

(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, 200 C St. SW., Washington, DC 20204, or available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC 20408, are as follows:

(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-simulat-

ing 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.

(c) Acrylonitrile monomer may present a hazard to health when ingested. Accordingly, any food-contact article containing acrylonitrile copolymers or resins that yield acrylonitrile monomer in excess of that amount provided for in paragraph (b) of this section shall be deemed to be adulterated in violation of section 402 of the Act.

[42 FR 14638, Mar. 15, 1977, as amended at 47 FR 11850, Mar. 19, 1982; 54 FR 24899, June 12, 1989]

§181.33 Sodium nitrate and potassium nitrate.

Sodium nitrate and potassium nitrate are subject to prior sanctions issued by the U.S. Department of Agriculture for use as sources of nitrite, with or without sodium or potassium nitrite, in the production of cured red meat products and cured poultry products.

[48 FR 1705, Jan. 14, 1983]

§181.34 Sodium nitrite and potassium nitrite.

Sodium nitrite and potassium nitrite are subject to prior sanctions issued by the U.S. Department of Agriculture for use as color fixatives and preservative agents, with or without sodium or potassium nitrate, in the curing of red meat and poultry products.

[48 FR 1705, Jan. 14, 1983]

PART 182—SUBSTANCES GENERALLY RECOGNIZED AS SAFE

Subpart A—General Provisions

Sec.

182.1 Substances that are generally recognized as safe.

182.10 Spices and other natural seasonings and flavorings.

182.20 Essential oils, oleoresins (solvent-free), and natural extractives (including distillates).

182.40 Natural extractives (solvent-free) used in conjunction with spices,

§ 182.1

- seasonings, and flavorings.
- 182.50 Certain other spices, seasonings, essential oils, oleoresins, and natural extracts.
- 182.60 Synthetic flavoring substances and adjuvants.
- 182.70 Substances migrating from cotton and cotton fabrics used in dry food packaging.
- 182.90 Substances migrating to food from paper and paperboard products.
- 182.99 Adjuvants for pesticide chemicals.

Subpart B—Multiple Purpose GRAS Food Substances

- 182.1045 Glutamic acid.
- 182.1047 Glutamic acid hydrochloride.
- 182.1057 Hydrochloric acid.
- 182.1073 Phosphoric acid.
- 182.1087 Sodium acid pyrophosphate.
- 182.1125 Aluminum sulfate.
- 182.1127 Aluminum ammonium sulfate.
- 182.1129 Aluminum potassium sulfate.
- 182.1131 Aluminum sodium sulfate.
- 182.1180 Caffeine.
- 182.1217 Calcium phosphate.
- 182.1235 Caramel.
- 182.1320 Glycerin.
- 182.1480 Methylcellulose.
- 182.1500 Monoammonium glutamate.
- 182.1516 Monopotassium glutamate.
- 182.1711 Silica aerogel.
- 182.1745 Sodium carboxymethylcellulose.
- 182.1748 Sodium caseinate.
- 182.1778 Sodium phosphate.
- 182.1781 Sodium aluminum phosphate.
- 182.1810 Sodium tripolyphosphate.

Subpart C—Anticaking Agents

- 182.2122 Aluminum calcium silicate.
- 182.2227 Calcium silicate.
- 182.2437 Magnesium silicate.
- 182.2727 Sodium aluminosilicate.
- 182.2729 Sodium calcium aluminosilicate, hydrated.
- 182.2906 Tricalcium silicate.

Subpart D—Chemical Preservatives

- 182.3013 Ascorbic acid.
- 182.3041 Erythorbic acid.
- 182.3089 Sorbic acid.
- 182.3109 Thiodipropionic acid.
- 182.3149 Ascorbyl palmitate.
- 182.3169 Butylated hydroxyanisole.
- 182.3173 Butylated hydroxytoluene.
- 182.3189 Calcium ascorbate.
- 182.3225 Calcium sorbate.
- 182.3280 Dilauryl thiodipropionate.
- 182.3616 Potassium bisulfite.
- 182.3637 Potassium metabisulfite.
- 182.3640 Potassium sorbate.
- 182.3731 Sodium ascorbate.
- 182.3739 Sodium bisulfite.
- 182.3766 Sodium metabisulfite.

21 CFR Ch. I (4–1–98 Edition)

- 182.3795 Sodium sorbate.
- 182.3798 Sodium sulfite.
- 182.3862 Sulfur dioxide.
- 182.3890 Tocopherols.

Subpart E—Emulsifying Agents [Reserved]

Subpart F—Dietary Supplements [Reserved]

Subpart G—Sequestrants

- 182.6085 Sodium acid phosphate.
- 182.6197 Calcium diacetate.
- 182.6203 Calcium hexametaphosphate.
- 182.6215 Monobasic calcium phosphate.
- 182.6285 Dipotassium phosphate.
- 182.6290 Disodium phosphate.
- 182.6757 Sodium gluconate.
- 182.6760 Sodium hexametaphosphate.
- 182.6769 Sodium metaphosphate.
- 182.6778 Sodium phosphate.
- 182.6787 Sodium pyrophosphate.
- 182.6789 Tetra sodium pyrophosphate.
- 182.6810 Sodium tripolyphosphate.

Subpart H—Stabilizers

- 182.7255 Chondrus extract.

Subpart I—Nutrients

- 182.8013 Ascorbic acid.
- 182.8159 Biotin.
- 182.8217 Calcium phosphate.
- 182.8223 Calcium pyrophosphate.
- 182.8250 Choline bitartrate.
- 182.8252 Choline chloride.
- 182.8778 Sodium phosphate.
- 182.8890 Tocopherols.
- 182.8892 *α*-Tocopherol acetate.
- 182.8985 Zinc chloride.
- 182.8988 Zinc gluconate.
- 182.8991 Zinc oxide.
- 182.8994 Zinc stearate.
- 182.8997 Zinc sulfate.

