethane	**115**	1030
Difluoroethane	**115**	1030
Difluoroethane and Dichlorodifluoromethane azeotropic mixture with approximately 74% Dichlorodifluoromethane	**126**	2602
1,1-Difluoroethylene	**116P**	1959
Difluoromethane	**115**	3252
Difluorophosphoric acid, anhydrous	**154**	1768
2,3-Dihydropyran	**127**	2376
Diisobutylamine	**132**	2361
Diisobutylene, isomeric compounds	**128**	2050
Diisobutyl ketone	**128**	1157
Diisooctyl acid phosphate	**153**	1902
Diisopropylamine	**132**	1158
Diisopropyl ether	**127**	1159
Diketene, stabilized	**131P**	2521
1,1-Dimethoxyethane	**127**	2377
1,2-Dimethoxyethane	**127**	2252
Dimethylamine, anhydrous	**118**	1032
Dimethylamine, aqueous solution	**132**	1160
Dimethylamine, solution	**132**	1160
2-Dimethylaminoacetonitrile	**131**	2378

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2-Dimethylaminoethanol	**132**	2051
2-Dimethylaminoethyl acrylate	**152**	3302
2-Dimethylaminoethyl methacrylate	**153P**	2522
Dimethylaminoethyl methacrylate	**153P**	2522
N,N-Dimethylaniline	**153**	2253
2,3-Dimethylbutane	**128**	2457
1,3-Dimethylbutylamine	**132**	2379
Dimethylcarbamoyl chloride	**156**	2262
Dimethyl carbonate	**129**	1161
Dimethylcyclohexanes	**128**	2263
N,N-Dimethylcyclohexylamine	**132**	2264
Dimethylcyclohexylamine	**132**	2264
Dimethyldichlorosilane	**155**	1162
Dimethyldiethoxysilane	**127**	2380
Dimethyldioxanes	**127**	2707
Dimethyl disulfide	**130**	2381
Dimethyl disulphide	**130**	2381
Dimethylethanolamine	**132**	2051
Dimethyl ether	**115**	1033
N,N-Dimethylformamide	**129**	2265
1,1-Dimethylhydrazine	**131**	1163
1,2-Dimethylhydrazine	**131**	2382
Dimethylhydrazine, symmetrical	**131**	2382
Dimethylhydrazine, unsymmetrical	**131**	1163
2,2-Dimethylpropane	**115**	2044
Dimethyl-N-propylamine	**132**	2266
Dimethyl sulfate	**156**	1595
Dimethyl sulfide	**130**	1164
Dimethyl sulphate	**156**	1595
Dimethyl sulphide	**130**	1164
Dimethyl thiophosphoryl chloride	**156**	2267

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Dimethylzinc	**135**	1370
Dinitroanilines	**153**	1596
Dinitrobenzenes	**152**	1597
Dinitrobenzenes, liquid	**152**	1597
Dinitrobenzenes, solid	**152**	1597
Dinitrobenzenes, solid	**152**	3443
Dinitrochlorobenzenes	**153**	1577
Dinitro-o-cresol	**153**	1598
Dinitrogen tetroxide	**124**	1067
Dinitrogen tetroxide and Nitric oxide mixture	**124**	1975
Dinitrophenol, solution	**153**	1599
Dinitrophenol, wetted with not less than 15% water	**113**	1320
Dinitrophenolates, wetted with not less than 15% water	**113**	1321
Dinitroresorcinol, wetted with not less than 15% water	**113**	1322
Dinitrotoluenes	**152**	2038
Dinitrotoluenes, liquid	**152**	2038
Dinitrotoluenes, molten	**152**	1600
Dinitrotoluenes, solid	**152**	2038
Dinitrotoluenes, solid	**152**	3454
Dioxane	**127**	1165
Dioxolane	**127**	1166
Dipentene	**128**	2052
Diphenylamine chloroarsine	**154**	1698
Diphenylchloroarsine	**151**	1699
Diphenylchloroarsine, liquid	**151**	1699
Diphenylchloroarsine, solid	**151**	1699
Diphenylchloroarsine, solid	**151**	3450
Diphenyldichlorosilane	**156**	1769
Diphenylmethyl bromide	**153**	1770
Diphosgene	**125**	1076

Name of Material	Guide No.	ID No.
Dipicryl sulfide, wetted with not less than 10% water	**113**	2852
Dipicryl sulphide, wetted with not less than 10% water	**113**	2852
Dipropylamine	**132**	2383
Di-n-propyl ether	**127**	2384
Dipropyl ether	**127**	2384
Dipropyl ketone	**128**	2710
Disinfectant, liquid, corrosive, n.o.s.	**153**	1903
Disinfectant, liquid, poisonous, n.o.s.	**151**	3142
Disinfectant, liquid, toxic, n.o.s.	**151**	3142
Disinfectant, solid, poisonous, n.o.s.	**151**	1601
Disinfectant, solid, toxic, n.o.s.	**151**	1601
Disinfectants, corrosive, liquid, n.o.s.	**153**	1903
Disinfectants, liquid, n.o.s. (poisonous)	**151**	3142
Disinfectants, solid, n.o.s. (poisonous)	**151**	1601
Disodium trioxosilicate	**154**	3253
Disodium trioxosilicate, pentahydrate	**154**	3253
Dispersant gas, n.o.s.	**126**	1078
Dispersant gas, n.o.s. (flammable)	**115**	1954
Dithiocarbamate pesticide, liquid, flammable, poisonous	**131**	2772
Dithiocarbamate pesticide, liquid, flammable, toxic	**131**	2772
Dithiocarbamate pesticide, liquid, poisonous	**151**	3006
Dithiocarbamate pesticide, liquid, poisonous, flammable	**131**	3005
Dithiocarbamate pesticide, liquid, toxic	**151**	3006

Name of Material	Guide No.	ID No.
Dithiocarbamate pesticide, liquid, toxic, flammable	**131**	3005
Dithiocarbamate pesticide, solid, poisonous	**151**	2771
Dithiocarbamate pesticide, solid, toxic	**151**	2771
Divinyl ether, stabilized	**128P**	1167
DM	**154**	1698
Dodecylbenzenesulfonic acid	**153**	2584
Dodecylbenzenesulphonic acid	**153**	2584
Dodecyltrichlorosilane	**156**	1771
DP	**125**	1076
Dry ice	**120**	1845
Dye, liquid, corrosive, n.o.s.	**154**	2801
Dye, liquid, poisonous, n.o.s.	**151**	1602
Dye, liquid, toxic, n.o.s.	**151**	1602
Dye, solid, corrosive, n.o.s.	**154**	3147
Dye, solid, poisonous, n.o.s.	**151**	3143
Dye, solid, toxic, n.o.s.	**151**	3143
Dye intermediate, liquid, corrosive, n.o.s.	**154**	2801
Dye intermediate, liquid, poisonous, n.o.s.	**151**	1602
Dye intermediate, liquid, toxic, n.o.s.	**151**	1602
Dye intermediate, solid, corrosive, n.o.s.	**154**	3147
Dye intermediate, solid, poisonous, n.o.s.	**151**	3143
Dye intermediate, solid, toxic, n.o.s.	**151**	3143
ED	**151**	1892
Elevated temperature liquid, flammable, n.o.s., with flash point above 37.8°C (100°F), at or above its flash point	**128**	3256
Elevated temperature liquid, flammable, n.o.s., with flash point above 60.5°C (141°F), at or above its flash point	**128**	3256
Elevated temperature liquid, n.o.s., at or above 100°C (212°F), and below its flash point	**128**	3257
Elevated temperature solid, n.o.s., at or above 240°C (464°F)	**171**	3258
Engine starting fluid	**115**	1960
Engines, internal combustion, flammable gas powered	**128**	3166
Engines, internal combustion, flammable liquid powered	**128**	3166
Engines, internal combustion, including when fitted in machinery or vehicles	**128**	3166
Environmentally hazardous substances, liquid, n.o.s.	**171**	3082
Environmentally hazardous substances, solid, n.o.s.	**171**	3077
Epibromohydrin	**131**	2558
Epichlorohydrin	**131P**	2023
1,2-Epoxy-3-ethoxypropane	**127**	2752
Esters, n.o.s.	**127**	3272
Ethane	**115**	1035
Ethane, compressed	**115**	1035
Ethane, refrigerated liquid	**115**	1961
Ethane-Propane mixture, refrigerated liquid	**115**	1961
Ethanol	**127**	1170
Ethanol and gasoline mixture, with more than 10% ethanol	**127**	3475
Ethanol and motor spirit mixture, with more than 10% ethanol	**127**	3475

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Ethanol and petrol mixture, with more than 10% ethanol	**127**	3475
Ethanol, solution	**127**	1170
Ethanolamine	**153**	2491
Ethanolamine, solution	**153**	2491
Ethers, n.o.s.	**127**	3271
Ethyl acetate	**129**	1173
Ethylacetylene, stabilized	**116P**	2452
Ethyl acrylate, stabilized	**129P**	1917
Ethyl alcohol	**127**	1170
Ethyl alcohol, solution	**127**	1170
Ethylamine	**118**	1036
Ethylamine, aqueous solution, with not less than 50% but not more than 70% Ethylamine	**132**	2270
Ethyl amyl ketone	**128**	2271
2-Ethylaniline	**153**	2273
N-Ethylaniline	**153**	2272
Ethylbenzene	**130**	1175
N-Ethyl-N-benzylaniline	**153**	2274
N-Ethylbenzyltoluidines	**153**	2753
N-Ethylbenzyltoluidines, liquid	**153**	2753
N-Ethylbenzyltoluidines, solid	**153**	2753
N-Ethylbenzyltoluidines, solid	**153**	3460
Ethyl borate	**129**	1176
Ethyl bromide	**131**	1891
Ethyl bromoacetate	**155**	1603
2-Ethylbutanol	**129**	2275
2-Ethylbutyl acetate	**130**	1177
Ethylbutyl acetate	**130**	1177
Ethyl butyl ether	**127**	1179
2-Ethylbutyraldehyde	**130**	1178
Ethyl butyrate	**130**	1180
Ethyl chloride	**115**	1037

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Ethyl chloroacetate	**155**	1181
Ethyl chloroformate	**155**	1182
Ethyl 2-chloropropionate	**129**	2935
Ethyl chlorothioformate	**155**	2826
Ethyl crotonate	**130**	1862
Ethyl cyanoacetate	**156**	2666
Ethyldichloroarsine	**151**	1892
Ethyldichlorosilane	**139**	1183
Ethylene	**116P**	1962
Ethylene, Acetylene and Propylene in mixture, refrigerated liquid containing at least 71.5% Ethylene with not more than 22.5% Acetylene and not more than 6% Propylene	**115**	3138
Ethylene, compressed	**116P**	1962
Ethylene, refrigerated liquid (cryogenic liquid)	**115**	1038
Ethylene chlorohydrin	**131**	1135
Ethylenediamine	**132**	1604
Ethylene dibromide	**154**	1605
Ethylene dibromide and Methyl bromide mixture, liquid	**151**	1647
Ethylene dichloride	**131**	1184
Ethylene glycol diethyl ether	**127**	1153
Ethylene glycol monobutyl ether	**152**	2369
Ethylene glycol monoethyl ether	**127**	1171
Ethylene glycol monoethyl ether acetate	**129**	1172
Ethylene glycol monomethyl ether	**127**	1188
Ethylene glycol monomethyl ether acetate	**129**	1189
Ethyleneimine, stabilized	**131P**	1185
Ethylene oxide	**119P**	1040

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Ethylene oxide and Carbon dioxide mixture, with more than 9% but not more than 87% Ethylene oxide	**115**	1041
Ethylene oxide and Carbon dioxide mixture, with more than 87% Ethylene oxide	**119P**	3300
Ethylene oxide and Carbon dioxide mixtures, with more than 6 % Ethylene oxide	**115**	1041
Ethylene oxide and Carbon dioxide mixtures, with not more than 6% Ethylene oxide	**126**	1952
Ethylene oxide and Carbon dioxide mixtures, with not more than 9% Ethylene oxide	**126**	1952
Ethylene oxide and Chlorotetrafluoroethane mixture, with not more than 8.8% Ethylene oxide	**126**	3297
Ethylene oxide and Dichlorodifluoromethane mixture, with not more than 12.5% Ethylene oxide	**126**	3070
Ethylene oxide and Dichlorodifluoromethane mixtures, with not more than 12% Ethylene oxide	**126**	3070
Ethylene oxide and Pentafluoroethane mixture, with not more than 7.9% Ethylene oxide	**126**	3298
Ethylene oxide and Propylene oxide mixture, with not more than 30% Ethylene oxide	**129P**	2983
Ethylene oxide and Tetrafluoroethane mixture, with not more than 5.6% Ethylene oxide	**126**	3299
Ethylene oxide with Nitrogen	**119P**	1040

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Ethyl ether	**127**	1155
Ethyl fluoride	**115**	2453
Ethyl formate	**129**	1190
Ethylhexaldehydes	**129**	1191
2-Ethylhexylamine	**132**	2276
2-Ethylhexyl chloroformate	**156**	2748
Ethyl isobutyrate	**129**	2385
Ethyl isocyanate	**155**	2481
Ethyl lactate	**129**	1192
Ethyl mercaptan	**129**	2363
Ethyl methacrylate	**130P**	2277
Ethyl methacrylate, stabilized	**130P**	2277
Ethyl methyl ether	**115**	1039
Ethyl methyl ketone	**127**	1193
Ethyl nitrite, solution	**131**	1194
Ethyl orthoformate	**129**	2524
Ethyl oxalate	**156**	2525
Ethylphenyldichlorosilane	**156**	2435
Ethyl phosphonothioic dichloride, anhydrous	**154**	2927
Ethyl phosphonous dichloride, anhydrous	**135**	2845
Ethyl phosphorodichloridate	**154**	2927
1-Ethylpiperidine	**132**	2386
Ethyl propionate	**129**	1195
Ethyl propyl ether	**127**	2615
Ethyl silicate	**129**	1292
Ethylsulfuric acid	**156**	2571
Ethylsulphuric acid	**156**	2571
N-Ethyltoluidines	**153**	2754
Ethyltrichlorosilane	**155**	1196
Explosive A	**112**	——
Explosive B	**112**	——

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Explosive C	**114**	——
Explosives, division 1.1, 1.2, 1.3, 1.5 or 1.6	**112**	——
Explosives, division 1.4	**114**	——
Extracts, aromatic, liquid	**127**	1169
Extracts, flavoring, liquid	**127**	1197
Extracts, flavouring, liquid	**127**	1197
Fabrics, animal or vegetable or synthetic, n.o.s. with oil	**133**	1373
Fabrics impregnated with weakly nitrated Nitrocellulose, n.o.s.	**133**	1353
Ferric arsenate	**151**	1606
Ferric arsenite	**151**	1607
Ferric chloride	**157**	1773
Ferric chloride, anhydrous	**157**	1773
Ferric chloride, solution	**154**	2582
Ferric nitrate	**140**	1466
Ferrocerium	**170**	1323
Ferrosilicon	**139**	1408
Ferrous arsenate	**151**	1608
Ferrous chloride, solid	**154**	1759
Ferrous chloride, solution	**154**	1760
Ferrous metal borings, shavings, turnings or cuttings	**170**	2793
Fertilizer, ammoniating solution, with free Ammonia	**125**	1043
Fiber, animal or vegetable, n.o.s., burnt, wet or damp	**133**	1372
Fibers, animal or vegetable or synthetic, n.o.s. with oil	**133**	1373
Fibers, animal or vegetable, burnt, wet or damp	**133**	1372
Fibers, vegetable, dry	**133**	3360
Fibers impregnated with weakly nitrated Nitrocellulose, n.o.s.	**133**	1353

Name of Material	Guide No.	ID No.
Fibres, animal or vegetable, burnt, wet or damp	**133**	1372
Fibres, animal or vegetable or synthetic, n.o.s. with oil	**133**	1373
Fibres, vegetable, dry	**133**	3360
Fibres impregnated with weakly nitrated Nitrocellulose, n.o.s.	**133**	1353
Films, nitrocellulose base	**133**	1324
Fire extinguisher charges, corrosive liquid	**154**	1774
Fire extinguishers with compressed gas	**126**	1044
Fire extinguishers with liquefied gas	**126**	1044
Firelighters, solid, with flammable liquid	**133**	2623
First aid kit	**171**	3316
Fish meal, stabilized	**171**	2216
Fish meal, unstabilized	**133**	1374
Fish scrap, stabilized	**171**	2216
Fish scrap, unstabilized	**133**	1374
Flammable liquid, corrosive, n.o.s	**132**	2924
Flammable liquid, n.o.s.	**128**	1993
Flammable liquid, poisonous, corrosive, n.o.s.	**131**	3286
Flammable liquid, poisonous, n.o.s.	**131**	1992
Flammable liquid, toxic, corrosive, n.o.s.	**131**	3286
Flammable liquid, toxic, n.o.s.	**131**	1992
Flammable solid, corrosive, inorganic, n.o.s.	**134**	3180
Flammable solid, corrosive, n.o.s.	**134**	2925
Flammable solid, corrosive, organic, n.o.s.	**134**	2925

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Flammable solid, inorganic, corrosive, n.o.s.	**134**	3180
Flammable solid, inorganic, n.o.s.	**133**	3178
Flammable solid, n.o.s.	**133**	1325
Flammable solid, organic, molten, n.o.s.	**133**	3176
Flammable solid, organic, n.o.s.	**133**	1325
Flammable solid, oxidizing, n.o.s.	**140**	3097
Flammable solid, poisonous, inorganic, n.o.s.	**134**	3179
Flammable solid, poisonous, n.o.s.	**134**	2926
Flammable solid, poisonous, organic, n.o.s.	**134**	2926
Flammable solid, toxic, inorganic, n.o.s.	**134**	3179
Flammable solid, toxic, organic, n.o.s.	**134**	2926
Fluoboric acid	**154**	1775
Fluorine	**124**	1045
Fluorine, compressed	**124**	1045
Fluorine, refrigerated liquid (cryogenic liquid)	**167**	9192
Fluoroacetic acid	**154**	2642
Fluoroanilines	**153**	2941
Fluorobenzene	**130**	2387
Fluoroboric acid	**154**	1775
Fluorophosphoric acid, anhydrous	**154**	1776
Fluorosilicates, n.o.s.	**151**	2856
Fluorosilicic acid	**154**	1778
Fluorosulfonic acid	**137**	1777
Fluorosulphonic acid	**137**	1777
Fluorotoluenes	**130**	2388

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Fluosilicic acid	**154**	1778
Formaldehyde, solution, flammable	**132**	1198
Formaldehyde, solutions (Formalin)	**132**	1198
Formaldehyde, solutions (Formalin) (corrosive)	**132**	2209
Formic acid	**153**	1779
Formic acid, with more than 85% acid	**153**	1779
Formic acid, with not less than 5% but less than 10% acid	**153**	3412
Formic acid, with not less than 10% but not more than 85% acid	**153**	3412
Fuel, aviation, turbine engine	**128**	1863
Fuel cell cartridges contained in equipment, containing corrosive substances	**153**	3477
Fuel cell cartridges contained in equipment, containing flammable liquids	**128**	3473
Fuel cell cartridges contained in equipment, containing hydrogen in metal hydride	**115**	3479
Fuel cell cartridges contained in equipment, containing liquefied flammable gas	**115**	3478
Fuel cell cartridges contained in equipment, containing water-reactive substances	**138**	3476
Fuel cell cartridges, containing corrosive substances	**153**	3477
Fuel cell cartridges, containing flammable liquids	**128**	3473
Fuel cell cartridges, containing hydrogen in metal hydride	**115**	3479
Fuel cell cartridges, containing liquefied flammable gas	**115**	3478

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Fuel cell cartridges, containing water-reactive substances	**138**	3476
Fuel cell cartridges packed with equipment, containing corrosive substances	**153**	3477
Fuel cell cartridges packed with equipment, containing flammable liquids	**128**	3473
Fuel cell cartridges packed with equipment, containing hydrogen in metal hydride	**115**	3479
Fuel cell cartridges packed with equipment, containing liquefied flammable gas	**115**	3478
Fuel cell cartridges packed with equipment, containing water-reactive substances	**138**	3476
Fuel oil	**128**	1202
Fuel oil	**128**	1993
Fuel oil, no. 1,2,4,5,6	**128**	1202
Fumaryl chloride	**156**	1780
Fumigated unit	**171**	3359
Furaldehydes	**132P**	1199
Furan	**128**	2389
Furfural	**132P**	1199
Furfuraldehydes	**132P**	1199
Furfuryl alcohol	**153**	2874
Furfurylamine	**132**	2526
Fusee (rail or highway)	**133**	1325
Fusel oil	**127**	1201
GA	**153**	2810
Gallium	**172**	2803
Gas, refrigerated liquid, flammable, n.o.s.	**115**	3312
Gas, refrigerated liquid, n.o.s.	**120**	3158

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Gas, refrigerated liquid, oxidizing, n.o.s.	**122**	3311
Gas cartridges	**115**	2037
Gas generator assemblies	**171**	8013
Gas identification set	**123**	9035
Gasohol	**128**	1203
Gas oil	**128**	1202
Gasoline	**128**	1203
Gasoline and ethanol mixture, with more than 10% ethanol	**127**	3475
Gas sample, non-pressurized, flammable, n.o.s., not refrigerated liquid	**115**	3167
Gas sample, non-pressurized, poisonous, flammable, n.o.s., not refrigerated liquid	**119**	3168
Gas sample, non-pressurized, poisonous, n.o.s., not refrigerated liquid	**123**	3169
Gas sample, non-pressurized, toxic, flammable, n.o.s., not refrigerated liquid	**119**	3168
Gas sample, non-pressurized, toxic, n.o.s., not refrigerated liquid	**123**	3169
GB	**153**	2810
GD	**153**	2810
Genetically modified micro-organisms	**171**	3245
Genetically modified organisms	**171**	3245
Germane	**119**	2192
GF	**153**	2810
Glycerol alpha-monochlorohydrin	**153**	2689
Glycidaldehyde	**131P**	2622
Guanidine nitrate	**143**	1467

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H	153	2810
Hafnium powder, dry	135	2545
Hafnium powder, wetted with not less than 25% water	170	1326
Halogenated irritating liquid, n.o.s.	159	1610
Hay, wet, damp or contaminated with oil	133	1327
Hazardous waste, liquid, n.o.s.	171	3082
Hazardous waste, solid, n.o.s.	171	3077
HD	153	2810
Heating oil, light	128	1202
Heat producing article	171	8038
Helium	121	1046
Helium, compressed	121	1046
Helium, refrigerated liquid (cryogenic liquid)	120	1963
Heptafluoropropane	126	3296
n-Heptaldehyde	129	3056
Heptanes	128	1206
n-Heptene	128	2278
Hexachloroacetone	153	2661
Hexachlorobenzene	152	2729
Hexachlorobutadiene	151	2279
Hexachlorocyclopentadiene	151	2646
Hexachlorophene	151	2875
Hexadecyltrichlorosilane	156	1781
Hexadiene	130	2458
Hexaethyl tetraphosphate	151	1611
Hexaethyl tetraphosphate, liquid	151	1611
Hexaethyl tetraphosphate, solid	151	1611
Hexaethyl tetraphosphate and compressed gas mixture	123	1612
Hexafluoroacetone	125	2420
Hexafluoroacetone hydrate	151	2552
Hexafluoroacetone hydrate, liquid	151	2552
Hexafluoroacetone hydrate, solid	151	3436
Hexafluoroethane	126	2193
Hexafluoroethane, compressed	126	2193
Hexafluorophosphoric acid	154	1782
Hexafluoropropylene	126	1858
Hexafluoropropylene oxide	126	1956
Hexaldehyde	130	1207
Hexamethylenediamine, solid	153	2280
Hexamethylenediamine, solution	153	1783
Hexamethylene diisocyanate	156	2281
Hexamethyleneimine	132	2493
Hexamethylenetetramine	133	1328
Hexamine	133	1328
Hexanes	128	1208
Hexanoic acid	153	2829
Hexanols	129	2282
1-Hexene	128	2370
Hexyltrichlorosilane	156	1784
HL	153	2810
HN-1	153	2810
HN-2	153	2810
HN-3	153	2810
Hydrazine, anhydrous	132	2029
Hydrazine, aqueous solution, with more than 37% Hydrazine	153	2030
Hydrazine, aqueous solution, with not less than 37% but not more than 64% Hydrazine	153	2030

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Hydrazine, aqueous solution, with not more than 37% Hydrazine	**152**	3293
Hydrazine, aqueous solutions, with more than 64% Hydrazine	**132**	2029
Hydrazine hydrate	**153**	2030
Hydrides, metal, n.o.s.	**138**	1409
Hydriodic acid	**154**	1787
Hydriodic acid, solution	**154**	1787
Hydrobromic acid	**154**	1788
Hydrobromic acid, solution	**154**	1788
Hydrocarbon gas, compressed, n.o.s.	**115**	1964
Hydrocarbon gas, liquefied, n.o.s.	**115**	1965
Hydrocarbon gas mixture, compressed, n.o.s.	**115**	1964
Hydrocarbon gas mixture, liquefied, n.o.s.	**115**	1965
Hydrocarbon gas refills for small devices, with release device	**115**	3150
Hydrocarbons, liquid, n.o.s.	**128**	3295
Hydrochloric acid	**157**	1789
Hydrochloric acid, solution	**157**	1789
Hydrocyanic acid, aqueous solution, with less than 5% Hydrogen cyanide	**154**	1613
Hydrocyanic acid, aqueous solution, with not more than 20% Hydrogen cyanide	**154**	1613
Hydrocyanic acid, aqueous solutions, with more than 20% Hydrogen cyanide	**117**	1051
Hydrofluoric acid	**157**	1790
Hydrofluoric acid, solution	**157**	1790
Hydrofluoric acid and Sulfuric acid mixture	**157**	1786
Hydrofluoric acid and Sulphuric acid mixture	**157**	1786
Hydrofluorosilicic acid	**154**	1778
Hydrogen	**115**	1049
Hydrogen absorbed in metal hydride	**115**	9279
Hydrogen, compressed	**115**	1049
Hydrogen in a metal hydride storage system	**115**	3468
Hydrogen in a metal hydride storage system contained in equipment	**115**	3468
Hydrogen in a metal hydride storage system packed with equipment	**115**	3468
Hydrogen, refrigerated liquid (cryogenic liquid)	**115**	1966
Hydrogen and Carbon monoxide mixture	**119**	2600
Hydrogen and Carbon monoxide mixture, compressed	**119**	2600
Hydrogen and Methane mixture, compressed	**115**	2034
Hydrogen bromide, anhydrous	**125**	1048
Hydrogen chloride, anhydrous	**125**	1050
Hydrogen chloride, refrigerated liquid	**125**	2186
Hydrogen cyanide, anhydrous, stabilized	**117**	1051
Hydrogen cyanide, aqueous solution, with not more than 20% Hydrogen cyanide	**154**	1613
Hydrogen cyanide, solution in alcohol, with not more than 45% Hydrogen cyanide	**131**	3294
Hydrogen cyanide, stabilized	**117**	1051
Hydrogen cyanide, stabilized (absorbed)	**152**	1614

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Hydrogendifluorides, n.o.s.	**154**	1740
Hydrogendifluorides, solid, n.o.s.	**154**	1740
Hydrogendifluorides, solution, n.o.s.	**154**	3471
Hydrogen fluoride, anhydrous	**125**	1052
Hydrogen iodide, anhydrous	**125**	2197
Hydrogen peroxide, aqueous solution, stabilized, with more than 60% Hydrogen peroxide	**143**	2015
Hydrogen peroxide, aqueous solution, with not less than 8% but less than 20% Hydrogen peroxide	**140**	2984
Hydrogen peroxide, aqueous solution, with not less than 20% but not more than 60% Hydrogen peroxide (stabilized as necessary)	**140**	2014
Hydrogen peroxide, stabilized	**143**	2015
Hydrogen peroxide and Peroxyacetic acid mixture, with acid(s), water and not more than 5% Peroxyacetic acid, stabilized	**140**	3149
Hydrogen selenide, anhydrous	**117**	2202
Hydrogen sulfide	**117**	1053
Hydrogen sulphide	**117**	1053
Hydroquinone	**153**	2662
Hydroquinone, solid	**153**	2662
Hydroquinone, solution	**153**	3435
1-Hydroxybenzotriazole, anhydrous, wetted with not less than 20% water	**113**	3474
Hydroxylamine sulfate	**154**	2865
Hydroxylamine sulphate	**154**	2865
Hypochlorite solution	**154**	1791
Hypochlorite solution, with more than 5% available Chlorine	**154**	1791
Hypochlorites, inorganic, n.o.s.	**140**	3212
3,3'-Iminodipropylamine	**153**	2269
Infectious substance, affecting animals only	**158**	2900
Infectious substance, affecting humans	**158**	2814
Ink, printer's, flammable	**129**	1210
Insecticide gas, flammable, n.o.s.	**115**	1954
Insecticide gas, flammable, n.o.s.	**115**	3354
Insecticide gas, n.o.s.	**126**	1968
Insecticide gas, poisonous, flammable, n.o.s.	**119**	3355
Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	**119**	3355
Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	**119**	3355
Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	**119**	3355
Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	**119**	3355
Insecticide gas, poisonous, n.o.s.	**123**	1967
Insecticide gas, toxic, flammable, n.o.s.	**119**	3355
Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	**119**	3355
Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	**119**	3355
Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	**119**	3355

Name of Material	Guide No.	ID No.
Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	**119**	3355
Insecticide gas, toxic, n.o.s.	**123**	1967
Iodine monochloride	**157**	1792
Iodine pentafluoride	**144**	2495
2-Iodobutane	**129**	2390
Iodomethylpropanes	**129**	2391
Iodopropanes	**129**	2392
IPDI	**156**	2290
Iron oxide, spent	**135**	1376
Iron pentacarbonyl	**131**	1994
Iron sponge, spent	**135**	1376
Isobutane	**115**	1075
Isobutane	**115**	1969
Isobutane mixture	**115**	1075
Isobutane mixture	**115**	1969
Isobutanol	**129**	1212
Isobutyl acetate	**129**	1213
Isobutyl acrylate, stabilized	**129P**	2527
Isobutyl alcohol	**129**	1212
Isobutyl aldehyde	**130**	2045
Isobutylamine	**132**	1214
Isobutyl chloroformate	**155**	2742
Isobutylene	**115**	1055
Isobutylene	**115**	1075
Isobutyl formate	**129**	2393
Isobutyl isobutyrate	**130**	2528
Isobutyl isocyanate	**155**	2486
Isobutyl methacrylate, stabilized	**130P**	2283
Isobutyl propionate	**129**	2394
Isobutyraldehyde	**130**	2045
Isobutyric acid	**132**	2529

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Isobutyric anhydride	**132**	2530
Isobutyronitrile	**131**	2284
Isobutyryl chloride	**132**	2395
Isocyanate solution, flammable, poisonous, n.o.s.	**155**	2478
Isocyanate solution, flammable, toxic, n.o.s.	**155**	2478
Isocyanate solution, poisonous, flammable, n.o.s.	**155**	3080
Isocyanate solution, poisonous, n.o.s.	**155**	2206
Isocyanate solution, toxic, flammable, n.o.s.	**155**	3080
Isocyanate solution, toxic, n.o.s.	**155**	2206
Isocyanate solutions, n.o.s.	**155**	2206
Isocyanate solutions, n.o.s.	**155**	2478
Isocyanate solutions, n.o.s.	**155**	3080
Isocyanates, flammable, poisonous, n.o.s.	**155**	2478
Isocyanates, flammable, toxic, n.o.s.	**155**	2478
Isocyanates, n.o.s.	**155**	2206
Isocyanates, n.o.s.	**155**	2478
Isocyanates, n.o.s.	**155**	3080
Isocyanates, poisonous, flammable, n.o.s.	**155**	3080
Isocyanates, poisonous, n.o.s.	**155**	2206
Isocyanates, toxic, flammable, n.o.s.	**155**	3080
Isocyanates, toxic, n.o.s.	**155**	2206
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Isoheptenes	**128**	2287
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Isopropanol	**129**	1219
Isopropenyl acetate	**129P**	2403
Isopropenylbenzene	**128**	2303
Isopropyl acetate	**129**	1220
Isopropyl acid phosphate	**153**	1793
Isopropyl alcohol	**129**	1219
Isopropylamine	**132**	1221
Isopropylbenzene	**130**	1918
Isopropyl butyrate	**129**	2405
Isopropyl chloroacetate	**155**	2947
Isopropyl chloroformate	**155**	2407
Isopropyl 2-chloropropionate	**129**	2934
Isopropyl isobutyrate	**127**	2406
Isopropyl isocyanate	**155**	2483
Isopropyl nitrate	**130**	1222
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Isosorbide dinitrate mixture	**133**	2907
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L (Lewisite)	**153**	2810
Lead acetate	**151**	1616
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Lead cyanide	**151**	1620
Lead dioxide	**141**	1872
Lead nitrate	**141**	1469
Lead perchlorate	**141**	1470
Lead perchlorate, solid	**141**	1470
Lead perchlorate, solution	**141**	1470
Lead perchlorate, solution	**141**	3408
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Lead sulphate, with more than 3% free acid	**154**	1794
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Life-saving appliances, self-inflating	**171**	2990
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Lighters (cigarettes) (flammable gas)	**115**	1057
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Liquefied gas, flammable, n.o.s.	**115**	3161
Liquefied gas, n.o.s.	**126**	3163
Liquefied gas, oxidizing, n.o.s.	**122**	3157
Liquefied gas, poisonous, corrosive, n.o.s.	**123**	3308
Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)	**123**	3308
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Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	**123**	3308
Liquefied gas, poisonous, flammable, corrosive, n.o.s.	**119**	3309
Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	**119**	3309
Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	**119**	3309
Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	**119**	3309
Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	**119**	3309
Liquefied gas, poisonous, flammable, n.o.s.	**119**	3160
Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	**119**	3160
Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	**119**	3160
Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	**119**	3160
Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	**119**	3160
Liquefied gas, poisonous, n.o.s.	**123**	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	**123**	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	**123**	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	**123**	3162
Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	**123**	3162
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s.	**124**	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	**124**	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	**124**	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	**124**	3310
Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	**124**	3310
Liquefied gas, poisonous, oxidizing, n.o.s.	**124**	3307
Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)	**124**	3307
Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	**124**	3307
Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	**124**	3307
Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)	**124**	3307
Liquefied gas, toxic, corrosive, n.o.s.	**123**	3308
Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	**123**	3308
Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	**123**	3308

