


OAR 340-245-8010 Table 1

Risk Action Levels

 <p style="text-align: center;">OAR 340-245-8010 Table 1 Risk Action Levels†</p>			
Applicability	Risk Action Level	Excess Cancer Risk per Million	Noncancer Hazard Index
Toxic Emissions Unit	Significant TEU Level	0.1	0.1
Source	Source Permit Level	0.5	0.5
New and Reconstructed Source	Community Engagement Level	5	1
	TLAER Level	10	1
	Permit Denial Level	25	1
Existing Source	Community Engagement Level	25	1
	TBACT Level	50	5
	Risk Reduction Level	200	10
	Immediate Curtailment Level	500	20


Footnotes for OAR 340-245-8010 Table 1:

†Facility risk that is equal to or less than the values in the table is considered compliant with the Risk Action Level. Risk action levels are considered consistent with benchmarks in Oregon Laws 2018, chapter 102 (Senate Bill (SB) 1541 (2018)).

Stat. Auth.: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155
 Stats. Implemented: ORS 468.065, 468A.010, 468A.015, 468A.025, 468A.035, 468A.040, 468A.050, 468A.070, and 468A.155

340-245-8020 Table 2

Air Toxics Reporting List

 <p style="text-align: center;">OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List</p>	
CAS# ^a	Chemical Name
75-07-0	Acetaldehyde
60-35-5	Acetamide
67-64-1	Acetone
75-05-8	Acetonitrile
98-86-2	Acetophenone
107-02-8	Acrolein
79-06-1	Acrylamide
79-10-7	Acrylic acid
107-13-1	Acrylonitrile
50-76-0	Actinomycin D
1596-84-5	Alar
309-00-2	Aldrin
107-05-1	Allyl chloride
7429-90-5	Aluminum and compounds ^b
1344-28-1	Aluminum oxide (fibrous forms)
97-56-3	<i>ortho</i> -Aminoazotoluene
6109-97-3	3-Amino-9-ethylcarbazole hydrochloride
68006-83-7	2-Amino-3-methyl-9H pyrido[2,3-b]indole
82-28-0	1-Amino-2-methylantraquinone
76180-96-6	2-Amino-3-methylimidazo-[4,5-f]quinoline
712-68-5	2-Amino-5-(5-Nitro-2-Furyl)-1,3,4-Thiadiazol
26148-68-5	A-alpha-c(2-amino-9h-pyrido[2,3-b]indole)
92-67-1	4-Aminobiphenyl
61-82-5	Amitrole
7664-41-7	Ammonia
7803-63-6	Ammonium bisulfate
6484-52-2	Ammonium nitrate
7783-20-2	Ammonium sulfate
62-53-3	Aniline
90-04-0	<i>o</i> -Anisidine



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
134-29-2	<i>o</i> -Anisidine hydrochloride
7440-36-0	Antimony
1309-64-4	Antimony trioxide
140-57-8	Aramite
7440-38-2	Arsenic and compounds ^b
7784-42-1	Arsine
1332-21-4	Asbestos
492-80-8	Auramine
115-02-6	Azaserine
446-86-6	Azathioprine
52-24-4	<i>Tris</i> -(1-Aziridinyl)phosphine sulfide
103-33-3	Azobenzene
7440-39-3	Barium and compounds ^b
71-43-2	Benzene
92-87-5	Benzidine (and its salts)
271-89-6	Benzofuran
98-07-7	Benzoic trichloride (Benzotrichloride)
98-88-4	Benzoyl chloride
94-36-0	Benzoyl peroxide
100-44-7	Benzyl chloride
1694-09-3	Benzyl Violet 4B
7440-41-7	Beryllium and compounds ^b
1304-56-9	Beryllium Oxide
13510-49-1	Beryllium Sulfate
92-52-4	Biphenyl
111-44-4	<i>Bis</i> (2-chloroethyl) ether (DCEE)
542-88-1	<i>Bis</i> (chloromethyl) ether
103-23-1	<i>Bis</i> (2-ethylhexyl) adipate
117-81-7	<i>Bis</i> (2-ethylhexyl) phthalate (DEHP)
7726-95-6	Bromine and compounds ^b
7789-30-2	Bromine pentafluoride
75-27-4	Bromodichloromethane
75-25-2	Bromoform
74-83-9	Bromomethane (Methyl bromide)



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
106-94-5	1-Bromopropane (<i>n</i> -propyl bromide)
126-72-7	<i>Tris</i> (2,3-dibromopropyl)phosphate
106-99-0	1,3-Butadiene
78-93-3	2-Butanone (Methyl ethyl ketone)
540-88-5	<i>t</i> -Butyl acetate
141-32-2	Butyl acrylate
71-36-3	<i>n</i> -Butyl alcohol
78-92-2	<i>sec</i> -Butyl alcohol
75-65-0	<i>tert</i> -Butyl alcohol
85-68-7	Butyl benzyl phthalate
25013-16-5	Butylated hydroxyanisole
3068-88-0	<i>beta</i> -Butyrolactone
7440-43-9	Cadmium and compounds ^b
156-62-7	Calcium cyanamide
105-60-2	Caprolactam
2425-06-1	Captafol
133-06-2	Captan
	Carbon black extracts
75-15-0	Carbon disulfide
56-23-5	Carbon tetrachloride
463-58-1	Carbonyl sulfide
9000-07-1	Carrageenan (degraded)
120-80-9	Catechol
	Ceramic fibers
133-90-4	Chloramben
305-03-3	Chlorambucil
57-74-9	Chlordane
143-50-0	Chlordecone
115-28-6	Chlorendic Acid
76-13-1	Chlorinated fluorocarbon (1,1,2-Trichloro-1,2,2-trifluoroethane, CFC-113)
108171-26-2	Chlorinated paraffins
7782-50-5	Chlorine
10049-04-4	Chlorine dioxide
79-11-8	Chloroacetic acid



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
532-27-4	2-Chloroacetophenone
85535-84-8	Chloroalkanes C10-13 (Chlorinated paraffins)
106-47-8	<i>p</i> -Chloroaniline
108-90-7	Chlorobenzene
510-15-6	Chlorobenzilate (Ethyl-4,4'-dichlorobenzilate)
75-68-3	1-Chloro-1,1-difluoroethane
75-45-6	Chlorodifluoromethane (Freon 22)
75-00-3	Chloroethane (Ethyl chloride)
67-66-3	Chloroform
74-87-3	Chloromethane (Methyl chloride)
107-30-2	Chloromethyl methyl ether (technical grade)
563-47-3	3-Chloro-2-methyl-1-propene
95-57-8	2-Chlorophenol
95-83-0	4-Chloro- <i>o</i> -phenylenediamine
76-06-2	Chloropicrin
126-99-8	Chloroprene
1897-45-6	Chlorothalonil
95-69-2	<i>p</i> -Chloro- <i>o</i> -toluidine
54749-90-5	Chlorozotocin
7738-94-5	Chromic(VI) Acid
18540-29-9	Chromium VI, chromate and dichromate particulate
18540-29-9	Chromium VI, chromic acid aerosol mist
569-61-9	C.I. Basic Red 9 Monohydrochloride
87-29-6	Cinnamyl anthranilate
7440-48-4	Cobalt and compounds ^b
	Coke Oven Emissions
7440-50-8	Copper and compounds ^b
	Creosotes
120-71-8	<i>p</i> -Cresidine
1319-77-3	Cresols (mixture), including <i>m</i> -cresol, <i>o</i> -cresol, <i>p</i> -cresol
108-39-4	<i>m</i> -Cresol
95-48-7	<i>o</i> -Cresol
106-44-5	<i>p</i> -Cresol
4170-30-3	Crotonaldehyde



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
80-15-9	Cumene hydroperoxide
135-20-6	Cupferron
74-90-8	Cyanide, hydrogen
110-82-7	Cyclohexane
108-93-0	Cyclohexanol
66-81-9	Cycloheximide
50-18-0	Cyclophosphamide (anhydrous)
6055-19-2	Cyclophosphamide (hydrated)
5160-02-1	D & C Red No. 9
4342-03-4	Dacarbazine
117-10-2	Dantron
72-54-8	4,4'-DDD (4,4'-dichlorodiphenyldichloroethane)
53-19-0	2,4'-DDD (2,4'-dichlorodiphenyldichloroethane)
3547-04-4	DDE (1-chloro-4-[1-(4-chlorophenyl)ethyl]benzene)
3424-82-6	2,4'-DDE (2,4'-dichlorodiphenyldichloroethene)
72-55-9	4,4'-DDE (4,4'-dichlorodiphenyldichloroethene)
789-02-6	2,4'-DDT (2,4'-dichlorodiphenyltrichloroethane)
50-29-3	DDT
615-05-4	2,4-Diaminoanisole
39156-41-7	2,4-Diaminoanisole sulfate
101-80-4	4,4'-Diaminodiphenyl ether
95-80-7	2,4-Diaminotoluene (2,4-Toluene diamine)
334-88-3	Diazomethane
333-41-5	Diazinon
132-64-9	Dibenzofuran
124-48-1	Dibromochloromethane
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)
96-13-9	2,3-Dibromo-1-propanol
84-74-2	Dibutyl phthalate
95-50-1	1,2-Dichlorobenzene
541-73-1	1,3-Dichlorobenzene
106-46-7	<i>p</i> -Dichlorobenzene (1,4-Dichlorobenzene)
91-94-1	3,3'-Dichlorobenzidine
75-71-8	Dichlorodifluoromethane (Freon 12)



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
75-43-4	Dichlorofluoromethane (Freon 21)
75-34-3	1,1-Dichloroethane (Ethylidene dichloride)
156-60-5	<i>trans</i> -1,2-dichloroethene
75-09-2	Dichloromethane (Methylene chloride)
120-83-2	2,4-Dichlorophenol
94-75-7	Dichlorophenoxyacetic acid, salts and esters (2,4-D)
78-87-5	1,2-Dichloropropane (Propylene dichloride)
542-75-6	1,3-Dichloropropene
62-73-7	Dichlorovos (DDVP)
115-32-2	Dicofol
84-61-7	Di-cyclohexyl phthalate (DCHP)
60-57-1	Dieldrin
	Diesel Particulate Matter
111-42-2	Diethanolamine
111-46-6	Diethylene glycol
111-96-6	Diethylene glycol dimethyl ether
112-34-5	Diethylene glycol monobutyl ether
111-90-0	Diethylene glycol monoethyl ether
111-77-3	Diethylene glycol monomethyl ether
84-66-2	Diethylphthalate
64-67-5	Diethyl sulfate
134-62-3	Diethyltoluamide, <i>N,N</i> - (DEET)
75-37-6	1,1-Difluoroethane
101-90-6	Diglycidyl resorcinol ether
94-58-6	Dihydrosafrole
119-90-4	3,3'-Dimethoxybenzidine
60-11-7	4-Dimethylaminoazobenzene
121-69-7	<i>N,N</i> -Dimethylaniline
119-93-7	3,3'-Dimethylbenzidine (<i>o</i> -Tolidine)
79-44-7	Dimethyl carbamoyl chloride
68-12-2	Dimethyl formamide
57-14-7	1,1-Dimethylhydrazine
131-11-3	Dimethyl phthalate
77-78-1	Dimethyl sulfate



