is established for pesticide residues resulting from the use of the pesticide pursuant to a regional registration. Such a tolerance is supported by residue data from specific growing regions for a raw agricultural commodity. Individual tolerances with regional registration are designated in separate subsections in 40 CFR 180.101 through 180.999, as appropriate. Additional residue data which are representative of the proposed use area are required to expand the geographical area of usage of a pesticide on a raw agricultural commodity having an established "tolerance with regional registration." Persons seeking geographically broader registration of a crop having a "tolerance with regional registration" should contact the appropriate EPA product manager concerning additional residue data required to expand the use area.

(o) The term *pesticide chemical residue* means a residue on or in a raw agricultural commodity or processed food of:

(1) A pesticide chemical; or

(2) Any other added substance that is present on or in the commodity or food primarily as a result of the metabolism or other degradation of a pesticide chemical.

(p) The term *food commodity* means:

(1) Any raw agricultural commodity (food or feed) as defined in section 201(r) of the Federal Food, Drug, and Cosmetic Act (FFDCA); and

(2) Any processed food or feed as defined in section 201(gg) of the FFDCA.

[36 FR 22540, Nov. 25, 1971]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §180.1, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§180.2 Pesticide chemicals considered safe.

(a) As a general rule, pesticide chemicals other than benzaldehyde (when used as a bee repellant in the harvesting of honey), ferrous sulfate, lime, lime-sulfur, potassium sorbate, sodium carbonate, sodium hypochlorite, sulfur, and when used as plant desiccants, sodium metasilicate (not to exceed 4 percent by weight in aqueous solution) and when used as postharvest fungicide, oil of lemon, and oil of orange are not for the purposes of section 408(a) of the Act generally recognized as safe.

(b) Upon written request, the Registration Division will advise interested persons whether a pesticide chemical should be considered as poisonous or deleterious, or one not generally recognized by qualified experts, as safe.

(c) The training and experience necessary to qualify experts to evaluate the safety of pesticide chemicals for the purposes of section 408(a) of the Act are essentially the same as training and experience necessary to qualify experts to serve on advisory committees prescribed by section 408(g) of the Act. (See §180.11.)

[60 FR 42460, Aug. 16, 1995, as amended at 63 FR 57066, Oct. 26, 1998; 68 FR 18552, Apr. 16, 2003]

§180.3 Tolerances for related pesticide chemicals.

(a) Pesticide chemicals that cause related pharmacological effects will be regarded, in the absence of evidence to the contrary, as having an additive deleterious action. (For example, many pesticide chemicals within each of the following groups have related pharmacological effects: Chlorinated organic pesticides, arsenic-containing chemicals, metallic dithiocarbamates, cholinesterase-inhibiting pesticides.)

(b) Tolerances established for such related pesticide chemicals may limit the amount of a common component (such as As_2O_3) that may be present, or may limit the amount of biological activity (such as cholinesterase inhibition) that may be present, or may limit the total amount of related pesticide chemicals (such as chlorinated organic pesticides) that may be present.

(c)(1) Where tolerances for inorganic bromide in or on the same raw agricultural commodity are set in two or more sections in this part (example: §§180.123 and 180.199), the overall quantity of inorganic bromide to be tolerated from use of the same pesticide in different modes of application or from two or more pesticide chemicals for which tolerances are established is the highest of the separate applicable tolerances. For example, where the bromide tolerance on asparagus from methyl bromide commodity fumigation

is 100 parts per million (40 CFR 180.123) and on asparagus from methyl bromide soil treatment is 300 parts per million (40 CFR 180.199), the overall inorganic bromide tolerance for asparagus grown on methyl bromide-treated soil and also fumigated with methyl bromide after harvest is 300 parts per million.

(2) Where tolerances are established in terms of inorganic bromide residues only from use of organic bromide fumigants on raw agricutural commodities, such tolerances are sufficient to protect the public health, and no additional concurrent tolerances for the organic pesticide chemicals from such use are necessary. This conclusion is based on evidence of the dissipation of the organic pesticide or its conversion to inorganic bromide residues in the food when ready to eat.

