

## Subpart D—Exemptions From Tolerances

### §180.1001 Exemptions from the requirement of a tolerance.

(a) An exemption from a tolerance shall be granted when it appears that the total quantity of the pesticide chemical in or on all raw agricultural commodities for which it is useful under conditions of use currently prevailing or proposed will involve no hazard to the public health.

(b) When applied to growing crops, in accordance with good agricultural practice, the following pesticide chemicals are exempt from the requirement of a tolerance:

(1) The following copper compounds: Bordeaux mixture, copper acetate, basic copper carbonate (malachite), copper hydroxide, copper-lime mixtures, copper linoleate, copper octanoate, copper oleate, copper oxychloride, copper sulfate basic, copper sulfate monohydrate, copper sul-

fate pentahydrate, copper-zinc chromate, cupric oxide, cuprous oxide. These copper compounds are used primarily as fungicides.

(2) *N*-Octylbicyclo(2,2,1)-5-heptene-2,3-dicarboximide.

(3) Petroleum oils.

(4) Piperonyl butoxide.

(5) [Reserved]

(6) *N*-Propyl isomer.

(7) Pyrethrum and pyrethrins.

(8) Rotenone or derris or cube roots.

(9) *Ryania*.

(10) *Sabadilla*.

These pesticides are not exempted from the requirement of a tolerance when applied to a crop at the time of or after harvest.

(c) Residues of the following materials are exempted from the requirement of a tolerance when used in accordance with good agricultural practice as inert (or occasionally active) ingredients in pesticide formulations applied to growing crops or to raw agricultural commodities after harvest:

Inert ingredients	Limits	Uses
Acetic acid .....	.....	Catalyst
Acetic anhydride .....	.....	Solvent, cosolvent
Acetone .....	.....	Do.
Acrylamide potassium acrylate—acrylic acid copolymer, cross-linked (CAS Reg. No. 31212-13-2), minimum number average molecular weight (in atomic mass units (amu)) 1,000,000.	.....	Carrier
Acrylic acid—stearyl methacrylate copolymer (CAS Reg. No. 27756-15-6), minimum number average molecular weight (in amu) 2,500.	.....	Emulsifier, suspending agent, or rheology modifier
Alkanolic and alkenolic acids, mono- and diesters of $\alpha$ -hydro- $\omega$ -hydroxypoly (oxyethylene) with molecular weight (in amu) range of 200 to 6,000.	.....	Emulsifiers
Alkyl (C <sub>8</sub> -C <sub>24</sub> ) benzenesulfonic acid and its ammonium, calcium, magnesium, potassium, sodium, and zinc salts.	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -Alkyl (C <sub>8</sub> -C <sub>18</sub> - $\omega$ -hydroxypoly(oxyethylene) with poly(oxyethylene) content of 2-30 moles.	.....	Solvent, cosolvent, surfactant, and related adjuvants of surfactants
$\alpha$ -( <i>p</i> -Alkylphenyl)- $\omega$ -hydroxypoly(oxyethylene) produced by the condensation of 1 mole of alkylphenol (alkyl is a mixture of propylene tetramer and pentamer isomers and averages C <sub>13</sub> ) with 6 moles of ethylene oxide.	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -Alkyl(C <sub>12</sub> -C <sub>15</sub> )- $\omega$ -hydroxypoly(oxyethylene) sulfate, ammonium, calcium, magnesium, potassium, sodium, and zinc salts; the poly(oxyethylene) content averages 3 moles.	.....	Do.
$\alpha$ -Alkyl (C <sub>6</sub> -C <sub>14</sub> )- $\omega$ -hydroxypoly(oxypropylene) block copolymer with polyoxyethylene; polyoxypropylene content is 1-3 moles; polyoxyethylene content is 4-12 moles; average molecular weight (in amu) is approximately 635.	.....	Do.
Alkyl (C <sub>8</sub> -C <sub>18</sub> ) sulfate and its ammonium, calcium, isopropylamine, magnesium, potassium, sodium, and zinc salts.	.....	Surfactants.
Almond shells .....	.....	Solid diluent and carrier
Aluminum hydroxide .....	.....	Diluent, carrier

Inert ingredients	Limits	Uses
Aluminum oxide .....	.....	Diluent
Aluminum stearate .....	.....	Surfactant
Ammonium bicarbonate .....	.....	Surfactant, suspending agent, dispersing agent
Ammonium carbamate .....	.....	Synergist in aluminum phosphide formulations
Ammonium chloride .....	.....	Intensifier when used with ammonium nitrate as a desiccant or defoliant. Fire suppressant in aluminum phosphide and magnesium phosphide formulations
Ammonium hydroxide .....	.....	Solvent, cosolvent, neutralizer, solubilizing agent
Ammonium stearate .....	.....	Surfactant
Ammonium sulfate .....	.....	Solid diluent, carrier
Ammonium thiosulfate .....	.....	Intensifier when used with ammonium nitrate as desiccant or defoliant
Amyl acetate .....	.....	Solvent, cosolvent, attractant
Animal glue .....	.....	Surfactant, adhesive
Apple pomace .....	.....	Solid diluent, carrier
Ascorbic acid (CAS Reg. No. 50-81-7) .....	.....	Stabilizer, preservative
Ascorbyl palmitate .....	.....	Preservative
Attapulgate-type clay .....	.....	Solid diluent, carrier, thickener
<i>Bacillus thuringiensis</i> fermentation solids and/or solubles .....	.....	Diluent, carrier
Beeswax .....	.....	Coating agent
Bentonite .....	.....	Solid diluent, carrier
Benzoic acid .....	.....	Preservative for formulation
Butane .....	.....	Propellant
<i>n</i> -Butanol (CAS Reg. No. 71-36-3) .....	.....	Solvent, cosolvent
Butylated hydroxyanisole .....	.....	Antioxidant
Butylated hydroxytoluene .....	.....	Do.
$\alpha$ -Butyl- $\omega$ -hydroxypoly(oxypropylene) block polymer with poly(oxyethylene); molecular weight (in amu) 2,400-3,500 .....	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -( <i>p</i> - <i>tert</i> -Butylphenyl)- $\omega$ -hydroxypoly (oxyethylene) mixture of dihydrogen phosphate and monohydrogen phosphate esters and the corresponding ammonium calcium, magnesium, monoethanolamine, potassium, sodium, and zinc salts of the phosphate esters; the poly(oxyethylene) content averages 4-12 moles .....	.....	Surfactants related adjuvants of surfactants
Calcareous shale .....	.....	Solid diluent carrier
Calcite .....	.....	Do.
Calcium carbonate .....	.....	Do.
Calcium chloride .....	.....	Stabilizer
Calcium citrate .....	.....	Solid diluent, carrier
Calcium phosphate .....	.....	Do.
Calcium hydroxide .....	.....	Do.
Calcium hypochlorite .....	.....	Sanitizing and bleaching agent
Calcium oxide .....	.....	Solid diluent, carrier
Calcium salt of partially dimerized rosin, conforming to 21 CFR 172.210 .....	.....	Coating agent
Calcium silicate .....	.....	Solid diluent, carrier
Calcium stearate .....	.....	Do.
Carnauba wax .....	.....	Coating agent
Carrageenan, conforming to 21 CFR 172.620 .....	Minimum molecular weight (in amu): 100,000.	Thickener
Casein .....	.....	Surfactant, emulsifier, wetting agent
Castor oil, polyoxyethylated; the poly(oxyethylene) content averages 5-54 moles .....	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -Cellulose .....	.....	Solid diluent, carrier
Cetyl alcohol (CAS Reg. No. 36653-82-4) .....	Not more than 5.0% of pesticide formulation.	Evaporation retardant
Charcoal, activated .....	Meets specifications in the Food Chemical Codex.	Carrier
Citric acid .....	.....	Sequestrant
Citrus meal .....	.....	Solid diluent, carrier
Cocoa shells .....	.....	Do.
Coconut oil .....	.....	Surfactant, emulsifier, wetting agent
Coconut shells .....	.....	Solid diluent and carrier
Cod liver oil .....	.....	Solvent, cosolvent
Coffee grounds .....	.....	Solid diluent, carrier
Corn cobs .....	.....	Do.
Corn dextrin .....	.....	Solid diluent, carrier

Environmental Protection Agency, EPA

§ 180.1001

Inert ingredients	Limits	Uses
Corn meal .....	.....	Do.
Corn oil .....	.....	Solvent, cosolvent
Cornstarch .....	.....	Solid diluent, carrier
Corn syrup .....	Pre- and postharvest application.	Rehydrating agent
Cottonseed oil .....	.....	Safener
Coumarone—indene resin, conforming to 21 CFR 172.215.	For use on citrus only .....	Component of coating agent
Croscarmellose sodium (CAS Reg. No. 74811-65-7).	.....	Disintegrant, solid diluent, carrier, and thickener
Dextrin .....	.....	Surfactant, suspending agent, dispersing agent
Dextrose .....	.....	Solid diluent, carrier
Diacetyl tartaric acid esters of mono- and diglycerides of edible fatty acids.	.....	Emulsifier
Dialkyl (C <sub>8</sub> -C <sub>18</sub> ) dimethyl ammonium chloride ....	Not more than 0.2% in silica, hydrated silica.	Flocculating agent in the manufacture of silica, hydrated silica for use as a solid diluent, carrier
Diatomite (diatomaceous earth) .....	.....	Solid diluent carrier
Dichlorodifluoromethane .....	.....	Propellant
Dichlorotetrafluoroethane .....	.....	Do.
Diethylene glycol abietate .....	.....	Surfactants, related adjuvants of surfactants
1,1-Difluoroethane (CAS Reg. No. 75-37-6) ....	For aerosol pesticide formulations used for insect control in food- and feed-handling establishments and animals.	Aerosol propellant
1,2-Dihydro-6-ethoxy-2,2,4-trimethylquinolene ....	Not more than 0.02% of pesticide formulation.	Antioxidant
3,6-Dimethyl-4-octyn-3,6-diol .....	Not more than 2.5% of pesticide formulation.	Surfactants, related adjuvants of surfactants
Dimethylpolysiloxane (as defined in 21 CFR 173.340).	.....	Defoaming agent
α-( <i>o,p</i> -Dinonylphenyl)-ω-hydroxypoly (oxyethylene) mixture of dihydrogen phosphate and monohydrogen phosphate esters and the corresponding ammonium, calcium, magnesium, monoethanolamine, potassium, sodium, and zinc salts of the phosphate esters; the nonyl group is a propylene trimer isomer and the poly(oxyethylene) content averages 4-14 moles.	.....	Surfactants, related adjuvants of surfactants
α-( <i>o,p</i> -Dinonylphenyl)-ω-hydroxypoly (oxyethylene) produced by condensation of 1 mole of dinonylphenol (nonyl group is a propylene trimer isomer) with an average of 4-14 or 140-160 moles of ethylene oxide.	.....	Do.
Dipropylene glycol .....	.....	Solvent, cosolvent
Disodium phosphate .....	.....	Anticaking agent, conditioning agent
Disodium zinc ethylenediaminetetraacetate dihydride.	.....	Sequestrant
1,12-Dodecanediol dimethacrylate polymer .....	Minimum molecular weight (in amu) 100,000.	Release rate regulator in pheromone formulation
Dodecylbenzenesulfonic acid, amine salts .....	.....	Do.
α-( <i>p</i> -Dodecylphenyl)-ω-hydroxypoly (oxyethylene) produced by the condensation of 1 mole of dodecylphenol (dodecyl group is a propylene tetramer isomer) with an average of 4-14 or 30-70 moles of ethylene oxide; if a blend of products is used, the average number of moles of ethylene oxide reacted to produce any product that is a component of the blend shall be in the range of 4-14 or 30-70.	.....	Surfactants, related, adjuvants of surfactants
Dolomite .....	.....	Solid diluent, carrier
Epoxidized linseed oil .....	.....	Surfactants, related adjuvants of surfactants
Epoxidized soybean oil .....	.....	Do.
1,2-Ethanediamine, polymer with oxirane and methyloxirane (CAS Reg. No. 26316-40-5) minimum number average molecular weight 2,800 and the range of number average molecular weight is 2,800 to 10,000 daltons..	.....	Surfactant, dispersing agent
Ethoxylated lignosulfonic acid, sodium salt .....	.....	Surfactant
Ethyl acetate .....	.....	Solvent, cosolvent
Ethyl alcohol .....	.....	Do.