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
513-37-1	Dimethylvinylchloride
534-52-1	4,6-Dinitro-o-cresol (and salts)
51-28-5	2,4-Dinitrophenol
121-14-2	2,4-Dinitrotoluene
606-20-2	2,6-Dinitrotoluene
123-91-1	1,4-Dioxane
630-93-3	Diphenylhydantoin
122-66-7	1,2-Diphenylhydrazine (Hydrazobenzene)
25265-71-8	Dipropylene glycol
34590-94-8	Dipropylene glycol monomethyl ether
1937-37-7	Direct Black 38
2602-46-2	Direct Blue 6
16071-86-6	Direct Brown 95 (technical grade)
2475-45-8	Disperse Blue 1
298-04-4	Disulfoton
106-89-8	Epichlorohydrin
106-88-7	1,2-Epoxybutane
	Epoxy resins
12510-42-8	Erionite
140-88-5	Ethyl acrylate
100-41-4	Ethyl benzene
74-85-1	Ethylene
106-93-4	Ethylene dibromide (EDB, 1,2-Dibromoethane)
107-06-2	Ethylene dichloride (EDC, 1,2-Dichloroethane)
107-21-1	Ethylene glycol
629-14-1	Ethylene glycol diethyl ether
110-71-4	Ethylene glycol dimethyl ether
111-76-2	Ethylene glycol monobutyl ether
110-80-5	Ethylene glycol monoethyl ether
111-15-9	Ethylene glycol monoethyl ether acetate
109-86-4	Ethylene glycol monomethyl ether
110-49-6	Ethylene glycol monomethyl ether acetate
2807-30-9	Ethylene glycol monopropyl ether
151-56-4	Ethyleneimine (Aziridine)



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
75-21-8	Ethylene oxide
96-45-7	Ethylene thiourea
10028-22-5	Ferric Sulfate
	Fluorides
7782-41-4	Fluorine gas
50-00-0	Formaldehyde
110-00-9	Furan
60568-05-0	Furmecyclox
3688-53-7	Furylfuramide
	Glasswool fibers
111-30-8	Glutaraldehyde
67730-11-4	Glu-P-1
67730-10-3	Glu-P-2
16568-02-8	Gyromitrin
2784-94-3	HC Blue 1
76-44-8	Heptachlor
1024-57-3	Heptachlor epoxide
118-74-1	Hexachlorobenzene
87-68-3	Hexachlorobutadiene
608-73-1	Hexachlorocyclohexanes (mixture) including but not limited to:
319-84-6	<i>alpha</i> -Hexachlorocyclohexane
319-85-7	<i>beta</i> -Hexachlorocyclohexane
58-89-9	<i>gamma</i> -Hexachlorocyclohexane (Lindane)
77-47-4	Hexachlorocyclopentadiene
67-72-1	Hexachloroethane
680-31-9	Hexamethylphosphoramide
822-06-0	Hexamethylene-1,6-diisocyanate
110-54-3	Hexane
302-01-2	Hydrazine
10034-93-2	Hydrazine sulfate
7647-01-0	Hydrochloric acid
10035-10-6	Hydrogen bromide
7664-39-3	Hydrogen fluoride
7783-06-4	Hydrogen sulfide



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
123-31-9	Hydroquinone
24267-56-9	Iodine-131
13463-40-6	Iron pentacarbonyl
78-59-1	Isophorone
78-79-5	Isoprene, except from vegetative emission sources
67-63-0	Isopropyl alcohol
98-82-8	Isopropylbenzene (Cumene)
80-05-7	4,4'-Isopropylidenediphenol
303-34-4	Lasiocarpine
7439-92-1	Lead and compounds ^b
18454-12-1	Lead chromate oxide
108-31-6	Maleic anhydride
7439-96-5	Manganese and compounds ^b
148-82-3	Melphalan
3223-07-2	Melphalan HCl
7439-97-6	Mercury and compounds ^b
627-44-1	Diethylmercury
593-74-8	Dimethylmercury
22967-92-6	Methylmercury
67-56-1	Methanol
72-43-5	Methoxychlor
55738-54-0	<i>Trans</i> -2[(dimethylamino)-methylimino]-5-[2-(5-nitro-2-furyl)-vinyl]-1,3,4-oxadiazole
101-14-4	4,4'-Methylene <i>bis</i> (2-chloroaniline) (MOCA)
101-77-9	4,4'-Methylenedianiline (and its dichloride)
13552-44-8	4,4'-Methylenedianiline dihydrochloride
838-88-0	4,4'-Methylene <i>bis</i> (2-methylaniline)
101-61-1	4,4'-Methylene <i>bis</i> (<i>N,N'</i> -dimethyl)aniline
101-68-8	Methylene diphenyl diisocyanate (MDI)
60-34-4	Methyl hydrazine
540-73-8	1,2-Dimethylhydrazine
74-88-4	Methyl iodide (Iodomethane)
108-10-1	Methyl isobutyl ketone (MIBK, Hexone)
624-83-9	Methyl isocyanate



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
75-86-5	2-Methylactonitrile (Acetone cyanohydrin)
80-62-6	Methyl methacrylate
66-27-3	Methyl Methanesulfonate
129-15-7	2-Methyl-1-nitroanthraquinone
70-25-7	<i>N</i> -Methyl- <i>N</i> -nitro- <i>N</i> -nitrosoguanidine
832-69-9	1-Methylphenanthrene
2381-21-7	1-Methylpyrene
109-06-8	2-Methylpyridine
1634-04-4	Methyl <i>tert</i> -butyl ether
56-04-2	Methylthiouracil
90-94-8	Michler's ketone
	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.
	Mineral fibers (fine mineral fibers which are man-made, and are airborne particles of a respirable size greater than 5 microns in length, less than or equal to 3.5 microns in diameter, with a length to diameter ratio of 3:1)
2385-85-5	Mirex
50-07-7	Mitomycin C
1313-27-5	Molybdenum trioxide
315-22-0	Monocrotaline
91-59-8	2-Naphthylamine
91-20-3	Naphthalene
7440-02-0	Nickel and compounds ^b
	Nickel compounds, insoluble
7440-02-0	Nickel metal
1313-99-1	Nickel oxide
12035-72-2	Nickel subsulfide
11113-75-0	Nickel sulfide
	Nickel compounds, soluble
373-02-4	Nickel acetate
3333-67-3	Nickel carbonate
12607-70-4	Nickel carbonate hydroxide
13463-39-3	Nickel carbonyl



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
7718-54-9	Nickel chloride
12054-48-7	Nickel hydroxide
7786-81-4	Nickel sulfate
10101-97-0	Nickel sulfate hexahydrate
13478-00-7	Nickel nitrate hexahydrate
1271-28-9	Nickelocene
3570-75-0	Nifurthiazole
7697-37-2	Nitric acid
139-13-9	Nitrilotriacetic acid
18662-53-8	Nitrilotriacetic acid, trisodium salt monohydrate
99-59-2	5-Nitro- <i>o</i> -Anisidine
98-95-3	Nitrobenzene
92-93-3	4-Nitrobiphenyl
1836-75-5	Nitrofen
59-87-0	Nitrofurazone
555-84-0	1-[(5-Nitrofurfurylidene)-amino]-2-imidazolidinone
531-82-8	<i>N</i> -[4-(5-nitro-2-furyl)-2-thiazolyl]-acetamide
302-70-5	Nitrogen mustard N-oxide
100-02-7	4-Nitrophenol
79-46-9	2-Nitropropane
924-16-3	<i>N</i> -Nitrosodi- <i>n</i> -butylamine
1116-54-7	<i>N</i> -Nitrosodiethanolamine
55-18-5	<i>N</i> -Nitrosodiethylamine
62-75-9	<i>N</i> -Nitrosodimethylamine
86-30-6	<i>N</i> -Nitrosodiphenylamine
156-10-5	<i>p</i> -Nitrosodiphenylamine
621-64-7	<i>N</i> -Nitrosodi- <i>n</i> -propylamine
10595-95-6	<i>N</i> -Nitrosomethylethylamine
759-73-9	<i>N</i> -Nitroso- <i>N</i> -ethylurea
615-53-2	<i>N</i> -Nitroso- <i>N</i> -methylurethane
684-93-5	<i>N</i> -Nitroso- <i>N</i> -methylurea
59-89-2	<i>N</i> -Nitrosomorpholine
16543-55-8	<i>N</i> -Nitrosornicotine
100-75-4	<i>N</i> -Nitrosopiperidine



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
930-55-2	<i>N</i> -Nitrosopyrrolidine
39765-80-5	<i>trans</i> -Nonachlor
104-40-5	Nonyphenol, 4- (& ethoxylates)
8014-95-7	Oleum
56-38-2	Parathion
87-86-5	Pentachlorophenol
32534-81-9	Pentabromodiphenyl ether
82-68-8	Pentachloronitrobenzene (Quintobenzene)
79-21-0	Peracetic acid
	Perfluorinated compounds (PFCs)
335-67-1	Perfluorooctanoic acid (PFOA)
1763-23-1	Perfluorooctanesulfonic acid (PFOS)
62-44-2	Phenacetin
94-78-0	Phenazopyridine
136-40-3	Phenazopyridine hydrochloride
3546-10-9	Phenesterin
50-06-6	Phenobarbital
108-95-2	Phenol
59-96-1	Phenoxybenzamine
63-92-3	Phenoxybenzamine hydrochloride
106-50-3	<i>p</i> -Phenylenediamine
132-27-4	<i>o</i> -Phenylphenate, sodium
90-43-7	2-Phenylphenol
75-44-5	Phosgene
7803-51-2	Phosphine
7664-38-2	Phosphoric acid
	Phosphorus and compounds ^b
10025-87-3	Phosphorus oxychloride
10026-13-8	Phosphorus pentachloride
1314-56-3	Phosphorus pentoxide
7719-12-2	Phosphorus trichloride
12185-10-3	Phosphorus, white
	Phthalates
85-44-9	Phthalic anhydride



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
	Polybrominated diphenyl ethers (PBDEs)
5436-43-1	PBDE-47 [2,2',4,4'-Tetrabromodiphenyl ether]
60348-60-9	PBDE-99 [2,2',4,4',5-Pentabromodiphenyl ether]
189084-64-8	PBDE-100 [2,2',4,4',6-Pentabromodiphenyl ether]
17026-54-3	PBDE-138 [2,2',3,4,4',5'-Hexabromodiphenyl ether]
68631-49-2	PBDE-153 [2,2',4,4',5,5'-hexabromodiphenyl ether]
17026-58-4	PBDE-154 [2,2',4,4',5,6'-Hexabromodiphenyl ether]
68928-80-3	PBDE-185 [2,2',3,4,4',5',6-Heptabromodiphenyl ether]
1163-19-5	PBDE-209 [Decabromodiphenyl ether]
1336-36-3	Polychlorinated biphenyls (PCBs)
	Polychlorinated biphenyls (PCBs) TEQ
34883-43-7	PCB-8 [2,4'-dichlorobiphenyl]
37680-65-2	PCB 18 [2,2',5-trichlorobiphenyl]
7012-37-5	PCB-28 [2,4,4'-trichlorobiphenyl]
41464-39-5	PCB-44 [2,2',3,5'-tetrachlorobiphenyl]
35693-99-3	PCB-52 [2,2',5,5'-tetrachlorobiphenyl]
32598-10-0	PCB-66 [2,3',4,4'-tetrachlorobiphenyl]
32598-13-3	PCB 77 [3,3',4,4'-tetrachlorobiphenyl]
70362-50-4	PCB 81 [3,4,4',5-tetrachlorobiphenyl]
37680-73-2	PCB-101 [2,2',4,5,5'-pentachlorobiphenyl]
32598-14-4	PCB 105 [2,3,3',4,4'-pentachlorobiphenyl]
74472-37-0	PCB 114 [2,3,4,4',5-pentachlorobiphenyl]
31508-00-6	PCB 118 [2,3',4,4',5-pentachlorobiphenyl]
65510-44-3	PCB 123 [2,3',4,4',5'-pentachlorobiphenyl]
57465-28-8	PCB 126 [3,3',4,4',5-pentachlorobiphenyl]
38380-07-3	PCB-128 [2,2',3,3',4,4'-hexachlorobiphenyl]
35065-28-2	PCB-138 [2,2',3,4,4',5'-hexachlorobiphenyl]
35065-27-1	PCB-153 [2,2',4,4',5,5'-hexachlorobiphenyl]
38380-08-4	PCB 156 [2,3,3',4,4',5-hexachlorobiphenyl]
69782-90-7	PCB 157 [2,3,3',4,4',5'-hexachlorobiphenyl]
52663-72-6	PCB 167 [2,3',4,4',5,5'-hexachlorobiphenyl]
32774-16-6	PCB 169 [3,3',4,4',5,5'-hexachlorobiphenyl]
35065-30-6	PCB-170 [2,2',3,3',4,4',5-heptachlorobiphenyl]
35065-29-3	PCB-180 [2,2',3,4,4',5,5'-heptachlorobiphenyl]