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Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	**123**	3308
Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	**123**	3308
Liquefied gas, toxic, flammable, corrosive, n.o.s.	**119**	3309
Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	**119**	3309
Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	**119**	3309
Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	**119**	3309
Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	**119**	3309
Liquefied gas, toxic, flammable, n.o.s.	**119**	3160
Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	**119**	3160
Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	**119**	3160
Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	**119**	3160
Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	**119**	3160
Liquefied gas, toxic, n.o.s.	**123**	3162
Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone A)	**123**	3162
Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone B)	**123**	3162
Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone C)	**123**	3162
Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone D)	**123**	3162
Liquefied gas, toxic, oxidizing, corrosive, n.o.s.	**124**	3310
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	**124**	3310
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	**124**	3310
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	**124**	3310
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	**124**	3310
Liquefied gas, toxic, oxidizing, n.o.s.	**124**	3307
Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)	**124**	3307
Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	**124**	3307
Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)	**124**	3307
Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)	**124**	3307
Liquefied gases, non-flammable, charged with Nitrogen, Carbon dioxide or Air	**120**	1058
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Liquefied petroleum gas	**115**	1075
Lithium	**138**	1415

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Lithium alkyls	**135**	2445
Lithium alkyls, liquid	**135**	2445
Lithium alkyls, solid	**135**	3433
Lithium aluminum hydride	**138**	1410
Lithium aluminum hydride, ethereal	**138**	1411
Lithium amide	**139**	1412
Lithium batteries	**138**	3090
Lithium batteries, liquid or solid cathode	**138**	3090
Lithium batteries contained in equipment	**138**	3091
Lithium batteries packed with equipment	**138**	3091
Lithium borohydride	**138**	1413
Lithium ferrosilicon	**139**	2830
Lithium hydride	**138**	1414
Lithium hydride, fused solid	**138**	2805
Lithium hydroxide	**154**	2680
Lithium hydroxide, monohydrate	**154**	2680
Lithium hydroxide, solid	**154**	2680
Lithium hydroxide, solution	**154**	2679
Lithium hypochlorite, dry	**140**	1471
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Lithium hypochlorite mixtures, dry	**140**	1471
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Lithium metal batteries packed with equipment (including lithium alloy batteries)	**138**	3091
Lithium nitrate	**140**	2722
Lithium nitride	**138**	2806
Lithium peroxide	**143**	1472
Lithium silicon	**138**	1417
LNG (cryogenic liquid)	**115**	1972
London purple	**151**	1621
LPG	**115**	1075
Magnesium	**138**	1869
Magnesium, in pellets, turnings or ribbons	**138**	1869
Magnesium alkyls	**135**	3053
Magnesium alloys, with more than 50% Magnesium, in pellets, turnings or ribbons	**138**	1869
Magnesium alloys powder	**138**	1418
Magnesium aluminum phosphide	**139**	1419
Magnesium arsenate	**151**	1622
Magnesium bromate	**140**	1473
Magnesium chlorate	**140**	2723
Magnesium chloride and Chlorate mixture	**140**	1459
Magnesium chloride and Chlorate mixture, solid	**140**	1459
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Magnesium peroxide	**140**	1476
Magnesium phosphide	**139**	2011
Magnesium powder	**138**	1418
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Magnetized material	**171**	2807
Maleic acid	**156**	2215
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Maneb	**135**	2210
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Maneb preparation, stabilized	**135**	2968
Maneb preparation, with not less than 60% Maneb	**135**	2210
Manganese nitrate	**140**	2724
Manganese resinate	**133**	1330
Matches, fusee	**133**	2254
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Medical waste, n.o.s.	**158**	3291
Medicine, liquid, flammable, poisonous, n.o.s.	**131**	3248
Medicine, liquid, flammable, toxic, n.o.s.	**131**	3248
Medicine, liquid, poisonous, n.o.s.	**151**	1851
Medicine, liquid, toxic, n.o.s.	**151**	1851
Medicine, solid, poisonous, n.o.s.	**151**	3249
Medicine, solid, toxic, n.o.s.	**151**	3249
Medicines, corrosive, liquid, n.o.s.	**154**	1760
Medicines, corrosive, solid, n.o.s.	**154**	1759
Medicines, flammable, liquid, n.o.s.	**128**	1993
Medicines, flammable, solid, n.o.s.	**133**	1325
Mercaptan mixture, liquid, flammable, n.o.s.	**130**	3336
Mercaptan mixture, liquid, flammable, poisonous, n.o.s.	**131**	1228
Mercaptan mixture, liquid, flammable, toxic, n.o.s.	**131**	1228
Mercaptan mixture, liquid, poisonous, flammable, n.o.s.	**131**	3071
Mercaptan mixture, liquid, toxic, flammable, n.o.s.	**131**	3071
Mercaptans, liquid, flammable, n.o.s.	**130**	3336
Mercaptans, liquid, flammable, poisonous, n.o.s.	**131**	1228
Mercaptans, liquid, flammable, toxic, n.o.s.	**131**	1228
Mercaptans, liquid, poisonous, flammable, n.o.s.	**131**	3071
Mercaptans, liquid, toxic, flammable, n.o.s.	**131**	3071
Mercuric arsenate	**151**	1623
Mercuric bromide	**154**	1634
Mercuric chloride	**154**	1624
Mercuric cyanide	**154**	1636
Mercuric nitrate	**141**	1625

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Mercuric potassium cyanide	**157**	1626
Mercuric sulfate	**151**	1645
Mercuric sulphate	**151**	1645
Mercurous bromide	**154**	1634
Mercurous nitrate	**141**	1627
Mercury	**172**	2809
Mercury acetate	**151**	1629
Mercury ammonium chloride	**151**	1630
Mercury based pesticide, liquid, flammable, poisonous	**131**	2778
Mercury based pesticide, liquid, flammable, toxic	**131**	2778
Mercury based pesticide, liquid, poisonous	**151**	3012
Mercury based pesticide, liquid, poisonous, flammable	**131**	3011
Mercury based pesticide, liquid, toxic	**151**	3012
Mercury based pesticide, liquid, toxic, flammable	**131**	3011
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Mercury based pesticide, solid, toxic	**151**	2777
Mercury benzoate	**154**	1631
Mercury bromides	**154**	1634
Mercury compound, liquid, n.o.s.	**151**	2024
Mercury compound, solid, n.o.s.	**151**	2025
Mercury cyanide	**154**	1636
Mercury gluconate	**151**	1637
Mercury iodide	**151**	1638
Mercury metal	**172**	2809
Mercury nucleate	**151**	1639
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Name of Material	Guide No.	ID No.
Mercury oxide	**151**	1641
Mercury oxycyanide, desensitized	**151**	1642
Mercury potassium iodide	**151**	1643
Mercury salicylate	**151**	1644
Mercury sulfate	**151**	1645
Mercury sulphate	**151**	1645
Mercury thiocyanate	**151**	1646
Mesityl oxide	**129**	1229
Metal alkyl, solution, n.o.s.	**135**	9195
Metal alkyl halides, n.o.s.	**138**	3049
Metal alkyl halides, water-reactive, n.o.s.	**138**	3049
Metal alkyl hydrides, n.o.s.	**138**	3050
Metal alkyl hydrides, water-reactive, n.o.s.	**138**	3050
Metal alkyls, n.o.s.	**135**	2003
Metal alkyls, water-reactive, n.o.s.	**135**	2003
Metal aryl halides, n.o.s.	**138**	3049
Metal aryl halides, water-reactive, n.o.s.	**138**	3049
Metal aryl hydrides, n.o.s.	**138**	3050
Metal aryl hydrides, water-reactive, n.o.s.	**138**	3050
Metal aryls, n.o.s	**135**	2003
Metal aryls, water-reactive, n.o.s.	**135**	2003
Metal carbonyls, liquid, n.o.s.	**151**	3281
Metal carbonyls, n.o.s.	**151**	3281
Metal carbonyls, solid, n.o.s.	**151**	3466
Metal catalyst, dry	**135**	2881
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Metaldehyde	**133**	1332
Metal hydrides, flammable, n.o.s.	**170**	3182

Name of Material	Guide No.	ID No.
Metal hydrides, water-reactive, n.o.s.	**138**	1409
Metallic substance, water-reactive, n.o.s.	**138**	3208
Metallic substance, water-reactive, self-heating, n.o.s.	**138**	3209
Metal powder, flammable, n.o.s.	**170**	3089
Metal powder, self-heating, n.o.s.	**135**	3189
Metal salts of organic compounds, flammable, n.o.s.	**133**	3181
Methacrylaldehyde, stabilized	**131P**	2396
Methacrylic acid, stabilized	**153P**	2531
Methacrylonitrile, stabilized	**131P**	3079
Methallyl alcohol	**129**	2614
Methane	**115**	1971
Methane, compressed	**115**	1971
Methane, refrigerated liquid (cryogenic liquid)	**115**	1972
Methane and Hydrogen mixture, compressed	**115**	2034
Methanesulfonyl chloride	**156**	3246
Methanesulphonyl chloride	**156**	3246
Methanol	**131**	1230
Methoxymethyl isocyanate	**155**	2605
4-Methoxy-4-methyl-pentan-2-one	**128**	2293
1-Methoxy-2-propanol	**129**	3092
Methyl acetate	**129**	1231
Methylacetylene and Propadiene mixture, stabilized	**116P**	1060
Methyl acrylate, stabilized	**129P**	1919
Methylal	**127**	1234
Methyl alcohol	**131**	1230
Methylallyl chloride	**130P**	2554

Name of Material	Guide No.	ID No.
Methylamine, anhydrous	**118**	1061
Methylamine, aqueous solution	**132**	1235
Methylamyl acetate	**130**	1233
Methylamyl alcohol	**129**	2053
Methyl amyl ketone	**127**	1110
N-Methylaniline	**153**	2294
Methyl benzoate	**152**	2938
alpha-Methylbenzyl alcohol	**153**	2937
alpha-Methylbenzyl alcohol, liquid	**153**	2937
alpha-Methylbenzyl alcohol, solid	**153**	3438
Methylbenzyl alcohol (alpha)	**153**	2937
Methyl bromide	**123**	1062
Methyl bromide and Chloropicrin mixture	**123**	1581
Methyl bromide and Ethylene dibromide mixture, liquid	**151**	1647
Methyl bromoacetate	**155**	2643
2-Methylbutanal	**129**	3371
3-Methylbutan-2-one	**127**	2397
2-Methyl-1-butene	**128**	2459
2-Methyl-2-butene	**128**	2460
3-Methyl-1-butene	**128**	2561
N-Methylbutylamine	**132**	2945
Methyl tert-butyl ether	**127**	2398
Methyl butyrate	**129**	1237
Methyl chloride	**115**	1063
Methyl chloride and Chloropicrin mixture	**119**	1582
Methyl chloride and Methylene chloride mixture	**115**	1912
Methyl chloroacetate	**155**	2295
Methyl chloroformate	**155**	1238

Name of Material	Guide No.	ID No.
Methyl chloromethyl ether	**131**	1239
Methyl 2-chloropropionate	**129**	2933
Methylchlorosilane	**119**	2534
Methyl cyanide	**127**	1648
Methylcyclohexane	**128**	2296
Methylcyclohexanols	**129**	2617
Methylcyclohexanone	**128**	2297
Methylcyclopentane	**128**	2298
Methyl dichloroacetate	**155**	2299
Methyldichloroarsine	**152**	1556
Methyldichlorosilane	**139**	1242
Methylene chloride	**160**	1593
Methylene chloride and Methyl chloride mixture	**115**	1912
Methyl ethyl ether	**115**	1039
Methyl ethyl ketone	**127**	1193
2-Methyl-5-ethylpyridine	**153**	2300
Methyl fluoride	**115**	2454
Methyl formate	**129**	1243
2-Methylfuran	**128**	2301
2-Methyl-2-heptanethiol	**131**	3023
5-Methylhexan-2-one	**127**	2302
Methylhydrazine	**131**	1244
Methyl iodide	**151**	2644
Methyl isobutyl carbinol	**129**	2053
Methyl isobutyl ketone	**127**	1245
Methyl isocyanate	**155**	2480
Methyl isopropenyl ketone, stabilized	**127P**	1246
Methyl isothiocyanate	**131**	2477
Methyl isovalerate	**130**	2400
Methyl magnesium bromide in Ethyl ether	**135**	1928

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Methyl mercaptan	**117**	1064
Methyl methacrylate monomer, stabilized	**129P**	1247
4-Methylmorpholine	**132**	2535
N-Methylmorpholine	**132**	2535
Methylmorpholine	**132**	2535
Methyl nitrite	**116**	2455
Methyl orthosilicate	**155**	2606
Methyl parathion, liquid	**152**	3018
Methyl parathion, solid	**152**	2783
Methylpentadiene	**128**	2461
2-Methylpentan-2-ol	**129**	2560
Methylphenyldichlorosilane	**156**	2437
Methyl phosphonic dichloride	**137**	9206
Methyl phosphonous dichloride	**135**	2845
1-Methylpiperidine	**132**	2399
Methyl propionate	**129**	1248
Methyl propyl ether	**127**	2612
Methyl propyl ketone	**127**	1249
Methyltetrahydrofuran	**127**	2536
Methyl trichloroacetate	**156**	2533
Methyltrichlorosilane	**155**	1250
alpha-Methylvaleraldehyde	**130**	2367
Methyl valeraldehyde (alpha)	**130**	2367
Methyl vinyl ketone, stabilized	**131P**	1251
M.I.B.C.	**129**	2053
Molybdenum pentachloride	**156**	2508
Monoethanolamine	**153**	2491
Mononitrotoluidines	**153**	2660
Monopropylamine	**132**	1277
Morpholine	**132**	2054
Motor fuel anti-knock mixture	**131**	1649
Motor spirit	**128**	1203

Name of Material	Guide No.	ID No.
Motor spirit and ethanol mixture, with more than 10% ethanol	**127**	3475
Muriatic acid	**157**	1789
Musk xylene	**149**	2956
Mustard	**153**	2810
Mustard Lewisite	**153**	2810
Naphthalene, crude	**133**	1334
Naphthalene, molten	**133**	2304
Naphthalene, refined	**133**	1334
alpha-Naphthylamine	**153**	2077
Naphthylamine (alpha)	**153**	2077
beta-Naphthylamine	**153**	1650
beta-Naphthylamine, solid	**153**	1650
beta-Naphthylamine, solution	**153**	3411
Naphthylamine (beta)	**153**	1650
Naphthylamine (beta), solid	**153**	1650
Naphthylamine (beta), solution	**153**	3411
Naphthylthiourea	**153**	1651
Naphthylurea	**153**	1652
Natural gas, compressed	**115**	1971
Natural gas, refrigerated liquid (cryogenic liquid)	**115**	1972
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Organochlorine pesticide, liquid, poisonous	**151**	2996
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Organophosphorus compound, toxic, flammable, n.o.s.	**131**	3279
Organophosphorus compound, toxic, liquid, n.o.s.	**151**	3278
Organophosphorus compound, toxic, n.o.s.	**151**	3278
Organophosphorus compound, toxic, solid, n.o.s.	**151**	3464
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Oxidizing solid, flammable, n.o.s.	**140**	3137
Oxidizing solid, n.o.s.	**140**	1479
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Oxygen and Carbon dioxide mixture, compressed	**122**	1014
Oxygen and Rare gases mixture	**121**	1980
Oxygen and Rare gases mixture, compressed	**121**	1980
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Pentaerythritol tetranitrate mixture, desensitized, solid, n.o.s., with more than 10% but not more than 20% PETN	**113**	3344
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Perchloric acid, with not more than 50% acid	**140**	1802
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Perfluoromethyl vinyl ether	**115**	3153
Perfluoro(methyl vinyl ether)	**115**	3153
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Phenolates, solid	**154**	2905
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Phenoxyacetic acid derivative pesticide, liquid, flammable, poisonous	**131**	3346
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Phenoxy pesticide, liquid, flammable, poisonous	**131**	2766
Phenoxy pesticide, liquid, flammable, toxic	**131**	2766
Phenoxy pesticide, liquid, poisonous	**152**	3000
Phenoxy pesticide, liquid, poisonous, flammable	**131**	2999
Phenoxy pesticide, liquid, toxic	**152**	3000
Phenoxy pesticide, liquid, toxic, flammable	**131**	2999
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Phenoxy pesticide, solid, toxic	**152**	2765
Phenylacetonitrile, liquid	**152**	2470
Phenylacetyl chloride	**156**	2577
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Phenylphosphorus dichloride	**137**	2798

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Phenyltrichlorosilane	156	1804
Phenyl urea pesticide, liquid, flammable, poisonous	131	2768
Phenyl urea pesticide, liquid, flammable, toxic	131	2768
Phenyl urea pesticide, liquid, poisonous	151	3002
Phenyl urea pesticide, liquid, poisonous, flammable	131	3001
Phenyl urea pesticide, liquid, toxic	151	3002
Phenyl urea pesticide, liquid, toxic, flammable	131	3001
Phenyl urea pesticide, solid, poisonous	151	2767
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Phosphorus, amorphous, red	133	1338
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Phosphorus, white, molten	136	2447
Phosphorus, yellow, dry or under water or in solution	136	1381

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Phosphorus oxybromide	137	1939
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Phosphorus pentabromide	137	2691
Phosphorus pentachloride	137	1806
Phosphorus pentafluoride	125	2198
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Phosphorus pentasulfide, free from yellow and white Phosphorus	139	1340
Phosphorus pentasulphide, free from yellow and white Phosphorus	139	1340
Phosphorus pentoxide	137	1807
Phosphorus sesquisulfide, free from yellow and white Phosphorus	139	1341
Phosphorus sesquisulphide, free from yellow and white Phosphorus	139	1341
Phosphorus tribromide	137	1808
Phosphorus trichloride	137	1809
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Phosphorus trisulfide, free from yellow and white Phosphorus	139	1343
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Phthalimide derivative pesticide, liquid, flammable, poisonous	**131**	2774
Phthalimide derivative pesticide, liquid, flammable, toxic	**131**	2774
Phthalimide derivative pesticide, liquid, poisonous	**151**	3008
Phthalimide derivative pesticide, liquid, poisonous, flammable	**131**	3007
Phthalimide derivative pesticide, liquid, toxic	**151**	3008
Phthalimide derivative pesticide, liquid, toxic, flammable	**131**	3007
Phthalimide derivative pesticide, solid, poisonous	**151**	2773
Phthalimide derivative pesticide, solid, toxic	**151**	2773
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Picric acid, wetted with not less than 10% water	**113**	3364
Picrite, wetted	**113**	1336
Picryl chloride, wetted with not less than 10% water	**113**	3365
Picric acid, wetted with not less than 30% water	**113**	1344
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Pinene (alpha)	**128**	2368
Pine oil	**129**	1272
Piperazine	**153**	2579
Piperidine	**132**	2401
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Plastics moulding compound	**171**	3314
Plastics, nitrocellulose-based, self-heating, n.o.s.	**135**	2006
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Propyl alcohol, normal	**129**	1274
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Sodium cacodylate	**152**	1688
Sodium carbonate peroxyhydrate	**140**	3378
Sodium chlorate	**140**	1495
Sodium chlorate, aqueous solution	**140**	2428
Sodium chlorite	**143**	1496
Sodium chlorite, solution, with more than 5% available Chlorine	**154**	1908

Name of Material	Guide No.	ID No.
Sodium chloroacetate	**151**	2659
Sodium cuprocyanide, solid	**157**	2316
Sodium cuprocyanide, solution	**157**	2317
Sodium cyanide	**157**	1689
Sodium cyanide, solid	**157**	1689
Sodium cyanide, solution	**157**	3414
Sodium dichloroisocyanurate	**140**	2465
Sodium dichloro-s-triazinetrione	**140**	2465
Sodium dinitro-o-cresolate, wetted with not less than 10% water	**113**	3369
Sodium dinitro-o-cresolate, wetted with not less than 15% water	**113**	1348
Sodium dinitro-ortho-cresolate, wetted	**113**	1348
Sodium dithionite	**135**	1384
Sodium fluoride	**154**	1690
Sodium fluoride, solid	**154**	1690
Sodium fluoride, solution	**154**	3415
Sodium fluoroacetate	**151**	2629
Sodium fluorosilicate	**154**	2674
Sodium hydride	**138**	1427
Sodium hydrogendifluoride	**154**	2439
Sodium hydrogen sulfate, solution	**154**	2837
Sodium hydrogen sulphate, solution	**154**	2837
Sodium hydrosulfide, solid, with less than 25% water of crystallization	**135**	2318
Sodium hydrosulfide, solution	**154**	2922
Sodium hydrosulfide, with less than 25% water of crystallization	**135**	2318
Sodium hydrosulfide, with not less than 25% water of crystallization	**154**	2949
Sodium hydrosulfite	**135**	1384
Sodium hydrosulphide, solid, with less than 25% water of crystallization	**135**	2318
Sodium hydrosulphide, solution	**154**	2922
Sodium hydrosulphide, with less than 25% water of crystallization	**135**	2318
Sodium hydrosulphide, with not less than 25% water of crystallization	**154**	2949
Sodium hydrosulphite	**135**	1384
Sodium hydroxide, bead	**154**	1823
Sodium hydroxide, dry	**154**	1823
Sodium hydroxide, flake	**154**	1823
Sodium hydroxide, granular	**154**	1823
Sodium hydroxide, solid	**154**	1823
Sodium hydroxide, solution	**154**	1824
Sodium methylate	**138**	1431
Sodium methylate, dry	**138**	1431
Sodium methylate, solution in alcohol	**132**	1289
Sodium monoxide	**157**	1825
Sodium nitrate	**140**	1498
Sodium nitrate and Potassium nitrate mixture	**140**	1499
Sodium nitrite	**140**	1500
Sodium nitrite and Potassium nitrate mixture	**140**	1487
Sodium pentachlorophenate	**154**	2567
Sodium perborate monohydrate	**140**	3377

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Sodium percarbonates	**140**	2467
Sodium perchlorate	**140**	1502
Sodium permanganate	**140**	1503
Sodium peroxide	**144**	1504
Sodium peroxoborate, anhydrous	**140**	3247
Sodium persulfate	**140**	1505
Sodium persulphate	**140**	1505
Sodium phosphide	**139**	1432
Sodium picramate, wetted with not less than 20% water	**113**	1349
Sodium potassium alloys	**138**	1422
Sodium potassium alloys, liquid	**138**	1422
Sodium potassium alloys, solid	**138**	3404
Sodium selenite	**151**	2630
Sodium silicofluoride	**154**	2674
Sodium sulfide, anhydrous	**135**	1385
Sodium sulfide, hydrated, with not less than 30% water	**153**	1849
Sodium sulfide, with less than 30% water of crystallization	**135**	1385
Sodium sulphide, anhydrous	**135**	1385
Sodium sulphide, hydrated, with not less than 30% water	**153**	1849
Sodium sulphide, with less than 30% water of crystallization	**135**	1385
Sodium superoxide	**143**	2547
Solids containing corrosive liquid, n.o.s.	**154**	3244
Solids containing flammable liquid, n.o.s.	**133**	3175
Solids containing poisonous liquid, n.o.s.	**151**	3243
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Stannic chloride, anhydrous	**137**	1827
Stannic chloride, pentahydrate	**154**	2440
Stannic phosphides	**139**	1433
Stibine	**119**	2676
Straw, wet, damp or contaminated with oil	**133**	1327
Strontium arsenite	**151**	1691
Strontium chlorate	**143**	1506
Strontium chlorate, solid	**143**	1506
Strontium chlorate, solution	**143**	1506
Strontium nitrate	**140**	1507
Strontium perchlorate	**140**	1508
Strontium peroxide	**143**	1509
Strontium phosphide	**139**	2013
Strychnine	**151**	1692
Strychnine salts	**151**	1692
Styrene monomer, stabilized	**128P**	2055
Substituted nitrophenol pesticide, liquid, flammable, poisonous	**131**	2780
Substituted nitrophenol pesticide, liquid, flammable, toxic	**131**	2780
Substituted nitrophenol pesticide, liquid, poisonous	**153**	3014
Substituted nitrophenol pesticide, liquid, poisonous, flammable	**131**	3013
Substituted nitrophenol pesticide, liquid, toxic	**153**	3014
Substituted nitrophenol pesticide, liquid, toxic, flammable	**131**	3013
Substituted nitrophenol pesticide, solid, poisonous	**153**	2779

Name of Material	Guide No.	ID No.
Substituted nitrophenol pesticide, solid, toxic	**153**	2779
Sulfamic acid	**154**	2967
Sulfur	**133**	1350
Sulfur, molten	**133**	2448
Sulfur chlorides	**137**	1828
Sulfur dioxide	**125**	1079
Sulfur hexafluoride	**126**	1080
Sulfuric acid	**137**	1830
Sulfuric acid, fuming	**137**	1831
Sulfuric acid, fuming, with less than 30% free Sulfur trioxide	**137**	1831
Sulfuric acid, fuming, with not less than 30% free Sulfur trioxide	**137**	1831
Sulfuric acid, spent	**137**	1832
Sulfuric acid, with more than 51% acid	**137**	1830
Sulfuric acid, with not more than 51% acid	**157**	2796
Sulfuric acid and Hydrofluoric acid mixture	**157**	1786
Sulfurous acid	**154**	1833
Sulfur tetrafluoride	**125**	2418
Sulfur trioxide, inhibited	**137**	1829
Sulfur trioxide, stabilized	**137**	1829
Sulfur trioxide, uninhibited	**137**	1829
Sulfur trioxide and Chlorosulfonic acid mixture	**137**	1754
Sulfuryl chloride	**137**	1834
Sulfuryl fluoride	**123**	2191
Sulphamic acid	**154**	2967
Sulphur	**133**	1350
Sulphur, molten	**133**	2448
Sulphur chlorides	**137**	1828

Name of Material	Guide No.	ID No.
Sulphur dioxide	**125**	1079
Sulphur hexafluoride	**126**	1080
Sulphuric acid	**137**	1830
Sulphuric acid, fuming	**137**	1831
Sulphuric acid, fuming, with less than 30% free Sulphur trioxide	**137**	1831
Sulphuric acid, fuming, with not less than 30% free Sulphur trioxide	**137**	1831
Sulphuric acid, spent	**137**	1832
Sulphuric acid, with more than 51% acid	**137**	1830
Sulphuric acid, with not more than 51% acid	**157**	2796
Sulphuric acid and Hydrofluoric acid mixture	**157**	1786
Sulphurous acid	**154**	1833
Sulphur tetrafluoride	**125**	2418
Sulphur trioxide, inhibited	**137**	1829
Sulphur trioxide, stabilized	**137**	1829
Sulphur trioxide, uninhibited	**137**	1829
Sulphur trioxide and Chlorosulphonic acid mixture	**137**	1754
Sulphuryl chloride	**137**	1834
Sulphuryl fluoride	**123**	2191
Tabun	**153**	2810
Tars, liquid	**130**	1999
Tear gas candles	**159**	1700
Tear gas devices	**159**	1693
Tear gas grenades	**159**	1700
Tear gas substance, liquid, n.o.s.	**159**	1693
Tear gas substance, solid, n.o.s.	**159**	1693
Tear gas substance, solid, n.o.s.	**159**	3448

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Tellurium compound, n.o.s.	151	3284
Tellurium hexafluoride	125	2195
Terpene hydrocarbons, n.o.s.	128	2319
Terpinolene	128	2541
Tetrabromoethane	159	2504
1,1,2,2-Tetrachloroethane	151	1702
Tetrachloroethane	151	1702
Tetrachloroethylene	160	1897
Tetraethyl dithiopyrophosphate	153	1704
Tetraethyl dithiopyrophosphate, mixture, dry or liquid	153	1704
Tetraethylenepentamine	153	2320
Tetraethyl lead, liquid	131	1649
Tetraethyl pyrophosphate, liquid	152	3018
Tetraethyl pyrophosphate, solid	152	2783
Tetraethyl silicate	129	1292
1,1,1,2-Tetrafluoroethane	126	3159
Tetrafluoroethane and Ethylene oxide mixture, with not more than 5.6% Ethylene oxide	126	3299
Tetrafluoroethylene, stabilized	116P	1081
Tetrafluoromethane	126	1982
Tetrafluoromethane, compressed	126	1982
1,2,3,6-Tetrahydro-benzaldehyde	129	2498
Tetrahydrofuran	127	2056
Tetrahydrofurfurylamine	129	2943
Tetrahydrophthalic anhydrides	156	2698
1,2,3,6-Tetrahydropyridine	129	2410
1,2,5,6-Tetrahydropyridine	129	2410
Tetrahydrothiophene	130	2412
Tetramethylammonium hydroxide	153	1835

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Tetramethylammonium hydroxide, solid	153	3423
Tetramethylammonium hydroxide, solution	153	1835
Tetramethylsilane	130	2749
Tetranitromethane	143	1510
Tetrapropyl orthotitanate	128	2413
Textile waste, wet	133	1857
Thallium chlorate	141	2573
Thallium compound, n.o.s.	151	1707
Thallium nitrate	141	2727
Thallium sulfate, solid	151	1707
Thallium sulphate, solid	151	1707
4-Thiapentanal	152	2785
Thia-4-pentanal	152	2785
Thickened GD	153	2810
Thioacetic acid	129	2436
Thiocarbamate pesticide, liquid, flammable, poisonous	131	2772
Thiocarbamate pesticide, liquid, flammable, toxic	131	2772
Thiocarbamate pesticide, liquid, poisonous	151	3006
Thiocarbamate pesticide, liquid, poisonous, flammable	131	3005
Thiocarbamate pesticide, liquid, toxic	151	3006
Thiocarbamate pesticide, liquid, toxic, flammable	131	3005
Thiocarbamate pesticide, solid, poisonous	151	2771
Thiocarbamate pesticide, solid, toxic	151	2771
Thioglycol	153	2966
Thioglycolic acid	153	1940

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Thiolactic acid	**153**	2936
Thionyl chloride	**137**	1836
Thiophene	**130**	2414
Thiophosgene	**157**	2474
Thiophosphoryl chloride	**157**	1837
Thiourea dioxide	**135**	3341
Thorium metal, pyrophoric	**162**	2975
Thorium nitrate, solid	**162**	2976
Tinctures, medicinal	**127**	1293
Tin tetrachloride	**137**	1827
Tin tetrachloride, pentahydrate	**154**	2440
Titanium disulfide	**135**	3174
Titanium disulphide	**135**	3174
Titanium hydride	**170**	1871
Titanium powder, dry	**135**	2546
Titanium powder, wetted with not less than 25% water	**170**	1352
Titanium sponge granules	**170**	2878
Titanium sponge powders	**170**	2878
Titanium sulfate, solution	**154**	1760
Titanium sulphate, solution	**154**	1760
Titanium tetrachloride	**137**	1838
Titanium trichloride, pyrophoric	**135**	2441
Titanium trichloride mixture	**157**	2869
Titanium trichloride mixture, pyrophoric	**135**	2441
TNT, wetted with not less than 10% water	**113**	3366
TNT, wetted with not less than 30% water	**113**	1356
Toe puffs, nitrocellulose base	**133**	1353
Toluene	**130**	1294
2,4-Toluenediamine	**151**	1709

