(b) The component substances are used solely as a solvent mixture and in a manner that does not result in formation of products not present in conventionally produced citric acid.

(c) The citric acid so produced meets the specifications of the “Food Chemicals Codex,” 3d Ed. (1981), pp. 86-87, 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 Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC 20408), and the polynuclear aromatic hydrocarbon specifications of §173.165.

(d) Residues of n-octyl alcohol and synthetic isoparaffinic petroleum hydrocarbons are removed in accordance with good manufacturing practice. Current good manufacturing practice results in residues not exceeding 16 parts per million (ppm) n-octyl alcohol and 0.47 ppm synthetic isoparaffinic petroleum hydrocarbons in citric acid.

(e) Tridodecyl amine may be present as a residue in citric acid at a level not to exceed 100 parts per billion.

[42 FR 14491, Mar. 15, 1977, as amended at 49 FR 10106, Mar. 19, 1984]

§ 173.290 Trichloroethylene.

Tolerances are established for residues of trichloroethylene resulting from its use as a solvent in the manufacture of foods as follows:

- Decaffeinated ground coffee ........................................ 25 parts per million.
- Decaffeinated soluble (instant) coffee extract ........... 10 parts per million.
- Spice oleoresins ........................................ 30 parts per million (provided that if residues of other chlorinated solvents are also present, the total of all residues of such solvents in spice oleoresins shall not exceed 30 parts per million).


§ 173.310 Boiler water additives.

Boiler water additives may be safely used in the preparation of steam that will contact food, under the following conditions:

(a) The amount of additive is not in excess of that required for its functional purpose, and the amount of steam in contact with food does not exceed that required to produce the intended effect in or on the food.

(b) The compounds are prepared from substances identified in paragraphs (c) and (d) of this section, and are subject to the limitations, if any, prescribed:

Subpart D—Specific Usage Additives

§ 173.300 Chlorine dioxide.

Chlorine dioxide (CAS Reg. No. 10049-04-4) may be safely used in food in accordance with the following prescribed conditions:

(a) The additive is generated by treating an aqueous solution of sodium chlorite with either chlorine gas or a mixture of sodium hypochlorite and hydrochloric acid. The generator effluent contains at least 90 percent (by weight) of chlorine dioxide with respect to all chlorine species as determined by Method 4500-ClO₂ in the “Standard Methods for the Examination of Water and Wastewater,” 18th ed., 1992, or an equivalent method. Method 4500-ClO₂ is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies are available from the Center for Food Safety and Applied Nutrition (HFS-200), Food and Drug Administration, 200 C St., SW., Washington, DC 20204-0001 and The American Public Health Association, 1015 Fifteenth St., NW., Washington, DC 20005, or may be examined at the Office of the Federal Register, 800 North Capitol St., NW., suite 700, Washington, DC.

(b) The additive may be used as an antimicrobial agent in water used in poultry processing in an amount not to exceed 3 parts per million (ppm) residual chlorine dioxide as determined by Method 4500-ClO₂ referenced above or an equivalent method.

[60 FR 14245, Apr. 1, 1996, as amended at 61 FR 14480, Apr. 2, 1996]