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
52663-68-0	PCB-187 [2,2',3,4',5,5',6-heptachlorobiphenyl]
39635-31-9	PCB 189 [2,3,3',4,4',5,5'-heptachlorobiphenyl]
52663-78-2	PCB-195 [2,2',3,3',4,4',5,6-octachlorobiphenyl]
40186-72-9	PCB-206 [2,2',3,3',4,4',5,5',6-nonachlorobiphenyl]
2051-24-3	PCB-209 [2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl]
	Polychlorinated dibenzo- <i>p</i> -dioxins (PCDDs) & dibenzofurans (PCDFs) TEQ
1746-01-6	2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin (TCDD)
40321-76-4	1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin (PeCDD)
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin (HxCDD)
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin (HxCDD)
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin (HxCDD)
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin (HpCDD)
3268-87-9	Octachlorodibenzo- <i>p</i> -dioxin (OCDD)
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran (TcDF)
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)
39001-02-0	Octachlorodibenzofuran (OCDF)
	Polycyclic aromatic hydrocarbons (PAHs)
83-32-9	Acenaphthene
208-96-8	Acenaphthylene
120-12-7	Anthracene
191-26-4	Anthanthrene
56-55-3	Benz[a]anthracene
50-32-8	Benzo[a]pyrene
205-99-2	Benzo[b]fluoranthene
205-12-9	Benzo[c]fluorene
192-97-2	Benzo[e]pyrene
191-24-2	Benzo[g,h,i]perylene



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
205-82-3	Benzo[j]fluoranthene
207-08-9	Benzo[k]fluoranthene
86-74-8	Carbazole
218-01-9	Chrysene
27208-37-3	Cyclopenta[c,d]pyrene
226-36-8	Dibenz[a,h]acridine
224-42-0	Dibenz[a,j]acridine
194-59-2	7H-Dibenzo[c,g]carbazole
53-70-3	Dibenz[a,h]anthracene
5385-75-1	Dibenzo[a,e]fluoranthene
192-65-4	Dibenzo[a,e]pyrene
189-64-0	Dibenzo[a,h]pyrene
189-55-9	Dibenzo[a,i]pyrene
191-30-0	Dibenzo[a,l]pyrene
206-44-0	Fluoranthene
86-73-7	Fluorene
193-39-5	Indeno[1,2,3-cd]pyrene
91-57-6	2-Methyl naphthalene
198-55-0	Perylene
85-01-8	Phenanthrene
129-00-0	Pyrene
	Polycyclic aromatic hydrocarbon derivatives [PAH-Derivatives]
53-96-3	2-Acetylaminofluorene
117-79-3	2-Aminoanthraquinone
63-25-2	Carbaryl
57-97-6	7,12-Dimethylbenz[a]anthracene
42397-64-8	1,6-Dinitropyrene
42397-65-9	1,8-Dinitropyrene
56-49-5	3-Methylcholanthrene
3697-24-3	5-Methylchrysene
602-87-9	5-Nitroacenaphthene
7496-02-8	6-Nitrochrysene
607-57-8	2-Nitrofluorene
5522-43-0	1-Nitropyrene



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
57835-92-4	4-Nitropyrene
3564-09-8	Ponceau 3R
3761-53-3	Ponceau MX
7758-01-2	Potassium bromate
671-16-9	Procarbazine
366-70-1	Procarbazine hydrochloride
1120-71-4	1,3-Propane sultone
57-57-8	<i>beta</i> -Propiolactone
123-38-6	Propionaldehyde
114-26-1	Propoxur (Baygon)
115-07-1	Propylene
6423-43-4	Propylene glycol dinitrate
107-98-2	Propylene glycol monomethyl ether
108-65-6	Propylene glycol monomethyl ether acetate
75-56-9	Propylene oxide
75-55-8	1,2-Propyleneimine (2-Methylaziridine)
51-52-5	Propylthiouracil
110-86-1	Pyridine
91-22-5	Quinoline
106-51-4	Quinone
	Radon and its decay products
	Refractory Ceramic Fibers
50-55-5	Reserpine
	Rockwool
94-59-7	Safrole
7783-07-5	Selenide, hydrogen
7782-49-2	Selenium and compounds ^b
7446-34-6	Selenium sulfide
7631-86-9	Silica, crystalline (respirable)
7440-22-4	Silver and compounds ^b
	Slagwool
1310-73-2	Sodium hydroxide
10048-13-2	Sterigmatocystin
18883-66-4	Streptozotocin



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
100-42-5	Styrene
96-09-3	Styrene oxide
95-06-7	Sulfallate
7664-93-9	Sulfuric acid
505-60-2	Sulfur mustard
7446-71-9	Sulfur trioxide
	Talc containing asbestiform fibers
100-21-0	Terephthalic acid
40088-47-9	Tetrabromodiphenyl ether
630-20-6	1,1,1,2-Tetrachloroethane
79-34-5	1,1,2,2-Tetrachloroethane
127-18-4	Tetrachloroethene (Perchloroethylene)
58-90-2	2,3,4,6-Tetrachlorophenol
811-97-2	1,1,1,2-Tetrafluoroethane
7440-28-0	Thallium and compounds ^b
62-55-5	Thioacetamide
139-65-1	4,4-Thiodianiline
62-56-6	Thiourea
7550-45-0	Titanium tetrachloride
108-88-3	Toluene
26471-62-5	Toluene diisocyanates (2,4- and 2,6-)
584-84-9	Toluene-2,4-diisocyanate
91-08-7	Toluene-2,6-diisocyanate
95-53-4	<i>o</i> -Toluidine
636-21-5	<i>o</i> -Toluidine hydrochloride
41903-57-5	Total Tetrachlorodibenzo- <i>p</i> -dioxin
36088-22-9	Total Pentachlorodibenzo- <i>p</i> -dioxin
34465-46-8	Total Hexachlorodibenzo- <i>p</i> -dioxin
37871-00-4	Total Heptachlorodibenzo- <i>p</i> -dioxin
55722-27-5	Total Tetrachlorodibenzofuran
30402-15-4	Total Pentachlorodibenzofuran
55684-94-1	Total Hexachlorodibenzofuran
38998-75-3	Total Heptachlorodibenzofuran
8001-35-2	Toxaphene (Polychlorinated camphenes)



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
126-73-8	Tributyl phosphate
120-82-1	1,2,4-Trichlorobenzene
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)
79-00-5	1,1,2-Trichloroethane (Vinyl trichloride)
79-01-6	Trichloroethene (TCE, Trichloroethylene)
75-69-4	Trichlorofluoromethane (Freon 11)
95-95-4	2,4,5-Trichlorophenol
88-06-2	2,4,6-Trichlorophenol
96-18-4	1,2,3-Trichloropropane
78-40-0	Triethyl phosphine
121-44-8	Triethylamine
112-49-2	Triethylene glycol dimethyl ether
512-56-1	Trimethyl phosphate
78-30-8	Triorthocresyl phosphate
115-86-6	Triphenyl phosphate
101-02-0	Triphenyl phosphite
1582-09-8	Trifluralin
526-73-8	1,2,3-Trimethylbenzene
95-63-6	1,2,4-Trimethylbenzene
108-67-8	1,3,5-Trimethylbenzene
540-84-1	2,2,4-Trimethylpentane
62450-06-0	Tryptophan-P-1
62450-07-1	Tryptophan-P-2
51-79-6	Urethane (Ethyl carbamate)
7440-62-2	Vanadium (fume or dust)
1314-62-1	Vanadium pentoxide
108-05-4	Vinyl acetate
593-60-2	Vinyl bromide
75-01-4	Vinyl chloride
100-40-3	4-Vinylcyclohexene
75-02-5	Vinyl fluoride
75-35-4	Vinylidene chloride
1330-20-7	Xylene (mixture), including <i>m</i> -xylene, <i>o</i> -xylene, <i>p</i> -xylene
108-38-3	<i>m</i> -Xylene



OAR 340-245-8020 Table 2 Toxic Air Contaminant Reporting List

CAS# ^a	Chemical Name
95-47-6	<i>o</i> -Xylene
106-42-3	<i>p</i> -Xylene
7440-66-6	Zinc and compounds ^b
1314-13-2	Zinc oxide


NOTE:

- a) CAS# = Chemical Abstracts Service Number
- b) Inorganic chemicals designated with "and compounds" should be reported as the sum of all forms of the chemical, expressed as the inorganic element.

Stat. Auth.: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155
Stats. Implemented: ORS 468.065, 468A.010, 468A.015, 468A.025, 468A.035, 468A.040, 468A.050, 468A.070, and 468A.155

OAR 340-245-8030 Table 3

Toxicity Reference Values

 <p style="text-align: center;">OAR 340-245-8030 Table 3 Toxicity Reference Values</p>								
			Toxicity Reference Values (TRVs)					
			Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c	
CAS#	Chemical	Notes	($\mu\text{g}/\text{m}^3$)	Notes	($\mu\text{g}/\text{m}^3$)	Notes	($\mu\text{g}/\text{m}^3$)	Notes
75-07-0	Acetaldehyde		0.45	A	140	O	470	O
60-35-5	Acetamide		0.050	O	--	--		
67-64-1	Acetone		--	--	31,000	T	62,000	S
75-05-8	Acetonitrile		--	--	60	I		
107-02-8	Acrolein		--	--	0.35	A	6.9	T
79-06-1	Acrylamide		0.010	I	6.0	I		
79-10-7	Acrylic acid		--	--	1.0	I	6,000	O
107-13-1	Acrylonitrile		0.015	A	5.0	O	220	T
309-00-2	Aldrin		0.00020	I	--	--		
107-05-1	Allyl chloride		0.17	O	1.0	I		
7429-90-5	Aluminum and compounds	o	--	--	5.0	P		
7664-41-7	Ammonia		--	--	500	A	1,200	T
62-53-3	Aniline		0.63	O	1.0	I		
1309-64-4	Antimony trioxide		--	--	0.20	I		
140-57-8	Aramite		0.14	I	--	--		
7440-38-2	Arsenic and compounds	o	0.00023	A	0.015	O	0.20	S
7784-42-1	Arsine		--	--	0.015	O	0.20	O
1332-21-4	Asbestos	k	4.3E-06	I	--	--		
103-33-3	Azobenzene		0.032	I	--	--		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
71-43-2	Benzene	j	0.13	A	3.0	O	29	T
92-87-5	Benzidine (and its salts)		7.1E-06	O	--	--		
100-44-7	Benzyl chloride		0.020	O	1.0	P	240	O
7440-41-7	Beryllium and compounds	o	0.00042	A	0.0070	O	0.020	S
111-44-4	Bis(2-chloroethyl) ether (DCEE)		0.0014	O	--	--	120	Tint
542-88-1	Bis(chloromethyl) ether		7.7E-05	O	--	--	1.4	Tint
117-81-7	Bis(2-ethylhexyl) phthalate (DEHP)		0.42	O	--	--		
75-25-2	Bromoform		0.91	I	--	--		
74-83-9	Bromomethane (Methyl bromide)		--	--	5.0	A	190	T
106-94-5	1-Bromopropane (n-propyl bromide)		0.48	A	100	T	5,000	T
106-99-0	1,3-Butadiene		0.033	A	2.0	O	660	O
78-93-3	2-Butanone (Methyl ethyl ketone)		--	--	5,000	I	5,000	S
78-92-2	sec-Butyl alcohol		--	--	30,000	P		
7440-43-9	Cadmium and compounds	o	0.00056	A	0.010	T	0.030	S
105-60-2	Caprolactam		--	--	2.2	O	50	O
75-15-0	Carbon disulfide		--	--	800	A	6,200	O
56-23-5	Carbon tetrachloride		0.17	A	100	I	1,900	O
463-58-1	Carbonyl sulfide		--	--	10	O	660	O
57-74-9	Chlordane	j	0.0100	I	0.70	I	0.70	I
108171-26-2	Chlorinated paraffins	n	0.040	O	--	--		
7782-50-5	Chlorine		--	--	0.15	A	170	T



