## **Aureo S700 Granular VFD Calculations**

This 2-page resource addresses a common challenge with writing VFD orders associated with Aureo S700 Granular.

The concentration for this product is **35 grams/pound.** 

This is a **Category II Type A**Medicated Article (which can be confirmed using the CFR).



Caution: Federal law restricts medicated feed containing this veterinary feed directive (VFD) drug to use by or on the order of a licensed veterinarian.



Chlortetracycline, Sulfamethazine 35 G Type A Medicated Article

Net wt 50 LB (22.68 kg)

Aureo S 700 (lb/ton of Supplement)	Supplement Will Contain (g/ton)		Feed Supplement at
	Chlortetracycline	Sulfamethazine	(lb/head/day)
40	1400	1400	0.5
20	700	700	1
10	350	350	2
5	175	175	4
4	140	140	5
2	70	70	10
1	35	35	20

Table 1. Aureo S700 Granular drug label (modified for visual clarity)

The mixing directions on the VFD must be for the **Type B** drug concentration, which is **3.5 grams/pound**, to produce the **Type C** feeding level that is fed on farm.

Remember, a **Type A** medicated article is **never** fed directly to an animal and a **Category II Type A** medicated article can only be used/mixed by an approved, FDA-licensed, medicated feed mill.

Please see reverse side for further explanation.

If a VFD for a Category II Type A medicated article is written for a client who does not have an FDA-approved medicated feed mill license, the feed distributor will be unable to distribute the Category II Type A medicated article and may distribute the Type B medicated feed to the livestock producer instead. In the case of AUREO S700 Type A medicated article, the concentration is 35 grams/pound. The Type B medicated feed that may be distributed has a concentration of 3.5 grams/pound. The mixing instructions must be specific to the starting drug concentration in the Type A or Type B.

If the VFD provides mixing instructions for the Category II Type A concentration of 35 grams/pound, but the client receives a product that contains 3.5 grams/pound, the animals will receive the wrong dose of medication.

The calculations below demonstrate how the Type of feed and mixing instructions impact the dosage.

Category II Type A product that cannot be distributed to the client:

35 g

If the drug concentration is **35 grams/pound (Type A)**, the Category II Type A mixing instructions will result in the intended dosage. However, the client cannot receive this Category II Type A concentration.

$$x = \frac{10 \text{ lbs}}{\text{ton}} = \frac{350 \text{ g}}{\text{ton}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times \frac{2 \text{ lb}}{\text{head}} = 0.35 \text{ g} =$$

Dosage animal receives if client receives the Category II Type A product with Category II Type A mixing instructions:

350 mg

Type B product that the client is legally able to receive:

> 3.5 g lb

However, if the concentration of the product is **3.5** grams/pound (Type B) and the Category II Type A instructions are used, it will result in an incorrect dosage.

$$x = \frac{10 \text{ lbs}}{\text{ton}} = \frac{35 \text{ g}}{\text{ton}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \times \frac{2 \text{ lb}}{\text{head}} = 0.035 \text{ g} =$$

Dosage animal receives if client receives the **Type B** product with Category II Type A mixing instructions:

35 mg X



Type B product that the client is legally able to receive:

> 3.5 g lb

If the drug concentration is 3.5 grams/pound (Type B), the **Type B** mixing instructions will result in the intended dosage.

$$x \ \underline{100 \text{ lbs}} = \underline{350 \text{ g}} \ x \ \underline{1 \text{ ton}} \ x \ \underline{2 \text{ lb}} = 0.35 \text{ g} =$$

Dosage animal receives if client receives the Type B product with Type B mixing instructions:

350 mg 🗸

To prevent this from causing rejection by the feed distributor, avoid issuing VFDs to producers for Category II Type A concentrations.

A list of Category I and II drugs can be found in CFR 558.4: https://www.ecfr.gov/current/title-21/chapter-I/subchapter-E/part-558/subpart-A/section-558.4