AUTHORITY: 21 U.S.C. 321, 342, 348, 371.

SOURCE: 42 FR 14640, Mar. 15, 1977, unless otherwise noted.

Subpart A—General Provisions

§ 182.1 Substances that are generally recognized as safe.

(a) It is impracticable to list all substances that are generally recognized as safe for their intended use. However, by way of illustration, the Commissioner regards such common food ingredients as salt, pepper, vinegar, baking powder, and monosodium glutamate as safe for their intended use.

This part includes additional substances that, when used for the purposes indicated, in accordance with good manufacturing practice, are regarded by the Commissioner as generally recognized as safe for such uses.

(b) For the purposes of this section, good manufacturing practice shall be defined to include the following restrictions:

(1) The quantity of a substance added to food does not exceed the amount reasonably required to accomplish its intended physical, nutritional, or other technical effect in food; and

(2) The quantity of a substance that becomes a component of food as a result of its use in the manufacturing, processing, or packaging of food, and which is not intended to accomplish any physical or other technical effect in the food itself, shall be reduced to the extent reasonably possible.

(3) The substance is of appropriate food grade and is prepared and handled as a food ingredient. Upon request the Commissioner will offer an opinion, based on specifications and intended use, as to whether or not a particular grade or lot of the substance is of suitable purity for use in food and would generally be regarded as safe for the

purpose intended, by experts qualified to evaluate its safety.

(c) The inclusion of substances in the list of nutrients does not constitute a finding on the part of the Department that the substance is useful as a supplement to the diet for humans.

(d) Substances that are generally recognized as safe for their intended use within the meaning of section 409 of the act are listed in this part. When the status of a substance has been re-evaluated, it will be deleted from this part, and will be issued as a new regulation under the appropriate part, e.g., "affirmed as GRAS" under part 184 or 186 of this chapter; "food additive regulation" under parts 170 through 180 of this chapter; "interim food additive regulation" under part 180 of this chapter; or "prohibited from use in food" under part 189 of this chapter.

[42 FR 14640, Mar. 15, 1977, as amended at 53 FR 44875, Nov. 7, 1988]

§ 182.10 Spices and other natural seasonings and flavorings.

Spices and other natural seasonings and flavorings that are generally recognized as safe for their intended use, within the meaning of section 409 of the Act, are as follows:

Common name	Botanical name of plant source
Alfalfa herb and seed	Medicago sativa L.
Allspice	Pimenta officinalis Lindl.
Ambrette seed	Hibiscus abelmoschus L.
Angelica	Angelica archangelica L. or other spp. of Angelica.
Angelica root	Do.
Angelica seed	Do.
Angostura (cusparia bark)	Galipea officinalis Hancock.
Anise	Pimpinella anisum L.
Anise, star	Illicium verum Hook. f.
Balm (lemon balm)	Melissa officinalis L.
Basil, bush	Ocimum minimum L.
Basil, sweet	Ocimum basilicum L.
Bay	Laurus nobilis L.
Calendula	Calendula officinalis L.
Camomile (chamomile), English or Roman	Anthemis nobilis L.
Camomile (chamomile), German or Hungarian	Matricaria chamomilla L.
Capers	Capparis spinosa L.
Capsicum	Capsicum frutescens L. or Capsicum annum L.
Caraway	Carum carvi L.
Caraway, black (black cumin)	Nigella sativa L.
Cardamom (cardamon)	Elettaria cardamomum Maton.
Cassia, Chinese	Cinnamomum cassia Blume.
Cassia, Padang or Batavia	Cinnamomum burmanni Blume.
Cassia, Saigon	Cinnamomum loureirii Nees.
Cayenne pepper	Capsicum frutescens L. or Capsicum annum L.
Celery seed	Apium graveolens L.
Chervil	Anthriscus cerefolium (L.) Hoffm.
Chives	Allium schoenoprasum L.
Cinnamon, Ceylon	Cinnamomum zeylanicum Nees.
Cinnamon, Chinese	Cinnamomum cassia Blume.
Cinnamon, Saigon	Cinnamomum loureirii Nees.

Common name	Botanical name of plant source
Clary (clary sage)	Salvia sclarea L.
Clover	Trifolium spp.
Coriander	Coriandrum sativum L.
Cumin (cummin)	Cuminum cyminum L.
Cumin, black (black caraway)	Nigella sativa L.
Elder flowers	Sambucus canadensis L.
Fennel, common	Foeniculum vulgare Mill.
Fennel, sweet (finocchio, Florence fennel)	Foeniculum vulgare Mill. var. dulce (DC.) Alex.
Fenugreek	Trigonella foenum-graecum L.
Galanga (galangal)	Alpinia officinarum Hance.
Geranium	Pelargonium spp.
Ginger	Zingiber officinale Rosc.
Grains of paradise	Amomum melegueta Rosc.
Horehound (hoarhound)	Marrubium vulgare L.
Horseradish	Armoracia lappathifolia Gilib.
Hyssop	Hyssopus officinalis L.
Lavender	Lavandula officinalis Chaix.
Linden flowers	Tilia spp.
Mace	Myristica fragrans Hoult.
Marigold, pot	Calendula officinalis L.
Marjoram, pot	Majorana onites (L.) Benth.
Marjoram, sweet	Majorana hortensis Moench.
Mustard, black or brown	Brassica nigra (L.) Koch.
Mustard, brown	Brassica juncea (L.) Coss.
Mustard, white or yellow	Brassica hirta Moench.
Nutmeg	Myristica fragrans Hoult.
Oregano (oreganum, Mexican oregano, Mexican sage, origan)	Lippia spp.
Paprika	Capsicum annum L.
Parsley	Petroselinum crispum (Mill.) Mansf.
Pepper, black	Piper nigrum L.
Pepper, cayenne	Capsicum frutescens L. or Capsicum annum L.
Pepper, red	Do.
Pepper, white	Piper nigrum L.
Peppermint	Mentha piperita L.
Poppy seed	Papayer somniferum L.
Pot marigold	Calendula officinalis L.
Pot marjoram	Majorana onites (L.) Benth.
Rosemary	Rosmarinus officinalis L.
Saffron	Crocus sativus L.
Sage	Salvia officinalis L.
Sage, Greek	Salvia triloba L.
Savory, summer	Satureia hortensis L. (Satureja).
Savory, winter	Satureia montana L. (Satureja).
Sesame	Sesamum indicum L.
Spearmint	Mentha spicata L.
Star anise	Illicium verum Hook. f.
Tarragon	Artemisia dracunculus L.
Thyme	Thymus vulgaris L.
Thyme, wild or creeping	Thymus serpyllum L.
Turmeric	Curcuma longa L.
Vanilla	Vanilla planifolia Andr. or Vanilla tahitensis J. W. Moore.
Zedoary	Curcuma zedoaria Rosc.