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
10049-04-4	Chlorine dioxide		--	--	0.60	O	2.8	Tint
532-27-4	2-Chloroacetophenone		--	--	0.030	I		
108-90-7	Chlorobenzene		--	--	50	P		
75-68-3	1-Chloro-1,1-difluoroethane		--	--	50,000	I		
75-45-6	Chlorodifluoromethane (Freon 22)		--	--	50,000	I		
75-00-3	Chloroethane (Ethyl chloride)		--	--	30,000	O	40,000	T
67-66-3	Chloroform			A2	300	A	490	T
74-87-3	Chloromethane (Methyl chloride)		--	--	90	A	1,000	T
95-83-0	4-Chloro-o-phenylenediamine		0.22	O	--	--		
76-06-2	Chloropicrin		--	--	0.40	O	29	O
126-99-8	Chloroprene		0.0033	I	20	I		
95-69-2	p-Chloro-o-toluidine		0.013	O	--	--		
18540-29-9	Chromium VI, chromate and dichromate particulate	d	8.3E-05	A	0.0050	T	0.30	S
18540-29-9	Chromium VI, chromic acid aerosol mist	d	8.3E-05	A	0.0050	T	0.0050	S
7440-48-4	Cobalt and compounds	o		A2	0.10	A		
	Coke Oven Emissions		0.0016	I	--	--		
7440-50-8	Copper and compounds	o	--	--	--	--	100	O
120-71-8	p-Cresidine		0.023	O	--	--		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
1319-77-3	Cresols (mixture), including m-cresol, o-cresol, p-cresol		--	--	600	O		
135-20-6	Cupferron		0.016	O	--	--		
74-90-8	Cyanide, Hydrogen		--	--	0.80	A	340	O
110-82-7	Cyclohexane		--	--	6,000	I		
50-29-3	DDT	e	0.010	I	--	--		
615-05-4	2,4-Diaminoanisole		0.15	O	--	--		
95-80-7	2,4-Diaminotoluene (2,4-Toluene diamine)		0.00091	O	--	--		
333-41-5	Diazinon		--	--	--	--	10	Tint
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		0.00017	P	0.20	I	1.9	Tint
106-46-7	p-Dichlorobenzene (1,4-Dichlorobenzene)		0.091	A	60	T	12,000	T
91-94-1	3,3'-Dichlorobenzidine		0.0029	O	--	--		
75-34-3	1,1-Dichloroethane (Ethylidene dichloride)		0.63	O	--	--		
156-60-5	trans-1,2-dichloroethene		--	--	--	--	790	T
75-09-2	Dichloromethane (Methylene chloride)		100	A	600	I	2,100	T
78-87-5	1,2-Dichloropropane (Propylene dichloride)		--	--	4.0	I	230	T
542-75-6	1,3-Dichloropropene		0.25	A	32	T	36	Tint
62-73-7	Dichlorovos (DDVP)		--	--	0.54	T	18	T
60-57-1	Dieldrin		0.00022	I	--	--		
	Diesel Particulate Matter		0.10	A	5.0	O		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
111-42-2	Diethanolamine		--	--	0.20	P		
112-34-5	Diethylene glycol monobutyl ether		--	--	0.10	P		
111-90-0	Diethylene glycol monoethyl ether		--	--	0.30	P		
75-37-6	1,1-Difluoroethane		--	--	40,000	I		
60-11-7	4-Dimethylaminoazobenzene		0.00077	O	--	--		
68-12-2	Dimethyl formamide		--	--	80	O		
57-14-7	1,1-Dimethylhydrazine		--	--	--	--	0.49	Tint
121-14-2	2,4-Dinitrotoluene		0.011	O	--	--		
123-91-1	1,4-Dioxane		0.20	I	110	T	7,200	T
122-66-7	1,2-Diphenylhydrazine (Hydrazobenzene)		0.0045	I	--	--		
1937-37-7	Direct Black 38		7.1E-06	O	--	--		
2602-46-2	Direct Blue 6		7.1E-06	O	--	--		
16071-86-6	Direct Brown 95 (technical grade)		7.1E-06	O	--	--		
298-04-4	Disulfoton		--	--	--	--	6.0	T
106-89-8	Epichlorohydrin		0.043	O	3.0	O	1,300	O
106-88-7	1,2-Epoxybutane		--	--	20	O		
140-88-5	Ethyl acrylate		--	--	8.0	P		
100-41-4	Ethyl benzene		0.40	A	260	T	22,000	T
106-93-4	Ethylene dibromide (EDB, 1,2-Dibromoethane)		0.0017	A	9.0	I		
107-06-2	Ethylene dichloride (EDC, 1,2-Dichloroethane)		0.038	A	7.0	P		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
107-21-1	Ethylene glycol		--	--	400	O	2,000	T
111-76-2	Ethylene glycol monobutyl ether		--	--	1,600	I	29,000	T
110-80-5	Ethylene glycol monoethyl ether		--	--	70	O	370	O
111-15-9	Ethylene glycol monoethyl ether acetate		--	--	60	P	140	O
109-86-4	Ethylene glycol monomethyl ether		--	--	60	O	93	O
110-49-6	Ethylene glycol monomethyl ether acetate		--	--	1.0	P		
75-21-8	Ethylene oxide		0.00033	A	30	O	160	Tint
96-45-7	Ethylene thiourea		0.077	O	--	--		
	Fluorides		--	--	13	A	240	O
7782-41-4	Fluorine gas		--	--	--	--	16	T
50-00-0	Formaldehyde		0.17	A	9.0	O	49	T
111-30-8	Glutaraldehyde		--	--	0.080	O	4.1	T
76-44-8	Heptachlor		0.00077	I	--	--		
1024-57-3	Heptachlor epoxide		0.00038	I	--	--		
118-74-1	Hexachlorobenzene		0.0020	O	--	--		
87-68-3	Hexachlorobutadiene		0.045	I	--	--		
608-73-1	Hexachlorocyclohexanes (mixture) including but not limited to:		0.00091	O	--	--		
319-84-6	Hexachlorocyclohexane, alpha-		0.00091	O	--	--		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
319-85-7	Hexachlorocyclohexane, beta-		0.00091	O	--	--		
58-89-9	Hexachlorocyclohexane, gamma- (Lindane)		0.0032	O	--	--		
77-47-4	Hexachlorocyclopentadiene		--	--	0.20	I	110	Tint
67-72-1	Hexachloroethane		--	--	30	I	58,000	T
822-06-0	Hexamethylene-1,6-diisocyanate		--	--	0.069	T	0.21	Tint
110-54-3	Hexane		--	--	700	A		
302-01-2	Hydrazine		0.00020	O	0.030	P	5.2	Tint
7647-01-0	Hydrochloric acid		--	--	20	A	2,100	O
7664-39-3	Hydrogen fluoride		--	--	13	A	16	T
7783-06-4	Hydrogen sulfide		--	--	2.0	A	98	S
78-59-1	Isophorone		--	--	2,000	O		
67-63-0	Isopropyl alcohol		--	--	200	P	3,200	O
98-82-8	Isopropylbenzene (Cumene)		--	--	400	I		
7439-92-1	Lead and compounds	o		A2	0.15	A	0.15	S
108-31-6	Maleic anhydride		--	--	0.70	O		
7439-96-5	Manganese and compounds	o	--	--	0.090	A	0.30	S
7439-97-6	Mercury and compounds	o	--	--	0.30	A	0.60	O
67-56-1	Methanol		--	--	4,000	A	28,000	O
101-14-4	4,4'-Methylene bis(2-chloroaniline) (MOCA)		0.0023	O	--	--		
101-77-9	4,4'-Methylenedianiline (and its dichloride)		0.0022	O	20	O		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
101-68-8	Methylene diphenyl diisocyanate (MDI)		--	--	0.080	O	12	O
108-10-1	Methyl isobutyl ketone (MIBK, Hexone)		--	--	3,000	I		
624-83-9	Methyl isocyanate		--	--	1.0	O		
80-62-6	Methyl methacrylate		--	--	700	I		
1634-04-4	Methyl tert-butyl ether		3.8	O	8,000	O	8,000	O
90-94-8	Michler's ketone		0.0040	O	--	--		
91-20-3	Naphthalene		0.029	A	3.7	T	200	S
	Nickel compounds, insoluble	f	0.0038	A	0.014	O	0.20	O
	Nickel compounds, soluble	f		A2	0.014	A	0.20	O
7697-37-2	Nitric acid		--	--	--	--	86	O
98-95-3	Nitrobenzene		0.025	I	9.0	I		
79-46-9	2-Nitropropane		--	--	20	I		
924-16-3	N-Nitrosodi-n-butylamine		0.00032	O	--	--		
55-18-5	N-Nitrosodiethylamine		1.0E-04	O	--	--		
62-75-9	N-Nitrosodimethylamine		0.00022	O	--	--		
86-30-6	N-Nitrosodiphenylamine		0.38	O	--	--		
156-10-5	p-Nitrosodiphenylamine		0.16	O	--	--		
621-64-7	N-Nitrosodi-n-propylamine		0.00050	O	--	--		
10595-95-6	N-Nitrosomethylethylamine		0.00016	O	--	--		
59-89-2	N-Nitrosomorpholine		0.00053	O	--	--		
100-75-4	N-Nitrosopiperidine		0.00037	O	--	--		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
930-55-2	N-Nitrosopyrrolidine		0.0017	O	--	--		
8014-95-7	Oleum		--	--	--	--	120	O
56-38-2	Parathion		--	--	--	--	0.020	Tint
87-86-5	Pentachlorophenol		0.20	O	--	--		
108-95-2	Phenol		--	--	200	O	5,800	O
75-44-5	Phosgene		--	--	0.30	A	4.0	O
7803-51-2	Phosphine		--	--	0.80	A		
7664-38-2	Phosphoric acid		--	--	10	A		
12185-10-3	Phosphorus, white		--	--	9.0	A	20	T
85-44-9	Phthalic anhydride		--	--	20	O		
	Polybrominated diphenyl ethers (PBDEs)	g	--	--	--	--	6.0	Tint
1336-36-3	Polychlorinated biphenyls (PCBs)		0.0100	A	--	--		
	Polychlorinated biphenyls (PCBs) TEQ	h	2.6E-08	A1	4.E-05	O		
32598-13-3	PCB 77 [3,3',4,4'-tetrachlorobiphenyl]	h	0.00026	A1	0.40	O	4	
70362-50-4	PCB 81 [3,4,4',5-tetrachlorobiphenyl]	h	8.8E-05	A1	0.13	O		
32598-14-4	PCB 105 [2,3,3',4,4'-pentachlorobiphenyl]	h	0.00088	A1	1.3	O		
74472-37-0	PCB 114 [2,3,4,4',5-pentachlorobiphenyl]	h	0.00088	A1	1.3	O		
31508-00-6	PCB 118 [2,3',4,4',5-pentachlorobiphenyl]	h	0.00088	A1	1.3	O		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
65510-44-3	PCB 123 [2,3',4,4',5'-pentachlorobiphenyl]	h	0.00088	A1	1.3	O		
57465-28-8	PCB 126 [3,3',4,4',5'-pentachlorobiphenyl]	h	2.6E-07	A1	0.00040	O		
38380-08-4	PCB 156 [2,3,3',4,4',5'-hexachlorobiphenyl]	h	0.00088	A1	1.3	O		
69782-90-7	PCB 157 [2,3,3',4,4',5'-hexachlorobiphenyl]	h	0.00088	A1	1.3	O		
52663-72-6	PCB 167 [2,3',4,4',5,5'-hexachlorobiphenyl]	h	0.00088	A1	1.3	O		
32774-16-6	PCB 169 [3,3',4,4',5,5'-hexachlorobiphenyl]	h	8.8E-07	A1	0.0013	O		
39635-31-9	PCB 189 [2,3,3',4,4',5,5'-heptachlorobiphenyl]	h	0.00088	A1	1.3	O		
	Polychlorinated dibenzo-p-dioxins (PCDDs) & dibenzofurans (PCDFs) TEQ	h	2.6E-08	A1	4.0E-05	O		
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)		2.6E-08	A	4.0E-05	O		
40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	h	2.6E-08	A1	4.0E-05	O		
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	h	2.6E-07	A1	0.00040	O		
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	h	2.6E-07	A1	0.00040	O		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	h	2.6E-07	A1	0.00040	O		
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	h	2.6E-06	A1	0.0040	O		
3268-87-9	Octachlorodibenzo-p-dioxin (OCDD)	h	8.8E-05	A1	0.13	O		
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran (TcDF)	h	2.6E-07	A1	0.00040	O		
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	h	8.8E-07	A1	0.0013	O		
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	h	8.8E-08	A1	0.00013	O		
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	h	2.6E-07	A1	0.00040	O		
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	h	2.6E-07	A1	0.00040	O		
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	h	2.6E-07	A1	0.00040	O		
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	h	2.6E-07	A1	0.00040	O		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	h	2.6E-06	A1	0.0040	O		
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	h	2.6E-06	A1	0.0040	O		
39001-02-0	Octachlorodibenzofuran (OCDF)	h	8.8E-05	A1	0.13	O		
	Polycyclic aromatic hydrocarbons (PAHs)		0.0017	A	--	--		
191-26-4	Anthanthrene	i	0.0042	A1	--	--		
56-55-3	Benz[a]anthracene	i	0.0083	A1	--	--		
50-32-8	Benzo[a]pyrene	m	0.0017	A	0.0020	I	0.0020	I
205-99-2	Benzo[b]fluoranthene	i	0.0021	A1	--	--		
205-12-9	Benzo[c]fluorene	i	8.3E-05	A1	--	--		
191-24-2	Benzo[g,h,i]perylene	i	0.19	A1	--	--		
205-82-3	Benzo[j]fluoranthene	i	0.0056	A1	--	--		
207-08-9	Benzo[k]fluoranthene	i	0.056	A1	--	--		
218-01-9	Chrysene	i	0.017	A1	--	--		
27208-37-3	Cyclopenta[c,d]pyrene	i	0.0042	A1	--	--		
53-70-3	Dibenz[a,h]anthracene	i	0.00017	A1	--	--		
192-65-4	Dibenzo[a,e]pyrene	i	0.0042	A1	--	--		
189-64-0	Dibenzo[a,h]pyrene	i	0.0019	A1	--	--		
189-55-9	Dibenzo[a,i]pyrene	i	0.0028	A1	--	--		
191-30-0	Dibenzo[a,l]pyrene	i	5.6E-05	A1	--	--		
206-44-0	Fluoranthene	i	0.021	A1	--	--		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
193-39-5	Indeno[1,2,3-cd]pyrene	i	0.024	A1	--	--		
3697-24-3	5-Methylchrysene	i	0.0017	A1	--	--		
7496-02-8	6-Nitrochrysene	i	0.00017	A1	--	--		
7758-01-2	Potassium bromate		0.0071	O	--	--		
1120-71-4	1,3-Propane sultone		0.0014	O	--	--		
123-38-6	Propionaldehyde		--	--	8.0	I		
115-07-1	Propylene		--	--	3,000	O		
6423-43-4	Propylene glycol dinitrate		--	--	0.27	T	20	T
107-98-2	Propylene glycol monomethyl ether		--	--	7,000	O		
75-56-9	Propylene oxide		0.27	O	30	O	3,100	O
	Refractory Ceramic Fibers	k	--	--	0.030	T		
7783-07-5	Selenide, hydrogen		--	--	--	--	5.0	O
7782-49-2	Selenium and compounds	j, o	--	--		A3	2.0	S
7631-86-9	Silica, crystalline (respirable)		--	--	3.0	O		
1310-73-2	Sodium hydroxide		--	--	--	--	8.0	O
100-42-5	Styrene		--	--	1,000	A	21,000	S
7664-93-9	Sulfuric acid		--	--	1.0	O	120	O
505-60-2	Sulfur Mustard		--	--	--	--	0.70	T
7446-71-9	Sulfur trioxide		--	--	1.0	O	120	O
630-20-6	1,1,1,2-Tetrachloroethane		0.14	I	--	--		
79-34-5	1,1,2,2-Tetrachloroethane		0.017	O	--	--		
127-18-4	Tetrachloroethene (Perchloroethylene)		3.8	A	41	T	41	T



