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when applied to a crop at the time of or after harvest.

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:

[75 FR 60245, Sept. 29, 2010]

§ 180.910 Inert ingredients used pre- and post-harvest; exemptions from the requirement of a tolerance.

Residues of the following materials are exempted from the requirement of

Inert ingredients	Limits	Uses
Acetic acid .....	.....	Catalyst
Acetic anhydride .....	.....	Solvent, cosolvent
Acetone .....	.....	Do.
Alkanolic and alkenolic acids, mono- and diesters of α -hydro- ω -hydroxypoly (oxyethylene) with molecular weight (in amu) range of 200 to 6,000.	.....	Emulsifiers
Alkyl (C ₈ -C ₂₄) benzenesulfonic acid and its ammonium, calcium, magnesium, potassium, sodium, and zinc salts.	.....	Surfactants, related adjuvants of surfactants
C ₁₀ -C ₁₈ -Alkyl dimethyl amine oxides (CAS Reg. Nos. 1643-20-5, 2571-88-2, 2605-79-0, 3332-27-2, 61788-90-7, 68955-55-5, 70592-80-2, 7128-91-8, 85408-48-6, and 85408-49-7).	15% by weight in pesticide formulation.	Surfactant
α -Alkyl(C ₆ -C ₁₅)- ω -hydroxypoly(oxyethylene)sulfate, and its ammonium, calcium, magnesium, potassium, sodium, and zinc salts, poly(oxyethylene) content averages 2-4 moles (CAS Reg. Nos. 3088-31-1, 9004-82-4, 9004-84-6, 13150-00-0, 25446-78-0, 26183-44-8, 32612-48-9, 50602-06-7, 62755-21-9, 68424-50-0, 68511-39-7, 68585-34-2, 68611-55-2, 68891-38-3, 73665-22-2).	Not to exceed 30% of pesticide formulation.	Surfactants, related adjuvants of surfactants
α -alkyl (C ₁₂ -C ₁₅)- ω -hydroxypoly (oxypropylene) poly (oxyethylene) copolymers (where the poly (oxypropylene) content is 3-60 moles and the poly (oxyethylene) content is 5-80 moles).	Not more than 20% of pesticide formulations.	Surfactant

