

Table 2: Protective Action Criteria (PAC) Rev. 29 based on applicable 60-minute AEGLs, ERPGs, or TEELs. The chemicals are listed in alphabetical order. May 2016

Table 2 is an alphabetical list of the chemical substances and their corresponding PAC values. For the most part, values are given in parts per million (ppm) for gases and volatile liquids and in milligrams per cubic meter (mg/m³) for solids, particulates (aerosols), and nonvolatile liquids.

The columns presented in Table 2 provide the following information:

Heading	Definition
No.	The ordered numbering of the chemicals as they appear in this alphabetical listing
Chemical Name	The name of the chemical substance submitted to the PAC development team
CASRN	The Chemical Abstracts Service Registry Number ¹ for each chemical
PAC-1	Based on the applicable AEGL-1, ERPG-1, or TEEL-1 value
PAC-2	Based on the applicable AEGL-2, ERPG-2, or TEEL-2 value
PAC-3	Based on the applicable AEGL-3, ERPG-3, or TEEL-3 value
SoP	Source of PACs
Units	The units for the PAC values (ppm or mg/m ³)

Chemicals for which **AEGLs** are available have their chemical name, CASRN, and the AEGL values displayed in a **bolded and larger** font. Chemicals for which **ERPGs** are available, but no AEGLs, have their chemical name, CASRN, and the ERPG values displayed in a **bolded** font. Chemicals for which only TEELs are available, have their chemical name, CASRN, and values displayed using a regular font.

Some values in Table 2 have the following text formatting:

- * indicates the PAC value is between 10% and up to 50% of the LEL (10% LEL ≤ PAC < 50% LEL).
- ** indicates the PAC value is between 50% and up to 100% of the LEL (50% LEL ≤ PAC < 100% LEL).
- *** indicates the PAC value is at 100% or more of the LEL (PAC ≥ LEL).

Additional information on PAC values, TEEL values, and links to other sources of information is provided on the Subcommittee on Consequence Assessment and Protective Actions (SCAPA) webpage at <http://orise.orau.gov/emi/scapa/default.htm>.

¹ Information on the Chemical Abstracts Service and CASRNs is provided at <https://www.cas.org/cas-home>.

Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1	Abrin	1393-62-0	6.60E-07	7.20E-06	4.30E-05	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2	Acenaphthene	83-32-9	3.6	40	240	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
3	Acenaphthylene	208-96-8	10	110	660	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
4	Acetaldehyde	75-07-0	45	270	840	AEGL-1, AEGL-2, AEGL-3	ppm
5	Acetamide	60-35-5	21	230	1,400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
6	Acetanilide	103-84-4	2	22	130	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
7	Acetic acid	64-19-7	5	35	250	ERPG-1, ERPG-2, ERPG-3	ppm
8	Acetic acid ethenyl ester, polymer with 1,1-bis(ethenoxy) butane and ethenol	27360-07-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
9	Acetic acid, 2-propenyl ester	591-87-7	0.42	4.6	28	TEEL-2/11, TEEL-3/6, rat 60-min LC50	ppm
10	Acetic acid, lithium salt	546-89-4	3.2	36	210	TEEL-2/11, TEEL-3/6, mouse oral LDLo	mg/m ³
11	Acetic acid, manganese(2+) salt, tetrahydrate	6156-78-1	13	22	740	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, rat oral LD50	mg/m ³
12	Acetic acid, manganese(II) salt (2:1)	638-38-0	9.4	16	96	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
13	Acetic anhydride	108-24-7	0.5	15	100	ERPG-1, ERPG-2, ERPG-3	ppm
14	Acetone	67-64-1	200	3200*	5700*	AEGL-1, AEGL-2, AEGL-3	ppm
15	Acetone thiosemicarbazide	1752-30-3	9.1	100	600	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
16	Acetone-d6	666-52-4	200	3200*	5700*	Used acetone (67-64-1) AEGL values	ppm
17	Acetonitrile	75-05-8	13	50	150	AEGL-1, AEGL-2, AEGL-3	ppm
18	Acetonitrile-d3	2206-26-0	13	50	150	Used acetonitrile (75-05-8) AEGL values	ppm
19	Acetophenone	98-86-2	30	330	2000*	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.

* indicates 10% LEL ≤ PAC < 50% LEL; ** indicates 50% LEL ≤ PAC < 100% LEL; *** indicates PAC ≥ LEL.