Inert ingredients	Limits	Uses
Ethyl esters of fatty acids derived from edible fats and oils.	.....	Solvent, cosolvent
Ethylene glycol dimethacrylate—lauryl methacrylate copolymer.	Minimum molecular weight (in amu) 100,000.	Release rate regulator in pheromone formulation
Ethylene glycol dimethacrylate polymer .....	Minimum molecular weight (in amu) 100,000.	Release rate regulator in pheromone formulation
Ethylene methylphenylglycidate .....	.....	Synthetic flavoring
Ethylene oxide adducts of 2,4,7,9-tetramethyl-5-decyne-2,3-diol, the ethylene oxide content averages 3.5, 10, or 30 moles.	.....	Surfactants, related adjuvants of surfactants
Ethylenediaminetetraacetic acid .....	3% of pesticide formulation	Sequestrant
Ethylenediaminetetraacetic acid, tetrasodium salt.	5% of pesticide formulation	Sequestrant
2-Ethyl-1-hexanol .....	Not more than 2.5% of pesticide formulation.	Solvent, adjuvant of surfactants
Fatty acids, conforming to 21 CFR 172.860 .....	.....	Binder, defoaming agent, lubricant
FD&C Blue No. 1 .....	Not more than 0.2% of pesticide formulation.	Dye
FD&C Red No. 40 (CAS Reg. No. 25956–17–6) conforming to 21 CFR 74.340.	Not to exceed 0.002% by weight of pesticide formulation.	Dye, coloring agent
Ferric sulfate .....	.....	Solid diluent, carrier
Fish meal .....	.....	Do.
Fish oil .....	.....	Solvent, cosolvent
Furcelleran .....	.....	Thickener
Glycerol .....	.....	Do.
Glycerol mono-, di-, and triacetate .....	.....	Solvent, cosolvent
Glyceryl monostearate .....	.....	Emulsifier
Granite .....	.....	Do.
Grape pomace, dried .....	.....	Do.
Graphite .....	.....	Solid diluent, carrier
Guar gum .....	.....	Surfactants, related adjuvants of surfactants
Gum arabic (acacia) .....	.....	Surfactant, suspending agent, dispersing agent
Gypsum .....	.....	Solid diluent, carrier
Hexamethylenetetramine .....	For use in citrus washing solutions only at not more than 1%.	Preservative
1,6-Hexanediol dimethacrylate polymer .....	Minimum molecular weight (in amu) 100,000.	Release rate regulator in pheromone formulation
n-Hexyl alcohol (CAS Reg. No. 111–27–3) .....	.....	Solvent, cosolvent
Hydrochloric acid .....	.....	Solvent, neutralizer
α-Hydro-ω-hydroxypoly(oxypropylene); molecular weight (in amu) 4,000.	.....	Do.
Hydroxyethyl cellulose .....	.....	Do.
Hydroxyethylidene diphosphonic acid (HEDP) (CAS Reg. No. 2809–21–4)..	For use in antimicrobial pesticide formulations at not more than 1 percent..	Stabilizer, chelator
Hydroxypropyl methylcellulose .....	.....	Thickener
12-Hydroxystearic acid—polyethylene glycol copolymer (CAS Reg. No. 70142–34–6), minimum number average molecular weight (in amu) 5,000..	.....	Suspending agent, dispersing agent, surfactants, related adjuvants
Iron oxide .....	.....	Solid diluent, carrier
Isopropyl alcohol .....	.....	Solvent, cosolvent, stabilizer, inhibitor
Isopropyl myristate, CAS Reg. No. 110–27–0 .....	.....	Solvent
Kaolinite-type clay .....	.....	Solid diluent, carrier
Lactic acid .....	.....	Solvent
Lactose .....	.....	Solid diluent, carrier
Lard .....	.....	Do.
Lauryl alcohol .....	.....	Surfactant
α-Lauryl-ω-hydroxypoly(oxyethylene), average molecular weight (in amu) of 600.	.....	Emulsifier
α-Lauryl-ω-hydroxypoly(oxyethylene) sulfate, sodium salt; the poly(oxyethylene) content is 3-4 moles.	.....	Surfactants, related adjuvants of surfactants
Lauryl methacrylate—1,6-hexanediol dimethacrylate copolymer.	Minimum molecular weight (in amu) 100,000.	Release rate regulator in pheromone formulation
Lecithin .....	Meeting Food Chemicals Codex specification.	Emulsifier
Licorice root .....	.....	.....
Lignosulfonate, ammonium, calcium, magnesium, potassium, sodium, and zinc salts.	.....	Surfactants, related adjuvants of surfactants
d-Limonene (CAS Reg. No. 5989–27–5) .....	.....	Solvent, fragrance
Magnesium carbonate .....	.....	Anticaking agent, conditioning agent

Environmental Protection Agency, EPA

§ 180.1001

Inert ingredients	Limits	Uses
Magnesium chloride .....	.....	Safener
Magnesium lime .....	.....	Solid diluent, carrier
Magnesium oxide .....	.....	Do.
Magnesium silicate .....	.....	Do.
Magnesium stearate .....	.....	Surfactant
Magnesium sulfate .....	.....	Solid diluent, carrier, safener
Maleic acid monobutyl ester—vinyl methyl ether copolymer, CAS No. 25119–68–0, minimum average molecular weight (in amu) 52,000.	.....	Seed-coating adhesive, gel, and antitranspirant
Maleic acid monoethyl ester—vinyl methyl ether copolymer, CAS No. 25087–06–3, minimum average molecular weight (in amu) 46,000.	.....	Seed-coating adhesive, gel, and antitranspirant
Maleic acid monoisopropyl ester-vinyl methyl ether copolymer, CAS No. 31307–95–6, minimum average molecular weight (in amu) 49,000.	.....	Seed-coating adhesive, gel, and antitranspirant
Maleic anhydride- diisobutylene copolymer, sodium salt (CAS Reg. No. 37199–81–8), minimum number average molecular weight (in amu) 5,000–18,000..	.....	Suspending agent and dispersing agent.
Manganous oxide .....	.....	Solid diluent, carrier
Methyl alcohol .....	.....	Solvent
Methyl <i>n</i> -amyl ketone (CAS Reg. No. 110–43–0)	.....	Solvent, cosolvent
Methylated silicones .....	.....	Antifoaming agent
Methylcellulose .....	.....	Thickener
Methyl esters of fatty acids derived from edible fats and oils.	.....	Solvent, cosolvent
Methyl esters of higher fatty acids conforming to 21 CFR 573.640.	.....	Antidusting agent, surfactant
Methyl ester of rosin, partially hydrogenated (as defined in 21 CFR 172.615).	.....	Surfactants, related adjuvants of surfactants
Methyl isobutyl ketone .....	.....	Solvent
Methyl methacrylate—methacrylic acid—monomethoxy polyethylene glycol methacrylate copolymer, minimum number average molecular weight (in amu) 18,000..	.....	Suspending agent, dispersing agent, surfactants, related adjuvants
Methyl vinyl ether—maleic acid copolymer (CAS Reg. No. 25153–40–6), minimum number average molecular weight (in amu) 75,000.	.....	Dispersant, seed-coating adhesive
Methyl vinyl ether—maleic acid copolymer calcium sodium salt (CAS Reg. No. 62386–95–2), minimum number average molecular weight (in amu) 900,000..	.....	Dispersant, seed-coating adhesive
Mica .....	.....	Solid diluent, carrier
Mineral oil, U.S.P., or conforming to 21 CFR 172.878 or 178.3620(a) (CAS Reg. No. 8012–95–1).	.....	Diluent, carrier, and solvent
Modified polyester resin derived from ethylene glycol, fumaric acid, and rosin.	For use on citrus only .....	Resinous coating
Molasses .....	.....	Attractant
Monoammonium phosphate .....	No more than 3.75% by weight in formulation.	Postharvest fumigation in formulation with aluminum phosphide
Mono- and diglycerides of C <sub>8</sub> -C <sub>18</sub> fatty acids .....	.....	Surfactants, related adjuvants of surfactants
Montmorillonite-type clay .....	.....	Solid diluent, carrier
Montmorillonite-type clay treated with polytetrafluoroethylene (PTFE; CAS Reg. No. 9002–84–0).	PTFE content not greater than 0.5% (w/w) of clay..	Carrier
Nonyl, decyl, and undecyl glycoside mixture with a mixture of nonyl, decyl, and undecyl oligosaccharides and related reaction products (primarily decanol and undecanol) produced as an aqueous-based liquid (50 to 65% solids) from the reaction of primary alcohols (containing 15 to 20% secondary alcohol isomers) in a ratio of 20% C <sub>9</sub> , 40% C <sub>10</sub> , and 40% C <sub>11</sub> with carbohydrates (average glucose to alkyl chain ratio 1.3 to 1.8).	.....	Surfactant.

Inert ingredients	Limits	Uses
$\alpha$ -( <i>p</i> -Nonylphenyl)- $\omega$ -hydroxypoly(oxyethylene) mixture of dihydrogen phosphate and monohydrogen phosphate esters and the corresponding ammonium, calcium, magnesium, monoethanolamine, potassium, sodium, and zinc salts of the phosphate esters; the nonyl group is a propylene trimer isomer and the poly(oxyethylene) content averages 4-14 moles or 30 moles.	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -( <i>p</i> -Nonylphenyl)- $\omega$ -hydroxypoly(oxyethylene) produced by the condensation of 1 mole of nonylphenol (nonyl group is a propylene trimer isomer) with an average of 4-14 or 30-90 moles of ethylene oxide; if a blend of products is used, the average number of moles of ethylene oxide reacted to produce any product that is a component of the blend shall be in the range of 4-14 or 30-90.	.....	Do.
$\alpha$ -( <i>p</i> -Nonylphenyl)- $\omega$ -hydroxypoly(oxyethylene) sulfate, ammonium, calcium, magnesium, potassium, sodium, and zinc salts; the nonyl group is a propylene trimer isomer and the poly(oxyethylene) content averages 4 moles.	.....	Do.
$\alpha$ -( <i>p</i> -Nonylphenyl)- $\omega$ -hydroxypoly(oxypropylene) block polymer with poly(oxyethylene); polyoxypropylene content of 10-60 moles; polyoxyethylene content of 10-80 moles; molecular weight (in amu) 1,200-7,100.	.....	Do.
$\alpha$ -( <i>p</i> -Nonylphenyl)poly(oxypropylene) block polymer with poly(oxyethylene); polyoxyethylene content 30 to 90 moles; molecular weight (in amu) averages 3,000.	.....	Do.
Oatmeal .....	.....	Solid diluent, carrier
Oats .....	.....	Do.
Octadecanoic acid, 12-hydroxy-, homopolymer, octadecanoate (CAS Reg. No. 58128-22-6), minimum number-average molecular weight 1,370.	.....	dispersing agent, related adjuvant of surfactants, surfactant, suspending agent
$\alpha$ - <i>cis</i> -9-Octadecenyl- $\omega$ -hydroxypoly(oxyethylene); the octadecenyl group is derived from oleyl alcohol and the poly(oxyethylene) content averages 20 moles.	.....	Surfactants, related adjuvants of surfactants
Octyl and decyl glucosides mixture with a mixture of octyl and decyloligosaccharides and related reaction products (primarily <i>n</i> -decanol) produced as an aqueous-based liquid (68-72% solids) from the reaction of straight chain alcohols (C <sub>8</sub> (45%), C <sub>10</sub> (55%)) with anhydrous glucose.	.....	Do.
Oleic acid .....	.....	Diluent
Oleic acid diester of $\alpha$ -hydro- $\omega$ -hydroxypoly(oxyethylene); the poly(oxyethylene) having average molecular weight (in amu) 400.	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -Oleoyl- $\omega$ -hydroxypoly(oxyethylene), average molecular weight (in amu) of 600.	.....	Emulsifier
Oleyl alcohol (CAS Reg. No. 143-28-2) .....	15% .....	Cosolvent
Orange pomace .....	.....	Solid diluent, carrier
Oxalic acid .....	No more oxalic acid should be used than is necessary to chelate calcium and in no case should more than 2 lb oxalic acid per acre be used.	Calcium chelating hard water inhibitor
Oxidized pine lignin, sodium salt, (CAS Reg. No. 68201-23-0).	Maximum of 2% of formulation.	Surfactant, related adjuvant of surfactant
Palmitic acid .....	.....	Diluent
Peanut shells .....	.....	Solid diluent, carrier
Pentaerythritol ester of maleic anhydride modified wood rosin.	.....	Plasticizer
Pentaerythritol ester of modified resin .....	.....	Do.

Inert ingredients	Limits	Uses
Pentaerythritol stearates mixture (CAS Reg. No. 85116-93-4) which include pentaerythritol monostearate (CAS Reg. No. 78-23-9), pentaerythritol distearate (CAS Reg. No. 13081-97-5), pentaerythritol tristearate (CAS Reg. No. 28188-24-1) and pentaerythritol tetrastearate (CAS Reg. No. 115-83-3).	No more than 25 ppm in pesticide formulations.	Emulsifier
Petrolatum, conforming to 21 CFR 172.880 .....	.....	Coating agent
Petroleum hydrocarbons, light odorless conforming to 21 CFR 172.884.	.....	Solvent, diluent.
Petroleum hydrocarbons, synthetic isoparaffinic, conforming to 21 CFR 172.882.	.....	Do.
Petroleum naphtha, conforming to 21 CFR 172.250(d).	.....	Component of coating agent
Petroleum wax, conforming to 21 CFR 172.886(d).	.....	Coating agent
Phosphoric acid .....	.....	Buffer
Phosphorus oxychloride .....	.....	Catalyst
Pine lignin .....	.....	Adsorbent
B-Pinene polymers .....	.....	Surfactants, related adjuvants of surfactants
Polyethylene, conforming to 21 CFR 177.1520(c).	.....	Binder, carrier, and coating agent
Polyethylene, oxidized, conforming to 21 CFR 172.260.	.....	Coating agent
Polyethylene glycol[ $\alpha$ -hydro- $\omega$ -hydroxypoly(oxyethylene)]; mean molecular weight (in amu) 194 to 9,500 conforms to 21 CFR 178.3750.	.....	Surfactants, related adjuvants of surfactants
Polyethylene glycol—polyisobutyl anhydride—tall oil fatty acid copolymer (minimum number average molecular weight (in amu) 5,000).	.....	Surfactant, dispersing agent, suspending agent, or related adjuvant
Polyglycerol esters of fatty acids conforming to 21 CFR 172.854.	.....	Surfactants, related adjuvants of surfactants
Polyglyceryl phthalate ester of coconut oil fatty acids.	.....	Do.
Polymerized sodium methacrylate .....	.....	pH control
Polymers derived from the following monomers: acrylic acid, sodium form; butyl acrylate; ethyl acrylate; methacrylic acid and its ammonium and potassium salts; and methyl methacrylate.	.....	Surfactants, related adjuvants of surfactants
Poly(methylene- <i>p-tert</i> -butylphenoxy)-poly(oxyethylene) ethanol; the poly(oxyethylene) content averages 4-12 moles.	.....	Coating agent
Poly(methylene- <i>p-nonyl</i> phenoxy)poly (oxyethylene) ethanol; the poly(oxyethylene) content averages 4-12 moles.	.....	Coating agent
Poly(oxy-1,2-ethanediyl), $\alpha$ -(carboxymethyl)- $\omega$ -(nonylphenoxy) produced by the condensation of 1 mole of nonylphenol (nonyl group is a propylene trimer isomer) with an average of 4-14 or 30-90 moles of ethylene oxide. The molecular weight (in amu) ranges are 454-894 and 1598-4238.	.....	Surfactant
Polyoxyethylene (20) sorbitan monostearate .....	.....	Surfactants, related adjuvants of surfactants
Poly(oxyethylene/oxypropylene) monoalkyl(C <sub>6</sub> -C <sub>10</sub> )ether—sodium fumarate adduct (CAS Reg. No. 102900-02-7), minimum number average molecular weight (in amu) 1,900..	.....	Surfactant
Poly(oxypropylene) block polymer with poly(oxyethylene); molecular weight (in amu) 1,800-16,000.	.....	Do.
Polysorbate 65, conforming to 21 CFR 172.838	.....	Emulsifier
Polystyrene (CAS Reg. No. 9003-53-6), minimum number average molecular weight (in amu) 50,000).	.....	Suspending agent, thickener
Polyvinyl chloride (CAS Reg. No. 9002-86-2), minimum number average molecular weight (in amu) 29,000..	.....	Carrier.
Poly (vinyl pyrrolidone); molecular weight (in amu) 40,000 or over.	.....	Do.
Poly(vinylpyrrolidone) (CAS Reg. No. 9003-39-8), minimum number average molecular weight (in amu) 4,000.	.....	Surfactant, related adjuvants of surfactant