[42 FR 14640, Mar. 15, 1977, as amended at 43 FR 3705, Jan. 27, 1978; 44 FR 3963, Jan. 19, 1979; 50 FR 21044, May 22, 1985; 61 FR 14246, Apr. 1, 1996]

§ 182.20 Essential oils, oleoresins (solvent-free), and natural extractives (including distillates).

Essential oils, oleoresins (solvent-free), and natural extractives (includ-

ing distillates) that are generally recognized as safe for their intended use, within the meaning of section 409 of the Act, are as follows:

Common name	Botanical name of plant source
Alfalfa	Medicago sativa L.
Allspice	Pimenta officinalis Lindl.
Almond, bitter (free from prussic acid)	Prunus amygdalus Batsch, Prunus armeniaca L., or Prunus persica (L.) Batsch.
Ambrette (seed)	Hibiscus moschatus Moench.

Common name	Botanical name of plant source
Angelica root	Angelica archangelica L.
Angelica seed	Do.
Angelica stem	Do.
Angostura (cusparia bark)	Galipea officinalis Hancock.
Anise	Pimpinella anisum L.
Asafetida	Ferula assa-foetida L. and related spp. of Ferula.
Balm (lemon balm)	Melissa officinalis L.
Balsam of Peru	Myroxylon pereirae Klotzsch.
Basil	Ocimum basilicum L.
Bay leaves	Laurus nobilis L.
Bay (myrcia oil)	Pimenta racemosa (Mill.) J. W. Moore.
Bergamot (bergamot orange)	Citrus aurantium L. subsp. bergamia Wright et Arn.
Bitter almond (free from prussic acid)	Prunus amygdalus Batsch, Prunus armeniaca L., or Prunus persica (L.) Batsch.
Bois de rose	Aniba rosaeodora Ducke.
Cacao	Theobroma cacao L.
Camomile (chamomile) flowers, Hungarian	Matricaria chamomilla L.
Camomile (chamomile) flowers, Roman or English	Anthemis nobilis L.
Cananga	Cananga odorata Hook. f. and Thoms.
Capsicum	Capsicum frutescens L. and Capsicum annuum L.
Caraway	Carum carvi L.
Cardamom seed (cardamon)	Elettaria cardamomum Maton.
Carob bean	Ceratonia siliqua L.
Carrot	Daucus carota L.
Cascarilla bark	Croton eluteria Benn.
Cassia bark, Chinese	Cinnamomum cassia Blume.
Cassia bark, Padang or Batavia	Cinnamomum burmanni Blume.
Cassia bark, Saigon	Cinnamomum loureirii Nees.
Celery seed	Apium graveolens L.
Cherry, wild, bark	Prunus serotina Ehrh.
Chervil	Anthriscus cerefolium (L.) Hoffm.
Chicory	Cichorium intybus L.
Cinnamon bark, Ceylon	Cinnamomum zeylanicum Nees.
Cinnamon bark, Chinese	Cinnamomum cassia Blume.
Cinnamon bark, Saigon	Cinnamomum loureirii Nees.
Cinnamon leaf, Ceylon	Cinnamomum zeylanicum Nees.
Cinnamon leaf, Chinese	Cinnamomum cassia Blume.
Cinnamon leaf, Saigon	Cinnamomum loureirii Nees.
Citronella	Cymbopogon nardus Rendle.
Citrus peels	Citrus spp.
Clary (clary sage)	Salvia sclarea L.
Clover	Trifolium spp.
Coca (decocainized)	Erythroxylum coca Lam. and other spp. of Erythroxylum.
Coffee	Coffea spp.
Cola nut	Cola acuminata Schott and Endl., and other spp. of Cola.
Coriander	Coriandrum sativum L.
Cumin (cummin)	Cuminum cyminum L.
Curacao orange peel (orange, bitter peel)	Citrus aurantium L.
Cusparia bark	Galipea officinalis Hancock.
Dandelion	Taraxacum officinale Weber and T. laevigatum DC.
Dandelion root	Do.
Dog grass (quackgrass, triticum)	Agropyron repens (L.) Beauv.
Elder flowers	Sambucus canadensis L. and S. nigra L.
Estragole (esdragol, esdragon, tarragon)	Artemisia dracunculus L.
Estragon (tarragon)	Do.
Fennel, sweet	Foeniculum vulgare Mill.
Fenugreek	Trigonella foenum-graecum L.
Galanga (galangal)	Alpinia officinarum Hance.
Geranium	Pelargonium spp.
Geranium, East Indian	Cymbopogon martini Stapf.
Geranium, rose	Pelargonium graveolens L'Her.
Ginger	Zingiber officinale Rosc.
Grapefruit	Citrus paradisi Macf.
Guava	Psidium spp.
Hickory bark	Carya spp.
Horehound (hoarhound)	Marrubium vulgare L.
Hops	Humulus lupulus L.
Horsemint	Monarda punctata L.
Hyssop	Hyssopus officinalis L.
Immortelle	Helichrysum augustifolium DC.
Jasmine	Jasminum officinale L. and other spp. of Jasminum.
Juniper (berries)	Juniperus communis L.
Kola nut	Cola acuminata Schott and Endl., and other spp. of Cola.
Laurel berries	Laurus nobilis L.