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Inert ingredients	Limits	Uses
<p>α-alkyl-ω-hydroxypoly (oxypropylene) and/or poly (oxyethylene) polymers where the alkyl chain contains a minimum of six carbons (CAS Reg. Nos. 9002-92-0, 9004-95-9, 9005-00-9, 26183-52-8, 34398-01-1, 52292-17-8, 66455-14-9, 66455-15-0, 68002-97-1, 68131-39-5, 68131-40-8, 68154-96-1, 68213-23-0, 68439-45-2, 68439-46-3, 68526-94-3, 68439-50-9, 68439-49-6, 68551-12-2, 68951-67-7, 71243-46-4, 97043-91-9, 9043-30-5, 60828-78-6, 61827-42-7, 24938-91-8, 68439-54-3, 69011-36-5, 78330-20-8, 78330-21-9, 106232-83-1, 127036-24-2, 160875-66-1, 9004-98-2, 68920-66-1, 61804-34-0, 61791-28-4, 71060-57-6, 26468-86-0, 31726-34-8, 52609-19-5, 61791-20-6, 68155-01-1, 69013-19-0, 69364-63-2, 70879-83-3, 78330-19-5, 97953-22-5, 157627-86-6, 34398-05-5, 72905-87-4, 84133-50-6, 61702-78-1, 27306-79-2, 169107-21-5, 61791-13-7, 39587-22-9, 85422-93-1; 68154-98-3, 61725-89-1, 68002-96-0, 68154-97-2, 68439-51-0, 68551-13-3, 68603-25-8, 68937-66-6, 68987-81-5, 69227-21-0, 70750-27-5, 103818-93-5, 166736-08-9, 120313-48-6, 68213-24-1, 68458-88-8, 68551-14-4, 69013-18-9, 69227-22-1, 72854-13-8, 73049-34-0, 78330-23-1, 37311-02-7, 64366-70-7, 37251-67-5, 9087-53-0, 196823-11-7, 57679-21-7, 111905-54-5, 61827-84-7, 172588-43-1).</p>		Surfactants, related adjuvants of surfactants
<p>α-alkyl (minimum C6 linear or branched, saturated and or unsaturated)-ω-hydroxypolyoxyethylene polymer with or without polyoxypropylene, mixture of di- and monohydrogen phosphate esters and the corresponding ammonium, calcium, magnesium, monoethanolamine, potassium, sodium and zinc salts of the phosphate esters; minimum oxyethylene content averages 2 moles; minimum oxypropylene content is 0 moles (CAS Reg. Nos. 9046-01-9, 39464-66-9, 50643-20-4, 52019-36-0, 68071-35-2, 68458-48-0, 68585-36-4, 68815-11-2, 68908-64-5, 68511-37-5, 68130-47-2, 42612-52-2, 58318-92-6, 60267-55-2, 68070-99-5, 68186-36-7, 68186-37-8, 68610-65-1, 68071-17-0, 936100-29-7, 936100-30-0, 73038-25-2, 78330-24-2, 154518-39-5, 317833-96-8, 108818-88-8, 873662-29-4, 61837-79-4, 68311-02-4, 68425-73-0, 37280-82-3, 68649-29-6, 67711-84-6, 68891-13-4).</p>	Not to exceed 30% of pesticide formulation.	Surfactants, related adjuvants of surfactants
<p>N-alkyl (C8-C18) primary amines and their acetate salts where the alkyl group is linear and may be saturated and/or unsaturated (CAS Reg. Nos. 61790-57-6, 61790-58-7, 61790-59-8, 61790-60-1, 61788-46-3, 61790-33-8, 68155-38-4).</p>	Concentration in formulated end-use products not to exceed 10% by weight in herbicide products, 4% by weight in insecticide products, and 4% by weight in fungicide products.	Surfactants, related adjuvants of surfactants
<p>Alkyl (C₈-C₁₈) sulfate and its ammonium, calcium, isopropylamine, magnesium, potassium, sodium, and zinc salts.</p>		Surfactants.
<p>Aluminum hydroxide</p>		Diluent, carrier
<p>Aluminum oxide</p>		Diluent
<p>Aluminum stearate</p>		Surfactant
<p>Amides, C₅-C₉, N-[3-(dimethylamino) propyl] (CAS Reg. No. 1044764-00-2).</p>		Surfactant
<p>Amides, C₆-C₁₂, N-[3-(dimethylamino) propyl] (CAS Reg. No. 1044764-06-8).</p>		Surfactant

Inert ingredients	Limits	Uses
Ammonium bicarbonate	Surfactant, suspending agent, dispersing agent
Ammonium carbamate	Synergist in aluminum phosphide formulations
Ammonium chloride	Intensifier when used with ammonium nitrate as a dessicant or defoliant. Fire suppressant in aluminum phosphide and magnesium phosphide formulations
Ammonium hydroxide	Solvent, cosolvent, neutralizer, solubilizing agent
Ammonium salts of fatty acids (C ₈ -C ₁₈ saturated) (CAS Reg. No. 5972-76-9, 63718-65-0, 16530-70-4, 32582-95-9, 2437-23-2, 191799-95-8, 16530-71-5, 93917-76-1, 5297-93-8, 94266-36-1, 1002-89-7).	Surfactant
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
Ascorbyl palmitate	Preservative
Attapulgate-type clay	Solid diluent, carrier, thickener
<i>Bacillus thuringiensis</i> fermentation solids and/or solubles.	Diluent, carrier
Bentonite	Solid diluent, carrier
Benzoic acid	Preservative for formulation
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-, homopolymer (Alpha-pinene, homopolymer) (CAS Reg. No. 25766-18-1).	Surfactants, related adjuvants of surfactants
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-, homopolymer (Beta-pinene, homopolymer) (CAS Reg. No. 25719-60-2).	Surfactants, related adjuvants of surfactants
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-, polymer with 6,6- dimethyl-2- methylenebicyclo [3.1.1] heptane (Copolymer of alpha- and beta-pinene) (CAS Reg. No. 31393-98-3).	Surfactants, related adjuvants of surfactants
2-Bromo-2-nitro-1,3-propanediol (CAS Reg. No. 52-51-7).	0.04% or less by weight of the total pesticide formulation.	In-can preservative
Butane	Propellant
<i>n</i> -Butanol (CAS Reg. No. 71-36-3)	Solvent, cosolvent
Butylated hydroxyanisole	Antioxidant
Butylated hydroxytoluene	Do.
Calcareous shale	Solid diluent carrier
Calcite	Do.
Calcium carbonate	Do.
Calcium chloride	Stabilizer
Calcium phosphate	Solid diluent, carrier
Calcium hydroxide	Do.
Calcium hypochlorite	Sanitizing and bleaching agent
Calcium lactate pentahydrate (CAS Reg. No. 5743-47-5).	Nutrient, stabilizer
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.
Carbon Dioxide (CAS Reg. No. 124-38-9)	None	Propellant
Carrageenan, conforming to 21 CFR 172.620	Minimum molecular weight (in amu): 100,000.	Thickener
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
Coconut shells	Solid diluent and carrier
Cod liver oil	Solvent, cosolvent
Croscarmellose sodium (CAS Reg. No. 74811-65-7).	Disintegrant, solid diluent, carrier, and thickener
<i>n</i> -Decyl alcohol (CAS Reg. No. 112-30-1)	Solvent or co-solvent
Dialkyl (C ₈ -C ₁₈) 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