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Toluene diisocyanate	**156**	2078
Toluidines	**153**	1708
Toluidines, liquid	**153**	1708
Toluidines, solid	**153**	1708
Toluidines, solid	**153**	3451
2,4-Toluylenediamine	**151**	1709
2,4-Toluylenediamine, solid	**151**	1709
2,4-Toluylenediamine, solution	**151**	3418
Toxic by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)	**154**	3389
Toxic by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)	**154**	3390
Toxic by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone A)	**131**	3383
Toxic by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone B)	**131**	3384
Toxic by inhalation liquid, n.o.s. (Inhalation Hazard Zone A)	**151**	3381
Toxic by inhalation liquid, n.o.s. (Inhalation Hazard Zone B)	**151**	3382
Toxic by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)	**142**	3387
Toxic by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)	**142**	3388
Toxic by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)	**139**	3385
Toxic by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)	**139**	3386
Toxic liquid, corrosive, inorganic, n.o.s.	**154**	3289

Name of Material	Guide No.	ID No.
Toxic liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone A)	**154**	3289
Toxic liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone B)	**154**	3289
Toxic liquid, corrosive, n.o.s.	**154**	2927
Toxic liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)	**154**	2927
Toxic liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)	**154**	2927
Toxic liquid, corrosive, organic, n.o.s.	**154**	2927
Toxic liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone A)	**154**	2927
Toxic liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone B)	**154**	2927
Toxic liquid, flammable, n.o.s.	**131**	2929
Toxic liquid, flammable, n.o.s. (Inhalation Hazard Zone A)	**131**	2929
Toxic liquid, flammable, n.o.s. (Inhalation Hazard Zone B)	**131**	2929
Toxic liquid, flammable, organic, n.o.s.	**131**	2929
Toxic liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone A)	**131**	2929
Toxic liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone B)	**131**	2929
Toxic liquid, inorganic, n.o.s.	**151**	3287
Toxic liquid, inorganic, n.o.s. (Inhalation Hazard Zone A)	**151**	3287
Toxic liquid, inorganic, n.o.s. (Inhalation Hazard Zone B)	**151**	3287

Name of Material	Guide No.	ID No.
Toxic liquid, n.o.s.	**153**	2810
Toxic liquid, n.o.s. (Inhalation Hazard Zone A)	**153**	2810
Toxic liquid, n.o.s. (Inhalation Hazard Zone B)	**153**	2810
Toxic liquid, organic, n.o.s.	**153**	2810
Toxic liquid, organic, n.o.s. (Inhalation Hazard Zone A)	**153**	2810
Toxic liquid, organic, n.o.s. (Inhalation Hazard Zone B)	**153**	2810
Toxic liquid, oxidizing, n.o.s.	**142**	3122
Toxic liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)	**142**	3122
Toxic liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)	**142**	3122
Toxic liquid, water-reactive, n.o.s.	**139**	3123
Toxic liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)	**139**	3123
Toxic liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)	**139**	3123
Toxic liquid, which in contact with water emits flammable gases, n.o.s.	**139**	3123
Toxic liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone A)	**139**	3123
Toxic liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone B)	**139**	3123
Toxic solid, corrosive, inorganic, n.o.s.	**154**	3290
Toxic solid, corrosive, organic, n.o.s.	**154**	2928
Toxic solid, flammable, n.o.s.	**134**	2930

Name of Material	Guide No.	ID No.
Toxic solid, flammable, organic, n.o.s.	**134**	2930
Toxic solid, inorganic, n.o.s.	**151**	3288
Toxic solid, organic, n.o.s.	**154**	2811
Toxic solid, oxidizing, n.o.s.	**141**	3086
Toxic solid, self-heating, n.o.s.	**136**	3124
Toxic solid, water-reactive, n.o.s.	**139**	3125
Toxic solid, which in contact with water emits flammable gases, n.o.s.	**139**	3125
Toxins	**153**	——
Toxins, extracted from living sources, liquid, n.o.s.	**153**	3172
Toxins, extracted from living sources, n.o.s.	**153**	3172
Toxins, extracted from living sources, solid, n.o.s.	**153**	3172
Toxins, extracted from living sources, solid, n.o.s.	**153**	3462
Triallylamine	**132**	2610
Triallyl borate	**156**	2609
Triazine pesticide, liquid, flammable, poisonous	**131**	2764
Triazine pesticide, liquid, flammable, toxic	**131**	2764
Triazine pesticide, liquid, poisonous	**151**	2998
Triazine pesticide, liquid, poisonous, flammable	**131**	2997
Triazine pesticide, liquid, toxic	**151**	2998
Triazine pesticide, liquid, toxic, flammable	**131**	2997
Triazine pesticide, solid, poisonous	**151**	2763
Triazine pesticide, solid, toxic	**151**	2763

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Tri-(1-aziridinyl)phosphine oxide, solution	**152**	2501
Tributylamine	**153**	2542
Tributylphosphane	**135**	3254
Tributylphosphine	**135**	3254
Trichloroacetic acid	**153**	1839
Trichloroacetic acid, solution	**153**	2564
Trichloroacetyl chloride	**156**	2442
Trichlorobenzenes, liquid	**153**	2321
Trichlorobutene	**152**	2322
1,1,1-Trichloroethane	**160**	2831
Trichloroethylene	**160**	1710
Trichloroisocyanuric acid, dry	**140**	2468
Trichlorosilane	**139**	1295
(mono)-(Trichloro)-tetra-(monopotassium dichloro)-penta-s-triazinetrione, dry	**140**	2468
Tricresyl phosphate	**151**	2574
Triethylamine	**132**	1296
Triethylenetetramine	**153**	2259
Triethyl phosphite	**130**	2323
Trifluoroacetic acid	**154**	2699
Trifluoroacetyl chloride	**125**	3057
Trifluorochloroethylene, stabilized	**119P**	1082
1,1,1-Trifluoroethane	**115**	2035
Trifluoroethane, compressed	**115**	2035
Trifluoromethane	**126**	1984
Trifluoromethane, refrigerated liquid	**120**	3136
Trifluoromethane and Chlorotrifluoromethane azeotropic mixture with approximately 60% Chlorotrifluoromethane	**126**	2599

Name of Material	Guide No.	ID No.
2-Trifluoromethylaniline	**153**	2942
3-Trifluoromethylaniline	**153**	2948
Triisobutylene	**128**	2324
Triisopropyl borate	**129**	2616
Trimethoxysilane	**132**	9269
Trimethylacetyl chloride	**132**	2438
Trimethylamine, anhydrous	**118**	1083
Trimethylamine, aqueous solution	**132**	1297
1,3,5-Trimethylbenzene	**129**	2325
Trimethyl borate	**129**	2416
Trimethylchlorosilane	**155**	1298
Trimethylcyclohexylamine	**153**	2326
Trimethylhexamethylenediamines	**153**	2327
Trimethylhexamethylene diisocyanate	**156**	2328
Trimethyl phosphite	**130**	2329
Trinitrobenzene, wetted with not less than 10% water	**113**	3367
Trinitrobenzene, wetted with not less than 30% water	**113**	1354
Trinitrobenzoic acid, wetted with not less than 10% water	**113**	3368
Trinitrobenzoic acid, wetted with not less than 30% water	**113**	1355
Trinitrochlorobenzene, wetted with not less than 10% water	**113**	3365
Trinitrophenol, wetted with not less than 10% water	**113**	3364
Trinitrophenol, wetted with not less than 30% water	**113**	1344
Trinitrotoluene, wetted with not less than 10% water	**113**	3366
Trinitrotoluene, wetted with not less than 30% water	**113**	1356
Tripropylamine	**132**	2260
Tripropylene	**128**	2057
Tris-(1-aziridinyl)phosphine oxide, solution	**152**	2501
Tungsten hexafluoride	**125**	2196
Turpentine	**128**	1299
Turpentine substitute	**128**	1300
Undecane	**128**	2330
Uranium hexafluoride	**166**	2978
Uranium hexafluoride, fissile containing more than 1% Uranium-235	**166**	2977
Uranium hexafluoride, non fissile or fissile-excepted	**166**	2978
Uranium metal, pyrophoric	**162**	2979
Uranyl nitrate, hexahydrate, solution	**162**	2980
Uranyl nitrate, solid	**162**	2981
Urea hydrogen peroxide	**140**	1511
Urea nitrate, wetted with not less than 10% water	**113**	3370
Urea nitrate, wetted with not less than 20% water	**113**	1357
Valeraldehyde	**129**	2058
Valeryl chloride	**132**	2502
Vanadium compound, n.o.s.	**151**	3285
Vanadium oxytrichloride	**137**	2443
Vanadium pentoxide	**151**	2862
Vanadium tetrachloride	**137**	2444
Vanadium trichloride	**157**	2475
Vanadyl sulfate	**151**	2931
Vanadyl sulphate	**151**	2931
Vehicle, flammable gas powered	**128**	3166
Vehicle, flammable liquid powered	**128**	3166
Vinyl acetate, stabilized	**129P**	1301

Name of Material	Guide No.	ID No.
Vinyl bromide, stabilized	**116P**	1085
Vinyl butyrate, stabilized	**129P**	2838
Vinyl chloride, stabilized	**116P**	1086
Vinyl chloroacetate	**155**	2589
Vinyl ethyl ether, stabilized	**127P**	1302
Vinyl fluoride, stabilized	**116P**	1860
Vinylidene chloride, stabilized	**130P**	1303
Vinyl isobutyl ether, stabilized	**127P**	1304
Vinyl methyl ether, stabilized	**116P**	1087
Vinylpyridines, stabilized	**131P**	3073
Vinyltoluenes, stabilized	**130P**	2618
Vinyltrichlorosilane	**155P**	1305
Vinyltrichlorosilane, stabilized	**155P**	1305
VX	**153**	2810
Water-reactive liquid, corrosive, n.o.s.	**138**	3129
Water-reactive liquid, n.o.s.	**138**	3148
Water-reactive liquid, poisonous, n.o.s.	**139**	3130
Water-reactive liquid, toxic, n.o.s.	**139**	3130
Water-reactive solid, corrosive, n.o.s.	**138**	3131
Water-reactive solid, flammable, n.o.s.	**138**	3132
Water-reactive solid, n.o.s.	**138**	2813
Water-reactive solid, oxidizing, n.o.s.	**138**	3133
Water-reactive solid, poisonous, n.o.s.	**139**	3134
Water-reactive solid, self-heating, n.o.s.	**138**	3135
Water-reactive solid, toxic, n.o.s.	**139**	3134
Wheelchair, electric, with batteries	**154**	3171

Name of Material	Guide No.	ID No.
White asbestos	**171**	2590
White phosphorus, dry	**136**	1381
White phosphorus, in solution	**136**	1381
White phosphorus, molten	**136**	2447
White phosphorus, under water	**136**	1381
Wood preservatives, liquid	**129**	1306
Wool waste, wet	**133**	1387
Xanthates	**135**	3342
Xenon	**121**	2036
Xenon, compressed	**121**	2036
Xenon, refrigerated liquid (cryogenic liquid)	**120**	2591
Xylenes	**130**	1307
Xylenols	**153**	2261
Xylenols, liquid	**153**	3430
Xylenols, solid	**153**	2261
Xylidines	**153**	1711
Xylidines, liquid	**153**	1711
Xylidines, solid	**153**	1711
Xylidines, solid	**153**	3452
Xylyl bromide	**152**	1701
Xylyl bromide, liquid	**152**	1701
Xylyl bromide, solid	**152**	3417
Yellow phosphorus, dry	**136**	1381
Yellow phosphorus, in solution	**136**	1381
Yellow phosphorus, molten	**136**	2447
Yellow phosphorus, under water	**136**	1381
Zinc ammonium nitrite	**140**	1512
Zinc arsenate	**151**	1712
Zinc arsenate and Zinc arsenite mixture	**151**	1712
Zinc arsenite	**151**	1712
Zinc arsenite and Zinc arsenate mixture	**151**	1712

Name of Material	Guide No.	ID No.
Zinc ashes	**138**	1435
Zinc bromate	**140**	2469
Zinc chlorate	**140**	1513
Zinc chloride, anhydrous	**154**	2331
Zinc chloride, solution	**154**	1840
Zinc cyanide	**151**	1713
Zinc dithionite	**171**	1931
Zinc dross	**138**	1435
Zinc dust	**138**	1436
Zinc fluorosilicate	**151**	2855
Zinc hydrosulfite	**171**	1931
Zinc hydrosulphite	**171**	1931
Zinc nitrate	**140**	1514
Zinc permanganate	**140**	1515
Zinc peroxide	**143**	1516
Zinc phosphide	**139**	1714
Zinc powder	**138**	1436
Zinc residue	**138**	1435
Zinc resinate	**133**	2714
Zinc silicofluoride	**151**	2855
Zinc skimmings	**138**	1435
Zirconium, dry, coiled wire, finished metal sheets or strips	**170**	2858
Zirconium, dry, finished sheets, strips or coiled wire	**135**	2009
Zirconium hydride	**138**	1437
Zirconium metal, liquid suspension	**170**	1308
Zirconium metal, powder, wet	**170**	1358
Zirconium nitrate	**140**	2728
Zirconium picramate, wetted with not less than 20% water	**113**	1517
Zirconium powder, dry	**135**	2008
Zirconium powder, wetted with not less than 25% water	**170**	1358
Zirconium scrap	**135**	1932
Zirconium sulfate	**171**	9163
Zirconium sulphate	**171**	9163
Zirconium suspended in a flammable liquid	**170**	1308
Zirconium suspended in a liquid (flammable)	**170**	1308
Zirconium tetrachloride	**137**	2503

NOTES

GUIDES

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May explode from heat, shock, friction or contamination.
- May react violently or explosively on contact with air, water or foam.
- May be ignited by heat, sparks or flames.
- Vapors may travel to source of ignition and flash back.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Inhalation, ingestion or contact with substance may cause severe injury, infection, disease or death.
- High concentration of gas may cause asphyxiation without warning.
- Contact may cause burns to skin and eyes.
- Fire or contact with water may produce irritating, toxic and/or corrosive gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations.

EVACUATION

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: Material may react with extinguishing agent.

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Cool containers with flooding quantities of water until well after fire is out.
- Do not get water inside containers.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spill • Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

Large Spill • Dike far ahead of liquid spill for later disposal.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Shower and wash with soap and water.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Explosives* - Division 1.1, 1.2, 1.3, 1.5 or 1.6; Class A or B

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **MAY EXPLODE AND THROW FRAGMENTS 1600 meters (1 MILE) OR MORE IF FIRE REACHES CARGO.**
- **For information on "Compatibility Group" letters, refer to Glossary section.**

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 500 meters (1/3 mile) in all directions.
- Move people out of line of sight of the scene and away from windows.
- Keep unauthorized personnel away.
- Stay upwind.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- **Consider initial evacuation for 800 meters (1/2 mile) in all directions.**

Fire

- If rail car or trailer is involved in a fire and heavily encased explosives such as bombs or artillery projectiles are suspected, ISOLATE for 1600 meters (1 mile) in all directions; also, initiate evacuation including emergency responders for 1600 meters (1 mile) in all directions.
- When heavily encased explosives are not involved, evacuate the area for 800 meters (1/2 mile) in all directions.

*** For information on "Compatibility Group" letters, refer to the Glossary section.**

EMERGENCY RESPONSE

FIRE

CARGO Fire

- **DO NOT fight fire when fire reaches cargo! Cargo may EXPLODE!**
- Stop all traffic and clear the area for at least 1600 meters (1 mile) in all directions and let burn.
- **Do not move cargo or vehicle if cargo has been exposed to heat**.

TIRE or VEHICLE Fire

- **Use plenty of water - FLOOD it! If water is not available, use CO_2, dry chemical or dirt.**
- If possible, and WITHOUT RISK, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- DO NOT OPERATE RADIO TRANSMITTERS WITHIN 100 meters (330 feet) OF ELECTRIC DETONATORS.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

*** For information on "Compatibility Group" letters, refer to the Glossary section.**

Flammable Solids - Toxic (Wet/Desensitized Explosive)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Flammable/combustible material.
- May be ignited by heat, sparks or flames.
- **DRIED OUT material may explode if exposed to heat, flame, friction or shock; Treat as an explosive (GUIDE 112).**
- **Keep material wet with water or treat as an explosive (GUIDE 112).**
- Runoff to sewer may create fire or explosion hazard.

HEALTH

- Some are toxic and may be fatal if inhaled, swallowed or absorbed through skin.
- Contact may cause burns to skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- **Consider initial evacuation for 500 meters (1/3 mile) in all directions.**

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CARGO Fire

- **DO NOT fight fire when fire reaches cargo! Cargo may EXPLODE!**
- Stop all traffic and clear the area for at least 800 meters (1/2 mile) in all directions and let burn.
- **Do not move cargo or vehicle if cargo has been exposed to heat.**

TIRE or VEHICLE Fire

- **Use plenty of water - FLOOD it! If water is not available, use CO_2, dry chemical or dirt.**
- If possible, and WITHOUT RISK, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.

Small Spill

- Flush area with flooding quantities of water.

Large Spill

- Wet down with water and dike for later disposal.
- KEEP "WETTED" PRODUCT WET BY SLOWLY ADDING FLOODING QUANTITIES OF WATER.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **MAY EXPLODE AND THROW FRAGMENTS 500 meters (1/3 MILE) OR MORE IF FIRE REACHES CARGO.**
- **For information on "Compatibility Group" letters, refer to Glossary section.**

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- Isolate spill or leak area immediately for at least 100 meters (330 feet) in all directions.
- Move people out of line of sight of the scene and away from windows.
- Keep unauthorized personnel away.
- Stay upwind.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- **Consider initial evacuation for 250 meters (800 feet) in all directions.**

Fire

- If rail car or trailer is involved in a fire, ISOLATE for 500 meters (1/3 mile) in all directions; also initiate evacuation including emergency responders for 500 meters (1/3 mile) in all directions.

*** For information on "Compatibility Group" letters, refer to the Glossary section.**

EMERGENCY RESPONSE

FIRE

CARGO Fire

- **DO NOT fight fire when fire reaches cargo! Cargo may EXPLODE!**
- Stop all traffic and clear the area for at least 500 meters (1/3 mile) in all directions and let burn.
- **Do not move cargo or vehicle if cargo has been exposed to heat.**

TIRE or VEHICLE Fire

- **Use plenty of water - FLOOD it! If water is not available, use CO_2, dry chemical or dirt.**
- If possible, and WITHOUT RISK, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to cargo area.
- Pay special attention to tire fires as re-ignition may occur. Stand by with extinguisher ready.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- DO NOT OPERATE RADIO TRANSMITTERS WITHIN 100 meters (330 feet) OF ELECTRIC DETONATORS.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

SUPPLEMENTAL INFORMATION

- Packages bearing the 1.4S label or packages containing material classified as 1.4S are designed or packaged in such a manner that when involved in a fire, may burn vigorously with localized detonations and projection of fragments.
- Effects are usually confined to immediate vicinity of packages.
- If fire threatens cargo area containing packages bearing the 1.4S label or packages containing material classified as 1.4S, consider isolating at least 15 meters (50 feet) in all directions. Fight fire with normal precautions from a reasonable distance.

*** For information on "Compatibility Group" letters, refer to the Glossary section.**

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **EXTREMELY FLAMMABLE.**
- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.

CAUTION:Hydrogen (UN1049), Deuterium (UN1957), Hydrogen, refrigerated liquid (UN1966) and Methane (UN1971) are lighter than air and will rise. Hydrogen and Deuterium fires are difficult to detect since they burn with an invisible flame. Use an alternate method of detection (thermal camera, broom handle, etc.)

- Vapors may travel to source of ignition and flash back.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be irritating if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

CAUTION: Hydrogen (UN1049), Deuterium (UN1957) and Hydrogen, refrigerated liquid (UN1966) burn with an invisible flame. Hydrogen and Methane mixture, compressed (UN2034) may burn with an invisible flame.

Small Fire

- Dry chemical or CO_2.

Large Fire

- Water spray or fog.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Prevent spreading of vapors through sewers, ventilation systems and confined areas.
- Isolate area until gas has dispersed.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **EXTREMELY FLAMMABLE.**
- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Silane will ignite spontaneously in air.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be toxic if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fire

- Dry chemical or CO_2.

Large Fire

- Water spray or fog.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Stop leak if you can do it without risk.
- Do not touch or walk through spilled material.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; Extremely Hazardous.**
- May be fatal if inhaled or absorbed through skin.
- Initial odor may be irritating or foul and may deaden your sense of smell.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- These materials are extremely flammable.
- May form explosive mixtures with air.
- May be ignited by heat, sparks or flames.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Runoff may create fire or explosion hazard.
- Cylinders exposed to fire may vent and release toxic and flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. • Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material. • Do not direct water at spill or source of leak.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.
- Consider igniting spill or leak to eliminate toxic gas concerns.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet. • Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **EXTREMELY FLAMMABLE.**
- May be ignited by heat, sparks or flames.
- May form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Some of these materials may react violently with water.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- May cause toxic effects if inhaled.
- Vapors are extremely irritating.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fire

- Dry chemical or CO_2.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Isolate area until gas has dispersed.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet. • Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled or absorbed through skin.**
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Flammable; may be ignited by heat, sparks or flames.
- May form explosive mixtures with air.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Some of these materials may react violently with water.
- Cylinders exposed to fire may vent and release toxic and flammable gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.
- Runoff may create fire or explosion hazard.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fire

- Dry chemical, CO_2, water spray or alcohol-resistant foam.

Large Fire

- Water spray, fog or alcohol-resistant foam.
- **FOR CHLOROSILANES, DO NOT USE WATER**; use AFFF alcohol-resistant medium expansion foam.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- **FOR CHLOROSILANES**, use AFFF alcohol-resistant medium expansion foam to reduce vapors.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

FIRE OR EXPLOSION

- **Non-flammable gases.**
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids or solids.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Use extinguishing agent suitable for type of surrounding fire.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Ventilate the area.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Vapors from liquefied gas are initially heavier than air and spread along ground.

FIRE OR EXPLOSION

- **Non-flammable gases.**
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Use extinguishing agent suitable for type of surrounding fire.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Ventilate the area.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Gases - Oxidizing (Including Refrigerated Liquids)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Substance does not burn but will support combustion.
- Some may react explosively with fuels.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Runoff may create fire or explosion hazard.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 500 meters (1/3 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Use extinguishing agent suitable for type of surrounding fire.

Small Fire

- Dry chemical or CO_2.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Isolate area until gas has dispersed.

CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled or absorbed through skin.**
- Vapors may be irritating.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Some may burn but none ignite readily.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Cylinders exposed to fire may vent and release toxic and/or corrosive gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical or CO_2.

Large Fire

- Water spray, fog or regular foam.
- Do not get water inside containers.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Isolate area until gas has dispersed.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled or absorbed through skin.**
- Fire will produce irritating, corrosive and/or toxic gases.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Substance does not burn but will support combustion.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- These are strong oxidizers and will react vigorously or explosively with many materials including fuels.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Some will react violently with air, moist air and/or water.
- Cylinders exposed to fire may vent and release toxic and/or corrosive gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire: Water only; no dry chemical, CO_2 or Halon®.

- Contain fire and let burn. If fire must be fought, water spray or fog is recommended.
- Do not get water inside containers.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.
- Ventilate the area.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled, ingested or absorbed through skin.**
- Vapors are extremely irritating and corrosive.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Some may burn but none ignite readily.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Some of these materials may react violently with water.
- Cylinders exposed to fire may vent and release toxic and/or corrosive gas through pressure relief devices.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical or CO_2.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Do not get water inside containers.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Isolate area until gas has dispersed.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- **In case of contact with Hydrogen fluoride, anhydrous (UN1052)**, flush skin and eyes with water for 5 minutes; then, for skin exposures rub on a calcium/jelly combination; for eyes flush with a water/calcium solution for 15 minutes.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Some may burn but none ignite readily.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating, corrosive and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 500 meters (1/3 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Use extinguishing agent suitable for type of surrounding fire.

Small Fire

- Dry chemical or CO_2.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Damaged cylinders should be handled only by specialists.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- Some of these materials, if spilled, may evaporate leaving a flammable residue.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Do not direct water at spill or source of leak.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Allow substance to evaporate.
- Ventilate the area.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Flammable Liquids (Polar/Water-Miscible)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fire

- Dry chemical, CO_2, water spray or alcohol-resistant foam.

Large Fire

- Water spray, fog or alcohol-resistant foam.
- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

Large Spill

- Dike far ahead of liquid spill for later disposal.
- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Flammable Liquids (Non-Polar/Water-Immiscible)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.
- **If molten aluminum is involved, refer to GUIDE 169.**

HEALTH

- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

CAUTION: For mixtures containing alcohol or polar solvent, alcohol-resistant foam may be more effective.

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.
- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. • Use clean non-sparking tools to collect absorbed material.

Large Spill

- Dike far ahead of liquid spill for later disposal.
- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. • Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- May cause toxic effects if inhaled or absorbed through skin.
- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fire • Dry chemical, CO_2, water spray or alcohol-resistant foam.

- **Do not use dry chemical extinguishers to control fires involving nitromethane or nitroethane.**

Large Fire

- Water spray, fog or alcohol-resistant foam.
- **Do not use straight streams.**
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

Large Spill • Dike far ahead of liquid spill for later disposal.

- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. • Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Flammable Liquids (Non-Polar/Water-Immiscible/Noxious)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- May cause toxic effects if inhaled or absorbed through skin.
- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.
- **Do not use straight streams.**
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

Large Spill • Dike far ahead of liquid spill for later disposal.

- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. • Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled, ingested or absorbed through skin.**
- Inhalation or contact with some of these materials will irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion and poison hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind. • Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient.

Small Fire • Dry chemical, CO_2, water spray or alcohol-resistant foam.

Large Fire

- Water spray, fog or alcohol-resistant foam.
- Move containers from fire area if you can do it without risk.
- Dike fire-control water for later disposal; do not scatter the material.
- Use water spray or fog; do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.

Small Spill • Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

- Use clean non-sparking tools to collect absorbed material.

Large Spill • Dike far ahead of liquid spill for later disposal.

- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. • Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Flammable/combustible material.
- May be ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

HEALTH

- May cause toxic effects if inhaled or ingested/swallowed.
- Contact with substance may cause severe burns to skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Large Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **Some of these materials may react violently with water.**

Small Fire • Dry chemical, CO_2, water spray or alcohol-resistant foam.

Large Fire • Water spray, fog or alcohol-resistant foam.

- Move containers from fire area if you can do it without risk.
- Dike fire-control water for later disposal; do not scatter the material.
- Do not get water inside containers.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material. • Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb with earth, sand or other non-combustible material and transfer to containers (except for Hydrazine).
- Use clean non-sparking tools to collect absorbed material.

Large Spill • Dike far ahead of liquid spill for later disposal.

- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Flammable/combustible material.
- May be ignited by friction, heat, sparks or flames.
- Some may burn rapidly with flare burning effect.
- Powders, dusts, shavings, borings, turnings or cuttings may explode or burn with explosive violence.
- Substance may be transported in a molten form at a temperature that may be above its flash point.
- May re-ignite after fire is extinguished.

HEALTH

- Fire may produce irritating and/or toxic gases.
- Contact may cause burns to skin and eyes.
- Contact with molten substance may cause severe burns to skin and eyes.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO_2, sand, earth, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.

Fire Involving Metal Pigments or Pastes (e.g. "Aluminum Paste")

- Aluminum Paste fires should be treated as a combustible metal fire. Use DRY sand, graphite powder, dry sodium chloride based extinguishers, G-1® or Met-L-X® powder. Also, see GUIDE 170.

Fire involving Tanks or Car/Trailer Loads

- Cool containers with flooding quantities of water until well after fire is out.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.

Small Dry Spill

- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Large Spill

- Wet down with water and dike for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Removal of solidified molten material from skin requires medical assistance.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Flammable/combustible material.
- May be ignited by heat, sparks or flames.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated.

HEALTH

- **TOXIC;** inhalation, ingestion or skin contact with material may cause severe injury or death.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions.
- Stay upwind.
- Keep unauthorized personnel away.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO_2, water spray or alcohol-resistant foam.

Large Fire

- Water spray, fog or alcohol-resistant foam.
- Move containers from fire area if you can do it without risk.
- Use water spray or fog; do not use straight streams.
- Do not get water inside containers.
- Dike fire-control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Stop leak if you can do it without risk.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Prevent entry into waterways, sewers, basements or confined areas.
- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Flammable/combustible material.
- May ignite on contact with moist air or moisture.
- May burn rapidly with flare-burning effect.
- Some react vigorously or explosively on contact with water.
- Some may decompose explosively when heated or involved in a fire.
- May re-ignite after fire is extinguished.
- Runoff may create fire or explosion hazard.
- Containers may explode when heated.

HEALTH

- Fire will produce irritating, corrosive and/or toxic gases.
- Inhalation of decomposition products may cause severe injury or death.
- Contact with substance may cause severe burns to skin and eyes.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Stay upwind.
- Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT USE WATER, CO_2 OR FOAM ON MATERIAL ITSELF.**
- Some of these materials may react violently with water.

EXCEPTION: For Xanthates, UN3342 and for Dithionite (Hydrosulfite/ Hydrosulphite) UN1384, UN1923 and UN1929, USE FLOODING AMOUNTS OF WATER for SMALL AND LARGE fires to stop the reaction. Smothering will not work for these materials, they do not need air to burn.

Small Fire

- Dry chemical, soda ash, lime or DRY sand, **EXCEPT for UN1384, UN1923 and UN1929**.

Large Fire

- DRY sand, dry chemical, soda ash or lime, **EXCEPT for UN1384, UN1923 and UN1929**, or withdraw from area and let fire burn.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers or in contact with substance.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.

Small Spill

EXCEPTION: For spills of Xanthates, UN3342 and for Dithionite (Hydrosulfite/ Hydrosulphite), UN1384, UN1923 and UN1929, dissolve in 5 parts water and collect for proper disposal.

- Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Substances - Spontaneously Combustible - Toxic and/or Corrosive (Air-Reactive)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Extremely flammable; will ignite itself if exposed to air.
- Burns rapidly, releasing dense, white, irritating fumes.
- Substance may be transported in a molten form.
- May re-ignite after fire is extinguished.
- Corrosive substances in contact with metals may produce flammable hydrogen gas.
- Containers may explode when heated.

HEALTH

- Fire will produce irritating, corrosive and/or toxic gases.
- TOXIC; ingestion of substance or inhalation of decomposition products will cause severe injury or death.
- Contact with substance may cause severe burns to skin and eyes.
- Some effects may be experienced due to skin absorption.
- Runoff from fire control may be corrosive and/or toxic and cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Stay upwind.
- Keep unauthorized personnel away.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
- **For Phosphorus (UN1381): Special aluminized protective clothing should be worn when direct contact with the substance is possible.**

EVACUATION

Spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Water spray, wet sand or wet earth.

Large Fire

- Water spray or fog.
- **Do not scatter spilled material with high pressure water streams.**
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.

Small Spill

- Cover with water, sand or earth. Shovel into metal container and keep material under water.

Large Spill

- Dike for later disposal and cover with wet sand or earth.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, keep exposed skin areas immersed in water or covered with wet bandages until medical attention is received.
- Removal of solidified molten material from skin requires medical assistance.
- Remove and isolate contaminated clothing and shoes at the site and place in metal container filled with water. Fire hazard if allowed to dry.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- CORROSIVE and/or TOXIC; inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns or death.
- Fire will produce irritating, corrosive and/or toxic gases.
- Reaction with water may generate much heat that will increase the concentration of fumes in the air.
- Contact with molten substance may cause severe burns to skin and eyes.
- Runoff from fire control or dilution water may cause pollution.

FIRE OR EXPLOSION

- **EXCEPT FOR ACETIC ANHYDRIDE (UN1715), THAT IS FLAMMABLE**, some of these materials may burn, but none ignite readily.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Substance will react with water (some violently), releasing corrosive and/or toxic gases and runoff.
- Flammable/toxic gases may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated or if contaminated with water.
- Substance may be transported in a molten form.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind. • Keep out of low areas. • Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **When material is not involved in fire, do not use water on material itself.**

Small Fire

- Dry chemical or CO_2.
- Move containers from fire area if you can do it without risk.

Large Fire

- Flood fire area with large quantities of water, while knocking down vapors with water fog. If insufficient water supply: knock down vapors only.

Fire involving Tanks or Car/Trailer Loads

- Cool containers with flooding quantities of water until well after fire is out.
- Do not get water inside containers.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Small Spill • Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Removal of solidified molten material from skin requires medical assistance.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Produce flammable gases on contact with water.
- May ignite on contact with water or moist air.
- Some react vigorously or explosively on contact with water.
- May be ignited by heat, sparks or flames.
- May re-ignite after fire is extinguished.
- Some are transported in highly flammable liquids.
- Runoff may create fire or explosion hazard.