Inert ingredients	Limits	Uses
Poly(vinylpyrrolidone-1-eicosene) (CAS Reg. No. 28211-18-9).	Minimum average molecular weight 3,000.	Dispersing agent
Poly(vinylpyrrolidone-1-hexadecene) (CAS Reg. No. 63231-81-2).	Minimum average molecular weight (in amu) 4,700.	Dispersing agent
Polyvinylpyrrolidone butylated polymer (CAS Reg. No. 26160-96-3), minimum number average molecular weight (in amu) 9,500.		Surfactants, related adjuvant of surfactants and binder.
Potassium aluminum silicate		Solid diluent, carrier
Potassium chloride		Do.
Potassium citrate (CAS Reg. No. 866-84-2)		Chelating agent, pH control
Potassium hydroxide		Neutralizer
Potassium phosphate		Buffer
Potassium sulfate		Solid diluent
Propane		Propellant
n-Propanol		Solvent, cosolvent
2-Propene-1-sulfonic acid sodium salt, polymer with ethenol and ethenyl acetate, number average molecular weight (in amu) 6,000-12,000.		Binding agent.
Propionic acid		Catalyst
Propylene glycol		Solvent, cosolvent.
Propylene glycol alginate (as defined in 21 CFR 172.858).		Defoaming agent
Propyl gallate		Antioxidant
Propyl <i>p</i> -hydroxybenzoate		Preservative for formulations
Pyrophyllite		Solid diluent, carrier
Rhodamine B		Dye
Rice bran		Solid diluent, carrier
Rosin, partially dimerized (as defined in 21 CFR 172.615).		Surfactants, related adjuvants of surfactants
Rosin, partially hydrogenated (as defined in 21 CFR 172.615).		Do.
Rosin, wood		Do.
Salts of fatty acids, conforming to 21 CFR 172.863.		Binder, emulsifier, anticaking agent
Sand		Solid diluent, carrier
Secondary alkyl (C <sub>11</sub> -C <sub>13</sub> ) poly(oxyethylene) acetate, sodium salt; the ethylene oxide content averages 5 moles.		Surfactant
Shellac, bleached; refined, food grade, arsenic and rosin-free.		Coating agent
Silica, hydrated		Solid diluent, carrier
Silicon dioxide, fumed, amorphous		Flow control, anticaking and carrier agent
Soap (sodium or potassium salts of fatty acids)		Surfactant, emulsifier, wetting agent
Soapstone		Solid diluent
Sodium acetate		Buffer
Sodium acid pyrophosphate		Surfactant, suspending agent, dispersing agent, buffer
Sodium alginate		Stabilizer
Sodium $\alpha$ -olefinsulfonate (sodium C <sub>14</sub> -C <sub>16</sub> ) (Olefin sulfonate).		Surfactants, related adjuvants of surfactants
Sodium aluminum silicate		Solid diluent, carrier
Sodium benzoate		Anticaking agent
Sodium bicarbonate		Neutralizer
Sodium carboxymethylcellulose		Surfactants, related adjuvants of surfactants
Sodium chloride		Solid diluent, carrier
Sodium diisobutylnaphthalenesulfonate		Surfactants, related adjuvants of surfactants
Sodium dioctylsulfosuccinate		Do.
Sodium dodecylphenoxybenzenedisulfonate		Do.
Sodium hexametaphosphate		Surfactant, emulsifier, wetting agent, suspending agent, dispersing agent, buffer
Sodium hydroxide		Neutralizer
Sodium isopropylisohexylnaphthalenesulfonate		Surfactants, related adjuvants of surfactants
Sodium <i>N</i> -lauroyl- <i>N</i> -methyltaurine		Do.
Sodium lauryl glyceryl ether sulfonate		Do.
Sodium metasilicate		Surfactants, emulsifiers, wetting agents, dispersing agents, buffer
Sodium monoalkyl and dialkyl (C <sub>8</sub> -C <sub>16</sub> ) phenoxybenzenedisulfonate mixtures containing not less than 70% of the monoalkylated product.		Surfactants, related adjuvants of surfactants
Sodium mono- and dimethyl naphthalenesulfonates, molecular weight (in amu) 245-260.		Do.



Inert ingredients	Limits	Uses
Sodium mono-, di-, and tributyl naphthalenesulfonates.	.....	Do.
Sodium mono-, di-, and triisopropyl naphthalenesulfonate.	.....	Do.
Sodium <i>N</i> -oleoyl- <i>N</i> -methyltaurine .....	.....	Do.
Sodium oleyl sulfate .....	.....	Do.
Sodium <i>N</i> -palmitoyl- <i>N</i> -methyltaurine .....	.....	Do.
Sodium propionate .....	.....	Preservative for formulation
Sodium salt of sulfated oleic acid .....	.....	Surfactants, related adjuvants of surfactants
Sodium silicate .....	.....	Surfactant, emulsifier, wetting agent, stabilizer, inhibitor
Sodium sulfate .....	.....	Solid diluent, carrier
Sodium sulfite .....	.....	Stabilizer
Sodium tripolyphosphate .....	.....	Buffer, surfactant, suspending agent, dispersing agent, anticaking agent, conditioning agent
Sorbitan fatty acid esters (fatty acids limited to C <sub>12</sub> , C <sub>14</sub> , C <sub>16</sub> , and C <sub>18</sub> containing minor amounts of associated fatty acids) and their derivatives; the poly(oxyethylene) content averages 5-20 moles.	.....	Surfactants, related adjuvants or surfactants.
Sorbic acid (and potassium salt) .....	.....	Preservative for formulations
Sorbitol .....	.....	Antidusting agent
Soy protein, isolated .....	.....	Adhesive
Soybean flour .....	.....	Surfactant
Soybean oil .....	.....	Solvent, cosolvent
Soybean oil-derived fatty acids .....	.....	Solvent, cosolvent
Sperm oil conforming to 21 CFR 172.210 .....	.....	Coating agent
Starch (potato, tapioca, and wheat) .....	.....	Solid diluent, carrier
Stearic acid .....	.....	Diluent
$\alpha$ -Stearoyl- $\omega$ -hydroxypoly(oxyethylene), average molecular weight (in amu) of 600.	.....	Emulsifier
$\alpha$ -Stearoyl- $\omega$ -hydroxypoly(oxyethylene); the poly(oxyethylene) content averages either 8, 9, or 40 moles; if a blend of products is used, the average number of moles ethylene oxide reacted to produce any product that is a component of the blend shall be either 8, 9, or 40.	.....	Surfactants, related adjuvants of surfactants
Stearyl methacrylate—1,6-hexanediol dimethacrylate copolymer.	Minimum molecular weight (in amu) 100,000.	Release rate regulator in pheromone formulation
Styrene-2-ethylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid graft copolymer, minimum number-average molecular weight 12,500.	.....	Dispersing agent/solvent
Sucrose .....	.....	Solid diluent carrier, safener
Sucrose octaacetate .....	.....	Adhesive
Sulfuric acid (CAS Reg. No. 7664-93-9) that meets the Food Chemicals Codex specifications.	0.1% of pesticide formulation.	pH control agent
Sulfurous acid .....	.....	Preservative
Synthetic paraffin and its succinic derivatives conforming to 21 CFR 172.275..	.....	Carrier, binder, and carrying agent
Synthetic petroleum wax, conforming to 21 CFR 172.888.	.....	Binder, carrier, and coating agent
Talc .....	.....	Solid diluent, carriers
Tall oil; fatty acids not less than 58%, rosin acids not more than 44%, unsaponifiables not more than 8%.	.....	Surfactants, related adjuvants of surfactants
Tartrazine .....	.....	Dye
1,1,1,2-Tetrafluoroethane, (CAS Reg. No. 811-97-2).	.....	Aerosol propellant
Tetrahydrofurfuryl alcohol .....	.....	Solvent cosolvent
$\alpha$ -[ <i>p</i> -(1,1,3,3-Tetramethylbutyl)phenyl]- $\omega$ -hydroxypoly(oxyethylene) produced by the condensation of 1 mole of <i>p</i> -(1,1,3,3-tetramethylbutyl)phenol with a range of 1-14 or 30-70 moles of ethylene oxide; if a blend of products is used, the average range number of moles of ethylene oxide reacted to produce any product that is a component of the blend shall be in the range of 1-14 or 30-70.	.....	Surfactants, related adjuvants of surfactants

Inert ingredients	Limits	Uses
$\alpha$ -[ <i>p</i> -(1,1,3,3-Tetramethylbutyl) phenyl]- $\omega$ -hydroxypoly(oxyethylene) produced by the condensation of 1 mole of <i>p</i> -(1,1,3,3-tetramethylbutyl) phenol with an average of 4-14 or 30-70 moles of ethylene oxide; if a blend of products is used, the average number of moles of ethylene oxide reacted to produce any product that is a component of the blend shall be in the range of 4-14 or 30-70.	.....	Do.
2,4,7,9-Tetramethyl-5-decyn-4, 7-diol .....	Not more than 2.5% of pesticide formulation.	Surfactants, related adjuvants of surfactants
Tetrasodium pyrophosphate .....	.....	Anticaking agent, conditioning agent
Tricalcium phosphate .....	.....	Surfactant, suspending agent, dispersing agent, anticaking agent, conditioning agent
1,1,1-Trichloroethane .....	.....	Solvent, cosolvent
Trichlorofluoromethane .....	.....	Propellant
Tridecylpoly(oxyethylene) acetate, sodium salt; where the ethylene oxide content averages 6-7 moles.	.....	Surfactants, related adjuvants of surfactants
Trisodium phosphate .....	.....	Surfactant, emulsifier, wetting agent
Urea .....	.....	Stabilizer, inhibitor
Vermiculite .....	.....	Solid diluent, carrier.
Vinyl alcohol-vinyl acetate copolymer, benzaldehyde- <i>o</i> -sodium sulfonate condensate, minimum number average molecular weight (in amu) 20,000.	.....	Water soluble resin.
Vinyl pyrrolidone-acrylic acid copolymer (CAS Reg. No. 28062-44-4), minimum number average molecular weight (in amu) 6,000.	.....	Adhesive, dispersion stabilizer and coating for sustained release granules.
Vinyl pyrrolidone-dimethylaminoethylmethacrylate copolymer (CAS Reg. No. 30581-59-0), minimum number average molecular weight (in amu) 20,000.	.....	Leaching inhibitor, binder for water-dispersible aggregates, sticker and suspension stabilizer
Walnut shells .....	.....	Do.
Wheat bran .....	.....	Do.
Wintergreen oil .....	.....	Attractant
Wood flour .....	Derived from wood free of chemical preservatives.	Solid diluent and carrier
Xanthan gum .....	.....	Thickener
Xanthan gum-modified, produced by the reaction of xanthan gum and glyoxal (maximum 0.3% by weight).	Not more than 0.5% of pesticide formulation.	Surfactant
Xylene meeting the specifications listed in 21 CFR 172.884(b)(4).	In pesticide formulations for grain storage only.	Solvent, cosolvent
Zeolite (hydrated alkali aluminum silicate) .....	.....	Solid diluent, carrier
Zinc oxide .....	.....	Coating agent
Zinc sulfate (basic and monohydrate) .....	.....	Do.
Zinc sulfate (basic and monohydrate) .....	.....	Solid diluent, carrier

(d) The following materials are exempted from the requirement of a tolerance when used in accordance with good agricultural practice as inert (or occasionally active) ingredients in pesticide formulations applied to growing crops only:

Inert ingredients	Limits	Uses
Acetic acid ethenyl ester, polymer with ethenol and ( $\alpha$ )-2-propenyl-( $\omega$ )-hydroxypoly (oxy-1,2-ethanediy) (CAS Reg. No.137091-12-4); minimum number average molecular weight 15,000.	.....	Component of water-soluble film
Acetonitrile .....	Not more than 0.5% of pesticide formulation.	Solvent for blended emulsifiers in all pesticides used before crop emerges from soil and in herbicides before or after crop emerges
Acetophenone .....	.....	Attractant
Acrylamide—acrylic acid resins .....	.....	Thickeners
Acrylamide—sodium acrylate resins .....	.....	Do.
Acrylic acid, polymerized, and its ethyl and methyl esters.	.....	Surfactants, related adjuvants of surfactants