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
20	Acetoxytriphenylstannane	900-95-8	0.69	20	28	MW-adjusted organic tin (7440-31-5) TLV-STEL, LOC, rat oral LD50	mg/m ³
21	Acetyl bromide	506-96-7	0.16	1.8	11	TEEL-2/11, TEEL-3/6, mouse ip LD50	ppm
22	Acetyl carbinol; (Acetol (1); 1-Hydroxy-2-propanone)	116-09-6	6.6	73	440	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
23	Acetyl chloride	75-36-5	0.85	9.4	56	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
24	Acetyl triethyl citrate	77-89-4	5.2	57	1,400	TEEL-2/11, mouse ip TDLo, rat oral LD50	mg/m ³
25	Acetylaminofluorene, 2-	53-96-3	1.2	14	480	TEEL-2/11, rat oral TDLo, mouse ip LD50	mg/m ³
26	Acetylaminofluorenone, 2-	3096-50-2	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
27	Acetylene	74-86-2	65000***	230000***	400000***	Simple asphyxiant	ppm
28	Acrolein	107-02-8	0.030	0.10	1.4	AEGL-1, AEGL-2, AEGL-3	ppm
29	Acrylamide	79-06-1	0.09	44	100	TLV-TWA x 3, monkey ip TDLo, rat oral LD50	mg/m ³
30	Acrylamide, N,N'-methylenebisacrylamide copolymer	25034-58-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
31	Acrylic acid	79-10-7	1.5	46	180	AEGL-1, AEGL-2, AEGL-3	ppm
32	Acrylonitrile	107-13-1	0.15	1.7	28	AEGL-2/11, AEGL-2, AEGL-3	ppm
33	Acrylyl chloride; (Acryloyl chloride)	814-68-6	0.022	0.24	0.87	TEEL-2/11, LOC, mouse 120-min LC50	ppm
34	Adamsite; (Phenarsazine chloride)	578-94-9	0.016	2.6	6.4	AEGL-1, AEGL-2, AEGL-3	mg/m ³
35	Adipic acid, diethylene glycol, trimethylolpropane, phthalic anhydride, toluenediisocyanate polymer, isocyanate terminated	68609-57-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
36	Adiponitrile	111-69-3	0.35	3.8	8.1	TEEL-2/11, LOC, rat 240-min LCLo	ppm
37	Aerosol, A-102; (Poly(oxy-1,2-ethanediy), alpha-(3-carboxy-1-oxo-3-sulfopropyl)-omega-(dodecyloxy)-, disodium salt)	39354-45-5	92	1,000	6,100	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
38	Agent GB; (Sarin, Isopropyl methanefluorophosphonate)	107-44-8	4.80E-04	0.0060	0.022	AEGL-1, AEGL-2, AEGL-3	ppm
39	Agent GD; (Soman; 3,3-Dimethyl-2-butyl methylphosphonofluoridate)	96-64-0	1.80E-04	0.0022	0.017	AEGL-1, AEGL-2, AEGL-3	ppm
40	Agent GF; (Methyl cyclohexylfluorophosphonate)	329-99-7	0.00020	0.0024	0.018	AEGL-1, AEGL-2, AEGL-3	ppm
41	Agent VX; (Ethyl-S-dimethylaminoethyl methylphosphonothiolate)	50782-69-9	1.60E-05	2.70E-04	9.10E-04	AEGL-1, AEGL-2, AEGL-3	ppm
42	Alamine 336	68814-95-9	17	180	1,100	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
43	Alcohols, C6-C12 (N.O.S.)	68603-15-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
44	Aldicarb; (Carbanolate; Methyl-2-(methylthio)propionaldehyde-O-(methylcarbamoyl)oxime, 2-)	116-06-3	0.027	0.3	1.8	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
45	Aldrin; (1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4-endo,exo-5,8-dimethanonaphthalene)	309-00-2	0.91	10	100	TEEL-2/11, LOC, IDLH (1990)	mg/m ³
46	Aldrithiol-2; (2,2'-Dithiodipyridine)	2127-03-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
47	Aliquat 336; (Adogen 464; Quaternary ammonium compounds, tri(C8-10)-alkylmethyl-, chlorides)	63393-96-4	2.3	25	150	TEEL-2/11, TEEL-3/6, rat 720-min LCLo	mg/m ³
48	Alizarin; (1,2-Dihydroxyanthraquinone; Turkey red oil)	72-48-0	0.49	5.4	32	TEEL-2/11, rat oral TDLo, TEEL-2 x 6	mg/m ³
49	Alizarine Red S, Monohydrate; (Sodium alizarin-3-sulfonate)	130-22-3	0.23	2.5	15	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
50	Alkanes, C4-C12	68333-81-3	230	385	5,000	Used octane (111-65-9) PAC values	ppm
51	Alkenyl dimethylethyl ammonium bromide; (Aliphatic hydrocarbon)	z-0108	1.5	17	99	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
52	Alkyl benzenes (C8-C9)	z-0109	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
53	Alkyl dimethylbenzyl ammonium chloride; (Benzalkonium chloride)	8001-54-5	0.91	10	60	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
54	Alkylamines	63231-48-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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			PAC-1	PAC-2	PAC-3		
55	Alkylbenzene (C10-C16)	68648-87-3	2.3	26	150	TEEL-2/11, TEEL-3/6, rabbit dermal LDLo	mg/m ³
56	Alkylbenzylidimethyl ammonium chloride, (C12-C18)	68391-01-5	0.61	6.8	60	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
57	Allene; (1,2-Propadiene)	463-49-0	230	2,500	15,000	Used methyl acetylene (74-99-7) PAC values	ppm
58	Allyl 2-chloroethyl sulfide	19155-35-2	0.034	0.38	2.3	TEEL-2/11, TEEL-3/6, mouse 10-min LCLo	mg/m ³
59	Allyl alcohol	107-18-6	0.09	1.7	13	AEGL-1, AEGL-2, AEGL-3	ppm
60	Allyl bromide; (3-Bromopropene)	106-95-6	0.2	12	71	TLV-STEL, TEEL-3/6, rat 120-min LC50	ppm
61	Allyl chloride	107-05-1	2.8	54	140	AEGL-1, AEGL-2, AEGL-3	ppm
62	Allyl chloroformate	2937-50-0	0.064	0.70	2.1	AEGL-2/11, AEGL-2, AEGL-3	ppm
63	Allyl isothiocyanate; (Mustard oil)	57-06-7	1	2.8	17	WEEL-STEL, TEEL-3/6, rat oral LD50	ppm
64	Allylamine	107-11-9	0.42	3.3	18	AEGL-1, AEGL-2, AEGL-3	ppm
65	Allylmagnesium bromide	1730-25-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
66	Allyltrichlorosilane	107-37-9	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
67	Alpha, alpha, 4-trimethyl-3-cyclohexene-1-methanol, (S)-; (alpha-Terpineol)	10482-56-1	59	650	1,000	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
68	Alpha-hydroxybenzeneacetic acid, (+-)-; (DL-mandelic acid)	611-72-3	25	270	1,600	Used hydroxyphenylacetic acid (90-64-2) PAC values	mg/m ³
69	Aluminum acetate, basic	7360-44-3	27	290	1,800	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3; TEEL-1 x 11; TEEL-2 x 6	mg/m ³
70	Aluminum carbide	1299-86-1	4	43	260	MW-adjusted insoluble aluminum (7429-90-5) TLV-TWA x 3; TEEL-1 x 11; TEEL-2 x 6	mg/m ³
71	Aluminum chloride	7446-70-0	30	60	360	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
72	Aluminum chloride hexahydrate	7784-13-6	54	110	650	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
73	Aluminum fluoride	7784-18-1	19	59	360	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
74	Aluminum grey LB; (Acid black 60)	12218-95-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
75	Aluminum hexafluorosilicate	17099-70-6	11	120	700	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
76	Aluminum hydroxide	21645-51-2	8.7	73	440	MW-adjusted insoluble aluminum (7429-90-5) TLV-TWA x 3, TEEL-3/6, rat ip LD50	mg/m ³
77	Aluminum oxide hydrate	1333-84-2	15	130	780	Used MW-adjusted aluminum hydroxide (21645-51-2) PAC values	mg/m ³
78	Aluminum oxide; (Alumina)	1344-28-1	15	170	990	MW-adjusted insoluble aluminum (7429-90-5) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
79	Aluminum phosphate; (Phosphoric acid, aluminum salt (1:1), solution)	7784-30-7	14	200	1,200	MW-adjusted insoluble aluminum (7429-90-5) TLV-TWA x 3, TEEL-3/6, rat oral LDLo	mg/m ³
80	Aluminum phosphide	20859-73-8	1.3	2.0	3.6	TLV-TWA x 3, AEGL-2, AEGL-3	ppm
81	Aluminum potassium sulfate, dodecahydrate	7784-24-9	110	1,200	6,900	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
82	Aluminum sulfate	10043-01-3	38	64	380	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
83	Aluminum tris(dihydrogen phosphate); (Phosphoric acid, aluminum salt (3:1))	13530-50-2	3	33	200	Insoluble aluminum (7429-90-5) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
84	Aluminum yellow 4A; (Acid yellow 99)	10343-58-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
85	Aluminum(III) isopropylate	555-31-7	23	370	2,200	MW-adjusted insoluble aluminum (7429-90-5) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
86	Aluminum(III) nitrate (1:3)	13473-90-0	47	68	410	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
87	Aluminum(III) nitrate nonahydrate (1:3:9)	7784-27-2	83	920	5,500	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
88	Aluminum(III) silicate (2:1); (Kyanite; Oil-dri)	1302-76-7	3	33	200	MW-adjusted insoluble aluminum (7429-90-5) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
89	Amino-1,3-naphthalenedisulfonic acid, 7-	86-65-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
90	Amino-1-propanol, 3-	156-87-6	8.3	91	550	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
91	Amino-2-methyl-2-propanol, 1-	2854-16-2	4.3	47	280	TEEL-2/11, TEEL-3/6, mouse 1080-min LCLo	mg/m ³
92	Amino-4,6-dinitrotoluene, 2-	35572-78-2	4.2	46	280	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
93	Aminoacetaldehyde diethyl acetal; (2,2-Diethoxyethylamine)	645-36-3	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
94	Aminoacetaldehyde dimethyl acetal; (2,2-Dimethoxyethylamine)	22483-09-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
95	Aminoanthraquinone, 2-	117-79-3	9	99	590	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
96	Aminobenzoic acid, p-	150-13-0	15	69	410	WEEL-TWA x 3, TEEL-3/6, dog oral LD50	mg/m ³
97	Aminobutyl)diethoxymethylsilane, (4-	3037-72-7	4.1	45	1,300	TEEL-2/11, LOC, rat oral LD50	mg/m ³
98	Aminodiphenyl, p-	92-67-1	1.5	17	99	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
99	Aminoethoxy)ethanol, 2-(2-	929-06-6	9	99	590	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
100	Aminoethyl)diphenylboronic acid, o-(2-; (Diphenylboronic acid, ethanolamine ester)	524-95-8	0.18	2	12	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
101	Aminoethylethanolamine	111-41-1	9	99	590	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
102	Aminoethylpiperazine, N-	140-31-8	6.4	71	420	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
103	Aminoheptane, 3-; (3-Heptylamine)	28292-42-4	0.049	0.54	3.2	TEEL-2/11, TEEL-3/6, mouse ip LD50	ppm
104	Aminoiminomethyl)urea sulfate(2:1), (	591-01-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
105	Aminophenol, 2-; (Aminophenol, o-)	95-55-6	2.9	31	190	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
106	Aminophenol, m-	591-27-5	3	33	200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
107	Aminopropiophenone, 4-	70-69-9	0.51	5.6	35	TEEL-2/11, LOC, rat oral LD50	mg/m ³
108	Aminopropylmethyldiethoxysilane, 3-	3179-76-8	13	140	860	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
109	Aminopropyltriethoxysilane; (3-(Triethoxysilyl)-1-propanamine)	919-30-2	1.9	21	350	TEEL-2/11, rat 360-min TCLo, rat oral LD50	mg/m ³
110	Aminopyrazine, 2-	5049-61-6	1.5	1.7	10	Used 2-aminopyridine (504-29-0) PAC values	ppm
111	Aminopyridine, 2-	504-29-0	1.5	1.7	10	TLV-TWA x 3, TEEL-3/6, rat oral LD50	ppm
112	Aminopyridine, 4-; (4-Pyridinamine)	504-24-5	1.8	20	40	TEEL-2/11, LOC, rat oral LD50	mg/m ³
113	Amiton oxalate	3734-97-2	0.009	0.099	0.59	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
114	Amiton; (O,O-Diethyl-S-(2-diethylaminoethyl) thiophosphate)	78-53-5	0.0099	0.11	0.65	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
115	Amitrole	61-82-5	0.6	23	220	TLV-TWA x 3, rat oral TDLo, rat oral LD50	mg/m ³
116	Ammonia	7664-41-7	30	160	1,100	AEGL-1, AEGL-2, AEGL-3	ppm
117	Ammonia-d3	13550-49-7	30	160	1,100	Used ammonia (7664-41-7) AEGL values	ppm
118	Ammonium acetate	631-61-8	3.8	42	250	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
119	Ammonium aluminum fluoride; (Triammonium hexafluoroaluminate)	7784-19-2	13	140	860	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
120	Ammonium benzoate	1863-63-4	2.5	27	160	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
121	Ammonium bicarbonate	1066-33-7	4.7	52	310	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
122	Ammonium bisulfate; (Ammonium hydrogen sulfate)	7803-63-6	0.012	0.13	0.78	TEEL-2/11, rabbit 60-min TCLo, TEEL-2 x 6	mg/m ³
123	Ammonium bisulfite; (Ammonium hydrogen sulfite)	10192-30-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
124	Ammonium bromide	12124-97-9	8.1	89	530	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
125	Ammonium carbamate; (Carbamic acid, ammonium salt)	1111-78-0	0.23	2.6	15	TEEL-2/11, TEEL-3/6, rat iv LD50	mg/m ³
126	Ammonium carbonate	506-87-6	0.31	3.5	21	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
127	Ammonium chloride	12125-02-9	20	54	330	TLV-STEL, TEEL-3/6, rat oral LD50	mg/m ³
128	Ammonium chromate	7788-98-9	0.44	7.7	46	MW-adjusted soluble chromium (VI) (7440-47-3)TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
129	Ammonium citrate; (includes dibasic (3458-72-8), and tribasic (3012-65-5))	7632-50-0	1.1	12	72	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
130	Ammonium dichromate	7789-09-5	0.37	6.3	38	MW-adjusted soluble chromium (VI) (7440-47-3)TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
131	Ammonium dihydrogen phosphate; (Monoammonium phosphate)	7722-76-1	17	190	1,100	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
132	Ammonium ferrous sulfate hexahydrate	7783-85-9	9.6	110	640	MW-adjusted soluble iron (7439-89-6) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
133	Ammonium fluoborate	13826-83-0	10	120	690	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
134	Ammonium fluoride	12125-01-8	15	160	980	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
135	Ammonium formate	540-69-2	3.7	41	240	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
136	Ammonium hexachlorohydrate (III)	z-0001	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
137	Ammonium hexafluorosilicate; (Ammonium silicofluoride)	16919-19-0	12	130	780	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
138	Ammonium hydrogen fluoride; (Ammonium bifluoride)	1341-49-7	11	130	750	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
139	Ammonium hydrogen oxalate hemihydrate	37541-72-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
140	Ammonium hydroxide	1336-21-6	61	330	2,300	Used MW-adjusted ammonia (7664-41-7) AEGL values	ppm
141	Ammonium iodide	12027-06-4	0.2	2.2	13	MW-adjusted iodides (converted to mg/m ³) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
142	Ammonium lactate	515-98-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
143	Ammonium lignin sulfonate	8061-53-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
144	Ammonium molybdate(VI) tetrahydrate	12054-85-2	2.8	30	180	MW-adjusted soluble molybdenum TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
145	Ammonium molybdate; (Diammonium molybdate)	13106-76-8	3.1	22	130	MW-adjusted soluble molybdenum TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
146	Ammonium molybdophosphate	12026-66-3	2.4	27	160	MW-adjusted soluble molybdenum TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
147	Ammonium nickel sulfate	15699-18-0	1.5	13	79	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
148	Ammonium nitrate	6484-52-2	6.7	73	440	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
149	Ammonium oxalate monohydrate	5972-73-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
150	Ammonium oxalate; (Diammonium oxalate monohydrate)	6009-70-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
151	Ammonium pentaborate	12007-89-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
152	Ammonium perchlorate	7790-98-9	4.6	50	830	TEEL-2/11, rabbit oral TDLo, rat oral LD50	mg/m ³
153	Ammonium permanganate	13446-10-1	7.5	12	72	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
154	Ammonium peroxydisulfate	7727-54-0	0.3	22	130	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
155	Ammonium phosphate dibasic; (Diammonium phosphate)	7783-28-0	20	210	1,300	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
156	Ammonium picrate	131-74-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
157	Ammonium polyacrylate	9003-03-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
158	Ammonium sulfamate	7773-06-0	30	98	5,000	TEEL-2/11, rat oral TDLo, IDLH (1990)	mg/m ³
159	Ammonium sulfate	7783-20-2	13	140	840	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
160	Ammonium sulfite	10196-04-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
161	Ammonium sulfite monohydrate	7783-11-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
162	Ammonium tartrate; (Butanedioic acid, 2,3-dihydroxy-(2R,3R)-, ammonium salt)	14307-43-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
163	Ammonium tartrate; (Diammonium tartrate)	3164-29-2	0.8	8.8	53	TEEL-2/11, TEEL-3/6, rabbit iv LD50	mg/m ³
164	Ammonium thiocyanate	1762-95-4	2.3	25	150	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
165	Ammonium thiosulfate; (Ammonium hyposulfite)	7783-18-8	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
166	Ammonium tungstate(VI)	11120-25-5	4.1	45	270	MW-adjusted tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
167	Ammonium vanadate; (Ammonium vanadium oxide; Ammonium metavanadate)	7803-55-6	0.01	0.11	80	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C, & IDLH (1994, See white paper)	mg/m ³
168	Ammonium, hexadecyltrimethyl-, bromide; (Hexadecyltrimethylammonium bromide)	57-09-0	1.2	14	81	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
169	Ammonium, tetraethyl-, bromide; (Tetraethyl ammonium bromide)	71-91-0	1.1	12	43	TEEL-2/11, mouse ip TDLo, rat ip LD50	mg/m ³
170	Ammonium, tetramethyl-, bromide; (Tetramethylammonium bromide)	64-20-0	0.15	1.7	9.9	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
171	Amyl acetate	628-63-7	100	670	4000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
172	Amyl methyl ether, tert-; (TAME)	994-05-8	60	120	170	TLV-TWA x 3, rat 360-min TCLo, mouse 360-min LCLo	ppm
173	Amylamine, n-; (1-Pentylamine)	110-58-7	0.3	3.3	20	TEEL-2/11, TEEL-3/6, rat ip LDLo	mg/m ³
174	Amyltrichlorosilane; (Pentyltrichlorosilane)	107-72-2	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
175	Anhydron; (Magnesium perchlorate)	10034-81-8	4.9	54	320	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
176	Aniline	62-53-3	8.0	12	20	AEGL-1, AEGL-2, AEGL-3	ppm
177	Anisidine, o-	90-04-0	1.5	8.3	50	TLV-TWA x 3, TEEL-3/6, IDLH (1990 and 1994)	mg/m ³
178	Anisidine, p-	104-94-9	1.5	8.3	50	TLV-TWA x 3, TEEL-3/6, IDLH (1990 and 1994)	mg/m ³
179	Anisole; (Anisole anhydrous; Methoxybenzene)	100-66-3	1.6	18	110	TEEL-2/11, TEEL-3/6, mouse 120-min LC50	mg/m ³
180	Anthracene	120-12-7	48	530	3,200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
181	Anthracenedisulfonic acid, 4,8-diamino-9,10-dihydro-1,5-dihydroxy-9,10-dioxo, disodium salt, 2,6-; (Acid Blue 45; Alizarine Blue)	2861-02-1	4.8	52	310	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
182	Anthranilic acid	118-92-3	16	180	1,100	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
183	Anthraquinone	84-65-1	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
184	Antimony	7440-36-0	1.5	13	80	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
185	Antimony hydroxide	39349-74-1	2.1	18	110	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, antimony IDLH (1990)	mg/m ³
186	Antimony trioxide	1309-64-4	1.8	16	96	MW-adjusted antimony (7440-36-0) PEL-TWA x 3, TEEL-3/6, antimony IDLH (1990)	mg/m ³
187	Antimony pentachloride	7647-18-9	3.7	33	200	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, antimony IDLH (1990)	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
188	Antimony pentafluoride	7783-70-2	2.7	23	140	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, antimony IDLH (1990)	mg/m ³
189	Antimony pentasulfide	1315-04-4	2.5	22	130	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, antimony IDLH (1990)	mg/m ³
190	Antimony potassium tartrate trihydrate	28300-74-5	4.1	37	220	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, antimony IDLH (1990)	mg/m ³
191	Antimony trichloride; (Antimony(III) chloride)	10025-91-9	2.8	25	150	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, antimony IDLH (1990)	mg/m ³
192	Antimony trifluoride	7783-56-4	2.2	20	120	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, antimony IDLH (1990)	mg/m ³
193	Antimycin A	1397-94-0	0.16	1.8	5.5	TEEL-2/11, LOC, rat oral LD50	mg/m ³
194	Antioxidant G-16 (most toxic antioxidant)	61373-87-3	0.98	11	65	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
195	Aqua regia (75% hydrochloric + 25% nitric acid)	8007-56-5	1.8	22	100	Used hydrogen chloride (7647-01-0) AEGL values	ppm
196	Argon	7440-37-1	65,000	2.30E+05	4.00E+05	Simple asphyxiant	ppm
197	Aromatic isocyanate mixture "SWD 305A"	z-0111	0.15	3.6	22	Used polymethylene polyphenyl isocyanate (9016-87-9) PAC values	mg/m ³
198	Arsenic	7440-38-2	1.5	17	100	TEEL-2/11, TEEL-3/6, IDLH (1990)	mg/m ³
199	Arsenic acid; (o-Arsenic acid) Includes CASRN 1327-52-2	7778-39-4	2.9	32	190	TEEL-2/11, TEEL-3/6, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
200	Arsenic pentoxide	1303-28-2	0.73	8	150	TEEL-2/11, LOC, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
201	Arsenic trioxide	1327-53-3	0.27	3.0	9.1	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
202	Arsenous acid	13464-58-9	2.6	28	170	TEEL-2/11, TEEL-3/6, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
203	Arsenous trichloride	7784-34-1	0.91	10	240	TEEL-2/11, LOC, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
204	Arsine	7784-42-1	0.015	0.17	0.50	AEGL-2/11, AEGL-2, AEGL-3	ppm
205	Asbestos, includes: (Amosite, 12172-73-5, Ascarite, 81133-20-2, Chrysotile, 1332-21-4)	1332-21-4	0.05	0.55	3.3	PEL-STEL, TEEL-1 x 11, TEEL-2 x 3	mg/m ³
206	Ascaridole	512-85-6	0.6	6.6	40	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
207	Auramine; (4,4'-(Imidocarbonyl)bis(N,N-dimethylamine) monohydrochloride)	2465-27-2	0.81	8.9	53	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
208	Azinphos ethyl; (Ethyl guthion)	2642-71-9	0.35	3.9	17	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
209	Azinphos methyl; (Guthion)	86-50-0	0.6	0.7	20	TLV-TWA x 3, LOC, IDLH (1990)	mg/m ³
210	Aziridine homopolymer; (Ethylenimine homopolymer; Poly(ethyleneimine))	9002-98-6	4.1	45	270	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
211	Azobis(2-methylpropionitrile), 2,2'-	78-67-1	4.1	45	130	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
212	Azodicarbamide; (Azodicarbonamide)	123-77-3	2.6	29	170	TEEL-2/11, rat 360-min TCLo, rat ip LD50	mg/m ³
213	Barium	7440-39-3	1.5	180	1,100	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
214	Barium acetate; (Barium acetate anhydrous)	543-80-6	2.8	330	2,000	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
215	Barium carbonate	513-77-9	2.2	270	1,600	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
216	Barium chloride	10361-37-2	2.3	280	1,700	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
217	Barium chloride dihydrate	10326-27-9	2.7	330	2,000	Used MW-adjusted barium chloride (10361-37-2) PAC values	mg/m ³
218	Barium chromate	10294-40-3	0.15	13	77	MW-adjusted insoluble chromium VI (7440-47-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
219	Barium cyanide	542-62-1	44	60	360	MW-adjusted cyanides MAK-TWA x 3, TEEL-3/6, MW-adjusted cyanides IDLH (1990)	mg/m ³
220	Barium dioxide; (Barium peroxide)	1304-29-6	1.8	230	1,400	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
221	Barium diphenylamine sulfonate	6211-24-1	6.9	850	5,100	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
222	Barium fluoride	7787-32-8	1.9	230	1,400	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
223	Barium hydrogen phosphate; (Barium phosphate dibasic)	10048-98-3	2.5	320	1,900	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
224	Barium hydroxide	17194-00-2	1.9	230	1,400	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
225	Barium hydroxide octahydrate	12230-71-6	3.4	420	2,500	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
226	Barium metaborate	13701-59-2	2.4	300	1,800	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
227	Barium nitrate	10022-31-8	2.9	350	2,100	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
228	Barium nitrite	13465-94-6	2.5	300	1,800	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
229	Barium oxide	1304-28-5	1.7	200	1,200	MW-adjusted soluble barium (7440-39-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble barium IDLH (1990)	mg/m ³
230	Barium permanganate	7787-36-2	20	34	200	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
231	Barium phosphate	13466-20-1	3	30	150	Used phosphoric acid (7664-38-2) ERPG values	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
232	Barium stearate	6865-35-6	7.5	83	500	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
233	Barium sulfate	7727-43-7	15	170	990	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
234	Basic Green 4; (Aizen malachite green)	569-64-2	0.13	1.4	8.7	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
235	Benz(e)acephenanthrylene; (Benzo(b)fluoroanthene)	205-99-2	0.12	1.3	7.9	(Norway) OEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
236	Benzal chloride	98-87-3	0.21	2.3	14	TEEL-2/11, LOC, rat 120-min LC50	mg/m ³
237	Benzaldehyde	100-52-7	4	9.9	59	WEEL-STEL, TEEL-3/6, rat oral LD50	ppm
238	Benzamide	55-21-0	4.7	52	310	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
239	Benzenamine, sulfate (2:1)	542-16-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
240	Benzene	71-43-2	52	800	4000*	AEGL-1, AEGL-2, AEGL-3	ppm
241	Benzene, 1-(chloromethyl)-4-nitro-; (p-Nitrobenzyl chloride)	100-14-1	2.5	28	360	TEEL-2/11, LOC, rat oral LD50	mg/m ³
242	Benzeneearsonic acid; (Phenylarsonic acid)	98-05-5	0.025	0.27	13	TEEL-2/11, LOC, rat oral LDLo	mg/m ³
243	Benzene-d ₆ ; (Deuterated benzene)	1076-43-3	52	800	4000*	Used benzene (71-43-2) AEGL values	ppm
244	Benzenesulfonic acid chloride; (Benzenesulfonyl chloride)	98-09-9	0.77	8.4	51	TEEL-2/11, TEEL-3/6, rat 60-min LCLo	mg/m ³
245	Benzenesulfonic acid, 4-chloro	98-66-8	1.5	17	99	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
246	Benzenesulfonic acid, 5-chloro-2	z-0114	1.5	17	99	Used 4-chlorobenzenesulfonic acid (98-66-8) PAC values	mg/m ³
247	Benzenetetracarboxylic dianhydride, 1,2,4,5-	89-32-7	6.8	74	450	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
248	Benzidine	92-87-5	0.93	10	61	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
249	Benzo(a)anthracene	56-55-3	0.6	120	700	Used benzo(a)pyrene (50-32-8) PAC values	mg/m ³
250	Benzo(a)pyrene; (Coal tar pitch volatiles)	50-32-8	0.6	120	700	TEEL-2/11, TEEL-3/6, IDLH (coal tar pitch volatiles, 65996-93-2, 1990)	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
251	Benzo(ghi)perylene	191-24-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
252	Benzo-4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo(8.8.8)hexacosane, 5,6-	31250-18-7	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
253	Benzoic acid	65-85-0	13	140	830	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
254	Benzoic acid, sodium salt	532-32-1	61	680	810	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
255	Benzoin oxime	441-38-3	0.49	5.4	32	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
256	Benzonitrile	100-47-0	0.56	6.2	19	AEGL-2/11, AEGL-2, AEGL-3	ppm
257	Benzophenone	119-61-9	1.5	90	310	WEEL-TWA x 3, rat oral TDLo, mouse oral LD50	mg/m ³
258	Benzoquinone, p-; (Quinone)	106-51-4	0.3	11	68	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
259	Benzothiazole	95-16-9	2.8	30	75	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
260	Benzotriazole	95-14-7	1.2	13	77	TEEL-2/11, TEEL-3/6, rat 180-min LC50	mg/m ³
261	Benzotrifluoride	98-08-8	19	220	1,300	MW-adjusted fluorides TLV-TWA x 3, rabbit 40-min TCLo, MW-adjusted fluorides IDLH (1990)	mg/m ³
262	Benzoyl chloride	98-88-4	0.3	5	20	ERPG-1, ERPG-2, ERPG-3	ppm
263	Benzoyl peroxide	94-36-0	15	1,200	7,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
264	Benzyl acetate	140-11-4	30	330	2,000	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
265	Benzyl alcohol	100-51-6	30	52	740	WEEL-TWA x 3, rat ip TDLo, rat 240-min LC50	ppm
266	Benzyl aminopurine, 6-; (6-Benzyladenine)	1214-39-7	3.5	38	230	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
267	Benzyl benzoate	120-51-4	5.7	63	380	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
268	Benzyl chloride	100-44-7	1	10	50	ERPG-1, ERPG-2, ERPG-3	ppm

