

(e) To assure the safe use of the additive, the label of the market package shall contain, in addition to other information required by the act:

(1) The name of the additive as specified in this section.

(2) Directions for the incorporation of the additive in the forage crops, as specified in paragraph (c) of this section, with the directive that only suitable animal or suitable vegetable oils are to be used in the oil mix.

(f) The label of any dehydrated forage crops treated with the additive or the label of an animal-feed supplement containing such treated forage crops, shall, in addition to other information required by the act, bear the following statements:

(1) "Ethoxyquin, a preservative," or "Ethoxyquin added to retard the oxidative destruction of carotene and vitamin E."

(2) The statement "For use in animal feed only."

#### § 573.420 Ethyl cellulose.

The food additive ethyl cellulose may be safely used in animal feed in accordance with the following prescribed conditions:

(a) The food additive is a cellulose ether containing ethoxy (OC<sub>2</sub>H<sub>5</sub>) groups attached by an ether linkage and containing on an anhydrous basis not more than 2.6 ethoxy groups per anhydroglucose unit.

(b) It is used or intended for use as a binder or filler in dry vitamin preparations to be incorporated into animal feed.

#### § 573.440 Ethylene dichloride.

The food additive ethylene dichloride may be safely used in the manufacture of animal feeds in accordance with the following prescribed conditions:

(a) It is used as a solvent in the extraction processing of animal byproducts for use in animal feeds.

(b) The maximum quantity of the additive permitted to remain in or on the extracted byproducts shall not exceed 300 parts per million.

(c) The extracted animal byproduct is added as a source of protein to a total ration at levels consistent with good feeding practices, but in no event at

levels exceeding 13 percent of the total ration.

#### § 573.450 Fermented ammoniated condensed whey.

(a) *Identity.* The product is produced by the *Lactobacillus bulgaricus* fermentation of whey with the addition of ammonia.

(b) *Specifications.* The product contains 35 to 55 percent crude protein and not more than 42 percent equivalent crude protein from nonprotein nitrogen sources.

(c) *Uses.* The product is used as a source of protein and nonprotein nitrogen for cattle.

(d) *Limitations.* (1) Store in a closed vented tank equipped for agitation. Agitate 5 minutes before using. Do not store at temperature above 110 °F (43 °C).

(2) The maximum level of use of fermented ammoniated condensed whey and equivalent crude protein from all other added forms of nonprotein nitrogen shall not exceed 30 percent of the dietary crude protein.

(3) The additive may be used as follows:

(i) Mixed with grain, roughage, or grain and roughage prior to feeding.

(ii) As a component of free-choice liquid feeds, used to supplement the diets of cattle fed other sources of nutrients, fermented ammoniated condensed whey shall not exceed 80 percent of the free-choice liquid feed.

(e) *Labeling.* The label shall bear, in addition to other information required by the act:

(1) The name of the additive.

(2) The maximum percentage of equivalent crude protein from nonprotein nitrogen.

(3) Adequate directions for use in accordance with the provisions in paragraph (d) of this section.

[43 FR 33708, July 1, 1978, as amended at 46 FR 49115, Oct. 6, 1981]

#### § 573.460 Formaldehyde.

The food additive formaldehyde may be safely used in the manufacture of animal feeds in accordance with the following conditions:

(a)(1) The additive is used, or intended for use, to improve the handling

characteristics of animal fat in combination with certain oilseed meals by producing therefrom a dry, free-flowing product as follows:

(i) An aqueous blend of soybean and sunflower meals in a ratio of 3:1, respectively, is mixed with animal fat such that the oilseed meals and animal fat are in a ratio of 3:2. The feed ingredients are those defined by the "Official Publication" of the Association of American Feed Control Officials, Inc., 1976 ed., pages 86, 103, and 109.<sup>1</sup>

(ii) Formaldehyde (37 percent solution) is added to the mixture at a level of 4 percent of the dry matter weight of the oilseed meals and animal fat. This mixture, upon drying, contains not more than 1 percent formaldehyde and not more than 12 percent moisture.

(2) The dried mixture described in paragraph (a) of this section is used, or intended for use, as a component of dry, nonpelleted feeds for beef and non-lactating dairy cattle.

(3) To assure safe use of the additive, in addition to the other information required by the Act, the label and labeling of the dried mixture described in paragraph (a) of this section shall bear:

(i) The name of the additive.

(ii) Adequate directions for use providing that feed as consumed is not to contain more than 25 percent of the mixture.

(b)(1) The food additive is formaldehyde (CAS No. 50-00-0; 37 percent aqueous solution). It is used at a rate of 5.4 pounds (2.5 kilograms) per ton of animal feed or feed ingredient. It is an antimicrobial agent used to maintain complete animal feeds or feed ingredients *Salmonella* negative for up to 21 days.

(2) To assure safe use of the additive, in addition to the other information required by the Act, the label and labeling shall contain:

(i) The name of the additive.

(ii) A statement that formaldehyde solution which has been stored below 40 °F or allowed to freeze should not be applied to complete animal feeds or feed ingredients.

<sup>1</sup>Copies of the current edition may be obtained from the Treasurer, Donald H. James, West Virginia Department of Agriculture, Capital Complex/Guthrie Center, Charleston, WV 25305.

(iii) Adequate directions for use including a statement that formaldehyde should be uniformly sprayed on and thoroughly mixed into the complete animal feeds or feed ingredients and that the complete animal feeds or feed ingredients so treated shall be labeled as containing formaldehyde. The label must prominently display the statement: "Treated with formaldehyde to maintain feed *Salmonella* negative. Use within 21 days."

(iv) The labeling for feed or feed ingredients to which formaldehyde has been added under the provisions of paragraph (b)(1) of this section is required to carry the following statement: "Treated with formaldehyde to maintain feed *Salmonella* negative. Use within 21 days."

(3) To assure safe use of the additive, in addition to the other information required by the Act, the label and labeling shall contain:

(i) Appropriate warnings and safety precautions concerning formaldehyde.

(ii) Statements identifying formaldehyde as a poison with potentials for adverse respiratory effects.

(iii) Information about emergency aid in case of accidental inhalation.

(iv) Statements reflecting requirements of applicable sections of the Superfund Amendments and Reauthorization Act (SARA), and the Occupational Safety and Health Administration's (OSHA) human safety guidance regulations.

(v) Contact address and phone number for reporting adverse reactions or to request a copy of the Materials Safety Data Sheet (MSDS).

[41 FR 38652, Sept. 10, 1976, as amended at 54 FR 18281, Apr. 28, 1989; 61 FR 15704, Apr. 9, 1996; 63 FR 53580, Oct. 6, 1998]

#### § 573.480 Formic acid.

Formic acid may be safely used as a preservative in hay crop silage in an amount not to exceed 2.25 percent of the silage on a dry weight basis or 0.45 percent when direct-cut. The top foot of silage stored should not contain formic acid and silage should not be fed to livestock within 4 weeks of treatment.