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Title 40 —Protection of Environment
Chapter I —Environmental Protection Agency
Subchapter E —Pesticide Programs
Part 180 —Tolerances and Exemptions for Pesticide Chemical Residues in Food
Subpart D —Exemptions From Tolerances

Authority: 21 U.S.C. 321(q), 346a and 371.
Source: 36 FR 22540, Nov. 25, 1971, unless otherwise noted.

Editorial Note: Nomenclature changes to part 180 appear at 62 FR 66023, Dec. 17, 1997.

§ 180.940 Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations (Food-contact surface sanitizing solutions).

Residues of the following chemical substances are exempted from the requirement of a tolerance when used in accordance with good manufacturing practice as ingredients in an antimicrobial pesticide formulation, provided that the substance is applied on a semi-permanent or permanent food-contact surface (other than being applied on food packaging) with adequate draining before contact with food.

- (a) The following chemical substances when used as ingredients in an antimicrobial pesticide formulation may be applied to: Food-contact surfaces in public eating places, dairy-processing equipment, and food-processing equipment and utensils.

TABLE 1 TO PARAGRAPH (a)

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|--|
| Acetal | 105-57-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| acetaldehyde ethyl cis-3-hexenyl acetal | 28069-74-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Acetanisole | 100-06-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------------------|--|
| Acetic acid | 64-19-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Acetic acid, octyl ester | 112-14-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Acetoin | 513-86-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Acetophenone | 98-86-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 4-acetyl-6-t-butyl-1,1-dimethylindan | 13171-00-1 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Adipic acid | 124-04-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| alcohols, C ₁₆₋₁₈ , distn. residues | 68603-17-8 | |
| | 1190630-03-5 | |
| alkenes, C ₁₈₋₂₂ , mixed with polyethylene, oxidized, hydrolyzed, distn. residues from C ₁₆₋₁₈ alcs. manuf | 1430895-61-6 | |
| alkenes, C ₁₈₋₂₂ , mixed with polyethylene, oxidized, hydrolyzed, distn. residues from C ₂₀₋₂₂ alcs. manuf | 1430895-62-7 | |
| Alkylbenzene sulfonates (branched and linear) of chain lengths C ₁₀ -C ₁₆ , including benzenesulfonic acid, dodecyl and benzenesulfonic acid, dodecyl-, sodium salt | 27176-87-0 25155-30-0 | When ready for use, the end-use concentration is not to exceed 700 ppm |
| Alkyl cylcohexylpropionate | 2705-87-5 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|---|--|
| | | concentration is not to exceed 100 ppm |
| α -Alkyl- ω -hydroxypoly (oxypropylene) and/or poly (oxyethylene) polymers where the alkyl chain contains a minimum of six carbons | 9002-92-0; 9004-95-9; 9004-98-2; 9005-00-9; 9035-85-2; 9038-29-3; 9038-43-1; 9040-05-5; 9043-30-5; 9087-53-0; 25190-05-0; 24938-91-8; 25231-21-4; 251553-55-6; 26183-52-8; 26468-86-0; 26636-39-5; 26636-40-8; 27252-75-1; 27306-79-2; 31726-34-8; 32128-65-7; 34398-01-1; 34398-05-5; 37251-67-5; 37311-00-5; 37311-01-6; 37311-02-7; 37311-04-9; 39587-22-9; 50861-66-0; 52232-09-4; 52292-17-8; 52609-19-5; 57679-21-7; 59112-62-8; 60636-37-5; 60828-78-6; 61702-78-1; 61723-78-2; 61725-89-1; 61791-13-7; | None |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--------------------|--------------|--------|
| | 61791-20-6; | |
| | 61791-28-4; | |
| | 61804-34-0; | |
| | 61827-42-7; | |
| | 61827-84-7; | |
| | 62648-50-4; | |
| | 63303-01-5; | |
| | 63658-45-7; | |
| | 63793-60-2; | |
| | 64366-70-7; | |
| | 64415-24-3; | |
| | 64415-25-4; | |
| | 64425-86-1; | |
| | 65104-72-5; | |
| | 65150-81-4; | |
| | 66455-14-9; | |
| | 66455-15-0; | |
| | 67254-71-1; | |
| | 67763-08-0; | |
| | 68002-96-0; | |
| | 68002-97-1; | |
| | 68131-39-5; | |
| | 68131-40-8; | |
| | 68154-96-1; | |
| | 68154-97-2; | |
| | 68154-98-3; | |
| | 68155-01-1; | |
| | 68213-23-0; | |
| | 68213-24-1; | |
| | 68238-81-3; | |
| | 68238-82-4; | |
| | 68409-58-5; | |
| | 68409-59-6; | |
| | 68439-30-5; | |
| | 68439-45-2; | |
| | 68439-46-3; | |
| | 68439-48-5; | |
| | 68439-49-6; | |
| | 68439-50-9; | |
| | 68439-51-0; | |
| | 68439-53-2; | |
| | 68439-54-3; | |
| | 68458-88-8; | |
| | 68526-94-3; | |
| | 68526-95-4; | |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--------------------|--------------|--------|
| | 68551-12-2; | |
| | 68551-13-3; | |
| | 68551-14-4; | |
| | 68603-20-3; | |
| | 68603-25-8; | |
| | 68920-66-1; | |
| | 68920-69-4; | |
| | 68937-66-6; | |
| | 68951-67-7; | |
| | 68954-94-9; | |
| | 68987-81-5; | |
| | 68991-48-0; | |
| | 69011-36-5; | |
| | 69013-18-9; | |
| | 69013-19-0; | |
| | 69227-20-9; | |
| | 69227-21-0; | |
| | 69227-22-1; | |
| | 69364-63-2; | |
| | 70750-27-5; | |
| | 70879-83-3; | |
| | 70955-07-6; | |
| | 71011-10-4; | |
| | 71060-57-6; | |
| | 71243-46-4; | |
| | 72066-65-0; | |
| | 72108-90-8; | |
| | 72484-69-6; | |
| | 72854-13-8; | |
| | 72905-87-4; | |
| | 73018-31-2; | |
| | 73049-34-0; | |
| | 74432-13-6; | |
| | 74499-34-6; | |
| | 78330-19-5; | |
| | 78330-20-8; | |
| | 78330-21-9; | |
| | 78330-23-1; | |
| | 79771-03-2; | |
| | 84133-50-6; | |
| | 85422-93-1; | |
| | 97043-91-9; | |
| | 97953-22-5; | |
| | 102782-43-4; | |
| | 103331-86-8; | |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-------------------------------------|---------------|---|
| C10-C18-Alkyl dimethyl amine oxides | 103657-84-7; | When ready for use, the end-use concentration is not to exceed 1,350 |
| | 103657-85-8; | |
| | 103818-93-5; | |
| | 103819-03-0; | |
| | 106232-83-1; | |
| | 111905-54-5; | |
| | 116810-31-2; | |
| | 116810-32-3; | |
| | 116810-33-4; | |
| | 120313-48-6; | |
| | 120944-68-5; | |
| | 121617-09-2; | |
| | 126646-02-4; | |
| | 126950-62-7; | |
| | 127036-24-2; | |
| | 139626-71-4; | |
| | 152231-44-2; | |
| | 154518-36-2; | |
| | 157627-86-6; | |
| | 157627-88-8; | |
| | 157707-41-0; | |
| | 157707-43-2; | |
| | 159653-49-3; | |
| | 160875-66-1; | |
| | 160901-20-2; | |
| | 160901-09-7; | |
| | 160901-19-9; | |
| | 161025-21-4; | |
| | 161025-22-5; | |
| | 161133-70-6; | |
| | 166736-08-9; | |
| | 169107-21-5; | |
| | 172588-43-1; | |
| | 176022-76-7; | |
| | 196823-11-7; | |
| | 287935-46-0; | |
| | 288260-45-7; | |
| | 303176-75-2; | |
| | 954108-36-2; | |
| | 2222805-23-2; | |
| | 2409830-33-5 | |
| | 1643-20-5, | |
| | 2571-88-2, | |
| | 2605-79-0, | |
| | 3332-27-2, | |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--|---|
| Allspice oil (<i>Pimenta officinalis</i> Lindl.) | 61788-90-7, 68955-55-5, 70592-80-2, 7128-91-8, 85408-48-6, and 85408-49-7 8006-77-7 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| allyl alpha-ionone | 79-78-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Allyl cinnamate | 1866-31-5 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Allyl heptanoate | 142-19-8 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Allyl hexanoate | 123-68-2 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Allyl propionate | 2408-20-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Aluminum sulfate | 10043-01-3 | When ready for use, the end-use concentration is not to exceed 50 ppm |
| 2-propen-1-aminium, <i>N,N</i> -dimethyl- <i>N</i> -propenyl-, chloride, homopolymer | 26062-79-3 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| Ammonium chloride | 12125-02-9 | concentration is not to exceed 0.6% When ready for use, the end-use concentration is not to exceed 48 ppm |
| Amyl butyrate | 540-18-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Amyl formate | 638-49-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Amyl hexanoate | 540-07-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Amylopectin, acid-hydrolyzed, 1-octenylbutanedioate | 113894-85-2 | None |
| Amylopectin, hydrogen 1-octadecenylbutanedioate | 125109-81-1 | None |
| p-Anisyl acetate | 104-21-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Anisyl formate | 122-91-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Anisyl propionate | 7549-33-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Aspartic acid, N-(1,2-dicarboxyethyl)-, tetrasodium salt | 144538-83-0 | When ready for use, the end-use concentration is not to exceed 5000 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|---|
| Balsam oil, Peru (<i>Myroxylon pereirae</i> Klotzsch) | 8007-00-9 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Benzaldehyde | 100-52-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Benzaldehyde, methyl- | 1334-78-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Benzene, 1,2-dimethoxy- | 91-16-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Benzene, 2-methoxy-4-methyl-1-(1-methylethyl)- | 1076-56-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Benzeneacetaldehyde | 122-78-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1,3-Benzodioxole-5-carboxaldehyde | 120-57-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Benzoic acid | 65-85-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Benzoin gum, Sumatra | 9000-05-9 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--------------------|--------------|--|
| Benzyl acetate | 140-11-4 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| benzyl alcohol | 100-51-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Benzyl benzoate | 120-51-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| benzyl butyrate | 103-37-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Benzyl cinnamate | 103-41-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Benzyl formate | 104-57-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| benzyl isobutyrate | 103-28-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| benzyl propionate | 122-63-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| Benzyl salicylate | 118-58-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Benzyl trans-2-methyl-2-butenate | 37526-88-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| benzaldehyde, 4-methoxy- | 123-11-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| benzenemethanol, alpha-methyl-, 1-acetate | 93-92-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| benzoic acid, ethyl ester | 93-89-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Bicyclo(2.2.1)heptan-2-ol, 1,3,3-trimethyl- | 1632-73-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Bicyclo(2.2.1)heptan-2-ol, 1,7,7-trimethyl-,propanoate, exo- | 2756-56-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl-, (1R, 4R)- | 464-49-3 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene- | 127-91-3 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|-------------------|---|
| Bisabolene | 495-62-5 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1,4-Bis[[3-[2-(2-hydroxyethoxy)ethoxy]propyl]amino]-9,10-anthracenedione (CAS Reg. No. 123944-63-8) | 0.5% by weight | Dye, coloring agent |
| Bois de rose oil | 8015-77-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Borneol | 507-70-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| endo-Bornyl acetate | 76-49-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Butanoic acid, 1,1-dimethyl-2-phenylethyl ester | 10094-34-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Butanoic acid, 3-methyl-, 2-methylpropyl ester | 589-59-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| butanoic acid, 3-oxo-, ethyl ester | 141-97-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-buten-1-one, 1-(2,6,6-trimethyl-1,3-cyclohexadien-1-yl)- | 23696-85-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|------------------------|--|
| 3-buten-2-one, 3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)- | 127-51-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Buten-2-one, 4-(2,6,6-trimethyl-1-cyclohexen-1-yl)- | 14901-07-6; 79-77-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Butyric acid | 107-92-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Butyl acetate | 123-86-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Butyl alcohol | 71-36-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Butyl butyrate | 109-21-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Butyl butyryllactate | 7492-70-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Butyl isovalerate | 109-19-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Butyl sulfide | 544-40-1 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|-------------------------|---|