Common name	Botanical name of plant source
Laurel leaves	Laurus spp.
Lavender	Lavandula officinalis Chaix.
Lavender, spike	Lavandula latifolia Vill.
Lavandin	Hybrids between Lavandula officinalis Chaix and Lavandula latifolia Vill.
Lemon	Citrus limon (L.) Burm. f.
Lemon balm (see balm).	
Lemon grass	Cymbopogon citratus DC. and Cymbopogon lexiuosus Stapf.
Lemon peel	Citrus limon (L.) Burm. f.
Lime	Citrus aurantifolia Swingle.
Linden flowers	Tilia spp.
Locust bean	Ceratonia siliqua L.
Lupulin	Humulus lupulus L.
Mace	Myristica fragrans Houtt.
Mandarin	Citrus reticulata Blanco.
Marjoram, sweet	Majorana hortensis Moench.
Maté	Ilex paraguariensis St. Hil.
Melissa (see balm).	
Menthol	Mentha spp.
Menthyl acetate	Do.
Molasses (extract)	Saccharum officinarum L.
Mustard	Brassica spp.
Naringin	Citrus paradisi Macf.
Neroli, bigarade	Citrus aurantium L.
Nutmeg	Myristica fragrans Houtt.
Onion	Allium cepa L.
Orange, bitter, flowers	Citrus aurantium L.
Orange, bitter, peel	Do.
Orange leaf	Citrus sinensis (L.) Osbeck.
Orange, sweet	Do.
Orange, sweet, flowers	Do.
Orange, sweet, peel	Do.
Origanum	Origanum spp.
Palmarosa	Cymbopogon martini Stapf.
Paprika	Capsicum annum L.
Parsley	Petroselinum crispum (Mill.) Mansf.
Pepper, black	Piper nigrum L.
Pepper, white	Do.
Peppermint	Mentha piperita L.
Peruvian balsam	Myroxylon pereirae Klotzsch.
Petitgrain	Citrus aurantium L.
Petitgrain lemon	Citrus limon (L.) Burm. f.
Petitgrain mandarin or tangerine	Citrus reticulata Blanco.
Pimenta	Pimenta officinalis Lindl.
Pimenta leaf	Pimenta officinalis Lindl.
Pipsissewa leaves	Chimaphila umbellata Nutt.
Pomegranate	Punica granatum L.
Prickly ash bark	Xanthoxylum (or Zanthoxylum) Americanum Mill. or Xanthoxylum clava-herculis L.
Rose absolute	Rosa alba L., Rosa centifolia L., Rosa damascena Mill., Rosa gallica L., and vars. of these spp.
Rose (otto of roses, attar of roses)	Do.
Rose buds	Do.
Rose flowers	Do.
Rose fruit (hips)	Do.
Rose geranium	Pelargonium graveolens L'Her.
Rose leaves	Rosa spp.
Rosemary	Rosmarinus officinalis L.
Saffron	Crocus sativus L.
Sage	Salvia officinalis L.
Sage, Greek	Salvia triloba L.
Sage, Spanish	Salvia lavandulaefolia Vahl.
St. John's bread	Ceratonia siliqua L.
Savory, summer	Satureia hortensis L.
Savory, winter	Satureia montana L.
Schinus molle	Schinus molle L.
Sloe berries (blackthorn berries)	Prunus spinosa L.
Spearmint	Mentha spicata L.
Spike lavender	Lavandula latifolia Vill.
Tamarind	Tamarindus indica L.
Tangerine	Citrus reticulata Blanco.
Tarragon	Artemisia dracuncululus L.
Tea	Thea sinensis L.
Thyme	Thymus vulgaris L. and Thymus zygis var. gracilis Boiss.
Thyme, white	Do.

Common name	Botanical name of plant source
Thyme, wild or creeping	Thymus serpyllum L.
Triticum (see dog grass)	
Tuberose	Polianthes tuberosa L.
Turmeric	Curcuma longa L.
Vanilla	Vanilla planifolia Andr. or Vanilla tahitensis J. W. Moore.
Violet flowers	Viola odorata L.
Violet leaves	Do.
Violet leaves absolute	Do.
Wild cherry bark	Prunus serotina Ehrh.
Ylang-ylang	Cananga odorata Hook. f. and Thoms.
Zedoary bark	Curcuma zedoaria Rosc.

[42 FR 14640, Mar. 15, 1977, as amended at 44 FR 3963, Jan. 19, 1979; 47 FR 29953, July 9, 1982; 48 FR 51613, Nov. 10, 1983; 50 FR 21043 and 21044, May 22, 1985]

§ 182.40 Natural extractives (solvent-free) used in conjunction with spices, seasonings, and flavorings.

seasonings, and flavorings that are generally recognized as safe for their intended use, within the meaning of section 409 of the Act, are as follows:

Natural extractives (solvent-free) used in conjunction with spices,

Common name	Botanical name of plant source
Apricot kernel (persic oil)	Prunus armeniaca L.
Peach kernel (persic oil)	Prunus persica Sieb. et Zucc.
Peanut stearine	Arachis hypogaea L.
Persic oil (see apricot kernel and peach kernel)	
Quince seed	Cydonia oblonga Miller.

[42 FR 14640, Mar. 15, 1977, as amended at 47 FR 47375, Oct. 26, 1982]

§ 182.50 Certain other spices, seasonings, essential oils, oleoresins, and natural extracts.

tracts that are generally recognized as safe for their intended use, within the meaning of section 409 of the Act, are as follows:

Certain other spices, seasonings, essential oils, oleoresins, and natural ex-

Common name	Derivation
Ambergris	Physeter macrocephalus L.
Castoreum	Castor fiber L. and C. canadensis Kuhl.
Civet (zibeth, zibet, zibetum)	Civet cats, Viverra civetta Schreber and Viverra zibetha Schreber.
Cognac oil, white and green	Ethyl oenanthate, so-called.
Musk (Tonquin musk)	Musk deer, Moschus moschiferus L.