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Inert ingredients	Limits	Uses
Diethylaminoethanol, ethoxylated, propoxylated, reaction products with fatty acid dimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173188-75-4).	Surfactant
Diethylaminoethanol, ethoxylated, propoxylated, reaction products with fatty acid trimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173188-83-4).	.....	Surfactant
Diethylaminoethanol, ethoxylated, reaction product with fatty acid dimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173188-72-1).	.....	Surfactant
Diethylaminoethanol, ethoxylated, reaction products with fatty acid trimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173188-81-2).	.....	Surfactant
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
Dimethyl ether (methane, oxybis-) (CAS Reg. No. 115-10-6).	.....	Propellant
Dimethylaminoethanol, ethoxylated, propoxylated, reaction products with fatty acid dimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173188-42-5).	.....	Surfactant
Dimethylaminoethanol, ethoxylated, propoxylated, reaction products with fatty acid trimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173188-67-4).	.....	Surfactant
Dimethylaminoethanol, ethoxylated, reaction products with fatty acid dimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173188-38-9).	.....	Surfactant
Dimethylaminoethanol, ethoxylated, reaction products with fatty acid trimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173188-49-2).	.....	Surfactant
3,6-Dimethyl-4-octyn-3,6-diol	Not more than 2.5% of pesticide formulation.	Surfactants, related adjuvants of surfactants
Dipropylene glycol .....	.....	Solvent, cosolvent
Disodium phosphate .....	.....	Anticaking agent, conditioning agent
Disodium zinc ethylenediaminetetraacetate dihydride.	.....	Sequestrant
Dolomite .....	.....	Solid diluent, carrier
Epoxidized linseed oil .....	.....	Surfactants, related adjuvants of surfactants
Epoxidized soybean oil .....	.....	Do.
Ethyl acetate .....	.....	Solvent, cosolvent
Ethyl alcohol .....	.....	Do.
Ethyl esters of fatty acids derived from edible fats and oils.	.....	Solvent, cosolvent
Ethyl maltol (CAS Reg. No. 4940-11-8)	Not more than 0.2 % of the pesticide formulation.	Odor masking agent
Ethylene glycol (CAS Reg. No. 107-21-1)	Without limitation	Encapsulating agent for pesticides being applied post-harvest as residual, and crack and crevice sprays in and around food and nonfood areas of residential and nonresidential structures, including food handling establishments
Ethylene oxide adducts of 2,4,7,9-tetramethyl-5-decynediol, the ethylene oxide content averages 3.5, 10 or 30 moles (CAS Reg. No. 9014-85-1).	.....	Surfactants, related adjuvants of surfactants
(S,S)-Ethylenediamine disuccinic acid trisodium salt (CAS Reg. No. 178949-82-1).	.....	Sequestrant or chelating agent
Ethylenediaminetetraacetic acid	3% of pesticide formulation	Sequestrant
Ethylenediaminetetraacetic acid, tetrasodium salt.	5% of pesticide formulation	Sequestrant