| Butyl 10-undecenoate | 109-42-2 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| n-Butyl benzoate | 136-60-7 | When ready for use, the end-use concentration is not to exceed 15,000 ppm |
| n-Butyl 2-methylbutyrate | 15706-73-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| n-Butyl-3-hydroxybutyrate | 53605-94-0 | Solvent |
| α -Butylcinnamaldehyde | 7492-44-6 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2-sec-Butylcyclohexanone | 14765-30-1 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| γ -Butyrolactone | 96-48-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cadinene | 29350-73-0; 523-47-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cajeput oil (Melaleuca leucadendron L.) | 8008-98-8 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Calcium bisulfate | | When ready for use, |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|--|
| Calcium sulfate | 7778-18-9 | the end-use concentration is not to exceed 2,000 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Camphene | 79-92-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Camphor | 21368-68-3 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Cananga oil | 68606-83-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Capric (decanoic) acid | 334-48-5 | None |
| Caprylic (octanoic) acid | 124-07-2 | None |
| Cardamom (Elettaria cardamomum (L.) Maton) | 85940-32-5 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Cardamom seed oil (Elettaria cardamomum (L.) Maton) | 8000-66-6 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| δ-3-Carene | 13466-78-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Carvacrol | 499-75-2 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|-----------------------|--|
| 4-Carvomenthenol | 562-74-3 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Carvyl acetate | 97-42-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| β -Caryophyllene | 87-44-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cassia bark oil | 8007-80-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Celery seed oil | 8015-90-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Chamomile flower, Roman, oil (<i>Anthemis nobilis</i> L.) | 8015-92-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cinnamic acid; trans-Cinnamic acid | 621-82-9; 140-10-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| cinnamic aldehyde | 104-55-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|----------------------|--------------|--|
| cinnamic alcohol | 104-54-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cinnamon leaf oil | 84649-98-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cinnamyl acetate | 103-54-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cinnamyl benzoate | 5320-75-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cinnamyl cinnamate | 122-69-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cinnamyl formate | 104-65-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cinnamyl isobutyrate | 103-59-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cinnamyl propionate | 103-56-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Citral | 5392-40-5 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--------------------------|--------------|---|
| Citral dimethyl acetal | 7549-37-3 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Citronellal | 106-23-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Citronellol | 106-22-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Citronelloxyacetaldehyde | 7492-67-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Citronellyl acetate | 150-84-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Citronellyl butyrate | 141-16-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Citronellyl formate | 105-85-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Citronellyl isobutyrate | 97-89-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Citronellyl propionate | 141-14-0 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|--|
| Citronellyl tiglate | 24717-85-9 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Citrus, ext. | 94266-47-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Clary oil (<i>Salvia sclarea</i> L.) | 8016-63-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cloves (<i>Eugenia</i> spp.) | 84961-50-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cognac oil, green | 8016-21-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Copper sulfate pentahydrate | 7758-99-8 | When ready for use, the end-use concentration is not to exceed 80 ppm |
| Coriander oil (<i>Coriandrum sativum</i> L.) | 8008-52-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cornmint oil | 68917-18-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------------------|--|
| Cuminaldehyde | 122-03-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Currant buds black absolute (<i>Ribes nigrum</i> L.) | 68606-81-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cyclohexadiene, methyl- | 30640-46-1; 1888-90-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cyclohexene, 1-methyl-4-(1-methylethylidene)- | 586-62-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1-Cyclohexylethanol | 1193-81-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Cyclohexylethyl acetate | 21722-83-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Cyclopentaneacetic acid, 3-oxo-2-pentyl-, methyl ester | 24851-98-7 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Cyclopropanemethanol, 1-methyl-2-[(1,2,2-trimethylbicyclo[3.1.0]hex-3-yl)methyl]- | 198404-98-7 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| p-Cymene | 99-87-6 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| β -Damascone, (Z)- | 23726-92-3 | ppm When ready for use, the end-use concentration is not to exceed 100 |
| δ -decalactone | 705-86-2 | ppm When ready for use, the end-use concentration is not to exceed 100 |
| γ -decalactone | 706-14-9 | ppm When ready for use, the end-use concentration is not to exceed 100 |
| ϵ -Decalactone | 5579-78-2 | ppm When ready for use, the end-use concentration is not to exceed 100 |
| Decanal | 112-31-2 | ppm When ready for use, the end-use concentration is not to exceed 100 |
| Decanoic acid, 4-hydroxy-4-methyl- γ -lactone | 7011-83-8 | ppm When ready for use, the end-use concentration is not to exceed 100 |
| 1-Decanol | 112-30-1 | ppm When ready for use, the end-use concentration is not to exceed 100 |
| 2-Decenal | 3913-71-1 | ppm When ready for use, the end-use concentration is not to exceed 100 |
| (E)-4-Decenal | 65405-70-1 | ppm When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|--|
| 4-Decenal | 30390-50-2 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| 9-Decenal | 39770-05-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Decyl acetate | 112-17-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| D-Glucopyranose, oligomeric, decyl octyl glycosides | 68515-73-1 | None |
| 1,3-dibromo-5,5-dimethylhydantoin | 77-48-5 | None |
| 1,1-diethoxy-3,7-dimethylocta-2,6-diene | 7492-66-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| diethyl malonate | 105-53-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Diethyl sebacate | 110-40-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Diethyl tartrate | 87-91-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| dihydro-beta-ionone | 17283-81-7 | When ready for use, the end-use concentration is |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---------------------------------------|--------------|---|
| dihydrocarvyl acetate | 20777-49-5 | not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Diisobutyl ketone | 108-83-8 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| m-Dimethoxybenzene | 151-10-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Dimethoxybenzene | 150-78-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2,6-Dimethoxyphenol | 91-10-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3,4-Dimethyl-1,2-cyclopentadione | 13494-06-9 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 3,7-Dimethyl-1-octanol | 106-21-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2,2-Dimethyl-1,3-dioxolane-4-methanol | 100-79-8 | |
| 2,6-Dimethyl-4-heptanol | 108-82-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| 2,6-Dimethyl-5-heptanal | 106-72-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3,7-Dimethyl-1,3,6-octatriene | 13877-91-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3,7-Dimethyl-6-octenoic acid | 502-47-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Dimethylbenzylcarbiny acetate | 151-05-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Dimethylcyclohex-3-ene-1-carbaldehyde | 27939-60-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| α,α -Dimethylphenethyl alcohol | 100-86-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2,5-Dimethylpyrazine | 123-32-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2,6-Dimethylpyrazine | 108-50-9 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| p, α -Dimethylstyrene | 1195-32-0 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|------------------------------------|--------------|--|
| 6,10-Dimethylundeca-5,9-dien-2-one | 689-67-8 | ppm When ready for use, the end-use concentration is not to exceed 33 ppm |
| Di-n-butyl carbonate | 542-52-9 | When ready for use, the end-use concentration is not to exceed 15,000 ppm |
| Dipropylene glycol | 25265-71-8 | None |
| 1-docosanol | 661-19-8 | |
| γ-Dodecalactone | 2305-05-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| δ-Dodecalactone | 713-95-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Dodecanol, (2E)- | 20407-84-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Dodecenal | 4826-62-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1-eicosanol | 629-96-9 | |
| Ethanol | 64-17-5 | None |
| Elemi oil (Canarium spp.) | 8023-89-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl acetate | 141-78-6 | When ready for use, the end-use concentration is |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--------------------------------|--------------|--|
| Ethyl amyl ketone | 106-68-3 | not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 33 ppm |
| Ethyl anthranilate | 87-25-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 4-Ethylbenzaldehyde | 4748-78-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl benzoylacetate | 94-02-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl butyrate | 105-54-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl cinnamate | 103-36-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl (2E,4Z)-2,4-decadienoate | 3025-30-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl decanoate | 110-38-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl formate | 109-94-4 | When ready for use, |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---------------------------|--------------|--|
| Ethyl heptanoate | 106-30-9 | the end-use concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl hexanoate | 123-66-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl 2-hexylacetoacetate | 29214-60-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl 3-hydroxybutyrate | 5405-41-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl isobutyrate | 97-62-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl isovalerate | 108-64-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl laurate | 106-33-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl levulinate | 539-88-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-----------------------------|--------------|--|