§ 182.60 Synthetic flavoring substances and adjuvants.

Citral (2,6-dimethyloctadien-2,6-*al*-8, geranial, neral).
 Decanal (*N*-decylaldehyde, capraldehyde, capric aldehyde, caprinaldehyde, aldehyde C-10).
 Ethyl acetate.
 Ethyl butyrate.
 3-Methyl-3-phenyl glycidic acid ethyl ester (ethyl-methyl-phenyl-glycidate, so-called strawberry aldehyde, C-16 aldehyde).
 Ethyl vanillin.
 Geraniol (3,7-dimethyl-2,6 and 3,6-octadien-1-*ol*).
 Geranyl acetate (geraniol acetate).
 Limonene (*d*-, *l*-, and *dl*-).
 Linalool (linalol, 3,7-dimethyl-1,6-octadien-3-*ol*).

Synthetic flavoring substances and adjuvants that are generally recognized as safe for their intended use, within the meaning of section 409 of the Act, are as follows:

Acetaldehyde (ethanal).
 Acetoin (acetyl methylcarbinol).
 Anethole (parapropenyl anisole).
 Benzaldehyde (benzoic aldehyde).
N-Butyric acid (butanoic acid).
d- or *l*-Carvone (carvol).
 Cinnamaldehyde (cinnamic aldehyde).

§ 182.70

21 CFR Ch. I (4–1–98 Edition)

Linalyl acetate (bergamol).
Methyl anthranilate (methyl-2-aminobenzoate).
Piperonal (3,4-methylenedioxy-benzaldehyde, heliotropin).
Vanillin.

[42 FR 14640, Mar. 15, 1977, as amended at 43 FR 47724, Oct. 17, 1978; 44 FR 3963, Jan. 19, 1979; 44 FR 20656, Apr. 6, 1979; 48 FR 51907, Nov. 15, 1983; 54 FR 7402, Feb. 21, 1989]

§ 182.70 Substances migrating from cotton and cotton fabrics used in dry food packaging.

Substances migrating to food from cotton and cotton fabrics used in dry food packaging that are generally recognized as safe for their intended use, within the meaning of section 409 of the Act, are as follows:

Beef tallow.
Carboxymethylcellulose.
Coconut oil, refined.
Cornstarch.
Gelatin.
Lard.
Lard oil.
Oleic acid.
Peanut oil.
Potato starch.
Sodium acetate.
Sodium chloride.
Sodium silicate.
Sodium tripolyphosphate.
Soybean oil (hydrogenated).
Talc.
Tallow (hydrogenated).
Tallow flakes.
Tapioca starch.
Tetrasodium pyrophosphate.
Wheat starch.
Zinc chloride.

[42 FR 14640, Mar. 15, 1977, as amended at 43 FR 11698, Mar. 21, 1978; 44 FR 28323, May 15, 1979; 45 FR 6085, Jan. 25, 1980; 47 FR 27807, 27814, June 25, 1982; 48 FR 51150, Nov. 7, 1983; 48 FR 51616, Nov. 10, 1983; 48 FR 51909, Nov. 15, 1983; 48 FR 52441, 52443, 52445, 52446, Nov. 18, 1983; 51 FR 16830, May 7, 1986; 51 FR 27171, July 30, 1986; 60 FR 62208, Dec. 5, 1995]

§ 182.90 Substances migrating to food from paper and paperboard products.

Substances migrating to food from paper and paperboard products used in food packaging that are generally recognized as safe for their intended use, within the meaning of section 409 of the Act, are as follows:

Alum (double sulfate of aluminum and ammonium potassium, or sodium).

Aluminum hydroxide.
Aluminum oleate.
Aluminum palmitate.
Casein.
Cellulose acetate.
Cornstarch.
Diatomaceous earth filler.
Ethyl cellulose.
Ethyl vanillin.
Glycerin.
Oleic acid.
Potassium sorbate.
Silicon dioxides.
Sodium aluminate.
Sodium chloride.
Sodium hexametaphosphate.
Sodium hydrosulfite.
Sodium phosphoaluminate.
Sodium silicate.
Sodium sorbate.
Sodium tripolyphosphate.
Sorbitol.
Soy protein, isolated.
Starch, acid modified.
Starch, pregelatinized.
Starch, unmodified.
Talc.
Vanillin.
Zinc hydrosulfite.
Zinc sulfate.

[42 FR 14640, Mar. 15, 1977]

EDITORIAL NOTE: For additional FEDERAL REGISTER citations affecting § 182.90, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 182.99 Adjuvants for pesticide chemicals.

Adjuvants, identified and used in accordance with 40 CFR 180.1001 (c) and (d), which are added to pesticide use dilutions by a grower or applicator prior to application to the raw agricultural commodity, are exempt from the requirement of tolerances under section 409 of the Act.

Subpart B—Multiple Purpose GRAS Food Substances

§ 182.1045 Glutamic acid.

- (a) *Product.* Glutamic acid.
- (b) [Reserved]
- (c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used as a salt substitute in accordance with good manufacturing practice.

§ 182.1047 Glutamic acid hydrochloride.

(a) *Product.* Glutamic acid hydrochloride.

(b) [Reserved]

(c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used as a salt substitute in accordance with good manufacturing practice.

§ 182.1057 Hydrochloric acid.

(a) *Product.* Hydrochloric acid.

(b) [Reserved]

(c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used as a buffer and neutralizing agent in accordance with good manufacturing practice.

§ 182.1073 Phosphoric acid.

(a) *Product.* Phosphoric acid.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1087 Sodium acid pyrophosphate.