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2-Ethyl-1-hexanol (CAS Reg. No. 104-76-7)	Not more than 10% of pesticide.	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 Citrate (CAS Reg. No. 2338-05-8)	Stabilizer
Ferric sulfate	Solid diluent, carrier
Furcelleran	Thickener
D-glucopyranose, oligomeric, C ₁₀₋₁₆ -alkyl glycosides (CAS Reg. No. 110615-47-9).	Surfactant
Glycerides, edible fats and oils derived from plants and animals, reaction products with sucrose (CAS Reg. Nos. 100403-38-1, 100403-41-6, 100403-39-2, 100403-40-5).	Emulsifier, dispersing agent
Glycerol mono-, di-, and triacetate	Solvent, cosolvent
Glyceryl monostearate	Emulsifier
Granite	Do.
Graphite	Solid diluent, carrier
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
3-hexen-1-ol, (3Z)- (CAS Reg. No. 928-96-1)	Not more than 0.4% of the pesticide formulation.	Odorant, alerting agent
<i>n</i> -Hexyl alcohol (CAS Reg. No. 111-27-3)	Solvent, cosolvent
C ₆ rich aromatic hydrocarbons (CAS Reg. No. 64742-95-6).	Solvent
C ₁₀₋₁₁ rich aromatic hydrocarbons (CAS Reg. No. 64742-94-5).	Solvent
C ₁₁₋₁₂ rich aromatic hydrocarbons (CAS Reg. No. 64742-94-5).	Solvent
Hydrochloric acid	Solvent, neutralizer
Hydroxyethylmorpholine, ethoxylated, propoxylated, reaction products with fatty acid dimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173189-06-4).	Surfactant
Hydroxyethylmorpholine, ethoxylated, propoxylated, reaction products with fatty acid trimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173189-17-7).	Surfactant
Hydroxyethylmorpholine, ethoxylated, reaction products with fatty acid dimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173189-00-8).	Surfactant
Hydroxyethylmorpholine, ethoxylated, reaction products with fatty acid trimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173189-09-7).	Surfactant
Hydroxyethylpiperidine, ethoxylated, propoxylated, reaction products with fatty acid dimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173189-22-4).	Surfactant
Hydroxyethylpiperidine, ethoxylated, propoxylated, reaction products with fatty acid trimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173189-28-0).	Surfactant
Hydroxyethylpiperidine, ethoxylated, reaction products with fatty acid dimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173189-20-2).	Surfactant
Hydroxyethylpiperidine, ethoxylated, reaction products with fatty acid trimers, minimum number average molecular weight (in amu), 1,200 (CAS Reg. No. 1173189-25-7).	Surfactant

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Inert ingredients	Limits	Uses
Hydroxyethylidene diphosphonic acid (HEDP) (CAS Reg. No. 2809-21-4).	For use in antimicrobial pesticide formulations at not more than 1 percent.	Stabilizer, chelator
Iron oxide	None	Solid diluent, carrier
Isobutane (CAS Reg. No. 75-28-5)	Propellant
Isopropyl myristate (CAS Reg. No. 110-27-0)	Solvent
Kaolinite-type clay	Solid diluent, carrier
Lactic acid	Solvent
Lactic acid, 2-ethylhexyl ester (CAS Reg. No. 6283-86-9).	Solvent
Lactic acid, 2-ethylhexyl ester, (2S)- (CAS Reg. No. 186817-80-1).	Solvent
Lactic acid, n-propyl ester, (S); (CAS Reg. No. 53651-69-7).	Solvent
Lauryl alcohol	Surfactant
Lignin (CAS Reg. No. 9005-53-2)	Surfactant, related adjuvants of surfactants
Lignin, alkali (CAS Reg. No. 8068-05-1)	Do.
Lignin, alkali, oxidized, sodium salt (CAS Reg. No. 68201-23-0).	Do.
Lignin alkali reaction products with disodium sulfite and formaldehyde (CAS Reg. No. 105859-97-0).	Do.
Lignin alkali reaction products with formaldehyde and sodium bisulfite (CAS Reg. No. 68512-35-6).	Do.
Lignosulfonic acid (CAS Reg. No. 8062-15-5)	Do.
Lignosulfonic acid, ammonium calcium salt (CAS Reg. No. 12710-04-2).	Do.
Lignosulfonic acid, ammonium magnesium salt (CAS Reg. No. 123175-37-1).	Do.
Lignosulfonic acid, ammonium salt (CAS Reg. No. 8061-53-8).	Do.
Lignosulfonic acid, ammonium sodium salt (CAS Reg. No. 166798-73-8).	Do.
Lignosulfonic acid, calcium magnesium salt (CAS Reg. No. 55598-86-2).	Do.
Lignosulfonic acid, calcium salt (CAS Reg. No. 8061-52-7).	Do.
Lignosulfonic acid, calcium sodium salt (CAS Reg. No. 37325-33-0).	Do.
Lignosulfonic acid, ethoxylated, sodium salt (CAS Reg. No. 68611-14-3).	Do.
Lignosulfonic acid, magnesium salt (CAS Reg. No. 8061-54-9).	Do.
Lignosulfonic acid, potassium salt (CAS Reg. No. 37314-65-1).	Do.
Lignosulfonic acid, sodium salt (CAS Reg. No. 8061-51-6).	Do.
Lignosulfonic acid, sodium salt, oxidized (CAS Reg. No. 68855-41-4).	Do.
Lignosulfonic acid, sodium salt, polymer with formaldehyde and phenol (CAS Reg. No. 37207-89-9).	Do.
Lignosulfonic acid, sodium salt, sulfomethylated (CAS Reg. No. 68512-34-5).	Do.
Lignosulfonic acid, zinc salt (CAS Reg. No. 57866-49-6).	Do.
d-Limonene (CAS Reg. No. 5989-27-5)	Solvent, fragrance
Magnesium carbonate	Anticaking agent, conditioning agent
Magnesium chloride	Safener
Magnesium lime	Solid diluent, carrier
Magnesium oxide	Do.
Magnesium silicate	Do.
Magnesium stearate	Surfactant
Magnesium sulfate	Solid diluent, carrier, safener
Methyl alcohol	Solvent
Methyl n-amy ketone (CAS Reg. No. 110-43-0)	Solvent, cosolvent
Methylated silicones	Antifoaming agent
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 isobutyl ketone	Solvent