HEALTH

- Inhalation or contact with vapors, substance or decomposition products may cause severe injury or death.
- May produce corrosive solutions on contact with water.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate the area before entry.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Large Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT USE WATER OR FOAM.**

Small Fire

- Dry chemical, soda ash, lime or sand.

Large Fire

- DRY sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.
- Move containers from fire area if you can do it without risk.

Fire Involving Metals or Powders (Aluminum, Lithium, Magnesium, etc.)

- Use dry chemical, DRY sand, sodium chloride powder, graphite powder or Met-L-X® powder; in addition, for Lithium you may use Lith-X® powder or copper powder. Also, see GUIDE 170.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- **DO NOT GET WATER on spilled substance or inside containers.**

Small Spill • Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Dike for later disposal; do not apply water unless directed to do so.

Powder Spill • Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.

- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Substances - Water-Reactive (Emitting Flammable And Toxic Gases)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Produce flammable and toxic gases on contact with water.
- May ignite on contact with water or moist air.
- Some react vigorously or explosively on contact with water.
- May be ignited by heat, sparks or flames.
- May re-ignite after fire is extinguished.
- Some are transported in highly flammable liquids.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- Highly toxic: contact with water produces toxic gas, may be fatal if inhaled.
- Inhalation or contact with vapors, substance or decomposition products may cause severe injury or death.
- May produce corrosive solutions on contact with water.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate the area before entry.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Large Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT USE WATER OR FOAM. (FOAM MAY BE USED FOR CHLOROSILANES, SEE BELOW)**

Small Fire

- Dry chemical, soda ash, lime or sand.

Large Fire

- DRY sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.
- **FOR CHLOROSILANES, DO NOT USE WATER;** use AFFF alcohol-resistant medium expansion foam; **DO NOT USE** dry chemicals, soda ash or lime on chlorosilane fires (large or small) as they may release large quantities of hydrogen gas that may explode.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not get water inside containers.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- **DO NOT GET WATER on spilled substance or inside containers.**
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- **FOR CHLOROSILANES**, use AFFF alcohol-resistant medium expansion foam to reduce vapors.

Small Spill • Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Dike for later disposal; do not apply water unless directed to do so.

Powder Spill • Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.

- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- These substances will accelerate burning when involved in a fire.
- Some may decompose explosively when heated or involved in a fire.
- May explode from heat or contamination.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- Inhalation, ingestion or contact (skin, eyes) with vapors or substance may cause severe injury, burns or death.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Use water. Do not use dry chemicals or foams. CO_2 or Halon® may provide limited control.

Large Fire

- Flood fire area with water from a distance.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Do not get water inside containers.

Small Dry Spill

- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Small Liquid Spill

- Use a non-combustible material like vermiculite or sand to soak up the product and place into a container for later disposal.

Large Spill

- Dike far ahead of liquid spill for later disposal.
- **Following product recovery, flush area with water.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Contaminated clothing may be a fire risk when dry.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- These substances will accelerate burning when involved in a fire.
- May explode from heat or contamination.
- Some may burn rapidly.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- Toxic by ingestion.
- Inhalation of dust is toxic.
- Fire may produce irritating, corrosive and/or toxic gases.
- Contact with substance may cause severe burns to skin and eyes.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Use water. Do not use dry chemicals or foams. CO_2 or Halon® may provide limited control.

Large Fire

- Flood fire area with water from a distance.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.

Small Dry Spill

- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Large Spill

- Dike far ahead of spill for later disposal.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Contaminated clothing may be a fire risk when dry.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- These substances will accelerate burning when involved in a fire.
- May explode from heat or contamination.
- Some will react explosively with hydrocarbons (fuels).
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- **TOXIC**; inhalation, ingestion or contact (skin, eyes) with vapors or substance may cause severe injury, burns or death.
- Fire may produce irritating, corrosive and/or toxic gases.
- Toxic/flammable fumes may accumulate in confined areas (basement, tanks, tank cars, etc.).
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Use water. Do not use dry chemicals or foams. CO_2 or Halon® may provide limited control.

Large Fire

- Flood fire area with water from a distance.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift.
- Do not get water inside containers.

Small Liquid Spill

- Use a non-combustible material like vermiculite or sand to soak up the product and place into a container for later disposal.

Large Spill

- Dike far ahead of liquid spill for later disposal.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Contaminated clothing may be a fire risk when dry.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May explode from friction, heat or contamination.
- These substances will accelerate burning when involved in a fire.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Some will react explosively with hydrocarbons (fuels).
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- **TOXIC**; inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns or death.
- Fire may produce irritating and/or toxic gases.
- Toxic fumes or dust may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.).
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Use water. Do not use dry chemicals or foams. CO_2 or Halon® may provide limited control.

Large Fire

- Flood fire area with water from a distance.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Move containers from fire area if you can do it without risk.
- Do not get water inside containers: a violent reaction may occur.

Fire involving Tanks or Car/Trailer Loads

- Cool containers with flooding quantities of water until well after fire is out.
- Dike fire-control water for later disposal.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Use water spray to reduce vapors or divert vapor cloud drift.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spill

- Flush area with flooding quantities of water.

Large Spill

- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Contaminated clothing may be a fire risk when dry.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May ignite combustibles (wood, paper, oil, clothing, etc.).
- React vigorously and/or explosively with water.
- Produce toxic and/or corrosive substances on contact with water.
- Flammable/toxic gases may accumulate in tanks and hopper cars.
- Some may produce flammable hydrogen gas upon contact with metals.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- **TOXIC**; inhalation or contact with vapor, substance, or decomposition products may cause severe injury or death.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT USE WATER OR FOAM.**

Small Fire

- Dry chemical, soda ash or lime.

Large Fire

- DRY sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- **DO NOT GET WATER on spilled substance or inside containers.**

Small Spill

- Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

Large Spill

- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Contaminated clothing may be a fire risk when dry.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Organic Peroxides (Heat and Contamination Sensitive)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May explode from heat or contamination.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.
- Ingestion or contact (skin, eyes) with substance may cause severe injury or burns.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Water spray or fog is preferred; if water not available use dry chemical, CO_2 or regular foam.

Large Fire

- Flood fire area with water from a distance.
- Use water spray or fog; do not use straight streams.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Keep substance wet using water spray.
- Stop leak if you can do it without risk.

Small Spill

- Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.

Large Spill

- Wet down with water and dike for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Contaminated clothing may be a fire risk when dry.
- Remove material from skin immediately.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Organic Peroxides (Heat, Contamination and Friction Sensitive)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May explode from heat, shock, friction or contamination.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.
- Ingestion or contact (skin, eyes) with substance may cause severe injury or burns.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Water spray or fog is preferred; if water not available use dry chemical, CO_2 or regular foam.

Large Fire

- Flood fire area with water from a distance.
- Use water spray or fog; do not use straight streams.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Keep substance wet using water spray.
- Stop leak if you can do it without risk.

Small Spill

- Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.

Large Spill

- Wet down with water and dike for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Contaminated clothing may be a fire risk when dry.
- Remove material from skin immediately.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Lithium ion batteries contain flammable liquid electrolyte that may vent, ignite and produce sparks when subjected to high temperatures (> 150 ^{0}C (302 ^{0}F)), when damaged or abused (e.g., mechanical damage or electrical overcharging).
- May burn rapidly with flare-burning effect.
- May ignite other batteries in close proximity.

HEALTH

- Contact with battery electrolyte may be irritating to skin, eyes and mucous membranes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Burning batteries may produce toxic hydrogen fluoride gas (see GUIDE 125).
- Fumes may cause dizziness or suffocation.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If rail car or trailer is involved in a fire, ISOLATE for 500 meters (1/3 mile) in all directions; also initiate evacuation including emergency responders for 500 meters (1/3 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Absorb with earth, sand or other non-combustible material.
- Leaking batteries and contaminated absorbent material should be placed in metal containers.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May explode from heat, contamination or loss of temperature control.
- These materials are particularly sensitive to temperature rises. Above a given "Control Temperature" they decompose violently and catch fire.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- May ignite spontaneously if exposed to air.
- May be ignited by heat, sparks or flames.
- May burn rapidly with flare-burning effect.
- Containers may explode when heated.
- Runoff may create fire or explosion hazard.

HEALTH

- Fire may produce irritating, corrosive and/or toxic gases.
- Ingestion or contact (skin, eyes) with substance may cause severe injury or burns.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- **DO NOT allow the substance to warm up. Obtain liquid nitrogen, dry ice or ice for cooling. If none can be obtained, evacuate the area immediately.**

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **The temperature of the substance must be maintained at or below the "Control Temperature" at all times.**

Small Fire

- Water spray or fog is preferred; if water not available use dry chemical, CO_2 or regular foam.

Large Fire

- Flood fire area with water from a distance.
- Use water spray or fog; do not use straight streams.
- Do not move cargo or vehicle if cargo has been exposed to heat.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- **BEWARE OF POSSIBLE CONTAINER EXPLOSION.**
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.

Small Spill

- Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.

Large Spill

- Dike far ahead of liquid spill for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Contaminated clothing may be a fire risk when dry.
- Remove material from skin immediately.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **Self-decomposition or self-ignition may be triggered by heat, chemical reaction, friction or impact.**
- May be ignited by heat, sparks or flames.
- Some may decompose explosively when heated or involved in a fire.
- May burn violently. Decomposition may be self-accelerating and produce large amounts of gases.
- Vapors or dust may form explosive mixtures with air.

HEALTH

- Inhalation or contact with vapors, substance or decomposition products may cause severe injury or death.
- May produce irritating, toxic and/or corrosive gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Flood fire area with water from a distance.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- **BEWARE OF POSSIBLE CONTAINER EXPLOSION.**
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.

Small Spill

- Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **Self-decomposition or self-ignition may be triggered by heat, chemical reaction, friction or impact.**
- Self-accelerating decomposition may occur if the specific control temperature is not maintained.
- These materials are particularly sensitive to temperature rises. Above a given "Control Temperature" they decompose violently and catch fire.
- May be ignited by heat, sparks or flames.
- Some may decompose explosively when heated or involved in a fire.
- May burn violently. Decomposition may be self-accelerating and produce large amounts of gases.
- Vapors or dust may form explosive mixtures with air.

HEALTH

- Inhalation or contact with vapors, substance or decomposition products may cause severe injury or death.
- May produce irritating, toxic and/or corrosive gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- **DO NOT allow the substance to warm up. Obtain liquid nitrogen, dry ice or ice for cooling. If none can be obtained, evacuate the area immediately.**

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 250 meters (800 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **The temperature of the substance must be maintained at or below the "Control Temperature" at all times.**

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Flood fire area with water from a distance.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- **BEWARE OF POSSIBLE CONTAINER EXPLOSION.**
- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.

Small Spill

- Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **Highly toxic**, may be fatal if inhaled, swallowed or absorbed through skin.
- Avoid any skin contact.
- Effects of contact or inhalation may be delayed.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

FIRE OR EXPLOSION

- Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
- Containers may explode when heated.
- Runoff may pollute waterways.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO_2 or water spray.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Dike fire-control water for later disposal; do not scatter the material.
- Use water spray or fog; do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Cover with plastic sheet to prevent spreading.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **Highly toxic**, may be fatal if inhaled, swallowed or absorbed through skin.
- Contact with molten substance may cause severe burns to skin and eyes.
- Avoid any skin contact.
- Effects of contact or inhalation may be delayed.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

FIRE OR EXPLOSION

- Combustible material: may burn but does not ignite readily.
- Containers may explode when heated.
- Runoff may pollute waterways.
- Substance may be transported in a molten form.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO_2 or water spray.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Dike fire-control water for later disposal; do not scatter the material.
- Use water spray or fog; do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Cover with plastic sheet to prevent spreading.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC**; inhalation, ingestion or skin contact with material may cause severe injury or death.
- Contact with molten substance may cause severe burns to skin and eyes.
- Avoid any skin contact.
- Effects of contact or inhalation may be delayed.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

FIRE OR EXPLOSION

- Combustible material: may burn but does not ignite readily.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards.
- Those substances designated with a **"P"** may polymerize explosively when heated or involved in a fire.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated.
- Runoff may pollute waterways.
- Substance may be transported in a molten form.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind. • Keep out of low areas. • Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO_2 or water spray.

Large Fire

- Dry chemical, CO_2, alcohol-resistant foam or water spray.
- Move containers from fire area if you can do it without risk.
- Dike fire-control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC**; inhalation, ingestion or skin contact with material may cause severe injury or death.
- Contact with molten substance may cause severe burns to skin and eyes.
- Avoid any skin contact.
- Effects of contact or inhalation may be delayed.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

FIRE OR EXPLOSION

- Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
- Some are oxidizers and may ignite combustibles (wood, paper, oil, clothing, etc.).
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO_2 or water spray.

Large Fire

- Dry chemical, CO_2, alcohol-resistant foam or water spray.
- Move containers from fire area if you can do it without risk.
- Dike fire-control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.**
- Vapors form explosive mixtures with air: indoors, outdoors and sewers explosion hazards.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapors may travel to source of ignition and flash back.
- Those substances designated with a "**P**" may polymerize explosively when heated or involved in a fire.
- Substance will react with water (some violently) releasing flammable, toxic or corrosive gases and runoff.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated or if contaminated with water.

HEALTH

- **TOXIC;** inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns or death.
- **Bromoacetates and chloroacetates are extremely irritating/lachrymators.**
- Reaction with water or moist air will release toxic, corrosive or flammable gases.
- Reaction with water may generate much heat that will increase the concentration of fumes in the air.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind. • Keep out of low areas. • Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Note: Most foams will react with the material and release corrosive/toxic gases.

CAUTION: For Acetyl chloride (UN1717), use CO_2 or dry chemical only.

Small Fire • CO_2, dry chemical, dry sand, alcohol-resistant foam.

Large Fire

- Water spray, fog or alcohol-resistant foam.
- **FOR CHLOROSILANES, DO NOT USE WATER**; use AFFF alcohol-resistant medium expansion foam.
- Move containers from fire area if you can do it without risk.
- Use water spray or fog; do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- A vapor suppressing foam may be used to reduce vapors.
- **FOR CHLOROSILANES**, use AFFF alcohol-resistant medium expansion foam to reduce vapors.
- **DO NOT GET WATER on spilled substance or inside containers.**
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spill • Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Combustible material: may burn but does not ignite readily.
- Substance will react with water (some violently) releasing flammable, toxic or corrosive gases and runoff.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapors may travel to source of ignition and flash back.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated or if contaminated with water.

HEALTH

- **TOXIC;** inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns or death.
- Contact with molten substance may cause severe burns to skin and eyes.
- Reaction with water or moist air will release toxic, corrosive or flammable gases.
- Reaction with water may generate much heat that will increase the concentration of fumes in the air.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind. • Keep out of low areas. • Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Note: Most foams will react with the material and release corrosive/toxic gases.

Small Fire • CO_2, dry chemical, dry sand, alcohol-resistant foam.

Large Fire

- Water spray, fog or alcohol-resistant foam.
- **FOR CHLOROSILANES, DO NOT USE WATER**; use AFFF alcohol-resistant medium expansion foam.
- Move containers from fire area if you can do it without risk.
- Use water spray or fog; do not use straight streams.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- A vapor suppressing foam may be used to reduce vapors.
- **FOR CHLOROSILANES**, use AFFF alcohol-resistant medium expansion foam to reduce vapors.
- **DO NOT GET WATER on spilled substance or inside containers.**
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spill • Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC**; inhalation, ingestion or contact (skin, eyes) with vapors, dusts or substance may cause severe injury, burns or death.
- Reaction with water or moist air will release toxic, corrosive or flammable gases.
- Reaction with water may generate much heat that will increase the concentration of fumes in the air.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

FIRE OR EXPLOSION

- Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
- Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars etc.).
- Substance will react with water (some violently), releasing corrosive and/or toxic gases and runoff.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated or if contaminated with water.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate enclosed areas.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Note: Most foams will react with the material and release corrosive/toxic gases.

Small Fire • CO_2 (except for Cyanides), dry chemical, dry sand, alcohol-resistant foam.

Large Fire

- Water spray, fog or alcohol-resistant foam.
- Move containers from fire area if you can do it without risk.
- Use water spray or fog; do not use straight streams.
- Dike fire-control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- A vapor suppressing foam may be used to reduce vapors.
- DO NOT GET WATER INSIDE CONTAINERS.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spill • Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

- Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal.

FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Inhalation or contact with substance may cause infection, disease or death.
- Runoff from fire control may cause pollution.
- **Note: Damaged packages containing solid CO_2 as a refrigerant may produce water or frost from condensation of air. Do not touch this liquid as it could be contaminated by the contents of the parcel.**

FIRE OR EXPLOSION

- Some of these materials may burn, but none ignite readily.
- Some may be transported in flammable liquids.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Obtain identity of substance involved.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, soda ash, lime or sand.

Large Fire

- Use extinguishing agent suitable for type of surrounding fire.
- Do not scatter spilled material with high pressure water streams.
- Move containers from fire area if you can do it without risk.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Absorb with earth, sand or other non-combustible material.
- Cover damaged package or spilled material with damp towel or rag and keep wet with liquid bleach or other disinfectant.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Move victim to a safe isolated area.

CAUTION: Victim may be a source of contamination.

- Call 911 or emergency medical service.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- **For further assistance, contact your local Poison Control Center.**
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Inhalation of vapors or dust is extremely irritating.
- May cause burning of eyes and flow of tears.
- May cause coughing, difficult breathing and nausea.
- Brief exposure effects last only a few minutes.
- Exposure in an enclosed area may be very harmful.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

FIRE OR EXPLOSION

- Some of these materials may burn, but none ignite readily.
- Containers may explode when heated.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Large Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under “PUBLIC SAFETY”.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Dike fire-control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.

Small Spill

- Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

Large Spill

- Dike far ahead of liquid spill for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- **Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.**
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects should disappear after individual has been exposed to fresh air for approximately 10 minutes.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Toxic by ingestion.
- Vapors may cause dizziness or suffocation.
- Exposure in an enclosed area may be very harmful.
- Contact may irritate or burn skin and eyes.
- Fire may produce irritating and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

FIRE OR EXPLOSION

- Some of these materials may burn, but none ignite readily.
- Most vapors are heavier than air.
- Air/vapor mixtures may explode when ignited.
- Container may explode in heat of fire.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer.
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO_2 or water spray.

Large Fire

- Dry chemical, CO_2, alcohol-resistant foam or water spray.
- Move containers from fire area if you can do it without risk.
- Dike fire-control water for later disposal; do not scatter the material.

Fire involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Stop leak if you can do it without risk.

Small Liquid Spill

- Take up with sand, earth or other non-combustible absorbent material.

Large Spill

- Dike far ahead of liquid spill for later disposal.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel and the public during transportation accidents. Packaging durability increases as potential hazard of radioactive content increases.
- Very low levels of contained radioactive materials and low radiation levels outside packages result in low risks to people. Damaged packages may release measurable amounts of radioactive material, but the resulting risks are expected to be low.
- Some radioactive materials cannot be detected by commonly available instruments.
- Packages do not have RADIOACTIVE I, II, or III labels. Some may have EMPTY labels or may have the word "Radioactive" in the package marking.

FIRE OR EXPLOSION

- Some of these materials may burn, but most do not ignite readily.
- Many have cardboard outer packaging; content (physically large or small) can be of many different physical forms.
- Radioactivity does not change flammability or other properties of materials.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, fire control and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions.
- Stay upwind.
- Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

PROTECTIVE CLOTHING

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

EMERGENCY RESPONSE

FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
- Move containers from fire area if you can do it without risk.
- Do not move damaged packages; move undamaged packages out of fire zone.

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog (flooding amounts).

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Cover liquid spill with sand, earth or other non-combustible absorbent material.
- Cover powder spill with plastic sheet or tarp to minimize spreading.

FIRST AID

- Call 911 or emergency medical service.
- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

RADIOACTIVE MATERIALS (LOW TO MODERATE LEVEL RADIATION)

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel and the public during transportation accidents. Packaging durability increases as potential hazard of radioactive content increases.
- Undamaged packages are safe. Contents of damaged packages may cause higher external radiation exposure, or both external and internal radiation exposure if contents are released.
- Low radiation hazard when material is inside container. If material is released from package or bulk container, hazard will vary from low to moderate. Level of hazard will depend on the type and amount of radioactivity, the kind of material it is in, and/or the surfaces it is on.
- Some material may be released from packages during accidents of moderate severity but risks to people are not great.
- Released radioactive materials or contaminated objects usually will be visible if packaging fails.
- Some exclusive use shipments of bulk and packaged materials will not have "RADIOACTIVE" labels. Placards, markings and shipping papers provide identification.
- Some packages may have a "RADIOACTIVE" label and a second hazard label. The second hazard is usually greater than the radiation hazard; so follow this GUIDE as well as the response GUIDE for the second hazard class label.
- Some radioactive materials cannot be detected by commonly available instruments.
- Runoff from control of cargo fire may cause low-level pollution.

FIRE OR EXPLOSION

- Some of these materials may burn, but most do not ignite readily.
- Uranium and Thorium metal cuttings may ignite spontaneously if exposed to air (see GUIDE 136).
- Nitrates are oxidizers and may ignite other combustibles (see GUIDE 141).

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, fire control and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. • Stay upwind. • Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

PROTECTIVE CLOTHING

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

EMERGENCY RESPONSE

FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
- Move containers from fire area if you can do it without risk.
- Do not move damaged packages; move undamaged packages out of fire zone.

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog (flooding amounts).
- Dike fire-control water for later disposal.

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Cover liquid spill with sand, earth or other non-combustible absorbent material.
- Dike to collect large liquid spills.
- Cover powder spill with plastic sheet or tarp to minimize spreading.

FIRST AID

- Call 911 or emergency medical service.
- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

RADIOACTIVE MATERIALS (LOW TO HIGH LEVEL RADIATION)

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel and the public during transportation accidents. Packaging durability increases as potential hazard of radioactive content increases.
- Undamaged packages are safe. Contents of damaged packages may cause higher external radiation exposure, or both external and internal radiation exposure if contents are released.
- Type A packages (cartons, boxes, drums, articles, etc.) identified as “Type A” by marking on packages or by shipping papers contain non-life endangering amounts. Partial releases might be expected if “Type A” packages are damaged in moderately severe accidents.
- Type B packages, and the rarely occurring Type C packages, (large and small, usually metal) contain the most hazardous amounts. They can be identified by package markings or by shipping papers. Life threatening conditions may exist only if contents are released or package shielding fails. Because of design, evaluation and testing of packages, these conditions would be expected only for accidents of utmost severity.
- The rarely occurring "Special Arrangement" shipments may be of Type A, Type B or Type C packages. Package type will be marked on packages, and shipment details will be on shipping papers.
- Radioactive White-I labels indicate radiation levels outside single, isolated, undamaged packages are very low (less than 0.005 mSv/h (0.5 mrem/h)).
- Radioactive Yellow-II and Yellow-III labeled packages have higher radiation levels. The transport index (TI) on the label identifies the maximum radiation level in mrem/h one meter from a single, isolated, undamaged package.
- Some radioactive materials cannot be detected by commonly available instruments.
- Water from cargo fire control may cause pollution.

FIRE OR EXPLOSION

- Some of these materials may burn, but most do not ignite readily.
- Radioactivity does not change flammability or other properties of materials.
- Type B packages are designed and evaluated to withstand total engulfment in flames at temperatures of 800°C (1475°F) for a period of 30 minutes.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, fire control and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. • Stay upwind. • Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

PROTECTIVE CLOTHING

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters’ protective clothing will provide adequate protection against internal radiation exposure, but not external radiation exposure.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

EMERGENCY RESPONSE

FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
- Move containers from fire area if you can do it without risk.
- Do not move damaged packages; move undamaged packages out of fire zone.

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog (flooding amounts).
- Dike fire-control water for later disposal.

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Damp surfaces on undamaged or slightly damaged packages are seldom an indication of packaging failure. Most packaging for liquid content have inner containers and/or inner absorbent materials.
- Cover liquid spill with sand, earth or other non-combustible absorbent material.

FIRST AID

- Call 911 or emergency medical service.
- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel and the public during transportation accidents. Packaging durability increases as potential hazard of radioactive content increases.
- Undamaged packages are safe; contents of damaged packages may cause external radiation exposure, and much higher external exposure if contents (source capsules) are released.
- Contamination and internal radiation hazards are not expected, but not impossible.
- Type A packages (cartons, boxes, drums, articles, etc.) identified as "Type A" by marking on packages or by shipping papers contain non-life endangering amounts. Radioactive sources may be released if "Type A" packages are damaged in moderately severe accidents.
- Type B packages, and the rarely occurring Type C packages, (large and small, usually metal) contain the most hazardous amounts. They can be identified by package markings or by shipping papers. Life threatening conditions may exist only if contents are released or package shielding fails. Because of design, evaluation and testing of packages, these conditions would be expected only for accidents of utmost severity.
- Radioactive White-I labels indicate radiation levels outside single, isolated, undamaged packages are very low (less than 0.005 mSv/h (0.5 mrem/h)).
- Radioactive Yellow-II and Yellow-III labeled packages have higher radiation levels. The transport index (TI) on the label identifies the maximum radiation level in mrem/h one meter from a single, isolated, undamaged package.
- Radiation from the package contents, usually in durable metal capsules, can be detected by most radiation instruments.
- Water from cargo fire control is not expected to cause pollution.

FIRE OR EXPLOSION

- Packagings can burn completely without risk of content loss from sealed source capsule.
- Radioactivity does not change flammability or other properties of materials.
- Radioactive source capsules and Type B packages are designed and evaluated to withstand total engulfment in flames at temperatures of 800°C (1475°F) for a period of 30 minutes.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, fire control and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions.
- Stay upwind. • Keep unauthorized personnel away.
- Delay final cleanup until instructions or advice is received from Radiation Authority.

PROTECTIVE CLOTHING

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection against internal radiation exposure, but not external radiation exposure.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

EMERGENCY RESPONSE

FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
- Move containers from fire area if you can do it without risk.
- Do not move damaged packages; move undamaged packages out of fire zone.

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog (flooding amounts).

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Damp surfaces on undamaged or slightly damaged packages are seldom an indication of packaging failure. Contents are seldom liquid. Content is usually a metal capsule, easily seen if released from package.
- If source capsule is identified as being out of package, **DO NOT TOUCH**. Stay away and await advice from Radiation Authority.

FIRST AID

- Call 911 or emergency medical service.
- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Persons exposed to special form sources are not likely to be contaminated with radioactive material.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

RADIOACTIVE MATERIALS (FISSILE/LOW TO HIGH LEVEL RADIATION)

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel and the public during transportation accidents. Packaging durability increases as potential radiation and criticality hazards of the content increase.
- Undamaged packages are safe. Contents of damaged packages may cause higher external radiation exposure, or both external and internal radiation exposure if contents are released.
- Type AF or IF packages, identified by package markings, do not contain life-threatening amounts of material. External radiation levels are low and packages are designed, evaluated and tested to control releases and to prevent a fission chain reaction under severe transport conditions.
- Type B(U)F, B(M)F and CF packages (identified by markings on packages or shipping papers) contain potentially life endangering amounts. Because of design, evaluation and testing of packages, fission chain reactions are prevented and releases are not expected to be life endangering for all accidents except those of utmost severity.
- The rarely occurring "Special Arrangement" shipments may be of Type AF, BF or CF packages. Package type will be marked on packages, and shipment details will be on shipping papers.
- The transport index (TI) shown on labels or a shipping paper might not indicate the radiation level at one meter from a single, isolated, undamaged package; instead, it might relate to controls needed during transport because of the fissile properties of the materials. Alternatively, the fissile nature of the contents may be indicated by a criticality safety index (CSI) on a special FISSILE label or on the shipping paper.
- Some radioactive materials cannot be detected by commonly available instruments.
- Water from cargo fire control is not expected to cause pollution.

FIRE OR EXPLOSION

- These materials are seldom flammable. Packages are designed to withstand fires without damage to contents.
- Radioactivity does not change flammability or other properties of materials.
- Type AF, IF, B(U)F, B(M)F and CF packages are designed and evaluated to withstand total engulfment in flames at temperatures of 800°C (1475°F) for a period of 30 minutes.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, fire control and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. • Stay upwind. • Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

PROTECTIVE CLOTHING

- Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide adequate protection against internal radiation exposure, but not external radiation exposure.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

EMERGENCY RESPONSE

FIRE

- Presence of radioactive material will not influence the fire control processes and should not influence selection of techniques.
- Move containers from fire area if you can do it without risk.
- Do not move damaged packages; move undamaged packages out of fire zone.

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog (flooding amounts).

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Damp surfaces on undamaged or slightly damaged packages are seldom an indication of packaging failure. Most packaging for liquid content have inner containers and/or inner absorbent materials.

Liquid Spill

- Package contents are seldom liquid. If any radioactive contamination resulting from a liquid release is present, it probably will be low-level.

FIRST AID

- Call 911 or emergency medical service.
- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

RADIOACTIVE MATERIALS - CORROSIVE (URANIUM HEXAFLUORIDE/WATER-SENSITIVE)

POTENTIAL HAZARDS

HEALTH

- Radiation presents minimal risk to transport workers, emergency response personnel and the public during transportation accidents. Packaging durability increases as potential radiation and criticality hazards of the content increase.
- Chemical hazard greatly exceeds radiation hazard.
- Substance reacts with water and water vapor in air to form toxic and corrosive hydrogen fluoride gas and an extremely irritating and corrosive, white-colored, water-soluble residue.
- If inhaled, may be fatal.
- Direct contact causes burns to skin, eyes, and respiratory tract.
- Low-level radioactive material; very low radiation hazard to people.
- Runoff from control of cargo fire may cause low-level pollution.

FIRE OR EXPLOSION

- Substance does not burn.
- The material may react violently with fuels.
- Containers in protective overpacks (horizontal cylindrical shape with short legs for tie-downs), are identified with "AF", "B(U)F" or "H(U)" on shipping papers or by markings on the overpacks. They are designed and evaluated to withstand severe conditions including total engulfment in flames at temperatures of 800°C (1475°F) for a period of 30 minutes.
- Bare filled cylinders, identified with UN2978 as part of the marking (may also be marked H(U) or H(M)), may rupture in heat of engulfing fire; bare empty (except for residue) cylinders will not rupture in fires.
- Radioactivity does not change flammability or other properties of materials.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- **Priorities for rescue, life-saving, first aid, fire control and other hazards are higher than the priority for measuring radiation levels.**
- Radiation Authority must be notified of accident conditions. Radiation Authority is usually responsible for decisions about radiological consequences and closure of emergencies.
- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions.
- Stay upwind.
- Keep unauthorized personnel away.
- Detain or isolate uninjured persons or equipment suspected to be contaminated; delay decontamination and cleanup until instructions are received from Radiation Authority.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

EVACUATION

Large Spill

- See Table 1 - Initial Isolation and Protective Action Distances.

Fire

- When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions.

EMERGENCY RESPONSE

FIRE

- DO NOT USE WATER OR FOAM ON MATERIAL ITSELF.
- Move containers from fire area if you can do it without risk.

Small Fire

- Dry chemical or CO_2.

Large Fire

- Water spray, fog or regular foam.
- Cool containers with flooding quantities of water until well after fire is out.
- If this is impossible, withdraw from area and let fire burn.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Do not touch damaged packages or spilled material.
- Without fire or smoke, leak will be evident by visible and irritating vapors and residue forming at the point of release.
- Use fine water spray to reduce vapors; do not put water directly on point of material release from container.
- Residue buildup may self-seal small leaks.
- Dike far ahead of spill to collect runoff water.

FIRST AID

- Call 911 or emergency medical service.
- Medical problems take priority over radiological concerns.
- Use first aid treatment according to the nature of the injury.
- Do not delay care and transport of a seriously injured person.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Injured persons contaminated by contact with released material are not a serious hazard to health care personnel, equipment or facilities.
- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; may be fatal if inhaled.**
- Vapors are extremely irritating.
- Contact with gas or liquefied gas will cause burns, severe injury and/or frostbite.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Runoff from fire control may cause pollution.

FIRE OR EXPLOSION

- Substance does not burn but will support combustion.
- This is a strong oxidizer and will react vigorously or explosively with many materials including fuels.
- May ignite combustibles (wood, paper, oil, clothing, etc.).
- Vapor explosion and poison hazard indoors, outdoors or in sewers.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, soda ash, lime or sand.