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
269	Benzyl chloroformate; (Carbobenzoxy chloride)	501-53-1	0.088	0.97	2.9	AEGL-2/11, AEGL-2, AEGL-3	ppm
270	Benzyl cyanide; (Phenylacetonitrile)	140-29-4	0.39	4.3	15	TEEL-2/11, LOC, rat 120-min LC50	mg/m ³
271	Benzyl trichloride; (Trichloromethylbenzene)	98-07-7	0.064	0.7	5.3	TEEL-2/11, LOC, rat 120-min LC50	mg/m ³
272	Benzylamine	100-46-9	2	22	130	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
273	Benzyl dimethylamine; (Dimethylbenzylamine, N,N;-BDMA)	103-83-3	0.62	6.8	41	TEEL-2/11, TEEL-3/6, rat 120-min LCLo	mg/m ³
274	Benzyl dimethyloctadecylammonium chloride; (Dimethyloctadecylbenzylammonium chloride)	122-19-0	3.8	41	250	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
275	Benzylmagnesium chloride	6921-34-2	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
276	Beryllium	7440-41-7	0.0023	0.025	0.1	ERPG-2/11, ERPG-2, ERPG-3	mg/m ³
277	Beryllium chloride	7787-47-5	0.02	0.22	0.89	TEEL-2/11, MW-adjusted beryllium (7440-41-7) ERPG-2 and ERPG-3 values	mg/m ³
278	Beryllium fluoride	7787-49-7	0.012	0.13	0.52	TEEL-2/11, MW-adjusted beryllium (7440-41-7) ERPG-2 and ERPG-3 values	mg/m ³
279	Beryllium hydroxide	13327-32-7	0.011	0.12	0.48	TEEL-2/11, MW-adjusted beryllium (7440-41-7) ERPG-2 and ERPG-3 values	mg/m ³
280	Beryllium nitrate	13597-99-4	0.047	0.52	2.1	TEEL-2/11, MW-adjusted beryllium (7440-41-7) ERPG-2 and ERPG-3 values	mg/m ³
281	Beryllium oxide	1304-56-9	0.0063	0.069	0.28	TEEL-2/11, MW-adjusted beryllium (7440-41-7) ERPG-2 and ERPG-3 values	mg/m ³
282	Bicyclo(2.2.1)heptane-2-carbonitrile, 5-chloro-6-(((methylamino)carbonyloxy)imino)-, (1S-(1-alpha,2-beta,4-alpha,5-alpha,6E))-; (Tranid)	15271-41-7	0.057	0.63	3.8	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
283	Bioxirane, 2,2'-; (1,2:3,4-Diepoxybutane)	1464-53-5	0.091	1	4	TEEL-2/11, LOC, rat 240-min LC50	ppm
284	Biphenyl: (Diphenyl)	92-52-4	0.87	9.6	300	AEGL-2/11, AEGL-2 , IDLH (1990)	ppm

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
285	Biphenylol, 4-	92-69-3	0.49	5.4	32	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
286	Biphenylol, sodium salt, 2-	132-27-4	5	54	330	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
287	Bis(1-methylethyl)benzene, 1,4-; (p- or 1,4-Diisopropylbenzene)	100-18-5	2.7	30	180	TEEL-2/11, TEEL-3/6, mouse 120-min LCLo	mg/m ³
288	Bis(1-methylethyl)benzene; (Diisopropylbenzene)	25321-09-9	3.4	38	230	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	mg/m ³
289	Bis(2,3-epoxypropoxy) butane, 1,4-	2425-79-8	16	170	220	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
290	Bis(2-butoxyethyl) ether; (Dibutyl carbitol; Diethylene glycol dibutyl ether)	112-73-2	2.5	28	87	TEEL-2/11, mouse oral TDLo, rat oral LD50	ppm
291	Bis(2-chloroethylthioethyl) ether; (2,2'-Di(3-chloroethylthio)diethyl ether)	63918-89-8	0.12	1.3	7.6	TEEL-2/11, TEEL-3/6, mouse 10-min LC50	mg/m ³
292	Bis(2-chloroethoxy)ethane, 1,2-; (Triglycol dichloride)	112-26-5	0.75	8.3	50	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
293	Bis(2-chloroethyl)sulfide; (HD; Sulfur mustard)	505-60-2	0.01	0.02	0.32	AEGL-1, AEGL-2, AEGL-3	ppm
294	Bis(2-chloroethylthio)ethane, 1,2-; (Sesquimustard)	3563-36-8	0.09	0.18	2.9	Used MW-adjusted sulfur mustard (505-60-2) AEGL values converted to mg/m ³	mg/m ³
295	Bis(2-chloroethylthio)methane	63869-13-6	0.08	0.17	2.7	Used MW-adjusted sulfur mustard (505-60-2) AEGL values converted to mg/m ³	mg/m ³
296	Bis(2-chloroethylthio)-n-butane, 1,4-	142868-93-7	0.1	0.2	3.2	Used MW-adjusted sulfur mustard (505-60-2) AEGL values converted to mg/m ³	mg/m ³
297	Bis(2-chloroethylthio)-n-pentane, 1,5-	142868-94-8	0.11	0.21	3.4	Used MW-adjusted sulfur mustard (505-60-2) AEGL values converted to mg/m ³	mg/m ³
298	Bis(2-chloroethylthio)-n-propane, 1,3-	63905-10-2	0.1	0.19	3	Used MW-adjusted sulfur mustard (505-60-2) AEGL values converted to mg/m ³	mg/m ³
299	Bis(2-chloroethylthiomethyl)ether	63918-90-1	0.1	0.2	3.1	Used MW-adjusted sulfur mustard (505-60-2) AEGL values converted to mg/m ³	mg/m ³
300	Bis(2-ethoxyethyl) ether; (Diethyl carbitol)	112-36-7	15	160	980	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
301	Bis(2-ethylhexyl) hydrogen phosphate	298-07-7	15	160	980	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
302	Bis(2-ethylhexyl) phenyl phosphate	16368-97-1	0.27	2.9	17	TEEL-2/11, TEEL-3/6, mouse 120-min LC50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
303	Bis(2-hydroxyethyl)dodecanamide, N,N-	120-40-1	0.12	1.4	46	TEEL-2/11, rat oral TDLo, rat oral LD50	ppm
304	Bis(2-methylstyryl)benzene, 4-; (1,4-Bis(2-(2-methylphenyl)ethenyl)benzene)	13280-61-0	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
305	Bis(3-tert-butyl-4-hydroxy-6-methylphenyl) sulfide; (4,4'-Thiobis(6-tert-butyl-m-cresol))	96-69-5	3	82	460	TLV-TWA x 3, rat oral TDLo, rat oral LD50	mg/m ³
306	Bis(chloromethyl)ketone; (1,3-Dichloroacetone)	534-07-6	0.025	0.27	1	TEEL-2/11, mouse dermal TDLo, rat 120-min LC50	mg/m ³
307	Bis(chloromethyl)oxetane, 3,3-	78-71-7	0.18	2	12	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
308	Bis(dimethylamino)acridine, 3,6-; (Acridine orange)	494-38-2	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
309	Bis(trifluoromethyl)benzene, 1,3-	402-31-3	14	160	940	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
310	Bis(tris(hydroxymethyl)methylamino)propane, 1,3-; (Bis-tris propane)	64431-96-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
311	Bis[(benzo-15-crown-5)-15-ylmethyl] pimelate	69271-98-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
312	Bisbutenyltetrahydrofurfural; (2,3,4,5-Bis(2-butylene)tetrahydro-2-furaldehyde)	126-15-8	7.5	83	500	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
313	Bismuth	7440-69-9	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
314	Bismuth acetate	22306-37-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
315	Bismuth germanate	12233-73-7	21	240	1,400	Used MW-adjusted bismuth (7440-69-9) PAC values	mg/m ³
316	Bismuth hydroxide	10361-43-0	19	210	1,200	Used MW-adjusted bismuth (7440-69-9) PAC values	mg/m ³
317	Bismuth iodide	7787-64-6	1.2	13	79	TEEL-2/11, TEEL-2/6, rat oral LD50 (HHR = 3)	mg/m ³
318	Bismuth nitrate	10361-44-1	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
319	Bismuth oxide	1304-76-3	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
320	Bismuth oxychloride; (Bismuth chloride oxide)	7787-59-9	66	730	4,400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
321	Bismuth(III) nitrate, pentahydrate	10035-06-0	12	130	800	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
322	Bisphenol A diglycidyl ether	1675-54-3	39	430	2,600	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
323	Bisphenol A; (4,4'-Isopropylidenediphenol)	80-05-7	15	110	650	MAK-TWA x 3, rat TDLo, rat oral LD50	mg/m ³
324	Bitoscanate; (1,4-Phenylenediisothiocyanic acid)	4044-65-9	1.8	20	25	TEEL-2/11, LOC, mouse oral LD50	mg/m ³
325	BoBCalix; (Calix[4]arene-bis(t-octylbenzo-crown-b))	z-0110	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
326	Borane methyl sulfide complex; (Methyl sulfide complex with borane (1:1))	13292-87-0	0.03	0.33	2	TEEL-2/11, TEEL-3/6, rabbit dermal LDLo	ppm
327	Borane-tetrahydrofuran	14044-65-6	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
328	Borate	14213-97-9	6	66	400	TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
329	Boric acid	10043-35-3	6	23	830	TLV-TWA x 3, rat oral TDLo, dog oral LD50	mg/m ³
330	Boric acid, tributyl ester; (Tri-n-butyl borate)	688-74-4	0.37	4.1	25	TEEL-2/11, TEEL-3/6, mouse oral LD50	ppm
331	Boron	7440-42-8	1.9	21	130	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
332	Boron carbide	12069-32-8	2.4	27	170	Used MW-adjusted boron (7440-42-8) PAC values	mg/m ³
333	Boron oxide	1303-86-2	30	100	620	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
334	Boron tribromide	10294-33-4	0.33	13	40	AEGL-1, AEGL-2, AEGL-3	ppm
335	Boron trichloride	10294-34-5	0.19	2.1	71	TEEL-2/11, LOC, rat 60-min LC50	ppm
336	Boron trifluoride	7637-07-2	2.5	29	88	AEGL-1, AEGL-2, AEGL-3	mg/m ³
337	Boron trifluoride dihydrate	13319-75-0	3.8	44	140	Used boron trifluoride (7637-07-2) AEGL values	mg/m ³
338	Boron trifluoride etherate	109-63-7	2.5	29	88	Used boron trifluoride (7637-07-2) AEGL values	mg/m ³
339	Boron trifluoride-dimethyl ether	353-42-4	2.5	29	88	Used boron trifluoride (7637-07-2) AEGL values	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
340	Botulinum toxin-A; (includes Type B (93384-44-2) and Type F (107231-15-2))	93384-43-1	3.30E-09	3.60E-08	2.20E-07	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
341	Brij-35; (alpha-Dodecyl-omega-hydroxypoly(oxyethylene))	9002-92-0	2.9	31	200	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
342	Brilliant blue; (Acid blue 9)	2650-18-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
343	Bromadiolone	28772-56-7	0.091	1	3.4	TEEL-2/11, LOC, dog oral LD50	mg/m ³
344	Bromine	7726-95-6	0.033	0.24	8.5	AEGL-1, AEGL-2, AEGL-3	ppm
345	Bromine chloride	13863-41-7	0.075	0.83	2.5	AEGL-2/11, AEGL-2, AEGL-3	ppm
346	Bromine pentafluoride	7789-30-2	0.015	0.17	33	AEGL-2/11, AEGL-2, AEGL-3	ppm
347	Bromine trifluoride	7787-71-5	0.12	2.0	21	AEGL-1, AEGL-2, AEGL-3	ppm
348	Bromo acetic acid, methyl ester	96-32-2	0.069	0.76	4.6	TEEL-2/11, TEEL-3/6, mouse iv LDLo	mg/m ³
349	Bromo-1-chloro-5,5-dimethylhydantoin, 3-; (Bromo-1-chloro-5,5-dimethyl-2,4-imidazolidinedione, 3-)	126-06-7	1.3	14	83	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
350	Bromo-2-chloro-1,1,2-trifluoroethane, 1-; (1,1,2-Trifluoro-1-bromo-2-chloroethane)	354-06-3	7.7	85	510	TEEL-2/11, TEEL-3/6, mouse 120-min LC50	ppm
351	Bromo-3-chloro-5,5-dimethylhydantoin, 1-; (1-Bromo-3-chloro-5,5-dimethyl-2,4-imidazolidinedione)	16079-88-2	4.2	46	280	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
352	Bromo-3-methylbutane, 1-	107-82-4	6	66	390	TEEL-2/11, TEEL-3/6, rat ip LD50	ppm
353	Bromoacetaldehyde diethyl acetal	2032-35-1	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
354	Bromoacetic acid	79-08-3	0.023	0.26	1.5	TEEL-2/11, TEEL-3/6, rat 30-min LCLo	mg/m ³
355	Bromoacetone	598-31-2	0.011	0.33	0.98	AEGL-1, AEGL-2, AEGL-3	ppm
356	Bromoanisole, 3-; (1-Bromo-3-methoxybenzene)	2398-37-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
357	Bromobenzene; (Phenyl bromide)	108-86-1	0.96	11	240	TEEL-2/11, rat oral TDLo, rat ip LD50	ppm
358	Bromochlorobenzene, m-	108-37-2	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
359	Bromochlorobenzene, p-	106-39-8	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
360	Bromochloromethane	74-97-5	600	830	5,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
361	Bromocresol green; (Phenol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[2,6-dibromo-3-methyl-])	76-60-8	13	140	840	TEEL-2/11, TEEL-3/6, rat ip LDLo	mg/m ³
362	Bromocresol purple; (Phenol, 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis[2-bromo-6-methyl-])	115-40-2	10	110	660	Used MW-adjusted bromocresol green (76-60-8) PAC values	mg/m ³
363	Bromocyclohexanol, cis-2-	16536-57-5	0.037	0.27	9.6	Used MW-adjusted bromine (7726-95-6) AEGL values	ppm
364	Bromodecane, 1-	112-29-8	0.25	2.7	16	TEEL-2/11, TEEL-3/6, mouse 120-min LC50	ppm
365	Bromodichloromethane	75-27-4	1.3	14	85	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
366	Bromododecane, 1-	143-15-7	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
367	Bromoethane; (Ethyl bromide)	74-96-4	15	370	3,500	TLV-TWA x 3, mouse 15-min TCLo, IDLH (1990)	ppm
368	Bromoethanol, 2-; (Ethylene bromohydrin)	540-51-2	0.06	0.66	23	TEEL-2/11, mouse ip TDLo, mouse ip LDLo	mg/m ³
369	Bromoethylmagnesium	925-90-6	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
370	Bromofluorobenzene, 4-; (p-Fluorobromobenzene)	460-00-4	12	130	790	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
371	Bromoform; (Tribromomethane)	75-25-2	1.5	6.8	41	TLV-TWA x 3, TEEL-3/6, mouse 120-min LC50	ppm
372	Bromohexane; (n-Hexyl bromide)	111-25-1	17	190	1,100	TEEL-2/11, TEEL-3/6, rat 30-min LC50	ppm
373	Bromomesitylene, 2-; (2-Bromo-1,3,5-trimethylbenzene)	576-83-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
374	Bromomethyl-1,3-dioxolane, 2-	4360-63-8	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
375	Bromonaphthalene	90-11-9	2.4	27	160	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
376	Bromonitromethane	563-70-2	0.4	4.4	26	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
377	Bromooctane, 1-; (Octyl bromide)	111-83-1	1.9	21	130	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
378	Bromophenol blue; (Phenol, 4,4'-(3H-2,1-benzoxathiol-3-ylidene)bis(2,6-dibromo-, S,S-dioxide))	115-39-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
379	Bromophenyl phenyl ether, 4-	101-55-3	0.33	3.6	21	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	mg/m ³
380	Bromopropane, 1-	106-94-5	0.3	120	700	TLV-TWA x 3, TEEL-3/6, rat 30-min LC50	ppm
381	Bromopropane, 2-	75-26-3	120	1,300	1,400	TEEL-2/11, rat 30-min TCLo, mouse 240-min LC50	ppm
382	Bromopyrene, 3-	1714-29-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
383	Bromosuccinimide, N-	128-08-5	1.1	12	73	TEEL-2/11, TEEL-3/6, mouse ip LDLo	mg/m ³
384	Bromothymol blue; (Dibromothymolsulfonphthalein)	76-59-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
385	Bromotoluene, A-; (Benzyl bromide)	100-39-0	0.41	4.5	27	TEEL-2/11, TEEL-3/6, rabbit 30-min LCLo	mg/m ³
386	Bromotrichloromethane	75-62-7	0.088	0.97	5.8	TEEL-2/11, TEEL-3/6, rat ip LD50	ppm
387	Bromotrifluoroethylene	598-73-2	3.2	230	1,400	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	ppm
388	Bromotrifluoromethane; (Trifluorobromomethane)	75-63-8	3,000	4,200	40,000	TEEL-2/11, monkey 15-min TCLo, IDLH (1994)	ppm
389	Bromotrimethylsilane; (Trimethylsilyl bromide)	2857-97-8	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
390	Brucine; (2,3-Dimethoxystrychnine)	357-57-3	0.29	3.2	36	TEEL-2/11, rat ip TDLo, rat ip LD50	mg/m ³
391	Butadiene, 1,3-	106-99-0	670	5300*	22000***	AEGL-1, AEGL-2, AEGL-3	ppm
392	Butanaminium, N,N,N-tributyl-1-, bromide; (Tetrabutylammonium bromide)	1643-19-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
393	Butane	106-97-8	5500*	17000**	53000***	AEGL-1, AEGL-2, AEGL-3	ppm
394	Butanedioic acid, diethyl ester; (Succinic acid, diethyl ester)	123-25-1	3.6	40	240	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
395	Butanedioic acid, dimethyl ester; (Succinic acid, dimethyl ester)	106-65-0	2.5	28	170	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
396	Butanediol dinitrate, 1,4-	3457-91-8	0.016	0.2	80	Used ethanediol dinitrate (628-96-6) PAC values	ppm
397	Butanediol, 1,3-	107-88-0	120	1,300	4,500	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
398	Butanediol, 1,4-; (1,4-Tetramethylene glycol)	110-63-4	4.7	52	640	TEEL-2/11, mouse ip TDLo, rat 240-min LCLo	mg/m ³
399	Butanedione, 2,3-; (Diacyetyl)	431-03-8	0.02	120	310	TLV-STEL, rat oral TDLo, rat oral LD50	mg/m ³
400	Butanenitrile; (Butyronitrile)	109-74-0	0.76	8.3	50	TEEL-2/11, TEEL-3/6, rat 60-min LCLo	ppm
401	Butanephosphonic acid	3321-64-0	9.6	110	630	Used dibutyl phosphite (1809-19-4) PAC values	mg/m ³
402	Butanethiol; (n-Butyl mercaptan)	109-79-5	4.5	50	2,500	TEEL-2/11, REL-C adjusted based on the ratio to toxicity data, IDLH (1990)	ppm
403	Butanoic acid, butyl ester; (n-Butyl n-butanoate)	109-21-7	2.3	26	150	TEEL-2/11, TEEL-3/6, rat ip LD50	ppm
404	Butanol, aluminum salt, 2-	2269-22-9	55	590	3,600	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
405	Butanol-d10, n-	34193-38-9	60	800	8000**	Used n-butyl alcohol (71-36-3) PAC values	ppm
406	Butanone oxime; (Ethyl methyl ketoxime)	96-29-7	30	56	250	WEEL-TWA x 3, rat 360-min TCLo, rat 240-min LC50	ppm
407	Butanone, 2-; (Methyl ethyl ketone; MEK)	78-93-3	200	2700*	4000*	AEGL-1, AEGL-2, AEGL-3	ppm
408	Butene, 1-; (Butylene)	106-98-9	750	2900*	17000***	TLV-TWA x 3, mouse 10-min TCLo, TEEL-2 x 6	ppm
409	Butene, 2-	107-01-7	750	1,100	6,600	TLV-TWA x 3, TEEL-3/6, rat 240-min LC50	ppm
410	Butene, cis-2-; (cis-1,2-Dimethylethylene)	590-18-1	750	2200*	13000**	TLV-TWA x 3, mouse 10-min TCLo, TEEL-2 x 6	ppm
411	Butene, trans-2-; (trans-1,2-Dimethylethylene)	624-64-6	750	2400*	14000**	TLV-TWA x 3, mouse 10-min TCLo, TEEL-2 x 6	ppm
412	Butoxyethanol acetate, 2-; (Ethylene glycol monobutyl ether acetate)	112-07-2	15	35	210	REL-TWA x 3, TEEL-3/6, rat oral LD50	ppm
413	Butoxyethanol phosphate, 2-	78-51-3	9	99	590	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
414	Butoxyethanol, 2-; (Glycol ether EB)	111-76-2	60	120	700	TLV-TWA x 3, TEEL-3/6, IDLH (1990 and 1994)	ppm
415	Butoxyethoxyethanol, 2-(2-; (Diethylene glycol monobutyl ether)	112-34-5	30	33	200	TLV-TWA x 3, TEEL-3/6, rat oral LD50	ppm
416	Butoxyethoxyethyl thiocyanate, 2-(2-	112-56-1	0.19	2.1	12	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
417	Butoxypolypropylene glycol	9003-13-8	27	300	1,800	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
418	Butyl acetate, n-	123-86-4	5	200	3000*	ERPG-1, ERPG-2, ERPG-3	ppm
419	Butyl acetate, sec-	105-46-4	600	1700*	10000**	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
420	Butyl acetate, tert-	540-88-5	600	1,700	10,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
421	Butyl acetoacetate, tert-	1694-31-1	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
422	Butyl acrylate, n-	141-32-2	8.3	130	480	AEGL-1, AEGL-2, AEGL-3	ppm
423	Butyl alcohol, n-; (n-Butanol)	71-36-3	60	800	8000**	TLV-TWA x 3, rat 240-min TCLo, IDLH (1990)	ppm
424	Butyl alcohol, sec-; (2-Butanol)	78-92-2	150	220	10000**	REL-STEL, mouse 51-min TCLo, IDLH (1990)	ppm
425	Butyl alcohol, tert; (tert-Butanol)	75-65-0	150	1,300	8000*	REL-STEL, TEEL-3/6, IDLH (1990)	ppm
426	Butyl bis(2-ethylhexyl)phosphate	z-0002	0.96	11	63	Used bis(ethylhexyl) phosphate (298-07-7) PAC values converted to ppm	ppm
427	Butyl bromide, n-; (1-Bromobutane)	109-65-9	4.4	49	290	TEEL-2/11, TEEL-3/6, rat 120-min LC50	ppm
428	Butyl chloroformate, n-	592-34-7	0.6	2.2	6.7	MAK-TWA x 3, AEGL-2, AEGL-3	ppm
429	Butyl chloroformate, sec-	17462-58-7	0.2	2.2	6.7	AEGL-2/11, AEGL-2, AEGL-3	ppm
430	Butyl ether, n-; (Dibutyl ether)	142-96-1	2.6	29	170	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
431	Butyl glycidyl ether, n-	2426-08-6	9	580	3,500	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
432	Butyl isocyanate, n-	111-36-4	0.01	0.083	0.25	ERPG-1, AEGL-2, AEGL-3	ppm