(d)(1) Where tolerances are established for both calcium cyanide and hydrogen cyanide on the same raw agricultural commodity, the total amount of such pesticides shall not yield more residue than that permitted by the larger of the two tolerances, calculated as hydrogen cyanide.

(2) Where tolerances are established for residues of both *O,O*-diethyl *S*-[2-(ethylthio)ethyl] phosphorodithioate and demeton (a mixture of *O,O*-diethyl *O*-(and *S*-) [2-(ethylthio)ethyl] phosphorothioates) on the same raw agricultural commodity, the total amount of such pesticides shall not yield more residue than that permitted by the larger of the two tolerances, calculated as demeton.

(3) Where tolerances are established for both terpene polychlorinates (chlorinated mixture of camphene, pinene, and related terpenes, containing 65–66 percent chlorine) and toxaphene (chlorinated camphene containing 67–69 percent chlorine) on the same raw agricultural commodities, the total amount of such pesticides shall not yield more residue than that permitted by the larger of the two tolerances, calculated as a chlorinated terpene of molecular weight 396.6 containing 67 percent chlorine.

(4) Where a tolerance is established for more than one pesticide containing arsenic found in, or on a raw agricultural commodity, the total amount of such pesticide shall not exceed the highest established tolerance calculated as As_2O_3.

(5) Where tolerances are established for more than one member of the class of dithiocarbamates listed in paragraph (e)(3) of this section on the same raw agricultural commodity, the total residue of such pesticides shall not exceed that permitted by the highest tolerance established for any one member of the class, calculated as zinc ethylenebisdithiocarbamate.

(6) Where tolerances are established for residues of both *S,S,S*-tributyl phosphorotrithioate and tributyl phosphorotrithioite in or on the same raw agricultural commodity, the total amount of such pesticides shall not yield more residue than that permitted by the higher of the two tolerances, calculated as *S,S,S*-tributyl phosphorotrithioate.

(7) Where tolerances are established for residues of α-naphthaleneacetamide and/or α-naphthaleneacetic acid in or on the same raw agricultural commodity, the total amount of such pesticides shall not yield more residue than that permitted by the higher of the two tolerances, calculated as α-naphthaleneacetic acid.

(8) Where tolerances are established for residues of *O,S*-dimethyl phosphoramidothioate, resulting from the use of acephate (*O,S*-dimethyl acetylphosphoramidothioate) and/or *O,S*-dimethylphosphoramidothioate on the same agricultural commodity, the total amount of *O,S*-dimethyl-phosphoramidothioate shall not yield more residue than that permitted by the higher of the two tolerances.

(9) Where a tolerance is established for more than one pesticide having the metabolites 1-(3,4-dichlorophenyl)-3-methylurea (DCPMU) and 3,4-dichlorophenylurea (DCPU) found in or on a raw agricultural commodity, the total amount of such residues shall not exceed the highest established tolerance for a pesticide having these metabolites.

(10) Where a tolerance is established for more than one pesticide having as metabolites compounds containing the benzimidazole moiety found in or on a raw agricultural commodity, the total amount of such residues shall not exceed the highest established tolerance

for a pesticide having these metabolites.

(11) Where a tolerance is established for triclopyr, chloropyrifos, and chlorpyrifos-methyl having the common metabolite 3,5,6-trichloro-2-pyridinol on the same raw agricultural commodity, the total amount of such residues shall not exceed the highest established tolerance for any of the pesticides having the metabolites.

(12) Where tolerances are established for more than one pesticide having the metabolite 3,5,6-trichloro-2-pyridinol found in or on the raw agricultural commodity, the total amount of such residues shall not exceed the highest established tolerance for a pesticide having this metabolite.