Large Fire

- Water spray, fog (flooding amounts).
- Do not get water inside containers.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- If you have not donned special protective clothing approved for this material, do not expose yourself to any risk of this material touching you.
- **Do not direct water at spill or source of leak.**
- A fine water spray remotely directed to the edge of the spill pool can be used to direct and maintain a hot flare fire that will burn the spilled material in a controlled manner.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.
- Ventilate the area.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Clothing frozen to the skin should be thawed before being removed.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- **TOXIC; Extremely Hazardous.**
- Inhalation extremely dangerous; may be fatal.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Odorless, will not be detected by sense of smell.

FIRE OR EXPLOSION

- **EXTREMELY FLAMMABLE.**
- May be ignited by heat, sparks or flames.
- Flame may be invisible.
- Containers may explode when heated.
- Vapor explosion and poison hazard indoors, outdoors or in sewers.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Runoff may create fire or explosion hazard.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Keep out of low areas.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.**

Small Fire

- Dry chemical, CO_2 or water spray.

Large Fire

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Prevent entry into waterways, sewers, basements or confined areas.
- Isolate area until gas has dispersed.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- Keep victim warm and quiet.
- Keep victim under observation.
- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Substance is transported in molten form at a temperature above 705°C (1300°F).
- Violent reaction with water; contact may cause an explosion or may produce a flammable gas.
- Will ignite combustible materials (wood, paper, oil, debris, etc.).
- Contact with nitrates or other oxidizers may cause an explosion.
- Contact with containers or other materials, including cold, wet or dirty tools, may cause an explosion.
- Contact with concrete will cause spalling and small pops.

HEALTH

- Contact causes severe burns to skin and eyes.
- Fire may produce irritating and/or toxic gases.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Ventilate closed spaces before entering.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear flame retardant structural firefighters' protective clothing, including faceshield, helmet and gloves, this will provide limited thermal protection.

EMERGENCY RESPONSE

FIRE

- **Do Not Use Water, except in life threatening situations and then only in a fine spray.**
- **Do not use halogenated extinguishing agents or foam.**
- Move combustibles out of path of advancing pool if you can do so without risk.
- Extinguish fires started by molten material by using appropriate method for the burning material; keep water, halogenated extinguishing agents and foam away from the molten material.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Do not attempt to stop leak, due to danger of explosion.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Substance is very fluid, spreads quickly, and may splash. Do not try to stop it with shovels or other objects.
- Dike far ahead of spill; use dry sand to contain the flow of material.
- Where possible allow molten material to solidify naturally.
- Avoid contact even after material solidifies. Molten, heated and cold aluminum look alike; do not touch unless you know it is cold.
- Clean up under the supervision of an expert after material has solidified.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- For severe burns, immediate medical attention is required.
- Removal of solidified molten material from skin requires medical assistance.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.

Metals (Powders, Dusts, Shavings, Borings, Turnings, or Cuttings, etc.)

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- May react violently or explosively on contact with water.
- Some are transported in flammable liquids.
- May be ignited by friction, heat, sparks or flames.
- Some of these materials will burn with intense heat.
- Dusts or fumes may form explosive mixtures in air.
- Containers may explode when heated.
- May re-ignite after fire is extinguished.

HEALTH

- Oxides from metallic fires are a severe health hazard.
- Inhalation or contact with substance or decomposition products may cause severe injury or death.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Stay upwind.
- Keep unauthorized personnel away.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 50 meters (160 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- **DO NOT USE WATER, FOAM OR CO_2.**
- Dousing metallic fires with water will generate hydrogen gas, an extremely dangerous explosion hazard, particularly if fire is in a confined environment (i.e., building, cargo hold, etc.).
- Use DRY sand, graphite powder, dry sodium chloride based extinguishers, G-1® or Met-L-X® powder.
- Confining and smothering metal fires is preferable rather than applying water.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks or Car/Trailer Loads

- If impossible to extinguish, protect surroundings and allow fire to burn itself out.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Some may burn but none ignite readily.
- Containers may explode when heated.
- Some may be transported hot.

HEALTH

- Inhalation of material may be harmful.
- Contact may cause burns to skin and eyes.
- Inhalation of Asbestos dust may have a damaging effect on the lungs.
- Fire may produce irritating, corrosive and/or toxic gases.
- Some liquids produce vapors that may cause dizziness or suffocation.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.
- Keep unauthorized personnel away.
- Stay upwind.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Spill

- See Table 1 - Initial Isolation and Protective Action Distances for highlighted materials. For non-highlighted materials, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO_2, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.
- Do not scatter spilled material with high pressure water streams.
- Move containers from fire area if you can do it without risk.
- Dike fire-control water for later disposal.

Fire involving Tanks

- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent dust cloud.
- Avoid inhalation of asbestos dust.

Small Dry Spill

- With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Small Spill

- Take up with sand or other non-combustible absorbent material and place into containers for later disposal.

Large Spill

- Dike far ahead of liquid spill for later disposal.
- Cover powder spill with plastic sheet or tarp to minimize spreading.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

POTENTIAL HAZARDS

HEALTH

- Inhalation of vapors or contact with substance will result in contamination and potential harmful effects.
- Fire will produce irritating, corrosive and/or toxic gases.

FIRE OR EXPLOSION

- Non-combustible, substance itself does not burn but may react upon heating to produce corrosive and/or toxic fumes.
- Runoff may pollute waterways.

PUBLIC SAFETY

- **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.**
- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Stay upwind.
- Keep unauthorized personnel away.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- When any large container is involved in a fire, consider initial evacuation for 500 meters (1/3 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- Use extinguishing agent suitable for type of surrounding fire.
- **Do not direct water at the heated metal.**

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Do not use steel or aluminum tools or equipment.
- Cover with earth, sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
- For mercury, use a mercury spill kit.
- Mercury spill areas may be subsequently treated with calcium sulphide/calcium sulfide or with sodium thiosulphate/sodium thiosulfate wash to neutralize any residual mercury.

FIRST AID

- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

NOTES

INTRODUCTION TO TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

Table 1 - Initial Isolation and Protective Action Distances suggests distances useful to protect people from vapors resulting from spills involving dangerous goods that are considered toxic by inhalation (TIH), including certain chemical warfare agents, or which produce toxic gases upon contact with water. Table 1 provides first responders with initial guidance until technically qualified emergency response personnel are available. **Distances show areas likely to be affected during the first 30 minutes after materials are spilled and could increase with time.**

The **Initial Isolation Zone** defines an area SURROUNDING the incident in which persons may be exposed to dangerous (upwind) and life threatening (downwind) concentrations of material. The **Protective Action Zone** defines an area DOWNWIND from the incident in which persons may become incapacitated and unable to take protective action and/or incur serious or irreversible health effects. Table 1 provides specific guidance for small and large spills occurring day or night.

Adjusting distances for a specific incident involves many interdependent variables and should be made only by personnel technically qualified to make such adjustments. For this reason, no precise guidance can be provided in this document to aid in adjusting the table distances; however, general guidance follows.

Factors That May Change the Protective Action Distances

The GUIDE for a material (orange-bordered pages) clearly indicates under the section EVACUATION – Fire, the evacuation distance required to protect against fragmentation hazard of a large container. If the material becomes involved in a **FIRE**, the toxic hazard may become less important than the fire or explosion hazard.

If more than one tank car, cargo tank, portable tank, or large cylinder involved in the incident is leaking, LARGE SPILL distances may need to be increased.

For a material with a protective action distance of 11.0+ km (7.0+ miles), the actual distance can be larger in certain atmospheric conditions. If the dangerous goods vapor plume is channeled in a valley or between many tall buildings, distances may be larger than shown in Table 1 due to less mixing of the plume with the atmosphere. Daytime spills in regions with known strong inversions or snow cover, or occurring near sunset, may require an increase of the protective action distance because airborne contaminants mix and disperse more slowly and may travel much farther downwind. In such cases, the nighttime protective action distance may be more appropriate. In addition, protective action distances may be larger for liquid spills when either the material or outdoor temperature exceeds 30°C (86°F).

Materials which react with water to produce large amounts of toxic gases are included in Table 1 - Initial Isolation and Protective Action Distances. Note that some

water-reactive materials (WRM) which are also TIH (e.g., Bromine trifluoride (1746), Thionyl chloride (1836), etc.) produce additional TIH materials when spilled in water. For these materials, two entries are provided in Table 1 - Initial Isolation and Protective Action Distances (i.e., for spills on land and for spills in water). If it is not clear whether the spill is on land or in water, or in cases where the spill occurs both on land and in water, choose the larger Protective Action Distance. Following Table 1, Table 2 – Materials which produce large amounts of Toxic Inhalation Hazard gases (TIH) when spilled in water lists the toxic gases that are produced when these water-reactive materials (WRM) are spilled in water.

When a water-reactive TIH producing material is spilled into a river or stream, the source of the toxic gas may move with the current and stretch from the spill point downstream for a substantial distance.

Initial isolation and protective action distances in this guidebook are derived from historical data on transportation incidents and the use of statistical models. For worst case scenarios involving the instantaneous release of the entire contents of a package (e.g., as a result of terrorism, sabotage or catastrophic accident) the distances may increase substantially. For such events, doubling of the initial isolation and protective action distances is appropriate in absence of other information.

PROTECTIVE ACTION DECISION FACTORS TO CONSIDER

The choice of protective actions for a given situation depends on a number of factors. For some cases, evacuation may be the best option; in others, sheltering in-place may be the best course. Sometimes, these two actions may be used in combination. In any emergency, officials need to quickly give the public instructions. The public will need continuing information and instructions while being evacuated or sheltered in-place.

Proper evaluation of the factors listed below will determine the effectiveness of evacuation or in-place protection. The importance of these factors can vary with emergency conditions. In specific emergencies, other factors may need to be identified and considered as well. This list indicates what kind of information may be needed to make the initial decision.

The Dangerous Goods

- Degree of health hazard
- Chemical and physical properties
- Amount involved
- Containment/control of release
- Rate of vapor movement

The Population Threatened

- Location
- Number of people
- Time available to evacuate or shelter in-place
- Ability to control evacuation or shelter in-place
- Building types and availability
- Special institutions or populations, e.g., nursing homes, hospitals, prisons

Weather Conditions

- Effect on vapor and cloud movement
- Potential for change
- Effect on evacuation or protection in-place

PROTECTIVE ACTIONS

Protective Actions are those steps taken to preserve the health and safety of emergency responders and the public during an incident involving releases of dangerous goods. Table 1 - Initial Isolation and Protective Action Distances (green-bordered pages) predicts the size of downwind areas which could be affected by a cloud of toxic gas. People in this area should be evacuated and/or sheltered in-place inside buildings.

Isolate Hazard Area and Deny Entry means keep everybody away from the area if they are not directly involved in emergency response operations. Unprotected emergency responders should not be allowed to enter the isolation zone. This "isolation" task is done first to establish control over the area of operations. This is the first step for any protective actions that may follow. See Table 1 - Isolation and Protective Action Distances (green-bordered pages) for more detailed information on specific materials.

Evacuate means move all people from a threatened area to a safer place. To perform an evacuation, there must be enough time for people to be warned, to get ready, and to leave an area. If there is enough time, evacuation is the best protective action. Begin evacuating people nearby and those outdoors in direct view of the scene. When additional help arrives, expand the area to be evacuated downwind and crosswind to at least the extent recommended in this guidebook. Even after people move to the distances recommended, they may not be completely safe from harm. They should not be permitted to congregate at such distances. Send evacuees to a definite place, by a specific route, far enough away so they will not have to be moved again if the wind shifts.

Shelter In-Place means people should seek shelter inside a building and remain inside until the danger passes. **Sheltering in-place is used when evacuating the public would cause greater risk than staying where they are, or when an evacuation cannot be performed.** Direct the people inside to **close all doors and windows** and to **shut off all ventilating, heating and cooling systems.** In-place protection may not be the best option if (a) the vapors are flammable; (b) if it will take a long time for the gas to clear the area; or (c) if buildings cannot be closed tightly. Vehicles can offer some protection for a short period if the windows are closed and the ventilating systems are shut off. Vehicles are not as effective as buildings for in-place protection.

It is vital to maintain communications with competent persons inside the building so that they are advised about changing conditions. **Persons protected-in-place should be warned to stay far from windows** because of the danger from glass and projected metal fragments in a fire and/or explosion.

Every dangerous goods incident is different. Each will have special problems and concerns. Action to protect the public must be selected carefully. These pages can help with **initial** decisions on how to protect the public. Officials must continue to gather information and monitor the situation until the threat is removed.

BACKGROUND ON TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

Initial Isolation and Protective Action Distances in this guidebook were determined for small and large spills occurring during day or night. The overall analysis was statistical in nature and utilized state-of-the-art emission rate and dispersion models; statistical release data from the U.S. DOT HMIS (Hazardous Materials Incident Reporting System) database; meteorological observations from over 120 locations in United States, Canada and Mexico; and the most current toxicological exposure guidelines.

For each chemical, thousands of hypothetical releases were modeled to account for the statistical variation in both release amount and atmospheric conditions. Based on this statistical sample, the 90% percentile Protective Action Distance for each chemical and category was selected to appear in the Table. A brief description of the analysis is provided below. A detailed report outlining the methodology and data used in the generation of the Initial Isolation and Protective Action Distances may be obtained from the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.

Release amounts and emission rates into the atmosphere were statistically modeled based on (1) data from the U.S. DOT HMIS database; (2) container types and sizes authorized for transport as specified in 49 CFR §172.101 and Part 173; (3) physical properties of the individual materials, and (4) atmospheric data from a historical database. The emission model calculated the release of vapor due to evaporation of pools on the ground, direct release of vapors from the container, or a combination of both, as would occur for liquefied gases which can flash to form both a vapor/aerosol mixture and an evaporating pool. In addition, the emission model also calculated the emission of toxic vapor by-products generated from spilling water-reactive materials in water. Spills that involve releases of approximately 200 liters (300 kg for solids)or less are considered Small Spills, while spills that involve quantities greater than 200 liters (300 kg for solids) are considered Large Spills. An exception to this is certain chemical warfare agents where Small Spills include releases up to 2 kg, and Large Spills include releases up to 25 kg. These agents are BZ, CX, GA, GB, GD, GF, HD, HL, HN1, HN2, HN3, L and VX.

Downwind dispersion of the vapor was estimated for each case modeled. Atmospheric parameters affecting the dispersion, and the emission rate, were selected in a statistical fashion from a database containing hourly meteorological data from 120 cities in the United States, Canada and Mexico. The dispersion calculation accounted for the time dependent emission rate from the source as well as the density of the vapor plume (i.e., heavy gas effects). Since atmospheric mixing is less effective at dispersing vapor plumes during nighttime, day and night were separated in the analysis. In Table 1, “Day” refers to time periods after sunrise and before sunset, while “Night” includes all hours between sunset and sunrise.

Toxicological short-term exposure guidelines for the materials were applied to determine the downwind distance to which persons may become incapacitated and unable to take protective action or may incur serious health effects. When available, toxicological exposure guidelines were chosen from AEGL-2 or ERPG-2 emergency response guidelines, with AEGL-2 values being the first choice. For materials that do not have AEGL-2 or ERPG-2 values, emergency response guidelines estimated from lethal concentration limits derived from animal studies were used, as recommended by an independent panel of toxicological experts from industry and academia.

HOW TO USE TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

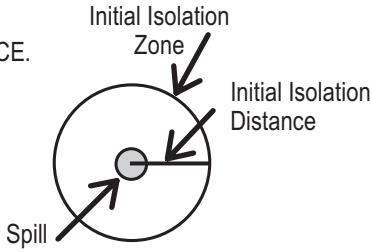
(1) The responder should already have:

- Identified the material by its ID Number and Name; (if an ID Number cannot be found, use the Name of Material index in the blue-bordered pages to locate that number.)
- Found the three-digit guide for that material in order to consult the emergency actions recommended jointly with this table;
- **Noted the wind direction.**

(2) Look in Table 1 (the green-bordered pages) for the ID Number and Name of the Material involved in the incident. Some ID Numbers have more than one shipping name listed—look for the specific name of the material. (If the shipping name is not known and Table 1 lists more than one name for the same ID Number, use the entry with the largest protective action distances.)

(3) Determine if the incident involves a SMALL or LARGE spill and if DAY or NIGHT. Generally, a SMALL SPILL is one which involves a single, small package (e.g., a drum containing up to approximately 200 liters), a small cylinder, or a small leak from a large package. A LARGE SPILL is one which involves a spill from a large package, or multiple spills from many small packages. DAY is any time after sunrise and before sunset. NIGHT is any time between sunset and sunrise.

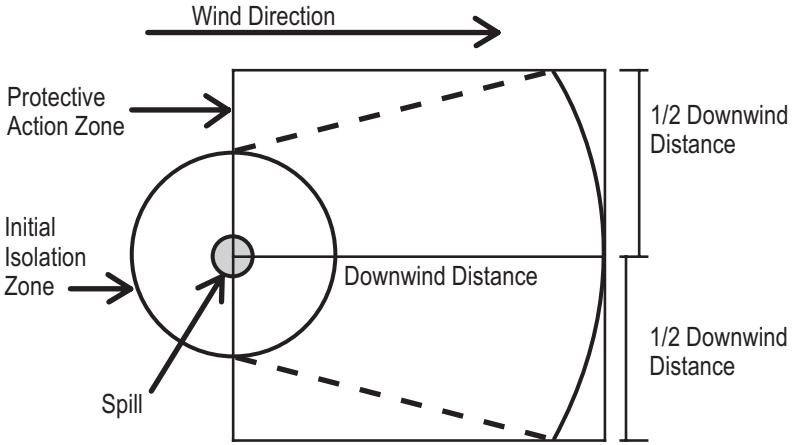
(4) Look up the INITIAL ISOLATION DISTANCE. Direct all persons to move, in a crosswind direction, away from the spill to the distance specified—in meters and feet.



(5) Look up the initial PROTECTIVE ACTION DISTANCE shown in Table 1. For a given material, spill size, and whether day or night, Table 1 gives the downwind distance—in kilometers and miles— for which protective actions should be considered. For practical purposes, the Protective Action Zone (i.e., the area in which people are at risk of harmful exposure) is a square, whose length and width are the same as the downwind distance shown in Table 1.

(6) Initiate Protective Actions to the extent possible, beginning with those closest to the spill site and working away from the site in the downwind direction. When a water-reactive TIH producing material is spilled into a river or stream, the source of the toxic gas may move with the current or stretch from the spill point downstream for a substantial distance.

The shape of the area in which protective actions should be taken (the Protective Action Zone) is shown in this figure. The spill is located at the center of the small circle. The larger circle represents the INITIAL ISOLATION zone around the spill.



NOTE 1: See "Introduction To Table 1 - Initial Isolation And Protective Action Distances" for factors which may increase or decrease Protective Action Distances.

NOTE 2: See Table 2 – Water-Reactive Materials which Produce Toxic Gases for the list of gases produced when these materials are spilled in water.

Call the emergency response telephone number listed on the shipping paper, or the appropriate response agency as soon as possible for additional information on the material, safety precautions, and mitigation procedures.

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1005 1005	Ammonia, anhydrous Anhydrous ammonia	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.8 km	(0.5 mi)	2.3 km	(1.4 mi)
1008 1008	Boron trifluoride Boron trifluoride, compressed	30 m	(100 ft)	0.1 km	(0.1 mi)	0.6 km	(0.4 mi)	300 m	(1000 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)
1016 1016	Carbon monoxide Carbon monoxide, compressed	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
1017	Chlorine	60 m	(200 ft)	0.4 km	(0.3 mi)	1.6 km	(1.0 mi)	600 m	(2000 ft)	3.5 km	(2.2 mi)	8.0 km	(5.0 mi)
1023 1023	Coal gas Coal gas, compressed	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	60 m	(200 ft)	0.3 km	(0.2 mi)	0.4 km	(0.3 mi)
1026 1026	Cyanogen Cyanogen gas	30 m	(100 ft)	0.2 km	(0.1 mi)	0.9 km	(0.5 mi)	150 m	(500 ft)	1.0 km	(0.7 mi)	3.5 km	(2.2 mi)
1040 1040	Ethylene oxide Ethylene oxide with Nitrogen	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.8 km	(0.5 mi)	2.5 km	(1.6 mi)
1045 1045	Fluorine Fluorine, compressed	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	150 m	(500 ft)	0.8 km	(0.5 mi)	3.1 km	(1.9 mi)
1048	Hydrogen bromide, anhydrous	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.3 mi)	300 m	(1000 ft)	1.5 km	(1.0 mi)	4.5 km	(2.8 mi)
1050	Hydrogen chloride, anhydrous	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	60 m	(200 ft)	0.3 km	(0.2 mi)	1.4 km	(0.9 mi)
1051	AC **(when used as a weapon)**	100 m	(300 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	1000 m	(3000 ft)	3.8 km	(2.4 mi)	7.2 km	(4.5 mi)
1051 1051 1051	Hydrocyanic acid, aqueous solutions, with more than 20% Hydrogen cyanide Hydrogen cyanide, anhydrous, stabilized Hydrogen cyanide, stabilized	60 m	(200 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	400 m	(1250 ft)	1.6 km	(1.0 mi)	4.1 km	(2.5 mi)
1052	Hydrogen fluoride, anhydrous	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	300 m	(1000 ft)	1.7 km	(1.1 mi)	3.6 km	(2.2 mi)

1053 1053	Hydrogen sulfide Hydrogen sulphide	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.3 mi)	300 m	(1000 ft)	2.0 km	(1.3 mi)	6.2 km	(3.9 mi)
1062	Methyl bromide	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.4 mi)	2.2 km	(1.4 mi)
1064	Methyl mercaptan	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	200 m	(600 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
1067 1067	Dinitrogen tetroxide Nitrogen dioxide	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	400 m	(1250 ft)	1.1 km	(0.7 mi)	3.0 km	(1.9 mi)
1069	Nitrosyl chloride	30 m	(100 ft)	0.2 km	(0.2 mi)	1.1 km	(0.7 mi)	800 m	(2500 ft)	4.2 km	(2.6 mi)	11.0+ km	(7.0+ mi)
1071 1071	Oil gas Oil gas, compressed	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	60 m	(200 ft)	0.3 km	(0.2 mi)	0.4 km	(0.3 mi)
1076	CG **(when used as a weapon)**	200 m	(600 ft)	1.1 km	(0.7 mi)	4.0 km	(2.5 mi)	1000 m	(3000 ft)	7.5 km	(4.7 mi)	11.0+ km	(7.0+ mi)
1076	Diphosgene	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.2 mi)	0.5 km	0.3 mi)
1076	DP **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.2 mi)	0.7 km	(0.5 mi)	200 m	(600 ft)	1.1 km	(0.7 mi)	2.6 km	(1.6 mi)
1076	Phosgene	100 m	(300 ft)	0.7 km	(0.4 mi)	2.6 km	(1.6 mi)	500 m	(1500 ft)	3.3 km	(2.0 mi)	9.7 km	(6.1 mi)
1079 1079	Sulfur dioxide Sulphur dioxide	60 m	(200 ft)	0.3 km	(0.2 mi)	1.2 km	(0.7 mi)	400 m	(1250 ft)	2.1 km	(1.3 mi)	5.7 km	(3.6 mi)
1082	Trifluorochloroethylene, stabilized	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.3 mi)	1.0 km	(0.6 mi)
1092	Acrolein, stabilized	100 m	(300 ft)	1.1 km	(0.7 mi)	3.3 km	(2.0 mi)	1000 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
1098	Allyl alcohol	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.1 km	(0.7 mi)
1135	Ethylene chlorohydrin	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.7 km	(0.5 mi)	1.2 km	(0.7 mi)
1143 1143	Crotonaldehyde Crotonaldehyde, stabilized	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.3 mi)	0.7 km	(0.5 mi)
1162	Dimethyldichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	2.0 km	(1.3 mi)
1163 1163	1,1-Dimethylhydrazine Dimethylhydrazine, unsymmetrical	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.4 mi)	100 m	(300 ft)	1.3 km	(0.8 mi)	2.4 km	(1.5 mi)
1182	Ethyl chloroformate	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.3 mi)	0.7 km	(0.4 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1183	Ethyldichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.7 km	(0.4 mi)	2.2 km	(1.4 mi)
1185	Ethyleneimine, stabilized	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	100 m	(300 ft)	1.1 km	(0.7 mi)	2.2 km	(1.4 mi)
1196	Ethyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	0.8 km	(0.5 mi)	2.7 km	(1.7 mi)
1238	Methyl chloroformate	30 m	(100 ft)	0.2 km	(0.2 mi)	0.6 km	(0.4 mi)	150 m	(500 ft)	1.2 km	(0.8 mi)	2.5 km	(1.6 mi)
1239	Methyl chloromethyl ether	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	200 m	(600 ft)	2.5 km	(1.5 mi)	5.1 km	(3.2 mi)
1242	Methyldichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.8 km	(0.5 mi)	2.5 km	(1.6 mi)
1244	Methylhydrazine	30 m	(100 ft)	0.3 km	(0.2 mi)	0.7 km	(0.4 mi)	150 m	(500 ft)	1.5 km	(1.0 mi)	2.5 km	(1.5 mi)
1250	Methyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	2.0 km	(1.3 mi)
1251	Methyl vinyl ketone, stabilized	150 m	(500 ft)	1.6 km	(1.0 mi)	3.6 km	(2.3 mi)	1000 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	7.0+ mi)
1259	Nickel carbonyl	150 m	(500 ft)	1.4 km	(0.9 mi)	4.9 km	(3.1 mi)	1000 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
1295	Trichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.7 km	(0.5 mi)	2.3 km	(1.4 mi)
1298	Trimethylchlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.3 mi)	1.2 km	(0.7 mi)
1305	Vinyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	2.0 km	(1.3 mi)
1305	Vinyltrichlorosilane, stabilized **(when spilled in water)**												

1340	Phosphorus pentasulfide, free from yellow and white Phosphorus **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.2 mi)	1.5 km	(0.9 mi)
1340	Phosphorus pentasulphide, free from yellow and white Phosphorus **(when spilled in water)**												
1360	Calcium phosphide **(when spilled in water)**	60 m	(200 ft)	0.4 km	(0.2 mi)	1.5 km	(0.9 mi)	500 m	(1500 ft)	4.4 km	(2.8 mi)	11.0+ km	(7.0+ mi)
1380	Pentaborane	60 m	(200 ft)	0.7 km	(0.4 mi)	2.3 km	(1.4 mi)	400 m	(1250 ft)	4.6 km	(2.9 mi)	8.9 km	(5.5 mi)
1384	Sodium dithionite **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.2 km	(0.7 mi)
1384	Sodium hydrosulfite **(when spilled in water)**												
1384	Sodium hydrosulphite **(when spilled in water)**												
1397	Aluminum phosphide **(when spilled in water)**	60 m	(200 ft)	0.5 km	(0.3 mi)	1.9 km	(1.2 mi)	600 m	(2000 ft)	5.7 km	(3.6 mi)	11.0+ km	(7.0+ mi)
1412	Lithium amide **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.0 km	(0.6 mi)
1419	Magnesium aluminum phosphide **(when spilled in water)**	60 m	(200 ft)	0.4 km	(0.3 mi)	1.7 km	(1.1 mi)	600 m	(2000 ft)	5.3 km	(3.3 mi)	11.0+ km	(7.0+ mi)
1432	Sodium phosphide **(when spilled in water)**	30 m	(100 ft)	0.3 km	(0.2 mi)	1.2 km	(0.8 mi)	400 m	(1250 ft)	3.5 km	(2.2 mi)	10.6 km	(6.6 mi)
1510	Tetranitromethane	30 m	(100 ft)	0.2 km	(0.2 mi)	0.4 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.0 km	(0.6 mi)
1541	Acetone cyanohydrin, stabilized **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	100 m	(300 ft)	0.3 km	(0.2 mi)	1.0 km	(0.7 mi)
1556	MD **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.4 mi)	150 m	(500 ft)	0.7 km	(0.4 mi)	2.2 km	(1.4 mi)
1556	Methyldichloroarsine	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
1556	PD **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1560 1560	Arsenic chloride Arsenic trichloride	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	100 m	(300 ft)	1.1 km	(0.7 mi)	1.8 km	(1.1 mi)
1569	Bromoacetone	30 m	(100 ft)	0.2 km	(0.2 mi)	0.8 km	(0.5 mi)	100 m	(300 ft)	1.1 km	(0.7 mi)	2.3 km	(1.5 mi)
1580	Chloropicrin	30 m	(100 ft)	0.4 km	(0.3 mi)	1.0 km	(0.6 mi)	150 m	(500 ft)	1.9 km	(1.2 mi)	3.3 km	(2.1 mi)
1581 1581	Chloropicrin and Methyl bromide mixture Methyl bromide and Chloropicrin mixture	30 m	(100 ft)	0.1 km	(0.1 mi)	0.6 km	(0.4 mi)	300 m	(1000 ft)	2.1 km	(1.3 mi)	5.9 km	(3.7 mi)
1582 1582	Chloropicrin and Methyl chloride mixture Methyl chloride and Chloropicrin mixture	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.3 mi)	60 m	(200 ft)	0.4 km	(0.2 mi)	1.7 km	(1.1 mi)
1583	Chloropicrin mixture, n.o.s.	30 m	(100 ft)	0.4 km	(0.3 mi)	1.0 km	(0.6 mi)	150 m	(500 ft)	1.9 km	(1.2 mi)	3.3 km	(2.1 mi)
1589	CK **(when used as a weapon)**	60 m	(200 ft)	0.4 km	(0.3 mi)	1.5 km	(1.0 mi)	600 m	(2000 ft)	4.1 km	(2.5 mi)	8.0 km	(5.0 mi)
1589	Cyanogen chloride, stabilized	100 m	(300 ft)	0.4 km	(0.3 mi)	1.5 km	(0.9 mi)	400 m	(1250 ft)	3.1 km	(2.0 mi)	6.8 km	(4.3 mi)
1595 1595	Dimethyl sulfate Dimethyl sulphate	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.7 km	(0.5 mi)
1605	Ethylene dibromide	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
1612	Hexaethyl tetraphosphate and compressed gas mixture	100 m	(300 ft)	0.8 km	(0.5 mi)	2.7 km	(1.7 mi)	400 m	(1250 ft)	3.5 km	(2.2 mi)	8.1 km	(5.1 mi)
1613 1613	Hydrocyanic acid, aqueous solution, with not more than 20% Hydrogen cyanide Hydrogen cyanide, aqueous solution, with not more than 20% Hydrogen cyanide	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)

1614	Hydrogen cyanide, stabilized (absorbed)	60 m	(200 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	150 m	(500 ft)	0.6 km	(0.4 mi)	1.7 km	(1.1 mi)
1647 1647	Ethylene dibromide and Methyl bromide mixture, liquid Methyl bromide and Ethylene dibromide mixture, liquid	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.4 mi)	2.2 km	(1.4 mi)
1660 1660	Nitric oxide Nitric oxide, compressed	30 m	(100 ft)	0.1 km	(0.1 mi)	0.6 km	(0.4 mi)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.2 km	(1.4 mi)
1670	Perchloromethyl mercaptan	30 m	(100 ft)	0.2 km	(0.2 mi)	0.4 km	(0.2 mi)	100 m	(300 ft)	0.8 km	(0.5 mi)	1.4 km	(0.9 mi)
1680 1680	Potassium cyanide **(when spilled in water)** Potassium cyanide, solid **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	100 m	(300 ft)	0.3 km	(0.2 mi)	1.2 km	(0.8 mi)
1689 1689	Sodium cyanide **(when spilled in water)** Sodium cyanide, solid **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	100 m	(300 ft)	0.4 km	(0.3 mi)	1.4 km	(0.9 mi)
1694	CA **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.3 mi)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.7 km	(1.7 mi)
1695	Chloroacetone, stabilized	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.1 km	(0.7 mi)
1697	CN **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.3 km	(0.2 mi)	1.4 km	(0.9 mi)
1698 1698	Adamsite **(when used as a weapon)** DM **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.3 km	(0.2 mi)	1.4 km	(0.9 mi)
1699	DA **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.6 km	(0.4 mi)	200 m	(600 ft)	1.0 km	(0.6 mi)	3.8 km	(2.4 mi)
1716	Acetyl bromide **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.7 km	(1.1 mi)
1717	Acetyl chloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	100 m	(300 ft)	0.9 km	(0.6 mi)	2.8 km	(1.8 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