| Ethyl maltol | 4940-11-8 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Ethyl 2-methyl-3-pentenoate | 1617-23-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl 2-methylbutyrate | 452-79-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl 2-methylpentanoate | 39255-32-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Ethyl-3-methylpyrazine | 15707-23-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Ethyl nonanoate | 123-29-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl octanoate | 106-32-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl propionate | 105-37-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| ethyl salicylate | 118-61-6 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|---|
| Ethyl tiglate | 5837-78-5 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| ethylene brassylate | 105-95-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethylenediaminetetraacetic acid (EDTA), tetrasodium salt | 64-02-8 | None |
| 4-Ethylguaiaicol | 2785-89-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Ethylphenol | 123-07-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl phenylacetate | 101-97-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethyl 3-phenylpropionate | 2021-28-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ethylvanillin | 121-32-4 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Eucalyptus oil | 8000-48-4 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Eugenyl acetate | 93-28-7 | When ready for use, |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|---------------------------|---|
| FD&C Green No. 3 | CAS Reg. No. 2353-45-9 | the end-use concentration is not to exceed 100 ppm None |
| FD&C Red No. 40 | 25956-17-6 | When ready for use, the end-use concentration is not to exceed 20 ppm |
| FD&C Yellow No. 5 | 1934-21-0 | When ready for use, the end-use concentration is not to exceed 1000 ppm |
| α -Farnesene | 125037-13-0; 502-61-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Farnesol | 4602-84-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Farnesyl acetate | 29548-30-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Fenchone | 4695-62-9 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2-Formyl-6,6-dimethylbicyclo(3.1.1)hept-2-ene | 564-94-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Galbanum oil (Ferula spp.) | 8023-91-4 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|----------------------|--------------|--|
| Geranic acid | 459-80-3 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Geraniol | 106-24-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| (E)-Geraniol | 106-24-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| (E)-Geraniol acetate | 105-87-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Geranyl benzoate | 94-48-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Geranyl butyrate | 106-29-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Geranyl formate | 105-86-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Geranyl isobutyrate | 2345-26-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--|--|
| Geranyl phenylacetate | 102-22-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Geranyl propionate | 105-90-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Geranyl tiglate | 7785-33-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| C ₁ -C ₄ linear and branched chain alkyl d-glucitol dianhydro alkyl ethers cluster | 5306-85-4; 30915-81-2; 107644-13-3; 103594-41-8; 103594-42-9 | When ready for use, the end-use concentration is not to exceed 500 ppm |
| D-glucitol, 1,4:3,6-dianhydro-2,5-di-O-(1-methylpropyl)-, | None | |
| D-glucitol, 1,4:3,6-dianhydro-2,5-di-O-(2-methylpropyl)-, (CAS Reg. No. not assigned) | None | |
| D-glucurono-6-deoxy-L-manno-D-glucan, acetate, calcium magnesium potassium sodium salt (diutan gum) | (CAS No. 595585-15-2) | None |
| glyceryl triacetate | 102-76-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Guaiacol | 90-05-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Guaiene | 88-84-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Helichrysum leaf oil (Helichrysum angustifolium) | 8023-95-8 | When ready for use, the end-use concentration is |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-------------------------------------|--------------|---|
| γ -Heptalactone | 105-21-5 | not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Heptanal | 111-71-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Heptanal, 2-(phenylmethylene)- | 122-40-7 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Heptanoic acid | 111-14-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Heptanol | 543-49-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Heptanone | 106-35-4 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2-hepten-4-one, 5-methyl- | 81925-81-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| trans-3-Heptenyl 2-methylpropanoate | 67801-45-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Heptyl acetate | 112-06-1 | When ready for use, |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--------------------------------|--------------|--|
| Heptyl alcohol | 111-70-6 | the end-use concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| γ -Hexalactone | 695-06-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hexanal | 66-25-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2,3-Hexanedione | 3848-24-6 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Hexanoic acid | 142-62-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| n-Hexanol | 111-27-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hexadecanoic acid | 57-10-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hexadecanoic acid, ethyl ester | 628-97-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|------------------------------|--------------|--|
| ω -6-Hexadecenlactone | 7779-50-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2,4-Hexadienyl isobutyrate | 16491-24-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1-Hexanol, 2-ethyl- | 104-76-7 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 1-Hexanol, 3,5,5-trimethyl- | 3452-97-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Hexenal, (2E)- | 6728-26-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Hexen-1-ol | 2305-21-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Hexen-1-ol, (3Z)- | 928-96-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| (E)-2-Hexen-1-yl acetate | 2497-18-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| (Z)-3-Hexenol | 928-96-1 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|---|
| (Z)-3-Hexenol acetate | 3681-71-8 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| cis-3-Hexenyl benzoate | 25152-85-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| cis-3-Hexenyl butyrate | 16491-36-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 5-(cis-3-Hexenyl)dihydro-5-methyl-2(3H)furanone | 70851-61-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| cis-3-Hexenyl hexanoate | 31501-11-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| cis-3-Hexenyl isobutyrate | 41519-23-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Hexenyl 2-methylbutanoate | 10094-41-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| cis-3-Hexenyl propionate | 33467-74-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| cis-3-Hexenyl tiglate | 67883-79-8 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-------------------------|--------------|--|
| 3-Hexenyl formate | 9/5/2315 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hexyl acetate | 142-92-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hexyl benzoate | 6789-88-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hexyl butyrate | 2639-63-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hexyl hexanoate | 6378-65-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hexyl isobutyrate | 2349-07-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hexyl 2-methylbutanoate | 10032-15-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hexyl octanoate | 1117-55-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| Hexyl propionate | 2445-76-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| α -Hexylcinnamaldehyde | 101-86-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Hydrogen peroxide | 7722-84-1 | When ready for use, the end-use concentration is not to exceed 91 ppm |
| 4-Hydroxy-2,5-dimethyl-3(2H)-furanone | 3658-77-3 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Hydroxycitronellal | 107-75-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hydroxycitronellal dimethyl acetal | 141-92-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hydroxycitronellol | 107-74-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1,4-Bis[[3-[2-(2-hydroxyethoxy)ethoxy]propyl]amino]-9,10-anthracenedione | 123944-63-8 | When ready for use, the end-use concentration is not to exceed 300 ppm |
| Hydroxynonanoic acid, δ -lactone | 3301-94-8 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|---|
| 4-(p-hydroxyphenyl)-2-butanone | 5471-51-2 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| 5-hydroxyundecanoic acid lactone | 710-04-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Hypochlorous acid | 7790-92-3 | When ready for use, the end-use concentration of all hypochlorous acid chemicals in the solution is not to exceed 200 ppm determined as total available chlorine. |
| Hypochlorous acid, sodium salt | 7681-52-9 | When ready for use, the end-use concentration of all hypochlorous acid chemicals in the solution is not to exceed 200 ppm determined as total available chlorine |
| Hyssop oil (<i>Hyssopus officinalis</i> L.) | 8006-83-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1H-Indole | 120-72-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Iodine | 7553-56-2 | When ready for use, the total end-use concentration of all iodide-producing chemicals in the |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--------------------|--------------|---|
| α -Ionone | 127-41-3 | solution is not to exceed 25 ppm of titratable iodine When ready for use, the end-use concentration is not to exceed 100 ppm |
| γ -Ionone | 79-76-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| α -Irone | 79-69-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isoamyl acetate | 123-92-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isoamyl alcohol | 123-51-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isoamyl benzoate | 94-46-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isoamyl butyrate | 106-27-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isoamyl cinnamate | 7779-65-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-----------------------|--------------|--|
| Isoamyl isovalerate | 659-70-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isoamyl phenylacetate | 102-19-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isoamyl propionate | 105-68-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isoamyl salicylate | 87-20-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isoborneol | 124-76-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isobornyl acetate | 125-12-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isobutyl acetate | 110-19-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isobutyl angelate | 7779-81-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isobutyl benzoate | 120-50-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|---|
| Isobutyl 2-butenate | 589-66-2 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isobutyl butyrate | 539-90-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isobutyl cinnamate | 122-67-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isobutyl isobutyrate | 97-85-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Isobutyl-3-methoxypyrazine | 24683-00-9 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2-Isobutyl-2-methyl-1,3-dioxolane-4-methanol | 5660-53-7 | |
| Isobutyl phenylacetate | 102-13-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isobutyl salicylate | 87-19-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| α -Isobutylphenethyl alcohol | 7779-78-4 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Isobutyraldehyde | 78-84-2 | When ready for use, |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-----------------------------|--------------|--|