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
811-97-2	1,1,1,2-Tetrafluoroethane		--	--	80,000	I		
62-55-5	Thioacetamide		0.00059	O	--	--		
7550-45-0	Titanium tetrachloride		--	--	0.10	T	10	Tint
108-88-3	Toluene		--	--	5,000	A	7,500	T
26471-62-5	Toluene diisocyanates (2,4- and 2,6-)		0.091	O	0.021	A	0.071	T
8001-35-2	Toxaphene (Polychlorinated camphenes)		0.0031	I	--	--		
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)		--	--	5,000	A	11,000	T
79-00-5	1,1,2-Trichloroethane (Vinyl trichloride)		0.063	O	--	--		
79-01-6	Trichloroethene (TCE, Trichloroethylene)		0.24	A	2.1	T	2.1	Tint
88-06-2	2,4,6-Trichlorophenol		0.050	O	--	--		
96-18-4	1,2,3-Trichloropropane		--	--	0.30	I	1.8	T
121-44-8	Triethylamine		--	--	200	O	2,800	O
526-73-8	1,2,3-Trimethylbenzene		--	--	60	I		
95-63-6	1,2,4-Trimethylbenzene		--	--	60	I		
108-67-8	1,3,5-Trimethylbenzene		--	--	60	I		
51-79-6	Urethane (Ethyl carbamate)		0.0034	O	--	--		
7440-62-2	Vanadium (fume or dust)		--	--	0.10	T	0.80	T
1314-62-1	Vanadium pentoxide		0.00012	P	0.0070	P	30	O
108-05-4	Vinyl acetate	j	--	--	200	O	200	I
593-60-2	Vinyl bromide		--	--	3.0	I		



OAR 340-245-8030 Table 3 Toxicity Reference Values

		Toxicity Reference Values (TRVs)						
		Chronic Cancer ^a		Chronic Noncancer ^b		Acute Noncancer ^c		
CAS#	Chemical	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes	(µg/m ³)	Notes
75-01-4	Vinyl chloride		0.11	I	100	I	1,300	T
75-35-4	Vinylidene chloride	j	--	--	200	I	200	I
1330-20-7	Xylene (mixture), including m-xylene, o-xylene, p-xylene		--	--	220	A	8,700	T

Notes:

- a TRV based on a 1 in 1 million excess cancer risk.
TRV = $1 \times 10^{-6} / \text{IUR}$, where IUR = chemical-specific inhalation unit risk value $[(\mu\text{g}/\text{m}^3)^{-1}]$.
- b TRV based on chronic non-cancer value from authoritative bodies ($\mu\text{g}/\text{m}^3$).
- c TRV based on acute or subchronic non-cancer value from authoritative bodies ($\mu\text{g}/\text{m}^3$).
- d The TRVs presented for chromium are applicable to hexavalent chromium.
- e DDT TRVs apply to the sum of DDT, DDE, and DDD compounds.
- f As recommended by the ATSAC in 2018, the two categories of nickel compounds contain the following specific nickel compounds:
Soluble nickel compounds are considered to be emitted mainly in aerosol form, to be less potent carcinogens than insoluble nickel compounds, and include nickel acetate, nickel chloride, nickel carbonate, nickel hydroxide, nickelocene, nickel sulfate, nickel sulfate hexahydrate, nickel nitrate hexahydrate, nickel carbonate hydroxide.
Insoluble nickel compounds are considered to be emitted mainly in particulate form, to be more potent carcinogens than soluble nickel compounds, and to include nickel subsulfide, nickel oxide, nickel sulfide, nickel metal.
- g TRVs apply to octabrominated diphenyl ethers (CAS# 32536-52-0) and pentabrominated diphenyl ethers (CAS# 32534-81-9), including BDE-99.
- h TRV for chronic cancer calculated by applying toxicity reference factor to 2,3,7,8-TCDD TRV.
- i TRV for chronic cancer calculated by applying toxicity reference factor to benzo[a]pyrene TRV.
- j If the short-term toxicity reference value is lower than the chronic noncancer toxicity reference value, the chronic noncancer toxicity reference value was used for the short-term toxicity reference value because chronic noncancer toxicity reference values are generally more reliable.
- k TRVs for asbestos and refractory ceramic fibers are in units of fibers/cm³.
- m Because benzo[a]pyrene can cause developmental effects, the chronic noncancer TRV is also used as the acute noncancer TRV.
- n Chlorinated paraffins of average chain length of C12, approximately 60% chlorine by weight.
- o An inorganic chemical designated with "and compounds" indicates that the TRV applies to the sum of all forms of the chemical, expressed as the inorganic element.

Legend:

A = ATSAC, DEQ Air Toxics Science Advisory Committee, 2018.

A1 = ATSAC, 2018. TRV for cancer calculated by applying toxic equivalency factor.

A2 = Because the ATSAC decided it was inappropriate to develop an ABC based on carcinogenic effects, DEQ did not obtain a cancer TRV from the other authoritative sources.

A3 = Because the ATSAC decided it was inappropriate to develop an ABC based on noncarcinogenic effects, DEQ did not obtain a TRV from the other authoritative sources.

CAS# = Chemical Abstracts Service number

I = IRIS, EPA integrated risk information system

O = OEHHA, California Environmental Protection Agency, Office of Environmental Health Hazard Assessment

P = PPRTV, EPA preliminary peer reviewed toxicity value

S = SGC, DEQ short-term guideline concentration

T = ATSDR, U.S. Agency for Toxic Substances and Disease Registry

TEQ = toxic equivalency, relative to 2,3,7,8-tetrachlorodibenzo-*p*-dioxin.

