

**§ 177.2910**

(e) Textile and textile fibers are used as articles or components of articles that contact dry food only.

(f) The provisions of this section are not applicable to jute fibers used as prescribed by §178.3620(d)(2) of this chapter.

[42 FR 14572, Mar. 15, 1977, as amended at 46 FR 37042, July 17, 1981; 49 FR 4372, Feb. 6, 1984; 49 FR 5748, Feb. 15, 1984; 56 FR 42933, Aug. 30, 1991]

**§ 177.2910 Ultra-filtration membranes.**

Ultra-filtration membranes identified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section may be safely used in the processing of food, under the following prescribed conditions;

(a)(1) Ultra-filtration membranes that consist of paper impregnated with cured phenol-formaldehyde resin, which is used as a support and is coated with a vinyl chloride-acrylonitrile copolymer.

(2) Ultra-filtration membranes that consist of a sintered carbon support that is coated with zirconium oxide (CAS Reg. No. 1314-23-4) containing up to 12 percent yttrium oxide (CAS Reg. No. 1314-36-9).

(3) Ultra-filtration membranes that consist of an aluminum oxide support that is coated with zirconium oxide (CAS Reg. No. 1314-23-4) containing up to 5 percent yttrium oxide (CAS Reg. No. 1314-36-9).

(4) Ultrafiltration membranes that consist of a microporous poly(vinylidene fluoride) membrane with a hydrophilic surface modifier consisting of hydroxypropyl acrylate/tetraethylene glycol diacrylate copolymer.

(b) Any substance employed in the production of ultra-filtration membranes that is the subject of a regulation in parts 174, 175, 176, 177, 178 and §179.45 of this chapter conforms with the specifications of such regulation.

(c) Ultra-filtration membranes are used in the physical separation of dissolved or colloiddally suspended varying molecular size components of liquids during the commercial processing of bulk quantities of food.

(d) Ultra-filtration membranes shall be maintained in a sanitary manner in accordance with good manufacturing

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practice so as to prevent potential microbial adulteration of the food.

(e) Ultrafiltration membranes identified in paragraph (a)(4) may be used to filter aqueous or acidic foods containing up to 13 percent of alcohol at temperatures not to exceed 21 °C (70 °F).

(f) To assure safe use of the ultra-filtration membranes, the label or labeling shall include adequate directions for a pre-use treatment, consisting of conditioning and washing with a minimum of 8 gallons of potable water prior to their first use in contact with food.

(g) Acrylonitrile copolymers identified in this section shall comply with the provisions of §180.22 of this chapter.

[42 FR 14572, Mar. 15, 1977, as amended at 53 FR 17925, May 19, 1988; 58 FR 48599, Sept. 17, 1993; 60 FR 54426, Oct. 24, 1995]

**PART 178—INDIRECT FOOD ADDITIVES: ADJUVANTS, PRODUCTION AIDS, AND SANITIZERS**

**Subpart A [Reserved]**

**Subpart B—Substances Utilized To Control the Growth of Microorganisms**

- Sec.  
178.1005 Hydrogen peroxide solution.  
178.1010 Sanitizing solutions.

**Subpart C—Antioxidants and Stabilizers**

- 178.2010 Antioxidants and/or stabilizers for polymers.  
178.2550 4-Hydroxymethyl-2,6-di-*tert*-butylphenol.  
178.2650 Organotin stabilizers in vinyl chloride plastics.

**Subpart D—Certain Adjuvants and Production Aids**

- 178.3010 Adjuvant substances used in the manufacture of foamed plastics.  
178.3120 Animal glue.  
178.3125 Anticorrosive agents.  
178.3130 Antistatic and/or antifogging agents in food-packaging materials.  
178.3280 Castor oil, hydrogenated.  
178.3290 Chromic chloride complexes.  
178.3295 Clarifying agents for polymers.  
178.3297 Colorants for polymers.  
178.3300 Corrosion inhibitors used for steel or tinplate.  
178.3400 Emulsifiers and/or surface-active agents.