(a) *Product.* Sodium acid pyrophosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1125 Aluminum sulfate.

(a) *Product.* Aluminum sulfate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1127 Aluminum ammonium sulfate.

(a) *Product.* Aluminum ammonium sulfate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1129 Aluminum potassium sulfate.

(a) *Product.* Aluminum potassium sulfate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1131 Aluminum sodium sulfate.

(a) *Product.* Aluminum sodium sulfate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1180 Caffeine.

(a) *Product.* Caffeine.

(b) *Tolerance.* 0.02 percent.

(c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used in cola-type beverages in accordance with good manufacturing practice.

§ 182.1217 Calcium phosphate.

(a) *Product.* Calcium phosphate (mono-, di-, and tribasic).

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1235 Caramel.

(a) *Product.* Caramel.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1320 Glycerin.

(a) *Product.* Glycerin.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1480 Methylcellulose.

(a) *Product.* U.S.P. methylcellulose, except that the methoxy content shall not be less than 27.5 percent and not more than 31.5 percent on a dry-weight basis.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1500 Monoammonium glutamate.

(a) *Product.* Monoammonium glutamate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1516 Monopotassium glutamate.

(a) *Product.* Monopotassium glutamate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1711 Silica aerogel.

(a) *Product.* Silica aerogel as a finely powdered microcellular silica foam having a minimum silica content of 89.5 percent.

(b) [Reserved]

(c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used as a component of an anti-foaming agent in accordance with good manufacturing practice.

§ 182.1745 Sodium carboxymethylcellulose.

(a) *Product.* Sodium carboxymethylcellulose is the sodium salt of carboxymethylcellulose not less than 99.5 percent on a dry-weight basis, with maximum substitution of 0.95 carboxymethyl groups per anhydroglucose unit, and with a minimum viscosity of 25 centipoises for 2 percent by weight aqueous solution at 25 °C.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1748 Sodium caseinate.

(a) *Product.* Sodium caseinate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1778 Sodium phosphate.

(a) *Product.* Sodium phosphate (mono-, di-, and tribasic).

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.1781 Sodium aluminum phosphate.

(a) *Product.* Sodium aluminum phosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when

used in accordance with good manufacturing practice.

§ 182.1810 Sodium tripolyphosphate.

(a) *Product.* Sodium tripolyphosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

Subpart C—Anticaking Agents**§ 182.2122 Aluminum calcium silicate.**

(a) *Product.* Aluminum calcium silicate.

(b) *Tolerance.* 2 percent.

(c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used in table salt in accordance with good manufacturing practice.

§ 182.2227 Calcium silicate.

(a) *Product.* Calcium silicate.

(b) *Tolerance.* 2 percent and 5 percent.

(c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used at levels not exceeding 2 percent in table salt and 5 percent in baking powder in accordance with good manufacturing practice.

§ 182.2437 Magnesium silicate.

(a) *Product.* Magnesium silicate.

(b) *Tolerance.* 2 percent.

(c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used in table salt in accordance with good manufacturing practice.

§ 182.2727 Sodium aluminosilicate.

(a) *Product.* Sodium aluminosilicate (sodium silicoaluminate).

(b) *Tolerance.* This substance is generally recognized as safe for use at a level not exceeding 2 percent in accordance with good manufacturing practice.

§ 182.2729 Sodium calcium aluminosilicate, hydrated.

(a) *Product.* Hydrated sodium calcium aluminosilicate (sodium calcium silicoaluminate).

(b) *Tolerance.* This substance is generally recognized as safe for use at a

level not exceeding 2 percent in accordance with good manufacturing practice.

§ 182.2906 Tricalcium silicate.

- (a) *Product.* Tricalcium silicate.
- (b) *Tolerance.* 2 percent.
- (c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used in table salt in accordance with good manufacturing practice.

**Subpart D—Chemical
Preservatives**

§ 182.3013 Ascorbic acid.

- (a) *Product.* Ascorbic acid.
- (b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.3041 Erythorbic acid.

- (a) *Product.* Erythorbic acid.
- (b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.3089 Sorbic acid.

- (a) *Product.* Sorbic acid.
- (b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.3109 Thiodipropionic acid.

- (a) *Product.* Thiodipropionic acid.
- (b) *Tolerance.* This substance is generally recognized as safe for use in food when the total content of antioxidants is not over 0.02 percent of fat or oil content, including essential (volatile) oil content of the food, provided the substance is used in accordance with good manufacturing practice.

§ 182.3149 Ascorbyl palmitate.

- (a) *Product.* Ascorbyl palmitate.
- (b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.3169 Butylated hydroxyanisole.

- (a) *Product.* Butylated hydroxyanisole.

- (b) *Tolerance.* This substance is generally recognized as safe for use in food when the total content of antioxidants is not over 0.02 percent of fat or oil content, including essential (volatile) oil content of food, provided the substance is used in accordance with good manufacturing practice.

§ 182.3173 Butylated hydroxytoluene.

- (a) *Product.* Butylated hydroxytoluene.
- (b) *Tolerance.* This substance is generally recognized as safe for use in food when the total content of antioxidants is not over 0.02 percent of fat or oil content, including essential (volatile) oil content of food, provided the substance is used in accordance with good manufacturing practice.

§ 182.3189 Calcium ascorbate.

- (a) *Product.* Calcium ascorbate.
- (b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.3225 Calcium sorbate.

- (a) *Product.* Calcium sorbate.
- (b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.3280 Dilauryl thiodipropionate.

- (a) *Product.* Dilauryl thiodipropionate.
- (b) *Tolerance.* This substance is generally recognized as safe for use in food when the total content of antioxidants is not over 0.02 percent of fat or oil content, including essential (volatile) oil content of the food, provided the substance is used in accordance with good manufacturing practice.

§ 182.3616 Potassium bisulfite.

