



Thursday, August 15, 2013

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## Toxic Air Contaminant Identification List

*This page last reviewed July 18, 2011*

This page provides information on substances identified as California toxic air contaminants.

*Title 17, CCR, § 93000. Substances Identified As Toxic Air Contaminants.*

Each substance identified in this section has been determined by the State Board to be a toxic air contaminant as defined in Health and Safety Code section 39655. If the State Board has found there to be a threshold exposure level below which no significant adverse health effects are anticipated from exposure to the identified substance, that level is specified as the threshold determination. If the Board has found there to be no threshold exposure level below which no significant adverse health effects are anticipated from exposure to the identified substance, a determination of "no threshold" is specified. If the Board has found that there is not sufficient available scientific evidence to support the identification of a threshold exposure level, the "Threshold" column specifies "None identified."

Substance	Threshold Determination
Benzene (C <sub>6</sub> H <sub>6</sub> )	None identified
Ethylene Dibromide (BrCH <sub>2</sub> CH <sub>2</sub> Br; 1,2-dibromoethane)	None identified
Ethylene Dichloride (ClCH <sub>2</sub> CH <sub>2</sub> Cl; 1,2-dichloroethane)	None identified
Hexavalent chromium (Cr (VI))	None identified
Asbestos [asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), tremolite, actinolite, and anthophyllite]	None identified
Dibenzo-p-dioxins and Dibenzofurans chlorinated in the 2,3,7 and 8 positions and containing 4,5,6 or 7 chlorine atoms	None identified
Cadmium (metallic cadmium and cadmium compounds)	None identified
Carbon Tetrachloride (CCl <sub>4</sub> ; tetrachloromethane)	None identified
Ethylene Oxide (1,2-epoxyethane)	None identified
Methylene Chloride (CH <sub>2</sub> Cl <sub>2</sub> ; Dichloromethane)	None identified
Trichloroethylene (CCI <sub>2</sub> CHCl; Trichloroethene)	None identified
Chloroform (CHCl <sub>3</sub> )	None identified
Vinyl chloride (C <sub>2</sub> H <sub>3</sub> Cl; Chloroethylene)	None identified
Inorganic Arsenic	None identified
Nickel (metallic nickel and inorganic nickel compounds)	None identified
Perchloroethylene (C <sub>2</sub> Cl <sub>4</sub> ; Tetrachloroethylene)	None identified
Formaldehyde (HCHO)	None identified
1,3-Butadiene (C <sub>4</sub> H <sub>6</sub> )	None identified
Inorganic Lead	None identified
Particulate Emissions from Diesel-Fueled Engines	None identified
Environmental Tobacco Smoke	None identified

Note: Authority cited: Sections 39600, 39601 and 39662, Health and Safety Code. Reference: Sections 39650, 39660, 39661 and 39662, Health and Safety Code.

## HISTORY

1. New section filed 9-23-85; effective thirtieth day thereafter (Register 85, No. 39). For history of former subchapter 7, see Registers 84, No. 10; 83, No. 2; 81, No. 48; 77, No. 12; and 74, No. 47.
2. Amendment filed 1-14-86; effective thirtieth day thereafter (Register 86, No. 3).
3. Amendment filed 2-10-86; effective thirtieth day thereafter (Register 86, No. 7).
4. Amendment filed 10-9-86; effective thirtieth day thereafter (Register 86, No. 43).
5. Amendment filed 11-25-86; effective thirtieth day thereafter (Register 86, No. 48).
6. Amendment filed 2-23-87; effective thirtieth day thereafter (Register 87, No. 9).
7. Amendment filed 10-8-87; operative 11-7-87 (Register 87, No. 43).
8. Amendment filed 3-15-88; operative 4-14-88 (Register 88, No. 13).
9. Amendment filed 7-22-88; operative 8-21-88 (Register 88, No. 31).
10. Amendment adding Methylene Chloride filed 6-7-90; operative 7-7-90 (Register 90, No. 30).
11. Amendment adding Trichloroethylene filed 2-27-91; operative 3-29-91 (Register 91, No. 13).
12. Amendment adding Vinyl chloride filed 5-10-91; operative 6-9-91 (Register 91, No. 25).
13. Editorial correction, including removal of Inorganic arsenic (Register 91, No. 25).
14. Amendment adding Chloroform filed 5-10-91; operative 6-9-91 (Register 91, No. 25).
15. Amendment adding Inorganic Arsenic filed 6-6-91; operative 7-6-91 (Register 91, No. 26).
16. Change without regulatory effect amending Trichloroethylene and adding Nickel filed 7-14-92 pursuant to section 100, title 1, California Code of Regulations (Register 92, No. 29).
17. Amendment adding Perchloroethylene filed 10-2-92; operative 11-1-92 (Register 92, No. 40).
18. Amendment adding Formaldehyde filed 3-2-93; operative 4-1-93 (Register 93, No. 10).
19. Amendment adding 1,3-Butadiene filed 4-14-93; operative 5-14-93 (Register 93, No. 16).
20. Editorial correction (Register 98, No. 16).
21. Amendment adding inorganic lead filed 4-14-98; operative 5-14-98 (Register 98, No. 16).
22. Amendment adding "Particulate Emissions from Diesel-Fueled Engines" filed 7-21-99; operative 8-20-99 (Register 99, No. 30).
23. Amendment adding "Environmental Tobacco Smoke" filed 1-9-2007; operative 2- 8-2007 (Register 2007, No. 2).