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
433	Butyl isocyanate, tert-	1609-86-5	0.0099	0.11	0.65	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
434	Butyl levulinate	2052-15-5	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
435	Butyl lithium	109-72-8	30	330	2,000	Used MW-adjusted lithium (7439-93-2) PAC values	mg/m ³
436	Butyl methyl-d3 ether, tert-	29366-08-3	50	570	5300*	Used tert-butyl methyl ether (1634-04-4) AEGL values	ppm
437	Butyl perbenzoate, tert-	614-45-9	8.2	90	200	TEEL-2/11, rat ip TDLo, rat oral LD50	mg/m ³
438	Butyl propanoate; (Propanoic acid, butyl ester)	590-01-2	34	370	990	TEEL-2/11, rat 360-min TCLo, rat oral LD50	mg/m ³
439	Butyl-2-methylcyclopropane, T-1-	38851-70-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
440	Butyl-3-iodo-2-propynylcarbamate	55406-53-6	3.3	36	220	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
441	Butylamine, n-	109-73-9	6	50	300	MAK-TWA x 3, TEEL-3/6, IDLH (1994)	ppm
442	Butylamine, sec-; (includes 513-49-5)	13952-84-6	6	10	31	MAK-TWA x 3, MAK-C, dog oral LD50	ppm
443	Butylamine, tert-	75-64-9	0.85	9.3	56	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
444	Butylbenzene, n-; (1-Phenylbutane)	104-51-8	3.6	40	240	TEEL-2/11, TEEL-3/6, rat oral LDLo	ppm
445	Butylbenzene, sec-; (2-Phenylbutane)	135-98-8	1.2	13	81	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
446	Butylbenzene, tert-	98-06-6	1.7	18	110	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
447	Butylcyclohexane; (1-Cyclohexylbutane)	1678-93-9	21	230	1,400	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	ppm
448	Butylcyclohexanone, p-tert-	98-53-3	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
449	Butylene carbonate; (1,2-Butanediol, cyclic carbonate)	4437-85-8	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
450	Butyllithium, sec-	598-30-1	110	1,200	7,300	Used MW-adjusted lithium (7439-93-2) PAC values converted to ppm	ppm
451	Butylpyrocatechol, 4-tert-; (4-tert-Butylcatechol)	98-29-3	0.18	2	560	TEEL-2/11, WEEL-C, rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
452	Butyltrichlorosilane	7521-80-4	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
453	Butyne-1,4-diol, 2-; (1,4-Butynediol)	110-65-6	0.3	5.1	31	MAK-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
454	Butyraldehyde	123-72-8	75	430	830	WEEL-TWA x 3, dog 360-min TLo, rat 30-min LC50	ppm
455	Butyric acid, sodium salt	156-54-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
456	Butyric acid; (n-Butyric acid)	107-92-6	1.4	16	110	TEEL-2/11, rat 360-min TLo, rat oral LD50	ppm
457	BZ; (3-Quinuclidinyl benzilate)	6581-06-2	1.00E-03	0.011	0.21	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
458	C.I. pigment red 53:1; (5-Chloro-2-((2-hydroxy-1-naphthyl)azo)-p-toluene sulfonic acid, barium salt)	5160-02-1	3	68	410	WEEL-TWA x 3, rat oral TDLo, TEEL-2 x 6	mg/m ³
459	C-18 Unsaturated fatty acid, dimers, reaction products with polyethylenepolyamines; (Versamid 140 polyamide resin; Versamid 125)	68410-23-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
460	Cacodylic acid; (Arsenic acid, dimethyl-)	75-60-5	2.8	25	140	MW-adjusted organic arsenic (7440-38-2) PEL-TWA x 3, rat oral TDLo, rat oral LD50	mg/m ³
461	Cadmium	7440-43-9	0.10	0.76	4.7	AEGL-1, AEGL-2, AEGL-3	mg/m ³
462	Cadmium bromide	7789-42-6	0.24	1.8	11	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
463	Cadmium carbonate	513-78-0	0.15	1.2	7.2	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
464	Cadmium chloride	10108-64-2	0.16	1.2	7.6	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
465	Cadmium chloride hemipentahydrate; (Cadmium chloride, 5/2-hydrate)	7790-78-5	0.1	0.77	9.5	Used MW-adjusted cadmium chloride (10108-64-2) PAC values	mg/m ³
466	Cadmium fluoride	7790-79-6	0.13	1	6.3	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
467	Cadmium hydroxide	21041-95-2	0.13	0.99	6.1	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
468	Cadmium nitrate	10325-94-7	0.21	1.6	9.9	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
469	Cadmium nitrate tetrahydrate	10022-68-1	0.27	2.1	13	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
470	Cadmium nitrite	7790-83-2	0.18	1.4	8.6	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
471	Cadmium oxide	1306-19-0	0.11	0.87	5.4	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
472	Cadmium stearate; (Octadecanoic acid, cadmium salt)	2223-93-0	0.61	4.6	28	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
473	Cadmium sulfate	10124-36-4	0.19	1.4	8.7	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
474	Cadmium sulfate, hydrate	7790-84-3	0.1	0.76	11	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
475	Cadmium sulfide	1306-23-6	0.13	0.98	6	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
476	Cadmium tungstate	7790-85-4	0.32	2.4	15	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
477	Cadmium(II) acetate	543-90-8	0.21	1.6	9.6	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
478	Calcium acetate	62-54-4	13	140	850	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
479	Calcium arsenate	7778-44-1	0.91	10	270	TEEL-2/11, LOC, MW-adjusted arsenic IDLH (1990)	mg/m ³
480	Calcium carbide	75-20-7	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HR = 1)	mg/m ³
481	Calcium chloride	10043-52-4	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
482	Calcium chloride dihydrate	10035-04-8	16	170	1,100	Used MW-adjusted calcium chloride (10043-52-4) PAC values	mg/m ³
483	Calcium chloride hexahydrate	7774-34-7	24	260	1,600	Used MW-adjusted calcium chloride (10043-52-4) PAC values	mg/m ³
484	Calcium chloride hydrate	22691-02-7	13	140	850	Used MW-adjusted calcium chloride (10043-52-4) PAC values	mg/m ³
485	Calcium chromate	13765-19-0	0.003	7.8	47	TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
486	Calcium cyanamide	156-62-7	1.5	5.6	50	TLV-TWA x 3, rat oral TDLo, rat oral LD50	mg/m ³
487	Calcium cyanide	592-01-8	3.8	13	28	AEGL-1, AEGL-2, AEGL-3	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
488	Calcium fluoride	7789-75-5	15	170	1,000	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
489	Calcium formate	544-17-2	8.5	71	710	Used MW-adjusted formic acid (64-18-6) ERPG values	mg/m ³
490	Calcium hydride	7789-78-8	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
491	Calcium hydroxide	1305-62-0	15	240	1,500	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
492	Calcium hydroxide phosphate; (Calcium phosphate tribasic)	12167-74-7	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
493	Calcium hypochlorite; (Calcium oxychloride)	7778-54-3	2.6	28	170	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
494	Calcium metasilicate	10101-39-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
495	Calcium monohydrogen phosphate dihydrate	7789-77-7	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
496	Calcium nitrite	13780-06-8	6.4	71	240	Used sodium nitrite (7632-00-0) PAC values	mg/m ³
497	Calcium oxalate	563-72-4	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
498	Calcium oxalate, monohydrate	5794-28-5	14	150	900	Used MW-adjusted calcium oxalate (563-72-4) PAC values	mg/m ³
499	Calcium oxide	1305-78-8	6	110	660	TLV-TWA x 3, TEEL-3/6, mouse ip LD50	mg/m ³
500	Calcium phosphate; (Tricalcium phosphate)	10103-46-5	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
501	Calcium phosphide	1305-99-3	0.091	1.0	1.8	AEGL-2/11, AEGL-2, AEGL-3	ppm
502	Calcium sulfide	20548-54-3	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
503	Calcium trifluoromethanesulfonate	55120-75-7	22	250	1,500	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
504	Calcium(II) nitrate	10124-37-5	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
505	Calcium(II) nitrate tetrahydrate (1:2:4)	13477-34-4	12	130	770	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
506	Camphorsulfonic acid, (1R)-(-)-10-	35963-20-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
507	Cantharidin	56-25-7	0.39	4.3	33	TEEL-2/11, LOC, dog oral LDLo	mg/m ³
508	Caprolactam (dust)	105-60-2	3	40	240	REL-STEL, TEEL-3/6, rat oral LD50	mg/m ³
509	Caprolactone; (epsilon-Lactone hexanoic acid)	502-44-3	13	140	850	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
510	Caprylyl chloride; (Octanoyl chloride)	111-64-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
511	CAPSO	73463-39-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
512	Captan	133-06-2	15	26	160	TLV-TWA x 3, TEEL-3/6, mouse 120-min LC50	mg/m ³
513	Carbachol chloride	51-83-2	1.4	15	90	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
514	Carbamic acid, methyl-, O-(((2,4-dimethyl-1,3-dithiolan-2-yl)methylene)amino)-; (Tirpate)	26419-73-8	0.003	0.033	0.2	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
515	Carbaryl; (Sevin)	63-25-2	1.5	100	600	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
516	Carbazole	86-74-8	0.66	7.2	43	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
517	Carbethoxyethylidene(triphenylphosphorane)	5717-37-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
518	Carbofuran	1563-66-2	0.3	0.43	3.7	TLV-TWA x 3, LOC, rat 240-min LC50	mg/m ³
519	Carbon black	1333-86-4	9	99	590	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
520	Carbon disulfide	75-15-0	13	160	480	AEGL-1, AEGL-2, AEGL-3	ppm
521	Carbon monoxide	630-08-0	75	83	330	TLV-TWA x 3, AEGL-2, AEGL-3	ppm
522	Carbon tetrachloride	56-23-5	1.2	13	340	AEGL-2/11, AEGL-2, AEGL-3	ppm
523	Carbon tetrafluoride; (Tetrafluoromethane)	75-73-0	92	1,000	6,000	TEEL-2/11, TEEL-3/6, rat 15-min LCLo	ppm
524	Carbon trifluoride; (Trifluoromethane; Fluoroform)	75-46-7	440	4,900	29,000	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
525	Carbon; (Graphite, 7782-42-5)	7440-44-0	6	330	2,000	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
526	Carbonic acid, calcium salt	471-34-1	45	210	1,300	PEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
527	Carbonyl fluoride	353-50-4	0.025	0.28	0.83	AEGL-2/11, AEGL-2, AEGL-3	ppm
528	Carbonyl sulfide	463-58-1	15	55	150	TLV-TWA x 3, AEGL-2, AEGL-3	ppm
529	Carbonyldiphthalic anhydride, 4,4'-	2421-28-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
530	Carbophenothion; (Trithion)	786-19-6	0.62	6.8	24	TEEL-2/11, LOC, mouse oral LD50	mg/m ³
531	Catechol	120-80-9	15	96	570	TLV-TWA x 3, rat 480-min TCLo, TEEL-2 x 6	ppm
532	Ceric ammonium nitrate	16774-21-3	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
533	Ceric ammonium sulfate; (includes hydrated forms)	7637-03-8	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
534	Ceric oxide	1306-38-3	3	33	200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
535	Cerium	7440-45-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
536	Cerium acetate	537-00-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
537	Cerium chloride	7790-86-5	6.3	70	420	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
538	Cerium fluoride	7758-88-5	26	280	1,700	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
539	Cerium hydroxide	15785-09-8	21	180	1,100	Used MW-adjusted aluminum hydroxide (21645-51-2) PAC values	mg/m ³
540	Cerium nitrate hexahydrate	10294-41-4	13	140	830	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
541	Cerium oxalate	139-42-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
542	Cerium sulfate	13590-82-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
543	Cerium trioxide	1345-13-7	1.6	17	100	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
544	Cerium(III) sulfate	13454-94-9	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
545	Cerium(IV) hydroxide	12014-56-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
546	Cerium(IV) nitrate	13093-17-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
547	Cerous nitrate; (Cerium(III) nitrate)	10108-73-3	9.5	100	620	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
548	Cerous nitrite	z-0004	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
549	Cesium	7440-46-2	5.6	61	370	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
550	Cesium carbonate	534-17-8	7	77	460	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
551	Cesium chloride	7647-17-8	21	230	400	TEEL-2/11, rat ip TDLo, rat oral LD50	mg/m ³
552	Cesium fluoride	13400-13-0	60	670	4,000	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
553	Cesium hydroxide	21351-79-1	6	19	110	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
554	Cesium iodide	7789-17-5	7.2	79	470	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
555	Cesium metaborate	92141-86-1	6.8	77	460	Used sodium metaborate (7775-19-1) PAC values	mg/m ³
556	Cesium nitrate	7789-18-6	7.2	79	470	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
557	Cesium nitrite	13454-83-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
558	Cesium oxide	20281-00-9	4.1	45	270	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
559	Chloramben; (Amiben; 3-Amino-2,5-dichlorobenzoic acid)	133-90-4	11	120	690	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
560	Chloramphenicol	56-75-7	1.5	10	500	WEEL-TWA x 3, rat TCLo, rat oral LD50	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
561	Chlordane	57-74-9	4.5	50	500	TEEL-2/11, LOC, IDLH (1990)	mg/m ³
562	Chlorfenvinfos	470-90-6	0.91	10	500	TEEL-2/11, LOC, dog oral LD50	mg/m ³
563	Chloric acid, sodium salt; (Sodium chlorate)	7775-09-9	3.6	40	240	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
564	Chloride; (Chloride(1-); Chloride ions)	16887-00-6	0.5	2	20	Used chlorine (7782-50-5) AEGL values	ppm
565	Chlorinated polyolefins	68410-99-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
566	Chlorine	7782-50-5	0.50	2.0	20	AEGL-1, AEGL-2, AEGL-3	ppm
567	Chlorine dioxide	10049-04-4	0.15	1.1	2.4	AEGL-1, AEGL-2, AEGL-3	ppm
568	Chlorine pentafluoride	13637-63-3	0.015	0.17	8.0	AEGL-2/11, AEGL-2, AEGL-3	ppm
569	Chlorine trifluoride	7790-91-2	0.12	2.0	21	AEGL-1, AEGL-2, AEGL-3	ppm
570	Chlormephos	24934-91-6	0.64	7	42	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
571	Chlormequat chloride; (Choline dichloride)	999-81-5	0.64	7	65	TEEL-2/11, LOC, rat oral LD50	mg/m ³
572	Chloro-1,1,1,2-tetrafluoroethane, 2-	2837-89-0	1,000	5,000	10,000	ERPG-1, ERPG-2, ERPG-3	ppm
573	Chloro-1,1-difluoroethane, 1-; (HCFC-142b)	75-68-3	10000*	15000*	25000*	ERPG-1, ERPG-2, ERPG-3	ppm
574	Chloro-1,2-propanediol, 3-; (Chlorohydrin)	96-24-2	0.011	0.12	5.4	TEEL-2/11, rat oral TDLo, rat 240-min LCLo	ppm
575	Chloro-1-butanol, 4-	928-51-8	1.5	16	110	TEEL-2/11, mouse ip TDLo, mouse oral LD50	mg/m ³
576	Chloro-2,4-dinitrobenzene, 1-	97-00-7	1.6	18	150	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
577	Chloro-2-methyl-1-propene, 3-	563-47-3	1.2	13	45	TEEL-2/11, rat oral TDLo, rat oral LD50	ppm
578	Chloro-2-methyl-4-isothiazolin-3-one, 5-	26172-55-4	0.6	6.6	40	MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
579	Chloro-2-methylpropane, 2-; (Tert-butyl chloride)	507-20-0	2.3	26	150	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
580	Chloro-2-nitrophenol, 4-	89-64-5	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
581	Chloro-4-nitrophenol, 2-	619-08-9	0.38	4.2	25	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
582	Chloroacetaldehyde	107-20-0	1.3	2.2	9.9	AEGL-1, AEGL-2, AEGL-3	ppm
583	Chloroacetaldehyde dimethyl acetal	97-97-2	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
584	Chloroacetic acid, sodium salt	3926-62-3	7.2	79	480	WEEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
585	Chloroacetic acid; (Monochloroacetic acid)	79-11-8	1.5	6.6	15	AEGL-2/11, AEGL-2 , rat oral LDLo	ppm
586	Chloroacetone	78-95-5	0.4	4.4	13	AEGL-2/11, AEGL-2, AEGL-3	ppm
587	Chloroacetonitrile	107-14-2	0.45	5.0	15	AEGL-2/11, AEGL-2, AEGL-3	ppm
588	Chloroacetyl chloride	79-04-9	0.040	1.6	52	AEGL-1, AEGL-2, AEGL-3	ppm
589	Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride, 1-(3-	4080-31-3	1.5	17	99	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
590	Chloroaniline, p-	106-47-8	6.1	68	100	TEEL-2/11, rat oral TDLo, rat 240-min LC50	mg/m ³
591	Chlorobenzene; (Benzene chloride)	108-90-7	10	150	400	AEGL-1, AEGL-2, AEGL-3	ppm
592	Chlorobenzotrifluoride, 2-	88-16-4	4.8	53	320	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
593	Chlorobenzylate; (4,4'-Dichlorobenzilic acid ethyl ester)	510-15-6	8.4	92	550	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
594	Chlorobenzylidene malononitrile, o-; (Tear Gas)	2698-41-1	0.005	0.083	11	ERPG-1, AEGL-2, AEGL-3	mg/m ³
595	Chlorobutane, 1-; (Butyl chloride)	109-69-3	4.1	45	340	TEEL-2/11, rat oral TDLo, rat 240-min LCLo	ppm
596	Chlorobutane, 2-; (sec-Butyl chloride)	78-86-4	0.34	3.8	340	TEEL-2/11, mouse ip TDLo, rat 240-min LCLo	ppm
597	Chlorobutyryl chloride, 4-	4635-59-0	0.43	4.8	29	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³