Inert ingredients	Limits	Uses
Acrylic acid—sodium acrylate—sodium-2-methylpropanesulfonate copolymer (minimum average molecular weight (in amu) 4,500); CAS No. 97953-25-8.	.....	Dispersing agent
Acrylonitrile—styrene—hydroxypropyl methacrylate copolymer; minimum number average molecular weight (in amu) 447,000.	.....	Pigment carrier
Adenosine (CAS Reg. No. 58-61-7) .....	Maximum of 0.5% of formulation.	Synergist
$\alpha$ -Alkyl (C <sub>12</sub> -C <sub>18</sub> )- $\omega$ -hydroxypoly(oxyethylene) copolymers with poly(oxypropylene); polyoxyethylene content averages 3-12 moles and polyoxypropylene content 2-9 moles.	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -Alkyl (C <sub>10</sub> -C <sub>16</sub> )- $\omega$ -hydroxypoly(oxyethylene) mixture of dihydrogen phosphate and monohydrogen phosphate esters and the corresponding ammonium, calcium, magnesium, monoethanolamine, potassium, sodium, and zinc salts of the phosphate esters; the poly(oxyethylene) content averages 3-20 moles.	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -Alkyl (C <sub>12</sub> -C <sub>15</sub> )- $\omega$ -hydroxypoly(oxyethylene) sulfosuccinate, isopropylamine and <i>N</i> -hydroxyethyl isopropylamine salts of; the poly(oxyethylene) content averages 3-12 moles.	Not more than 0.2% in the final solution.	Emulsifiers in pesticide concentrates applied with liquid fertilizer solutions before crop emerges from soil or not later than 4 weeks after planting
$\alpha$ -Alkyl(C <sub>10</sub> -C <sub>12</sub> )- $\omega$ -hydroxypoly(oxyethylene) poly(oxypropylene) copolymer; poly(oxyethylene) content is 11-15 moles; poly(oxypropylene) content is 1-3 moles.	.....	Surfactants, related adjuvants of surfactants.
$\alpha$ -Alkyl(C <sub>12</sub> -C <sub>18</sub> )- $\omega$ -hydroxypoly(oxyethylene)/oxypropylene) hetero polymer in which the oxyethylene content averages 13-17 moles and the oxypropylene content averages 2-6 moles.	.....	Do.
$\alpha$ -Alkyl (C <sub>10</sub> -C <sub>16</sub> )- $\omega$ -hydroxypoly (oxyethylene)poly(oxypropylene) mixture of di- and monohydrogen phosphate esters and the corresponding ammonium, calcium, magnesium, monoethanolamine, potassium, sodium, and zinc salts of the phosphate esters; the combined poly(oxyethylene) poly(oxypropylene) content averages 3-20 moles.	.....	Do.
$\alpha$ -Alkyl (C <sub>12</sub> -C <sub>18</sub> )- $\omega$ -hydroxypoly(oxyethylene)/oxypropylene) hetero polymer in which the oxyethylene content is 8-12 moles and the oxypropylene content is 3-7 moles.	.....	Do.
$\alpha$ -Alkyl (C <sub>12</sub> -C <sub>15</sub> )- $\omega$ -hydroxypoly(oxyethylene)/oxypropylene) hetero polymer in which the oxyethylene content is 8-13 moles and the oxypropylene content is 7-30 moles.	.....	Solvent, cosolvent, surfactant, and related adjuvants of surfactants
$\alpha$ -Alkyl (C <sub>21</sub> -C <sub>71</sub> )- $\omega$ -hydroxypoly (oxyethylene) in which the poly(oxyethylene) content is 2 to 91 moles and molecular weight range from 390 to 5,000..	Not to exceed 10% .....	Wetting agent or granule coating
<i>n</i> -Alkyl(C <sub>8</sub> -C <sub>18</sub> )amine acetate .....	.....	Surfactants, related adjuvants of surfactants
Almond, bitter .....	.....	Attractant
Alkyl (C <sub>12</sub> -C <sub>20</sub> ) methacrylate-methacrylic acid copolymer; minimum molecular weight (in amu) 11,900.	.....	Stabilizer; component of spray drift retardant
Aluminum 2-ethylhexanoate .....	Not more than 0.25% of pesticide formulation.	Gelling agent
Aluminum sulfate .....	.....	Safener adjuvant
Amine salts of alkyl(C <sub>8</sub> -C <sub>24</sub> ) benzenesulfonic acid (butylamine, dimethylaminopropylamine, mono- and diisopropylamine, mono-, di-, and triethanolamine).	.....	Surfactants, related adjuvants of surfactants
<i>N</i> -(Aminoethyl) ethanolamine salt of dodecylbenzenesulfonic acid.	For use only in liquid emulsifiable herbicide concentrates.	Do.
Ammonium nitrate (CAS Reg. No. 6484-52-2) ..	.....	Adjuvant/ intensifier for herbicides
Ammonium polyphosphate (CAS Reg. No. 68333-79-9).	.....	Sequestrant, buffer, or surfactant

Inert ingredients	Limits	Uses
Ammonium thiocyanate .....	.....	Adjuvant/intensifier for defoliation of, and weed control in/on cotton and soybeans
Animal waste material (produced by the thermophilic digestion of cattle and poultry manure).	<i>E. coli</i> and <i>Salmonella</i> free; heavy metal content not to exceed the following: Material/Concentration (ppm): As/12.5; Cd/12.0; Cu/14.0; Pb/17.0; Hg/0.1; Se/0.2.	Carrier
Barium sulfate .....	.....	Carrier
Benzene .....	.....	Solvent, cosolvent
1,2-Benzisothiazolin-3-one .....	Not more than 0.1% of formulation. Not more than 0.02 lb to be applied per acre.	Preservative/stabilizer
<i>N,N</i> -Bis[ $\alpha$ -ethyl- $\omega$ -hydroxypoly(oxyethylene) alkylamine; the poly(oxyethylene) content averages 3 moles; the alkyl groups (C <sub>14</sub> -C <sub>18</sub> ) are derived from tallow, or from soybean or cottonseed oil acids.	.....	Surfactants for preemergence use with herbicides on sugarcane only
<i>N,N</i> -Bis(2-hydroxyethyl)alkylamine, where the alkyl groups (C <sub>8</sub> -C <sub>18</sub> ) are derived from coconut, cottonseed, soya, or tallow acids.	.....	Surfactants, related adjuvants of surfactants
<i>N,N</i> -Bis 2-( $\omega$ -hydroxypolyoxyethylene) ethyl alkylamine; the reaction product of 1 mole <i>N,N</i> -bis(2-hydroxyethyl)alkylamine and 3-60 moles of ethylene oxide, where the alkyl group (C <sub>8</sub> -C <sub>18</sub> ) is derived from coconut, cottonseed, soya, or tallow acids.	.....	Do.
<i>N,N</i> -Bis-2-( $\omega$ -hydroxypolyoxyethylene/polyoxypropylene) ethyl alkylamine; the reaction product of 1 mole of <i>N,N</i> -bis(2-hydroxyethyl alkylamine) and 3-60 moles of ethylene oxide and propylene oxide, where the alkyl group (C <sub>8</sub> -C <sub>18</sub> ) is derived from coconut, cottonseed, soya, or tallow acids.	.....	Surfactant, related adjuvants of surfactants
3,5-Bis(6-isocyanatohexyl)-2 <i>H</i> -1,3,5-oxadiazine-2,4,6-(3 <i>H</i> ,5 <i>H</i> )-trione, polymer with diethylenetriamine (CAS Reg. No. 87823-33-4); minimum number average molecular weight (in amu) 1,000,000.	.....	Encapsulating agent
Boric acid .....	.....	Sequestrant
Buffalo gourd root powder ( <i>Cucurbita foetidissima</i> root powder).	No more than 2.5 lbs/acre/season (3.4 gm/acre/season of Cucurbitacin).	Gustatory stimulant
Butadiene-styrene copolymer .....	.....	Adhesive, component of adhesive
2-Butenedioic acid (Z)-, polymer with ethenol and ethenyl acetate, sodium salt (minimum number average molecular weight (in amu) 75,000; CAS No. 139871-83-3).	.....	Component of water-soluble film
Butoxytriethylene glycol phosphate .....	.....	Surfactants for arsenical herbicide formulations only
1,3-Butylene glycol dimethacrylate .....	Not more than 0.1% of pesticide formulation.	Stabilizer
Butyl stearate .....	.....	Defoamer
$\gamma$ -Butyrolactone .....	.....	Solvent
C.I. Pigment Blue #15 (CAS Reg. No. 147-14-8; containing no more than 50 ppm polychlorinated biphenyls (PCBs)).	For seed treatment use only	Dye, coloring agent
C.I. Pigment Green #7 (CAS Reg. No. 1328-53-6; containing no more than 50 ppm polychlorinated biphenyls (PCBs)).	For seed treatment use only.	Dye, coloring agent
C.I. Pigment Violet #23 (CAS Reg. No. 6358-30-1; containing no more than 20 ppb of polychlorinated dibenzo- <i>p</i> -dioxins and/or polychlorinated dibenzofurans).	For seed treatment use only.	Dye, coloring agent
Calcium and sodium salts of certain sulfonated petroleum fractions (mahogany soaps); calcium salt molecular weight (in amu) 790-1,020, sodium salt molecular weight (in amu) 400-500.	.....	Surfactants, related adjuvants of surfactants
Calcium hypochlorite .....	.....	Sanitizing and bleaching agent

Environmental Protection Agency, EPA

§ 180.1001

Inert ingredients	Limits	Uses
Camphor (CAS Reg. No. 76-22-2)	Not more than 5% weight to weight (w/w) of pesticide formulations.	Deodorant, melting point adjustment
Carous chloride	10 ppm in formulation	Tagging agent
Carrageenan, conforming to 21 CFR 172.260	Not more than 0.15% of pesticide formulation.	Thickener and stabilizer for pesticide formulations applied to seeds before planting
Cellulose acetate (CAS Reg. No. 9004-35-7), minimum number average molecular weight 28,000.		Pesticide rate-release regulating agent
Chlorobenzene	Contains not more than 1% impurities. Not for use after edible parts of plant begin to form. Do not graze livestock in treated areas within 48 hours after application.	Solvent, cosolvent
5-Chloro-2-methyl-4-isothiazolin-3-one (in combination with 2-methyl-4-isothiazolin-3-one).	Not more than 0.0022% (22.5 ppm) in the formulation; 0.00022% (or 2.25 ppm) in the final solution applied to growing crops.	Preservative
Cinnamon		Attractant
Clove		Do.
Coal (derived only from anthracite and bituminous coals).	Soil application only	Carrier, extender
Coffee		Attractant
Coke (from anthracite and bituminous coals only and petroleum).	Soil application only	Carrier, extender
Condensation product of orthophenylphenol with 5 moles of ethylene oxide.		Stabilizer.
Copper naphthenate	Not more than 2.5% of formulation; application limited to before edible portions of plants begin to form.	Mercaptan scavenger in technical pesticide
Copper salts of neodecanoic acid and 2-ethylhexanoic acid.	Not more than 1% of formulation; application limited to before edible portions of plants begin to form.	Do.
Corn		Attractant
Corn gluten meal, hydrolyzed		Attractant
Cross-linked polyurea-type encapsulating polymer formed by the reduction of a mixture of toluene diisocyanate and polymethylene polyphenylisocyanate.		Encapsulating agent
Cyclohexane		Solvent, cosolvent
Cyclohexanol		Do.
Cyclohexanone		Do.
Cysteine (CAS Reg. No. 52-90-4)	Maximum of 0.5% of formulation.	Synergist
D&C Green No. 6		Dye
D&C Red No. 17, technical grade		Dye
D&C Red No. 33 (CAS Reg. No. 3567-66-6); meeting the specifications listed in 21 CFR 74.1333.		Dye
D&C Violet No. 2, technical grade	Not more than 0.005% of pesticide formulation.	Dye
n-Decyl alcohol		Do.
Diacetone alcohol		Deactivator, solvent for formulations used before crop emerges from soil
Diallyl phthalate	Not more than 0.1% of pesticide formulation.	Stabilizer
Diammonium phosphate (CAS Reg. No. 7783-28-0).		Buffer, surfactant
α-(Di-sec-butyl)phenylpoly(oxypropylene) block polymer with poly(oxyethylene); the poly(oxypropylene) content averages 4 moles, the poly(oxyethylene) content averages 5 to 12 moles, the molecular.		Surfactants, related adjuvants of surfactants
Diethanolamine		Stabilizer, inhibitor for formulations used before crop emerges from soil
Diethylene glycol		Deactivator for formulations used before crop emerges from soil

Inert ingredients	Limits	Uses
Diethylene glycol .....	.....	Deactivator, adjuvant for formulations used before crop emerges from soil
Diethylene glycol and diethylene glycol monobutyl, monoethyl, and monomethyl ethers. ....	.....	Deactivator for formulations used before crop emerges from soil, stabilizer
Dimethylformamide (see also § 180.1046) .....	For use only in preemergence application, application prior to formation of edible parts of food plants, and seed and transplant treatment. Also, as part of the USDA witchweed quarantine program, postemergent application in field corn, after silking and tasseling of the corn.	Solvent, cosolvent
3,6-Dimethyl-4-octyn-3,6-diol .....	In pesticide formulations, for soil prior to planting or to plants before edible parts form.	Surfactants, related adjuvants of surfactants
Dimethyl sulfoxide .....	.....	Solvent or cosolvent for formulations used before crop emerges from soil or prior to formation of edible parts of food plants
Dioxane .....	.....	Solvent, cosolvent
Dipotassium hydrogen phosphate .....	.....	Buffering agent
Dipropylene glycol dibenzoate .....	For seed treatment use only.	Solvent, cosolvent
Dipropylene glycol monomethyl ether .....	.....	Stabilizer
Disodium 4-isodecyl sulfosuccinate .....	.....	Surfactants related adjuvants of surfactants.
Dodecylphenol .....	.....	Coupling agent in emulsifier
$\alpha$ -Dodecylphenol- $\omega$ -hydroxypoly(oxyethylene/oxypropylene) hetero polymer where ethylene oxide content is 11-13 moles and oxypropylene content is 14-16 moles, molecular weight (in amu) averages 600 to 965.	.....	Surfactants, related adjuvants of surfactants
Douglas-fir bark, ground .....	.....	Solid diluent, carrier
Dysprosium chloride .....	10 ppm in formulation .....	Tagging agent
Ethylene glycol .....	.....	Antifreeze, deactivator for all pesticides used before crop emerges from soil and in herbicides before or after crop emerges
Ethylene glycol monobutyl ether .....	.....	.....
Ethylene glycol monomethyl ether .....	.....	Solvent for formulations used before crop emerges from soil
2-Ethylhexanol .....	.....	Cosolvent, defoamer, solvent for all pesticides used before crop emerges from soil and in herbicides before or after crop emerges
Ethyl methacrylate .....	.....	Surfactants, related adjuvants of surfactants
Europic chloride .....	10 ppm in formulation .....	Tagging agent
FD&C Red No. 40 (CAS Reg. No. 25956–17–6)	For seed treatment use only. Not to exceed 2% by weight of the pesticide formulation..	Dye, coloring agent
Fenugreek .....	.....	Attractant
Ferric chloride .....	.....	Not greater than 2% of suspending, dispersing agent, pesticide formulation
Fluoroapatite .....	.....	Solid diluent, carrier
Folic acid (CAS Reg. No. 59–30–3) .....	Maximum of 0.5% of formulation.	Synergist
Formaldehyde .....	Not more than 1% of pesticide formulation.	Preservative for formulation
Fumaric acid .....	.....	Acidulant
Fumaric acid—iso-phthalic acid—styrene—ethylene/propylene glycol copolymer (minimum average molecular weight (in amu) $1 \times 10^{18}$ ).	.....	Encapsulating agent
Furfural byproduct (a granular steam-acid sterilized, lignocellulosic residuum in the extraction of furfural from corn cobs, sugarcane bagasse, cottonseed hulls, oat hulls, and rice hulls).	.....	Solid diluent, carrier
Gluconic acid (and sodium salt) .....	.....	Sequestrant
L-Glutamic acid (C <sub>5</sub> H <sub>9</sub> NO <sub>4</sub> ; CAS Reg. No. 56–86–0).	Seed treatment use only .....	Plant nutrient