Tint = ATSDR, intermediate minimal risk level


TRV = toxicity reference value

Stat. Auth.: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155

Stats. Implemented: ORS 468.065, 468A.010, 468A.015, 468A.025, 468A.035, 468A.040, 468A.050, 468A.070, and 468A.155

340-245-8040 Table 4

Risk-Based Concentrations

 <p style="text-align: center;">OAR 340-245-8040 Table 4 Risk-Based Concentrations</p>									
CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a	Non-cancer RBC ^a	Child Cancer RBC ^a	Child Non-cancer RBC ^a	Worker Cancer RBC ^a	Worker Non-cancer RBC ^a	Non-cancer RBC ^a
			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
75-07-0	Acetaldehyde		0.45	140	12	620	5.5	620	470
60-35-5	Acetamide		0.050		1.3		0.60		
67-64-1	Acetone			31,000		140,000		140,000	62,000
75-05-8	Acetonitrile			60		260		260	
107-02-8	Acrolein			0.35		1.5		1.5	6.9
79-06-1	Acrylamide	g	0.0059	6.0	0.062	26	0.12	26	
79-10-7	Acrylic acid			1.0		4.4		4.4	6,000
107-13-1	Acrylonitrile		0.015	5.0	0.38	22	0.18	22	220
309-00-2	Aldrin		0.00020		0.0053		0.0024		
107-05-1	Allyl chloride		0.17	1.0	4.3	4.4	2.0	4.4	
7429-90-5	Aluminum and compounds	l		5.0		22		22	
7664-41-7	Ammonia			500		2,200		2,200	1,200
62-53-3	Aniline		0.63	1.0	16	4.4	7.5	4.4	
1309-64-4	Antimony trioxide			0.20		0.88		0.88	
140-57-8	Aramite		0.14		3.7		1.7		
7440-38-2	Arsenic and compounds	l	2.4E-05	0.00017	0.0013	0.0024	0.00062	0.0024	0.20
7784-42-1	Arsine			0.015		0.066		0.066	0.20
1332-21-4	Asbestos	i	4.3E-06		0.00011		5.2E-05		
103-33-3	Azobenzene		0.032		0.84		0.39		
71-43-2	Benzene		0.13	3.0	3.3	13	1.5	13	29
92-87-5	Benzidine (and its salts)	g	4.2E-06		4.4E-05		8.6E-05		
100-44-7	Benzyl chloride		0.020	1.0	0.53	4.4	0.24	4.4	240
7440-41-7	Beryllium and compounds	l	0.00042	0.0070	0.011	0.031	0.0050	0.031	0.020
111-44-4	Bis(2-chloroethyl) ether (DCEE)		0.0014		0.037		0.017		120



OAR 340-245-8040 Table 4 Risk-Based Concentrations

CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a	Non-cancer RBC ^a	Child Cancer RBC ^a	Child Non-cancer RBC ^a	Worker Cancer RBC ^a	Worker Non-cancer RBC ^a	Non-cancer RBC ^a
			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
542-88-1	Bis(chloromethyl) ether		7.7E-05		0.0020		0.00092		1.4
117-81-7	Bis(2-ethylhexyl) phthalate (DEHP)	c	0.080		11		5.0		
75-25-2	Bromoform		0.91		24		11		
74-83-9	Bromomethane (Methyl bromide)			5.0		22		22	190
106-94-5	1-Bromopropane (n-propyl bromide)		0.48	100	12	440	5.7	440	5,000
106-99-0	1,3-Butadiene		0.033	2.0	0.86	8.8	0.40	8.8	660
78-93-3	2-Butanone (Methyl ethyl ketone)			5,000		22,000		22,000	5,000
78-92-2	sec-Butyl alcohol			30,000		130,000		130,000	
7440-43-9	Cadmium and compounds	c, l	0.00056	0.0050	0.014	0.037	0.0067	0.037	0.030
105-60-2	Caprolactam			2.2		9.7		9.7	50
75-15-0	Carbon disulfide			800		3,500		3,500	6,200
56-23-5	Carbon tetrachloride		0.17	100	4.3	440	2.0	440	1,900
463-58-1	Carbonyl sulfide			10		44		44	660
57-74-9	Chlordane		0.0100	0.70	0.26	3.1	0.12	3.1	0.70
108171-26-2	Chlorinated paraffins	j	0.040		1.0		0.48		
7782-50-5	Chlorine			0.15		0.66		0.66	170
10049-04-4	Chlorine dioxide			0.60		2.6		2.6	2.8
532-27-4	2-Chloroacetophenone			0.030		0.13		0.13	
108-90-7	Chlorobenzene			50		220		220	
75-68-3	1-Chloro-1,1-difluoroethane			50,000		220,000		220,000	
75-45-6	Chlorodifluoromethane (Freon 22)			50,000		220,000		220,000	
75-00-3	Chloroethane (Ethyl chloride)			30,000		130,000		130,000	40,000
67-66-3	Chloroform			300		1,300		1,300	490



OAR 340-245-8040 Table 4 Risk-Based Concentrations

CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a	Non-cancer RBC ^a	Child Cancer RBC ^a	Child Non-cancer RBC ^a	Worker Cancer RBC ^a	Worker Non-cancer RBC ^a	Non-cancer RBC ^a
			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
74-87-3	Chloromethane (Methyl chloride)			90		400		400	1,000
95-83-0	4-Chloro-o-phenylenediamine		0.22		5.7		2.6		
76-06-2	Chloropicrin			0.40		1.8		1.8	29
126-99-8	Chloroprene		0.0033	20	0.087	88	0.040	88	
95-69-2	p-Chloro-o-toluidine		0.013		0.34		0.16		
18540-29-9	Chromium VI, chromate and dichromate particulate	c, d	3.1E-05	0.0021	0.00052	0.022	0.0010	0.022	0.30
18540-29-9	Chromium VI, chromic acid aerosol mist	c, d	3.1E-05	0.0021	0.00052	0.022	0.0010	0.022	0.0050
7440-48-4	Cobalt and compounds	l		0.10		0.44		0.44	
	Coke Oven Emissions	g	0.00095		0.0100		0.019		
7440-50-8	Copper and compounds	l							100
120-71-8	p-Cresidine		0.023		0.60		0.28		
1319-77-3	Cresols (mixture), including m-cresol, o-cresol, p-cresol			600		2,600		2,600	
135-20-6	Cupferron		0.016		0.41		0.19		
74-90-8	Cyanide, Hydrogen			0.80		3.5		3.5	340
110-82-7	Cyclohexane			6,000		26,000		26,000	
50-29-3	DDT	e	0.010		0.27		0.12		
615-05-4	2,4-Diaminoanisole		0.15		3.9		1.8		
95-80-7	2,4-Diaminotoluene (2,4-Toluene diamine)		0.00091		0.024		0.011		
333-41-5	Diazinon								10
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	g	9.8E-05	0.20	0.0010	0.88	0.0020	0.88	1.9
106-46-7	p-Dichlorobenzene (1,4-Dichlorobenzene)		0.091	60	2.4	260	1.1	260	12,000
91-94-1	3,3'-Dichlorobenzidine		0.0029		0.076		0.035		



OAR 340-245-8040 Table 4 Risk-Based Concentrations

CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a	Non-cancer RBC ^a	Child Cancer RBC ^a	Child Non-cancer RBC ^a	Worker Cancer RBC ^a	Worker Non-cancer RBC ^a	Non-cancer RBC ^a
			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
75-34-3	1,1-Dichloroethane (Ethylidene dichloride)		0.63		16		7.5		
156-60-5	trans-1,2-dichloroethene								790
75-09-2	Dichloromethane (Methylene chloride)		59	600	620	2,600	1,200	2,600	2,100
78-87-5	1,2-Dichloropropane (Propylene dichloride)			4.0		18		18	230
542-75-6	1,3-Dichloropropene		0.25	32	6.5	140	3.0	140	36
62-73-7	Dichlorovos (DDVP)			0.54		2.4		2.4	18
60-57-1	Dieldrin		0.00022		0.0057		0.0026		
	Diesel Particulate Matter		0.10	5.0	2.6	22	1.2	22	
111-42-2	Diethanolamine			0.20		0.88		0.88	
112-34-5	Diethylene glycol monobutyl ether			0.10		0.44		0.44	
111-90-0	Diethylene glycol monoethyl ether			0.30		1.3		1.3	
75-37-6	1,1-Difluoroethane			40,000		180,000		180,000	
60-11-7	4-Dimethylaminoazobenzene		0.00077		0.020		0.0092		
68-12-2	Dimethyl formamide			80		350		350	
57-14-7	1,1-Dimethylhydrazine								0.49
121-14-2	2,4-Dinitrotoluene		0.011		0.29		0.13		
123-91-1	1,4-Dioxane		0.20	110	5.2	480	2.4	480	7,200
122-66-7	1,2-Diphenylhydrazine (Hydrazobenzene)		0.0045		0.12		0.055		
1937-37-7	Direct Black 38		7.1E-06		0.00019		8.6E-05		
2602-46-2	Direct Blue 6		7.1E-06		0.00019		8.6E-05		
16071-86-6	Direct Brown 95 (technical grade)		7.1E-06		0.00019		8.6E-05		
298-04-4	Disulfoton								6.0
106-89-8	Epichlorohydrin		0.043	3.0	1.1	13	0.52	13	1,300



OAR 340-245-8040 Table 4 Risk-Based Concentrations

CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a	Non-cancer RBC ^a	Child Cancer RBC ^a	Child Non-cancer RBC ^a	Worker Cancer RBC ^a	Worker Non-cancer RBC ^a	Non-cancer RBC ^a
			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
106-88-7	1,2-Epoxybutane			20		88		88	
140-88-5	Ethyl acrylate			8.0		35		35	
100-41-4	Ethyl benzene		0.40	260	10	1,100	4.8	1,100	22,000
106-93-4	Ethylene dibromide (EDB, 1,2-Dibromoethane)		0.0017	9.0	0.043	40	0.020	40	
107-06-2	Ethylene dichloride (EDC, 1,2-Dichloroethane)		0.038	7.0	1.0	31	0.46	31	
107-21-1	Ethylene glycol			400		1,800		1,800	2,000
111-76-2	Ethylene glycol monobutyl ether			1,600		7,000		7,000	29,000
110-80-5	Ethylene glycol monoethyl ether			70		310		310	370
111-15-9	Ethylene glycol monoethyl ether acetate			60		260		260	140
109-86-4	Ethylene glycol monomethyl ether			60		260		260	93
110-49-6	Ethylene glycol monomethyl ether acetate			1.0		4.4		4.4	
75-21-8	Ethylene oxide	g	0.00020	30	0.0021	130	0.0040	130	160
96-45-7	Ethylene thiourea		0.077		2.0		0.92		
	Fluorides	c		2.3		20		20	240
7782-41-4	Fluorine gas								16
50-00-0	Formaldehyde		0.17	9.0	4.3	40	2.0	40	49
111-30-8	Glutaraldehyde			0.080		0.35		0.35	4.1
76-44-8	Heptachlor		0.00077		0.020		0.0092		
1024-57-3	Heptachlor epoxide		0.00038		0.010		0.0046		
118-74-1	Hexachlorobenzene		0.0020		0.051		0.024		
87-68-3	Hexachlorobutadiene		0.045		1.2		0.55		
608-73-1	Hexachlorocyclohexanes (mixture) including but not limited to:	c	0.00017		0.018		0.0084		



OAR 340-245-8040 Table 4 Risk-Based Concentrations

CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a	Non-cancer RBC ^a	Child Cancer RBC ^a	Child Non-cancer RBC ^a	Worker Cancer RBC ^a	Worker Non-cancer RBC ^a	Non-cancer RBC ^a
			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
319-84-6	Hexachlorocyclohexane, alpha-	c	0.00017		0.018		0.0084		
319-85-7	Hexachlorocyclohexane, beta-	c	0.00017		0.018		0.0084		
58-89-9	Hexachlorocyclohexane, gamma- (Lindane)	c	0.00060		0.065		0.030		
77-47-4	Hexachlorocyclopentadiene			0.20		0.88		0.88	110
67-72-1	Hexachloroethane			30		130		130	58,000
822-06-0	Hexamethylene-1,6-diisocyanate			0.069		0.30		0.30	0.21
110-54-3	Hexane			700		3,100		3,100	
302-01-2	Hydrazine		0.00020	0.030	0.0053	0.13	0.0024	0.13	5.2
7647-01-0	Hydrochloric acid			20		88		88	2,100
7664-39-3	Hydrogen fluoride	c		2.1		19		19	16
7783-06-4	Hydrogen sulfide			2.0		8.8		8.8	98
78-59-1	Isophorone			2,000		8,800		8,800	
67-63-0	Isopropyl alcohol			200		880		880	3,200
98-82-8	Isopropylbenzene (Cumene)			400		1,800		1,800	
7439-92-1	Lead and compounds	c, l		0.15		0.66		0.66	0.15
108-31-6	Maleic anhydride			0.70		3.1		3.1	
7439-96-5	Manganese and compounds	l		0.090		0.40		0.40	0.30
7439-97-6	Mercury and compounds	c, l		0.077		0.63		0.63	0.60
67-56-1	Methanol			4,000		18,000		18,000	28,000
101-14-4	4,4'-Methylene bis(2-chloroaniline) (MOCA)		0.0023		0.060		0.028		
101-77-9	4,4'-Methylenedianiline (and its dichloride)		0.00030	20	0.023	88	0.010	88	
101-68-8	Methylene diphenyl diisocyanate (MDI)			0.080		0.35		0.35	12