| Isobutyric acid | 79-31-2 | the end-use concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isoeugenol | 97-54-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isoeugenyl acetate | 93-29-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isojasmone | 11050-62-7 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| d,l-Isomenthone | 491-07-6 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| iso-Methyl- β -ionone | 79-89-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isopropyl acetate | 108-21-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Isopropylacetophenone | 645-13-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| p-Isopropylbenzyl alcohol | 536-60-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isopropyl-3-hydroxybutyrate | 54074-94-1 | Solvent |
| Isopropyl 2-methylbutyrate | 66576-71-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Isopropyl-4-methylthiazole | 15679-13-7 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2-Isopropylphenol | 88-69-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Isopropyl phenylacetaldehyde | 4395-92-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isopulegol | 89-79-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Isovaleric acid | 503-74-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Jasmine lactone | 25524-95-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Jasmine oil (<i>Jasminum grandiflorum</i> L.) | 8022-96-6 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|------------------|--|
| Juniper oil (<i>Juniperus communis</i> L.) | 8002-68-4 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Labdanum oil (<i>Cistus</i> spp.) | 8016-26-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Lactic acid (including l-lactic acid) | 50-21-5, 79-33-4 | When ready for use, the end-use concentration is not to exceed 10,000 ppm in antimicrobial formulations applied to food-contact surfaces in public eating places |
| laevo-Bornyl acetate | 5655-61-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Lauryl acetate | 112-66-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Lauric acid | 143-07-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Lauric aldehyde | 112-54-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|--|
| Lauryl alcohol | 112-53-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Lavandin oil (<i>Lavandula hybrida</i>) | 8022-15-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Levulinic acid | 123-76-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| d-Limonene | 5989-27-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Linalool | 78-70-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Linalool acetate | 115-95-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Linalool oxide | 60047-17-8 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| (E)-Linalool oxide | 34995-77-2 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| (Z)-Linalool oxide | 5989-33-3 | When ready for use, the end-use concentration is not to exceed 33 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-----------------------------|--------------|---|
| Linalyl acetate | 115-95-7 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Linalyl benzoate | 126-64-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Linalyl cinnamate | 78-37-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Linalyl formate | 115-99-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Linalyl hexanoate | 7779-23-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Linalyl isobutyrate | 78-35-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Linalyl isovalerate | 1118-27-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Linalyl propionate | 144-39-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Linoleic acid, methyl ester | 112-63-0 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|--|
| Lipase, triacylglycerol | 9001-62-1 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 500 ppm |
| Lovage oil (<i>Levisticum officinale</i> Koch) | 8016-31-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Mace oil (<i>Myristica fragrans</i> Houtt.) | 8007-12-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Magnesium oxide | 1309-48-4 | None |
| Magnesium sulfate anhydrous | 7487-88-9 | When ready for use, the end-use concentration is not to exceed 4400 ppm |
| Magnesium sulfate heptahydrate | 10034-99-8 | When ready for use, the end-use concentration is not to exceed 4400 ppm |
| Magnesium sulfate hexahydrate | 7830-18-1 | When ready for use, the end-use concentration is not to exceed 4400 ppm |
| Magnesium sulfate monohydrate | 14168-73-1 | When ready for use, the end-use concentration is not to exceed 4400 ppm |
| Magnesium sulfate pentahydrate | 5553-21-6 | When ready for use, the end-use concentration is not to exceed 4400 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--------------------------------|--------------|--|
| Magnesium sulfate tetrahydrate | 24378-31-2 | ppm When ready for use, the end-use concentration is not to exceed 4400 ppm |
| Magnesium sulfate trihydrate | 15320-30-6 | When ready for use, the end-use concentration is not to exceed 4400 ppm |
| Maltyl isobutyrate | 65416-14-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| p-Mentha-1,8-dien-7-ol | 536-59-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Mentha-1,8-dien-7-yl acetate | 15111-96-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Mentha-8-thiol-3-one | 38462-22-5 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| p-Menthan-3-one | 10458-14-7 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| p-Menthane, 1,8-epoxy- | 470-82-6 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 1-p-Menthene-8-thiol | 71159-90-5 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------------------------------|---|
| Menthol | 15356-70-4; 89-78-1; 1490-04-6 | concentration is not to exceed 33 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| 4-Mercapto-4-methyl-2-pentanone | 19872-52-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methane sulfonic acid | 75-75-2 | When ready for use, the end use concentration is not to exceed 5,000 ppm |
| 1H-3a,7-Methanoazulen-6-ol, octahydro-3,6,8,8-tetramethyl-[3R-(3.α,3a.β,6.α,7.β,8α)] | 77-53-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Methoxy-3-(1-methylpropyl)pyrazine | 24168-70-5 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2-methoxy-4-propylphenol | 2785-87-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 4-Methoxy-2-methyl-2-butanethiol | 94087-83-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Methoxy-4-methylphenol | 93-51-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--------------------------------|--------------|--|
| 4-(p-Methoxyphenyl)-2-butanone | 104-20-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Methoxy-4-vinylphenol | 7786-61-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methylene blue | 61-73-4 | When ready for use, the end-use concentration is not to exceed 0.4 ppm |
| Methyl- α -ionone | 127-42-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 4'-methylacetophenone | 122-00-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl n-amyl ketone | 110-43-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Methyl anthranilate | 134-20-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| alpha-methylbenzyl alcohol | 98-85-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| methyl benzoate | 93-58-3 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---------------------------------|--------------|---|
| 3-Methyl-2-butenyl acetate | 1191-16-8 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| alpha-methylcinnamaldehyde | 101-39-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| methyl cinnamate | 103-26-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Methyl-1-cyclopentadecanone | 541-91-3 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Methylcyclopentenolone | 80-71-7 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 3-Methylcrotonic acid | 541-47-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl 3,7-dimethyl-6-octenoate | 2270-60-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 6-Methyl-3,5-heptadien-2-one | 1604-28-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 6-Methyl-5-hepten-2-one | 110-93-0 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|---|
| Methyl heptine carbonate | 111-12-6 | concentration is not to exceed 33 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl hexanoate | 106-70-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl linolenate | 301-00-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl 2-methylbutyrate | 868-57-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Methyl-3-(p-isopropylphenyl)propionaldehyde | 103-95-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl N-acetylanthranilate | 2719-08-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl anisate | 121-98-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl N-methylanthranilate | 85-91-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|--|
| Methyl 2-nonenoate | 111-79-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl 2-nonynoate | 111-80-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl 3-nonenoate | 13481-87-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Methyl-2-(n-pentanyl)-2-cyclopenten-1-one | 1128-08-1 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 3-Methyl-2-(2E)-2-penten-1-yl-2-cyclopenten-1-one | 6261-18-3 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 3-Methyl-2-(2-pentenyl)-2-cyclopenten-1-one, (Z)- | 488-10-8 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Methyl phenethyl ether | 3558-60-9 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2-Methyl-4-phenyl-2-butanol | 103-05-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 5-Methyl-2-phenyl-2-hexenal | 21834-92-4 | When ready for use, the end-use concentration is not to exceed 33 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|------------------------------------|--|--|
| p-Methylanisole | 104-93-8 | ppm. When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methylbenzyl acetate (mixed o,m,p) | 360676-70-1; 2216-45-7; 17373-93-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| α -Methylbenzyl propionate | 120-45-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Methyl-2-butenyl benzoate | 5205-11-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Methylindole | 83-34-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl- α -ionone | 127-42-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl- β -ionone | 127-43-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl o-methoxybenzoate | 606-45-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl 3-methylthiopropionate | 13532-18-8 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-----------------------------------|--------------|--|
| 2-Methyloctanal | 7786-29-0 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl octanoate | 111-11-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Methylpent-2-en-1-oic acid | 3142-72-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| β -Methylphenethyl alcohol | 1123-85-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl phenylacetate | 101-41-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Methyl-4-phenyl-2-butyl acetate | 103-07-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl n-propyl ketone | 107-87-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Methyl-4-propyl-1,3-oxathiane | 67715-80-4 | When ready for use, the end-use concentration is not to exceed 33 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|--|
| 2-Methylpyrazine | 109-08-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| methyl salicylate | 119-36-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl sulfide | 75-18-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Methyl tetradecanoate | 124-10-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 5-Methyl-2-thiophenecarboxyaldehyde | 13679-70-4 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2-Methyl-trans-2-butenic acid | 80-59-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Methyl-5-(2,2,3-trimethyl-3-cyclopenten-1-yl)pent-4-en-2-ol | 67801-20-1 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Methyl undec-10-enoate | 111-81-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Methylundecanal | 110-41-8 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| 2-Methyl-1,3-propanediol | 2163-42-0 | ppm |