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 * indicates 10% LEL ≤ PAC < 50% LEL; ** indicates 50% LEL ≤ PAC < 100% LEL; *** indicates PAC ≥ LEL.

Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
598	Chlorocyclohexanol, trans-2-	6628-80-4	2.7	30	180	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
599	Chlorocyclohexene; (4-Chlorocyclohexene)	930-65-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
600	Chlorodecane, 1-	1002-69-3	17	180	1,100	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	ppm
601	Chlorodiethylaluminum; (Diethylaluminum chloride)	96-10-6	27	290	1,800	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
602	Chlorodifluoromethane; (Freon 22; CFC 22)	75-45-6	1,250	2,400	14,000	REL-STEL, TEEL-3/6, mouse 30-min LC50	ppm
603	Chloroethanesulfonyl chloride, 2-	1622-32-8	0.23	2.5	19	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
604	Chloroethyl chloroformate	627-11-2	1.8	20	120	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
605	Chloroethyl phenyl sulfide, 2-	5535-49-9	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
606	Chloroethyl vinyl ether, 2-; (Ethene, 2-chloroethoxy-)	110-75-8	0.16	1.8	11	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
607	Chloroethylchloromethylsulfide, 2-	2625-76-5	0.01	0.02	0.32	Used sulfur mustard (505-60-2) AEGL values	ppm
608	Chloroform	67-66-3	2	64	3,200	REL-STEL, AEGL-2, AEGL-3	ppm
609	Chloroform-d; (Deuterated chloroform)	865-49-6	2	64	3,200	Used chloroform (67-66-3) PAC values	ppm
610	Chloro-m-cresol, 4-	59-50-7	5.5	60	360	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
611	Chloromethyl methyl ether	107-30-2	0.043	0.47	2.0	AEGL-2/11, AEGL-2, AEGL-3	ppm
612	Chloromethyl(trichloro)silane	1558-25-4	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
613	Chloronaphthalene, 1-; (alpha-Chloronaphthalene)	90-13-1	4.6	51	310	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
614	Chloronaphthalene, 2-; (beta-Chloronaphthalene)	91-58-7	6.2	69	410	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
615	Chloronitrobenzene, p-; (p-Nitrochlorobenzene)	100-00-5	1.9	170	1,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
616	Chloroperoxybenzoic acid, 3-	937-14-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
617	Chlorophacinone	3691-35-8	0.0047	0.051	0.31	TEEL-2/11, TEEL-3/6, 240-min rat LC50	mg/m ³
618	Chlorophenol, 4-; (p-Chlorophenol)	106-48-9	1.5	17	99	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
619	Chlorophenol, m-	108-43-0	2.1	23	140	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
620	Chlorophenol, o-	95-57-8	2.3	25	150	TEEL-2/11, TEEL-3/6, rat 360-min LCLo	mg/m ³
621	Chlorophenyl phenyl ether, 4-	7005-72-3	1.5	35	210	Used monochlorophenyl ether (55398-86-2) PAC values	mg/m ³
622	Chlorophenyl thiourea, 2-	5344-82-1	0.014	0.15	0.91	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
623	Chloropicrin/Methyl bromide mixture	8004-09-9	0.05	0.15	1.4	Used chloropicrin (76-06-2) AEGL values	mg/m ³
624	Chloropicrin/Methyl chloride mixture	z-0007	0.05	0.15	1.4	Used chloropicrin (76-06-2) AEGL values	mg/m ³
625	Chloropicrin; (Trichloronitromethane)	76-06-2	0.050	0.15	1.4	AEGL-1, AEGL-2, AEGL-3	ppm
626	Chloroprene; (beta-Chloroprene; Neoprene)	126-99-8	30	67	400	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
627	Chloropropanol, 3-; (1-Propanol, 3-chloro-)	627-30-5	6.9	76	460	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
628	Chloropropionitrile, 3-	542-76-7	0.23	2.5	5.4	TEEL-2/11, LOC, rat oral LD50	ppm
629	Chloropropyltrimethoxysilane, 3-; (3-(Trimethoxysilyl)propyl chloride)	2530-87-2	0.64	7	160	TEEL-2/11, rat 360-min TCLo, rat oral LD50	ppm
630	Chloropropylene, 2-	557-98-2	210	2,300	3,000	TEEL-2/11, rat 30-min TCLo, mouse 120-min LC50	ppm
631	Chloropropyl-n-octylsulfoxide, 3-	3569-57-1	0.73	8	1,100	TEEL-2/11, LOC, rat oral LD50	mg/m ³
632	Chloro-p-toluenesulfonamide sodium salt, N-; (Chloramine T)	127-65-1	2.8	31	190	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
633	Chlorosarin; (o-Isopropyl methylphosphonochloridate)	1445-76-7	4.80E-04	0.006	0.022	Used sarin (107-44-8) AEGL values	ppm
634	Chlorosoman; (o-Pinacolyl methylphosphonochloridate)	7040-57-5	1.80E-04	0.0022	0.017	Used soman (96-64-0) AEGL values	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
635	Chlorosulfonic acid; (Chlorosulfuric acid)	7790-94-5	0.10	4.4	25	AEGL-1, AEGL-2, AEGL-3	mg/m ³
636	Chlorothalonil; (Tetrachloroisophthalonitrile)	1897-45-6	0.13	1.4	8.6	TEEL-2/11, TEEL-3/6, rat 60-min LC50	mg/m ³
637	Chlorotoluene, 2-; (o-Chlorotoluene)	95-49-8	75	310	1,800	REL-STEL, rat 360-min TCLo, TEEL-2 x 6	ppm
638	Chlorotoluene, 4-; (p-Tolyl chloride)	106-43-4	1.2	13	80	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
639	Chlorotrifluoroethene, homopolymer	9002-83-9	1.5	16	200	TEEL-2/11, monkey oral TDLo, rat 240-min LCLo	mg/m ³
640	Chlorotrifluoroethylene	79-38-9	16	86	420	AEGL-1, AEGL-2, AEGL-3	ppm
641	Chlorotrifluoromethane; (CFC-13)	75-72-9	3,000	33,000	2.00E+05	MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
642	Chloroxuron	1982-47-4	0.91	10	68	TEEL-2/11, LOC, rat 360-min LC50	mg/m ³
643	Chlorpyrifos; (Dursban)	2921-88-2	0.6	15	44	REL-STEL, rat oral TDLo, rat oral LD50	mg/m ³
644	Chlorsulfuron	64902-72-3	3.9	43	260	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
645	Chlorthiophos	21923-23-9	0.71	7.8	9.9	TEEL-2/11, LOC, mouse oral LD50	mg/m ³
646	Cholera toxin; (Enterotoxin, vibrio cholera)	9012-63-9	7.70E-05	8.50E-04	0.0051	TEEL-2/11, TEEL-3/6, monkey iv LDLo	mg/m ³
647	Chromates	13907-45-4	0.33	5	30	MW-adjusted chromium (VI) (7440-47-3) TLV-TWA, TEEL-3/6, IDLH (1990)	mg/m ³
648	Chromic acetate; (Chromium(III) acetate)	1066-30-4	6.6	78	470	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
649	Chromic chloride; (Chromium(III) chloride)	10025-73-7	4.6	15	87	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
650	Chromic oxide; (Chromium(III) oxide; Chromium sesquioxide)	1308-38-9	2.2	24	140	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
651	Chromic sulfate; (Chromium(III) sulfate (2:3))	10101-53-8	5.7	63	380	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
652	Chromic trioxide; (Chromium(VI) oxide (1:3))	1333-82-0	0.29	5	30	MW-adjusted soluble chromium (VI) (7440-47-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1330-82-0) IDLH (1990)	mg/m ³
653	Chromic(III) hydroxide; (Chromic acid (H3CrO3); Chromium trihydroxide)	1308-14-1	3	33	200	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
654	Chromite; (Chromite (mineral))	1308-31-2	3.2	36	220	MW-adjusted chromium (II) (7440-47-3) PEL-TWA x 3, TEEL-3/6, TEEL-2 x 6	mg/m ³
655	Chromium	7440-47-3	1.5	17	99	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
656	Chromium nitrate	10103-47-6	3.3	36	220	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
657	Chromium perchlorate, hydrated	13537-21-8	10	110	670	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
658	Chromium(III) acetate hydroxide	39430-51-8	8	89	530	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
659	Chromium(III) chloride, hexahydrate	10060-12-5	7.7	43	260	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-3/6, mouse oral LD50	mg/m ³
660	Chromium(III) fluoride	7788-97-8	3.1	33	200	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
661	Chromium(III) nitrate	13548-38-4	6.9	110	640	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
662	Chromium(III) oxide hydroxide; (Chromium oxyhydroxide)	20770-05-2	2.5	27	160	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
663	Chromium(III) potassium sulfate (1:1:2), dodecahydrate	7788-99-0	14	160	950	MW-adjusted inorganic chromium (III) (7440-47-3) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
664	Chromium(VI) hydroxide	12626-43-6	0.089	7.7	46	MW-adjusted soluble chromium (VI) (7440-47-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1330-82-0) IDLH (1990)	mg/m ³
665	Chromous chloride; (Chromium(II) chloride (1:2))	10049-05-5	3.5	62	370	MW-adjusted chromium (II) (7440-47-3) PEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
666	Chrysene	218-01-9	0.6	12	69	PEL-TWA x 3, TEEL-3/6, mouse ip LD50	mg/m ³
667	Coal tar pitch volatiles; (Particulate polycyclic aromatic hydrocarbons)	65996-93-2	0.6	120	700	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
668	Coal tar, aerosol	8007-45-2	2.8	31	190	TEEL-2/11, TEEL-3/6, rabbit dermal LD50	mg/m ³
669	Cobalt	7440-48-4	0.18	2	20	TEEL-2/11, LOC, IDLH (1990 and 1994)	mg/m ³
670	Cobalt acetate tetrahydrate; (Cobaltous acetate tetrahydrate)	6147-53-1	2.1	23	140	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
671	Cobalt carbonyl	10210-68-1	0.3	3.3	20	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
672	Cobalt chloride	7646-79-9	0.13	18	83	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, guinea pig ip TDLo, rat oral LD50	mg/m ³
673	Cobalt hydrocarbonyl	16842-03-8	0.3	0.9	3	TLV-TWA x 3, ERPG-2, ERPG-3	mg/m ³
674	Cobalt hydroxide	21041-93-0	0.095	1.1	6.3	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
675	Cobalt nitrate hexahydrate; (Cobaltous nitrate hexahydrate)	10026-22-9	0.3	23	140	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
676	Cobalt nitrate; (Cobalt(II) nitrate)	10141-05-6	0.19	14	86	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
677	Cobalt nitrite	32486-57-0	0.15	1.7	10	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
678	Cobalt oxide; (Cobaltic-cobaltous oxide)	1308-06-1	0.082	4.5	27	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-3/6, MW-adjusted cobalt fume IDLH (1990)	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
679	Cobalt sulfate	10124-43-3	0.16	14	84	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
680	Cobalt sulfate heptahydrate; (Cobalt(II) sulfate(1:1), heptahydrate)	10026-24-1	0.29	19	120	MW-adjusted inorganic cobalt TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
681	Cobalt tetraphenylporphine	14172-90-8	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
682	Cobalt(II) chloride hexahydrate	7791-13-1	0.24	25	150	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
683	Cobalt(II) oxide	1307-96-6	0.076	4.2	25	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-3/6, MW-adjusted cobalt fume IDLH (1990)	mg/m ³
684	Cobalt(II) perchlorate, hexahydrate	13478-33-6	0.37	5.8	35	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-3/6, mouse ip LD50	mg/m ³
685	Cobalt(II) sulfate hydrate	60459-08-7	0.18	1.9	12	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
686	Cobalt, ((2,2'-(1,2-ethanediybis(nitrilomethylidyne))bis(6-fluorophenolato))(2--N,N',O,O')-; (Fluomine)	62207-76-5	0.27	3	5.7	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, LOC, rat 360-min LC50	mg/m ³
687	Cobaltous bromide; (Cobalt(II) bromide)	7789-43-7	0.22	13	80	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
688	Cobaltous carbonate	513-79-1	0.12	210	1,200	MW-adjusted inorganic cobalt (7440-48-4) TLV-TWA x 3, TEEL-3/6, rabbit ip LDLo	mg/m ³
689	Colchicine	64-86-8	0.082	0.9	5.1	TEEL-2/11, LOC, rat oral LD50	mg/m ³
690	Conotoxins (α)	156467-85-5	0.2	2.2	13	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
691	Copper	7440-50-8	3	33	200	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
692	Copper cyanide; (Copper(I) cyanide; Cuprous cyanide)	544-92-3	21	29	170	Used MW-adjusted cyanide (57-12-5) PAC values	mg/m ³
693	Copper hydroxide; (Copper(II) hydroxide, Cupric hydroxide)	20427-59-2	4.6	33	200	MW-adjusted copper (7440-50-8) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
694	Copper nitrate; (Cupric nitrate)	3251-23-8	8.9	31	190	MW-adjusted copper (7440-50-8) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
695	Copper oxide; (Copper(I) oxide)	1317-39-1	0.68	16	93	MW-adjusted copper fume (7440-50-8) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
696	Copper sulfate; (Copper(II) sulfate)	7758-98-7	7.5	9.9	59	MW-adjusted copper (7440-50-8) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
697	Copper(I) chloride; (Cuprous chloride)	7758-89-6	4.7	53	320	MW-adjusted copper (7440-50-8) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
698	Copper(I) sulfide	22205-45-4	3.8	43	260	MW-adjusted copper (7440-50-8) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
699	Copper(II) acetate monohydrate	6046-93-1	9.4	23	140	MW-adjusted copper fume (7440-50-8) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
700	Copper(II) carbonate hydroxide (2:1:2)	12069-69-1	5.2	45	270	MW-adjusted copper (7440-50-8) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
701	Copper(II) chloride (1:2); (Cupric chloride)	7447-39-4	6.3	69	420	MW-adjusted copper (7440-50-8) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
702	Copper(II) chloride dihydrate; (Cupric chloride)	10125-13-0	8	89	530	MW-adjusted copper chloride (7447-39-4) PAC values	mg/m ³
703	Copper(II) oxalate	814-91-5	7.3	79	480	MW-adjusted copper (7440-50-8) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
704	Copper(II) perchlorate, dihydrate	17031-32-2	14	160	930	MW-adjusted copper (7440-50-8) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
705	Copper(II) sulfate pentahydrate	7758-99-8	12	32	190	MW-adjusted copper (7440-50-8) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
706	Copper(II) sulfide	1317-40-4	4.5	50	300	MW-adjusted copper (7440-50-8) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
707	Coumaphos	56-72-4	0.27	3	13	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
708	Coumarin	91-64-5	0.88	9.7	58	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
709	Coumatetralyl; (Endrocide)	5836-29-3	0.0064	0.071	1.7	TEEL-2/11, dog oral TDLo, rat 240-min LC50	mg/m ³
710	Creosote (coal tar)	8001-58-9	0.6	120	700	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
711	Cresols, all isomers; (includes 95-48-7,108-39-4,106-44-5)	1319-77-3	14	25	250	TLV-TWA x 3, LOC, IDLH (1990 and 1994)	ppm
712	Cresyl violet acetate	10510-54-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
713	Crimidine; (Castrix)	535-89-7	0.0063	0.069	0.41	TEEL-2/11, TEEL-3/6, dog ip LD50	mg/m ³
714	Cristobalite	14464-46-1	0.075	33	200	TLV-TWA x 3, TEEL-3/6, rat iv LD50	mg/m ³
715	Crocidolite	12001-28-4	0.05	1.9	160	PEL-STEL, mouse 360-min TCLo, rat ip LDLo	mg/m ³
716	Crotonaldehyde, cis-	4170-30-3	0.19	4.4	14	AEGL-1, AEGL-2, AEGL-3	ppm
717	Crotonaldehyde, trans-	123-73-9	0.19	4.4	14	AEGL-1, AEGL-2, AEGL-3	ppm
718	Crotonic Acid	3724-65-0	3	33	200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
719	Crystal violet; (Aniline violet)	548-62-9	0.082	0.9	83	TEEL-2/11, rat ip TDLo, rat oral LD50	mg/m ³
720	Cs7SB; (1-(2,2,3,3-Tetrafluoropropoxy)-3-(4-sec-butylphenoxy)-2-propanol)	308362-88-1	33	370	2,200	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
721	Cube Resin other than Rotenone	z-0122	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
