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- (ii) The maximum percentage of equivalent crude protein from non-protein nitrogen.
- (2) The label shall recommend that the diet be balanced to provide adequate nutrients when equivalent crude protein from all forms of nonprotein nitrogen exceed one-third of the total crude protein in the total daily ration.

[41 FR 38652, Sept. 10, 1976, as amended at 68 FR 27904, May 22, 2003]

§ 573.225 1,3-Butylene glycol.

The food additive 1,3-butylene glycol (1,3-butanediol) may be safely used in accordance with the following prescribed conditions:

- (a) It complies with the specifications in §173.220(a) of this chapter.
- (b) It is intended for use in swine feed as a source of energy.
- (c) It is to be thoroughly mixed into feed at levels not to exceed 9 percent of the dry matter of the total ration.
- (d) 1,3-Butylene glycol should be mixed in feed with equipment adapted for the addition of liquids, and the feed should be mixed not less than 5 minutes after its addition.

[53 FR 40061, Oct. 13, 1988]

§ 573.240 Calcium periodate.

The food additive calcium periodate may be safely used in accordance with the following prescribed conditions:

- (a) The additive is produced by reacting calcium iodate with calcium hydroxide or calcium oxide to form a substance consisting of not less than 60 percent by weight of penta calcium orthoperiodate containing 28 to 31 percent by weight of iodine.
- (b) It is used or intended for use in salt for livestock as a source of iodine.

§ 573.260 Calcium silicate.

Calcium silicate, including synthetic calcium silicate, may be safely used as an anticaking agent in animal feed, provided that the amount of calcium silicate does not exceed 2 percent.

§ 573.280 Feed-grade calcium stearate and sodium stearate.

Feed-grade calcium stearate and sodium stearate may be safely used in an animal feed in accordance with the following prescribed conditions:

- (a) Feed-grade calcium stearate and sodium stearate are the calcium or sodium salts of a fatty acid mixture that is predominately stearic acid. Associated fatty acids, including palmitic acid and minor amounts of lauric, myristic, pentadecanoic, margaric, arachidic, and other fatty acids may be contained in the mixture, but such associated fatty acids in aggregate do not exceed 35 percent by weight of the mixture. The fatty acids may be derived from feed-grade fats or oils.
- (b) The additives meet the following specifications:
- (1) Unsaponifiable matter does not exceed 2 percent.
- (2) They are free of chick-edema factor.
- (c) The additives are manufactured so that in aqueous solution they are exposed for 1 hour or longer to temperature in excess of 180 °F.
- (d) They are used as anticaking agents in animal feeds in accordance with current good manufacturing practices

[63 FR 8573, Feb. 20, 1998]

§ 573.300 Choline xanthate.

Choline xanthate may be safely used as a component of animal feed as an added source of choline to supplement the diets of poultry, ruminants, and swine in accordance with good feeding practice.

§573.310 Crambe meal, heat toasted.

- (a) The additive is the seed meal of *Crambe abyssinica* obtained after the removal of oil from the seed and hull. The oil may be removed by pre-press solvent extraction or by solvent extraction alone. The resulting seed meal is heat toasted.
- (b) The additive conforms to the following percent-by-weight specifications: moisture, not more than 11 percent; oil, not more than 4 percent; crude protein, not less than 24 percent; crude fiber, not more than 26 percent; glucosinolate calculated as epiprogoitrin, not more than 4 percent; goitrin, not more than 0.1 percent; nitrile calculated as 1-cyano-2-hydroxy-3-butene, not more than 1.4 percent. At least 50 percent of the nitrogen shall be soluble in 0.5 M sodium

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chloride. Myrosinase enzyme activity shall be absent.

(c) The additive is used or intended for use in the feed of feedlot cattle as a source of protein in an amount not to exceed 4.2 percent of the total ration.

[46 FR 30082, June 5, 1981]

§ 573.320 Diammonium phosphate.

The food additive diammonium phosphate may be safely used in ruminant feed in accordance with the following prescribed conditions:

(a) The food additive is the product resulting from the neutralization of feeding-phosphoric-acid or defluorinated wet-process phosphoric acid with anhydrous ammonia. It contains not less than 106.25 percent equivalent crude protein (nitrogen \times 6.25) and 20 percent phosphorus. It contains not more than the following:

1 part fluorine to 100 parts phosphorus. 75 parts per million or arsenic (as As). 30 parts per million of heavy metals, as lead

- (b) It is used in ruminant feeds as a source of phosphorus and nitrogen in an amount that supplies not more than 2 percent of equivalent crude protein in the total daily ration.
- (c) To assure safe use of the additive, the label and labeling of the additive and that of any feed additive supplement, feed additive concentrate, feed additive premix, or complete feed prepared therefrom shall contain, in addition to other information required by the act, the following:
 - (1) The name of the additive.
- (2) The maximum percentage of equivalent crude protein from the non-protein nitrogen.
- (3) If the feed additive premix, feed additive concentrate, or feed additive supplement contains more than 2 percent equivalent crude protein from diammonium phosphate, adequate directions for use and a prominent statement, "Warning—This feed should be used only in accordance with directions furnished on the label."

§ 573.340 Diatomaceous earth.

(a) *Identity*. The additive consists of siliceous skeletal material derived from various species of diatoms.

(b) Specifications. The additive shall conform to the following specifications:

Lead, not more than 15 parts per million. Arsenic (as As), not more than 20 parts per million

Fluorine, not more than 600 parts per million

(c) *Uses*. It is used or intended for use as an inert carrier or anticaking agent in animal feeds in an amount not to exceed 2 percent by weight of the total ration.

§ 573.360 Disodium EDTA.

The food additive disodium EDTA (disodium ethylenediaminetetraacetate) may be safely used in animal feeds, in accordance with the following prescribed conditions:

- (a) The food additive contains a minimum of 99 percent disodium ethylenediaminetetraacetate dihydrate ($C_{10}H_{14}O_8N_2Na_2\cdot 2H_2O$).
- (b) It is used to solubilize trace minerals in aqueous solutions, which are then added to animal feeds.
- (c) It is used or intended for use in an amount not to exceed 240 parts per million of the additive in finished feed.
- (d) To assure safe use of the additive the label and labeling shall bear:
 - (1) The name of the additive; and
- (2) Adequate mixing directions to ensure that the chelated trace-mineral mix is uniformly blended throughout the feed.

§ 573.380 Ethoxyquin in animal feeds.

Ethoxyquin (1,2-dihydro-6-ethoxy-2,2,4-trimethylquinoline) may be safely used in animal feeds, when incorporated therein in accordance with the following prescribed conditions.

- (a) It is intended for use only: (1) As a chemical preservative for retarding oxidation of carotene, xanthophylls, and vitamins A and E in animal feed and fish food and, (2) as an aid in preventing the development of organic peroxides in canned pet food.
- (b) The maximum quantity of the additive permitted to be used and to remain in or on the treated article shall not exceed 150 parts per million.
- (c) To assure safe use of the additive, the label and labeling of the food additive container and that of any intermediate premixes prepared therefrom