| Musk ambrette | 123-69-3 | None |
| | | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Myristaldehyde | 124-25-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Myristic acid | 544-63-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Nerol oxide | 1786-08-9 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Nerolidiol | 142-50-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Neroli bigarde oil (<i>Citrus aurantium</i> L.) | 8016-38-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Nerolidol (isomer unspecified) | 7212-44-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Neryl acetate | 141-12-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Neryl formate | 2142-94-1 | When ready for use, |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---------------------------------------|--------------|--|
| Nitric acid | 7697-37-2 | the end-use concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 1,000 ppm |
| Nona-2-trans-6-cis-dienal | 557-48-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2,6-Nonadien-1-ol | 7786-44-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2,6-Nonadienal diethyl acetal | 67674-36-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1,3-Nonanediol acetate (mixed esters) | 1322-17-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| γ-Nonalactone | 104-61-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Nonanal | 124-19-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Nonanone | 821-55-6 | When ready for use, the end-use concentration is not to exceed 33 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| 6-nonenal, (6Z)- | 2277-19-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Nonenal | 2463-53-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| cis-6-nonen-1-ol | 35854-86-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Nonyl acetate | 143-13-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Nonyl alcohol | 143-08-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| α -(p-Nonylphenyl)- ω -hydroxypoly (oxyethylene) average poly(oxyethylene) content 11 moles) | None | None |
| Nootkatone | 4674-50-4 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Octadecanoic acid | 57-11-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Octadecanoic acid, calcium salt | 1592-23-0 | None |
| 1-octadecanol | 112-92-5 | |
| 9-Octadecenoic acid (9Z)-, sulfonated, oxidized | 1315321-93-7 | When ready for use, the end-use concentration is not to exceed 250 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|---|
| 9-Octadecenoic acid (9Z)-, sulfonated, oxidized, potassium salts | 1315321-94-8 | ppm When ready for use, the end-use concentration is not to exceed 250 ppm |
| 9-Octadecenoic acid (9Z)-, sulfonated, oxidized, sodium salts | 1315321-95-9 | When ready for use, the end-use concentration is not to exceed 250 ppm |
| 2,6-Octadien-1-ol, 3,7-dimethyl-, (Z)- | 106-25-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| γ-Octalactone | 104-50-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| δ-Octalactone | 698-76-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Octanal | 124-13-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| octanal dimethyl acetal | 10022-28-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1-Octanesulfonic acid, sodium salt | 5324-84-5 | When ready for use, the end-use concentration is not to exceed 46 ppm |
| 1-Octanol | 111-87-5 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|---|
| 2-Octanone | 111-13-7 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2,5,7-Octatrien-1-ol, 2,6-dimethyl, 1-acetate | 197098-61-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1-Octen-3-ol | 3391-86-4 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 5-Octen-1-ol, (5Z)- | 64275-73-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1-Octen-3-yl acetate | 2442-10-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oil of Bergamot | 8007-75-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oil of camphor | 8008-51-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oil of citronella | 8000-29-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---------------------------|--------------|--|
| Oil of orange | 8008-57-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, clove | 8000-34-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, Fir | 8021-29-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, geranium | 8000-46-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, ginger | 8007-08-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, grapefruit | 8016-20-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, lavender | 8000-28-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, lemon, terpene-free | 68648-39-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oil of lemon | 8008-56-8 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-----------------------------------|--------------|---|
| Oil of lemongrass | 8007-02-1 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, lime | 8008-26-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, mimosa | 8031-03-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, orange, sweet, terpene-free | 68606-94-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, palmarosa | 8014-19-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, peppermint | 8006-90-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oils, rosemary | 8000-25-7 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Oils, sage | 8022-56-8 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Oils, spruce | 8008-80-8 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| Oils, thyme | 8007-46-3 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oleic acid | 112-80-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oleic acid, ethyl ester | 111-62-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oleyl alcohol | 143-28-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Olibanum oil (<i>Boswellia</i> spp.) | 8016-36-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Orange flower water absolute | 8030-28-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Origanum oil, Spanish | 8007-11-2 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Orris absolute (<i>Iris pallida</i>) | 8002-73-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|---|---|
| Ortho-benzyl-para-chlorophenol | 120-32-1 | When ready for use, the end-use concentration is not to exceed 2080 ppm |
| 7-Oxabicyclo(2.2.1.)heptane, 1-methyl-4-(1-methylethyl)- | 470-67-7 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Oxacycloheptadec-10-ene-2-one | 28645-51-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Oxirane, methyl-, polymer with oxirane, minimum molecular weight (in amu), 1900 | 9003-11-6 | None |
| Palmitic acid | 57-10-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Paraffin waxes and hydrocarbon waxes; carboxypolymethylene resin; and paraffin waxes and hydrocarbon, oxidized, lithium salts | 8002-74-2; 68153-22-0; 68649-48-9 | |
| Pelargonic (nonanoic) acid | 112-05-0 | None |
| ω -Pentadecalactone | 106-02-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1-pentanol | 71-41-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Pepper, black, oil (<i>Piper nigrum</i> L.) | 8006-82-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| peppermint (<i>Mentha piperita</i>) ext. | 84082-70-2 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-------------------------|--------------|---|
| Peroxyacetic acid | 79-21-0 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 58 ppm |
| Peroxyoctanoic acid | 33734-57-5 | When ready for use, the end-use concentration is not to exceed 52 ppm |
| Petitgrain bigarade oil | 8014-17-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Petitgrain Paraguay oil | 8014-17-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| α -Phellandrene | 99-83-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| phenethyl acetate | 103-45-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phenethyl butyrate | 103-52-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phenethyl cinnamate | 103-53-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-----------------------------------|--------------|--|
| Phenethyl formate | 104-62-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phenethyl hexanoate | 6290-37-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phenethyl propionate | 122-70-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phenethyl salicylate | 87-22-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phenethyl tiglate | 55719-85-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phenol, 2-methoxy-4-(2-propenyl)- | 97-53-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phenol, 2,4,6-trimethyl- | 527-60-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| phenyl ethyl alcohol | 60-12-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| phenethyl isobutyrate | 103-48-0 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|------------------------------------|--------------|---|
| phenethyl phenylacetate | 102-20-5 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| phenylacetaldehyde dimethyl acetal | 101-48-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phenylacetaldehyde glyceryl acetal | 29895-73-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phenylacetic acid | 103-82-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phenylethyl isoamyl ether | 56011-02-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2-phenylethyl 2-methylbutyrate | 24817-51-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Phenylpropionaldehyde | 104-53-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Phenylpropionic acid | 501-52-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-Phenylpropyl acetate | 122-72-5 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|--|
| 3-Phenylpropyl cinnamate | 122-68-9 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3-phenyl-1-propanol | 122-97-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Phenylpropionaldehyde | 93-53-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Phenylpropionaldehyde dimethyl acetal | 90-87-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Phosphonic acid, (1-hydroxyethylidene)bis- | 2809-21-4 | When ready for use, the end-use concentration is not to exceed 14 ppm |
| Phosphoric acid | 7664-38-2 | |
| Phosphoric acid, trisodium salt | 7601-54-9 | When ready for use, the end-use concentration is not to exceed 5916 ppm |
| Pine needle oil | 8000-26-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Pine scotch oil (<i>Pinus sylvestris</i> L.) | 8023-99-2 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|--|
| α-Pinene | 80-56-8 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Piperonyl acetate | 326-61-4 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Polyammonium bisulfate | 10043-02-4 | When ready for use, the end-use concentration is not to exceed 250 ppm |
| Potassium 2-benzyl-4-chlorophenate | 35471-49-9 | When ready for use, the end-use concentration is not to exceed 2080 ppm |
| Potassium bromide | 7758-02-3 | When ready for use, the end-use concentration is not to exceed 46 ppm total available halogen |
| Potassium iodide | 7681-11-0 | When ready for use, the total end-use concentration of all iodide-producing chemicals in the solution is not to exceed 25 ppm of titratable iodine |
| 1,3-Propanediol | 504-63-2 | None |
| propanoic acid, 2-methyl-, 4-formyl-2-methoxyphenyl ester | 20665-85-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Propanoic acid | 79-09-4 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|-------------------------------------|--------------|--|
| Propenylguaethol | 94-86-0 | concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Propionic acid | 79-09-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Propyl phenethyl acetal | 7493-57-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Propylene glycol | 57-55-6 | None |