722	Cumene hydroperoxide; (Isopropylbenzene hydroperoxide)	80-15-9	0.15	1.6	9.7	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
723	Cumene; (Isopropyl benzene)	98-82-8	50	300	730	AEGL-1, AEGL-2, AEGL-3	ppm
724	Cumenol methylcarbamate, m-; (3-(1-Methylethyl)phenol methylcarbamate)	64-00-6	0.095	1	6.3	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
725	Cupferron; (Ammonium-N-nitrosophenylhydroxylamine)	135-20-6	0.6	6.6	39	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
726	Cupric acetate, anhydrous; (Copper acetate)	142-71-2	8.6	20	120	MW-adjusted copper dust (7440-50-8) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
727	Cupric nitrate hemipentahydrate	19004-19-4	42	150	240	Used MW-adjusted copper nitrate (3251-23-8) PAC values	mg/m ³
728	Cupric nitrite	14984-71-5	7.3	79	480	MW-adjusted copper dust (7440-50-8) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
729	Cupric oxide	1317-38-0	0.75	11	93	MW-adjusted copper (7440-50-8) TLV-TWA x 3, mouse ip TDLo, rat oral LD50	mg/m ³
730	Cyanamide	420-04-2	6	66	400	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
731	Cyanic acid; (Hydrogen cyanate)	420-05-3	5.5	7.7	46	MW-adjusted cyanides MAK-TWA (converted to ppm) x 3, TEEL-3/6, MW-adjusted cyanides IDLH (converted to ppm, 1990)	ppm
732	Cyanide	57-12-5	6	8.3	50	MAK-TWA x 3, TEEL-3/6, cyanides IDLH (1990)	mg/m ³
733	Cyanoacetamide	107-91-5	9.6	110	630	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
734	Cyanogen	460-19-5	2.0	8.3	25	AEGL-1, AEGL-2, AEGL-3	ppm
735	Cyanogen bromide	506-68-3	24	44	200	MW-adjusted cyanides MAK-TWA x 3, LOC, MW-adjusted cyanides IDLH (1990)	mg/m ³
736	Cyanogen chloride	506-77-4	0.0045	0.05	4	ERPG-2/11, ERPG-2, ERPG-3	ppm
737	Cyanogen iodide	506-78-5	35	180	290	MW-adjusted cyanides MAK-TWA x 3, LOC, MW-adjusted cyanides IDLH (1990)	mg/m ³
738	Cyanoguanidene; (Guanidine, cyano-; Dicyandiamido)	461-58-5	61	680	4,000	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
739	Cyanophos	2636-26-2	2.3	25	130	TEEL-2/11, LOC, rat oral LD50	mg/m ³
740	Cyanuric acid; (1,3,5-Triazine-2,4,6-triol)	108-80-5	30	250	1,500	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
741	Cyanuric chloride	108-77-0	0.41	4.5	7.7	TEEL-2/11, rat oral TDLo, rat 240-min LC50	mg/m ³
742	Cyanuric fluoride; (2,4,6-Trifluoro-s-triazine)	675-14-9	10	15	87	MW-adjusted cyanides MAK-TWA x 3, TEEL-3/6, MW-adjusted cyanides IDLH (1990)	mg/m ³
743	Cyclohexane	110-82-7	300	1700*	10000**	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
744	Cyclohexane-1,2-dinitrilotetraacetic acid, trans-; (CyDTA)	13291-61-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
745	Cyclohexanediamine, 1,2-	694-83-7	2.1	23	140	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	mg/m ³
746	Cyclohexanedimethanol, cis and trans, 1,4-	105-08-8	9.6	110	630	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
747	Cyclohexanol	108-93-0	150	580	3,500	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
748	Cyclohexanone; (Ketoexamethylene)	108-94-1	60	830	5000*	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
749	Cyclohexene	110-83-8	900	1,700	10,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
750	Cycloheximide	66-81-9	0.18	2	12	TEEL-2/11, LOC, monkey oral LD50	mg/m ³
751	Cyclohexyl isocyanate	3173-53-3	0.0031	0.034	0.10	AEGL-2/11, AEGL-2, AEGL-3	ppm
752	Cyclohexyl methyl phosphonic acid	1932-60-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
753	Cyclohexylamine	108-91-8	1.8	8.6	30	AEGL-1, AEGL-2, AEGL-3	ppm
754	Cyclohexylamino)-1-propanesulfonic acid, 3-; (CAPS)	1135-40-6	6	66	400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
755	Cyclohexylethanol, 2-	4442-79-9	2.8	31	190	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
756	Cyclooctadiene, 1,5-	111-78-4	1.8	19	120	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
757	Cyclooctane	292-64-8	26	290	1,700	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	ppm
758	Cyclooctatetraene, 1,3,5,7-	629-20-9	65,000	2.30E+05	4.00E+05	Simple asphyxiant	ppm
759	Cyclooctene, cis-	931-87-3	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
760	Cyclopentane	287-92-3	1800*	3800*	23000***	TLV-TWA x 3, LOC, TEEL-2 x 6	ppm
761	Cyclopentanone	120-92-3	0.87	9.5	57	TEEL-2/11, TEEL-3/6, mouse oral LD50	ppm
762	Cyclopropane	75-19-4	85	930	5600*	TEEL-2/11, TEEL-3/6, mouse 120-min LCLo	ppm
763	Cyclotetramethylene tetranitramine; (HMX)	2691-41-0	19	210	1,300	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
764	Cyclotol; (RDX-TNT mixture)	8065-53-0	3	33	200	Cyclonite (121-82-4) REL-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
765	Cyclotrimethylenetrinitramine; (RDX or Cyclonite)	121-82-4	3	26	160	REL-STEL, TEEL-3/6, rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
766	Cytidine monophosphate; (Cytidine 5-monophosphate free acid)	63-37-6	4.3	48	290	TEEL-2/11, TEEL-3/6, mouse ip LDLo	mg/m ³
767	Dawsonite; (Crystalline dehydroxy sodium aluminum, carbonate)	12011-76-6	16	170	1,000	MW-adjusted insoluble aluminum (7429-90-5) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
768	DDD; (1,1-bis(4-Chlorophenyl)-2,2-dichloroethane)	72-54-8	2.4	26	160	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
769	DDE; (2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene)	72-55-9	6.5	72	170	TEEL-2/11, rat ip TDLo, rat oral LD50	mg/m ³
770	DDT; (Dichlorodiphenyltrichloroethane)	50-29-3	3	34	210	TLV-TWA x 3, TEEL-3/6, dog oral LD50	mg/m ³
771	Decaborane	17702-41-9	0.75	10	100	TLV-STEL, LOC, IDLH (1990)	mg/m ³
772	Decafluoropentane, 1,1,1,2,3,4,4,5,5,5-	138495-42-8	36	400	500	TEEL-2/11, DuPont AEL-C, rat 240-min LC50	ppm
773	Decahydronaphthalene, includes -cis (493-01-6) and -trans (493-02-7) isomers	91-17-8	2.4	27	31	TEEL-2/11, rat 1320-min TCLo, rat 240-min LC50	ppm
774	Decanal	112-31-2	1.8	19	120	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
775	Decane	124-18-5	6.6	73	440	TEEL-2/11, TEEL-3/6, mouse 120-min LC50	ppm
776	Decene, 1-, homopolymer, hydrogenated	68037-01-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
777	Decyl alcohol; (1-Decanol)	112-30-1	1.8	19	140	TEEL-2/11, rabbit 120-min TCLo, mouse 120-min LC50	mg/m ³
778	Demeton	8065-48-3	0.18	2	20	TEEL-2/11, LOC, IDLH (1990)	mg/m ³
779	Demeton-S-methyl	919-86-8	0.45	5	22	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
780	Deuterium	7782-39-0	65000***	230000***	400000***	Used hydrogen (1333-74-0) PAC values	ppm
781	Deuteriochloric acid; (Deuterium chloride)	7698-05-7	1.8	22	100	Used hydrogen chloride (7647-01-0) AEGL values	ppm
782	Di(ethylene glycol) diacrylate	4074-88-8	0.75	8.3	50	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
783	Di-2-ethylhexyl adipate	103-23-1	17	180	1,100	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
784	Diacetoxydibutyl stannane	1067-33-0	0.59	6.5	39	MW-adjusted organic tin (7440-31-5) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
785	Diacetoxyscirpenol; (Anguidin; mycotoxin)	2270-40-8	9.90E-04	0.011	0.34	TEEL-2/11, monkey iv TDLo, pig iv LD50	mg/m ³
786	Diacetyl peroxide; (Acetyl peroxide)	110-22-5	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
787	Dialifor	10311-84-9	0.45	5	39	TEEL-2/11, LOC, dog oral LD50	mg/m ³
788	Diallyl phthalate	131-17-9	15	24	140	United Kingdom OEL-TWA x 3, TEEL-3/6, rat 60-min LC50	mg/m ³
789	Diallyldimethylammonium chloride	7398-69-8	7.6	83	500	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
790	Diallyldimethylammonium chloride polymer	26062-79-3	6	65	590	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
791	Diamino-6-(2'-methylimidazol-1-yl)ethyl-s-triazine, 2,4-; (1,3,5-Triazine-2,4-diamine, 6-(2-(2-methyl-1H-imidazol-1-yl)ethyl)-; Curezol 2MEA-PW)	38668-46-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
792	Diaminodiphenyl ether, 4,4'-; (4,4'-Oxydianiline)	101-80-4	2.2	24	140	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
793	Diaminodiphenylsulfone; (Dapsone, 4,4'-Sulfonyldianiline)	80-08-0	2	22	78	TEEL-2/11, human oral TDLo, rat ip LD50	mg/m ³
794	Diaminodipropylamine, 3,3-; (Aminobis(propylamine))	56-18-8	0.41	4.5	27	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
795	Diaminopyridine, 2,6-	141-86-6	0.33	3.6	22	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
796	Diammonium dimolybdate; (Ammonium molybdenum oxide)	27546-07-2	2.6	29	170	MW-adjusted soluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
797	Diammonium oxalate; (Ethanedioic acid, diammonium salt)	1113-38-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
798	Diammonium sulfide; (Ammonium sulfide)	12135-76-1	1	54	100	Used MW-adjusted hydrogen sulfide (7783-06-4) AEGL values	ppm
799	Diamond	7782-40-3	6.3	69	1,100	TEEL-2/11, mouse ip TDLo, mouse oral LD50	mg/m ³
800	Dianisidine dihydrochloride, o-; (3,3'-Dimethoxybenzidine dihydrochloride)	20325-40-0	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
801	Diazabicyclo(2,2,2)octane, 1,4-	280-57-9	5.1	56	340	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
802	Diazabicyclo(5.4.0)undec-7-ene, 1,8-	6674-22-2	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
803	Diazoacetic acid, ethyl ester; (Ethyl diazoacetate)	623-73-4	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
804	Diazomethane	334-88-3	0.6	6.6	40	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
805	Dibenza(a,h)anthracene	53-70-3	0.093	1	2.9	TEEL-2/11, mouse oral TDLo, mouse iv LDLo	mg/m ³
806	Dibenzo(a,e)pyrene; (Naphtho(1,2,3,4-def)chrysene)	192-65-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
807	Dibenzofuran	132-64-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
808	Dibenzo-p-dioxin	262-12-4	3.7	40	240	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
809	Diborane	19287-45-7	0.3	1.0	3.7	TLV-TWA x 3, AEGL-2, AEGL-3	ppm
810	Dibromo-3-chloropropane, 1,2-; (DBCP)	96-12-8	0.003	2.2	4.3	PEL-TWA x 3, rat 1440-min TCLo, rat 60-min LC50	ppm
811	Dibromo-4-nitrophenol, 2,6-	99-28-5	0.015	0.17	1	TEEL-2/11, TEEL-3/6, mouse iv LD50	ppm
812	Dibromochloromethane; (Chlorodibromomethane)	124-48-1	1.1	12	73	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
813	Dibromohexane, 1,6-	629-03-8	0.89	9.7	58	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
814	Dibromomethane; (Methylene dibromide)	74-95-3	3	33	200	TEEL-2/11, rat oral TDLo, rat 120-min LC50	ppm
815	Dibromophenol, 2,6-	608-33-3	14	150	900	Used MW-adjusted 2,6-dichlorophenol (87-65-0) PAC values	mg/m ³
816	Dibromopropane, 1,3-	109-64-8	3.1	34	100	TEEL-2/11, rat oral TDLo, mouse ip LD50	mg/m ³
817	Dibromotetrafluoroethane; (Halon 2402)	124-73-2	43	480	2,900	TEEL-2/11, TEEL-3/6, rat 120-min LC50	ppm
818	Dibutyl (2-ethylhexyl)phosphate	z-0011	21	230	1,400	Used tri(2-ethylhexyl) phosphate (78-42-2) PAC values	ppm
819	Dibutyl butylphosphonate	78-46-6	0.018	0.2	1.2	TEEL-2/11, TEEL-3/6, mouse iv LD50	ppm
820	Dibutyl peroxide, tert-	110-05-4	7.3	81	180	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
821	Dibutyl phosphate	107-66-4	2	21	125	REL-STEL, TEEL-3/6, IDLH (1990)	ppm
822	Dibutyl phosphite	1809-19-4	9.6	110	630	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
823	Dibutyl phthalate	84-74-2	15	1,600	9300*	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
824	Dibutylboron triflate; (Dibutylboryl trifluoromethanesulfonate)	60669-69-4	36	400	2,400	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
825	Dibutylhexamethylenediamine, N,N'	4835-11-4	0.2	2.2	9.7	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
826	Dibutyltin dilaurate; (Dibutylbis(lauroyloxy)stannane)	77-58-7	1.1	8	48	MW-adjusted organic tin (7440-31-5) TLV-STEL, TEEL-3/6, rat oral LD50	mg/m ³
827	Dichloran; (2,6-Dichloro-4-nitroaniline; Resisan)	99-30-9	7.2	79	480	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
828	Dichloro(4,4-dimethylzinc - 5((((methylamino)carbonyl)oxy)imino)pentanenitrile), (trans-4)-; (Ethienocarb)	58270-08-9	0.82	9	54	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
829	Dichloro-2-butene, 1,4-	764-41-0	0.015	1.9	12	TLV-TWA x 3, TEEL-3/6, rat 240-min LC50	ppm
830	Dichloro-2-propanol, 1,3-	96-23-1	0.33	3.6	5.4	TEEL-2/11, mouse 180-min TClO, rat 240-min LCLo	ppm
831	Dichloro-2-trifluoromethylbenzimidazole, 4,5-; (Chloroflurazole)	3615-21-2	1.2	13	78	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
832	Dichloroacetic acid	79-43-6	1.5	8.9	140	TLV-TWA x 3, dog oral TDLo, rat oral LD50	ppm
833	Dichloroacetyl chloride	79-36-7	0.040	1.6	52	AEGL-1, AEGL-2, AEGL-3	ppm
834	Dichloroacetylene	7572-29-4	0.0091	0.1	3.4	TEEL-2/11, TLV-C, mouse 60-min LC50	ppm
835	Dichloroamine; (Chlorimide)	3400-09-7	0.14	1.5	9.2	TEEL-2/11, rat oral TDLo, TEEL-2 x 6	ppm
836	Dichlorobenzene, m-	541-73-1	6	66	400	MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
837	Dichlorobenzene, o-	95-50-1	50	170	1,000	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
838	Dichlorobenzene, p-	106-46-7	30	170	1,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
839	Dichlorobenzidene, 3,3'-	91-94-1	2.1	23	140	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
840	Dichlorocyclohexane, 1,1-	2108-92-1	52	180	1,000	Used MW-adjusted o-dichlorobenzene (95-50-1) PAC values	ppm
841	Dichlorocyclohexane, trans-1,2-	822-86-6	52	180	1,000	Used MW-adjusted o-dichlorobenzene (95-50-1) PAC values	ppm
842	Dichlorodifluoromethane; (Freon 12, CFC 12)	75-71-8	3,000	10,000	50,000	TLV-TWA x 3, EEGL 60-min, IDLH (1990)	ppm
843	Dichloroethanol acetate, 1,2-	10140-87-1	0.15	1.7	10	TEEL-2/11, LOC, TEEL-2 x 6	ppm
844	Dichloroethyl ether; (1,1'-Oxybis(2-chloro)ethane; Bis(2-chloroethyl)ether)	111-44-4	10	25	250	TLV-STEL, LOC, IDLH (1990)	ppm
845	Dichloroethylaluminum	563-43-9	28	310	1,800	MW-adjusted soluble aluminum salts (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
846	Dichloroethylbenzene; (Ethylidichlorobenzene)	1331-29-9	17	180	1,100	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
847	Dichloroethylene, 1,2-	540-59-0	140	500	850	Used cis-1,2-dichloroethylene (156-59-2) AEGL values	ppm
848	Dichloroethylene, cis-1,2-	156-59-2	140	500	850	AEGL-1, AEGL-2, AEGL-3	ppm
849	Dichloroethylene, trans-1,2-	156-60-5	280	1,000	1,700	AEGL-1, AEGL-2, AEGL-3	ppm
850	Dichlorofluoromethane; (Freon 21, CFC 21)	75-43-4	30	8,300	50,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
851	Dichlorohexane, 1,2-	2162-92-7	1.9	21	120	Used 1,6-dichlorohexane (2163-00-0) PAC values	ppm
852	Dichlorohexane, 1,6-	2163-00-0	1.9	21	120	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	ppm
853	Dichloroisopropyl ether	108-60-1	0.15	1.6	22	TEEL-2/11, rat oral TDLo, rat 60-min LCLo	ppm
854	Dichloromethane-d2	1665-00-5	200	560	6,900	Used methylene chloride (75-09-2) AEGL values	ppm
855	Dichloromethoxy ethane; (bis(2-Chloroethoxy)methane)	111-91-1	0.04	0.44	2.7	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
856	Dichloromethyl ether; (bis(Chloromethyl)ether)	542-88-1	0.004	0.044	0.18	AEGL-2/11, AEGL-2, AEGL-3	ppm