ID No.	NAME OF MATERIAL	SMALL SPILLS (From a small package or small leak from a large package) First ISOLATE in all Directions Meters	(Feet)	Then PROTECT persons Downwind during- DAY Kilometers	(Miles)	NIGHT Kilometers	(Miles)	LARGE SPILLS (From a large package or from many small packages) First ISOLATE in all Directions Meters	(Feet)	Then PROTECT persons Downwind during- DAY Kilometers	(Miles)	NIGHT Kilometers	(Miles)
1722 1722	Allyl chlorocarbonate Allyl chloroformate	100 m	(300 ft)	1.2 km	(0.8 mi)	2.8 km	(1.8 mi)	600 m	(2000 ft)	7.8 km	(4.9 mi)	11.0+ km	(7.0+ mi)
1724	Allyltrichlorosilane, stabilized **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.9 km	(1.2 mi)
1725	Aluminum bromide, anhydrous **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	30 m	(100 ft)	0.4 km	(0.2 mi)	1.2 km	(0.8 mi)
1726	Aluminum chloride, anhydrous **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	2.1 km	(1.3 mi)
1728	Amyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.9 km	(1.2 mi)
1732	Antimony pentafluoride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	150 m	(500 ft)	1.2 km	(0.8 mi)	4.0 km	(2.5 mi)
1741	Boron trichloride **(when spilled on land)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	100 m	(300 ft)	0.6 km	(0.4 mi)	1.5 km	(1.0 mi)
1741	Boron trichloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	100 m	(300 ft)	1.3 km	(0.8 mi)	3.9 km	(2.4 mi)
1744 1744 1744	Bromine Bromine, solution Bromine, solution (Inhalation Hazard Zone A)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	3.1 km	(1.9 mi)	6.6 km	(4.1 mi)
1744	Bromine, solution (Inhalation Hazard Zone B)	30 m	(100 ft)	0.5 km	(0.3 mi)	1.1 km	(0.7 mi)	150 m	(500 ft)	1.9 km	(1.2 mi)	3.4 km	(2.1 mi)
1745	Bromine pentafluoride **(when spilled on land)**	30 m	(100 ft)	0.2 km	(0.2 mi)	0.9 km	(0.6 mi)	150 m	(500 ft)	1.5 km	(0.9 mi)	3.2 km	(2.0 mi)
1745	Bromine pentafluoride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.4 mi)	150 m	(500 ft)	1.3 km	(0.8 mi)	4.2 km	(2.6 mi)

1746	Bromine trifluoride **(when spilled on land)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
1746	Bromine trifluoride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	100 m	(300 ft)	1.1 km	(0.7 mi)	3.9 km	(2.4 mi)
1747	Butyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.2 mi)	1.2 km	(0.7 mi)
1749	Chlorine trifluoride	60 m	(200 ft)	0.4 km	(0.3 mi)	1.8 km	(1.1 mi)	400 m	(1250 ft)	2.7 km	(1.7 mi)	7.2 km	(4.5 mi)
1752	Chloroacetyl chloride **(when spilled on land)**	30 m	(100 ft)	0.3 km	(0.2 mi)	0.7 km	(0.4 mi)	150 m	(500 ft)	1.4 km	(0.9 mi)	2.3 km	(1.5 mi)
1752	Chloroacetyl chloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.9 km	(0.5 mi)
1753	Chlorophenyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.0 km	(0.7 mi)
1754	Chlorosulfonic acid **(when spilled on land)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.4 km	(0.3 mi)
1754	Chlorosulfonic acid **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	1.0 km	(0.6 mi)	2.9 km	(1.8 mi)
1754	Chlorosulfonic acid and Sulfur trioxide mixture **(when spilled on land)**	60 m	(200 ft)	0.4 km	(0.2 mi)	1.0 km	(0.6 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
1754	Chlorosulfonic acid and Sulfur trioxide mixture **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	1.0 km	(0.6 mi)	2.9 km	(1.8 mi)
1754	Chlorosulphonic acid **(when spilled on land)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.4 km	(0.3 mi)
1754	Chlorosulphonic acid **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	1.0 km	(0.6 mi)	2.9 km	(1.8 mi)
1754	Chlorosulphonic acid and Sulphur trioxide mixture **(when spilled on land)**	60 m	(200 ft)	0.4 km	(0.2 mi)	1.0 km	(0.6 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1754	Chlorosulphonic acid and Sulphur trioxide mixture **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	1.0 km	(0.6 mi)	2.9 km	(1.8 mi)
1754	Sulfur trioxide and Chlorosulfonic acid mixture **(when spilled on land)**	60 m	(200 ft)	0.4 km	(0.2 mi)	1.0 km	(0.6 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
1754	Sulfur trioxide and Chlorosulfonic acid mixture **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	1.0 km	(0.6 mi)	2.9 km	(1.8 mi)
1754	Sulphur trioxide and Chlorosulphonic acid mixture **(when spilled on land)**	60 m	(200 ft)	0.4 km	(0.2 mi)	1.0 km	(0.6 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
1754	Sulphur trioxide and Chlorosulphonic acid mixture **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	60 m	(200 ft)	1.0 km	(0.6 mi)	2.9 km	(1.8 mi)
1758	Chromium oxychloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.2 mi)	0.8 km	(0.5 mi)
1762	Cyclohexenyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.3 mi)	1.4 km	(0.9 mi)
1763	Cyclohexyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.3 mi)	1.4 km	(0.9 mi)
1765	Dichloroacetyl chloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.0 km	(0.6 mi)
1766	Dichlorophenyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.2 mi)	60 m	(200 ft)	0.7 km	(0.4 mi)	2.2 km	(1.4 mi)
1767	Diethyldichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.2 mi)	1.1 km	(0.7 mi)
1769	Diphenyldichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.2 mi)	0.6 km	(0.4 mi)

1771	Dodecyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.4 km	(0.9 mi)
1777	Fluorosulfonic acid **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.2 mi)	0.8 km	(0.5 mi)
1777	Fluorosulphonic acid **(when spilled in water)**												
1781	Hexadecyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.2 mi)	0.7 km	(0.4 mi)
1784	Hexyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.5 km	(0.9 mi)
1799	Nonyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)
1800	Octadecyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.3 mi)	1.4 km	(0.9 mi)
1801	Octyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)
1804	Phenyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)
1806	Phosphorus pentachloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.2 mi)	30 m	(100 ft)	0.4 km	(0.3 mi)	1.6 km	(1.0 mi)
1808	Phosphorus tribromide **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	2.0 km	(1.2 mi)
1809	Phosphorus trichloride **(when spilled on land)**	30 m	(100 ft)	0.2 km	(0.2 mi)	0.7 km	(0.4 mi)	150 m	(500 ft)	1.5 km	(0.9 mi)	3.0 km	(1.9 mi)
1809	Phosphorus trichloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	60 m	(200 ft)	0.8 km	(0.5 mi)	2.8 km	(1.7 mi)
1810	Phosphorus oxychloride **(when spilled on land)**	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.4 mi)	100 m	(300 ft)	1.1 km	(0.7 mi)	2.0 km	(1.3 mi)
1810	Phosphorus oxychloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.7 km	(0.5 mi)	2.3 km	(1.4 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1815	Propionyl chloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)
1816	Propyltrichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	2.0 km	(1.3 mi)
1818	Silicon tetrachloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	100 m	(300 ft)	0.9 km	(0.6 mi)	2.9 km	(1.8 mi)
1828	Sulfur chlorides **(when spilled on land)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.7 km	(0.5 mi)	1.2 km	(0.8 mi)
1828	Sulfur chlorides **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.2 mi)	1.2 km	(0.8 mi)
1828	Sulphur chlorides **(when spilled on land)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.7 km	(0.5 mi)	1.2 km	(0.8 mi)
1828	Sulphur chlorides **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.2 mi)	1.2 km	(0.8 mi)
1829	Sulfur trioxide, inhibited	60 m	(200 ft)	0.4 km	(0.2 mi)	1.0 km	(0.6 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
1829	Sulfur trioxide, stabilized												
1829	Sulfur trioxide, uninhibited												
1829	Sulphur trioxide, inhibited												
1829	Sulphur trioxide, stabilized												
1829	Sulphur trioxide, uninhibited												
1831	Sulfuric acid, fuming	60 m	(200 ft)	0.4 km	(0.2 mi)	1.0 km	(0.6 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
1831	Sulfuric acid, fuming, with not less than 30% free Sulfur trioxide												
1831	Sulphuric acid, fuming												
1831	Sulphuric acid, fuming, with not less than 30% free Sulphur trioxide												

1834	Sulfuryl chloride **(when spilled on land)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.4 mi)	100 m	(300 ft)	1.0 km	(0.6 mi)	2.1 km	(1.3 mi)
1834	Sulfuryl chloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.8 km	(1.2 mi)
1834	Sulphuryl chloride **(when spilled on land)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.4 mi)	100 m	(300 ft)	1.0 km	(0.6 mi)	2.1 km	(1.3 mi)
1834	Sulphuryl chloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.8 km	(1.2 mi)
1836	Thionyl chloride **(when spilled on land)**	30 m	(100 ft)	0.3 km	(0.2 mi)	0.7 km	(0.5 mi)	100 m	(300 ft)	0.9 km	(0.6 mi)	1.9 km	(1.2 mi)
1836	Thionyl chloride **(when spilled in water)**	30 m	(100 ft)	0.3 km	(0.2 mi)	1.4 km	(0.9 mi)	300 m	(1000 ft)	3.3 km	(2.1 mi)	7.5 km	(4.7 mi)
1838	Titanium tetrachloride **(when spilled on land)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
1838	Titanium tetrachloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.9 km	(1.2 mi)
1859 1859	Silicon tetrafluoride Silicon tetrafluoride, compressed	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	1.9 km	(1.2 mi)
1892	ED **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	150 m	(500 ft)	0.8 km	(0.5 mi)	1.9 km	(1.2 mi)
1892	Ethyldichloroarsine	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	0.9 km	(0.6 mi)
1898	Acetyl iodide **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.4 km	(0.9 mi)
1911 1911	Diborane Diborane, compressed	60 m	(200 ft)	0.3 km	(0.2 mi)	1.2 km	(0.8 mi)	300 m	(1000 ft)	1.7 km	(1.1 mi)	4.3 km	(2.7 mi)
1923 1923 1923	Calcium dithionite **(when spilled in water)** Calcium hydrosulfite **(when spilled in water)** Calcium hydrosulphite **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.2 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.2 km	(0.8 mi)

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		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1929	Potassium dithionite **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)
1929	Potassium hydrosulfite **(when spilled in water)**												
1929	Potassium hydrosulphite **(when spilled in water)**												
1931	Zinc dithionite **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)
1931	Zinc hydrosulfite **(when spilled in water)**												
1931	Zinc hydrosulphite **(when spilled in water)**												
1953	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
1953	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)
1953	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
1953	Compressed gas, flammable, poisonous, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
1953	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)

1953	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)
1953	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
1953	Compressed gas, flammable, toxic, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
1953 1953	Compressed gas, poisonous, flammable, n.o.s. Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
1953	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)
1953	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
1953	Compressed gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
1953 1953	Compressed gas, toxic, flammable, n.o.s. Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
1953	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
1953	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
1953	Compressed gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
1955 1955	Compressed gas, poisonous, n.o.s. Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.5 km	(0.3 mi)	2.1 km	(1.3 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
1955	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)
1955	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	200 m	(600 ft)	1.0 km	(0.6 mi)	3.2 km	(2.0 mi)
1955	Compressed gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
1955 1955	Compressed gas, toxic, n.o.s. Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.5 km	(0.3 mi)	2.1 km	(1.3 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
1955	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)
1955	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	200 m	(600 ft)	1.0 km	(0.6 mi)	3.2 km	(2.0 mi)
1955	Compressed gas, toxic, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)

1955	Organic phosphate compound mixed with compressed gas	100 m	(300 ft)	1.0 km	(0.7 mi)	3.4 km	(2.1 mi)	500 m	(1500 ft)	4.4 km	(2.7 mi)	9.6 km	(6.0 mi)
1955	Organic phosphate mixed with compressed gas												
1955	Organic phosphorus compound mixed with compressed gas												
1967	Insecticide gas, poisonous, n.o.s.	100 m	(300 ft)	1.0 km	(0.7 mi)	3.4 km	(2.1 mi)	500 m	(1500 ft)	4.4 km	(2.7 mi)	9.6 km	(6.0 mi)
1967	Insecticide gas, toxic, n.o.s.												
1967	Parathion and compressed gas mixture												
1975	Dinitrogen tetroxide and Nitric oxide mixture	30 m	(100 ft)	0.1 km	(0.1 mi)	0.6 km	(0.4 mi)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.2 km	(1.4 mi)
1975	Nitric oxide and Dinitrogen tetroxide mixture												
1975	Nitric oxide and Nitrogen dioxide mixture												
1975	Nitric oxide and Nitrogen tetroxide mixture												
1975	Nitrogen dioxide and Nitric oxide mixture												
1975	Nitrogen tetroxide and Nitric oxide mixture												
1994	Iron pentacarbonyl	100 m	(300 ft)	0.9 km	(0.6 mi)	2.1 km	(1.3 mi)	500 m	(1500 ft)	5.5 km	(3.5 mi)	8.9 km	(5.5 mi)
2004	Magnesium diamide **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	2.3 km	(1.5 mi)
2011	Magnesium phosphide **(when spilled in water)**	60 m	(200 ft)	0.4 km	(0.3 mi)	1.6 km	(1.0 mi)	500 m	(1500 ft)	4.8 km	(3.0 mi)	11.0+ km	(7.0+ mi)
2012	Potassium phosphide **(when spilled in water)**	30 m	(100 ft)	0.3 km	(0.2 mi)	1.2 km	(0.7 mi)	400 m	(1250 ft)	3.1 km	(2.0 mi)	9.4 km	(5.9 mi)
2013	Strontium phosphide **(when spilled in water)**	30 m	(100 ft)	0.3 km	(0.2 mi)	1.1 km	(0.7 mi)	400 m	(1250 ft)	3.0 km	(1.9 mi)	9.4 km	(5.9 mi)
2032	Nitric acid, fuming	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	150 m	(500 ft)	0.6 km	(0.4 mi)	1.1 km	(0.7 mi)
2032	Nitric acid, red fuming												

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
2186	Hydrogen chloride, refrigerated liquid	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	500 m	(1500 ft)	2.8 km	(1.7 mi)	10.2 km	(6.3 mi)
2188	Arsine	200 m	(600 ft)	1.1 km	(0.7 mi)	4.0 km	(2.5 mi)	1000 m	(3000 ft)	7.0 km	(4.4 mi)	11.0+ km	(7.0+ mi)
2188	SA **(when used as a weapon)**	400 m	(1250 ft)	2.0 km	(1.3 mi)	5.5 km	(3.4 mi)	1000 m	(3000 ft)	9.2 km	(5.7 mi)	11.0+ km	(7.0+ mi)
2189	Dichlorosilane	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	800 m	(2500 ft)	4.2 km	(2.6 mi)	10.3 km	(6.4 mi)
2190 2190	Oxygen difluoride Oxygen difluoride, compressed	800 m	(2500 ft)	5.3 km	(3.3 mi)	11.0+ km	(7.0+ mi)	1000 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
2191 2191	Sulfuryl fluoride Sulphuryl fluoride	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	300 m	(1000 ft)	1.7 km	(1.1 mi)	4.9 km	(3.1 mi)
2192	Germane	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	150 m	(500 ft)	0.9 km	(0.5 mi)	2.8 km	(1.8 mi)
2194	Selenium hexafluoride	60 m	(200 ft)	0.4 km	(0.3 mi)	1.9 km	(1.2 mi)	500 m	(1500 ft)	2.9 km	(1.8 mi)	6.4 km	(4.0 mi)
2195	Tellurium hexafluoride	200 m	(600 ft)	1.2 km	(0.8 mi)	4.3 km	(2.7 mi)	1000 m	(3000 ft)	9.4 km	(5.9 mi)	11.0+ km	(7.0+ mi)
2196	Tungsten hexafluoride	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	150 m	(500 ft)	1.0 km	(0.6 mi)	2.9 km	(1.8 mi)
2197	Hydrogen iodide, anhydrous	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	150 m	(500 ft)	1.0 km	(0.6 mi)	3.2 km	(2.0 mi)
2198 2198	Phosphorus pentafluoride Phosphorus pentafluoride, compressed	30 m	(100 ft)	0.2 km	(0.2 mi)	1.1 km	(0.7 mi)	200 m	(600 ft)	1.3 km	(0.8 mi)	3.8 km	(2.4 mi)
2199	Phosphine	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
2202	Hydrogen selenide, anhydrous	200 m	(600 ft)	1.3 km	(0.8 mi)	4.6 km	(2.9 mi)	1000 m	(3000 ft)	8.7 km	(5.4 mi)	11.0+ km	(7.0+ mi)
2204 2204	Carbonyl sulfide Carbonyl sulphide	30 m	(100 ft)	0.2 km	(0.1 mi)	0.7 km	(0.4 mi)	500 m	(1500 ft)	3.3 km	(2.1 mi)	8.7 km	(5.4 mi)
2232 2232	Chloroacetaldehyde 2-Chloroethanal	30 m	(100 ft)	0.2 km	(0.1 mi)	0.4 km	(0.3 mi)	100 m	(300 ft)	0.9 km	(0.5 mi)	1.5 km	(0.9 mi)

2308	Nitrosylsulfuric acic **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.3 mi)	300 m	(1000 ft)	0.8 km	(0.5 mi)	2.5 km	(1.6 mi)
2308	Nitrosylsulfuric acic, liquid **(when spilled in water)**												
2308	Nitrosylsulfuric acic, solid **(when spilled in water)**												
2308	Nitrosylsulphuric acic **(when spilled in water)**												
2308	Nitrosylsulphuric acic, liquid **(when spilled in water)**												
2308	Nitrosylsulphuric acic, solid **(when spilled in water)**												
2334	Allylamine	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)	150 m	(500 ft)	1.7 km	(1.1 mi)	3.0 km	(1.9 mi)
2337	Phenyl mercaptan	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2353	Butyryl chloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	1.0 km	(0.6 mi)
2382	1,2-Dimethylhydrazine	30 m	(100 ft)	0.2 km	(0.1 mi)	0.4 km	(0.3 mi)	100 m	(300 ft)	1.0 km	(0.6 mi)	1.7 km	(1.1 mi)
2382	Dimethylhydrazine, symmetrical												
2395	Isobutyryl chloride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.2 mi)	0.6 km	(0.4 mi)
2407	Isopropyl chloroformate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.7 km	(0.5 mi)	1.4 km	(0.9 mi)
2417	Carbonyl fluoride	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	150 m	(500 ft)	0.9 km	(0.5 mi)	3.0 km	(1.9 mi)
2417	Carbonyl fluoride, compressed												
2418	Sulfur tetrafluoride	100 m	(300 ft)	0.6 km	(0.4 mi)	2.6 km	(1.6 mi)	800 m	(2500 ft)	4.7 km	(2.9 mi)	10.3 km	(6.4 mi)
2418	Sulphur tetrafluoride												
2420	Hexafluoroacetone	60 m	(200 ft)	0.3 km	(0.2 mi)	1.5 km	(0.9 mi)	1000 m	(3000 ft)	8.4 km	(5.2 mi)	11.0+ km	(7.0+ mi)
2421	Nitrogen trioxide	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	100 m	(300 ft)	0.3 km	(0.2 mi)	1.2 km	(0.8 mi)
2434	Dibenzyldichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)
2435	Ethylphenyldichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.2 mi)	1.1 km	(0.7 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

ID No.	NAME OF MATERIAL	SMALL SPILLS (From a small package or small leak from a large package) First ISOLATE in all Directions Meters	(Feet)	Then PROTECT persons Downwind during- DAY Kilometers	(Miles)	NIGHT Kilometers	(Miles)	LARGE SPILLS (From a large package or from many small packages) First ISOLATE in all Directions Meters	(Feet)	Then PROTECT persons Downwind during- DAY Kilometers	(Miles)	NIGHT Kilometers	(Miles)
2437	Methylphenyldichlorosilane **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.6 km	(0.4 mi)
2438	Trimethylacetyl chloride	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.1 km	(0.7 mi)
2442	Trichloroacetyl chloride	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.7 km	(0.5 mi)	1.3 km	(0.8 mi)
2474	Thiophosgene	60 m	(200 ft)	0.7 km	(0.4 mi)	2.0 km	(1.3 mi)	300 m	(1000 ft)	3.1 km	(1.9 mi)	5.3 km	(3.3 mi)
2477	Methyl isothiocyanate	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2480	Methyl isocyanate	150 m	(500 ft)	1.8 km	(1.1 mi)	5.3 km	(3.3 mi)	1000 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
2481	Ethyl isocyanate	150 m	(500 ft)	1.5 km	(1.0 mi)	3.8 km	(2.4 mi)	1000 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
2482	n-Propyl isocyanate	100 m	(300 ft)	1.2 km	(0.8 mi)	2.8 km	(1.7 mi)	800 m	(2500 ft)	9.6 km	(6.0 mi)	11.0+ km	(7.0+ mi)
2483	Isopropyl isocyanate	100 m	(300 ft)	1.3 km	(0.8 mi)	3.0 km	(1.9 mi)	1000 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
2484	tert-Butyl isocyanate	100 m	(300 ft)	1.1 km	(0.7 mi)	2.6 km	(1.6 mi)	800 m	(2500 ft)	9.3 km	(5.8 mi)	11.0+ km	(7.0+ mi)
2485	n-Butyl isocyanate	60 m	(200 ft)	0.8 km	(0.5 mi)	1.7 km	(1.1 mi)	400 m	(1250 ft)	4.8 km	(3.0 mi)	6.9 km	(4.3 mi)
2486	Isobutyl isocyanate	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	400 m	(1250 ft)	4.8 km	(3.0 mi)	7.4 km	(4.6 mi)
2487	Phenyl isocyanate	30 m	(100 ft)	0.4 km	(0.3 mi)	0.6 km	(0.4 mi)	150 m	(500 ft)	1.6 km	(1.0 mi)	2.5 km	(1.6 mi)
2488	Cyclohexyl isocyanate	30 m	(100 ft)	0.3 km	(0.2 mi)	0.4 km	(0.2 mi)	100 m	(300 ft)	1.0 km	(0.6 mi)	1.4 km	(0.9 mi)
2495	Iodine pentafluoride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.4 mi)	150 m	(500 ft)	1.2 km	(0.8 mi)	4.2 km	(2.6 mi)
2521	Diketene, stabilized	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2534	Methylchlorosilane	30 m	(100 ft)	0.2 km	(0.1 mi)	0.7 km	(0.4 mi)	300 m	(1000 ft)	1.6 km	(1.0 mi)	4.3 km	(2.7 mi)
2548	Chlorine pentafluoride	60 m	(200 ft)	0.3 km	(0.2 mi)	1.4 km	(0.9 mi)	400 m	(1250 ft)	2.3 km	(1.4 mi)	6.5 km	(4.1 mi)

2600	Carbon monoxide and Hydrogen mixture	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
2600	Carbon monoxide and Hydrogen mixture, compressed												
2600	Hydrogen and Carbon monoxide mixture												
2600	Hydrogen and Carbon monoxide mixture, compressed												
2605	Methoxymethyl isocyanate	30 m	(100 ft)	0.4 km	(0.3 mi)	0.6 km	(0.4 mi)	150 m	(500 ft)	1.6 km	(1.0 mi)	2.5 km	(1.6 mi)
2606	Methyl orthosilicate	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2644	Methyl iodide	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	100 m	(300 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)
2646	Hexachlorocyclopentadiene	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.3 mi)	0.5 km	(0.3 mi)
2668	Chloroacetonitrile	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2676	Stibine	60 m	(200 ft)	0.4 km	(0.2 mi)	1.7 km	(1.1 mi)	500 m	(1500 ft)	2.8 km	(1.7 mi)	7.2 km	(4.5 mi)
2691	Phosphorus pentabromide **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	30 m	(100 ft)	0.4 km	(0.3 mi)	1.5 km	(1.0 mi)
2692	Boron tribromide **(when spilled on land)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	1.0 km	(0.6 mi)
2692	Boron tribromide **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.6 km	(0.4 mi)	100 m	(300 ft)	1.0 km	(0.6 mi)	3.0 km	(1.9 mi)
2740	n-Propyl chloroformate	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.7 km	(0.5 mi)	1.3 km	(0.8 mi)
2742	sec-Butyl chloroformate	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.4 km	(0.2 mi)	0.6 km	(0.4 mi)
2742	Isobutyl chloroformate	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2743	n-Butyl chloroformate	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2806	Lithium nitride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	2.2 km	(1.4 mi)
2810	Buzz **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)
2810	BZ **(when used as a weapon)**												

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
2810	CS **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.7 km	(0.4 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	2.1 km	(1.3 mi)
2810	DC **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.6 km	(0.4 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	2.0 km	(1.3 mi)
2810	GA **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	100 m	(300 ft)	0.6 km	(0.4 mi)	0.7 km	(0.4 mi)
2810	GB **(when used as a weapon)**	60 m	(200 ft)	0.4 km	(0.3 mi)	1.2 km	(0.8 mi)	800 m	(2500 ft)	2.3 km	(1.4 mi)	4.5 km	(2.8 mi)
2810	GD **(when used as a weapon)**	60 m	(200 ft)	0.4 km	(0.3 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.7 km	(1.1 mi)	2.4 km	(1.5 mi)
2810	GF **(when used as a weapon)**	60 m	(200 ft)	0.2 km	(0.2 mi)	0.3 km	(0.2 mi)	150 m	(500 ft)	0.9 km	(0.6 mi)	1.1 km	(0.7 mi)
2810 2810	H **(when used as a weapon)** HD **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.2 mi)	0.4 km	(0.3 mi)
2810	HL **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	1.0 km	(0.7 mi)
2810	HN-1 **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.2 mi)	0.5 km	(0.4 mi)
2810	HN-2 **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	60 m	(200 ft)	0.3 km	(0.2 mi)	0.5 km	(0.3 mi)
2810	HN-3 **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)
2810 2810	L (Lewisite) **(when used as a weapon)** Lewisite **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	1.0 km	(0.7 mi)
2810	Mustard **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.2 mi)	0.4 km	(0.3 mi)
2810	Mustard Lewisite **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	1.0 km	(0.7 mi)
2810 2810	Poisonous liquid, n.o.s. Poisonous liquid, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
2810	Poisonous liquid, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)

2810 2810	Poisonous liquid, organic, n.o.s. Poisonous liquid, organic, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	400 m	(1250 ft)	4.8 km	(3.0 mi)	7.4 km	(4.6 mi)
2810	Poisonous liquid, organic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2810	Sarin **(when used as a weapon)**	60 m	(200 ft)	0.4 km	(0.3 mi)	1.2 km	(0.8 mi)	800 m	(2500 ft)	2.3 km	(1.4 mi)	4.5 km	(2.8 mi)
2810	Soman **(when used as a weapon)**	60 m	(200 ft)	0.4 km	(0.3 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.7 km	(1.1 mi)	2.4 km	(1.5 mi)
2810	Tabun **(when used as a weapon)**	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.1 mi)	100 m	(300 ft)	0.6 km	(0.4 mi)	0.7 km	(0.4 mi)
2810	Thickened GD **(when used as a weapon)**	60 m	(200 ft)	0.4 km	(0.3 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.7 km	(1.1 mi)	2.4 km	(1.5 mi)
2810 2810	Toxic liquid, n.o.s. Toxic liquid, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
2810	Toxic liquid, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2810 2810	Toxic liquid, organic, n.o.s. Toxic liquid, organic, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5mi)	1.8 km	(1.1 mi)	400 m	(1250 ft)	4.8 km	(3.0 mi)	7.4 km	(4.6 mi)
2810	Toxic liquid, organic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2810	VX **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.2 mi)	0.4 km	(0.3 mi)
2811	CX **(when used as a weapon)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.7 km	(0.4 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	2.3 km	(1.4 mi)
2826	Ethyl chlorothioformate	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.7 km	(0.5 mi)
2845	Ethyl phosphonous dichloride, anhydrous	30 m	(100 ft)	0.3 km	(0.2 mi)	0.8 km	(0.5 mi)	150 m	(500 ft)	1.6 km	(1.0 mi)	2.9 km	(1.8 mi)
2845	Methyl phosphonous dichloride	30 m	(100 ft)	0.4 km	(0.3 mi)	1.2 km	(0.8 mi)	200 m	(600 ft)	2.6 km	(1.6 mi)	4.5 km	(2.8 mi)
2901	Bromine chloride	30 m	(100 ft)	0.2 km	(0.2 mi)	1.0 km	(0.6 mi)	400 m	(1250 ft)	2.4 km	(1.5 mi)	6.5 km	(4.0 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
2927	Ethyl phosphonothioic dichloride, anhydrous	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.2 mi)
2927	Ethyl phosphorodichloridate	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.2 mi)	0.3 km	(0.2 mi)
2927 2927	Poisonous liquid, corrosive, n.o.s. Poisonous liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
2927	Poisonous liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2927 2927	Poisonous liquid, corrosive, organic, n.o.s. Poisonous liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	1.2 km	(0.8 mi)	2.8 km	(1.8 mi)	600 m	(2000 ft)	7.8 km	(4.9 mi)	11.0+ km	(7.0+ mi)
2927	Poisonous liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2927 2927	Toxic liquid, corrosive, n.o.s. Toxic liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
2927	Toxic liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2927 2927	Toxic liquid, corrosive, organic, n.o.s. Toxic liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	1.2 km	(0.8 mi)	2.8 km	(1.8 mi)	600 m	(2000 ft)	7.8 km	(4.9 mi)	11.0+ km	(7.0+ mi)
2927	Toxic liquid, corrosive, organic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)

2929 2929	Poisonous liquid, flammable, n.o.s. Poisonous liquid, flammable, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.7 km	(0.4 mi)	2.3 km	(1.4 mi)	400 m	(1250 ft)	4.6 km	(2.9 mi)	8.9 km	(5.5 mi)
2929	Poisonous liquid, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2929 2929	Poisonous liquid, flammable, organic, n.o.s. Poisonous liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	1.1 km	(0.7 mi)	2.6 km	(1.6 mi)	600 m	(2000 ft)	7.8 km	(4.9 mi)	11.0+ km	(7.0+ mi)
2929	Poisonous liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2929 2929	Toxic liquid, flammable, n.o.s. Toxic liquid, flammable, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.7 km	(0.4 mi)	2.3 km	(1.4 mi)	400 m	(1250 ft)	4.6 km	(2.9 mi)	8.9 km	(5.5 mi)
2929	Toxic liquid, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2929 2929	Toxic liquid, flammable, organic, n.o.s. Toxic liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	1.1 km	(0.7 mi)	2.6 km	(1.6 mi)	600 m	(2000 ft)	7.8 km	(4.9 mi)	11.0+ km	(7.0+ mi)
2929	Toxic liquid, flammable, organic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
2977 2977	Radioactive material, Uranium hexafluoride, fissile **(when spilled in water)** Uranium hexafluoride, fissile containing more than 1% Uranium-235 **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	2.3 km	(1.4 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
2978	Radioactive material, Uranium hexafluoride **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	2.2 km	(1.4 mi)
2978	Uranium hexafluoride **(when spilled in water)**												
2978	Uranium hexafluoride, non-fissile **(when spilled in water)**												
2985	Chlorosilanes, flammable, corrosive, n.o.s. **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)
2985	Chlorosilanes, n.o.s. **(when spilled in water)**												
2986	Chlorosilanes, corrosive, flammable, n.o.s. **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)
2986	Chlorosilanes, n.o.s. **(when spilled in water)**												
2987	Chlorosilanes, corrosive, n.o.s. **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)
2987	Chlorosilanes, n.o.s. **(when spilled in water)**												
2988	Chlorosilanes, n.o.s. **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)
2988	Chlorosilanes, water-reactive, flammable, corrosive, n.o.s. **(when spilled in water)**												
3023	2-Methyl-2-heptanethiol	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.7 km	(0.5 mi)
3023	tert-Octyl mercaptan												
3048	Aluminum phosphide pesticide **(when spilled in water)**	60 m	(200 ft)	0.5 km	(0.3 mi)	1.9 km	(1.2 mi)	600 m	(2000 ft)	5.8 km	(3.6 mi)	11.0+ km	(7.0+ mi)

3049	Metal alkyl halides, n.o.s. **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.3 mi)	1.3 km	(0.8 mi)
3049	Metal alkyl halides, water-reactive, n.o.s. **(when spilled in water)**												
3049	Metal aryl halides, n.o.s. **(when spilled in water)**												
3049	Metal aryl halides, water-reactive, n.o.s. **(when spilled in water)**												
3052	Aluminum alkyl halides **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.3 mi)	1.3 km	(0.8 mi)
3052	Aluminum alkyl halides, liquid **(when spilled in water)**												
3052	Aluminum alkyl halides, solid **(when spilled in water)**												
3057	Trifluoroacetyl chloride	30 m	(100 ft)	0.2 km	(0.2 mi)	1.0 km	(0.7 mi)	800 m	(2500 ft)	4.6 km	(2.9 mi)	11.0+ km	(7.0+ mi)
3079	Methacrylonitrile, stabilized	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.9 km	(0.5 mi)
3083	Perchloryl fluoride	30 m	(100 ft)	0.2 km	(0.1 mi)	0.7 km	(0.4 mi)	500 m	(1500 ft)	3.1 km	(2.0 mi)	8.4 km	(5.2 mi)
3122	Poisonous liquid, oxidizing, n.o.s.	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3122	Poisonous liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)												
3122	Poisonous liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.0 km	(0.6 mi)
3122	Toxic liquid, oxidizing, n.o.s.	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3122	Toxic liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)												
3122	Toxic liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.0 km	(0.6 mi)
3123	Poisonous liquid, water-reactive, n.o.s.	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3123	Poisonous liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)												