- (a) *Product.* Potassium bisulfite.
- (b) [Reserved]
- (c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used in accordance with good manufacturing practice, except that it is not used in meats; in food recognized as a source of vitamin B₁; on fruits and vegetables intended to be served raw to consumers

§ 182.3637

21 CFR Ch. I (4–1–98 Edition)

or sold raw to consumers, or to be presented to consumers as fresh.

[42 FR 14640, Mar. 15, 1977, as amended at 51 FR 25025, July 9, 1986; 55 FR 9832, Mar. 15, 1990; 59 FR 65939, Dec. 22, 1994]

§ 182.3637 Potassium metabisulfite.

- (a) *Product.* Potassium metabisulfite.
- (b) [Reserved]

(c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used in accordance with good manufacturing practice, except that it is not used in meats; in food recognized as a source of vitamin B₁; on fruits and vegetables intended to be served raw to consumers or sold raw to consumers, or to be presented to consumers as fresh.

[42 FR 14640, Mar. 15, 1977, as amended at 51 FR 25025, July 9, 1986; 55 FR 9832, Mar. 15, 1990; 59 FR 65939, Dec. 22, 1994]

§ 182.3640 Potassium sorbate.

- (a) *Product.* Potassium sorbate.
- (b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.3731 Sodium ascorbate.

- (a) *Product.* Sodium ascorbate.
- (b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.3739 Sodium bisulfite.

- (a) *Product.* Sodium bisulfite.
- (b) [Reserved]
- (c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used in accordance with good manufacturing practice, except that it is not used in meats; in food recognized as a source of vitamin B₁; on fruits or vegetables intended to be served raw to consumers or sold raw to consumers, or to be presented to the consumer as fresh.

[42 FR 14640, Mar. 15, 1977, as amended at 51 FR 25025, July 9, 1986; 55 FR 9832, Mar. 15, 1990; 59 FR 65939, Dec. 22, 1994]

§ 182.3766 Sodium metabisulfite.

- (a) *Product.* Sodium metabisulfite.
- (b) [Reserved]

(c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used in accordance with good manufacturing practice, except that it is not used in meats; in food recognized as a source of vitamin B₁; on fruits or vegetables intended to be served raw to consumers or sold raw to consumers, or to be presented to consumers as fresh.

[42 FR 14640, Mar. 15, 1977, as amended at 51 FR 25025, July 9, 1986; 55 FR 9833, Mar. 15, 1990; 59 FR 65939, Dec. 22, 1994]

§ 182.3795 Sodium sorbate.

- (a) *Product.* Sodium sorbate.
- (b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.3798 Sodium sulfite.

- (a) *Product.* Sodium sulfite.
- (b) [Reserved]
- (c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used in accordance with good manufacturing practice, except that it is not used in meats; in food recognized as a source of vitamin B₁; on fruits or vegetables intended to be served raw to consumers or sold raw to consumers, or to be presented to consumers as fresh.

[42 FR 14640, Mar. 15, 1977, as amended at 51 FR 25026, July 9, 1986; 55 FR 9833, Mar. 15, 1990; 59 FR 65939, Dec. 22, 1994]

§ 182.3862 Sulfur dioxide.

- (a) *Product.* Sulfur dioxide.
- (b) [Reserved]
- (c) *Limitations, restrictions, or explanation.* This substance is generally recognized as safe when used in accordance with good manufacturing practice, except that it is not used in meats; in food recognized as a source of vitamin B₁; on fruits or vegetables intended to be served raw to consumers or sold raw to consumers, or to be presented to consumers as fresh.

[42 FR 14640, Mar. 15, 1977, as amended at 51 FR 25026, July 9, 1986; 55 FR 9833, Mar. 15, 1990; 59 FR 65939, Dec. 22, 1994]

§ 182.3890 Tocopherols.

- (a) *Product.* Tocopherols.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

Subpart E—Emulsifying Agents [Reserved]

Subpart F—Dietary Supplements [Reserved]

Subpart G—Sequestrants ¹

§ 182.6085 Sodium acid phosphate.

(a) *Product.* Sodium acid phosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.6197 Calcium diacetate.

(a) *Product.* Calcium diacetate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.6203 Calcium hexametaphosphate.

(a) *Product.* Calcium hexametaphosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.6215 Monobasic calcium phosphate.

(a) *Product.* Monobasic calcium phosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.6285 Dipotassium phosphate.

(a) *Product.* Dipotassium phosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

¹For the purpose of this subpart, no attempt has been made to designate those sequestrants that may also function as chemical preservatives.

§ 182.6290 Disodium phosphate.

(a) *Product.* Disodium phosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.6757 Sodium gluconate.

(a) *Product.* Sodium gluconate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.6760 Sodium hexametaphosphate.

(a) *Product.* Sodium hexametaphosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.6769 Sodium metaphosphate.

(a) *Product.* Sodium metaphosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.6778 Sodium phosphate.

(a) *Product.* Sodium phosphate (mono-, di-, and tribasic).

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.6787 Sodium pyrophosphate.

(a) *Product.* Sodium pyrophosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.6789 Tetra sodium pyrophosphate.

(a) *Product.* Tetra sodium pyrophosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.6810 Sodium tripolyphosphate.

(a) *Product.* Sodium tripolyphosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

Subpart H—Stabilizers

§ 182.7255 Chondrus extract.

(a) *Product.* Chondrus extract (carrageenin).

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

Subpart I—Nutrients

SOURCE: 45 FR 58838, Sept. 5, 1980, unless otherwise noted.

§ 182.8013 Ascorbic acid.

(a) *Product.* Ascorbic acid.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8159 Biotin.

(a) *Product.* Biotin.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8217 Calcium phosphate.

(a) *Product.* Calcium phosphate (mono-, di-, and tribasic).

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8223 Calcium pyrophosphate.

(a) *Product.* Calcium pyrophosphate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8250 Choline bitartrate.

(a) *Product.* Choline bitartrate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8252 Choline chloride.