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
857	Dichloromethylphenylsilane	149-74-6	0.9	11	50	Used MW-adjusted hydrogen chloride (7647-01-0) AEGL values	ppm
858	Dichloromethylphosphine; (Methylphosphonous dichloride)	676-83-5	0.25	2.8	17	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	ppm
859	Dichlorooctane, 1,8-	2162-99-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
860	Dichlorophene	97-23-4	4.5	50	300	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
861	Dichlorophenol, 2,4-	120-83-2	0.2	2	20	ERPG-1, ERPG-2, ERPG-3	ppm
862	Dichlorophenol, 2,6-	87-65-0	8.8	97	580	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
863	Dichlorophenoxyacetic acid, 2,4-; (2,4-D)	94-75-7	30	94	500	TLV-TWA x 3, dog oral TDLo, IDLH (1990)	mg/m ³
864	Dichloropropane, 1,1-	78-99-9	2.6	29	170	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
865	Dichloropropane, 1,2-; (Propylene dichloride)	78-87-5	30	220	2,000	TLV-TWA x 3, mouse 120-min TCLo, IDLH (1990)	ppm
866	Dichloropropane, 1,3-	142-28-9	5.4	59	350	TEEL-2/11, TEEL-3/6, dog oral LDLo	ppm
867	Dichloropropane, 2,2-	594-20-7	2.6	29	170	TEEL-2/11, TEEL-3/6, rat 360-min LCLo	ppm
868	Dichloropropene, 1,1-	563-58-6	1.3	15	87	Used 1,2-dichloropropene (563-54-2) PAC values	ppm
869	Dichloropropene, 1,2-; (including cis- isomer, 6923-20-2)	563-54-2	1.3	15	87	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
870	Dichloropropene, 1,3-; (including cis- and trans-isomers)	542-75-6	3	19	120	TLV-TWA x 3, TEEL-3/6, mouse 120-min LC50	ppm
871	Dichloropropene, 2,3-	78-88-6	0.33	3.6	21	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
872	Dichlorosilane	4109-96-0	0.90	11	50	AEGL-1, AEGL-2, AEGL-3	ppm
873	Dichlorotetrafluoroethane	1320-37-2	140	1,600	9,500	TEEL-2/11, TEEL-3/6, mouse 30-min LCLo	ppm
874	Dichlorotetrafluoroethane, 1,2-; (Freon 114, CFC 114)	76-14-2	3,000	10,000	50,000	TLV-TWA x 3, EEGL 60-min, IDLH (1990)	ppm
875	Dichlorovos; (Dichlorvos)	62-73-7	1.8	20	200	TEEL-2/11, LOC, IDLH (1990)	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
876	Dicrotophos	141-66-2	0.15	0.9	17	TEEL-2/11, LOC, rat 60-min LC50	mg/m ³
877	Dicyclohexano-18-crown-6	16069-36-6	0.41	4.5	35	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
878	Dicyclohexyl; (Cyclohexylcyclohexane)	92-51-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
879	Dicyclohexylcarbodiimide	538-75-0	0.12	1.3	8	TEEL-2/11, TEEL-3/6, rat 360-min LC50	mg/m ³
880	Dicyclopentadiene	77-73-6	0.01	5	75	ERPG-1, ERPG-2, ERPG-3	ppm
881	Didecyltrimethylammonium chloride	7173-51-5	0.82	9	17	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
882	Dieldrin	60-57-1	0.3	6.8	450	TLV-TWA x 3, rat oral TDLo, IDLH (1990)	mg/m ³
883	Diesel fuels; (includes diesel fuel No. 4 (68476-31-3), fuel oil No.2 (68476-30-2), fuel oil residual (68476-33-5))	68334-30-5	300	3,300	20,000	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
884	Diethanolamine	111-42-2	3	28	130	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
885	Diethenylbenzene, polymer with ethenylbenzene and ethenylethylbenzene, sulfonated; (Dowex 50-X8 resin)	69011-20-7	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
886	Diethoxydimethylsilane	78-62-6	2.8	31	180	TEEL-2/11, TEEL-3/6, rat 480-min LC50	ppm
887	Diethyl (methylthiomethyl) phosphonate	28460-01-7	1.8	20	120	Used methyl demeton methyl (2587-90-8) PAC values	ppm
888	Diethyl carbonate	105-58-8	12	140	810	TEEL-2/11, TEEL-3/6, rat oral LDLo	ppm
889	Diethyl chlorophosphate	814-49-3	0.73	8	11	TEEL-2/11, LOC, mouse oral LD50	mg/m ³
890	Diethyl ethylphosphonate	78-38-6	1	11	460	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
891	Diethyl malonate; (Ethyl malonate)	105-53-3	6.9	76	450	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
892	Diethyl mercury	627-44-1	0.039	0.052	2.6	MW-adjusted alkyl mercury (7439-97-6) TLV-STEL, PEL-C, IDLH (1994, See white paper)	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
893	Diethyl methylphosphonate; (DEMP)	683-08-9	7.3	81	480	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
894	Diethyl oxalate	95-92-1	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
895	Diethyl phosphite	762-04-9	12	130	770	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
896	Diethyl phthalate; (Ethyl phthalate)	84-66-2	15	300	1,800	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
897	Diethyl pyrocarbonate	1609-47-8	4.1	45	270	TEEL-2/11, TEEL-3/6, rat 60-min LCLo	mg/m ³
898	Diethyl sulfate	64-67-5	0.16	1.8	11	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
899	Diethyl tartrate	87-91-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
900	Diethyl telluride	627-54-3	0.3	1.8	11	United Kingdom OEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
901	Diethyl trichloromethylphosphonate	866-23-9	2.4	26	160	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
902	Diethylamine	109-89-7	15	330	2000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
903	Diethylaminoacetone	1620-14-0	0.12	1.3	7.8	Used novol ketone (105-14-6) PAC values converted to ppm	ppm
904	Diethylaminopropylamine	104-78-9	1.7	18	110	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
905	Diethylaniline, N,N-	91-66-7	1.3	14	85	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
906	Diethylbenzene mixed isomers; (Dowtherm J); includes m- (141-93-5) and o- (135-01-3) isomers	25340-17-4	10	100	500	ERPG-1, ERPG-2, ERPG-3	ppm
907	Diethyldichlorosilane	1719-53-5	0.90	11	50	AEGL-1, AEGL-2, AEGL-3	ppm
908	Diethylene glycol	111-46-6	6.9	140	860	WEEL-TWA x 3, TEEL-3/6, oral dog LD50	ppm
909	Diethylene glycol di(3-aminopropyl) ether; (Polyglycol diamine)	4246-51-9	13	140	850	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
910	Diethylene glycol diacetate; (2,2'-Oxybisethanol diacetate)	628-68-2	47	520	3,100	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
911	Diethylene glycol dimethyl ether; (Bis(2-methoxy ethyl)ether)	111-96-6	15	91	190	MAK-TWA x 3, rat 240-min TCLo, rat oral LD50	ppm