(13) Where tolerances are established for residues of both 1-(4-chlorophenoxy)-3,3-dimethyl-1-(1*H*-1,2,4-triazol-1-yl)-2-butanone (triadimefon) and beta-(4-chlorophenoxy)-alpha-(1,1-dimethylethyl)-1*H*-1,2,4-triazole-1-ethanol (triadimenol) including its butanediol metabolite, 4-(4-chlorophenoxy)-2,2-dimethyl-4-(1*H*-1,2,4-triazol-1-yl)-1,3-butanediol, in or on the same raw agricultural commodity and its products thereof, the total amount of such residues shall not yield more residue than that permitted by the higher of the two tolerances.

(14) Where tolerances are established for residues of methomyl, resulting from the use of thiodicarb and/or methomyl on the same raw agricultural commodity, the total amount of methomyl shall not yield more residue than that permitted by the higher of the two tolerances.

(e) Except as noted in paragraphs (e)(1) and (2) of this section, where residues from two or more chemicals in the same class are present in or on a raw agricultural commodity the tolerance for the total of such residues shall be the same as that for the chemical having the lowest numerical tolerance in this class, unless a higher tolerance level is specifically provided for the combined residues by a regulation in this part.

(1) Where residues from two or more chemicals in the same class are present in or on a raw agricultural commodity and there are available methods that permit quantitative determination of each residue, the quantity of combined residues that are within the tolerance may be determined as follows:

(i) Determine the quantity of each residue present.

(ii) Divide the quantity of each residue by the tolerance that would apply if it occurred alone, and multiply by 100 to determine the percentage of the permitted amount of residue present.

(iii) Add the percentages so obtained for all residues present.

(iv) The sum of the percentages shall not exceed 100 percent.

(2) Where residues from two or more chemicals in the same class are present in or on a raw agricultural commodity and there are available methods that permit quantitative determinations of one or more, but not all, of the residues, the amounts of such residues as may be determinable shall be deducted from the total amount of residues present and the remainder shall have the same tolerance as that for the chemical having the lowest numerical tolerance in that class. The quantity of combined residues that are within the tolerance may be determined as follows:

(i) Determine the quantity of each determinable residue present.

(ii) Deduct the amounts of such residues from the total amount of residues present and consider the remainder to have the same tolerance as that for the chemical having the lowest numerical tolerance in that class.

(iii) Divide the quantity of each determinable residue by the tolerance that would apply if it occurred alone and the quantity of the remaining residue by the tolerance for the chemical having the lowest numerical tolerance in that class and multiply by 100 to determine the percentage of the permitted amount of residue present.

(iv) Add the percentages so obtained for all residues present.

(v) The sum of the percentages shall not exceed 100 percent.

(3) The following pesticides are members of the class of dithiocarbamates:

A mixture of 5.2 parts by weight of ammoniates of [ethylenebis (dithiocarbamato)] zinc with 1 part by weight ethylenebis [dithiocarbamic acid] bimolecular and trimolecular cyclic anhydrosulfides and disulfides.

2-Chloroallyl diethyldithiocarbamate.

Coordination product of zinc ion and maneb containing 20 percent manganese, 2.5 percent zinc, and 77.5 percent ethylenebisdithiocarbamate.
Ferbam.
Maneb.
Manganous dimethyldithiocarbamate.
Sodium dimethyldithiocarbamate.
Thiram.
Zineb.
Ziram.

(4) The following are members of the class of chlorinated organic pesticides:

