

§ 184.1295

21 CFR Ch. I (4-1-08 Edition)

§ 184.1295 Ethyl formate.

(a) Ethyl formate (C₃H₆O₂, CAS Reg. No. 109-94-4) is also referred to as ethyl methanoate. It is an ester of formic acid and is prepared by esterification of formic acid with ethyl alcohol or by distillation of ethyl acetate and formic acid in the presence of concentrated sulfuric acid. Ethyl formate occurs naturally in some plant oils, fruits, and juices but does not occur naturally in the animal kingdom.

(b) The ingredient meets the specifications of the "Food Chemicals Codex," 3d Ed. (1981), p. 376, which is incorporated by reference. Copies may be obtained from the National Academy Press, 2101 Constitution Ave. NW., Washington, DC 20418, or may be examined 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: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(c) The ingredient is used as a flavoring agent and adjuvant as defined in §170.3(o)(12) of this chapter.

(d) The ingredient is used in food at levels not to exceed good manufacturing practice in accordance with §184.1(b)(1). Current good manufacturing practice results in a maximum level, as served, of 0.05 percent in baked goods as defined in §170.3(n)(1) of this chapter; 0.04 percent in chewing gum as defined in §170.3(n)(6), hard candy as defined in §170.3(n)(25), and soft candy as defined in §170.3(n)(38) of this chapter; 0.02 percent in frozen dairy desserts as defined in §170.3(n)(20) of this chapter; 0.03 percent in gelatins, puddings, and fillings as defined in §170.3(n)(22) of this chapter; and 0.01 percent in all other food categories.

(e) Prior sanctions for ethyl formate different from the uses established in this section do not exist or have been waived.

[45 FR 22915, Apr. 4, 1980, as amended at 49 FR 5612, Feb. 14, 1984]

§ 184.1296 Ferric ammonium citrate.

(a) Ferric ammonium citrate (iron (III) ammonium citrate) is prepared by the reaction of ferric hydroxide with citric acid, followed by treatment with

ammonium hydroxide, evaporating, and drying. The resulting product occurs in two forms depending on the stoichiometry of the initial reactants.

(1) Ferric ammonium citrate (iron (III) ammonium citrate, CAS Reg. No. 1332-98-5) is a complex salt of undetermined structure composed of 16.5 to 18.5 percent iron, approximately 9 percent ammonia, and 65 percent citric acid and occurs as reddish brown or garnet red scales or granules or as a brownish-yellowish powder.

(2) Ferric ammonium citrate (iron (III) ammonium citrate, CAS Reg. No. 1333-00-2) is a complex salt of undetermined structure composed of 14.5 to 16 percent iron, approximately 7.5 percent ammonia, and 75 percent citric acid and occurs as thin transparent green scales, as granules, as a powder, or as transparent green crystals.

(b) The ingredients meet the specifications of the Food Chemicals Codex, 3d Ed. (1981), pp. 116-117 (Ferric ammonium citrate, brown) and p. 117 (Ferric ammonium citrate, green), which is incorporated by reference. Copies are available from the National Academy Press, 2101 Constitution Ave. NW., Washington, DC 20418, or available for inspection 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: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(c) In accordance with §184.1(b)(1), the ingredients are used in food as nutrient supplements as defined in §170.3(o)(20) of this chapter, with no limitation other than current good manufacturing practice. The ingredients may also be used in infant formula in accordance with section 412(g) of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 350a(g)) or with regulations promulgated under section 412(a)(2) of the act (21 U.S.C. 350a(a)(2)).

(d) Prior sanctions for these ingredients different from the uses established in this section do not exist or have been waived.

[53 FR 16864, May 12, 1988]

§ 184.1297 Ferric chloride.

(a) Ferric chloride (iron (III) chloride, FeCl₃, CAS Reg. No. 7705-08-0)

may be prepared from iron and chlorine or from ferric oxide and hydrogen chloride. The pure material occurs as hygroscopic, hexagonal, dark crystals. Ferric chloride hexahydrate (iron (III) chloride hexahydrate, $\text{FeCl}_3 \cdot 6\text{H}_2\text{O}$, CAS Reg. No. 10025-77-1) is readily formed when ferric chloride is exposed to moisture.

(b) The ingredient must be of a purity suitable for its intended use.

(c) In accordance with § 184.1(b)(1) the ingredient is used in food as a flavoring agent as defined in § 170.3(o)(12) of this chapter, with no limitation other than current good manufacturing practice.

(d) Prior sanctions for this ingredient different from the uses established in this section do not exist or have been waived.

[53 FR 16864, May 12, 1988, as amended at 73 FR 8607, Feb. 14, 2008]

§ 184.1298 Ferric citrate.

(a) Ferric citrate (iron (III) citrate, $\text{C}_6\text{H}_5\text{FeO}_7$, CAS Reg. No. 2338-05-8) is prepared from reaction of citric acid with ferric hydroxide. It is a compound of indefinite ratio of citric acid and iron.

(b) The ingredient must be of a purity suitable for its intended use.

(c) In accordance with § 184.1(b)(1), the ingredient is used in food as a nutrient supplement as defined in § 170.3(o)(20) of this chapter, with no limitation other than current good manufacturing practice. The ingredient may also be used in infant formula in accordance with section 412(g) of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 350a(g)) or with regulations promulgated under section 412(a)(2) of the act (21 U.S.C. 350a(a)(2)).

(d) Prior sanctions for this ingredient different from the uses established in this section do not exist or have been waived.

[53 FR 16865, May 12, 1988, as amended at 73 FR 8607, Feb. 14, 2008]

§ 184.1301 Ferric phosphate.

(a) Ferric phosphate (ferric orthophosphate, iron (III) phosphate, $\text{FePO}_4 \cdot x\text{H}_2\text{O}$, CAS Reg. No. 10045-86-0) is an odorless, yellowish-white to buff-colored powder and contains from one

to four molecules of water of hydration. It is prepared by reaction of sodium phosphate with ferric chloride or ferric citrate.

(b) The ingredient meets the specifications of the Food Chemicals Codex, 3d Ed. (1981), pp. 118-120, which is incorporated by reference. Copies are available from the National Academy Press, 2101 Constitution Ave. NW., Washington, DC 20418, or available for inspection 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: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(c) In accordance with § 184.1(b)(1), the ingredient is used in food as nutrient supplement as defined in § 170.3(o)(20) of this chapter, with no limitation other than current good manufacturing practice. The ingredient may also be used in infant formula in accordance with section 412(g) of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 350a(g)) or with regulations promulgated under section 412(a)(2) of the act (21 U.S.C. 350a(a)(2)).

(d) Prior sanctions for this ingredient different from the uses established in this section do not exist or have been waived.

[53 FR 16865, May 12, 1988]

§ 184.1304 Ferric pyrophosphate.

(a) Ferric pyrophosphate (iron (III) pyrophosphate, $\text{Fe}_4(\text{P}_{207})_3 \cdot x\text{H}_2\text{O}$, CAS Reg. No. 10058-44-3) is a tan or yellowish white colorless powder. It is prepared by reacting sodium pyrophosphate with ferric citrate.

(b) The ingredient meets the specifications of the Food Chemicals Codex, 3d Ed. (1981), p. 120, which is incorporated by reference. Copies are available from the National Academy Press, 2101 Constitution Ave. NW., Washington, DC 20418, or available for inspection 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: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.