# Materials for July 28, 2016 Scientific Guidance Panel Meeting Biomonitoring California

# **Pesticides Included on List of Designated Chemicals**

Pesticides <sup>1, 2</sup>
Carbamate Insecticides <sup>1</sup>
Benfuracarb
Carbofuranphenol
Carbaryl
1-Hydroxynaphthalene <sup>3</sup>
2-Hydroxynaphthalene <sup>3</sup>
Carbofuran
Carbofuranphenol
Carbosulfan Carbofuranphenol
Furathiocarb
Carbofuranphenol
Propoxur
2-Isopropoxyphenol
Fungicides <sup>1</sup>
Captafol
Tetrahydrophthalimide
Captan
Phthalimide
Tetrahydrophthalimide
Chlorothalonil Dichloran
Folpet
Phthalimide
Iprodione
Mancozeb
Ethylene thiourea
Maneb
Ethylene thiourea Metalaxyl
Metiram
Ethylene thiourea
Nabam
Ethylene thiourea
Pentachlorophenol
o-Phenylphenol
Propineb Propylene thiourea
Thiram
Ethylene thiourea
Ziram
Ethylene thiourea
Herbicides - Substituted Ureas <sup>1</sup>
Bensulfuron-methyl

Chlorimuron-ethyl

Chlorsulfuron

Diuron

Ethametsulfuron-methyl Foramsulfuron Halosulfuron Iodosulfuron Linuron Mesosulfuron-methyl Metsulfuron-methyl Nicosulfuron Oxasulfuron Primisulfuron-methyl Prosulfuron Rimsulfuron Sulfometuron-methyl Sulfosulfuron Thifensulfuron-methyl Triasulfuron Triflusulfuron-methyl Non-specific metabolites Dimethoxy pyrimidine Dimethyl pyrimidine Methyl methoxytriazine Organochlorine Pesticides <sup>1</sup> Aldrin Dieldrin Chlordane trans-Nonachlor Oxychlordane Dichlorodiphenyltrichloroethane (DDT) (including p,p'-DDT and o,p'-DDT) p,p'-Dichlorodiphenyldichloroethene (p,p'-DDE) Dieldrin Endosulfan Endosulfan-ether Endosulfan-lactone Endosulfan-sulfate Endrin Heptachlor Heptachlor epoxide Hexachlorobenzene Pentachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol Hexachlorocyclohexanes (HCH) (including beta-HCH and gamma-HCH [lindane]) Pentachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol Methoxychlor

Dihydroxy methoxychlor

Monohydroxy methoxychlor

Mirex

2,4,5-Trichlorophenol

2,4,6-Trichlorophenol

# Organophosphate Insecticides <sup>1</sup>

Acephate

Methamidophos

Azinphos methyl

Dimethyldithiophosphate

Dimethylphosphate

Dimethylthiophosphate

Chlorethoxyphos

Diethylphosphate

Diethylthiophosphate

Chlorpyrifos

Diethylphosphate

Diethylthiophosphate

3,5,6-Trichloro-2-pyridinol (TCPy)

Chlorpyrifos methyl

Dimethylphosphate

Dimethylthiophosphate

3,5,6-Trichloro-2-pyridinol (TCPy)

Coumaphos

3-Chloro-7-hydroxy-4-methyl-2H-chromen-2-

one/ol

Diethylphosphate

Diethylthiophosphate

Diazinon

Diethylphosphate

Diethylthiophosphate

2-Isopropyl-4-methyl-6-hydroxypyrimidine

Dichlorvos (DDVP)

Dimethylphosphate

Dicrotophos

**Dimethylphosphate** 

Dimethoate

Dimethyldithiophosphate

Dimethylphosphate

Dimethylthiophosphate

Omethoate

Disulfoton

Diethyldithiophosphate

Diethylphosphate

Diethylthiophosphate

Ethion

Diethyldithiophosphate

Diethylphosphate

Diethylthiophosphate

Fenitrothion

Dimethylphosphate

Dimethylthiophosphate

Fenthion

Dimethylphosphate

Dimethylthiophosphate

Isazophos-methyl

5-Chloro-1,2-dihydro-1-isopropyl-[3H]-1,2,4-

triazol-3-one

Dimethylphosphate

Dimethylthiophosphate

Malathion

Dimethyldithiophosphate

Dimethylphosphate

Dimethylthiophosphate

Malathion dicarboxylic acid

Methamidophos

Methidathion

Dimethyldithiophosphate

Dimethylphosphate

Dimethylthiophosphate

Methyl parathion

Dimethylphosphate

Dimethylthiophosphate

p-Nitrophenol

Naled

Dimethylphosphate

Oxydemeton-methyl

Dimethylphosphate

Dimethylthiophosphate

Parathion (Ethyl parathion)