Inert ingredients	Limits	Uses
Glutamine (CAS Reg. No. 56–85–9) .....	Maximum of 0.5% of formulation.	Synergist
Glycerol—propylene oxide polymer (CAS Reg. No. 25791-96-2).	.....	Component in water-soluble film
Glyceryl triacetate .....	.....	Stabilizer
Glyceryl tris-12-hydroxystearate .....	.....	Flow control agent
Graphite .....	.....	Treatment aid for seeds
Hexamethylenetetramine .....	.....	Stabilizer for carriers in solid pesticide formulations
.....	.....	Carrier
α-Hydro-ω-hydroxypoly(oxyethylene); molecular weight (in amu) 100,000 minimum.	.....	.....
α-Hydro-ω-hydroxypoly(oxypropylene) (mol. wt. 2,000).	.....	Component of defoamers
2-Hydroxy-4- <i>n</i> -octoxybenzophenone (CAS Reg. No. 1843–05–6).	Not more than 0.2 pt of pesticide formulation.	Light stabilizer
Hydroxypropyl cellulose .....	.....	Thickener
Hydroxypropyl guar gum .....	.....	Do.
Isoamyl acetate .....	Not more than 0.5% of pesticide formulation.	Odor-masking agent
.....	.....	Solvent
Isobornyl acetate .....	.....	Do.
Isobutyl alcohol .....	.....	Binder
Isobutylene-butene copolymers .....	For soil application only .....	Defoaming agent
Isooctadecanol .....	Not more than 2% of pesticide formulation.	.....
.....	.....	Solvent, cosolvent
Isophorone (CAS Reg. No. 78–59–1) .....	.....	Solvent, cosolvent, stabilizer, inhibitor
Isopropyl alcohol .....	.....	Solvent, cosolvent
Isopropylbenzene .....	.....	Surfactants and related adjuvants of surfactants
Isopropylbenzenesulfonic acid and its ammonium, calcium, magnesium, potassium, sodium, and zinc salts.	.....	.....
Lanthanum chloride .....	10 ppm in formulation .....	Tagging agent.
(3-Lauramidopropyl) trimethylammonium methyl sulfate.	Not more than 2.6% in the formulation. Not to be applied within 7 days of harvest.	Antistatic agent
.....	.....	.....
Linoleic diethanolamide (CAS Reg. No. 56863–02–6).	.....	Surfactant
Locust bean gum .....	.....	Adhesive, component of defoamers
Low erucic acid rapeseed oil, conforming to 21 CFR 184.1555(c) (CAS Reg. No. None).	.....	Surfactant, related adjuvants of surfactant
Magnesium nitrate (in combination with 2-methyl-4-isothiazolin-3-one and 5-chloro-2-methyl-4-isothiazolin-3-one).	None .....	Preservation
Maleic acid and maleic anhydride .....	For pesticide formulations applied to apples with a minimum preharvest interval of 21 days.	Stabilizer
.....	.....	.....
Maleic acid—butadiene copolymer .....	3% of pesticide formulation	Surfactants, related adjuvants surfactants
Maleic anhydride—methyl vinyl ether, copolymer; average molecular weight (in amu) 250,000.	.....	Do.
Manganese carbonate .....	.....	Plant nutrient
Mesityl oxide .....	Not for use after edible parts of plant begin to form. Do not graze livestock in treated areas within 48 hours after application.	Solvent, cosolvent
.....	.....	.....
Methionine (CAS Reg. No. 59–51–8) .....	Maximum of 0.5% of formulation.	Synergist
.....	.....	.....
Methyl alcohol .....	.....	Do.
Methyl bis(2-hydroxyethyl)alkyl ammonium chloride, where the carbon chain (C <sub>8</sub> -C <sub>18</sub> ) is derived from coconut, cottonseed, soya, or talow acids.	.....	Surfactant
.....	.....	.....
α,α'-[Methylenebis]-4-(1,1,3,3-tetramethylbutyl)- <i>o</i> -phenylene bis[ω-hydroxypoly(oxyethylene)] having 6-7.5 moles of ethylene oxide per hydroxyl group.	.....	Solvent, cosolvent, surfactant, and related adjuvants of surfactants
Methylene blue .....	.....	Dye for formulations used on cotton
Methylene chloride (Dichloromethane) .....	.....	Solvent, cosolvent
Methyl ethyl ketone .....	.....	Surfactant
Methyl <i>p</i> -hydroxybenzoate .....	.....	Preservative for formulations
Methyl isoamyl ketone .....	.....	Solvent, cosolvent

Inert ingredients	Limits	Uses
Methyl isobutyl ketone .....	.....	Do.
2-Methyl-4-isothiazolin-3-one (in combination with 5-chloro-2-methyl-4-isothiazolin-3-one).	Not more than 0.0022% (22.5 ppm) in the formulation; 0.00022% (or 2.25 ppm) in the final solution applied to growing crops..	Preservative
Methyl methacrylate .....	.....	Surfactants, related adjuvants of surfactants
Methyl methacrylate-2-sulfoethyl methacrylate-dimethylaminoethyl methacrylate-glycidyl methacrylate-styrene-2-ethylhexyl acrylate graft copolymer (minimum average molecular weight (in amu) 9,600).	.....	Carrier
Methylnaphthalenesulfonic acid—formaldehyde condensate, sodium salt.	.....	Dispersant
Methyl oleate .....	.....	Surfactant
2-Methyl-2,4-pentanediol .....	.....	Solvent for formulations used before crop emerges from soil
Methyl poly(oxyethylene) alkyl ammonium chloride, where the poly(oxyethylene) content is 3-15 moles and the alkyl group (C <sub>8</sub> -C <sub>18</sub> ) is derived from coconut, cottonseed, soya, or tallow acids..	.....	Surfactant
<i>N</i> -Methylpyrrolidone (CAS Reg. No. 872-504) .....	.....	Solvent, cosolvent
Methyl violet 2B .....	.....	Dye
Mixed phytosterols (consisting of campesterol, sitosterol and stigmasterol, with minor amounts of associated plant sterols) derived from edible vegetable oils.	.....	Surfactant.
Mono- and bis-(1 <i>H</i> , 1 <i>H</i> , 2 <i>H</i> , 2 <i>H</i> -perfluoroalkyl) phosphates where the alkyl group is even numbered and in the C <sub>6</sub> -C <sub>12</sub> range.	Not more than 0.5% of pesticide formulation..	Defoaming agent
Mono- and dialkyl (C <sub>8</sub> -C <sub>18</sub> ) methylated ammonium chloride compounds, where the alkyl group(s) (C <sub>8</sub> -C <sub>18</sub> ) are derived from coconut, cottonseed, soya, tallow, or hogfat fatty acids.	.....	Surfactants, related adjuvants of surfactants
Monophosphate ester of the block copolymer $\alpha$ -hydro- $\omega$ -hydroxypoly(oxyethylene) poly(oxypropylene) poly(oxyethylene); the poly(oxypropylene) content averages 37-41 moles, and the molecular weight (in amu) averages 8,000.	.....	Do.
Morpholine salt of dodecylbenzenesulfonic acid	.....	Do.
Naphthalenesulfonic acid-formaldehyde condensate, ammonium and sodium salts.	.....	Do.
Nicotinamide (CAS Reg. No. 98–92–0) .....	Maximum of 0.5% of formulation.	Synergist
$\alpha$ -( <i>p</i> -Nonylphenyl)- $\omega$ -hydroxypoly(oxyethylene); produced by the condensation of 1 mole of nonylphenol (nonyl group is a propylene trimer isomer) with an average of 4-14 or 30-100 moles of ethylene oxide; if a blend of products is used, the average number of moles of ethylene oxide reacted to produce any product that is a component of the blend shall be in the range 4-14 or 30-100.	.....	Surfactant
X-( <i>p</i> - Nonylphenyl)- $\omega$ -hydroxy-poly(oxyethylene) sulfosuccinate isopropylamine and <i>N</i> -hydroxyethyl isopropylamine salts of: the poly(oxyethylene) content averages r moles.	Not more than 0.2% in the final solution.	Emulsifiers in pesticide concentrates applied with liquid fertilizer solutions before crop emerges from soil or not later than 4 weeks after planting
Oat hulls .....	.....	Solid diluent carrier
<i>n</i> - Octyl alcohol .....	.....	Solvent, cosolvent
Oleic acid diester of $\alpha$ -hydro- $\omega$ -hydroxypoly(oxyethylene); the poly(oxyethylene) molecular weight (in amu) averages 2,300.	.....	Surfactant
$\alpha$ - Oleoyl- $\omega$ -(oleoyloxy) poly(oxyethylene) derived from $\alpha$ -hydro- $\omega$ -hydroxypoly(oxyethylene) (molecular weight 600 amu).	.....	Component of defoamers
Oxo-decyl acetate (CAS reg. No. 108419–33–6)	.....	Solvent
Oxo-heptyl acetate (CAS Reg. No. 90438–79–2)	.....	Solvent
Oxo-hexyl acetate (CAS Reg. No. 88230–35–7)	.....	Solvent
Oxo-nonyl acetate (CAS Reg. No. 108419–34–7).	.....	Solvent



Environmental Protection Agency, EPA

§ 180.1001

Inert ingredients	Limits	Uses
Oxo-octyl acetate (CAS Reg. No. 108419-32-5)	.....	Solvent
Oxo-tridecyl acetate (CAS Reg. No. 108419-35-8)	.....	Solvent
Paper fiber, deinked or recycled, conforming to 21 CFR 109.30(a)(9) and 21 CFR 176.260.	.....	Carrier
Paper fiber, produced by the kraft (sulfate) or sulfite pulping processes.	.....	Carrier
Paraformaldehyde .....	Not more than 2% of pesticide formulation.	Preservative for formulation
Partial sodium salt of <i>N</i> -lauryl- $\alpha$ -iminodipropionic acid.	Not more than 1% of pesticide formulation.	Surfactants, related adjuvants of surfactants
Phenol .....	.....	Solvent, cosolvent
Phenolic resins .....	Soil applications .....	Binding agent
Phenolsulfonic acid—formaldehyde—urea condensate and its sodium salt.	Applied to growing plants only.	Dispersant surfactant
(Phthalocyaninato (2)) copper; (C.I. pigment blue No. 15).	When used as a colorant in low-density plastic films.	Coloring agent, pigment
Pigment red 48 .....	For seed treatment use only.	Dye
$\alpha$ -Pinene .....	Not more than 2% of formulation by weight.	Stabilizer
Polyethylene, oxidized (as defined in 21 CFR 172.260(a)).	.....	Surfactants, related adjuvants of surfactants
Polymethylene polyphenylisocyanate, polymer with ethylene diamine, diethylene triamine and sebacoyl chloride, cross-linked; minimum number average molecular weight 100,000.	.....	Encapsulating agent
Poly(methylene- <i>p</i> -nonylphenoxy)poly(oxypropylene) propanol; the poly(oxy-propylene) content averages 4-12 moles.	.....	Do.
Polyoxyethylated primary amine (C <sub>14</sub> -C <sub>18</sub> ); the fatty amine is derived from an animal source and contains 3% water; the poly(oxyethylene) content averages 20 moles.	Applied prior to planting of any crop, or as directed spray around the base of any crop.	Surfactant
Polyoxyethylated sorbitol fatty acid esters; the polyoxyethylated sorbitol solution containing 15% water is reacted with fatty acids limited to C <sub>12</sub> , C <sub>14</sub> , C <sub>16</sub> , and C <sub>18</sub> , containing minor amounts of associated fatty acids; the poly(oxyethylene) content averages 30 moles.	.....	Surfactants, related adjuvants of surfactants
Poly(oxyethylene) adducts of mixed phytosterols (such sterols to consist of campesterol, stigmasterol and sitosterol with minor amounts of associated plant sterols) derived from edible vegetable oils; polyoxyethylene content averaging 5-26 moles.	.....	Surfactant, related adjuvants
Poly(oxyethylene) (5) sorbitan monooleate .....	.....	Surfactants, related adjuvants of surfactants
Poly(phenylhexylurea), cross-linked; minimum average molecular weight 36,000.	.....	Encapsulating agent
Polysorbate 60, conforming to 21 CFR 172.836	.....	Surfactant
Polyvinyl acetate (as defined in 21 CFR 172.615).	.....	Adhesive
Polyvinyl acetate—polyvinyl alcohol copolymer (CAS Reg. No. 25213-24-5).	Minimum number average molecular weight (in amu) 50,000.	Component of water-soluble film
Polyvinyl alcohol .....	.....	Binder; water soluble bag-container or film-tape for encapsulating seeds
Polyvinylpyrrolidone, butylated .....	.....	Surfactants, related adjuvants of surfactants
Potassium carbonate .....	.....	Buffering agent
Potassium dihydrogen phosphate .....	.....	Do.
Primary <i>n</i> -alkylamines, where the alkyl group (C <sub>8</sub> -C <sub>18</sub> ) is derived from coconut, cottonseed, soya, or tallow acids.	.....	Surfactant
<i>n</i> - Propanol .....	.....	Solvent for blended emulsifiers
Propylene dichloride .....	.....	Solvent for formulations used before crop emerges from soil
Propylene glycol monomethyl ether .....	.....	Solvent
Pyridoxine (CAS Reg. No. 65-23-6) .....	Maximum of 0.5% of formulation.	Synergist
Rosin, dark wood (as defined in 21 CFR 178.3870(a)(1)(v)).	.....	Surfactants, related adjuvants of surfactants
Rosin, gum .....	.....	Do.
Rosin, tall oil .....	.....	Do.