Inert ingredients	Limits	Uses
2-methyl-2,4-pentanediol (CAS Reg. No. 107-41-5).	Without limitation	Growing crops and food animals
2-methyl-1,3-propanediol (CAS Reg. No. 2163-42-0).	.....	Solvent, surfactant
Mono-, di-, and trimethylnaphthalenesulfonic acids and naphthalenesulfonic acids formaldehyde condensates, ammonium and sodium salts (CAS Reg. Nos 9008-63-3, 9069-80-1, 9084-06-4, 36290-04-7, 91078-68-1, 141959-43-5, 68425-94-5).	.....	Surfactants, related adjuvants of surfactants
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
Monoammonium phosphate	No more than 3.75% by weight in formulation.	Postharvest fumigation in formulation with aluminum phosphide
Mono- and diglycerides of C ₈ -C ₁₈ fatty acids .....	.....	Surfactants, related adjuvants of surfactants
Montmorillonite-type clay .....	.....	Solid diluent, 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 ₉ , 40% C ₁₀ , and 40% C ₁₁ with carbohydrates (average glucose to alkyl chain ratio 1.3 to 1.8).	.....	Surfactant.
α-(p-Nonylphenol)-ω-hydroxypoly(oxyethylene) mixture of dihydrogen phosphate and monohydrogen phosphate esters and the corresponding ammonium, calcium, magnesium, 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 or 30 moles (CAS Reg. Nos. 51811-79-1, 59139-23-0, 67922-57-0, 68412-53-3, 68553-97-9, 68954-84-7, 99821-14-4, 152143-22-1, 51609-41-7, 37340-60-6, 106151-63-7, 68584-47-4, 52503-15-8, 68458-49-1).	Not to exceed 7% of pesticide formulation.	Surfactants, related adjuvants of surfactants
α-(p-Nonylphenyl)-ω-hydroxypoly(oxyethylene) produced by the condensation of 1 mole of nonylphenol (nonyl group is a propylene trimer isomer) with an average of 4-14 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.	.....	Surfactants, related adjuvants of surfactants
α-(p-Nonylphenol)-ω-hydroxypoly(oxyethylene) sulfate, ammonium, calcium, magnesium, potassium, sodium, and zinc salts the nonyl group is propylene trimer isomer and the poly(oxyethylene) content averages 4 moles (CAS Reg. Nos. 9014-90-8, 9051-57-4, 9081-17-8, 68649-55-8, 68891-33-8).	Not to exceed 7% of pesticide formulation.	Surfactants, related adjuvants of surfactants
1-Octanal (CAS Reg. No. 124-13-0)	Not more than 0.2% of the pesticide formulation.	Odor masking agent
n-Octyl alcohol (CAS Reg. No. 111-87-5) .....	.....	Solvent or co-solvent
Octyl and decyl glucosides mixture with a mixture of octyl and decyl oligosaccharides and related reaction products (primarily n-decanol) produced as an aqueous-based liquid (68-72% solids) from the reaction of straight chain alcohols (C ₈ (45%), C ₁₀ (55%)) with anhydrous glucose.	.....	Surfactants, related adjuvants of surfactants
Oleic acid .....	.....	Diluent
Oleic acid diester of α-hydro-ω-hydroxypoly(oxyethylene); the poly(oxyethylene) having average molecular weight (in amu) 400.	.....	Surfactants, related adjuvants of surfactants
α-Oleoyl-ω-hydroxypoly(oxyethylene), average molecular weight (in amu) of 600.	Emulsifier