Diethylphosphate

Diethylthiophosphate

*p*-Nitrophenol

Phorate

Diethyldithiophosphate

Diethylphosphate

Diethylthiophosphate

Phosmet (Imidan)

Dimethyldithiophosphate

Dimethylphosphate

Dimethylthiophosphate

Pirimiphos-methyl

2-(Diethylamino)-6-methylpyrimidin-4-ol/one

Dimethylphosphate

Dimethylthiophosphate

Sulfotep

Diethylphosphate

Diethylthiophosphate

**Temephos** 

Dimethylphosphate

Dimethylthiophosphate

**Terbufos** 

Diethyldithiophosphate

Diethylphosphate

Diethylthiophosphate

Tetrachlorvinphos

Dimethylphosphate

# Pyrethroid Pesticides 4 Allethrin cis/trans-Dimethylvinylcyclopropane carboxylic diacid Bifenthrin Cyfluthrin cis-3-(2,2-Dichlorovinyl)-2,2dimethylcyclopropane carboxylic acid (cis-DCCA) trans-3-(2,2-Dichlorovinyl)-2,2dimethylcyclopropane carboxylic acid (trans-DCCA) 4-Fluoro-3-phenoxybenzoic acid Cyhalothrin (including lamba- and gamma-) 3-Phenoxybenzoic acid (3-PBA) Cypermethrin (including *cis*- and *trans*-) cis-3-(2,2-Dichlorovinyl)-2,2dimethylcyclopropane carboxylic acid (cis-DCCA) trans-3-(2,2-Dichlorovinyl)-2,2dimethylcyclopropane carboxylic acid (trans-DCCA) 3-Phenoxybenzoic acid (3-PBA) Cyphenothrin Deltamethrin cis-3-(2,2-Dibromovinyl)-2,2dimethylcyclopropane carboxylic acid 3-Phenoxybenzoic acid (3-PBA) Esbiothrin Esfenvalerate Etofenprox Fenpropathrin 3-Phenoxybenzoic acid (3-PBA) Fenvalerate **Imiprothrin** Metofluthrin Permethrin (including *cis*- and *trans*-) cis-3-(2,2-Dichlorovinyl)-2,2dimethylcyclopropane carboxylic acid (cis-DCCA) trans-3-(2,2-Dichlorovinyl)-2,2dimethylcyclopropane carboxylic acid (trans-DCCA) 3-Phenoxybenzoic acid (3-PBA)

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Phenothrin (Sumithrin)
Prallethrin
Pyrethrin 1
  cis/trans-Dimethylvinylcyclopropane
carboxylic
   diacid
Resmethrin
  cis/trans-Dimethylvinylcyclopropane
carboxylic
   diacid
Tetramethrin
Tralomethrin
  3-Phenoxybenzoic acid (3-PBA)
Other Herbicides
Acetochlor
   Acetochlor mercapturate
Alachlor
   Alachlor mercapturate
Atrazine
   Atrazine mercapturate
   Diaminochlorotriazine
   Desethylatrazine
   Desisopropylatrazine
   Hydroxyatrazine
Dacthal
2,4-Dichlorophenoxyacetic acid (2,4-D), salts
and
esters
   2,4-Dichlorophenoxyacetic acid
   2,4-Dichlorophenol
Metolachlor
   Metolachlor mercapturate
Pendimethalin
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T),
salts
and esters
   2,4,5-Trichlorophenoxyacetic acid
Trifluralin
Other Pesticides
1,4-Dichlorobenzene (p-Dichlorobenzene)
   2,5-Dichlorophenol
N,N-Diethyl-3-methylbenzamide (DEET)
Fipronil
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Octhilinone

#### Notes

- All members of the chemical group are not designated chemicals; only the specific chemicals listed are designated chemicals.
- <sup>2</sup> Fungicides, herbicides, and insecticides are grouped under the general heading of "Pesticides."
- 1-Hydroxynaphthalene is the metabolite of both carbaryl and naphthalene. To determine the percent of 1-hydroxynaphthalene attributable to carbaryl alone, 2-hydroxynaphthalene (which is only a metabolite of naphthalene) must also be measured.
- <sup>4</sup> All members of the chemical group are designated chemicals, including, but not limited to, the chemicals shown.