§ 178.1005 Hydrogen peroxide solution.

Hydrogen peroxide solution identified in this section may be safely used to sterilize polymeric food-contact surfaces identified in paragraph (e)(1) of this section.

(a) Identity. For the purpose of this section, hydrogen peroxide solution is an aqueous solution containing not more than 35 percent hydrogen peroxide (CAS Reg. No. 7722-84-1) by weight, meeting the specifications prescribed in paragraph (c) of this section.

(b) Optional adjuvant substances. Hydrogen peroxide solution identified in paragraph (a) of this section may contain substances generally recognized as safe in or on food, substances generally recognized for their intended use in food packaging, substances used in accordane with a prior sanction or approval, and substances permitted by applicable regulations in parts 174 through 179 of this chapter.

(c) Specifications. Hydrogen peroxide solution shall meet the specifications of the “Food Chemicals Codex,” 3d Ed. (1981), pp. 146–147, 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.), and the United States Pharmacopeia XX (1980), except that hydrogen peroxide may exceed the concentration specified therein.

(d) Limitations. No use of hydrogen peroxide solution in the sterilization of food packaging material shall be considered to be in compliance if more than 0.5 part per million of hydrogen peroxide can be determined in distilled water packaged under production conditions (assay to be performed immediately after packaging).

(e) Conditions of use. (1) Hydrogen peroxide solution identified in and complying with the specifications in this section may be used by itself or in
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§ 178.1010 Sanitizing solutions.

Sanitizing solutions may be safely used on food-processing equipment and utensils, and on other food-contact articles as specified in this section, within the following prescribed conditions:

(a) Such sanitizing solutions are used, followed by adequate draining, before contact with food.

(b) The solutions consist of one of the following, to which may be added components generally recognized as safe and components which are permitted by prior sanction or approval.

(1) An aqueous solution containing potassium, sodium, or calcium hypochlorite, with or without the bromides of potassium, sodium, or calcium.

(2) An aqueous solution containing dichloroisocyanuric acid, trichloroisocyanuric acid, or the sodium or potassium salts of these acids, with or without the bromides of potassium, sodium, or calcium.

(3) An aqueous solution containing potassium iodide, sodium p-toluenesulfonylchloroamide, and sodium lauryl sulfate.

(4) An aqueous solution containing iodine, butoxy monoether of mixed (ethylene-propylene) polyalkylene glycol having a cloudpoint of 90°–100 °C in 0.5 percent aqueous solution and an average molecular weight of 3,800, and ethylene glycol monobutyl ether. Additionally, the aqueous solution may contain diethylene glycol monoethyl ether as an optional ingredient.

(5) An aqueous solution containing elemental iodine, hydriodic acid, a-(p-nonylphenyl)-omega-hydroxypropoxy-(oxy-ethyleneco) block polymers (having a minimum average molecular weight of 748) and/or polyoxyethylene-polyoxypropylene block polymers (having a minimum average molecular weight of 1,900). Additionally, the aqueous solution may contain isopropyl alcohol as an optional ingredient.

(6) An aqueous solution containing dodecylbenzenesulfonic acid and either isopropyl alcohol or polyoxyethylene-polyoxypropylene block polymers (having a minimum average molecular weight of 2,800). In addition to use on

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Substances | Limitations
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Ethylene-acrylic acid copolymers | Complying with § 177.1310 of this chapter
Ethylene-carbon monoxide copolymers | Complying with § 177.1312 of this chapter
Ethylene-methyl acrylate copolymer resins. | Complying with § 177.1340 of this chapter
Ethylene-vinyl acetate copolymers. | Complying with § 177.1350 of this chapter
Isobutylene polymers | Complying with § 177.1330 of this chapter
Olefins polymers | Complying with § 177.1420 (a)(1) and (a)(2) of this chapter.
Polyethylene-terephthalate polymers. | Complying with § 177.1520 of this chapter
Polybutene resins and butene/ethylene copolymers. | Complying with § 177.1580 of this chapter
Polyisobutylene and rubber-modified polyisoprene polymers. | Complying with § 177.1630 of this chapter (excluding polymers described in § 177.1630(c) of this chapter.
Polyvinylidene chloride/methyl acrylate copolymers. | Complying with § 177.1630 of this chapter (excluding polymers described in § 177.1630(c) of this chapter.

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(2) The packaging materials identified in paragraph (e)(1) of this section may be used for packaging all commercial sterile foods except that the olefin polymers may be used in articles for packaging foods only of the types identified in § 176.170(c) of this chapter, table I, under Categories I, II, III, IV-B, V, and VI.

(3) Processed foods packaged in the materials identified in paragraph (e)(1) of this section shall conform with parts 108, 110, 113, and 114 of this chapter as applicable.