§ 172.710 Adjuvants for pesticide use dilutions.

The following surfactants and related adjuvants may be safely added to pesticide use dilutions by a grower or applicant prior to application to the growing crop:

\( \alpha \)-Alkyl \( \left( C_{10} - C_{18} \right) \) amine acetate, where the alkyl groups \( \left( C_{10} - C_{18} \right) \) are derived from coconut oil, as a surfactant in emulsifier blends at levels not in excess of 5 percent by weight of the emulsifier blends that are added to herbicides for application to corn and sorghum.

Di-\( \alpha \)-alkyl \( \left( C_{12} - C_{18} \right) \) dimethyl ammonium chloride, where the alkyl groups \( \left( C_{12} - C_{18} \right) \) are derived from coconut oil, as a surfactant in emulsifier blends at levels not in excess of 5 percent by weight of emulsifier blends that are added to herbicides for application to corn or sorghum.

Diethanolamide condensate based on a mixture of saturated and unsaturated soybean oil fatty acids \( \left( C_{16} - C_{18} \right) \) as a surfactant in emulsifier blends that are added to the herbicide atrazine for application to corn.

Diethanolamide condensate based on stripped coconut fatty acids \( \left( C_{16} - C_{18} \right) \) as a surfactant in emulsifier blends that are added to the herbicide atrazine for application to corn.

Diethanolamide condensate based on a mixture of \( \alpha \)-Al(1,1,3,3-Tetramethylbutyl) phenyl-omega-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of \( \alpha \)-Dodecylphenyl-omega-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of \( \alpha \)-Dodecylphenyl-omega-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of \( \alpha \)-Dodecylphenyl-omega-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of \( \alpha \)-Dodecylphenyl-omega-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of 1,3-Butylene glycol.

The food additive \( \alpha \)-Dodecylphenyl-omega-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of \( \alpha \)-Dodecylphenyl-omega-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of \( \alpha \)-Dodecylphenyl-omega-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of \( \alpha \)-Dodecylphenyl-omega-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of \( \alpha \)-Dodecylphenyl-omega-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of 1,3-Butylene glycol.

The food additive shall conform to the identity and specifications of the Food Chemicals Codex, 7th ed. (2010), p. 126, which is incorporated by reference. The Director of the Office of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain copies from the United States Pharmacopeial Convention, 12601 Twinbrook Plkwy., Rockville, MD 20852 (Internet address http://www.usp.org). Copies may be examined at the Food and Drug Administration’s Main Library, 10903 New Hampshire Ave., Blgd. 2, Third Floor, Silver Spring, MD 20993, 301-796-2039, or at the...
§ 172.715 Calcium lignosulfonate.

Calcium lignosulfonate may be safely used in or on food, subject to the provisions of this section.

(a) Calcium lignosulfonate consists of sulfonated lignin, primarily as calcium and sodium salts.

(b) It is used in an amount not to exceed that reasonably required to accomplish the intended physical or technical effect when added as a dispersing agent and stabilizer in pesticides for preharvest or postharvest application to bananas.

§ 172.720 Calcium lactobionate.

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

(a) The food additive is the calcium salt of lactobionic acid (4-((D,L-galactosido)-D-glucronic acid) produced by the oxidation of lactose.

(b) It is used or intended for use as a firming agent in dry pudding mixes at a level not greater than that required to accomplish the intended effect.

§ 172.723 Epoxidized soybean oil.

Epoxidized soybean oil may be safely used in accordance with the following prescribed conditions:

(a) The additive is prepared by reacting soybean oil in toluene with hydrogen peroxide and formic acid.

(b) It meets the following specifications:

(1) Epoxidized soybean oil contains oxirane oxygen, between 7.0 and 8.0 percent, as determined by the American Oil Chemists’ Society (A.O.C.S.) method Cd 9–57, “Oxirane Oxygen,” re-approved 1989, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies are available from the American Oil Chemists’ Society, P. O. Box 3489, Champaign, IL 61826–3489, or may be examined at the Office of Food Additive Safety (HFS–200), Center for Food Safety and Applied Nutrition, Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, 240–402–1200, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to:


(2) The maximum iodine value is 3.0, as determined by A.O.C.S. method Cd 1–25, “Iodine Value of Fats and Oils Wijs Method,” revised 1993, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The availability of this incorporation by reference is given in paragraph (b)(1) of this section.

(3) The heavy metals (as Pb) content cannot be more than 10 parts per million, as determined by the “Heavy Metals Test,” of the “Food Chemicals Codex,” 4th ed. (1996), pp. 760–761, Method II (with a 2-gram sample and 20 microgram of lead ion in the control), which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies are available from the National Academy Press, Box 285, 2101 Constitution Ave. NW., Washington, DC 20055 (Internet address http://www.nap.edu), or may be examined at the Center for Food Safety and Applied Nutrition’s Library, Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to:


(c) The additive is used as a halogen stabilizer in brominated soybean oil at a level not to exceed 1 percent.

[60 FR 32963, June 26, 1995, as amended at 64 FR 1759, Jan. 12, 1999; 78 FR 14665, Mar. 7, 2013]