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		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
3123	Poisonous liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
3123 3123	Poisonous liquid, which in contact with water emits flammable gases, n.o.s. Poisonous liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3123	Poisonous liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
3123 3123	Toxic liquid, water-reactive, n.o.s. Toxic liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3123	Toxic liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
3123 3123	Toxic liquid, which in contact with water emits flammable gases, n.o.s. Toxic liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3123	Toxic liquid, which in contact with water emits flammable gases, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)

3160 3160	Liquefied gas, poisonous, flammable, n.o.s. Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3160	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)
3160	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3160	Liquefied gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3160 3160	Liquefied gas, toxic, flammable, n.o.s. Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3160	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)
3160	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3160	Liquefied gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3162 3162	Liquefied gas, poisonous, n.o.s. Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.5 km	(0.3 mi)	2.1 km	(1.3 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3162	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)
3162	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	200 m	(600 ft)	1.0 km	(0.6 mi)	3.2 km	(2.0 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
3162	Liquefied gas, poisonous, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3162 3162	Liquefied gas, toxic, n.o.s. Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.5 km	(0.3 mi)	2.1 km	(1.3 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3162	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)
3162	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.2 mi)	200 m	(600 ft)	1.0 km	(0.6 mi)	3.2 km	(2.0 mi)
3162	Liquefied gas, toxic, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3246 3246	Methanesulfonyl chloride Methanesulphonyl chloride	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.2 km	(0.2 mi)
3275 3275	Nitriles, poisonous, flammable, n.o.s. Nitriles, toxic, flammable, n.o.s.	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.9 km	(0.5 mi)
3276 3276 3276 3276	Nitriles, poisonous, liquid, n.o.s. Nitriles, poisonous, n.o.s. Nitriles, toxic, liquid, n.o.s. Nitriles, toxic, n.o.s.	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.9 km	(0.5 mi)
3278 3278 3278 3278	Organophosphorus compound, poisonous, liquid, n.o.s. Organophosphorus compound, poisonous, n.o.s. Organophosphorus compound, toxic, liquid, n.o.s. Organophosphorus compound, toxic, n.o.s.	30 m	(100 ft)	0.4 km	(0.3 mi)	1.2 km	(0.8 mi)	200 m	(600 ft)	2.6 km	(1.6 mi)	4.5 km	(2.8 mi)

3279 3279	Organophosphorus compound, poisonous, flammable, n.o.s. Organophosphorus compound, toxic, flammable, n.o.s.	30 m	(100 ft)	0.4 km	(0.3 mi)	1.2 km	(0.8 mi)	200 m	(600 ft)	2.6 km	(1.6 mi)	4.5 km	(2.8 mi)
3280 3280	Organoarsenic compound, liquid, n.o.s. Organoarsenic compound, n.o.s.	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	150 m	(500 ft)	2.0 km	(1.3 mi)	4.8 km	(3.0 mi)
3281 3281	Metal carbonyls, liquid, n.o.s. Metal carbonyls, n.o.s.	150 m	(500 ft)	1.4 km	(0.9 mi)	4.9 km	(3.1 mi)	1000 m	(3000 ft)	11.0+ km	(7.0+ mi)	11.0+ km	(7.0+ mi)
3287 3287	Poisonous liquid, inorganic, n.o.s. Poisonous liquid, inorganic, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3287	Poisonous liquid, inorganic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	150 m	(500 ft)	0.6 km	(0.4 mi)	1.1 km	(0.7 mi)
3287 3287	Toxic liquid, inorganic, n.o.s. Toxic liquid, inorganic, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3287	Toxic liquid, inorganic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	150 m	(500 ft)	0.6 km	(0.4 mi)	1.1 km	(0.7 mi)
3289 3289	Poisonous liquid, corrosive, inorganic, n.o.s. Poisonous liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3289	Poisonous liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.7 km	(0.5 mi)	1.2 km	(0.8 mi)
3289 3289	Toxic liquid, corrosive, inorganic, n.o.s. Toxic liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

ID No.	NAME OF MATERIAL	SMALL SPILLS (From a small package or small leak from a large package) First ISOLATE in all Directions Meters	(Feet)	Then PROTECT persons Downwind during- DAY Kilometers	(Miles)	NIGHT Kilometers	(Miles)	LARGE SPILLS (From a large package or from many small packages) First ISOLATE in all Directions Meters	(Feet)	Then PROTECT persons Downwind during- DAY Kilometers	(Miles)	NIGHT Kilometers	(Miles)
3289	Toxic liquid, corrosive, inorganic, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.7 km	(0.5 mi)	1.2 km	(0.8 mi)
3294	Hydrogen cyanide, solution in alcohol, with not more than 45% Hydrogen cyanide	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	200 m	(600 ft)	0.5 km	(0.3 mi)	1.9 km	(1.2 mi)
3300	Carbon dioxide and Ethylene oxide mixture, with more than 87% Ethylene oxide	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.8 km	(0.5 mi)	2.5 km	(1.6 mi)
3300	Ethylene oxide and Carbon dioxide mixture, with more than 87% Ethylene oxide												
3303	Compressed gas, poisonous, oxidizing, n.o.s.	100 m	(300 ft)	0.5 km	(0.3 mi)	2.1 km	(1.3 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3303	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)												
3303	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.2 km	(0.2 mi)	1.0 km	(0.6 mi)	500 m	(1500 ft)	2.7 km	(1.7 mi)	7.2 km	(4.5 mi)
3303	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3303	Compressed gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)

3303	Compressed gas, toxic, oxidizing, n.o.s.	100 m	(300 ft)	0.5 km	(0.3 mi)	2.1 km	(1.3 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3303	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)												
3303	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.2 km	(0.2 mi)	1.0 km	(0.6 mi)	500 m	(1500 ft)	2.7 km	(1.7 mi)	7.2 km	(4.5 mi)
3303	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3303	Compressed gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3304	Compressed gas, poisonous, corrosive, n.o.s.	150 m	(500 ft)	0.7 km	(0.4 mi)	2.5 km	(1.6 mi)	800 m	(2500 ft)	4.7 km	(2.9 mi)	10.3 km	(6.4 mi)
3304	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)												
3304	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	400 m	(1250 ft)	2.4 km	(1.5 mi)	6.5 km	(4.0 mi)
3304	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.3 mi)	300 m	(1000 ft)	1.7 km	(1.1 mi)	3.6 km	(2.2 mi)
3304	Compressed gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3304	Compressed gas, toxic, corrosive, n.o.s.	150 m	(500 ft)	0.7 km	(0.4 mi)	2.5 km	(1.6 mi)	800 m	(2500 ft)	4.7 km	(2.9 mi)	10.3 km	(6.4 mi)
3304	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)												

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
3304	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	400 m	(1250 ft)	2.4 km	(1.5 mi)	6.5 km	(4.0 mi)
3304	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.3 mi)	300 m	(1000 ft)	1.7 km	(1.1 mi)	3.6 km	(2.2 mi)
3304	Compressed gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3305 3305	Compressed gas, poisonous, flammable, corrosive, n.o.s. Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.7 km	(0.4 mi)	2.5 km	(1.6 mi)	800 m	(2500 ft)	4.7 km	(2.9 mi)	10.3 km	(6.4 mi)
3305	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	800 m	(2500 ft)	4.2 km	(2.6 mi)	10.3 km	(6.4 mi)
3305	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3305	Compressed gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3305 3305	Compressed gas, toxic, flammable, corrosive, n.o.s. Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.7 km	(0.4 mi)	2.5 km	(1.6 mi)	800 m	(2500 ft)	4.7 km	(2.9 mi)	10.3 km	(6.4 mi)

3305	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	800 m	(2500 ft)	4.2 km	(2.6 mi)	10.3 km	(6.4 mi)
3305	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3305	Compressed gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3306 3306	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3306	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.2 km	(0.2 mi)	1.0 km	(0.6 mi)	500 m	(1500 ft)	2.7 km	(1.7 mi)	7.2 km	(4.5 mi)
3306	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3306	Compressed gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3306 3306	Compressed gas, toxic, oxidizing, corrosive, n.o.s. Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3306	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.2 km	(0.2 mi)	1.0 km	(0.6 mi)	500 m	(1500 ft)	2.7 km	(1.7 mi)	7.2 km	(4.5 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First ISOLATE in all Directions		Then PROTECT persons Downwind during-				First ISOLATE in all Directions		Then PROTECT persons Downwind during-			
				DAY		NIGHT				DAY		NIGHT	
ID No.	NAME OF MATERIAL	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
3306	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3306	Compressed gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3307 3307	Liquefied gas, poisonous, oxidizing, n.o.s. Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.5 km	(0.3 mi)	2.1 km	(1.3 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3307	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.2 km	(0.2 mi)	1.0 km	(0.6 mi)	500 m	(1500 ft)	2.7 km	(1.7 mi)	7.2 km	(4.5 mi)
3307	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3307	Liquefied gas, poisonous, oxidizing, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3307 3307	Liquefied gas, toxic, oxidizing, n.o.s. Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.5 km	(0.3 mi)	2.1 km	(1.3 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3307	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.2 km	(0.2 mi)	1.0 km	(0.6 mi)	500 m	(1500 ft)	2.7 km	(1.7 mi)	7.2 km	(4.5 mi)
3307	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)

3307	Liquefied gas, toxic, oxidizing, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3308 3308	Liquefied gas, poisonous, corrosive, n.o.s. Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone A)	150 m	(500 ft)	0.7 km	(0.4 mi)	2.5 km	(1.6 mi)	800 m	(2500 ft)	4.7 km	(2.9 mi)	10.3 km	(6.4 mi)
3308	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	400 m	(1250 ft)	2.4 km	(1.5 mi)	6.5 km	(4.0 mi)
3308	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.3 mi)	300 m	(1000 ft)	1.7 km	(1.1 mi)	3.6 km	(2.2 mi)
3308	Liquefied gas, poisonous, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3308 3308	Liquefied gas, toxic, corrosive, n.o.s. Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone A)	150 m	(500 ft)	0.7 km	(0.4 mi)	2.5 km	(1.6 mi)	800 m	(2500 ft)	4.7 km	(2.9 mi)	10.3 km	(6.4 mi)
3308	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	400 m	(1250 ft)	2.4 km	(1.5 mi)	6.5 km	(4.0 mi)
3308	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.4 km	(0.3 mi)	300 m	(1000 ft)	1.7 km	(1.1 mi)	3.6 km	(2.2 mi)
3308	Liquefied gas, toxic, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3309 3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.7 km	(0.4 mi)	2.5 km	(1.6 mi)	800 m	(2500 ft)	4.7 km	(2.9 mi)	10.3 km	(6.4 mi)
3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	800 m	(2500 ft)	4.2 km	(2.6 mi)	10.3 km	(6.4 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3309	Liquefied gas, poisonous, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3309 3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.7 km	(0.4 mi)	2.5 km	(1.6 mi)	800 m	(2500 ft)	4.7 km	(2.9 mi)	10.3 km	(6.4 mi)
3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	1.0 km	(0.6 mi)	800 m	(2500 ft)	4.2 km	(2.6 mi)	10.3 km	(6.4 mi)
3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3309	Liquefied gas, toxic, flammable, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3310 3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.2 km	(0.2 mi)	1.0 km	(0.6 mi)	500 m	(1500 ft)	2.7 km	(1.7 mi)	7.2 km	(4.5 mi)

3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3310	Liquefied gas, poisonous, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3310 3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone B)	60 m	(200 ft)	0.2 km	(0.2 mi)	1.0 km	(0.6 mi)	500 m	(1500 ft)	2.7 km	(1.7 mi)	7.2 km	(4.5 mi)
3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3310	Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3318	Ammonia solution, with more than 50% Ammonia	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.8 km	(0.5 mi)	2.3 km	(1.4 mi)
3355 3355	Insecticide gas, poisonous, flammable, n.o.s. Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3355	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

		SMALL SPILLS (From a small package or small leak from a large package)						LARGE SPILLS (From a large package or from many small packages)					
		First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-				First **ISOLATE** in all Directions		Then **PROTECT** persons Downwind during-			
				DAY		**NIGHT**				**DAY**		**NIGHT**	
ID No.	**NAME OF MATERIAL**	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)	Meters	(Feet)	Kilometers	(Miles)	Kilometers	(Miles)
3355	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3355	Insecticide gas, poisonous, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3355 3355	Insecticide gas, toxic, flammable, n.o.s. Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone A)	100 m	(300 ft)	0.6 km	(0.4 mi)	2.5 km	(1.5 mi)	800 m	(2500 ft)	4.4 km	(2.7 mi)	8.9 km	(5.6 mi)
3355	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.2 km	(0.1 mi)	0.8 km	(0.5 mi)	400 m	(1250 ft)	1.9 km	(1.2 mi)	4.8 km	(3.0 mi)
3355	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone C)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	300 m	(1000 ft)	1.3 km	(0.8 mi)	4.1 km	(2.6 mi)
3355	Insecticide gas, toxic, flammable, n.o.s. (Inhalation Hazard Zone D)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
3361 3361	Chlorosilanes, poisonous, corrosive, n.o.s. (**when spilled in water**) Chlorosilanes, toxic, corrosive, n.o.s. (**when spilled in water**)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)
3362 3362	Chlorosilanes, poisonous, corrosive, flammable, n.o.s. (**when spilled in water**) Chlorosilanes, toxic, corrosive, flammable, n.o.s. (**when spilled in water**)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	100 m	(300 ft)	0.5 km	(0.3 mi)	1.6 km	(1.0 mi)

3381 3381	Poisonous by inhalation liquid, n.o.s. (Inhalation Hazard Zone A) Toxic by inhalation liquid, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3382 3382	Poisonous by inhalation liquid, n.o.s. (Inhalation Hazard Zone B) Toxic by inhalation liquid, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
3383 3383	Poisonous by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone A) Toxic by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.7 km	(0.4 mi)	2.3 km	(1.4 mi)	400 m	(1250 ft)	4.6 km	(2.9 mi)	8.9 km	(5.5 mi)
3384 3384	Poisonous by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone B) Toxic by inhalation liquid, flammable, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
3385 3385	Poisonous by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A) Toxic by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3386 3386	Poisonous by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B) Toxic by inhalation liquid, water-reactive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)

TABLE 1 - INITIAL ISOLATION AND PROTECTIVE ACTION DISTANCES

ID No.	NAME OF MATERIAL	SMALL SPILLS (From a small package or small leak from a large package) First ISOLATE in all Directions Meters	(Feet)	Then PROTECT persons Downwind during- DAY Kilometers	(Miles)	NIGHT Kilometers	(Miles)	LARGE SPILLS (From a large package or from many small packages) First ISOLATE in all Directions Meters	(Feet)	Then PROTECT persons Downwind during- DAY Kilometers	(Miles)	NIGHT Kilometers	(Miles)
3387	Poisonous by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3387	Toxic by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone A)												
3388	Poisonous by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	60 m	(200 ft)	0.6 km	(0.4 mi)	1.0 km	(0.6 mi)
3388	Toxic by inhalation liquid, oxidizing, n.o.s. (Inhalation Hazard Zone B)												
3389	Poisonous by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)	60 m	(200 ft)	0.8 km	(0.5 mi)	1.8 km	(1.1 mi)	300 m	(1000 ft)	2.9 km	(1.8 mi)	5.7 km	(3.6 mi)
3389	Toxic by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone A)												
3390	Poisonous by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.8 km	(0.5 mi)
3390	Toxic by inhalation liquid, corrosive, n.o.s. (Inhalation Hazard Zone B)												
3456	Nitrosylsulfuric acid, solid **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.5 km	(0.3 mi)	200 m	(600 ft)	0.7 km	(0.5 mi)	2.5 km	(1.6 mi)
3456	Nitrosylsulphuric acid, solid **(when spilled in water)**												
3461	Aluminum alkyl halides, solid **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.4 km	(0.3 mi)	1.3 km	(0.8 mi)
9191	Chlorine dioxide, hydrate, frozen **(when spilled in water)**	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.2 km	(0.2 mi)	0.6 km	(0.4 mi)

9192	Fluorine, refrigerated liquid (cryogenic liquid)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.3 km	(0.2 mi)	150 m	(500 ft)	0.8 km	(0.5 mi)	3.1 km	(1.9 mi)
9202	Carbon monoxide, refrigerated liquid (cryogenic liquid)	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	150 m	(500 ft)	0.7 km	(0.5 mi)	2.7 km	(1.7 mi)
9206	Methyl phosphonic dichloride	30 m	(100 ft)	0.1 km	(0.1 mi)	0.2 km	(0.1 mi)	60 m	(200 ft)	0.5 km	(0.3 mi)	0.7 km	(0.4 mi)
9263	Chloropivaloyl chloride	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.4 km	(0.2 mi)
9264	3,5-Dichloro-2,4,6-trifluoropyridine	30 m	(100 ft)	0.1 km	(0.1 mi)	0.1 km	(0.1 mi)	30 m	(100 ft)	0.3 km	(0.2 mi)	0.3 km	(0.2 mi)
9269	Trimethoxysilane	30 m	(100 ft)	0.2 km	(0.1 mi)	0.5 km	(0.3 mi)	150 m	(500 ft)	1.0 km	(0.7 mi)	2.0 km	(1.3 mi)

See Next Page for Table of Water-Reactive Materials Which Produce Toxic Gases

TABLE 2 - WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES

Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH) Gas(es)
When Spilled in Water

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced
1162	155	Dimethyldichlorosilane	HCl
1183	139	Ethyldichlorosilane	HCl
1196	155	Ethyltrichlorosilane	HCl
1242	139	Methyldichlorosilane	HCl
1250	155	Methyltrichlorosilane	HCl
1295	139	Trichlorosilane	HCl
1298	155	Trimethylchlorosilane	HCl
1305	155P	Vinyltrichlorosilane	HCl
1305	155P	Vinyltrichlorosilane, stabilized	HCl
1340	139	Phosphorus pentasulfide, free from yellow and white Phosphorus	H_2S
1340	139	Phosphorus pentasulphide, free from yellow and white Phosphorus	H_2S
1360	139	Calcium phosphide	PH_3
1384	135	Sodium dithionite	H_2S SO_2
1384	135	Sodium hydrosulfite	H_2S SO_2
1384	135	Sodium hydrosulphite	H_2S SO_2
1397	139	Aluminum phosphide	PH_3
1412	139	Lithium amide	NH_3
1419	139	Magnesium aluminum phosphide	PH_3
1432	139	Sodium phosphide	PH_3
1541	155	Acetone cyanohydrin, stabilized	HCN
1680	157	Potassium cyanide	HCN
1680	157	Potassium cyanide, solid	HCN
1689	157	Sodium cyanide	HCN
1689	157	Sodium cyanide, solid	HCN

Chemical Symbols for TIH Gases:

Br_2	Bromine	HF	Hydrogen fluoride	PH_3	Phosphine
Cl_2	Chlorine	HI	Hydrogen iodide	NO_2	Nitrogen dioxide
HBr	Hydrogen bromide	H_2S	Hydrogen sulfide	SO_2	Sulfur dioxide
HCl	Hydrogen chloride	H_2S	Hydrogen sulphide	SO_2	Sulphur dioxide
HCN	Hydrogen cyanide	NH_3	Ammonia		

Use this list only when material is spilled in water.

Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH) Gas(es)
When Spilled in Water

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced	
1716	156	Acetyl bromide	HBr	
1717	155	Acetyl chloride	HCl	
1724	155	Allyltrichlorosilane, stabilized	HCl	
1725	137	Aluminum bromide, anhydrous	HBr	
1726	137	Aluminum chloride, anhydrous	HCl	
1728	155	Amyltrichlorosilane	HCl	
1732	157	Antimony pentafluoride	HF	
1741	125	Boron trichloride	HCl	
1745	144	Bromine pentafluoride	HF	Br_2
1746	144	Bromine trifluoride	HF	Br_2
1747	155	Butyltrichlorosilane	HCl	
1752	156	Chloroacetyl chloride	HCl	
1753	156	Chlorophenyltrichlorosilane	HCl	
1754	137	Chlorosulfonic acid	HCl	
1754	137	Chlorosulfonic acid and Sulfur trioxide mixture	HCl	
1754	137	Chlorosulphonic acid	HCl	
1754	137	Chlorosulphonic acid and Sulphur trioxide mixture	HCl	
1754	137	Sulfur trioxide and Chlorosulfonic acid	HCl	
1754	137	Sulphur trioxide and Chlorosulphonic acid	HCl	
1758	137	Chromium oxychloride	HCl	
1762	156	Cyclohexenyltrichlorosilane	HCl	
1763	156	Cyclohexyltrichlorosilane	HCl	
1765	156	Dichloroacetyl chloride	HCl	
1766	156	Dichlorophenyltrichlorosilane	HCl	

Chemical Symbols for TIH Gases:

Br_2	Bromine	HF	Hydrogen fluoride	PH_3	Phosphine
Cl_2	Chlorine	HI	Hydrogen iodide	NO_2	Nitrogen dioxide
HBr	Hydrogen bromide	H_2S	Hydrogen sulfide	SO_2	Sulfur dioxide
HCl	Hydrogen chloride	H_2S	Hydrogen sulphide	SO_2	Sulphur dioxide
HCN	Hydrogen cyanide	NH_3	Ammonia		

TABLE 2 - WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES

Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH) Gas(es)
When Spilled in Water

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced		
1767	155	Diethyldichlorosilane	HCl		
1769	156	Diphenyldichlorosilane	HCl		
1771	156	Dodecyltrichlorosilane	HCl		
1777	137	Fluorosulfonic acid	HF		
1777	137	Fluorosulphonic acid	HF		
1781	156	Hexadecyltrichlorosilane	HCl		
1784	156	Hexyltrichlorosilane	HCl		
1799	156	Nonyltrichlorosilane	HCl		
1800	156	Octadecyltrichlorosilane	HCl		
1801	156	Octyltrichlorosilane	HCl		
1804	156	Phenyltrichlorosilane	HCl		
1806	137	Phosphorus pentachloride	HCl		
1808	137	Phosphorus tribromide	HBr		
1809	137	Phosphorus trichloride	HCl		
1810	137	Phosphorus oxychloride	HCl		
1815	132	Propionyl chloride	HCl		
1816	155	Propyltrichlorosilane	HCl		
1818	157	Silicon tetrachloride	HCl		
1828	137	Sulfur chlorides	HCl	SO_2	H_2S
1828	137	Sulphur chlorides	HCl	SO_2	H_2S
1834	137	Sulfuryl chloride	HCl		
1834	137	Sulphuryl chloride	HCl		
1836	137	Thionyl chloride	HCl	SO_2	
1838	137	Titanium tetrachloride	HCl		

Chemical Symbols for TIH Gases:

Br_2	Bromine	HF	Hydrogen fluoride	PH_3	Phosphine
Cl_2	Chlorine	HI	Hydrogen iodide	NO_2	Nitrogen dioxide
HBr	Hydrogen bromide	H_2S	Hydrogen sulfide	SO_2	Sulfur dioxide
HCl	Hydrogen chloride	H_2S	Hydrogen sulphide	SO_2	Sulphur dioxide
HCN	Hydrogen cyanide	NH_3	Ammonia		

Use this list only when material is spilled in water.

Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH) Gas(es)
When Spilled in Water

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced
1898	156	Acetyl iodide	HI
1923	135	Calcium dithionite	H_2S SO_2
1923	135	Calcium hydrosulfite	H_2S SO_2
1923	135	Calcium hydrosulphite	H_2S SO_2
1929	135	Potassium dithionite	H_2S SO_2
1929	135	Potassium hydrosulfite	H_2S SO_2
1929	135	Potassium hydrosulphite	H_2S SO_2
1931	171	Zinc dithionite	H_2S SO_2
1931	171	Zinc hydrosulfite	H_2S SO_2
1931	171	Zinc hydrosulphite	H_2S SO_2
2004	135	Magnesium diamide	NH_3
2011	139	Magnesium phosphide	PH_3
2012	139	Potassium phosphide	PH_3
2013	139	Strontium phosphide	PH_3
2308	157	Nitrosylsulfuric acid	NO_2
2308	157	Nitrosylsulfuric acid, liquid	NO_2
2308	157	Nitrosylsulfuric acid, solid	NO_2
2308	157	Nitrosylsulphuric acid	NO_2
2308	157	Nitrosylsulphuric acid, liquid	NO_2
2308	157	Nitrosylsulphuric acid, solid	NO_2
2353	132	Butyryl chloride	HCl
2395	132	Isobutyryl chloride	HCl
2434	156	Dibenzyldichlorosilane	HCl
2435	156	Ethylphenyldichlorosilane	HCl

Chemical Symbols for TIH Gases:

Br_2	Bromine	HF	Hydrogen fluoride	PH_3	Phosphine
Cl_2	Chlorine	HI	Hydrogen iodide	NO_2	Nitrogen dioxide
HBr	Hydrogen bromide	H_2S	Hydrogen sulfide	SO_2	Sulfur dioxide
HCl	Hydrogen chloride	H_2S	Hydrogen sulphide	SO_2	Sulphur dioxide
HCN	Hydrogen cyanide	NH_3	Ammonia		

TABLE 2 - WATER-REACTIVE MATERIALS WHICH PRODUCE TOXIC GASES

Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH) Gas(es)
When Spilled in Water

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced
2437	156	Methylphenyldichlorosilane	HCl
2495	144	Iodine pentafluoride	HF
2691	137	Phosphorus pentabromide	HBr
2692	157	Boron tribromide	HBr
2806	138	Lithium nitride	NH_3
2977	166	Radioactive material, Uranium hexafluoride, fissile	HF
2977	166	Uranium hexafluoride, fissile containing more than 1% Uranium-235	HF
2978	166	Radioactive material, Uranium hexafluoride	HF
2978	166	Uranium hexafluoride	HF
2978	166	Uranium hexafluoride non fissile or fissile-excepted	HF
2985	155	Chlorosilanes, flammable, corrosive, n.o.s.	HCl
2985	155	Chlorosilanes, n.o.s.	HCl
2986	155	Chlorosilanes, corrosive, flammable, n.o.s.	HCl
2986	155	Chlorosilanes, n.o.s.	HCl
2987	156	Chlorosilanes, corrosive, n.o.s.	HCl
2987	156	Chlorosilanes, n.o.s.	HCl
2988	139	Chlorosilanes, n.o.s.	HCl
2988	139	Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.	HCl
3048	157	Aluminum phosphide pesticide	PH_3
3049	138	Metal alkyl halides, n.o.s.	HCl
3049	138	Metal alkyl halides, water-reactive, n.o.s.	HCl
3049	138	Metal aryl halides, n.o.s.	HCl
3049	138	Metal aryl halides, water-reactive, n.o.s.	HCl

Chemical Symbols for TIH Gases:

Br_2	Bromine	HF	Hydrogen fluoride	PH_3	Phosphine
Cl_2	Chlorine	HI	Hydrogen iodide	NO_2	Nitrogen dioxide
HBr	Hydrogen bromide	H_2S	Hydrogen sulfide	SO_2	Sulfur dioxide
HCl	Hydrogen chloride	H_2S	Hydrogen sulphide	SO_2	Sulphur dioxide
HCN	Hydrogen cyanide	NH_3	Ammonia		

Use this list only when material is spilled in water.

Materials Which Produce Large Amounts of Toxic-by-Inhalation (TIH) Gas(es)
When Spilled in Water

ID No.	Guide No.	Name of Material	TIH Gas(es) Produced
3052	135	Aluminum alkyl halides	HCl
3052	135	Aluminum alkyl halides, liquid	HCl
3052	135	Aluminum alkyl halides, solid	HCl
3361	156	Chlorosilanes, poisonous, corrosive, n.o.s.	HCl
3361	156	Chlorosilanes, toxic, corrosive, n.o.s.	HCl
3362	155	Chlorosilanes, poisonous, corrosive, flammable, n.o.s.	HCl
3362	155	Chlorosilanes, toxic, corrosive, flammable, n.o.s.	HCl
3456	157	Nitrosylsulfuric acid, solid	NO_2
3456	157	Nitrosylsulphuric acid, solid	NO_2
3461	135	Aluminum alkyl halides, solid	HCl
9191	143	Chlorine dioxide, hydrate, frozen	Cl_2

Chemical Symbols for TIH Gases:

Br_2	Bromine	HF	Hydrogen fluoride	PH_3	Phosphine
Cl_2	Chlorine	HI	Hydrogen iodide	NO_2	Nitrogen dioxide
HBr	Hydrogen bromide	H_2S	Hydrogen sulfide	SO_2	Sulfur dioxide
HCl	Hydrogen chloride	H_2S	Hydrogen sulphide	SO_2	Sulphur dioxide
HCN	Hydrogen cyanide	NH_3	Ammonia		

PROTECTIVE CLOTHING

Street Clothing and Work Uniforms. These garments, such as uniforms worn by police and emergency medical services personnel, provide almost no protection from the harmful effects of dangerous goods.

Structural Fire Fighters' Protective Clothing (SFPC). This category of clothing, often called turnout or bunker gear, means the protective clothing normally worn by fire fighters during structural fire fighting operations. It includes a helmet, coat, pants, boots, gloves and a hood to cover parts of the head not protected by the helmet and facepiece. This clothing must be used with full-facepiece positive pressure self-contained breathing apparatus (SCBA). This protective clothing should, at a minimum, meet the OSHA Fire Brigades Standard (29 CFR 1910.156). Structural fire fighters' protective clothing provides limited protection from heat and cold, but may not provide adequate protection from the harmful vapors or liquids that are encountered during dangerous goods incidents. Each guide includes a statement about the use of SFPC in incidents involving those materials referenced by that guide. Some guides state that SFPC provides limited protection. In those cases, the responder wearing SFPC and SCBA may be able to perform an expedient, that is quick "in-and-out", operation. However, this type of operation can place the responder at risk of exposure, injury or death. The incident commander makes the decision to perform this operation only if an overriding benefit can be gained (i.e., perform an immediate rescue, turn off a valve to control a leak, etc.). The coverall-type protective clothing customarily worn to fight fires in forests or wildlands is **not** SFPC and is not recommended nor referred to elsewhere in this guidebook.

Positive Pressure Self-Contained Breathing Apparatus (SCBA). This apparatus provides a constant, positive pressure flow of air within the facepiece, even if one inhales deeply while doing heavy work. Use apparatus certified by NIOSH and the Department of Labor/Mine Safety and Health Administration in accordance with 42 CFR Part 84. Use it in accordance with the requirements for respiratory protection specified in OSHA 29 CFR 1910.134 (Respiratory Protection) and/or 29 CFR 1910.156 (f) (Fire Brigades Standard). Chemical-cartridge respirators or other filtering masks are not acceptable substitutes for positive pressure self-contained breathing apparatus. Demand-type SCBA does not meet the OSHA 29 CFR 1910.156 (f)(1)(i) of the Fire Brigades Standard. If it is suspected that a Chemical Warfare Agent (CW) is involved, the use of NIOSH-certified respirators with CBRN protection are highly recommended.

Chemical Protective Clothing and Equipment. Safe use of this type of protective clothing and equipment requires specific skills developed through training and experience. It is generally not available to, or used by, first responders. This type of special clothing may protect against one chemical, yet be readily permeated by chemicals for which it was not designed. Therefore, protective clothing should not be used unless it is compatible with the released material. This type of special clothing offers little or no protection against heat and/or cold. Examples of this type of equipment have been described as (1) Vapor Protective

Suits (NFPA 1991), also known as Totally-Encapsulating Chemical Protective (TECP) Suits or Level A* protection (OSHA 29 CFR 1910.120, Appendix A & B), and (2) Liquid-Splash Protective Suits (NFPA 1992 & 1993), also known as Level B* or C* protection (OSHA 29 CFR 1910.120, Appendix A & B) or suits for chemical/biological terrorism incidents (NFPA 1994), class 1, 2 or 3 Ensembles. No single protective clothing material will protect you from all dangerous goods. Do not assume any protective clothing is resistant to cold and/or heat or flame exposure unless it is so certified by the manufacturer. (NFPA 1991 5-3 Flammability Resistance Test and 5-6 Cold Temperature Performance Test)

* Consult glossary for additional protection levels under the heading “Protective Clothing”.

FIRE AND SPILL CONTROL

FIRE CONTROL

Water is the most common and generally most available fire extinguishing agent. Exercise caution in selecting a fire extinguishing method since there are many factors to be considered in an incident. Water may be ineffective in fighting fires involving some materials; its effectiveness depends greatly on the method of application.