| α -Propylphenethyl alcohol | 705-73-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| o-Propylphenol | 644-35-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Propylphenol | 645-56-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 4H-Pyran-4-one, 3-hydroxy-2-methyl- | 118-71-8 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 2,6-Pyridinedicarboxylic acid | 499-83-2 | When ready for use, the end-use concentration is not to exceed 2 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| Pyruvic acid | 127-17-3 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Quaternary ammonium compounds, alkyl (C ₁₂ -C ₁₈) benzyldimethyl, chlorides | 8001-54-5 | When ready for use, the end-use concentration of all quaternary chemicals in the solution is not to exceed 200 ppm of active quaternary compound |
| Quaternary ammonium compounds: n-alkyl (C ₁₂₋₁₈) dimethyl benzyl ammonium chloride | 68424-85-1 | When ready for use, the end-use concentration of all quaternary chemicals in solution is not to exceed 400 ppm of active quaternary compound |
| Quaternary Ammonium Compounds: n-alkyl (C ₁₂₋₁₄) dimethyl ethylbenzyl ammonium chloride, average molecular weight (in amu), 377 to 384 | 85409-23-0 | When ready for use, the end-use concentration of all quaternary chemicals in solution is not to exceed 400 ppm of active quaternary compound |
| Quaternary ammonium compounds n-alkyl (C ₁₂ -C ₁₈) dimethyl ethylbenzyl ammonium chloride average molecular weight (in amu) 384 | None | When ready for use, the end-use concentration of all quaternary chemicals in the solution is not to exceed 200 ppm of active quaternary compound |
| Quaternary ammonium compounds, Di-n-Alkyl (C ₈₋₁₀) dimethyl ammonium chloride, average molecular weight (in amu) 332 to 361 | None | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|------------------------------|--|
| | | concentration of these specific in quaternary ammonium compounds is not to exceed 240 ppm of active quaternary ammonium compound; the end-use concentration of all quaternary chemicals in the solution is not to exceed 400 ppm of active quaternary compound |
| Quaternary ammonium compounds, didecyl dimethyl ammonium carbonate/didecyl dimethyl ammonium bicarbonate | 148788-55-0/ 148812-654-1 | When ready for use, the end-use concentration of these specific ammonium compounds is not to exceed 400 ppm of active quaternary ammonium compound |
| Rose absolute (<i>Rosa</i> spp.) | 8007-01-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Rue oil (<i>Ruta graveolens</i> L.) | 8014-29-7 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Salicylaldehyde | 90-02-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|---|
| Sandalwood yellow oil (<i>Santalum album</i> L.) | 8006-87-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Santalol | 11031-45-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| cis- α -Santalol | 115-71-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| cis- β -Santalol | 77-42-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Schinus molle oil (<i>Schinus molle</i> L.) | 68917-52-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Sclareol | 515-03-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Silver ions resulting from the use of electrolytically-generated silver ions stabilized in citric acid as silver dihydrogen citrate (does not include metallic silver) | 14701-21-4 | When ready for use, the end-use concentration of silver ions is not to exceed 50 ppm of active silver |
| Sodium 2-benzyl-4-chlorophenate | 3184-65-4 | When ready for use, the end-use concentration is not to exceed 2080 ppm |
| Sodium bisulfate | 7681-38-1 | When ready for use, the end-use concentration is |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| | | not to exceed 2,000 ppm |
| Sodium dioctyl sulfosuccinate | 577-11-7 | None |
| Sodium lauroyl sarcosinate | 137-16-6 | When ready for use, the end-use concentration is not to exceed 10,000 ppm |
| Sorbitan, mono-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs., (Z)- | 9005-65-6 | None |
| Spike lavender oil (<i>Lavandula</i> spp.) | 8016-78-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Stearic acid | 57-11-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Storax (<i>Liquidambar</i> spp.) | 8046-19-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Sulfuric acid | 7664-93-9 | Food-contact surfaces in public eating places, dairy-processing equipment, and food-processing equipment and utensils in antimicrobial formulations. Not to exceed 600 ppm |
| Sulfuric acid monododecyl ester, sodium salt (sodium lauryl sulfate) | 151-21-3 | When ready for use, the end-use concentration is not to exceed 350 ppm |
| Tagetes oil (<i>Tagetes erecta</i> L.) | 8016-84-0 | When ready for use, the end-use concentration is |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|---|
| Tall oil fatty acid (CAS Reg. No. 61790-12-3) | 8008-31-9 | not to exceed 100 ppm |
| Tangerine oil (Citrus reticulata blanco) | | Solvent/carrier When ready for use, the end-use concentration is not to exceed 100 ppm |
| Tartaric acid | 87-69-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| DL-Tartaric acid | 133-37-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| α -Terpinene | 99-86-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| γ -Terpinene | 99-85-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| α -Terpineol | 98-55-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Terpinyl acetate (isomer mixture) | 8007-35-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1-tetradecanol | 112-72-1 | When ready for use, the end-use concentration is not to exceed 100 |
| α -Terpinyl propionate | 80-27-3 | |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| Tetraacetythylenediamine (TAED) | 10543-57-4 | ppm None |
| Tetradecanoic acid, ethyl ester | 124-06-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Tetradecanoic acid, 1-methylethyl ester | 110-27-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Tetrahydrogeranial | 5988-91-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Tetrahydrolinalool | 78-69-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Tetrahydro-4-methyl-2-(2-methylpropen-1-yl)pyran | 16409-43-1 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Tetrahydro-6-(3-pentenyl)-2H-pyran-2-one | 32764-98-0 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Theaspirane | 36431-72-8 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| Thiogeraniol | 39067-80-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| thymol (8CA) | 89-83-8 | When ready for use, |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| Thyme (<i>Thymus Vulgaris</i>) Oil | 84929-51-1 | the end-use concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| Tolu, balsam, gum (<i>Myroxylon</i> spp.) | 9000-64-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Tolylacetaldehyde | 104-09-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Tolyl acetate | 140-39-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Tolyl isobutyrate | 103-93-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Tolyl 3-methylbutyrate | 55066-56-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Tolyl octanoate | 59558-23-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| p-Tolyl phenylacetate | 101-94-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|---|
| 2-(p-Tolyl)propionaldehyde | 99-72-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Trans-1,3,3,3-tetrafluoroprop-1-ene | 29118-24-9 | None |
| 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, sodium salt | 2893-78-9 | When ready for use, the end-use concentration of all di- or trichloroisocyanuric acid chemicals in the solution is not to exceed 100 ppm determined as total available chlorine |
| 2-Tridecanal | 7774-82-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2-Tridecanone | 593-08-8 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| triethyl citrate | 77-93-0 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Triethylene glycol | 112-27-6 | None |
| p-α,α-Trimethylbenzyl alcohol | 1197-01-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2,6,6-Trimethyl-1-cyclohexen-1-acetaldehyde | 472-66-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2,6,6-Trimethyl-1&2-cyclohexen-1-carboxaldehyde | 432-25-7 | When ready for use, |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--|--|
| 1,3,3-trimethyl-2-norbornanyl acetate | 13851-11-1 | the end-use concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3,3,5-Trimethylcyclohexanol | 116-02-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| (Z)- β -1-(2,6,6-Trimethyl-1-cyclohexen-1-yl)-2-buten-1-one; (2E)-1-(2,6,6-Trimethyl-1-cyclohexen-1-yl)-2-buten-1-one | 35044-68-9; 23726-92-3; 23726-91-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2,3,6-Trimethylphenol | 2416-94-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 4,7,7-Trimethyl-6-thiabicyclo[3.2.1]octane | 68398-18-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| delta-1-(2,6,6-trimethyl-3-cyclohexen-1-yl)-2-buten-1-one | 57378-68-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3,5,5-Trimethylhexanal | 5435-64-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Turpentine, oil | 8006-64-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---------------------------------|--------------|--|
| γ -Undecalactone | 104-67-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Undecanal | 112-44-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 1-undecanol | 112-42-5 | Carrier/Adjuvant and Coating Agent/Binder |
| 2-Undecanone | 112-12-9 | When ready for use, the end-use concentration is not to exceed 33 ppm |
| 1,3,5-Undecatriene | 16356-11-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 9-Undecenal | 143-14-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 10-Undecenal | 112-45-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 10-Undecenoic acid | 112-38-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 10-Undecenoic acid, ethyl ester | 692-86-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| 10-undecen-1-yl acetate | 112-19-6 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Undecyl alcohol | 112-42-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Valencene | 4630-07-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Valeraldehyde | 110-62-3 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Valeric acid | 109-52-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| γ -Valerolactone | 108-29-2 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Vanilla (<i>Vanilla</i> spp.) | 8024-06-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Vanilla extract (<i>Vanilla</i> spp.) | 84650-63-5 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| <i>Vanilla tahitensis</i> , ext. | 94167-14-3 | When ready for use, the end-use concentration is not to exceed 100 |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|---|
| Vanillin | 121-33-5 | ppm When ready for use, the end-use concentration is not to exceed 100 ppm |
| veratraldehyde | 120-14-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Violet leaves absolute (Viola odorata L.) | 90147-36-7 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Waxes and waxy substances, rice bran, oxidized | 1883583-80-9 | None |
| Wintergreen oil | 68917-75-9 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Xylenesulfonic acid, sodium salt | 1300-72-7 | When ready for use, the end-use concentration is not to exceed 500 ppm |
| 2,5-Xylenol | 95-87-4 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 2,6-Xylenol | 576-26-1 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| 3,4-Xylenol | 95-65-8 | When ready for use, the end-use concentration is not to exceed 100 ppm |
| Ylang-ylang oils | 8006-81-3 | When ready for use, |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--------------------|--------------|--|
| Zingerone | 122-48-5 | the end-use concentration is not to exceed 100 ppm When ready for use, the end-use concentration is not to exceed 100 ppm |