OAR 340-245-8040 Table 4 Risk-Based Concentrations

CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a	Non-cancer RBC ^a	Child Cancer RBC ^a	Child Non-cancer RBC ^a	Worker Cancer RBC ^a	Worker Non-cancer RBC ^a	Non-cancer RBC ^a
			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
108-10-1	Methyl isobutyl ketone (MIBK, Hexone)			3,000		13,000		13,000	
624-83-9	Methyl isocyanate			1.0		4.4		4.4	
80-62-6	Methyl methacrylate			700		3,100		3,100	
1634-04-4	Methyl tert-butyl ether		3.8	8,000	100	35,000	46	35,000	8,000
90-94-8	Michler's ketone		0.0040		0.10		0.048		
91-20-3	Naphthalene	c	0.029	3.7	0.76	16	0.35	16	200
	Nickel compounds, insoluble	f	0.0038	0.014	0.10	0.062	0.046	0.062	0.20
	Nickel compounds, soluble	f		0.014		0.062		0.062	0.20
7697-37-2	Nitric acid								86
98-95-3	Nitrobenzene		0.025	9.0	0.65	40	0.30	40	
79-46-9	2-Nitropropane			20		88		88	
924-16-3	N-Nitrosodi-n-butylamine		0.00032		0.0084		0.0039		
55-18-5	N-Nitrosodiethylamine	g	5.9E-05		0.00062		0.0012		
62-75-9	N-Nitrosodimethylamine	g	0.00013		0.0013		0.0026		
86-30-6	N-Nitrosodiphenylamine		0.38		10		4.6		
156-10-5	p-Nitrosodiphenylamine		0.16		4.1		1.9		
621-64-7	N-Nitrosodi-n-propylamine		0.00050		0.013		0.0060		
10595-95-6	N-Nitrosomethylethylamine		0.00016		0.0041		0.0019		
59-89-2	N-Nitrosomorpholine		0.00053		0.014		0.0063		
100-75-4	N-Nitrosopiperidine		0.00037		0.0096		0.0044		
930-55-2	N-Nitrosopyrrolidine		0.0017		0.043		0.020		
8014-95-7	Oleum								120
56-38-2	Parathion								0.020
87-86-5	Pentachlorophenol		0.20		5.1		2.4		
108-95-2	Phenol			200		880		880	5,800
75-44-5	Phosgene			0.30		1.3		1.3	4.0
7803-51-2	Phosphine			0.80		3.5		3.5	



OAR 340-245-8040 Table 4 Risk-Based Concentrations

CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a	Non-cancer RBC ^a	Child Cancer RBC ^a	Child Non-cancer RBC ^a	Worker Cancer RBC ^a	Worker Non-cancer RBC ^a	Non-cancer RBC ^a
			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
7664-38-2	Phosphoric acid			10		44		44	
12185-10-3	Phosphorus, white			9.0		40		40	20
85-44-9	Phthalic anhydride			20		88		88	
	Polybrominated diphenyl ethers (PBDEs)	h							6.0
1336-36-3	Polychlorinated biphenyls (PCBs)	c	0.00053		0.020		0.0092		
	Polychlorinated biphenyls (PCBs) TEQ	c	1.0E-09	1.3E-07	9.0E-08	2.6E-05	4.2E-08	2.6E-05	
32598-13-3	PCB 77 [3,3',4,4'-tetrachlorobiphenyl]	c	1.0E-05	0.0013	0.00090	0.26	0.00042	0.26	
70362-50-4	PCB 81 [3,4,4',5-tetrachlorobiphenyl]	c	3.4E-06	0.00042	0.00030	0.085	0.00014	0.085	
32598-14-4	PCB 105 [2,3,3',4,4'-pentachlorobiphenyl]	c	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
74472-37-0	PCB 114 [2,3,4,4',5-pentachlorobiphenyl]	c	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
31508-00-6	PCB 118 [2,3',4,4',5-pentachlorobiphenyl]	c	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
65510-44-3	PCB 123 [2,3',4,4',5'-pentachlorobiphenyl]	c	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
57465-28-8	PCB 126 [3,3',4,4',5-pentachlorobiphenyl]	c	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
38380-08-4	PCB 156 [2,3,3',4,4',5-hexachlorobiphenyl]	c	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
69782-90-7	PCB 157 [2,3,3',4,4',5'-hexachlorobiphenyl]	c	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
52663-72-6	PCB 167 [2,3',4,4',5,5'-hexachlorobiphenyl]	c	3.4E-05	0.0042	0.0030	0.85	0.0014	0.85	
32774-16-6	PCB 169 [3,3',4,4',5,5'-hexachlorobiphenyl]	c	3.4E-08	4.2E-06	3.0E-06	0.00085	1.4E-06	0.00085	
39635-31-9	PCB 189 [2,3,3',4,4',5,5'-heptachlorobiphenyl]	c	0.00088	1.3	0.023	5.7	0.011	5.7	



OAR 340-245-8040 Table 4 Risk-Based Concentrations

CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a	Non-cancer RBC ^a	Child Cancer RBC ^a	Child Non-cancer RBC ^a	Worker Cancer RBC ^a	Worker Non-cancer RBC ^a	Non-cancer RBC ^a
			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
	Polychlorinated dibenzo-p-dioxins (PCDDs) & dibenzofurans (PCDFs) TEQ	c	1.0E-09	1.3E-07	9.0E-08	2.6E-05	4.2E-08	2.6E-05	
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	c	1.0E-09	1.3E-07	9.0E-08	2.6E-05	4.2E-08	2.6E-05	
40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	c	1.0E-09	1.3E-07	9.0E-08	2.6E-05	4.2E-08	2.6E-05	
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	c	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	c	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	c	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	c	1.0E-07	1.3E-05	9.0E-06	0.0026	4.2E-06	0.0026	
3268-87-9	Octachlorodibenzo-p-dioxin (OCDD)	c	3.4E-06	0.00042	0.00030	0.085	0.00014	0.085	
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran (TcDF)	c	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	c	3.4E-08	4.2E-06	3.0E-06	0.00085	1.4E-06	0.00085	
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	c	3.4E-09	4.2E-07	3.0E-07	8.5E-05	1.4E-07	8.5E-05	
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	c	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	c	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	



OAR 340-245-8040 Table 4 Risk-Based Concentrations

CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a	Non-cancer RBC ^a	Child Cancer RBC ^a	Child Non-cancer RBC ^a	Worker Cancer RBC ^a	Worker Non-cancer RBC ^a	Non-cancer RBC ^a
			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	c	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	c	1.0E-08	1.3E-06	9.0E-07	0.00026	4.2E-07	0.00026	
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	c	1.0E-07	1.3E-05	9.0E-06	0.0026	4.2E-06	0.0026	
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	c	1.0E-07	1.3E-05	9.0E-06	0.0026	4.2E-06	0.0026	
39001-02-0	Octachlorodibenzofuran (OCDF)	c	3.4E-06	0.00042	0.00030	0.085	0.00014	0.085	
	Polycyclic aromatic hydrocarbons (PAHs)	c, g	4.3E-05		0.0016		0.0030		
191-26-4	Anthanthrene	c, g	0.00011		0.0039		0.0076		
56-55-3	Benz[a]anthracene	c, g	0.00021		0.0078		0.015		
50-32-8	Benzo[a]pyrene	c, g	4.3E-05	0.0020	0.0016	0.0088	0.0030	0.0088	0.0020
205-99-2	Benzo[b]fluoranthene	c, g	5.3E-05		0.0020		0.0038		
205-12-9	Benzo[c]fluorene	c, g	2.1E-06		7.8E-05		0.00015		
191-24-2	Benzo[g,h,i]perylene	c, g	0.0047		0.17		0.34		
205-82-3	Benzo[j]fluoranthene	c, g	0.00014		0.0052		0.010		
207-08-9	Benzo[k]fluoranthene	c, g	0.0014		0.052		0.10		
218-01-9	Chrysene	c, g	0.00043		0.016		0.030		
27208-37-3	Cyclopenta[c,d]pyrene	c, g	0.00011		0.0039		0.0076		
53-70-3	Dibenz[a,h]anthracene	c, g	4.3E-06		0.00016		0.00030		
192-65-4	Dibenzo[a,e]pyrene	c, g	0.00011		0.0039		0.0076		
189-64-0	Dibenzo[a,h]pyrene	c, g	4.7E-05		0.0017		0.0034		
189-55-9	Dibenzo[a,i]pyrene	c, g	7.1E-05		0.0026		0.0051		
191-30-0	Dibenzo[a,l]pyrene	c, g	1.4E-06		5.2E-05		0.00010		
206-44-0	Fluoranthene	c, g	0.00053		0.020		0.038		



OAR 340-245-8040 Table 4 Risk-Based Concentrations

CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a (µg/m ³)	Non-cancer RBC ^a (µg/m ³)	Child Cancer RBC ^a (µg/m ³)	Child Non-cancer RBC ^a (µg/m ³)	Worker Cancer RBC ^a (µg/m ³)	Worker Non-cancer RBC ^a (µg/m ³)	Non-cancer RBC ^a (µg/m ³)
193-39-5	Indeno[1,2,3-cd]pyrene	c, g	0.00061		0.022		0.043		
3697-24-3	5-Methylchrysene	c, g	4.3E-05		0.0016		0.0030		
7496-02-8	6-Nitrochrysene	c, g	4.3E-06		0.00016		0.00030		
7758-01-2	Potassium bromate		0.0071		0.19		0.086		
1120-71-4	1,3-Propane sultone		0.0014		0.038		0.017		
123-38-6	Propionaldehyde			8.0		35		35	
115-07-1	Propylene			3,000		13,000		13,000	
6423-43-4	Propylene glycol dinitrate			0.27		1.2		1.2	20
107-98-2	Propylene glycol monomethyl ether			7,000		31,000		31,000	
75-56-9	Propylene oxide		0.27	30	7.0	130	3.2	130	3,100
	Refractory Ceramic Fibers	i		0.030		0.13		0.13	
7783-07-5	Selenide, hydrogen								5.0
7782-49-2	Selenium and compounds	l							2.0
7631-86-9	Silica, crystalline (respirable)			3.0		13		13	
1310-73-2	Sodium hydroxide								8.0
100-42-5	Styrene			1,000		4,400		4,400	21,000
7664-93-9	Sulfuric acid			1.0		4.4		4.4	120
505-60-2	Sulfur Mustard								0.70
7446-71-9	Sulfur trioxide			1.0		4.4		4.4	120
630-20-6	1,1,1,2-Tetrachloroethane		0.14		3.5		1.6		
79-34-5	1,1,2,2-Tetrachloroethane		0.017		0.45		0.21		
127-18-4	Tetrachloroethene (Perchloroethylene)		3.8	41	100	180	46	180	41
811-97-2	1,1,1,2-Tetrafluoroethane			80,000		350,000		350,000	
62-55-5	Thioacetamide		0.00059		0.015		0.0071		
7550-45-0	Titanium tetrachloride			0.10		0.44		0.44	10
108-88-3	Toluene			5,000		22,000		22,000	7,500