Fires involving a spill of flammable liquids are generally controlled by applying a fire fighting foam to the surface of the burning material. Fighting flammable liquid fires requires foam concentrate which is chemically compatible with the burning material, correct mixing of the foam concentrate with water and air, and careful application and maintenance of the foam blanket. There are two general types of fire fighting foam: regular and alcohol-resistant. Examples of regular foam are protein-base, fluoroprotein, and aqueous film forming foam (AFFF). Some flammable liquids, including many petroleum products, can be controlled by applying regular foam. Other flammable liquids, including polar solvents (flammable liquids which are water soluble) such as alcohols and ketones, have different chemical properties. A fire involving these materials cannot be easily controlled with regular foam and requires application of alcohol-resistant foam. Polar-solvent fires may be difficult to control and require a higher foam application rate than other flammable liquid fires (see NFPA/ANSI Standards 11 and 11A for further information). Refer to the appropriate guide to determine which type of foam is recommended. Although it is impossible to make specific recommendations for flammable liquids which have subsidiary corrosive or toxic hazards, alcohol-resistant foam may be effective for many of these materials. The emergency response telephone number on the shipping document, or the appropriate emergency response agency, should be contacted as soon as possible for guidance on the proper fire extinguishing agent to use. The final selection of the agent and method depends on many factors such as incident location, exposure hazards, size of the fire, environmental concerns, as well as the availability of extinguishing agents and equipment at the scene.

WATER REACTIVE MATERIALS

Water is sometimes used to flush spills and to reduce or direct vapors in spill situations. Some of the materials covered by the guidebook can react violently or even explosively with water. In these cases, consider letting the fire burn or leaving the spill alone (except to prevent its spreading by diking) until additional technical advice can be obtained. The applicable guides clearly warn you of these potentially dangerous reactions. These materials require technical advice since

(1) water getting inside a ruptured or leaking container may cause an explosion;
(2) water may be needed to cool adjoining containers to prevent their rupturing (exploding) or further spread of the fires;
(3) water may be effective in mitigating an incident involving a water-reactive material only if it can be applied at a sufficient flooding rate for an extended period; and

(4) the products from the reaction with water may be more toxic, corrosive, or otherwise more undesirable than the product of the fire without water applied.

When responding to an incident involving water-reactive materials, take into account the existing conditions such as wind, precipitation, location and accessibility to the incident, as well as the availability of the agents to control the fire or spill. Because there are variables to consider, the decision to use water on fires or spills involving water-reactive materials should be based on information from an authoritative source; for example, a producer of the material, who can be contacted through the emergency response telephone number or the appropriate emergency response agency.

VAPOR CONTROL

Limiting the amount of vapor released from a pool of flammable or corrosive liquids is an operational concern. It requires the use of proper protective clothing, specialized equipment, appropriate chemical agents, and skilled personnel. Before engaging in vapor control, get advice from an authoritative source as to the proper tactics.

There are several ways to minimize the amount of vapors escaping from pools of spilled liquids, such as special foams, adsorbing agents, absorbing agents, and neutralizing agents. To be effective, these vapor control methods must be selected for the specific material involved and performed in a manner that will mitigate, not worsen, the incident.

Where specific materials are known, such as at manufacturing or storage facilities, it is desirable for the dangerous goods response team to prearrange with the facility operators to select and stockpile these control agents in advance of a spill. In the field, first responders may not have the most effective vapor control agent for the material available. They are likely to have only water and only one type of fire fighting foam on their vehicles. If the available foam is inappropriate for use, they are likely to use water spray. Because the water is being used to form a vapor seal, care must be taken not to churn or further spread the spill during application. Vapors that do not react with water may be directed away from the site using the air currents surrounding the water spray. Before using water spray or other methods to safely control vapor emission or to suppress ignition, obtain technical advice, based on specific chemical name identification.

CRIMINAL/TERRORIST USE OF CHEMICAL/BIOLOGICAL/RADIOLOGICAL AGENTS

The following is intended to supply information to first responders for use in making a preliminary assessment of a situation that they suspect involves criminal/terrorist use of chemical, biological agents and/or radioactive materials (CBRN). To aid in the assessment, a list of observable indicators of the use and/or presence of a CB agent or radioactive material is provided in the following paragraphs.

DIFFERENCES BETWEEN A CHEMICAL, BIOLOGICAL AND RADIOLOGICAL AGENT

Chemical and biological agents as well as radioactive materials can be dispersed in the air we breathe, the water we drink, or on surfaces we physically contact. Dispersion methods may be as simple as opening a container, using conventional (garden) spray devices, or as elaborate as detonating an improvised explosive device.

Chemical Incidents are characterized by the rapid onset of medical symptoms (minutes to hours) and easily observed signatures (colored residue, dead foliage, pungent odor, dead insects and animals).

Biological Incidents are characterized by the onset of symptoms in hours to days. Typically, there will be no characteristic signatures because biological agents are usually odorless and colorless. Because of the delayed onset of symptoms in a biological incident, the area affected may be greater due to the movement of infected individuals.

Radiological Incidents are characterized by the onset of symptoms, if any, in days to weeks or longer. Typically, there will be no characteristic signatures because radioactive materials are usually odorless and colorless. Specialized equipment is required to determine the size of the affected area, and whether the level of radioactivity presents an immediate or long-term health hazard. Because radioactivity is not detectable without special equipment, the affected area may be greater due to the migration of contaminated individuals.

At the levels created by most probable sources, not enough radiation would be generated to kill people or cause severe illness. In a radiological incident generated by a “dirty bomb”, or Radiological Dispersal Device (RDD), in which a conventional explosive is detonated to spread radioactive contamination, the primary hazard is from the explosion. However, certain radioactive materials dispersed in the air could contaminate up to several city blocks, creating fear and possibly panic, and requiring potentially costly cleanup.

INDICATORS OF A POSSIBLE CHEMICAL INCIDENT

Dead animals/birds/fish	Not just an occasional road kill, but numerous animals (wild and domestic, small and large), birds, and fish in the same area.

INDICATORS OF A POSSIBLE CHEMICAL INCIDENT (Continued)

Lack of insect life	If normal insect activity (ground, air, and/or water) is missing, check the ground/water surface/shore line for dead insects. If near water, check for dead fish/aquatic birds.
Unexplained odors	Smells may range from fruity to flowery to sharp/pungent to garlic/ horseradish-like to bitter almonds/peach kernels to new mown hay. It is important to note that the particular odor is completely out of character with its surroundings.
Unusual numbers of dying or sick people (mass casualties)	Health problems including nausea, disorientation, difficulty in breathing, convulsions, localized sweating, conjunctivitis (reddening of eyes/nerve agent symptoms), erythema (reddening of skin/vesicant symptoms) and death.
Pattern of casualties	Casualties will likely be distributed downwind, or if indoors, by the air ventilation system.
Blisters/rashes	Numerous individuals experiencing unexplained water-like blisters, weals (like bee stings), and/or rashes.
Illness in confined area	Different casualty rates for people working indoors versus outdoors dependent on where the agent was released.
Unusual liquid droplets	Numerous surfaces exhibit oily droplets/film; numerous water surfaces have an oily film. (No recent rain.)
Different looking areas	Not just a patch of dead weeds, but trees, shrubs, bushes, food crops, and/or lawns that are dead, discolored, or withered. (No current drought.)
Low-lying clouds	Low-lying cloud/fog-like condition that is not consistent with its surroundings.
Unusual metal debris	Unexplained bomb/munitions-like material, especially if it contains a liquid.

INDICATORS OF A POSSIBLE BIOLOGICAL INCIDENT

Unusual numbers of sick or dying people or animals	Any number of symptoms may occur. Casualties may occur hours to days after an incident has occurred. The time required before symptoms are observed is dependent on the agent used.
Unscheduled and unusual spray being disseminated	Especially if outdoors during periods of darkness.
Abandoned spray devices	Devices may not have distinct odors.

INDICATORS OF A POSSIBLE RADIOLOGICAL INCIDENT

Radiation Symbols	Containers may display a “propeller” radiation symbol.
Unusual metal debris	Unexplained bomb/munitions-like material.
Heat-emitting material	Material that is hot or seems to emit heat without any sign of an external heat source.
Glowing material	Strongly radioactive material may emit or cause radioluminescence.
Sick people/animals	In very improbable scenarios there may be unusual numbers of sick or dying people or animals. Casualties may occur hours to days or weeks after an incident has occurred. The time required before symptoms are observed is dependent on the radioactive material used, and the dose received. Possible symptoms include skin reddening or vomiting.

PERSONAL SAFETY CONSIDERATIONS

When approaching a scene that may involve CB agents or radioactive materials, the most critical consideration is the safety of oneself and other responders. Protective clothing and respiratory protection of appropriate level of safety must be used. In incidents where it is suspected that CBRN materials have been used as weapons, NIOSH-certified respirators with CBRN protection are highly recommended. Be aware that the presence and identification of CB agents or radioactive materials may not be verifiable, especially in the case of biological or radiological agents. The following actions/measures to be considered are applicable to either a chemical, biological or radiological incident. The guidance is general in nature, not all encompassing, and its applicability should be evaluated on a case-by-case basis.

Approach and response strategies. Protect yourself and use a safe approach (minimize any exposure time, maximize the distance between you and the item that is likely to harm you, use cover as protection and wear appropriate personal protective equipment and respiratory protection). Identify and estimate the hazard by using indicators as provided above. Isolate the area and secure the scene; potentially contaminated people should be isolated and decontaminated as soon as possible. To the extent possible, take measures to limit the spread of contamination. In the event of a chemical incident, the fading of chemical odors is not necessarily an indication of reduced vapor concentrations. Some chemicals deaden the senses giving the false perception that the chemical is no longer present.

If there is any indication that an area may be contaminated with radioactive materials, including the site of any non-accidental explosion, responder personnel should be equipped with radiation detection equipment that would alert them if they are entering a radiologically

compromised environment, and should have received adequate training in its use. This equipment should be designed in such a way that it can also alert the responders when an unacceptable ambient dose rate or ambient dose has been reached.

Initial actions to consider in a potential CBRN/Hazmat Terrorism Event:

- Avoid using cell phones, radios, etc. within 100 meters (300 feet) of a suspect device.
- NOTIFY your local police by calling 911.
- Set up Incident command upwind and uphill of the area.
- Do NOT touch or move suspicious packages/containers.
- Be cautious regarding potential presence of secondary devices (e.g. Improvised Explosive Devices, IEDs).
- Avoid contamination.
- Limit access to only those responsible for rescue of victims or assessment of unknown materials or devices.
- Evacuate and isolate individuals potentially exposed to dangerous goods/ hazardous materials.
- Isolate contaminated areas and secure the scene for analysis of material.

Decontamination measures. Emergency responders should follow standard decontamination procedures (flush-strip-flush). Mass casualty decontamination should begin as soon as possible by stripping (all clothing) and flushing (soap and water). If biological agents are involved or suspected, careful washing and use of a brush are more effective. If chemical agents are suspected, the most important and effective decontamination will be that done within the first one or two minutes. If possible, further decontamination should be performed using a 0.5% hypochlorite solution (1 part household bleach mixed with 9 parts water). If biological agents are suspected, a contact time of 10 to 15 minutes should be allowed before rinsing. The solution can be used on soft tissue wounds, but must not be used in eyes or open wounds of the abdomen, chest, head, or spine. For further information contact the agencies listed in this guidebook.

For persons contaminated with radioactive material, remove them to a low radiation area if necessary. Remove their clothing and place it in a clearly marked sealed receptacle, such as a plastic bag, for later testing. Use decontamination methods described above, but avoid breaking the skin, e.g., from shaving, or overly vigorous brushing. External radiological contamination on intact skin surface rarely causes a high enough dose to be a hazard to either the contaminated person or the first responders. For this reason, except in very unusual circumstances, an injured person who is also radiologically contaminated should be medically stabilized, taking care to minimize the spread of the contamination to the extent possible, before decontamination measures are initiated.

NOTE: The above information was developed in part by the Department of National Defence (Canada), the U.S. Department of the Army, Aberdeen Proving Ground and the Federal Bureau of Investigation (FBI).

Glossary

AEGL(s) Acute Exposure Guideline Level(s), AEGLs represent threshold exposure limits for the general public and are applicable to emergency exposure periods ranging from 10 minutes to 8 hours. Three levels AEGL-1, AEGL-2 and AEGL-3 are developed for each of five exposure periods (10 and 30 minutes, 1 hour, 4 hours, and 8 hours) and are distinguished by varying degrees of severity of toxic effects; see AEGL-1, AEGL-2 and AEGL-3.

AEGL-1 AEGL-1 is the airborne concentration (expressed as parts per million or milligrams per cubic meter [ppm or mg/m^3]) of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic, non-sensory effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure.

AEGL-2 AEGL-2 is the airborne concentration (expressed as ppm or mg/m^3) of a substance above which it is predicted that the general population, including susceptible individuals, could experience irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.

AEGL-3 AEGL-3 is the airborne concentration (expressed as ppm or mg/m^3) of a substance above which it is predicted that the general population, including susceptible individuals, could experience life-threatening health effects or death.

Alcohol resistant foam A foam that is resistant to “polar” chemicals such as ketones and esters which may break down other types of foam.

Biological agents Living organisms that cause disease, sickness and mortality in humans. Anthrax and Ebola are examples of biological agents. **Refer to GUIDE 158**.

Blister agents (vesicants) Substances that cause blistering of the skin. Exposure is through liquid or vapor contact with any exposed tissue (eyes, skin, lungs). Mustard (H), Distilled Mustard (HD), Nitrogen Mustard (HN) and Lewisite (L) are blister agents.

Symptoms: Red eyes, skin irritation, burning of skin, blisters, upper respiratory damage, cough, hoarseness.

Glossary

Blood agents — Substances that injure a person by interfering with cell respiration (the exchange of oxygen and carbon dioxide between blood and tissues). Hydrogen cyanide (AC) and Cyanogen chloride (CK) are blood agents.

Symptoms: Respiratory distress, headache, unresponsiveness, seizures, coma.

Burn — Refers to either a chemical or thermal burn, the former may be caused by corrosive substances and the latter by liquefied cryogenic gases, hot molten substances, or flames.

CBRN — Chemical, biological, radiological or nuclear warfare agent.

Choking agents — Substances that cause physical injury to the lungs. Exposure is through inhalation. In extreme cases, membranes swell and lungs become filled with liquid (pulmonary edema). Death results from lack of oxygen; hence, the victim is "choked". Phosgene (CG) is a choking agent.

Symptoms: Irritation to eyes/nose/throat, respiratory distress, nausea and vomiting, burning of exposed skin.

CO_2 — Carbon dioxide gas.

Cold zone — Area where the command post and support functions that are necessary to control the incident are located. This is also referred to as the clean zone, green zone or support zone in other documents. (EPA Standard Operating Safety Guidelines, OSHA 29 CFR 1910.120, NFPA 472)

Combustible liquid — Liquids which have a flash point greater than 60.5°C (141°F) and below 93°C (200°F). U.S. regulations permit a flammable liquid with a flash point between 38°C (100°F) and 60.5°C (141°F) to be reclassed as a combustible liquid.

Compatibility Group — Letters identify explosives that are deemed to be compatible. Class 1 materials are considered to be "compatible" if they can be transported together without significantly increasing either the probability of an incident or, for a given quantity, the magnitude of the effects of such an incident.

A Substances which are expected to mass detonate very soon after fire reaches them.

Glossary

B Articles which are expected to mass detonate very soon after fire reaches them.

C Substances or articles which may be readily ignited and burn violently without necessarily exploding.

D Substances or articles which may mass detonate (with blast and/or fragment hazard) when exposed to fire.

E&F Articles which may mass detonate in a fire.

G Substances and articles which may mass explode and give off smoke or toxic gases.

H Articles which in a fire may eject hazardous projectiles and dense white smoke.

J Articles which may mass explode.

K Articles which in a fire may eject hazardous projectiles and toxic gases.

L Substances and articles which present a special risk and could be activated by exposure to air or water.

N Articles which contain only extremely insensitive detonating substances and demonstrate a negligible probability of accidental ignition or propagation.

S Packaged substances or articles which, if accidentally initiated, produce effects that are usually confined to the immediate vicinity.

Control zones Designated areas at dangerous goods incidents, based on safety and the degree of hazard. Many terms are used to describe control zones; however, in this guidebook, these zones are defined as the hot/exclusion/red/restricted zone, warm/contamination reduction/yellow/limited access zone, and cold/support/green/clean zone. (EPA Standard Operating Safety Guidelines, OSHA 29 CFR 1910.120, NFPA 472)

Cryogenic liquid A refrigerated, liquefied gas that has a boiling point colder than -90°C (-130°F) at atmospheric pressure.

Dangerous Water Reactive Material Produces significant toxic gas when it comes in contact with water.

Glossary

Decomposition products Products of a chemical or thermal break-down of a substance.

Decontamination The removal of dangerous goods from personnel and equipment to the extent necessary to prevent potential adverse health effects. Always avoid direct or indirect contact with dangerous goods; however, if contact occurs, personnel should be decontaminated as soon as possible. Since the methods used to decontaminate personnel and equipment differ from one chemical to another, contact the chemical manufacturer, through the agencies listed on the inside back cover, to determine the appropriate procedure. Contaminated clothing and equipment should be removed after use and stored in a controlled area (warm/contamination reduction/limited access zone) until cleanup procedures can be initiated. In some cases, protective clothing and equipment cannot be decontaminated and must be disposed of in a proper manner.

Dry chemical A preparation designed for fighting fires involving flammable liquids, pyrophoric substances and electrical equipment. Common types contain sodium bicarbonate or potassium bicarbonate.

Edema The accumulation of an excessive amount of watery fluid in cells and tissues. Pulmonary edema is an excessive buildup of water in the lungs, for instance, after inhalation of a gas that is corrosive to lung tissue.

ERPG(s) Emergency Response Planning Guideline(s). Values intended to provide estimates of concentration ranges above which one could reasonably anticipate observing adverse health effects; see ERPG-1, ERPG-2 and ERPG-3.

ERPG-1 The maximum airborne concentration below which it is believed nearly all individuals could be exposed for up to 1 hour without experiencing more than mild, transient adverse health effects or without perceiving a clearly defined objectionable odor.

ERPG-2 The maximum airborne concentration below which it is believed nearly all individuals could be exposed for up to 1 hour without experiencing or developing irreversible or other serious health effects or symptoms that could impair an individual's ability to take protective action.

Glossary

ERPG-3 — The maximum airborne concentration below which it is believed nearly all individuals could be exposed for up to 1 hour without experiencing or developing life-threatening health effects.

Flammable liquid — A liquid that has a flash point of 60.5°C (141°F) or lower.

Flash point — Lowest temperature at which a liquid or solid gives off vapor in such a concentration that, when the vapor combines with air near the surface of the liquid or solid, a flammable mixture is formed. Hence, the lower the flash point, the more flammable the material.

Hazard zones (Inhalation Hazard Zones)

HAZARD ZONE A: Gases: LC50 of less than or equal to 200 ppm,
Liquids: V equal to or greater than 500 LC50 and LC50 less than or equal to 200 ppm,

HAZARD ZONE B: Gases: LC50 greater than 200 ppm and less than or equal to 1000 ppm,
Liquids: V equal to or greater than 10 LC50; LC50 less than or equal to 1000 ppm and criteria for Hazard Zone A are not met.

HAZARD ZONE C: LC50 greater than 1000 ppm and less than or equal to 3000 ppm,

HAZARD ZONE D: LC50 greater than 3000 ppm and less than or equal to 5000 ppm.

Hot zone — Area immediately surrounding a dangerous goods incident which extends far enough to prevent adverse effects from released dangerous goods to personnel outside the zone. This zone is also referred to as exclusion zone, red zone or restricted zone in other documents. (EPA Standard Operating Safety Guidelines, OSHA 29 CFR 1910.120, NFPA 472)

IED — See “Improvised Explosive Device”.

Immiscible — In this guidebook, means that a material does not mix readily with water.

Improvised Explosive Device — A bomb that is manufactured from commercial, military or homemade explosives.

Large spill — A spill that involves quantities that are greater than 200 liters for liquids and greater than 300 kilograms for solids.

Glossary

LC50 — Lethal concentration 50. The concentration of a material administered by inhalation that is expected to cause the death of 50% of an experimental animal population within a specified time. (Concentration is reported in either ppm or mg/m^3)

Mass explosion — Explosion which affects almost the entire load virtually instantaneously.

mg/m^3 — Milligrams of a material per cubic meter of air.

Miscible — In this guidebook, means that a material mixes readily with water.

mL/m^3 — Milliliters of a material per cubic meter of air. (1 mL/m^3 equals 1 ppm)

Nerve agents — Substances that interfere with the central nervous system. Exposure is primarily through contact with the liquid (via skin and eyes) and secondarily through inhalation of the vapor. Tabun (GA), Sarin (GB), Soman (GD) and VX are nerve agents.

Symptoms: Pinpoint pupils, extreme headache, severe tightness in the chest, dyspnea, runny nose, coughing, salivation, unresponsiveness, seizures.

Non-polar — See “Immiscible”.

n.o.s. — These letters refer to “not otherwise specified”. The entries which use this description are generic names such as “Corrosive liquid, n.o.s.” This means that the actual chemical name for that corrosive liquid is not listed in the regulations; therefore, a generic name must be used to describe it on shipping papers.

Noxious — In this guidebook, means that a material may be harmful or injurious to health or physical well-being.

Oxidizer — A chemical which supplies its own oxygen and which helps other combustible material burn more readily.

P — The letter “P” following a guide number in the yellow-bordered and blue-bordered pages identifies a material which may polymerize violently under high temperature conditions or contamination with other products. This polymerization will produce heat and high pressure buildup in containers which may explode or rupture. (See polymerization below)

Glossary

Packing Group — The Packing Group (PG) is assigned based on the degree of danger presented by the hazardous material:

PG I : Great danger
PG II : Medium danger
PG III : Minor danger

PG — See Packing Group

pH — pH is a value that represents the acidity or alkalinity of a water solution. Pure water has a pH of 7. A pH value below 7 indicates an acid solution (a pH of 1 is extremely acidic). A pH above 7 indicates an alkaline solution (a pH of 14 is extremely alkaline). Acids and alkalies (bases) are commonly referred to as corrosive materials.

PIH — Poison Inhalation Hazard. Term used to describe gases and volatile liquids that are toxic when inhaled. (Same as TIH)

Polar — See "Miscible".

Polymerization — This term describes a chemical reaction which is generally associated with the production of plastic substances. Basically, the individual molecules of the chemical (liquid or gas) react with each other to produce what can be described as a long chain. These chains can be formed in many useful applications. A well known example is the styrofoam (polystyrene) coffee cup which is formed when liquid molecules of styrene react with each other or polymerize forming a solid, therefore changing the name from styrene to polystyrene (poly means many).

ppm — Parts per million. (1 ppm equals 1 mL/m^3)

Protective clothing — Includes both respiratory and physical protection. One cannot assign a level of protection to clothing or respiratory devices separately. These levels were accepted and defined by response organizations such as U.S. Coast Guard, NIOSH, and U.S. EPA.

Level A: SCBA plus totally encapsulating chemical resistant clothing (permeation resistant).

Level B: SCBA plus hooded chemical resistant clothing (splash suit).

Level C: Full or half-face respirator plus hooded chemical resistant clothing (splash suit).

Level D: Coverall with no respiratory protection.

Glossary

Pyrophoric A material which ignites spontaneously upon exposure to air (or oxygen).

Radiation Authority As referred to in GUIDES 161 through 166 for radioactive materials, the Radiation Authority is either a Federal, state/provincial agency or state/province designated official. The responsibilities of this authority include evaluating radiological hazard conditions during normal operations and during emergencies. If the identity and telephone number of the authority are not known by emergency responders, or included in the local response plan, the information can be obtained from the agencies listed on the inside back cover. They maintain a periodically updated list of radiation authorities.

Radioactivity The property of some substances to emit invisible and potentially harmful radiation.

Refrigerated liquid See "Cryogenic liquid".

Small spill A spill that involves quantities that are less than 200 liters for liquids and less than 300 kilograms for solids.

Straight (solid) stream Method used to apply or distribute water from the end of a hose. The water is delivered under pressure for penetration. In an efficient straight (solid) stream, approximately 90% of the water passes through an imaginary circle 38 cm (15 inches) in diameter at the breaking point. Hose (solid or straight) streams are frequently used to cool tanks and other equipment exposed to flammable liquid fires, or for washing burning spills away from danger points. However, straight streams will cause a spill fire to spread if improperly used or when directed into open containers of flammable and combustible liquids.

TIH Toxic Inhalation Hazard. Term used to describe gases and volatile liquids that are toxic when inhaled. (Same as PIH)

V Saturated vapor concentration in air of a material in mL/m^3 (volatility) at 20^oC and standard atmospheric pressure.

Vapor density Weight of a volume of pure vapor or gas (with no air present) compared to the weight of an equal volume of dry air at the same temperature and pressure. A vapor density less than 1 (one) indicates that the vapor is lighter than air and will tend to rise. A vapor density greater than 1 (one) indicates that the vapor is heavier than air and may travel along the ground.

Glossary

Vapor pressure Pressure at which a liquid and its vapor are in equilibrium at a given temperature. Liquids with high vapor pressures evaporate rapidly.

Viscosity Measure of a liquid's internal resistance to flow. This property is important because it indicates how fast a material will leak out through holes in containers or tanks.

Warm zone Area between Hot and Cold zones where personnel and equipment decontamination and hot zone support take place. It includes control points for the access corridor and thus assists in reducing the spread of contamination. Also referred to as the contamination reduction corridor (CRC), contamination reduction zone (CRZ), yellow zone or limited access zone in other documents. (EPA Standard Operating Safety Guidelines, OSHA 29 CFR 1910.120, NFPA 472)

Water-sensitive Substances which may produce flammable and/or toxic decomposition products upon contact with water.

Water spray (fog) Method or way to apply or distribute water. The water is finely divided to provide for high heat absorption. Water spray patterns can range from about 10 to 90 degrees. Water spray streams can be used to extinguish or control the burning of a fire or to provide exposure protection for personnel, equipment, buildings, etc. **(This method can be used to absorb vapors, knock-down vapors or disperse vapors. Direct a water spray (fog), rather than a straight (solid) stream, into the vapor cloud to accomplish any of the above).**

Water spray is particularly effective on fires of flammable liquids and volatile solids having flash points above 37.8°C (100°F).

Regardless of the above, water spray can be used successfully on flammable liquids with low flash points. The effectiveness depends particularly on the method of application. With proper nozzles, even gasoline spill fires of some types have been extinguished when coordinated hose lines were used to sweep the flames off the surface of the liquid. Furthermore, water spray carefully applied has frequently been used with success in extinguishing fires involving flammable liquids with high flash points (or any viscous liquids) by causing frothing to occur only on the surface, and this foaming action blankets and extinguishes the fire.

PUBLICATION DATA

The 2008 Emergency Response Guidebook (ERG2008) was prepared by the staff of Transport Canada, the U.S. Department of Transportation, and the Secretariat of Communications and Transport of Mexico with the assistance of many interested parties from government and industry including the collaboration of CIQUIME of Argentina. The principal authors of the ERG are Transport Canada's Michel Cloutier and U.S. DOT's George Cushmac. Printing and publication services are provided through U.S. DOT's Pipeline and Hazardous Materials Safety Administration, (PHMSA) Office of Hazardous Materials Initiatives and Training.

ERG2008 is based on earlier Transport Canada, U.S. DOT, and Secretariat of Communications and Transport emergency response guidebooks. ERG2008 is published in three languages: English, French and Spanish. The Emergency Response Guidebook has been translated and printed in other languages, including Chinese, German, Hebrew, Japanese, Portuguese, Korean, Hungarian, Polish, Turkish and Thai.

We encourage countries that wish to participate in future editions of the Guidebook to provide their emergency response center information for inclusion. Please contact any of the websites or telephone numbers in the paragraph below.

DISTRIBUTION OF THIS GUIDEBOOK

The primary objective is to place one copy of the ERG2008 in each publicly owned emergency service vehicle through distribution to Federal, state, provincial and local public safety authorities. The distribution of this guidebook is being accomplished through the voluntary cooperation of a network of key agencies. Emergency service organizations that have not yet received copies of ERG2008 should contact the respective distribution center in their country, state or province. In the U.S., information about the distribution center for your location may be obtained from the Office of Hazardous Materials Safety web site at http://hazmat.dot.gov or call 202-366-4900. In Canada, contact CANUTEC at 613-992-4624 or via the web site at http://www.canutec.gc.ca for information. In Mexico, call SCT at 52-55-5684-1275 or 684-0188 or via email at iflores@sct.gob.mx. In Argentina, call CIQUIME at 011-4613-1100, or via the web site at http://www.ciquime.org.ar, or via email at gre2008@ciquime.org.ar

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Constructive comments concerning ERG2008 are solicited; in particular, comments concerning its use in handling incidents involving dangerous goods. Comments should be addressed to:

In Canada:

Director, CANUTEC
Transport Dangerous Goods
Transport Canada
Ottawa, Ontario
Canada K1A 0N5

Phone: 613-992-4624 (information)
Fax: 613-954-5101
Email: canutec@tc.gc.ca

In the U.S.:

U. S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Hazardous Materials Initiatives and Training (PHH-50)
Washington, DC 20590-0001

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In Mexico:

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Land Transport Directorate
Hazardous Materials and Wastes Directorate
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Email: gre2008@ciquime.org.ar

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The Emergency Response Guidebook is normally revised and reissued every four years. However, in the event of a significant mistake, omission or change in the state of knowledge, special instructions to change the guidebook (in pen-and-ink, with paste-over stickers, or with a supplement) may be issued.

Users of this guidebook should check periodically (about every 6 months) to make sure their version is current. Changes should be annotated below. Contact:

DOT/PHMSA
http://hazmat.dot.gov/pubs/erg/guidebook.htm

TRANSPORT CANADA
http://www.tc.gc.ca/canutec/en/guide/guide.htm

CIQUIME
http://www.ciquime.org.ar

This guidebook incorporates changes dated:

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EMERGENCY RESPONSE TELEPHONE NUMBERS

MEXICO

1. **SETIQ**

01-800-00-214-00 in the Mexican Republic
For calls originating in Mexico City and the Metropolitan Area
5559-1588
For calls originating elsewhere, call
+52-55-5559-1588

2. **CENACOM**

01-800-00-413-00 in the Mexican Republic
For calls originating in Mexico City and the Metropolitan Area
5128-0000 exts. 11470, 11471, 11472, 11473, 11474, 11475, 11476 and 11477
For calls originating elsewhere, call
+52-55-5128-0000 exts. 11470, 11471, 11472, 11474, 11475 and 11476

ARGENTINA

1. **CIQUIME**

0-800-222-2933 in the Republic of Argentina
For calls originating elsewhere, call
+54-11-4613-1100

BRAZIL

1. **PRÓ-QUÍMICA**

0-800-118270
(Toll-free in Brazil)
For calls originating elsewhere, call
+55-11-232-1144
(Collect calls are accepted)

COLOMBIA

1. **CISPROQUIM**

01-800-091-6012 in Colombia
For calls originating in Bogotá, Colombia call
288-6012
For calls originating elsewhere call
+57-1-288-6012

For additional details see the section entiitled **"WHO TO CALL FOR ASSISTANCE".**

EMERGENCY RESPONSE TELEPHONE NUMBERS

CANADA

1. CANUTEC

613-996-6666
(Collect calls are accepted)
***666 cellular** (in Canada only)

UNITED STATES

1. CHEMTREC®

1-800-424-9300
(Toll-free in the U.S., Canada and the U.S. Virgin Islands)
703-527-3887 For calls originating elsewhere
(Collect calls are accepted)

2. CHEMTEL, INC.

1-888-255-3924
(Toll-free in the U.S., Canada, Puerto Rico and the U.S. Virgin Islands)
813-248-0585 For calls originating elsewhere
(Collect calls are accepted)

3. INFOTRAC

1-800-535-5053
(Toll-free in the U.S., Canada and the U.S. Virgin Islands)
352-323-3500 For calls originating elsewhere
(Collect calls are accepted)

4. 3E COMPANY

1-800-451-8346
(Toll-free in the U.S., Canada and the U.S. Virgin Islands)
760-602-8703 For calls originating elsewhere
(Collect calls are accepted)

5. MILITARY SHIPMENTS

703-697-0218 - Explosives/ammunition incidents
(Collect calls are accepted)
1-800-851-8061 - All other dangerous goods incidents

6. NATIONWIDE POISON CONTROL CENTER (United States only)

1-800-222-1222 (toll-free in the U.S.)

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