Inert ingredients	Limits	Uses
Scandium chloride .....	10 ppm in formulation .....	Tagging agent
Silicon dioxide, fumed, amorphous .....	.....	Flow control, anticaking, and carrier agent
Soapbark (quillaja) .....	.....	Dispersing agent, wetting agent
Sodium bisulfate (CAS Reg. No. 7681-38-1) .....	.....	Acidifying/buffering agent
Sodium butyl naphthalenesulfonate .....	.....	Surfactants, related adjuvants of surfactants
Sodium caseinate .....	.....	Suspending agent and binder
Sodium citrate .....	.....	Sequestrant
Sodium 1,4-dicyclohexyl sulfosuccinate .....	.....	Surfactants, related adjuvants of surfactants
Sodium 1,4-dihexyl sulfosuccinate .....	.....	Do.
Sodium dihydrogen phosphate (CAS Reg. No. 7558-80-7) conforming to 21 CFR 182.6778. ....	.....	Buffering agent
Sodium 1,4-diisobutyl sulfosuccinate .....	.....	Surfactants, related adjuvants of surfactants
Sodium 1,4-dipentyl sulfosuccinate .....	.....	Do.
Sodium 1,4-ditridecyl sulfosuccinate .....	.....	Do.
Sodium fluoride .....	Not more than 0.25% of pesticide formulation.	Stabilizer carrier for formulations used before crop emerges from soil
Sodium metaborate .....	.....	Sequestrant
Sodium molybdate .....	.....	Plant nutrient
Sodium mono- and dimethyl naphthalenesulfonate; molecular weight (in amu) 245-260. ....	.....	Surfactants, related adjuvants of surfactants
Sodium mono-, di-, and trisopropyl naphthalenesulfonate. ....	.....	Do.
Sodium nitrate .....	.....	Solid diluent
Sodium nitrite .....	Not more than 3% of pesticide formulation.	Stabilizer, inhibitor.
Sodium o-phenylphenate .....	Not more than 0.1% of pesticide formulation.	Preservative for formulation
Sodium polyflavonoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin. ....	.....	Sunscreen agent for viral insecticides for use on cotton
Sodium salt of the insoluble fraction of rosin .....	.....	Surfactants, related adjuvants of surfactants
Sodium salt of partially or completely saponified dark wood rosin (as defined in 21 CFR 178.3870(a)(4)). ....	.....	Surfactants, related adjuvants of surfactants
Sodium tetraborate .....	Not more than 2% of pesticide formulation.	Buffering agent; corrosion inhibitor
Styrene—maleic anhydride copolymer .....	For preemergence use only	Suspending or dispersing agent
Styrene—maleic anhydride copolymer, ester derivative. ....	Limited to 3% of the formulation.	Suspending or dispersing agent. For pre-emergence use and use prior to formation of edible parts of plant
Sulfosuccinic acid ester with <i>N</i> -(2-hydroxypropyl) oleamide, ammonia and isopropylamine salts of. ....	Not more than 0.2% in the final solution.	Emulsifiers in pesticide concentrates applied with liquid fertilizer solutions before crop emerges from soil or not later than 4 weeks after planting
Tall oil diesters with polypropylene glycol (CAS Reg. No. 68648-12-4). ....	.....	Component in water-soluble film
Tannin .....	.....	Dispersing agent
Tertiary butylhydroquinone .....	.....	Antioxidant
1-Tetradecanamine, <i>N,N</i> -dimethyl-, <i>N</i> -oxide (CAS Reg. No. 3332-27-2). ....	.....	Component in water-soluble film
<i>N,N,N,N'</i> -Tetrakis-(2-hydroxypropyl) ethylenediamine. ....	.....	Stabilizer for formulations used before crop emerges from soil
$\alpha$ -[ <i>p</i> -(1,1,3,3-Tetramethylbutyl)phenyl]- $\omega$ -hydroxypoly(oxyethylene) mixture of dihydrogen phosphate and monohydrogen phosphate esters and the corresponding sodium salts of the phosphate esters; the poly(oxyethylene) content averages 6 to 10 moles. ....	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -[ <i>p</i> -(1,1,3,3-Tetramethylbutyl)phenyl] poly(oxypropylene) block polymer with poly(oxyethylene); the poly(oxypropylene) content averages 25 moles, the poly(oxyethylene) content averages 40 moles, the molecular weight (in amu) averages 3,400. ....	.....	Do.
2,4,7,9-Tetramethyl-5-decyne 4,7-diol .....	In pesticide formulations, for application to soil prior to planting or to plants before edible parts form.	Do.
Tetrapotassium pyrophosphate (CAS Reg. No. 7320-345). ....	Not to exceed 10% of formulation.	Sequestrant, anticaking agent, conditioning agent
Tetrasodium <i>N</i> -(1,2-dicarboxyethyl)- <i>N</i> -octadecylsulfosuccinamate. ....	.....	Do.

Inert ingredients	Limits	Uses
[2,2'(2,5-Thiophenediyl) bis (5-tert-butylbenzoxazole)] (CAS Reg. Number 7128-64-5).	10 ppm in pesticide formulations.	Quality control agent
Titanium dioxide (CAS Reg. No. 13463-67-7) ...	.....	Pigment/coloring agent in plastic bags used to wrap growing bananas (preharvest), colorant on seeds for planting
Toluene .....	.....	Solvent, cosolvent
Toluenesulfonic acid and its ammonium, calcium, magnesium, potassium, sodium, and zinc salts.	.....	Do.
Tri-tert-butylphenol polyglycol ether (molecular weight (in amu) 746).	.....	Surfactant for formulations used before crop emerges from soil
Triethanolamine .....	.....	Stabilizer, inhibitor for formulations used before crop emerges from soil
Triethylene glycol .....	.....	Deactivator
Triethyl phosphate .....	.....	Stabilizer for formulations used before crop emerges from soil
Trimethylolpropane (CAS Reg. No. 77-66-9) ....	Not more than 15% of the pesticide formulation.	Component of water-soluble film
Trimethylolpropane (CAS Reg. No. 77-99-6) ....	Not to exceed 15% by weight of the film.	Component in water-soluble film
α-[2,4,6-Tris[1-(phenyl)ethyl]phenyl]-ω-hydroxy poly(oxyethylene), the poly(oxyethylene) content averages 4-150 moles.	Not more than 15% of the formulation.	Surfactant.
α-[2,4,6-Tris[1-(phenyl)ethyl]phenyl]-ω-hydroxy poly(oxyethylene); mixture of monohydrogen and dihydrogen phosphate esters and the corresponding ammonium, calcium, magnesium, potassium, sodium, and zinc salts, the poly(oxyethylene) content averages 4-150 moles).	Not more than 15% of the formulation.	Do.
α-[2,4,6-Tris[1-(phenyl)ethyl]phenyl]-ω-hydroxy poly(oxyethylene) poly(oxypropylene) copolymer, the poly(oxypropylene) content averages 2-8 moles, the poly(oxyethylene) content averages 16-30 moles, and the average molecular weight (in amu) is 1,500.	Not more than 15% in the pesticide formulation.	Do.
α-[2,4,6-Tris[1-(phenyl)ethyl]phenyl]-ω-hydroxy poly(oxyethylene) sulfate, and the corresponding ammonium, calcium, magnesium, potassium, sodium, and zinc salts, the poly(oxyethylene) content averages 4-150 moles.	Not more than 15% of the pesticide formulation.	Do.
Tryptophan (CAS Reg. No. 73-22-3) .....	Maximum of 0.5% of formulation.	Synergist
Urea (CAS Reg. No. 57-13-6) .....	.....	Adjuvant/ intensifier for herbicides
Urea—formaldehyde copolymer (minimum average molecular weight (in amu) 30,000); CAS No. 9011-05-6..	.....	Encapsulating agent
Valeric acid, normal .....	Not more than 2% in pesticide formulations.	Stenching agent or odorant
Vanillin .....	.....	Attractant
Vinyl acetate—allyl acetate—monomethyl maleate copolymer (minimum average molecular weight (in amu) 20,000).	.....	Component on water-soluble film
Vinyl acetate—ethylene copolymer (CAS Reg. No. 24937-78-8); minimum number average molecular weight (in amu) 69,000.	.....	Component of water-soluble film
Vinyl acetate—vinyl alcohol—alkyl lactone copolymer.	Minimum estimated number average molecular weight (in amu) 40,000; minimum viscosity of 18 centipoise.	Component of water-soluble film
Vinyl alcohol—disodium itaconate copolymer (minimum average molecular weight (in amu) 50,290).	.....	Component of water-soluble film
Vinyl alcohol—vinyl acetate—monomethyl maleate, sodium salt—maleic acid, disodium salt-γ-butyrolactone acetic acid, sodium salt copolymer, minimum number average molecular weight (in amu) 20,000.	.....	Carrier
Vinyl chloride—vinyl acetate copolymers .....	Not more than 2% of pesticide formulation.	Inert binding agent for formulation applied only to soil

Inert ingredients	Limits	Uses
Vinylpyrrolidone—styrene copolymer (CAS Reg. No. 25086-29-7).	Not to exceed 2% of the formulation.	Opacifier
Wheat	.....	Attractant
Wheat flour	.....	Do.
Wool fat (anhydrous lanolin)	.....	Stabilizer
Woolwax alcohols	.....	Safener
Xylene	.....	Solvent, cosolvent
Xylenesulfonic acid its ammonium calcium, magnesium, potassium, sodium, and zinc salts.	.....	Surfactants, related adjuvants of surfactants
Ytterbium chloride	10 ppm in formulation	Tagging agent
Yttrium chloride	10 ppm in formulation	Tagging agent
Zinc orthophosphate	.....	Plant nutrient and safener
Zinc stearate, conforming to 21 CFR 182.5994 and 582.5994.	.....	Flow control agent

(e) The following materials are exempted from the requirement of a tolerance when used in accordance with good agricultural practice as inert (or occasionally active) ingredients in pesticide formulations applied to animals:

Inert ingredients	Limits	Uses
Acetic acid (CAS Reg. No. 64-19-7)	Not more than 0.5% of pesticide formulation.	Catalyst
Acetic anhydride	.....	Solvent, cosolvent, stabilizer
Acetyl tributyl citrate (CAS Reg. No. 77-90-7)	.....	Component of plastic animal tags
Acetylated lanolin alcohol	.....	Moisturizer
Acrylic acid—stearyl methacrylate copolymer (CAS Reg. No. 27756-15-6), minimum number average molecular weight (in amu) 2,500.	.....	Emulsifier, suspending agent, or rheology modifier
Acrylonitrile—butadiene copolymer (CAS Reg. No. 9003-18-3) conforming to 21 CFR 180.22, minimum average molecular weight (in amu) 1,000.	.....	Carrier in animal tag and similar slow-release devices
Alkanoic and alkenoic acids, mono- and diesters of $\alpha$ -hydro- $\omega$ -hydroxypoly(oxyethylene) with molecular weight (in amu) range of 200 to 6,000.	.....	Emulsifiers
Alkyl (C <sub>8</sub> -C <sub>24</sub> ) benzenesulfonic acid and its ammonium, calcium, magnesium, potassium, sodium, and zinc salts.	.....	Surfactants, emulsifier, related adjuvants of surfactants
$\alpha$ -Alkyl (C <sub>9</sub> -C <sub>18</sub> )- $\omega$ -hydroxy poly(oxyethylene): the poly(oxyethylene) content averages 2-20 moles.	.....	Solvent, cosolvent, surfactant, and related adjuvants of surfactants
$\alpha$ -Alkyl (C <sub>12</sub> -C <sub>15</sub> )- $\omega$ -hydroxypoly(oxyethylene) sulfate and its ammonium, calcium, magnesium, potassium, sodium, and zinc salts; the poly(oxyethylene) content averages 3 moles.	.....	Surfactants, related adjuvants of surfactants
$\alpha$ - Alkyl (C <sub>12</sub> - C <sub>15</sub> )- $\omega$ -hydroxypoly(oxyethylene/ oxypropylene) hetero polymer in which the oxyethylene content is 8-13 moles and the oxypropylene content is 7-30 moles.	.....	Solvent, cosolvent, surfactant, and related adjuvants of surfactants
$\alpha$ - Alkyl (C <sub>8</sub> -C <sub>10</sub> ) hydroxypoly(oxypropylene) block polymer with polyoxyethylene; polyoxypropylene content averages 3 moles and polyoxyethylene content averages 5-12 moles.	.....	Do.
$\alpha$ -Alkyl (C <sub>6</sub> -C <sub>14</sub> )- $\omega$ -hydroxypoly(oxypropylene) block copolymer with polyoxyethylene; polyoxypropylene content is 1-3 moles; polyoxyethylene content is 7-9 moles; average molecular weight (in amu) approximately 635.	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -( <i>p</i> - Alkylphenyl)- $\omega$ -hydroxypoly (oxyethylene) produced by the condensation of 1 mole of alkylphenol (alkyl is a mixture of propylene tetramer and pentamer isomers and averages C <sub>13</sub> ) with 6 moles of ethylene oxide.	.....	Do.
Alkyl (C <sub>8</sub> -C <sub>18</sub> ) sulfate and its ammonium, calcium, magnesium, potassium, sodium, and zinc salts.	.....	Do.

