§ 181.27 Plasticizers.
Substances classified as plasticizers, when migrating from food-packaging material shall include:

- Chinawood oil (tung oil).
- Dehydrated castor oil.
- Linseed oil.
- Tall oil.


§ 181.28 Release agents.
Substances classified as release agents, when migrating from food-packaging material shall include:

- Dimethylpolysiloxane (substantially free from hydrolyzable chloride and alkoxy groups, no more than 18 percent loss in weight after heating 4 hours at 200 °C; viscosity 300 centisokes, 600 centisokes at 25 °C, specific gravity 0.96 to 0.97 at 25 °C, refractive index 1.400 to 1.404 at 25 °C).
- Borax or boric acid for use in adhesives, sizes, and coatings.
- Butadiene-styrene copolymer.
- Chromium complex of perfluoro-octane sulfonate glycine for use on paper and paperboard which is waxed.
- Disodium cyanodithioimidocarbamate with ethylene diamine and potassium N-methyl dithiocarbamate and/or sodium 2-mercaptobenzothiazole (slimicides).
- Ethyl acrylate and methyl methacrylate copolymers of itaconic acid or methacrylic acid for use only on paper and paperboard which is waxed.
- Hexamethylene tetramine as a setting agent for protein, including casein.

§ 181.29 Stabilizers.
Substances classified as stabilizers, when migrating from food-packaging material shall include:

- Aluminum mono-, di-, and tristearate.

§ 181.30 Substances used in the manufacture of paper and paperboard products used in food packaging.
Substances used in the manufacture of paper and paperboard products used in food packaging shall include:

- Aliphatic polyoxyethylene ethers.
- 1-Alkyl (C₆-C₁₈)-3-amino-3-aminopropane monoacetate.
- Borax or boric acid for use in adhesives, sizes, and coatings.
- Butadiene-styrene copolymer.
- Chromium complex of perfluoro-octane sulfonate glycine for use on paper and paperboard which is waxed.
- Disodium cyanodithioimidocarbamate with ethylene diamine and potassium N-methyl dithiocarbamate and/or sodium 2-mercaptobenzothiazole (slimicides).
- Ethyl acrylate and methyl methacrylate copolymers of itaconic acid or methacrylic acid for use only on paper and paperboard which is waxed.
- Hexamethylene tetramine as a setting agent for protein, including casein.

*Under the conditions of normal use, these substances would not reasonably be expected to migrate to food, based on available scientific information and data.
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§ 181.32 Acrylonitrile copolymers and resins.

(a) Acrylonitrile copolymers and resins listed in this section, containing less than 30 percent acrylonitrile and complying with the requirements of paragraph (b) of this section, may be safely used as follows:

(1) Films. (i) Acrylonitrile/butadiene/styrene copolymers—no restrictions.
(ii) Acrylonitrile/butadiene copolymers—no restrictions.
(iii) Acrylonitrile/butadiene copolymer blended with vinyl chloride-vinyl acetate (optional at level up to 5 percent by weight of the vinyl chloride resin) for use only in contact with oleomargarine.
(iv) Acrylonitrile/styrene copolymer—no restrictions.

(2) Coatings. (i) Acrylonitrile/butadiene copolymer blended with polyvinyl chloride resins—for use only on paper and paperboard in contact with meats and lard.
(ii) Polyvinyl chloride resin blended with either acrylonitrile/butadiene copolymer or acrylonitrile/butadiene styrene copolymer mixed with neoprene, for use as components of conveyor belts to be used with fresh fruits, vegetables, and fish.
(iii) Acrylonitrile/butadiene/styrene copolymer—no restrictions.
(iv) Acrylonitrile/styrene copolymer—no restrictions.

(3) Rigid and semirigid containers. (i) Acrylonitrile/butadiene/styrene copolymer—for use only as piping for handling food products and for repeated-use articles intended to contact food.
(ii) Acrylonitrile/styrene resin—no restrictions.
(iii) Acrylonitrile/butadiene copolymer blended with polyvinyl chloride resin—for use only as extruded pipe.

(b) Limitations for acrylonitrile monomer extraction for finished food-contact articles, determined by using the method of analysis titled “Gas-Solid Chromatographic Procedure for Determining Acrylonitrile Monomer in Acrylonitrile-Containing Polymers and Food-Simulating Solvents,” which is incorporated by reference. Copies are available from the Center for Food Safety and Applied Nutrition (HFS–200), Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, 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.

(1) In the case of single-use articles having a volume to surface ratio of 10 milliliters or more per square inch of food-contact surface—0.003 milligram/square inch when extracted to equilibrium at 120 °F with food-simulating solvents appropriate to the intended conditions of use.

(2) In the case of single-use articles having a volume to surface ratio of less than 10 milliliters per square inch of food-contact surface—0.3 part per million calculated on the basis of the volume of the container when extracted to equilibrium at 120 °F with food-simulating solvents appropriate to the intended conditions of use.

(3) In the case of repeated-use articles—0.003 milligram/square inch when extracted at a time equivalent to initial batch usage utilizing food-simulating solvents and temperatures appropriate to the intended conditions of use.

The food-simulating solvents shall include, where applicable, distilled water, 8 percent or 50 percent ethanol, 3 percent acetic acid, and either n-heptane or an appropriate oil or fat.