(a) *Product.* Choline chloride.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8778 Sodium phosphate.

(a) *Product.* Sodium phosphate (mono-, di-, and tribasic).

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8890 Tocopherols.

(a) *Product.* Tocopherols.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8892 α -Tocopherol acetate.

(a) *Product.* α -Tocopherol acetate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8985 Zinc chloride.

(a) *Product.* Zinc chloride.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8988 Zinc gluconate.

(a) *Product.* Zinc gluconate.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8991 Zinc oxide.

(a) *Product.* Zinc oxide.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8994 Zinc stearate.

(a) *Product.* Zinc stearate prepared from stearic acid free from chickedema factor.

(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.

§ 182.8997 Zinc sulfate.(a) *Product.* Zinc sulfate.(b) *Conditions of use.* This substance is generally recognized as safe when used in accordance with good manufacturing practice.**PART 184—DIRECT FOOD SUBSTANCES AFFIRMED AS GENERALLY RECOGNIZED AS SAFE****Subpart A—General Provisions****Sec.**

184.1 Substances added directly to human food affirmed as generally recognized as safe (GRAS).

Subpart B—Listing of Specific Substances Affirmed as GRAS

- 184.1005 Acetic acid.
- 184.1007 Aconitic acid.
- 184.1009 Adipic acid.
- 184.1011 Alginic acid.
- 184.1012 α -Amylase enzyme preparation from *Bacillus stearothermophilus*.
- 184.1021 Benzoic acid.
- 184.1024 Bromelain.
- 184.1025 Caprylic acid.
- 184.1027 Mixed carbohydrase and protease enzyme product.
- 184.1033 Citric acid.
- 184.1034 Catalase (bovine liver).
- 184.1061 Lactic acid.
- 184.1063 Enzyme-modified lecithin.
- 184.1065 Linoleic acid.
- 184.1069 Malic acid.
- 184.1077 Potassium acid tartrate.
- 184.1081 Propionic acid.
- 184.1090 Stearic acid.
- 184.1091 Succinic acid.
- 184.1095 Sulfuric acid.
- 184.1097 Tannic acid.
- 184.1099 Tartaric acid.
- 184.1101 Diacetyl tartaric acid esters of mono- and diglycerides.
- 184.1115 Agar-agar.
- 184.1120 Brown algae.
- 184.1121 Red algae.
- 184.1133 Ammonium alginate.
- 184.1135 Ammonium bicarbonate.
- 184.1137 Ammonium carbonate.
- 184.1138 Ammonium chloride.
- 184.1139 Ammonium hydroxide.
- 184.1140 Ammonium citrate, dibasic.
- 184.1141a Ammonium phosphate, monobasic.
- 184.1141b Ammonium phosphate, dibasic.
- 184.1143 Ammonium sulfate.
- 184.1155 Bentonite.
- 184.1157 Benzoyl peroxide.
- 184.1165 n-Butane and iso-butane.
- 184.1185 Calcium acetate.
- 184.1187 Calcium alginate.
- 184.1191 Calcium carbonate.
- 184.1193 Calcium chloride.
- 184.1195 Calcium citrate.
- 184.1199 Calcium gluconate.
- 184.1201 Calcium glycerophosphate.
- 184.1205 Calcium hydroxide.
- 184.1206 Calcium iodate.
- 184.1207 Calcium lactate.
- 184.1210 Calcium oxide.
- 184.1212 Calcium pantothenate.
- 184.1221 Calcium propionate.
- 184.1229 Calcium stearate.
- 184.1230 Calcium sulfate.
- 184.1240 Carbon dioxide.
- 184.1245 Beta-carotene.
- 184.1257 Clove and its derivatives.
- 184.1259 Cocoa butter substitute.
- 184.1260 Copper gluconate.
- 184.1261 Copper sulfate.
- 184.1262 Corn silk and corn silk extract.
- 184.1265 Cuprous iodide.
- 184.1271 L-Cysteine.
- 184.1272 L-Cysteine monohydrochloride.
- 184.1277 Dextrin.
- 184.1278 Diacetyl.
- 184.1282 Dill and its derivatives.
- 184.1287 Enzyme-modified fats.
- 184.1293 Ethyl alcohol.
- 184.1295 Ethyl formate.
- 184.1296 Ferric ammonium citrate.
- 184.1297 Ferric chloride.
- 184.1298 Ferric citrate.
- 184.1301 Ferric phosphate.
- 184.1304 Ferric pyrophosphate.
- 184.1307 Ferric sulfate.
- 184.1307a Ferrous ascorbate.
- 184.1307b Ferrous carbonate.
- 184.1307c Ferrous citrate.
- 184.1307d Ferrous fumarate.
- 184.1308 Ferrous gluconate.
- 184.1311 Ferrous lactate.
- 184.1315 Ferrous sulfate.
- 184.1316 Ficin.
- 184.1317 Garlic and its derivatives.
- 184.1318 Glucono delta-lactone.
- 184.1321 Corn gluten.
- 184.1322 Wheat gluten.
- 184.1323 Glyceryl monooleate.
- 184.1324 Glyceryl monostearate.
- 184.1328 Glyceryl behenate.
- 184.1329 Glyceryl palmitostearate.
- 184.1330 Acacia (gum arabic).
- 184.1333 Gum ghatti.
- 184.1339 Guar gum.
- 184.1343 Locust (carob) bean gum.
- 184.1349 Karaya gum (*sterculia* gum).
- 184.1351 Gum tragacanth.
- 184.1355 Helium.
- 184.1366 Hydrogen peroxide.
- 184.1370 Inositol.
- 184.1372 Insoluble glucose isomerase enzyme preparations.
- 184.1375 Iron, elemental.
- 184.1386 Isopropyl citrate.
- 184.1387 Lactase enzyme preparation from *Candida pseudotropicalis*.
- 184.1388 Lactase enzyme preparation from *Kluyveromyces lactis*.