

200), Food and Drug Administration, 5001 Campus Dr., 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](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.

(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, 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.

§ 182.1

21 CFR Ch. I (4-1-18 Edition)

- 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.
- 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  $\alpha$ -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	<i>Medicago sativa</i> L.
Allspice	<i>Pimenta officinalis</i> Lindl.
Ambrette seed	<i>Hibiscus abelmoschus</i> L.
Angelica	<i>Angelica archangelica</i> L. or other spp. of <i>Angelica</i> .
Angelica root	Do.
Angelica seed	Do.
Angostura ( <i>cusparia</i> bark)	<i>Galipea officinalis</i> Hancock.
Anise	<i>Pimpinella anisum</i> L.
Anise, star	<i>Illicium verum</i> Hook. f.
Balm (lemon balm)	<i>Melissa officinalis</i> L.
Basil, bush	<i>Ocimum minimum</i> L.
Basil, sweet	<i>Ocimum basilicum</i> L.
Bay	<i>Laurus nobilis</i> L.
Calendula	<i>Calendula officinalis</i> L.
Camomile (chamomile), English or Roman	<i>Anthemis nobilis</i> L.
Camomile (chamomile), German or Hungarian	<i>Matricaria chamomilla</i> L.
Capers	<i>Capparis spinosa</i> L.
Capsicum	<i>Capsicum frutescens</i> L. or <i>Capsicum annuum</i> L.
Caraway	<i>Carum carvi</i> L.
Caraway, black (black cumin)	<i>Nigella sativa</i> L.
Cardamom (cardamon)	<i>Elettaria cardamomum</i> Maton.
Cassia, Chinese	<i>Cinnamomum cassia</i> Blume.
Cassia, Padang or Batavia	<i>Cinnamomum burmanni</i> Blume.
Cassia, Saigon	<i>Cinnamomum loureirii</i> Nees.
Cayenne pepper	<i>Capsicum frutescens</i> L. or <i>Capsicum annuum</i> L.
Celery seed	<i>Apium graveolens</i> L.
Chervil	<i>Anthriscus cerefolium</i> (L.) Hoffm.
Chives	<i>Allium schoenoprasum</i> L.
Cinnamon, Ceylon	<i>Cinnamomum zeylanicum</i> Nees.
Cinnamon, Chinese	<i>Cinnamomum cassia</i> Blume.
Cinnamon, Saigon	<i>Cinnamomum loureirii</i> Nees.
Clary (clary sage)	<i>Salvia sclarea</i> L.
Clover	<i>Trifolium</i> spp.
Coriander	<i>Coriandrum sativum</i> L.
Cumin (cummin)	<i>Cuminum cyminum</i> L.
Cumin, black (black caraway)	<i>Nigella sativa</i> L.
Elder flowers	<i>Sambucus canadensis</i> L.
Fennel, common	<i>Foeniculum vulgare</i> Mill.
Fennel, sweet (finocchio, Florence fennel)	<i>Foeniculum vulgare</i> Mill. var. <i>duice</i> (DC.) Alex.
Fenugreek	<i>Trigonella foenum-graecum</i> L.
Galanga (galangal)	<i>Alpinia officinarum</i> Hance.
Geranium	<i>Pelargonium</i> spp.
Ginger	<i>Zingiber officinale</i> Rosc.
Grains of paradise	<i>Amomum melegueta</i> Rosc.
Horehound (hoarhound)	<i>Marrubium vulgare</i> L.
Horseradish	<i>Armoracia lapathifolia</i> Gilib.
Hyssop	<i>Hyssopus officinalis</i> L.
Lavender	<i>Lavandula officinalis</i> Chaix.
Linden flowers	<i>Tilia</i> spp.
Mace	<i>Myristica fragrans</i> Houtt.

§ 182.20

21 CFR Ch. I (4–1–18 Edition)

Common name	Botanical name of plant source
Marigold, pot .....	<i>Calendula officinalis</i> L.
Marjoram, pot .....	<i>Majorana onites</i> (L.) Benth.
Marjoram, sweet .....	<i>Majorana hortensis</i> Moench.
Mustard, black or brown .....	<i>Brassica nigra</i> (L.) Koch.
Mustard, brown .....	<i>Brassica juncea</i> (L.) Coss.
Mustard, white or yellow .....	<i>Brassica hirta</i> Moench.
Nutmeg .....	<i>Myristica fragrans</i> Houtt.
Oregano (oreganum, Mexican oregano, Mexican sage, organ) .....	<i>Lippia</i> spp.
Paprika .....	<i>Capsicum annuum</i> L.
Parsley .....	<i>Petroselinum crispum</i> (Mill.) Mansf.
Pepper, black .....	<i>Piper nigrum</i> L.
Pepper, cayenne .....	<i>Capsicum frutescens</i> L. or <i>Capsicum annuum</i> L.
Pepper, red .....	Do.
Pepper, white .....	<i>Piper nigrum</i> L.
Peppermint .....	<i>Mentha piperita</i> L.
Poppy seed .....	<i>Papayer somniferum</i> L.
Pot marigold .....	<i>Calendula officinalis</i> L.
Pot marjoram .....	<i>Majorana onites</i> (L.) Benth.
Rosemary .....	<i>Rosmarinus officinalis</i> L.
Saffron .....	<i>Crocus sativus</i> L.
Sage .....	<i>Salvia officinalis</i> L.
Sage, Greek .....	<i>Salvia triloba</i> L.
Savory, summer .....	<i>Satureia hortensis</i> L. ( <i>Satureja</i> ).
Savory, winter .....	<i>Satureia montana</i> L. ( <i>Satureja</i> ).
Sesame .....	<i>Sesamum indicum</i> L.
Spearmint .....	<i>Mentha spicata</i> L.
Star anise .....	<i>Illicium verum</i> Hook. f.
Tarragon .....	<i>Artemisia dracunculus</i> L.
Thyme .....	<i>Thymus vulgaris</i> L.
Thyme, wild or creeping .....	<i>Thymus serpyllum</i> L.
Turmeric .....	<i>Curcuma longa</i> L.
Vanilla .....	<i>Vanilla planifolia</i> Andr. or <i>Vanilla tahitensis</i> J. W. Moore.
Zedoary .....	<i>Curcuma zedoaria</i> 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).