Inert ingredients	Limits	Uses
Amine salts of alkyl (C <sub>8</sub> -C <sub>24</sub> ) benzenesulfonic acid (butylamine; dimethylamino propylamine; mono- and diisopropyl- amine; and mono-, di-, and triethanolamine).	.....	Do.
Ascorbyl palmitate .....	.....	Preservative
Attapulgate-type clay .....	.....	Solid diluent, carrier
Barium sulfate (CAS Reg. No. 7727-43-7) .....	.....	Carrier, density control agent
Benzoic acid .....	.....	Preservative for formulations
Butane .....	.....	Propellant
1,4-Butanediol-methylenebis(4-phenylisocyanate)-poly(tetramethylene glycol) copolymer (CAS Reg. No. 9018-04-6); minimum molecular weight (in amu) 158,000.	.....	Solid diluent; carrier
<i>n</i> -Butanol (CAS Reg. No. 71-36-3) .....	.....	Solvent for blended emulsifiers
Butylated hydroxyanisole .....	.....	Antioxidant
Butylated hydroxytoluene .....	.....	Do.
$\alpha$ -Butyl- $\omega$ -hydroxypoly(oxypropylene) block polymer with poly(oxyethylene); molecular weight (in amu) 2,400-3,500.	.....	Surfactants, emulsifier, related adjuvants of surfactants.
$\alpha$ -( <i>p</i> - <i>tert</i> - Butylphenyl)- $\omega$ -hydroxypoly (oxyethylene) mixture of dihydrogen phosphate and monohydrogen phosphate esters and the corresponding ammonium, calcium, magnesium, monoethanolamine, potassium, sodium, and zinc salts of the phosphate esters; the poly(oxyethylene) content averages 4-12 moles.	.....	Surfactants, related adjuvants of surfactants
Calcium carbonate .....	.....	Solid diluent, carrier
Calcium chloride .....	.....	Stabilizer
Calcium silicate, hydrated calcium silicate .....	.....	Anticaking agent, solid diluent, carrier
Calcium stearate (CAS Reg. No. 1592-23-0) ....	.....	Stabilizer, component of plastic animal tag
Calcium sulfate .....	.....	Solid diluent, carrier
Calcium and sodium salts of certain sulfonated petroleum fractions (mahogany soaps); calcium salt molecular weight (in amu) 790-1,020, sodium salt molecular weight (in amu) 400-500.	.....	Surfactants, related adjuvants of surfactants
Carbon black (CAS Reg. No. 1333-86-4) .....	.....	Colorant/pigment in animal tag
Carnauba wax (CAS Reg. No. 8015-86-9) .....	.....	Binder
Carrageenan, conforming to 21 CFR 172.620 ....	Minimum molecular weight (in amu): 100,000.	Thickener
Castor oil, U.S.P .....	.....	Cosolvent
Castor oil, polyoxyethylated; the poly(oxyethylene) content averages 5-54 moles.	.....	Surfactants, related adjuvants of surfactants
Castor oil, polyoxyethylated; the poly(oxyethylene) content averages 40 moles.	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -Cellulose .....	Food grade .....	Suspending
Chlorinated polyethylene (CAS Reg. No. 64754-90-1).	.....	Resin, component animal tag
Citric acid .....	.....	Buffer
Corn syrup .....	.....	Sticker, attractant
Cross-linked polyurea-type encapsulating polymer.	.....	Encapsulating agent
Cumene (isopropylbenzene) .....	.....	Solvent, cosolvent
Cyclohexanone .....	.....	Do.
D&C Green No. 6 .....	.....	Dye, coloring agent
D&C Red No. 17 .....	.....	Do.
D&C Violet No. 2 .....	.....	Do.
Dextrin (CAS Reg. No. 9004-53-9) .....	.....	Surfactant, suspending agent, dispersing agent
Dextrose .....	.....	Solid diluent, carrier, sweetener
Diacetyl tartaric acid esters of mono- and diglycerides of edible fatty acids.	.....	Emulsifier
Dialkyl (C <sub>8</sub> -C <sub>18</sub> ) dimethylammonium chloride .....	Not more than 0.2% in silica hydrated silica.	Flocculating agent in the manufacture of silica hydrated silica for use as a solid diluent, carrier
Diatomite (diatomaceous earth) .....	.....	Solid diluent, carrier
Dibutyltin dilaurate (CAS Reg. No. 77-58-7) ....	.....	Component of plastic slow release tag
Dichlorodifluoromethane .....	.....	Propellant
Diethylphthalate .....	.....	Solvent, cosolvent

Inert ingredients	Limits	Uses
1,1-Difluoroethane (CAS Reg. No. 75-37-6) .....	For aerosol pesticide formulations used for insect control in food- and feed-handling establishments and animals.	Aerosol propellant
Dimethyl ether (CAS Reg. No. 115-10-6) .....	.....	Propellant
3,6-Dimethyl-4-octyne-3,6-diol .....	Not more than 2.5% of pesticide formulation.	Surfactants, related adjuvants of surfactants
Dimethylpolysiloxane (CAS Reg. No. 9016-00-6).	.....	Defoaming agent
$\alpha$ -( <i>o,p</i> -Dinonylphenyl)- $\omega$ -hydroxypoly (oxyethylene) mixture of dihydrogen phosphate and monohydrogen phosphate esters and the corresponding ammonium, calcium, magnesium, monoethanolamine, potassium, sodium, and zinc salts of the phosphate esters; the nonyl group is a propylene trimer isomer and the poly(oxyethylene) content averages 4-14 moles.	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -( <i>o,p</i> -Dinonylphenyl)- $\omega$ -hydroxypoly (oxyethylene), produced by the condensation of 1 mole of dinonylphenol (nonyl group is a propylene trimer isomer) with an average of 4-14 moles of ethylene oxide.	.....	Do.
Dipropylene glycol monomethyl ether .....	.....	Do.
Dodecylbenzenesulfonic acid, amine salts .....	.....	Do.
$\alpha$ -( <i>p</i> -Dodecylphenyl)- $\omega$ -hydroxypoly (oxyethylene) produced by the condensation of 1 mole of dodecylphenol (dodecyl group is a propylene tetramer isomer) with an average of 4-14 or 30-70 moles of ethylene oxide; if a blend of products is used, the average number of moles of ethylene oxide reacted to produce any product that is a component of the blend shall be in the range of 4-14 or 30-70 moles.	.....	Surfactants, emulsifier
Epoxidized soybean oil .....	.....	Stabilizer
Epoxidized soybean oil (CAS Reg. No. 8013-07-8).	.....	Stabilizer, plasticizer, component animal tag
1,2-Ethanediamine, polymer with oxirane and methyloxirane (CAS Reg. No. 26316-40-5) minimum number average molecular weight 2,800 and the range of number average molecular weight is 2,800 to 10,000 daltons..	.....	Surfactant, dispersing agent
Ethyl alcohol .....	.....	Solvent, cosolvent
Ethylene oxide adducts of 2,4,7,9-tetramethyl-5-decynediol, the ethylene oxide content averages 3.5, 10, or 30 moles.	.....	Surfactants, related adjuvants of surfactants
2-Ethyl-1-hexanol .....	Not more than 2.5% of pesticide formulation.	Solvent, adjuvant of surfactants
Ethyl vinyl acetate (CAS Reg. No. 24937-78-8)	.....	Component of plastic slow release tag
FD&C Blue No. 1 .....	.....	Dye
FD&C Blue No. 1 .....	.....	Dye, coloring agent
FD&C Yellow No. 6 Aluminum Lake (CAS Reg. No. 15790-07-5).	Not more than 2% by weight of pesticide formulation.	Pigment in animal tag and similar slow-release devices
Glycerol (glycerin) .....	Meets specifications of Food Chemicals Codex.	Solvent and thickener
Glycerol monooleate .....	.....	Surfactants, related adjuvants of surfactants
Glyceryl monostearate .....	.....	Emulsifier
Glyceryl tris-12-hydroxystearate .....	.....	Flow control agent
Graphite .....	.....	Solid diluent, carrier
<i>n</i> -Hexyl alcohol (CAS Reg. No. 111-27-3) .....	.....	Solvent, cosolvent
$\alpha$ -Hydro- $\omega$ -hydroxypoly(oxypropylene); molecular weight (in amu) 2,000.	.....	Surfactants, related adjuvants of surfactants
$\alpha$ -Hydro- $\omega$ -hydroxypoly(oxyethylene)poly(oxypropylene) poly(oxyethylene) block copolymer; the minimum poly(oxypropylene) content is 27 moles and the minimum molecular weight (in amu) is 1,900.	.....	Surfactant, wetting agent
2-(2'-Hydroxy-5'-methylphenyl)benzotriazole (CAS Reg. No. 2440-22-4).	Not more than 0.5% by weight of pesticide formulation.	Ultraviolet light absorber/stabilizer in animal tag and similar slow-release devices

Inert ingredients	Limits	Uses
Iron oxide (CAS Reg. No. 1309-37-1) .....	.....	Colorant in pesticide formulations for animal tags
Isopropyl alcohol .....	.....	Solvent, cosolvent
4,4'-Isopropylidenediphenol alkyl (C <sub>12</sub> -C <sub>15</sub> ) phosphites (CAS Reg. No. 92908-32-2).	Not to exceed 1% of polymer.	Stabilizer, component animal tag
Isopropyl myristate, CAS Reg. No. 110-27-0 ....	.....	Solvent
Kaolinite-type clay .....	.....	Solid diluent, carrier
Kerosene, U.S.P. reagent .....	.....	Solvent, cosolvent
Lactic acid .....	.....	Solvent
α-Lauryl-ω-hydroxypoly(oxyethylene), average molecular weight (in amu) of 600.	.....	Emulsifier
α-Lauryl-ω-hydroxypoly(oxyethylene) sulfate, sodium salt; the poly(oxyethylene) content is 3-4 moles.	.....	Surfactants, related adjuvants of surfactants
Lignosulfonate: ammonium, calcium, magnesium, potassium, sodium, and zinc salts.	.....	Surfactants, related adjuvants of surfactants
d-Limonene (CAS Reg. No. 5989-27-5) .....	.....	Solvent, fragrance
Magnesium carbonate .....	.....	Solid diluent, carrier
Magnesium silicate, hydrated magnesium silicate.	.....	Do.
Maleic acid monobutyl ester—vinyl methyl ether copolymer, CAS No. 25119-68-0, minimum average molecular weight (in amu) 52,000.	.....	Seed-coating adhesive, gel, and antitranspirant
Maleic acid monoethyl ester—vinyl methyl ether copolymer, CAS No. 25087-06-3, minimum average molecular weight (in amu) 46,000.	.....	Seed-coating adhesive, gel, and antitranspirant.
Maleic acid monoisopropyl ester—vinyl methyl ether copolymer, CAS No. 31307-95-6, minimum average molecular weight (in amu) 49,000.	.....	Seed-coating adhesive, gel, and antitranspirant
Maleic anhydride-diisobutylene copolymer, sodium salt (CAS Reg. No. 37199-81-8), minimum number average molecular weight (in amu) 5,000-18,000..	.....	Suspending agent and dispersing agent.
Manganous oxide .....	.....	Do.
Methyl alcohol .....	.....	Solvent, cosolvent
Methyl <i>n</i> -amyl ketone (CAS Reg. No. 110-43-0) .....	.....	Solvent, cosolvent
Methylcellulose .....	.....	Dispersing-wetting agent
Methylene chloride .....	.....	Dispersant
α-(Methylene (4-(1,1,3,3-tetramethylbutyl)- <i>o</i> -phenylene) bis-ω-hydroxypoly(oxyethylene) having 6-7.5 moles of ethylene oxide per hydroxyl group.	.....	Surfactants, related adjuvants of surfactants
Methyl esters of higher fatty acids conforming to 21 CFR 573.640.	.....	Antidusting agent
Methyl- <i>p</i> -hydroxybenzoate (Methyl paraben) .....	Meets specifications of Food Chemicals Codex; not to exceed 0.1% in formulations.	Preservative
Methyl isobutyl ketone .....	.....	Solvent, cosolvent
2-[Methyl [(perfluoroalkyl)alkyl(C <sub>2</sub> -C <sub>8</sub> )sulfonyl] amino]alkyl(C <sub>2</sub> -C <sub>8</sub> ) acrylate—alkyl(C <sub>2</sub> -C <sub>8</sub> ) methacrylates- <i>N</i> -methylolacrylamide copolymer.	.....	Water repellent agent
Methyl vinyl ether—maleic acid copolymer (CAS Reg. No. 25153-40-6), minimum number average molecular weight (in amu) 75,000.	.....	Dispersant
Methyl vinyl ether—maleic acid copolymer calcium sodium salt (CAS Reg. No. 62386-95-2), minimum number average molecular weight (in amu) 900,000..	.....	Dispersant
Mineral oil, U.S.P., or conforming to 21 CFR 172.878 or 178.3620(a), (b).	.....	Solvent, diluent
Mono-, di-, and trimethylnaphthalenesulfonic acids-formaldehyde condensates, sodium salts.	Not to exceed 0.006% in final formulation.	Dispersing-wetting agent in dip vat operations for large animals, such as cattle
Montmorillonite-type clay .....	.....	Solid diluent, carrier
Naphthalenesulfonic acid and its sodium salt .....	.....	Surfactants, related adjuvants of surfactants
Nitrile rubber modified acrylonitrile methacrylate (CAS Reg. No. 27012-62-0) conforming to 21 CFR 177.1480.	.....	Component of plastic slow release tag