Aldrin.
BHC (benzene hexachloride).
1,1-Bis(*p*-chlorophenyl)-2,2,2-trichloroethanol.
Chlorbenside (*p*-chlorobenzyl *p*-chlorophenyl sulfide).
Chlordane.
Chlorobenzilate (ethyl 4,4′-dichlorobenzilate).
p-Chlorophenoxyacetic acid.
p-Chlorophenyl-2,4,5-trichlorophenyl sulfide.
2,4-D (2,4-dichlorophenoxyacetic acid).
DDD (TDE).
DDT.
1,1-Dichloro-2,2-bis(*p*-ethylphenyl) ethane.
2,6-Dichloro-4-nitroaniline.
2,4-Dichlorophenyl *p*-nitrophenyl ether.
Dieldrin.
Dodecachlorooctahydro-1,3,4-metheno-2*H*-cyclobuta[*cd*]pentalene.
Endosulfan (6,7,8,9,10,10-hexachloro-1,5,5a, 6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepin-3-oxide).
Endosulfan sulfate (6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepin-3,3-dioxide).
Heptachlor (1,4,5,6,7,8,8-heptachlor-3a,4,7, 7a-tetrahydro-4,7-methanoindene).
Heptachlor epoxide (1,4,5,6,7,8,8-heptachloro-2,3-epoxy-2,3,3a,4,7,7a-hexahydro-4,7-methanoindene).
Hexachlorophene (2,2′-methylenebis(3,4,6-trichlorophenol) and its monosodium salt.
Isopropyl 4,4′-dichlorobenzilate.
Lindane.
Methoxychlor.
Ovex (*p*-chlorophenyl *p*-chlorobenzenesulfonate).
Sesone (sodium 2,4-dichlorophenoxyethyl sulfate, SES).
Sodium 2,4-dichlorophenoxyacetate.
Sodium trichloroacetate.
Sulphenone (*p*-chlorophenyl phenyl sulfone).
Terpene polychlorinates (chlorinated mixture of camphene, pinene, and related terpenes 65-66 percent chlorine).
2,3,5,6-Tetrachloronitrobenzene.
Tetradifon (2,4,5,4′-tetrachlorodiphenyl sulfone).
Toxaphene (chlorinated camphene).
Trichlorobenzoic acid.
Trichlorobenzyl chloride.

(5) The following are members of the class of cholinesterase-inhibiting pesticides:

Acephate (*O*,*S*-dimethyl acetyl-phosphoramidothioate) and its cholinesterase-inhibiting metabolite *O*,*S*-dimethyl phosphoramidothioate.
Aldicarb (2-methyl-2-(methylthio) propionaldehyde *O*-(methylcarbamoyl)oxime) and its chlorinesterase-inhibiting metabolites 2-methyl-2-(methylsulfinyl)propionaldehyde *O*-(methycarbamoyl) oxime and 2-methyl-2-(methylsulfonyl)propionaldehyde *O*-(methylcarbamoyl)oxime.
4-*tert*-Butyl-2-chlorophenyl methyl methyl phosphoramidate.
S-[(*tert*-Butylthio)methyl] *O*,*O*-diethyl phosphorodithioate and its cholinesterase-inhibiting metabolites.
Carbaryl (1-naphthyl *N*-methylcarbamate).
Carbofuran (2,3,-dihydro-2,2-dimethyl-7-benzofuranyl-*N*-methylcarbamate).
Carbofuran metabolite (2,3-dihydro-2,2-dimethyl-3-hydroxy-7-benofuranyl *N*-methylcarbamate).
Carbophenothion (*S*-[(*p*-chlorophenyl) thiolmethyl] *O*,*O*-diethyl phosphorodithioate) and its cholinesterase-inhibiting metabolites.
Chlorpyrifos (*O*,*O*-diethyl *O*-(3,5,6-trichloro-2-pyridyl)phosphorothioate).
Chlorpyrifos-methyl (*O*,*O*-dimethyl-*O*-(3,5,6-trichloro-2-pyridyl) phosphorothioate.
2-Chloro-1-(2,4,5-trichlorophenyl)vinyl dimethyl phosphate.
2-Chloro-1-(2,4-dichlorophenyl) vinyl diethyl phosphate.
Coumaphos (*O*,*O*-diethyl *O*-3-chloro-4-methyl-2-oxo-2*H*-1-benzopyran-7-yl phosran-7-yl phosphate).
Coumaphos oxygen analog (*O*,*O*-diethyl *O*-3-chloro-4-methyl-2-oxo-2*H*-1-benzopyphorothioate).
Dialifor (*S*-(2-chloro-1-phthalimidoethyl) *O*,*O*-diethyl phosphorodithioate).
Dialifor oxygen analog (*S*-(2-chloro-1-phthalimidoethyl) *O*,*O*-diethyl phosphorothioate).
Demeton (a mixture of *O*,*O*-diethyl *O*-(and *S*) [2-ethylthio)ethyl] phosphorothioates).
Ethiolate (*S*-ethyl diethylthiocarbamate).
2,2-Dichlorovinyl dimethyl phosphate.
O,*O*-Diethyl *S*-[2-(ethylthio)ethyl] phosphorodithioate and its cholinesterase-inhibiting metabolites.
O,*O*-Diethyl *O*-(2-diethylamino-6-methyl-4-pyrimidinyl) phosphorothioate and its oxygen analog diethyl 2-diethylamino-6-methyl-4-pyrimidinyl phosphate.
O,*O*-Diethyl *O*-(2-isoprophyl-4-methyl-6-pyrimidinyl) phosphorothioate.
O,*O*-Diethyl *O*-[*p*-(methylsulfinyl)phenyl] phosphorothioate and its cholinesterase-inhibiting metabolites.
Diethyl 2-pyrazinyl phosphate.
O,*O*-Diethyl *O*-2-pyrazinyl phosphorothioate.