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Oleyl alcohol (CAS Reg. No. 143–28–2)	15%	Cosolvent
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
Palmitic acid		Diluent
Pentaerythritol ester of maleic anhydride modified wood rosin.		Plasticizer
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
Polyethylene, conforming to 21 CFR 177.1520(c).		Binder, carrier, and coating agent
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
Polyglycerol esters of fatty acids conforming to 21 CFR 172.854.		Surfactants, related adjuvants of surfactants
Polyglyceryl phthalate ester of coconut oil fatty acids, including fatty acid coco polymers with glyceryl and phthalic anhydride (CAS No. 67746–02–5) and coconut oil polymer with glyceryl and phthalic anhydride (CAS No. 66070–87–9).	None	Surfactants, related adjuvants of surfactants
Poly(oxy-1,2-ethanediyl), α -(carboxymethyl)- ω -(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
Poly(oxy-1,2-ethanediyl), α -[tris(1-phenylethyl)phenyl]- ω -hydroxy-, (CAS Reg. No. 99734–09–5).	For use in post-harvest applications; not to exceed 15% by weight in pesticide formulations.	Surfactants
Polyoxyethylene (20) sorbitan monostearate		Surfactants, related adjuvants of surfactants
[Poly[oxy(methyl-1,2-ethanediyl)], α -[2-bis(2-hydroxyethyl)amino]propyl]- ω -hydroxy-, ether with α -hydro- ω -hydroxypoly(oxy-1,2-ethanediyl) (1:2), mono-C _{12–16} alkyl ethers, (CAS Reg. No. 176022–82–5).	Not to exceed 15% in the formulated product; only for use with glyphosate.	Surfactant
Polysorbate 65, conforming to 21 CFR 172.838		Emulsifier
Potassium aluminum silicate		Solid diluent, carrier
Potassium benzoate (Cas No. 582–25–2)	None	Preservative
Potassium hydroxide		Neutralizer
Potassium phosphate		Buffer
Potassium sulfate		Solid diluent
Propane		Propellant
2-Propanol, 1,1',1''-nitritoltris- (CAS No. 122–20–3).	Without limitation	Neutralizer
n-Propanol		Solvent, cosolvent
2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate, ammonium salt (CAS Registration No. 55989–05–4), minimum number average molecular weight (in amu), 18,900.		Encapsulating agent, dispensers, resins, fibers and beads
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
<i>Rhizobium</i> inoculants (e.g. <i>Sinorhizobium</i> , <i>Bradyrhizobium</i> & <i>Rhizobium</i>).		All leguminous food commodities