- (b) The following chemical substances when used as ingredients in an antimicrobial pesticide formulation may be applied to: Dairy processing equipment, and food-processing equipment and utensils.

TABLE 2 TO PARAGRAPH (b)

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|---|
| Acetic acid | 64-19-7 | When ready for use, the end-use concentration is not to exceed 1200 ppm |
| Acetic acid, chloro-, sodium salt, reaction products with 4,5-dihydro-2-undecyl-1H-imidazole-1-ethanol and sodium hydroxide | 68608-66-2 | When ready for use, the end-use concentration is not to exceed 42 ppm chloroacetic acid |
| Butanedioic acid, octenyl- | 28805-58-5 | When ready for use, the end-use concentration is not to exceed 156 ppm |
| Butoxy monoether of mixed (ethylene-propylene) polyalkylene glycol, minimum average molecular weight (in amu), 2400 | None | None |
| Calcium chloride | 10043-52-4 | When ready for use, the end-use concentration is not to exceed 17 ppm |
| n-Carboxylic acids (C ₆ -C ₁₂), consisting of a mixture of not less than 56% octanoic acid and not less than 40% decanoic acid | None | When ready for use, the end-use concentration is not to exceed 39 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--|--|
| Ethanesulfonic acid, 2-[cyclohexyl (1-oxohexadecyl) amino]-, sodium salt | 132-43-4 | When ready for use, the end-use concentration is not to exceed 237 ppm |
| Ethylenediaminetetraacetic acid (EDTA), disodium salt | 139-33-3 | When ready for use, the end-use concentration is not to exceed 1400 ppm |
| FD&C Yellow No. 5 (Tartrazine) (conforming to 21 CFR 74.705) | 1934-21-0 | None |
| C ₁ -C ₄ linear and branched chain alkyl d-glucitol dianhydro alkyl ethers cluster | 5306-85-4; 30915-81-2; 107644-13-3; 103594-41-8; 103594-42-9 | When ready for use, the end-use concentration is not to exceed 1,000 ppm |
| D-glucitol, 1,4:3,6-dianhydro-2,5-di-O-(1-methylpropyl)-, | None | |
| D-glucitol, 1,4:3,6-dianhydro-2,5-di-O-(2-methylpropyl)-, (CAS Reg. No. not assigned) | None | |
| D-Gluconic acid, monosodium salt | 527-07-1 | When ready for use, the end-use concentration is not to exceed 760 ppm |
| Hydriodic acid | 10034-85-2 | When ready for use, the total end-use concentration of all iodide-producing chemicals is not to exceed 25 ppm of titratable iodine |
| Hydrogen peroxide | 7722-84-1 | When ready for use, the end-use concentration is not to exceed 465 ppm |
| Iodine | 7553-56-2 | When ready for use, the total end-use concentration of all iodide-producing chemicals in the solution is not to exceed 25 ppm of titratable iodine |
| 1-Octanamine, N,N-dimethyl- | 7378-99-6 | When ready for use, the end-use concentration is not to exceed 113 ppm |
| 1,2-Octanedisulfonic acid | 113669-58-2 | When ready for use, the end-use concentration is not to exceed 102 ppm |
| 1-Octanesulfonic acid | 3944-72-7 | When ready for use, the end-use concentration is not to exceed 172 ppm |
| 1-Octanesulfonic acid, sodium salt | 5324-84-5 | When ready for use, the end-use concentration is not to exceed 297 ppm |
| 1-Octanesulfonic acid, 2-sulfin- | 113652-56-5 | When ready for use, the end-use concentration is not to exceed 102 ppm |
| Oxychloro species | None | When ready for use, the end-use concentration is not |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|---|
| (including chlorine dioxide) generated by acidification of an aqueous solution of sodium chlorite | | to exceed 200 ppm of chlorine dioxide as determined by the method titled, Iodometric Method for the Determination of Available Chlorine Dioxide (50-250 ppm available chlorine dioxide) |
| Peroxyacetic acid | 79-21-0 | When ready for use, the end-use concentration is not to exceed 315 ppm |
| Peroxyoctanoic acid | 33734-57-5 | When ready for use, the end-use concentration is not to exceed 122 ppm |
| Phosphonic acid, (1-hydroxyethylidene)bis- | 2809-21-4 | When ready for use, the end-use concentration is not to exceed 34 ppm |
| Phosphoric acid | 7664-38-2 | None |
| Phosphoric acid, monosodium salt | 7558-80-7 | When ready for use, the end-use concentration is not to exceed 350 ppm |
| Potassium iodide | 7681-11-0 | When ready for use, the total end-use concentration of all iodide-producing chemicals in the solution is not to exceed 25 ppm of titratable iodine |
| Propanoic acid | 79-09-4 | When ready for use, the end-use concentration is not to exceed 297 ppm |
| Sulfuric acid monododecyl ester, sodium salt (sodium lauryl sulfate) | 151-21-3 | When ready for use, the end-use concentration is not to exceed 350 ppm |