S-(*O*,*O*-Diisopropyl phosphorodithioate) of *N*-(2-mercaptoethyl) benzenesulfonamide
S-(*O*,*O*-Diisopropyl phosphorodithioate) of *N*-(2-mercaptoethyl) benzenesulfonamide
2-(Dimethylamino)-5.6-dimethyl-4-pyrimidinyl dimethylcarbamate and its metabolites 5,6-dimethyl-2-(formylmethylamino)-4-pyrimidinyl dimethylcarbamate and 5,6-dimethyl-2-(methylamino)-4-pyrimidinyl dimethylcarbamate (both calculated as parent).
Dimethoate (*O*,*O*-dimethyl *S*-(*N*-methylcarbamoylmethyl) phosphorodithioate).
Dimethoate oxygen analog (*O*,*O*-dimethyl *S*-(*N*-methylcarbamoylmethyl) phosphorothioate).
O,*O*-Dimethyl *O*-*p*-(dimethylsulfamoyl) phenyl phosphate.
O,*O*-Dimethyl *O*-*p*-(dimethylsulfamoyl) phenyl phosphorothioate.
3,5-Dimethyl-4-(methylthio) phenyl methylcarbamate.
O,*O*-Dimethyl *S*-[4-oxo-1,2,3-benzotriazin-3-(4*H*)-ylmethyl] phosphorodithioate.
Dimethyl phosphate of 3-hydroxy-*N*,*N*-dimethyl-*cis*-crotonamide.
Dimethyl phosphate of 3-hydroxy-*N*-methyl-*cis*-crotonamide.
Dimethyl phosphate of α-methylbenzyl 3-hydroxy-*cis*-crotonate.
O,*O*-Dimethyl 2,2,2-trichloro-1-hydroxyethyl phosphonate.
O,*O*-Dimethyl phosphorodithioate, *S*-ester with 4-(mercaptomethyl)-2-methozy-Δ2-1,3,4-thiadiazolin-5-one.
Dioxathion (2,3-*p*-dioxanedithiol *S*,*S*-bis (*O*,*O*-diethylphosphorodithioate)) containing approximately 70 percent *cis* and *trans* isomers and approximately 30 percent related compounds.
EPN.
Ethephon ((2- - chloroethyl) phosphonic acid).
Ethion.
Ethion oxygen analog (*S*-[[(diethoxyphosphinothioyl)thio] methyl] *O*,*O*-diethyl phosphorothioate).
O- Ethyl *O*-[4-(methylthio) phenyl] *S*-propyl phosphorodithioate and its cholinesterase-inhibiting metabolites.
O-Ethyl *S*,*S*-dipropylphosphorodithioate.
Ethyl 3-methyl-4-(methylthio)phenyl (1-methylethyl) phosphoramidate and its cholinesterase-inhibiting metabolites.
O-Ethyl *S*-phenyl ethylphosphonodithioate.
O-Ethyl *S*-phenyl ethylphosphonothiolate.
m-(1-Ethylpropyl)phenyl methylcarbamate.
S-[2-Ethylsulfinyl)ethyl] *O*,*O*-dimethyl phosphorothioate and its cholinesterase-inhibiting metabolites, (primarily *S*-[2-(ethylsulfonyl)ethyl] *O*,*O*-dimethyl phosphorothioate).
Fenthion (*O*,*O*-dimethyl *O*-[3-methyl-4-(methylthio)phenyl]phosphorothioate and its cholinesterase-inhibiting metabolites.