Inert ingredients	Limits	Uses
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
Shellac, bleached; refined, food grade, arsenic and rosin-free.	Coating agent
Silver nitrate (Cas Reg. No. 7761-88-8)	For use on potatoes as post-harvest treatment to control sprouting at no more than 0.06% by weight in pesticide formulations.	Stabilizer
Soapstone	Solid diluent
Sodium acid pyrophosphate	Surfactant, suspending agent, dispersing agent, buffer
Sodium alkyl naphthalenesulfonates (CAS Reg. Nos. 68909-83-1, 68909-84-2, 68909-82-0, 27213-90-7, 26264-58-4, 27178-87-6, 111163-74-7, 908356-16-1, 25417-20-3, 25638-17-9, 145578-88-7, 1322-93-6, 1323-19-9, 7403-47-6, 68442-09-1, 127646-44-0, 908356-18-3).	Limited to no more than 30% by weight in pesticide end-use products.	Surfactants, related adjuvants of surfactants
Sodium aluminum silicate	Solid diluent, carrier
Sodium dioctylsulfosuccinate	Surfactants, related adjuvants of surfactants
Sodium 1,4-dihexyl sulfosuccinate (CAS Reg. No. 3006-15-3).	Surfactants, related adjuvants of surfactants
Sodium 1,4-diisobutyl sulfosuccinate (CAS Reg. No. 127-39-9).	Surfactants, related adjuvants of surfactants
Sodium 1,4-dipentyl sulfosuccinate (CAS Reg. No. 922-80-5).	Surfactants, related adjuvants of surfactants
Sodium hexametaphosphate	Surfactant, emulsifier, wetting agent, suspending agent, dispersing agent, buffer
Sodium hydroxide	Neutralizer
Sodium metasilicate	Surfactants, emulsifiers, wetting agents, dispersing agents, buffer
Sodium monoalkyl and dialkyl (C6-C16) phenoxy benzenedisulfonates and related acids (CAS Reg. Nos. 147732-59-0, 147732-60-3, 169662-22-0, 70191-75-2, 36445-71-3, 39354-74-0, 70146-13-3, 119345-03-8, 149119-20-0, 149119-19-7, 119345-04-9, 28519-02-0, 25167-32-2, 30260-73-2, 65143-89-7, 70191-76-3).	Not to exceed 20% in pesticide formulations.	Surfactants, related adjuvants of surfactants
Sodium α -olefinsulfonate (sodium C ₁₄ -C ₁₆) (Olefin sulfonate).	Surfactants, related adjuvants of surfactants
Sodium <i>N</i> -oleoyl- <i>N</i> -methyl taurine (CAS Reg. No. 137-20-2).	Surfactants, related adjuvants of surfactants
Sodium and potassium salts of <i>N</i> -alkyl (C ₈ -C ₁₈)- β -iminodipropionic acid where the C ₈ -C ₁₈ is linear and may be saturated and/or unsaturated (CAS Reg. Nos. 110676-19-2, 3655-00-3, 61791-56-8, 14960-06-6, 26256-79-1, 90170-43-7, 91696-17-2, 97862-48-1).	Concentration in formulated end-use products not to exceed 30% by weight in pesticide formulations.	Surfactants, related adjuvants of surfactants
Sodium salt of sulfated oleic acid	Surfactants, related adjuvants of surfactants
Sodium silicate	Surfactant, emulsifier, wetting agent, stabilizer, inhibitor
Sodium starch glycolate (CAS Reg. No. 9063-38-1).	Granular and tableted products only; not to exceed 8% of the formulated product.	Disintegrant
Sodium sulfate	Solid diluent, carrier
Sodium tripolyphosphate	Buffer, surfactant, suspending agent, dispersing agent, anticaking agent, conditioning agent
Sorbic acid (CAS Reg. No. 110-44-1)	Preservative for formulations
Sorbitan fatty acid esters (fatty acids limited to C ₁₂ , C ₁₄ , C ₁₆ , and C ₁₈ containing minor amounts of associated fatty acids) and their derivatives; the poly(oxyethylene) content averages 5-20 moles.	Surfactants, related adjuvants or surfactants.