(c) The following chemical substances when used as ingredients in an antimicrobial pesticide formulation may be applied to: Food-processing equipment and utensils.

TABLE 3 TO PARAGRAPH (c)

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|---|
| Acetic acid | 64-19-7 | When ready for use, the end-use concentration is not to exceed 1,200 ppm |
| Acetic acid, chloro-, sodium salt, reaction products with 4,5-dihydro-2-undecyl-1H-imidazole-1-ethanol and sodium hydroxide | 68608-66-2 | When ready for use, the end-use concentration is not to exceed 42 ppm chloroacetic acid |
| Ammonium chloride | 12125-02-9 | When ready for use, the end-use concentration is not to exceed 48 ppm |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| [1,1'-Biphenyl]-2-ol | 90-43-7 | When ready for use, the end-use concentration is not to exceed 400 ppm |
| Boric acid, sodium salt | 7775-19-1 | None |
| Butanedioic acid, octenyl- | 28805-58-5 | When ready for use, the end-use concentration is not to exceed 156 ppm |
| Butanedioic acid, sulfo-, 1,4-dioctyl ester, sodium salt | 1639-66-3 | None |
| Butoxy monoether of mixed (ethylene-propylene) polyalkylene glycol, cloudpoint of 90 - 100° C in 0.5 aqueous solution, average molecular weight (in amu), 3300 | None | None |
| Butoxy monoether of mixed (ethylene-propylene) polyalkylene glycol, minimum average molecular weight (in amu), 2400 | None | None |
| Calcium chloride | 10043-52-4 | When ready for use, the end-use concentration is not to exceed 17 ppm |
| n-Carboxylic acids (C ₆ -C ₁₂), consisting of a mixture of not less than 56% octanoic acid and not less than 40% decanoic acid | None | When ready for use, the end-use concentration is not to exceed 39 ppm |
| 3-Cyclohexene-1-methanol, α,α,4-trimethyl- | 98-55-5 | None |
| 1-Decanaminium, N-decyl-N, N-dimethyl-, chloride | 7173-51-5 | When ready for use, the end-use concentration is not to exceed 200 ppm of active quaternary compound |
| Ethanesulfonic acid, 2-[cyclohexyl (1-oxohexadecyl) amino]-, sodium salt | 132-43-4 | When ready for use, the end-use concentration is not to exceed 237 ppm |
| Ethanol | 64-17-5 | None |
| Ethanol, 2 butoxy- | 111-76-2 | None |
| Ethanol, 2-(2-ethoxyethoxy)- | 111-90-0 | None |
| Ethylenediaminetetraacetic acid (EDTA), disodium salt | 139-33-3 | When ready for use, the end-use concentration is not to exceed 1400 ppm |
| Ethylenediaminetetraacetic acid (EDTA), tetrasodium salt | 64-02-8 | None |
| Fatty acids, coco, potassium salts | 61789-30-8 | None |
| Fatty acids, tall-oil, sulfonated, sodium salts | 68309-27-3 | When ready for use, the end-use concentration is not to exceed |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|---|
| FD&C Yellow No. 5 (Tartrazine) (conforming to 21 CFR 74.705) | 1934-21-0 | 66 ppm None |
| D-Gluconic acid, monosodium salt | 527-07-1 | When ready for use, the end-use concentration is not to exceed 760 ppm |
| Hydriodic acid | 10034-85-2 | When ready for use, the total end-use concentration of all iodide-producing chemicals in the solution is not to exceed 25 ppm of titratable iodine |
| Hydrogen peroxide | 7722-84-1 | When ready for use, the end-use concentration is not to exceed 1100 ppm |
| Hypochlorous acid, calcium salt | 7778-54-3 | When ready for use, the end-use concentration of all hypochlorous acid chemicals in the solution is not to exceed 200 ppm determined as total available chlorine |
| Hypochlorous acid, lithium salt | 13840-33-0 | When ready for use, the end-use concentration of all hypochlorous acid chemicals in the solution is not to exceed 200 ppm determined as total available chlorine and 30 ppm lithium |
| Hypochlorous acid, potassium salt | 7778-66-7 | When ready for use, the end-use concentration of all hypochlorous acid chemicals in the solution is not to exceed 200 ppm determined as total available chlorine |
| Hypochlorous acid, sodium salt | 7681-52-9 | When ready for use, the end-use concentration of all hypochlorous acid chemicals in the solution is not to exceed 200 ppm determined as total available chlorine |
| Iodine | 7553-56-2 | When ready for use, the total end-use concentration of all iodide-producing chemicals in |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|--|
| | | the solution is not to exceed 25 ppm of titratable iodine |
| Magnesium oxide | 1309-48-4 | None |
| Methylene blue | 61-73-4 | When ready for use, the end-use concentration is not to exceed 0.4 ppm |
| Neodecanoic acid | 26896-20-8 | When ready for use, the end-use concentration is not to exceed 174 ppm |
| α -(p-Nonylphenyl)- ω -hydroxypoly (oxyethylene) maximum average molecular weight (in amu), 748 | None | None |
| α -(p-Nonylphenol)- ω -hydroxypoly (oxyethylene) average poly(oxyethylene) content 11 moles | None | None |
| α -(p-Nonylphenyl)- ω -hydroxypoly (oxyethylene) produced by the condensation of 1 mole p-nonylphenol with 9 to 12 moles ethylene oxide | None | None |
| α -(p-Nonylphenyl)- ω -hydroxypoly (oxyethylene), 9 to 13 moles ethylene oxide | None | None |
| Octadecanoic acid, calcium salt | 1592-23-0 | None |
| 9-Octadecenoic acid (9Z)-, sulfonated | 68988-76-1 | When ready for use, the end-use concentration is not to exceed 312 ppm |
| 9-Octadecenoic acid (9Z)-sulfonated, sodium salts | 68443-05-0 | When ready for use, the end-use concentration is not to exceed 200 ppm |
| 1-Octanamine, N,N-dimethyl- | 7378-99-6 | When ready for use, the end-use concentration is not to exceed 113 ppm |
| 1,2-Octanedisulfonic acid | 113669-58-2 | When ready for use, the end-use concentration is not to exceed 102 ppm |
| 1-Octanesulfonic acid | 3944-72-7 | When ready for use, the end-use concentration is not to exceed 172 ppm |
| 1-Octanesulfonic acid, sodium salt | 5324-84-5 | When ready for use, the end-use concentration is not to exceed 312 ppm |
| 1-Octanesulfonic acid, 2-sulfin- | 113652-56-5 | When ready for use, the end-use concentration is not to exceed 102 ppm |
| Oxirane, methyl-, polymer with oxirane, minimum | 9003-11-6 | None |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|--|
| molecular weight (in amu), 1900 | | |
| Oxirane, methyl-, polymer with oxirane, block, average molecular weight (in amu), 1900 | 106392-12-5 | None |
| Oxirane, methyl-, polymer with oxirane, block, minimum average molecular weight (in amu), 2000 | None | None |
| Oxirane, methyl-, polymer with oxirane, block, 27 to 31 moles of polyoxypropylene, average molecular weight (in amu) 2000 | None | None |
| Oxychloro species (predominantly chlorite, chlorate and chlorine dioxide in an equilibrium mixture) generated either (i) by directly metering a concentrated chlorine dioxide solution prepared just prior to use, into potable water, or (ii) by acidification of an aqueous alkaline solution of oxychloro species (predominately chlorite and chlorate) followed by dilution with potable water | None | When ready for use, the end-use concentration is not to exceed 200 ppm of chlorine dioxide as determined by the method titled, "Iodometric Method for the Determination of Available Chlorine Dioxide (50-250 ppm available chlorine dioxide)" |
| Oxychloro species (including chlorine dioxide) generated by acidification of an aqueous solution of sodium chlorite | None | When ready for use, the end-use concentration is not to exceed 200 ppm of chlorine dioxide as determined by the method titled, "Iodometric Method for the Determination of Available Chlorine Dioxide (50-250 ppm available chlorine dioxide)" |
| 2,4-Pentanediol, 2-methyl- | 107-41-5 | None |
| Peroxyacetic acid | 79-21-0 | When ready for use, the end-use concentration is not to exceed 315 ppm |
| Peroxyoctanoic acid | 33734-57-5 | When ready for use, the end-use concentration is not to exceed 122 ppm |
| Phenol, 4-(1,1-dimethylpropyl)- | 80-46-6 | When ready for use, the end-use concentration is not to exceed 80 ppm |
| Phosphonic acid, (1-hydroxyethylidene)bis- | 2809-21-4 | When ready for use, the end-use concentration is not to exceed 34 ppm |
| Phosphoric acid | 7664-38-2 | None |
| Phosphoric acid, monosodium salt | 7558-80-7 | When ready for use, the end-use concentration is not to exceed 350 ppm |
| Phosphoric acid, trisodium salt | 7601-54-9 | When ready for use, the end-use |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|---|
| Poly(oxy-1,2-ethanediyl), α-[(1,1,3,3-tetramethylbutyl) phenyl]-ω-hydroxy-, produced with one mole of the phenol and 4 to 14 moles ethylene oxide | None | concentration is not to exceed 5916 ppm None |
| Potassium bromide | 7758-02-3 | When ready for use, the end-use concentration of all bromide-producing chemicals in the solution is not to exceed 200 ppm total available halogen |
| Potassium iodide | 7681-11-0 | When ready for use, the total end-use concentration of all iodide-producing chemicals in the solution is not to exceed 25 ppm of titratable iodine |
| Propanoic acid | 79-09-4 | When ready for use, the end-use concentration is not to exceed 297 ppm |
| Quaternary ammonium compounds, alkyl (C ₁₂ -C ₁₈) benzyldimethyl, chlorides | 8001-54-5 | When ready for use, the end-use concentration of this specific quaternary compound is not to exceed 200 ppm within the end-use total concentration that is not to exceed 400 ppm active quaternary compound |
| Quaternary ammonium compounds, n-alkyl (C ₁₂ -C ₁₄) dimethyl ethylbenzyl ammonium chloride, average molecular weight (in amu), 377 to 384 | None | When ready for use, the end-use concentration of this specific quaternary compound is not to exceed 200 ppm within the end-use total concentration that is not to exceed 400 ppm active quaternary compound |
| Quaternary ammonium compounds, n-alkyl (C ₁₂ -C ₁₈) dimethyl ethylbenzyl ammonium chloride average molecular weight (in amu) 384 | None | When ready for use, the end-use concentration of this specific quaternary compound is not to exceed 200 ppm within the end-use total concentration that is not to exceed 400 ppm active quaternary compound |
| Quaternary ammonium compounds, di-n-Alkyl (C ₈ -C ₁₀) dimethyl ammonium chloride, average molecular weight (in amu), 332 to 361 | None | When ready for use, the end-use concentration of this specific quaternary compound is not to |

| Pesticide Chemical | CAS Reg. No. | Limits |
|---|--------------|---|
| Sodium- α -alkyl(C ₁₂ -C ₁₅)- ω -hydroxypoly (oxyethylene) sulfate with the poly(oxyethylene) content averaging one mole | None | exceed 240 ppm within the end-use total concentration that is not to exceed 400 ppm active quaternary compound None |
| Sodium bromide | 7647-15-6 | When ready for use, the end-use concentration of all bromide-producing chemicals in the solution is not to exceed 200 ppm total available halogen |
| Sodium iodide | 7681-82-5 | When ready for use, the total end-use concentration of all iodide-producing chemicals in the solution is not to exceed 25 ppm of titratable iodine |
| Sulfuric acid monododecyl ester, sodium salt (sodium lauryl sulfate) | 151-21-3 | None |
| 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro- | 2782-57-2 | When ready for use, the end-use concentration of all di- or trichloroisocyanuric acid chemicals in the solution is not to exceed 100 ppm determined as total available chlorine |
| 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, potassium salt | 2244-21-5 | When ready for use, the end-use concentration of all di- or trichloroisocyanuric acid chemicals in the solution is not to exceed 100 ppm determined as total available chlorine |
| 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-dichloro-, sodium salt | 2893-78-9 | When r use, the end-use concentration of all di- or trichloroisocyanuric acid chemicals in the solution is not to exceed 100 ppm determined as total available chlorine |
| 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro- | 87-90-1 | When ready for use, the end-use concentration of all di- or trichloroisocyanuric acid chemicals in the solution is not to exceed 100 ppm determined as total available chlorine |

| Pesticide Chemical | CAS Reg. No. | Limits |
|--|--------------|---|
| 1,3,5-Triazine, N,N',N''-trichloro-2,4,6-triamino- | 7673-09-8 | When ready for use, the end-use concentration of all di- or trichloroisocyanuric acid chemicals in the solution is not to exceed 200 ppm determined as total available chlorine |

[69 FR 23136, Apr. 28, 2004]

Editorial Note: For FEDERAL REGISTER citations affecting § 180.940, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.