Malathion.
N-(Mercaptomethyl)phthalimide *S*-(*O*,*O*-dimethyl phosphorodithioate).
N-(Mercaptomethyl)phthalimide *S*-(*O*,*O*-dimethyl phosphorothioate).
Methomyl (*S*-methyl *N*-[(methylcarbamoyl)oxy]thioacetimidate).
1-Methoxycarbonyl-1-propen-2-yl dimethyl phosphate and its beta isomer.
m-(1-Methylbutyl)phenyl methylcarbamate.
Methyl parathion.
Naled (1,2-dibromo-2,2-dichloroethyl dimethyl phosphate).
Oxamyl (methyl N′,N′-dimethyl-N-[(methylcarbamoyl)oxy]-1-thiooxamimidate)
Parathion.
Phorate (*O*,*O*-diethyl *S*-(ethylthio)methyl phosphorodithioate) and its cholinesterase-inhibiting metabolites.
Phosalone (*S*-(6-chloro-3-mercaptomethyl)-2-benzoxazolinone) *O*,*O*-diethyl phosphorodithioate).
Phosphamidon (2-chloro-2-diethylcarbamoyl-1-methylvinyl dimethyl phosphate) including all of its related cholinesterase-inhibiting compounds.
Pirimiphos-methyl *O*-[2-diethylamino-6-methyl-pyrimidinyl) *O*,*O*-dimethyl phosphorothioate
Ronnel.
Schradan (octamethylpyrophosphoramide).
Tetraethyl pyrophosphate.
O,*O*,*O*′,*O*′-Tetramethyl *O*,*O*′-sulfinyldi-*p*-phenylene phosphorothioate.
O,*O*,*O*′,*O*′-Tetramethyl *O*,*O*′-thiodi-*p*-phenylene phosphorothioate.
Tributyl phosphorotritlioite.
S,*S*,*S*-Tributyl phosphorothrithioate.
3,4,5-Trimethylphenyl methylcarbamate and its isomer 2,3,5-trimethylphenyl methylcarbamate.

(6) The following pesticides are members of the class of dinitrophenols:

2,4-Dinitro-6-octylphenyl crotonate and 2,6-dinitro-4-octylphenyl crotonate, mixture of.
4,6-Dinitro-*o*-cresol and its sodium salt.
Dinoseb (2-*sec*-butyl-4,6-dinitrophenol) and its alkanolamine, ammonium, and sodium salts.

[41 FR 8969, Mar. 2, 1976, as amended at 41 FR 10605, Mar. 12, 1976; 41 FR 20660, May 20, 1976; 41 FR 51401, Nov. 22, 1976; 42 FR 6582, Feb. 3, 1977; 43 FR 12682, Mar. 27, 1978; 49 FR 44465, Nov. 7, 1984; 49 FR 45852, Nov. 21, 1984; 50 FR 18485, May 1, 1985; 50 FR 26684, June 27, 1985; 51 FR 28228, Aug. 6, 1986; 54 FR 31835, Aug. 2, 1989; 57 FR 1649, Jan. 15, 1992; 58 FR 65555, Dec. 15, 1993]

§ 180.4 Exceptions.

The substances listed in this section are excepted from the definitions of "pesticide chemical" and "pesticide