*Title 17, CCR, § 93001. Hazardous Air Pollutants Identified as Toxic Air Contaminants*

Each substance listed in this section has been identified as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal Clean Air Act (42 U.S.C. Section 7412(b)) and has been designated by the State Board to be a toxic air contaminant pursuant to Health and Safety Code Section 39657.

## Substance

Acetaldehyde  
 Acetamide  
 Acetonitrile  
 Acetophenone  
 2-Acetylaminofluorene  
 Acrolein  
 Acrylamide  
 Acrylic acid  
 Acrylonitrile  
 Allyl chloride  
 4-Aminobiphenyl  
 Aniline  
 o-Anisidine  
 Asbestos  
 Benzene (including benzene from gasoline)

Benzidine  
Benzotrichloride  
Benzyl chloride  
Biphenyl  
Bis (2-ethylhexyl) phthalate (DEHP)  
Bis (chloromethyl) ether  
Bromoform  
1,3-Butadiene  
Calcium cyanamide  
Caprolactam  
Captan  
Carbaryl  
Carbon disulfide  
Carbon tetrachloride  
Carbonyl sulfide  
Catechol  
Chloramben  
Chlordane  
Chlorine  
Chloroacetic acid  
2-Chloroacetophenone  
Chlorobenzene  
Chlorobenzilate  
Chloroform  
Chloromethyl methyl ether  
Chloroprene  
Cresols/Cresylic acid (isomers and mixture)  
o-Cresol  
m-Cresol  
p-Cresol  
Cumene  
2,4-D, salts and esters  
DDE  
Diazomethane  
Dibenzofurans  
1,2-Dibromo-3-chloropropane  
Dibutylphthalate  
1,4-Dichlorobenzene (p)  
3,3-Dichlorobenzidene  
Dichloroethyl ether (Bis (2-chloroethyl) ether)  
1,3-Dichloropropene  
Dichlorvos  
Diethanolamine  
N,N-Diethyl aniline (N,N-Dimethylaniline)  
Diethyl sulfate  
3,3-Dimethoxybenzidine  
Dimethyl aminoazobenzene  
3,3-Dimethyl benzidine  
Dimethyl carbamoyl chloride  
Dimethyl formamide  
1,1-Dimethyl hydrazine  
Dimethyl phthalate  
Dimethyl sulfate  
4,6-Dinitro-o-cresol, and salts  
2,4-Dinitrophenol  
2,4-Dinitrotoluene  
1,4-Dioxane (1,4-Diethyleneoxide)  
1,2-Diphenylhydrazine  
Epichlorohydrin (1-Chloro-2,3-epoxypropane)  
1,2-Epoxybutane  
Ethyl acrylate  
Ethyl benzene  
Ethyl carbamate (Urethane)  
Ethyl chloride (Chloroethane)  
Ethylene dibromide (Dibromoethane)  
Ethylene dichloride (1,2-Dichloroethane)  
Ethylene glycol  
Ethylene imine (Aziridine)