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

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

Common name	Botanical name of plant source
Alfalfa .....	<i>Medicago sativa</i> L.
Allspice .....	<i>Pimenta officinalis</i> Lindl.
Almond, bitter (free from prussic acid) .....	<i>Prunus amygdalus</i> Batsch, <i>Prunus armeniaca</i> L., or <i>Prunus persica</i> (L.) Batsch.
Ambrette (seed) .....	<i>Hibiscus moschatus</i> Moench.
Angelica root .....	<i>Angelica archangelica</i> L.
Angelica seed .....	Do.
Angelica stem .....	Do.
Angostura (cusparia bark) .....	<i>Galipea officinalis</i> Hancock.
Anise .....	<i>Pimpinella anisum</i> L.
Asafetida .....	<i>Ferula assa-foetida</i> L. and related spp. of <i>Ferula</i> .
Balm (lemon balm) .....	<i>Melissa officinalis</i> L.
Balsam of Peru .....	<i>Myroxylon pereiarae</i> Klotzsch.
Basil .....	<i>Ocimum basilicum</i> L.
Bay leaves .....	<i>Laurus nobilis</i> L.
Bay (myrcia oil) .....	<i>Pimenta racemosa</i> (Mill.) J. W. Moore.
Bergamot (bergamot orange) .....	<i>Citrus aurantium</i> L. subsp. <i>bergamia</i> Wright et Arn.
Bitter almond (free from prussic acid) .....	<i>Prunus amygdalus</i> Batsch, <i>Prunus armeniaca</i> L., or <i>Prunus persica</i> (L.) Batsch.
Bois de rose .....	<i>Aniba rosaeodora</i> Ducke.
Cacao .....	<i>Theobroma cacao</i> L.
Camomile (chamomile) flowers, Hungarian .....	<i>Matricaria chamomilla</i> L.
Camomile (chamomile) flowers, Roman or English .....	<i>Anthemis nobilis</i> L.
Cananga .....	<i>Cananga odorata</i> Hook. f. and Thoms.

Common name	Botanical name of plant source
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. Do.
Dandelion root .....	Do.
Dog grass (quackgrass, triticum) .....	Agropyron repens (L.) Beauv.
Elder flowers .....	Sambucus canadensis L. and S. nigra L.
Estragole (esdragon, 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.
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 lexuosus 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.

§ 182.20

21 CFR Ch. I (4–1–18 Edition)

Common name	Botanical name of plant source
Molasses (extract)	Saccarum officinarum L.
Mustard	Brassica spp.
Naringin	Citrus paradisi Macf.
Neroli, bigarade	Citrus aurantium L.
Nutmeg	Myristica fragrans Hoult.
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 annuum 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 claverhuculis 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 dracunculus L.
Tea	Thea sinensis L.
Thyme	Thymus vulgaris L. and Thymus zygis var. gracilis Boiss.
Thyme, white	Do.
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, 21044, May 22, 1985]

Food and Drug Administration, HHS

§ 182.70

§ 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.

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

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:

[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.

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

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.

## § 182.90

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 FEDERAL REGISTER citations affecting § 182.90, see the List of CFR Sections Affected, which appears in the

## 21 CFR Ch. I (4–1–18 Edition)

Finding Aids section of the printed volume and at [www.fdsys.gov](http://www.fdsys.gov).

### § 182.99 Adjuvants for pesticide chemicals.

Adjuvants, identified and used in accordance with 40 CFR 180.910 and 40 CFR 180.920, 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 Federal Food, Drug, and Cosmetic Act (21 U.S.C. 348).

[76 FR 59249, Sept. 26, 2011]

## 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.



**Food and Drug Administration, HHS**

**§ 182.1745**

(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

**§ 182.1748**

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

**21 CFR Ch. I (4–1–18 Edition)**

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 B<sub>1</sub>; 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]

**§ 182.3637 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 B<sub>1</sub>; 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**

**21 CFR Ch. I (4–1–18 Edition)**

**§ 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.

tended 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]

**§ 182.3739 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 B<sub>1</sub>; 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.

**§ 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 B<sub>1</sub>; 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 9832, Mar. 15, 1990; 59 FR 65939, Dec. 22, 1994]

[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]

**§ 182.3766 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 B<sub>1</sub>; on fruits or vegetables intended to be served raw to consumers or sold raw to consumers, or to be presented to consumers as fresh.

**§ 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.

[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.

**Subpart G—Sequestrants <sup>1</sup>**

**§ 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.

**§ 182.3798 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 B<sub>1</sub>; on fruits or vegetables in-

**§ 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.

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

Food and Drug Administration, HHS

§ 182.8159

§ 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.

§ 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**

**§ 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  $\alpha$ -Tocopherol acetate.**

(a) *Product.*  $\alpha$ -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.

**21 CFR Ch. I (4-1-18 Edition)**

**§ 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  $\alpha$ -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.