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Inert ingredients	Limits	Uses
Soybean flour	Expires May 24, 2005.	Surfactant
Soybean oil-derived fatty acids .....	.....	Solvent, cosolvent
Stearic acid .....	.....	Diluent
α -Stearoyl- ω -hydroxypoly(oxyethylene), average molecular weight (in amu) of 600. ....	.....	Emulsifier
α -Stearoyl- ω -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
Sucrose octaacetate .....	.....	Adhesive
Sulfite liquors and cooking liquors, spent, oxidized (CAS Reg. No. 68514-09-0). ....	.....	Surfactant, related adjuvants of surfactants
Sulfuric acid (CAS Reg. No.7664-93-9)	Not to exceed 10% of the pesticide formulation; non-aerosol formulations only.	pH Control agent
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
Terpenes and terpenoids, turpentine oil, alpha-pinene fraction, polymd. (CAS Reg. No. 70750-57-1). ....	.....	Surfactants, related adjuvants of surfactants
1,1,1,2-Tetrafluoroethane, (CAS Reg. No. 811-97-2). ....	.....	Aerosol propellant
Tetrahydrofurfuryl alcohol (THFA) (CAS Reg. No. 97-99-4).	Expires February 9, 2008 ...	Solvent/cosolvent
N,N,N',N''-tetrakis-(2-hydroxypropyl) ethylene-diamine (CAS Reg. No. 102-60-3).	Concentration in formulated end-use products not to exceed 20% by weight in pesticide formulations.	Stabilizer for formulation.
α -[p-(1,1,3,3-tetramethylbutyl)phenyl]- ω -hydroxypoly(oxyethylene) produced by the condensation of 1 mole of p-(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 (CAS Reg. Nos. 9036-19-5, 9002-93-1).	Not to exceed 7% of pesticide formulation.	Surfactants related adjuvants of surfactants
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
Thiosulfuric acid, disodium salt, anhydrous. (CAS Reg. No 7772-98-7). ....	.....	Dechlorinator, reducing agent
Thiosulfuric acid, disodium salt, pentahydrate. (CAS Reg. No. 10102-17-7). ....	.....	Do.
d-Alpha tocopherol (CAS Reg. No. 9-02-9)	None	Safener
d-Alpha tocopheryl acetate (CAS Reg. No. 58-95-7).	None	Do.
dl-Alpha tocopherol (CAS Reg. No.10191-41-0)	None	Do.
dl-Alpha tocopheryl acetate (CAS Reg. No. 7695-91-2).	None	Do.
Tricalcium phosphate .....	.....	Surfactant, suspending agent, dispersing agent, anticaking agent, conditioning agent
Trisodium phosphate .....	.....	Surfactant, emulsifier, wetting agent
Vermiculite .....	.....	Solid diluent, carrier.
Vitamin E (CAS Reg. No. 1406-18-4)	None	Safener
Walnut shells .....	.....	Leaching inhibitor, binder for water-dispersible aggregates, sticker and suspension stabilizer
Wintergreen oil .....	.....	Attractant
Wood flour	Derived from wood free of chemical preservatives.	Solid diluent and carrier
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

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Inert ingredients	Limits	Uses
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

[69 FR 23117, Apr. 28, 2004]

EDITORIAL NOTE: FOR FEDERAL REGISTER citations affecting §180.910, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

§ 180.920 Inert ingredients used pre-harvest; exemptions from the requirement of a tolerance.

The following materials are exempt 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
Acetophenone .....	.....	Attractant
Adenosine (CAS Reg. No. 58-61-7)	Maximum of 0.5% of formulation.	Synergist
Alder bark .....	.....	Seed germination stimulator
Alkyl (C ₁₂ -C ₁₆) dimethyl ammonio acetate (CAS Reg. Nos. 683-10-3, 2601-33-4 and 693-33-4.	20% by weight in pesticide formulation.	Surfactant
α-Alkyl (minimum C ₆ linear, branched, saturated and/or unsaturated)-ω-hydroxypolyoxyethylene polymer with or without polyoxypropylene, mixture of di- and monohydrogen phosphate esters and the corresponding ammonium, calcium, magnesium, monoethanolamine, potassium, sodium, and zinc salts of the phosphate esters; minimum oxyethylene content is 2 moles; minimum oxypropylene content is 0 moles (CAS Reg. Nos. 9046-01-9, 37280-82-3, 39464-66-9, 42612-52-2, 50643-20-4, 52019-36-0, 58318-92-6, 60267-55-2, 61837-79-4, 67711-84-6, 68070-99-5, 68071-35-2, 68071-17-0, 68130-47-2, 68186-37-8, 68186-36-7, 68311-02-4, 68425-73-0, 68458-48-0, 68511-37-5, 68610-65-1, 68585-36-4, 68649-29-6, 68815-11-2, 68908-64-5, 68891-13-4, 73038-25-2, 78330-24-2, 108818-88-8, 154518-39-5, 317833-96-8, 873662-29-4, 936100-29-7, 936100-30-0).	Not to exceed 30% of pesticide formulation.	Surfactants, related adjuvants of surfactants
N-alkyl (C ₈ -C ₁₈) primary amines and their acetate salts where the alkyl group is linear and may be saturated and/or unsaturated (CAS Reg. Nos. 61790-57-6, 61790-58-7, 61790-59-8, 61790-60-1, 61788-46-3, 61790-33-8, 68155-38-4).	Concentration in formulated end-use products not to exceed 10% by weight in herbicide products, 4% by weight in insecticide products, and 4% by weight in fungicide products.	Surfactants, related adjuvants of surfactants