Title 4. Business Regulations
Division 9. Division of Measurement Standards, Department of Food and Agriculture

Chapter 6. Automotive Product Specifications

Article 10. Specifications for Natural Gas Used as a Motor Vehicle Fuel.

4192. Definitions Used in This Article.

(a) Natural gas means a mixture of hydrocarbon compounds consisting of primarily methane in the form of a compressed gas or a cryogenic liquid intended for use as a motor vehicle fuel.

(b) Methane Number means a rating expressing the resistance to auto ignition (knock) of a gaseous fuel. The Methane Number of a gaseous fuel is determined by its composition, including inert components.

(c) Butanes means hydrocarbons with molecular formula C_4H_{10} and C_4H_8.

(d) Pentanes means hydrocarbons with molecular formula C_5H_{12} and C_5H_{10}.

(e) C6+ hydrocarbons means aliphatic hydrocarbons containing six or more carbon atoms.

(f) MWM Method means the method of calculation of the Methane Number of a natural gas fuel from its composition. The MWM Method is presented in in the latest version of CEN EN16726 standard “Gas infrastructure - Quality of gas - Group H”.

(g) Wobbe Index means the ratio of the higher heating value of a gaseous fuel at specified reference conditions and its relative density at the same reference conditions.

4193. Specifications for Natural Gas Fuel Used in Internal Combustion Engines.

Natural gas fuel sold for use in internal combustion engines shall meet the following requirements:

(a) Methane Number. The Methane Number (MN) shall be calculated by the method published in the latest version of CEN EN16726 standard “Gas infrastructure - Quality of gas - Group H” (MWM Method).

(b) Minimum Methane Number**.** Beginning January 1, 2017: Natural gas sold as a motor vehicle fuel shall have a minimum MWM Methane Number of 75.

(c) Wobbe Index (Higher Heating Value). All natural gas sold as a motor vehicle fuel shall have a Wobbe Index range of 46-53 MJ/m^3.

(d) Limits for Contaminants in Natural Gas Motor Vehicle Fuel.

Specification	**Units**	**Maximum Value**
Ammonia	ppmv	0.1
Water	ppmv	100
Total Sulfur (includes odorant)	ppmv	15
Hydrogen Sulfide and Carbonyl Sulfide as sulfur	ppmv	5
Halogen compounds	ppmv	0.1
Particulate size	µm	10
Maximum Particulates	mg/kg	10

(e) Other applications. Natural gas not sold as a motor vehicle fuel is exempt from these fuel quality specifications.

(f) This specification is an interim standard for natural gas sold for use as a motor vehicle fuel. Once an American National Standards Institute (ANSI) accredited standards writing organization has published a natural gas fuel standard, the Department is required by law to formally adopt that standard by reference. Except that no specification shall be less stringent than required by any California State Law.

NOTE: Authority cited: Sections 12027and 13446, Business and Professions Code. Reference: Sections 13400 (b) (9), 13400 (c), 13400 (g), 13400 (p), 13400 (t), 13413(a), 13413 (b) (1), 13440, 13591, 13592 and 13595(a), Business and Professions Code.