OAR 340-245-8040 Table 4 Risk-Based Concentrations

CAS# ^b	Chemical	Notes	Residential Chronic		Non-Residential Chronic				Acute
			Cancer RBC ^a	Non-cancer RBC ^a	Child Cancer RBC ^a	Child Non-cancer RBC ^a	Worker Cancer RBC ^a	Worker Non-cancer RBC ^a	Non-cancer RBC ^a
			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
26471-62-5	Toluene diisocyanates (2,4- and 2,6-)		0.091	0.021	2.4	0.092	1.1	0.092	0.071
8001-35-2	Toxaphene (Polychlorinated camphenes)		0.0031		0.081		0.038		
71-55-6	1,1,1-Trichloroethane (Methyl chloroform)			5,000		22,000		22,000	11,000
79-00-5	1,1,2-Trichloroethane (Vinyl trichloride)		0.063		1.6		0.75		
79-01-6	Trichloroethene (TCE, Trichloroethylene)	g	0.20	2.1	3.5	9.2	2.9	9.2	2.1
88-06-2	2,4,6-Trichlorophenol		0.050		1.3		0.60		
96-18-4	1,2,3-Trichloropropane			0.30		1.3		1.3	1.8
121-44-8	Triethylamine			200		880		880	2,800
526-73-8	1,2,3-Trimethylbenzene			60		260		260	
95-63-6	1,2,4-Trimethylbenzene			60		260		260	
108-67-8	1,3,5-Trimethylbenzene			60		260		260	
51-79-6	Urethane (Ethyl carbamate)	g	0.0020		0.021		0.041		
7440-62-2	Vanadium (fume or dust)			0.10		0.44		0.44	0.80
1314-62-1	Vanadium pentoxide		0.00012	0.0070	0.0031	0.031	0.0014	0.031	30
108-05-4	Vinyl acetate			200		880		880	200
593-60-2	Vinyl bromide			3.0		13		13	
75-01-4	Vinyl chloride	g, k	0.11	100	0.22	440	2.7	440	1,300
75-35-4	Vinylidene chloride			200		880		880	200
1330-20-7	Xylene (mixture), including m-xylene, o-xylene, p-xylene			220		970		970	8,700

Notes:

a RBC = Risk-Based Concentration

b CAS# = Chemical Abstracts Service number

- c Chronic RBCs include factors for multipathway risk.
- d The RBCs presented for chromium are applicable to hexavalent chromium. In the absence of data indicating otherwise, assume that any total chromium (i.e., unspicated) that is measured or modeled is entirely in the hexavalent form. Determine, based on information about the source of emissions, whether hexavalent chromium is emitted in aerosol or particulate form, and apply the corresponding RBC. Because there are no RBCs for trivalent chromium, a source determined to be emitting only trivalent chromium cannot be shown to pose an unacceptable risk, so the risk in this case will be considered acceptable.
- e DDT RBCs apply to the sum of DDT, DDE, and DDD compounds.
- f As recommended by DEQ's Air Toxics Science Advisory Committee (ATSAC) in 2018, the two categories of nickel compounds contain the following specific nickel compounds:
Soluble nickel compounds are considered to be emitted mainly in aerosol form, to be less potent carcinogens than insoluble nickel compounds, and include nickel acetate, nickel chloride, nickel carbonate, nickel hydroxide, nickelocene, nickel sulfate, nickel sulfate hexahydrate, nickel nitrate hexahydrate, nickel carbonate hydroxide.
Insoluble nickel compounds are considered to be emitted mainly in particulate form, to be more potent carcinogens than soluble nickel compounds, and to include nickel subsulfide, nickel oxide, nickel sulfide, nickel metal.
- g RBCs adjusted to protect early-life exposure to infants and children because chemical is carcinogenic by a mutagenic mode of action.
- h RBCs apply to octabrominated diphenyl ethers (CAS# 32536-52-0) and pentabrominated diphenyl ethers (CAS# 32534-81-9), including BDE-99.
- i RBCs for asbestos and refractory ceramic fibers are in units of fibers/cm³.
- j Chlorinated paraffins of average chain length of C12, approximately 60% chlorine by weight.
- k DEQ followed the ATSAC recommendation to develop a vinyl chloride TRV that already includes early-life exposure.
- l An inorganic chemical designated with "and compounds" indicates that the RBC applies to the sum of all forms of the chemical, expressed as the inorganic element.

Stat. Auth.: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155
 Stats. Implemented: ORS 468.065, 468A.010, 468A.015, 468A.025, 468A.035, 468A.040, 468A.050, 468A.070, and 468A.155



OAR 340-245-8050 Table 5

Level 1 Risk Assessment Tool

Dispersion Factors

Table 5A: Dispersion Factors for Annual Exposure ($\mu\text{g}/\text{m}^3$ / pounds/year)

Stack	Exposure Location Distance (meters)												
Ht (m)	50	60	70	80	90	100	110	120	130	140	150	160	170
5	0.0033	0.0026	0.0021	0.0017	0.0014	0.0012	0.0010	0.00088	0.00076	0.00066	0.00058	0.00051	0.00046
10	0.0014	0.0012	0.0011	0.00094	0.00084	0.00075	0.00068	0.00062	0.00057	0.00052	0.00048	0.00044	0.00041
15	0.00075	0.00061	0.00054	0.00049	0.00044	0.00040	0.00037	0.00034	0.00031	0.00029	0.00027	0.00025	0.00024
20	0.00072	0.00054	0.00035	0.00031	0.00028	0.00026	0.00023	0.00022	0.00020	0.00019	0.00017	0.00016	0.00015
25	0.00050	0.00041	0.00035	0.00025	0.00019	0.00018	0.00016	0.00015	0.00014	0.00013	0.00012	0.00012	0.00011
30	0.00037	0.00030	0.00026	0.00023	0.00019	0.00013	0.00012	0.00011	0.00010	0.000096	0.000090	0.000085	0.000080
35	0.00030	0.00023	0.00019	0.00017	0.00015	0.00013	0.00011	0.000081	0.000075	0.000071	0.000068	0.000064	0.000061
40	0.00023	0.00019	0.00015	0.00013	0.00012	0.00011	0.000096	0.000081	0.000064	0.000054	0.000051	0.000049	0.000047
45	0.00018	0.00016	0.00013	0.00011	0.000095	0.000085	0.000078	0.000072	0.000063	0.000053	0.000042	0.000038	0.000037
50	0.00014	0.00013	0.00011	0.000090	0.000077	0.000068	0.000062	0.000057	0.000053	0.000048	0.000042	0.000035	0.000029

Stack	Exposure Location Distance (meters)												
Ht (m)	180	190	200	250	300	350	400	450	500	600	700	800	1000
5	0.00041	0.00037	0.00034	0.00023	0.00017	0.00013	0.00010	0.000084	0.000071	0.000052	0.000040	0.000032	0.000022
10	0.00038	0.00035	0.00033	0.00023	0.00017	0.00013	0.000098	0.000078	0.000064	0.000047	0.000036	0.000029	0.000021
15	0.00023	0.00021	0.00020	0.00016	0.00013	0.00010	0.000083	0.000069	0.000057	0.000041	0.000032	0.000025	0.000018
20	0.00014	0.00014	0.00013	0.00010	0.000086	0.000073	0.000062	0.000053	0.000046	0.000035	0.000027	0.000021	0.000015
25	0.00010	0.000096	0.000091	0.000072	0.000059	0.000051	0.000044	0.000039	0.000034	0.000027	0.000022	0.000018	0.000013
30	0.000075	0.000071	0.000068	0.000053	0.000044	0.000037	0.000032	0.000028	0.000025	0.000021	0.000017	0.000014	0.000010
35	0.000058	0.000055	0.000052	0.000042	0.000034	0.000029	0.000025	0.000022	0.000019	0.000016	0.000014	0.000011	0.000008
40	0.000045	0.000043	0.000041	0.000033	0.000028	0.000023	0.000020	0.000018	0.000016	0.000013	0.000011	0.000009	0.000007
45	0.000036	0.000034	0.000033	0.000027	0.000023	0.000019	0.000017	0.000015	0.000013	0.000011	0.000009	0.000008	0.000006
50	0.000027	0.000026	0.000026	0.000022	0.000019	0.000016	0.000014	0.000012	0.000011	0.000009	0.000007	0.000006	0.000005

Table 5B: Dispersion Factors for 24 hour Exposure ($\mu\text{g}/\text{m}^3$ / pounds/day)

Stack	Exposure Location Distance (meters)												
Ht (m)	50	60	70	80	90	100	110	120	130	140	150	160	170
5	8.3	7.1	6.1	5.2	4.4	3.8	3.2	2.7	2.4	2.1	1.8	1.6	1.4
10	3.8	3.4	3.1	2.8	2.6	2.4	2.2	2.1	2.0	1.8	1.7	1.6	1.5
15	1.8	1.6	1.6	1.5	1.4	1.3	1.2	1.1	1.1	1.00	0.95	0.91	0.87
20	1.6	1.3	0.91	0.86	0.82	0.77	0.73	0.69	0.65	0.62	0.59	0.56	0.54
25	0.97	0.93	0.85	0.64	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.38	0.36
30	0.62	0.59	0.57	0.55	0.49	0.34	0.32	0.31	0.30	0.29	0.28	0.27	0.26
35	0.42	0.41	0.39	0.38	0.37	0.34	0.29	0.22	0.21	0.21	0.20	0.20	0.19
40	0.30	0.29	0.28	0.28	0.27	0.26	0.25	0.22	0.17	0.15	0.15	0.15	0.14
45	0.22	0.22	0.21	0.21	0.20	0.20	0.19	0.19	0.17	0.16	0.12	0.11	0.11
50	0.16	0.16	0.16	0.16	0.16	0.15	0.15	0.14	0.14	0.13	0.12	0.10	0.082

Stack	Exposure Location Distance (meters)												
Ht (m)	180	190	200	250	300	350	400	450	500	600	700	800	1000
5	1.3	1.2	1.1	0.72	0.55	0.44	0.36	0.30	0.26	0.20	0.16	0.13	0.092
10	1.4	1.3	1.3	0.91	0.67	0.50	0.38	0.30	0.25	0.18	0.14	0.12	0.088
15	0.83	0.80	0.77	0.64	0.53	0.43	0.36	0.30	0.25	0.18	0.13	0.10	0.075
20	0.52	0.49	0.48	0.40	0.35	0.31	0.27	0.23	0.20	0.16	0.12	0.096	0.064
25	0.35	0.34	0.32	0.27	0.23	0.21	0.19	0.17	0.15	0.12	0.100	0.082	0.057
30	0.25	0.24	0.23	0.19	0.17	0.15	0.13	0.12	0.11	0.095	0.078	0.066	0.048
35	0.18	0.18	0.17	0.15	0.13	0.11	0.099	0.090	0.083	0.072	0.062	0.053	0.040
40	0.14	0.14	0.13	0.11	0.10	0.088	0.078	0.070	0.064	0.056	0.049	0.044	0.033
45	0.11	0.11	0.10	0.092	0.081	0.072	0.065	0.058	0.053	0.045	0.040	0.036	0.028
50	0.081	0.080	0.079	0.072	0.065	0.059	0.053	0.048	0.044	0.037	0.032	0.029	0.024

Use of dispersion factors in a Level 1 screening risk assessment:

For each Toxics Emissions Unit, select the appropriate stack height and distance to nearest exposure locations approved by DEQ. For each exposure location, find the corresponding annual dispersion factor in Table 5A. For each air toxic, multiply the annual air toxic emission rate (in pounds/year) by the dispersion factor. Divide the product by the RBC for all the air toxics for the appropriate exposure location in OAR 340-245-8040 Table 4. Add up the resulting ratios for all Toxic Emissions Units for each exposure location. Compare the results with the Risk Action Levels in OAR 340-245-8010 Table 1. Repeat the process for daily emission rates (in pounds/day) using Table 5B at the acute exposure location.

For a stack height between the values shown in the table, either use the next lowest stack height, or interpolate the dispersion factor. For an exposure location distance between the values shown in the table, either use the next lowest distance, or interpolate the dispersion factor. For stack heights greater than 50 meters, use the appropriate dispersion factor for 50 meters. For exposure locations greater than 1,000 meters from your facility, use the appropriate dispersion factor at 1,000 meters. In the absence of a known stack height and exposure location distance, use as a default, the annual dispersion factor (0.0033 $\mu\text{g}/\text{m}^3$ / pounds/year) and daily dispersion factor (8.3 $\mu\text{g}/\text{m}^3$ / pounds/day) for a stack height of 5 meters and an exposure location distance of 50 meters.

Stat. Auth.: ORS 468.020, 468.065, 468A.025, 468A.040, 468A.050, 468A.070, 468A.155

Stats. Implemented: ORS 468.065, 468A.010, 468A.015, 468A.025, 468A.035, 468A.040, 468A.050, 468A.070, and 468A.155