Ethylene oxide  
Ethylene thiourea  
Ethylidene dichloride (1,1-Dichloroethane)  
Formaldehyde  
Heptachlor  
Hexachlorobenzene  
Hexachlorobutadiene  
Hexachlorocyclopentadiene  
Hexachloroethane  
Hexamethylene-1,6-diisocyanate  
Hexamethylphosphoramide  
Hexane  
Hydrazine  
Hydrochloric acid  
Hydrogen fluoride (Hydrofluoric acid)  
Hydroquinone  
Isophorone  
Lindane (all isomers)  
Maleic anhydride  
Methanol  
Methoxychlor  
Methyl bromide (Bromomethane)  
Methyl chloride (Chloromethane)  
Methyl chloroform (1,1,1-Trichloroethane)  
Methyl ethyl ketone (2-Butanone)  
Methyl hydrazine  
Methyl iodide (Iodomethane)  
Methyl isobutyl ketone (Hexone)  
Methyl isocyanate  
Methyl methacrylate  
Methyl tert butyl ether  
4,4-Methylene bis(2-chloroaniline)  
Methylene chloride (Dichloromethane)  
Methylene diphenyl diisocyanate (MDI)  
4,4-Methylenedianiline  
Naphthalene  
Nitrobenzene  
4-Nitrobiphenyl  
4-Nitrophenol  
2-Nitropropane  
N-Nitroso-N-methylurea  
N-Nitrosodimethylamine  
N-Nitrosomorpholine  
Parathion  
Pentachloronitrobenzene (Quintobenzene)  
Pentachlorophenol  
Phenol  
p-Phenylenediamine  
Phosgene  
Phosphine  
Phosphorus  
Phthalic anhydride  
Polychlorinated biphenyls (Aroclors)  
1,3-Propane sultone  
beta-Propiolactone  
Propionaldehyde  
Propoxur (Baygon)  
Propylene dichloride (1,2-Dichloropropane)  
Propylene oxide  
1,2-Propylenimine (2-Methylaziridine)  
Quinoline  
Quinone  
Styrene  
Styrene oxide  
2,3,7,8-Tetrachlorodibenzo-p-dioxin  
1,1,2,2-Tetrachloroethane  
Tetrachloroethylene (Perchloroethylene)

Titanium tetrachloride  
 Toluene  
 2,4-Toluene diamine  
 2,4-Toluene diisocyanate  
 o-Toluidine  
 Toxaphene (chlorinated camphene)  
 1,2,4-Trichlorobenzene  
 1,1,2-Trichloroethane  
 Trichloroethylene  
 2,4,5-Trichlorophenol  
 2,4,6-Trichlorophenol  
 Triethylamine  
 Trifluralin  
 2,2,4-Trimethylpentane  
 Vinyl acetate  
 Vinyl bromide  
 Vinyl chloride  
 Vinylidene chloride (1,1-Dichloroethylene)  
 Xylenes (isomers and mixture)  
 o-Xylenes  
 m-Xylenes  
 p-Xylenes  
 Antimony Compounds  
 Arsenic Compounds (inorganic including arsine)  
 Beryllium Compounds  
 Cadmium Compounds  
 Chromium Compounds  
 Cobalt Compounds  
 Coke Oven Emissions  
 Cyanide Compounds [FN1]  
 Glycol ethers [FN2]  
 Lead Compounds  
 Manganese Compounds  
 Mercury Compounds  
 Fine mineral fibers [FN3]  
 Nickel Compounds  
 Polycyclic Organic Matter [FN4]  
 Radionuclides (including radon) [FN5]  
 Selenium Compounds

Note: For all listing above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc) as part of that chemical's infrastructure.

[FN1] X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)<sub>2</sub>

[FN2] includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol (R(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub>-OR') where

n = 1,2 or 3

R = alkyl or aryl groups

R' = R, H, or groups which, when removed, yield glycol ethers with the structure; R(OCH<sub>2</sub>CH)<sub>n</sub>-OH. Polymers are excluded from the glycol category.

[FN3] includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

[FN4] includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 degrees °C

[FN5] a type of atom which spontaneously undergoes radioactive decay.

Note: Authority cited: Sections 39657, 39600, 39601 and 39662, Health and Safety Code. Reference: Sections 39650, 39655, 39656, 39657, 39658, 39659, 39660, 39661 and 39662, Health and Safety Code.

HISTORY

1. New section filed 3-9-94; operative 4-8-94. Submitted to OAL for printing only (Register 94, No. 10).

17 CCR § 93001, 17  
1CAC

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