Inert ingredients	Limits	Uses
Nonyl, decyl, and undecyl glycoside mixture with a mixture of nonyl, decyl, and undecyl oligosaccharides and related reaction products (primarily decanol and undecanol) produced as an aqueous-based liquid (50 to 65% solids) from the reaction of primary alcohols (containing 15 to 20% secondary alcohol isomers) in a ratio of 20% C <sub>9</sub> , 40% C <sub>10</sub> , and 40% C <sub>11</sub> with carbohydrates (average glucose to alkyl chain ratio 1.3 to 1.8).	.....	Surfactant
α-( <i>p</i> -Nonylphenyl)-ω-hydroxypoly(oxyethylene) mixture of dihydrogen phosphate and monohydrogen phosphate esters and the corresponding ammonium, calcium, magnesium, monoethanolamine, potassium, sodium, and zinc salts of the phosphate esters; the nonyl group is a propylene trimer isomer and the poly(oxyethylene) content averages 4-14 moles.	.....	Surfactants, related adjuvants of surfactants
α-( <i>p</i> -Nonylphenyl)-ω-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of nonylphenol (nonyl group is a propylene trimer isomer) with an average of 4-15 or 30-90 moles of ethylene oxide; if a blend of products is used, the average number of moles of ethylene oxide reacted to produce any product that is a component of the blend shall be in the range of 4-15 or 30-90 moles.	.....	Surfactants, emulsifier, related adjuvants of surfactants.
α-( <i>p</i> -Nonylphenyl)-ω-hydroxypoly(oxyethylene) sulfate, and its ammonium, calcium, magnesium, potassium, sodium, and zinc salts; the nonyl group is a propylene trimer isomer and the poly(oxyethylene) content averages 4 moles.	.....	Surfactants, related adjuvants of surfactants
α-( <i>p</i> -Nonylphenyl)-ω-hydroxypoly(oxyethylene) sulfate, and its ammonium, calcium, magnesium, monoethanolamine, potassium, sodium, and zinc salts; the nonyl group is a propylene trimer isomer and the poly(oxyethylene) content averages 4-14 or 30-90 moles of ethylene oxide.	.....	Surfactants, related adjuvants of surfactants
α-( <i>p</i> -Nonylphenyl)-ω-hydroxypoly(oxypropylene) block polymer with poly(oxyethylene); polyoxypropylene content of 20-60 moles; polyoxyethylene content of 30-80 moles; molecular weight (in amu) 2,100-7,100.	.....	Surfactants, related adjuvants of surfactants
α-( <i>p</i> -Nonylphenyl)poly(oxypropylene) block polymer with poly(oxyethylene); polyoxyethylene content 30 to 90 moles; molecular weight (in amu) averages 3,000.	.....	Do.
α- <i>cis</i> -9-Octadecenyl-ω-hydroxypoly(oxyethylene); the octadecenyl group is derived from oleyl alcohol and the poly(oxyethylene) content average 20 moles.	.....	Do.
Octadecyl 3,5-di- <i>tert</i> -butyl-4-hydroxyhydrocinnamate (CAS Reg. No. 2082–79–3).	Not more than 0.5% by weight of pesticide formulation.	Thermal stabilizer/antioxidant in animal tag and similar slow-release devices
Octyl and decyl glucosides mixture with a mixture of octyl and decyl oligosaccharides and related reaction products (primarily <i>n</i> -decanol) produced as an aqueous-based liquid (68-72% solids) from the reaction of straight chain alcohols (C <sub>8</sub> (45%), C <sub>10</sub> ) with anhydrous glucose.	.....	Do.
Octyl epoxytallate (CAS Reg. No. 61788–72–5)	.....	Plasticizer, component animal tag
Oleic acid, conforming to 21 CFR 172.862 (CAS Reg. No. 112–80–1).	.....	Defoaming agent
α-Oleoyl-ω-hydroxypoly(oxyethylene), average molecular weight (in amu) of 600.	.....	Emulsifier
α-Oleoyl-ω-(oleoyloxy)poly(oxyethylene) derived from α-hydro-ω-hydroxypoly(oxyethylene), molecular weight (in amu) 600.	.....	Emulsifier, defoaming agent
Oxidized pine lignin, sodium salt (CAS Reg. No. 68201–23–0).	Maximum of 2% of formulation.	Surfactant, related adjuvant of surfactant



Inert ingredients	Limits	Uses
Paraformaldehyde .....	Not more than 2% of pesticide formulation.	Preservative for formulation
Petroleum hydrocarbons, light, odorless, conforming to 21 CFR 172.884 or 178.3650.	.....	Solvent, diluent
Petroleum hydrocarbons, synthetic isoparaffinic, conforming to 21 CFR 172.882 or 178.3530.	.....	Do.
Phenol .....	.....	Solvent, cosolvent
Pine lignin .....	.....	Adsorbent
α-Pinene .....	Not more than 2% of formulation by weight.	Stabilizer
Polyacrylic acid .....	.....	Surfactants, related adjuvants of surfactants
Polyethylene (CAS Reg. No. 9002-88-4) conforming to 21 CFR 172.615.	.....	Component of plastic slow release tag
Polyethylene esters of fatty acids, conforming to 21 CFR 172.854.	.....	Surfactants, related adjuvants of surfactants
Polyethylene glycol [α-hydro-ω-hydroxypoly(oxyethylene)]; mean molecular weight (in amu) 194 to 9,500 conforms to 21 CFR 178.3750.	.....	Surfactants, related adjuvants of surfactants
Polyglyceryl phthalate esters of coconut oil fatty acids.	.....	Do.
Poly(methylene- <i>p-tert</i> -butylphenoxy)poly(oxyethylene) ethanol; the poly(oxyethylene) content averages 4-12 moles.	.....	Do.
Poly(methylene- <i>p</i> -nonylphenoxy)poly(oxyethylene) ethanol; the poly(oxyethylene) content averages 4-12 moles.	.....	Do.
Poly(methylene- <i>p</i> -nonylphenoxy)poly(oxypropylene) propanol; the poly(oxypropylene) content averages 4-12 moles.	.....	Do.
Polyoxyethylated sorbitol fatty acid esters; the polyoxyethylated sorbitol solution containing 15% water is reacted with fatty acids limited to C <sub>12</sub> , C <sub>14</sub> , C <sub>16</sub> , and C <sub>18</sub> containing minor amounts of associated fatty acids; the poly(oxyethylene) content averages 30 moles.	.....	Do.
Poly(oxypropylene) block polymer with poly(oxyethylene); molecular weight (in amu) 1,800-9,000.	.....	Do.
Polypropylene (CAS Reg. No. 9003-07-0) .....	.....	Carrier, component of plastic slow-release tag
Polystyrene (CAS Reg. No. 9003-53-6), minimum number average molecular weight (in amu) 50,000.	.....	Suspending agent, thickener
Polytetrafluoroethylene (CAS Reg. No. 9002-84-0).	.....	Component of plastic slow release tag
Polyvinyl alcohol (CAS Reg. No. 9002-89-5) .....	.....	Surfactant
Polyvinyl chloride .....	.....	Solid diluent, carrier
Polyvinylpyrrolidone butylated polymer (CAS Reg. No. 26160-96-3), minimum number-average molecular weight (in amu) 9,500.	.....	Surfactants, related adjuvant of surfactants and binder.
Potassium citrate (CAS Reg. No. 866-84-2) .....	.....	Chelating agent, pH control
Potassium hydroxide .....	Meeting Food Chemicals, Codex specifications.	Neutralizer
Propane .....	.....	Propellant
<i>n</i> -Propanol .....	.....	Solvent, for blended emulsifiers
2-Propene-1-sulfonic acid sodium salt, polymer with withanol and ethenyl acetate, number average molecular weight (in amu) 6,000-12,000..	.....	Binding agent.
Propylene glycol .....	.....	Solvent, cosolvent
Propylene glycol monomethyl ether .....	.....	Deactivator, emollient
Propyl gallate .....	.....	Antioxidant
Propyl <i>p</i> -hydroxybenzoate (Propyl paraben) .....	Meets specifications of Food Chemicals Codex; not to exceed 0.1% in formulations.	Preservative
Pyrophyllite .....	.....	Solid diluent, carrier
Rhodamine B .....	.....	Dye
Secondary alkyl (C <sub>11</sub> -C <sub>13</sub> ) poly(oxyethylene) acetate, sodium salt; the ethylene oxide content averages 5 moles.	.....	Surfactant

Inert ingredients	Limits	Uses
Silica, hydrated silica		Anticaking agent, solid diluent, carrier
Silica aerogel (finely powdered microcellular silica foam having a minimum silica content of 89.5%).		Component of antifoaming agent
Soapstone		Solid diluent
Sodium alginate		Stabilizer
Sodium benzoate (CAS Reg. No. 532-32-1)		Anticaking agent/stabilizer/preservative
Sodium butylphthalenesulfonate		Not more than 0.5% of pesticide formulation
Sodium carboxymethylcellulose		Suspending and thickening agent
Sodium diisobutylphthalenesulfonate		Surfactants, related adjuvants of surfactants
Sodium dioctylsulfosuccinate		Do.
Sodium hydroxide		Neutralizer
Sodium isopropylisohexylphthalenesulfonate		Surfactants, related adjuvants of surfactants
Sodium isopropylphthalenesulfonate		Do.
Sodium monoalkyl and dialkyl (C <sub>8</sub> -C <sub>13</sub> ) phenoxybenzenedisulfonate mixtures containing not less than 70% of the monoalkylated product.		Do.
Sodium mono- and dimethylphthalenesulfonate, molecular weight (in amu) 245-260.		Do.
Sodium mono-, di-, and tributylphthalenesulfonates.		Solvent, cosolvent stabilizer
Sodium <i>N</i> -oleoyl- <i>N</i> -methyl taurine	Not more than 1% of pesticide formulations.	Surfactant
Sodium sulfate		Solid diluent, carrier
Sorbitan fatty acid esters (fatty acids limited to C <sub>12</sub> , C <sub>14</sub> , C <sub>16</sub> , and C <sub>18</sub> containing minor amounts of associated fatty acids) and poly(oxyethylene) derivatives of sorbitan fatty acid esters; the poly(oxyethylene) content averages 16-20 moles.		Buffering agent; corrosion inhibition
Sorbitol		Antidusting agent.
Soy protein, isolated		Adhesive
Stearic acid (CAS Reg. No. 57-11-4)		Lubricant, component animal tag
$\alpha$ -Stearoyl- $\omega$ -hydroxypoly(oxyethylene), average molecular weight (in amu) of 600.		Emulsifier
$\alpha$ -Stearoyl- $\omega$ -hydroxypoly(oxyethylene); the poly(oxyethylene) content averages 8, 9, or 40 moles; if a blend of products is used, the average number of moles of ethylene oxide reacted to produce any product that is a component of the blend shall be 8, 9, or 40.		Surfactants; related adjuvants of surfactants
Sucrose		Solid diluent, carrier
Sulfur (CAS Reg. No. 7704-34-9)		Stabilizer
Talc		Do.
Tall oil; fatty acids not less than 58%, rosin acids not more than 44%, unsaponifiables not more than 8%.		Surfactants, related adjuvants of surfactants
Tartrazine		Dye, coloring agent
$\alpha$ -[ <i>p</i> -(1,1,3,3-Tetramethylbutyl)phenyl]- $\omega$ -hydroxypoly(oxyethylene) produced by the condensation of 1 mole of <i>p</i> -(1,1,3,3-tetramethylbutyl)phenol with a range of 1-14 or 30-70 moles of ethylene oxide; if a blend of products is used, the average range number of moles of ethylene oxide reacted to produce any product that is a component of the blend shall be in the range of 1-14 or 30-70.		Surfactants, related adjuvants of surfactants
$\alpha$ -[ <i>p</i> -(1,1,3,3-Tetramethylbutyl)phenyl]- $\omega$ -hydroxypoly(oxyethylene) produced by the condensation of 1 mole of <i>p</i> -(1,1,3,3-tetramethylbutyl)phenol with an average of 4-14 or 30-70 moles of ethylene oxide; if a blend of products is used, the average number of moles of ethylene oxide reacted to produce any product that is a component of the blend shall be in the range of 4-14 or 30-70.		Surfactants, related adjuvants of surfactants
2,4,7,9-Tetramethyl-5-decyne-4,7-diol	Not more than 2.5% of pesticide formulation.	Do.
Titanium dioxide (CAS Reg. No. 13463-67-7)		Pigment/colorant in pesticide formulations for animal tag

Inert ingredients	Limits	Uses
Toluenesulfonic acid and its ammonium, calcium, magnesium, potassium, sodium, and zinc salts.	.....	Do.
Triacetin (glyceryl triacetate) .....	.....	Solvent, cosolvent
Tri- <i>tert</i> -butylphenol polyglycol ether (molecular weight (in amu) 746).	.....	Dispersing agent
1,1,1-Trichloroethane .....	.....	Solvent, cosolvent
1,1,1-Trichloroethane .....	Not more than 25% of pesticide formulation.	Do.
Trichlorofluoromethane .....	.....	Propellant
Tridecylpoly(oxyethylene) acetate sodiums salt; where the ethylene oxide content averages 6-7 moles.	.....	Surfactants, related adjuvants of surfactants
Triethylene glycol diacetate (CAS Reg. No. 111-21-7).	For use on beef cattle only	Solvent
Trisodium phosphate .....	.....	Precipitant, buffer, filler
Ultramarine blue(CAS Reg. No. 57455-37-5) ....	Not more than 1.5% of pesticide formulation.	Pigment/colorant in animal tag
Urea .....	.....	Stabilizer, inhibitor
Vinyl alcohol-vinyl acetate copolymer, benzaldehyde-o-sodium sulfonate condensate, minimum number average molecular weight (in amu) 20,000..	.....	Water soluble resin.
Vinyl pyrrolidone-acrylic, acid copolymer (CAS Reg. No. 28062-44-4), minimum number average molecular weight (in amu) 6,000..	.....	Adhesive, dispersion stabilizer and coating for sustained release granules.
Vinyl pyrrolidone—dimethylaminoethylmethacrylate copolymer (CAS Reg. No. 30581-590), minimum number average molecular weight (in amu) 20,000.	.....	Leaching inhibitor, binder for water-dispersible aggregates, sticker and suspension stabilizer
Wheat shorts .....	.....	Solid diluent
Wood rosin acid, potassium salts, conforming to 21 CFR 178.3870.	.....	Surfactants, related adjuvants of surfactants
Xanthan gum .....	.....	Thickener
Xylene .....	.....	Solvent, cosolvent
Xylenesulfonic acid and its ammonium, calcium, magnesium, potassium, sodium, and zinc salts.	.....	Surfactants, related adjuvants of surfactants
Zinc oxide .....	.....	Solid diluent, carrier
Zinc stearate, conforming to 21 CFR 182.5994 and 582.5994.	.....	Water repellent, desiccant, and coating agent.
Zinc stearate (CAS Reg. No. 557-05-1) .....	.....	Water repellent, desiccant, and coating agent; stabilizer, component of plastic animal tag
Zinc sulfate (basic and monohydrate) .....	.....	Water repellent, desiccant, and coating agent

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EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §180.1001, see the List of

CFR Sections Affected appearing in the Finding Aids section of this volume.

[63 FR 32134, June 12, 1998]