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			PAC-1	PAC-2	PAC-3		
912	Diethylene glycol hexyl ether; (n-Hexyl carbitol)	112-59-4	3.7	41	480	TEEL-2/11, rabbit dermal TDLo, rat oral LD50	mg/m ³
913	Diethylenetriamine	111-40-0	3	8.5	51	TLV-TWA x 3, TEEL-3/6, rat oral LD50	ppm
914	Diethylenetriaminepentaacetic acid	67-43-6	3.5	39	230	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
915	Diethylenylbenzene; (Vinylstyrene) (m-Divinylbenzene, 108-57-6)	1321-74-0	30	58	350	TLV-TWA x 3, TEEL-3/6, rat oral LD50	ppm
916	Diethylethanolamine, N,N-; (Diethylaminoethanol)	100-37-8	6	83	500	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
917	Diethylphosphatoethyltriethoxy silane	757-44-8	52	570	3,400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
918	Diethylstilbestrol; ((E)-4,4'-(1,2-Diethyl-1,2-ethenediyl)bisphenol)	56-53-1	9	99	590	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
919	Diethylthiourea, N,N'-	105-55-5	0.95	10	63	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
920	Diethylurea, 1,3-	623-76-7	2.9	32	190	TEEL-2/11, TEEL-3/6, mouse ip LDLo	ppm
921	Diethylzinc	557-20-0	24	260	1,600	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	ppm
922	Difluoroethane; (1,1-Difluoroethane; HFC 152a)	75-37-6	10,000	15,000	25,000	ERPG-1, ERPG-2, ERPG-3	ppm
923	Digitoxin	71-63-6	0.016	0.18	15	TEEL-2/11, LOC, rat oral LD50	mg/m ³
924	Diglycidyl ether	2238-07-5	0.77	8.5	25	TEEL-2/11, LOC, IDLH (1990)	ppm
925	Diglycol monoethyl ether acetate; (Carbitol acetate)	112-15-2	16	170	1,000	TEEL-2/11, TEEL-3/6, rabbit oral LD50	mg/m ³
926	Digoxin	20830-75-5	0.018	0.2	13	TEEL-2/11, LOC, rat ip LD50	mg/m ³
927	Dihexyl((diethylcarbamoyl)methyl)phosphonate; (Dihexyl-N,N-diethylcarbamoylmethyl phosphonate)	7369-66-6	3	33	200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
928	Dihydro-2(3H)-furanone; (4-Butanolide)	96-48-0	3.6	39	310	TEEL-2/11, monkey oral TDLo, rat oral LD50	mg/m ³
929	Dihydro-2H-pyran, 3,4-	110-87-2	3.5	38	230	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	ppm
930	Dihydro-3-(nonenyl)-2,5-furandione	28928-97-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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			PAC-1	PAC-2	PAC-3		
931	Dihydro-4-methyl furan, 2,3-	34314-83-5	12	130	790	Used tetrahydromethylfuran (1320-94-1) PAC values.	mg/m ³
932	Dihydrogen hexachloroplatinate; (Chloroplatinic acid)	16941-12-1	0.013	3.2	19	MW-adjusted soluble platinum salts (7440-06-4) TLV-TWA x 3, TEEL-3/6, rat iv LD50	mg/m ³
933	Dihydroxy-1,3-indandione, 2,2-; (Ninhydrin monohydrate)	485-47-2	0.26	2.8	17	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
934	Dihydroxy-2-butene, 1,4-; (2-Butene-1,4-diol)	110-64-5	1	11	69	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
935	Dihydroxyanthraquinone, 1,8-; (Dantron)	117-10-2	6.7	73	440	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
936	Dihydroxybenzoic acid, 2,4-	89-86-1	2.6	29	170	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
937	Dihydroxynaphthalene-2,7-disulfonic acid, disodium salt dihydrate, 4,5-	5808-22-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
938	Diiodomethane; (Methylene iodide)	75-11-6	2.4	27	160	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
939	Diisoamylamine	544-00-3	0.041	0.45	2.7	Used di-n-amylamine (2050-92-2) PAC values	ppm
940	Diisobutyl ketone	108-83-8	75	330	2000*	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
941	Diisobutylaluminum hydride; (Diisobutylhydroaluminum)	1191-15-7	5.4	54	330	MW-adjusted soluble aluminum salts (7429-90-5) REL-TWA x 3, TEEL-3/6, guinea pig 60-min LCLo	ppm
942	Diisobutylamine	110-96-3	0.15	1.6	9.7	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
943	Diisooctyl acid phosphate	27215-10-7	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
944	Diisopropyl methylphosphonate	1445-75-6	2.7	30	180	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
945	Diisopropyl peroxydicarbonate	105-64-6	6.4	71	420	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
946	Diisopropylamine	108-18-9	15	170	1,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
947	Diisopropylamino)ethyl chloride hydrochloride, 2-(-	4261-68-1	0.008	0.088	0.53	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
948	Diisopropylaminoethanol, 2-; (N,N-Diisopropyl ethanolamine)	96-80-0	1.5	17	99	TEEL-2/11, TEEL-3/6, rat 360-min LC50	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
949	Diisopropylaniline, 2,6-	24544-04-5	16	180	630	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
950	Diisopropylbenzene, 1,3-	99-62-7	2	23	180	TEEL-2/11, rat oral TDLo, rat 120-min LCLo	mg/m ³
951	Diisopropylethylamine, N,N-	7087-68-5	1.8	19	120	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
952	Diisopropylfluorophosphate; (Phosphorofluoridic acid, bis(1-methylethyl) ester)	55-91-4	0.33	3.6	22	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
953	Diisopropyl-naphthalene; (Bis(isopropyl)naphthalene)	38640-62-9	5.6	61	370	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
954	Diketene; (Ketene dimer)	674-82-8	0.091	1.0	3.0	AEGL-2/11, AEGL-2, AEGL-3	ppm
955	Dilauroyl peroxide	105-74-8	30	330	2,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
956	Dimefox; (bis(Dimethylamido)fluorophosphate)	115-26-4	0.091	1	4.1	TEEL-2/11, LOC, dog iv LD50	mg/m ³
957	Dimethoate	60-51-5	2.7	30	170	TEEL-2/11, LOC, dog oral LD50	mg/m ³
958	Dimethoxybenzene, 1,3-	151-10-0	3	32	190	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
959	Dimethoxybenzene, o-	91-16-7	2.7	29	180	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
960	Dimethoxybenzidine 3,3'-; (o-Dianisidine)	119-90-4	20	220	380	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
961	Dimethoxybutane, 1,3-	10143-66-5	5.2	57	340	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
962	Dimethoxybutane, 2,2-	3453-99-4	5.2	57	340	Used 1,3-dimethoxybutane (10143-66-5) PAC values	ppm
963	Dimethoxydiphenylsilane	6843-66-9	0.027	0.3	1.8	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	mg/m ³
964	Dimethoxyethane, 1,2-	110-71-4	13	140	840	TEEL-2/11, TEEL-3/6, rat 360-min LCLo	ppm
965	Dimethoxypropane, 2,2-	77-76-9	5.2	57	340	Used 1,3-dimethoxybutane (10143-66-5) PAC values	ppm
966	Dimethyl butane, 2,2-	75-83-2	1,000	11000**	66000***	TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	ppm
967	Dimethyl carbamoyl chloride	79-44-7	0.015	1.5	9.1	TEEL-2/11, TEEL-3/6, rat 360-min LC50	ppm

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
968	Dimethyl carbonate	616-38-6	11	120	700	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
969	Dimethyl cyclopentanol, 1,3-	19550-46-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
970	Dimethyl disulfide	624-92-0	0.01	50	250	ERPG-1, ERPG-2, ERPG-3	ppm
971	Dimethyl mercury	593-74-8	0.034	0.046	2.3	MW-adjusted alkyl mercury (7439-97-6) TLV-STEL, PEL-C, IDLH (1994, See white paper)	mg/m ³
972	Dimethyl methylphosphonate; (DMMP)	756-79-6	10	110	1,600	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
973	Dimethyl phosphite	868-85-9	8.6	95	150	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
974	Dimethyl phosphorochloridothioate	2524-03-0	0.29	3.2	15	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
975	Dimethyl siloxane; (Dimethylpolysiloxane; Syltherm XLT; Syltherm 800; Silicone 360)	63148-62-9	65	720	4,300	TEEL-2/11, TEEL-3/6, mouse ip LDLo	mg/m ³
976	Dimethyl sulfate	77-78-1	0.024	0.12	1.6	AEGL-1, AEGL-2, AEGL-3	ppm
977	Dimethyl sulfide; (2-Thiopropene)	75-18-3	0.5	1,000	5000*	ERPG-1, ERPG-2, ERPG-3	ppm
978	Dimethyl sulfone	67-71-0	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
979	Dimethyl sulfoxide; (DMSO)	67-68-5	150	290	1,800	MAK-TWA x 3, TEEL-3/6, rat oral LD50	ppm
980	Dimethyl(1-phenylethyl)benzene	40766-31-2	2	23	410	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
981	Dimethyl(polysiloxane); (Polydimethylsiloxane, silanol terminated; Dimethylsiloxane, poly, hydroxy end-blocked)	70131-67-8	190	2,100	13,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
982	Dimethyl-1,3-dioxolane-4-methanol, 2,2-	100-79-8	3.9	43	260	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
983	Dimethyl-1,3-propanediamine, N,N-; (1-Amino-3-dimethylaminopropane)	109-55-7	1.2	13	89	TEEL-2/11, rat oral TDLo, rat oral LD50	ppm
984	Dimethyl-1-butanamine, N,N-	927-62-8	130	1,400	8,600	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	mg/m ³
985	Dimethyl-3-nitrobenzene, 1,2-	83-41-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
986	Dimethyl-3-pentanone, 2,4-	565-80-0	2.3	25	150	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
987	Dimethyl-5-phenylphenazinium chloride, 3,7-diamino-2,8-; (Safranin; Gossypimine)	477-73-6	0.17	1.9	11	TEEL-2/11, TEEL-3/6, rat iv LD50	mg/m ³
988	Dimethylacetamide, N,N-	127-19-5	30	67	400	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
989	Dimethylacrylamide, N,N-	2680-03-7	0.15	1.7	50	TEEL-2/11, rat dermal TDLo, mouse oral LD50	mg/m ³
990	Dimethylamine	124-40-3	10	66	250	AEGL-1, AEGL-2, AEGL-3	ppm
991	Dimethylamino)phenyl)azo)benzenesulfonic acid, sodium salt, p-(p-; (Methyl orange, sodium salt)	547-58-0	0.18	2	12	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
992	Dimethylaminoazobenzene, 4-	60-11-7	0.6	6.6	40	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
993	Dimethylaminobenzaldehyde, p-	100-10-7	8.2	90	250	TEEL-2/11, rat ip TDLo, rat ip LD50	mg/m ³
994	Dimethylaminocyclohexane, N,N-	98-94-2	1	11	66	TEEL-2/11, TEEL-3/6, rat 120-min LC50	mg/m ³
995	Dimethylaminoethanol, 2-	108-01-0	3.7	40	72	TEEL-2/11, rat 360-min TCLo, rat 240-min LC50	ppm
996	Dimethylaminoethyl chloride hydrochloride, 2-	4584-46-7	0.34	3.8	47	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
997	Dimethylammonium N,N-dimethylcarbamate	4137-10-4	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
998	Dimethylaniline, N,N-	121-69-7	10	330	2,000	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
999	Dimethylbenzidine 3,3'-; (o-Tolidine)	119-93-7	0.0018	0.02	36	TEEL-2/11, REL-C, mouse ip LDLo	mg/m ³
1000	Dimethylbutyric acid, 2,2-	595-37-9	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1001	Dimethylchlorosilane; (Chlorodimethylsilane)	1066-35-9	1.8	22	100	AEGL-1, AEGL-2, AEGL-3	ppm
1002	Dimethylcyclohexane, cis-1,4-	624-29-3	510	5,600	34,000	TWA (See ACGIH Appendix H, converted to ppm) x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
1003	Dimethyldecane, 2,2-	17302-37-3	230	385	5,000	Used octane (111-65-9) PAC values	ppm

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1004	Dimethyldichlorosilane	75-78-5	0.90	11	50	AEGL-1, AEGL-2, AEGL-3	ppm
1005	Dimethyldicyclopentadiene	26472-00-4	2.2	24	140	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
1006	Dimethyldimethoxysilane	1112-39-6	14	150	920	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	mg/m ³
1007	Dimethylethyl hydroperoxide, 1,1-; (tert-Butylhydroperoxide)	75-91-2	0.37	4.1	22	TEEL-2/11, guinea pig 360-min TCLo, rat oral LD50	ppm
1008	Dimethylformamide, N,N-	68-12-2	2	91	530	ERPG-1, AEGL-2, AEGL-3	ppm
1009	Dimethylglyoxime; (Diacetyldioxime)	95-45-4	0.99	11	65	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
1010	Dimethylheptane, 2,2-	1071-26-7	230	385	5,000	Used octane (111-65-9) PAC values	ppm
1011	Dimethylhexane, 3,3-	563-16-6	230	385	5,000	Used octane (111-65-9) PAC values	ppm
1012	Dimethylhydrazine, 1,1-	57-14-7	0.27	3.0	11	AEGL-2/11, AEGL-2, AEGL-3	ppm
1013	Dimethylhydrazine, 1,2-	540-73-8	0.27	3.0	11	AEGL-2/11, AEGL-2, AEGL-3	ppm
1014	Dimethylimidazole, 1,2-	1739-84-0	2.2	24	140	TEEL-2/11, TEEL-3/6, mouse ip LDLo	mg/m ³
1015	Dimethylisopropylamine, N,N-	996-35-0	11	120	710	MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1016	Dimethylnonane, 4,5-	17302-23-7	230	385	5,000	Used octane (111-65-9) PAC Values	ppm
1017	Dimethyloctane, 3,5-	15869-93-9	230	385	5,000	Used octane (111-65-9) PAC Values	ppm
1018	Dimethylphenol, 2,4-; (2,4-Xylenol)	105-67-9	6.9	76	460	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1019	Dimethylphenol, 2,6-; (2,6-Xylenol)	576-26-1	2.4	26	160	TEEL-2/11, mouse 120-min TCLo, TEEL-2 x 6	mg/m ³
1020	Dimethylphthalate	131-11-3	15	1,600	9300*	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
1021	Dimethylpolysilane; (Poly(dimethylsilane))	28883-63-8	0.5	0.83	2.5	Used trimethoxysilane (2487-90-3) PAC values	ppm
1022	Dimethyl-p-phenylenediamine, N,N-	99-98-9	0.012	0.13	9.9	TEEL-2/11, LOC, rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1023	Dimethylpropane, 2,2-; (Neopentane)	463-82-1	3000*	33000***	200000***	TLV-TWA (pentane, all isomers) x 3, TEEL-1 x 11, TEEL-2 x 6 (See white paper)	ppm
1024	Dimethylpyridine, 2,4-; (2,4-Lutidine)	108-47-4	0.14	1.5	9	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1025	Dimethyltetramethoxydisiloxane, 1,3-	18186-97-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1026	Dimetilan	644-64-4	2.3	25	150	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1027	Di-n-amylamine	2050-92-2	0.041	0.45	2.7	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
1028	Di-n-butylamine	111-92-2	0.45	5	21	TEEL-2/11, WEEL-C, rat 240-min LCLo	ppm
1029	Dinitraniline orange; (Hansa orange RN)	3468-63-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1030	Dinitroaniline, 2,4-	97-02-9	0.86	9.4	56	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1031	Dinitrobenzene, -m; (includes -o, (528-29-0) and -p isomers (100-25-4))	99-65-0	3	33	200	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
1032	Dinitro-o-cresol, 4,6-	534-52-1	0.6	0.83	5	TLV-TWA x 3, TEEL-3/6, IDLH (1990 and 1994)	mg/m ³
1033	Dinitrophenol	25550-58-7	0.25	2.7	16	TEEL-2/11, TEEL-3/6, dog oral LDLo	mg/m ³
1034	Dinitrophenol, 2,3-	66-56-8	1.1	13	75	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
1035	Dinitrophenol, 2,4-	51-28-5	0.61	6.8	16	TEEL-2/11, rat oral TDLo, dog oral LDLo	mg/m ³
1036	Dinitrophenol, 2,6-	573-56-8	0.23	2.5	15	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
1037	Dinitro-p-toluidine, 2,6-; (4-Amino-3,5-dinitrotoluene)	6393-42-6	1	12	69	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
1038	Dinitrosopiperazine; (Piperazine, 1,4-dinitroso-)	140-79-4	0.48	5.3	32	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1039	Dinitrotoluene	25321-14-6	0.6	34	200	TLV-TWA x 3, rat oral TDLo, IDLH (1990)	mg/m ³
1040	Dinitrotoluene, 2,4-	121-14-2	0.6	12	200	TLV-TWA (dinitrotoluene, 25321-14-6) x 3, dog oral TDLo, dinitrotoluene IDLH (1990)	mg/m ³

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			PAC-1	PAC-2	PAC-3		
1041	Dinitrotoluene, 2,6-	606-20-2	0.6	47	200	TLV-TWA (dinitrotoluene, 25321-14-6) x 3, dog oral TDLo, dinitrotoluene IDLH (1990)	mg/m ³
1042	Dinitrotoluene, 3,4-	610-39-9	0.6	33	200	TLV-TWA (dinitrotoluene, 25321-14-6) x 3, TEEL-3/6, dinitrotoluene IDLH (1990)	mg/m ³
1043	Dinoseb; (2-sec-Butyl-4,6-dinitrophenol)	88-85-7	0.41	4.5	5.4	TEEL-2/11, LOC, rat oral LD50	mg/m ³
1044	Dinoterb; (2-(1,1-Dimethylethyl)-4,6-dinitrophenol)	1420-07-1	0.19	2	12	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1045	Diocetyl phthalate, n-	117-84-0	41	450	11000*	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
1046	Diocetyl sebacate; (Bis(2-ethylhexyl) sebacate)	122-62-3	5.4	59	360	TEEL-2/11, TEEL-3/6, rat iv LD50	mg/m ³
1047	Diocetyl sodium sulfosuccinate; (Di-(2-ethylhexyl) sodium sulfosuccinate)	577-11-7	5.7	63	380	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1048	Dioxane, 1,4-; (1,4-Diethyleneoxide)	123-91-1	17	320	760	AEGL-1, AEGL-2, AEGL-3	ppm
1049	Dioxathion	78-34-2	0.31	3.4	39	TEEL-2/11, LOC, rat 60-min LC50	mg/m ³
1050	Dioxolane, 1,3-	646-06-0	60	190	1,000	TLV-TWA x 3, rat oral TDLo, rat 240-min LC50	ppm
1051	Dipentaerythritol; (Dipentek)	126-58-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1052	Dipentyl pentylphosphonate	6418-56-0	13	140	830	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
1053	Diphacinone; (Diphenadione)	82-66-6	0.082	0.9	88	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
1054	Diphenyl chlorophosphate; (Diphenylphosphoryl chloride)	2524-64-3	1.2	13	79	TEEL-2/11, TEEL-3/6, LD50 (HHR = 3)	mg/m ³
1055	Diphenyl cresol phosphate	26444-49-5	4.3	47	280	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1056	Diphenyl mercury	587-85-9	0.53	8.3	50	MW-adjusted aryl mercury (7439-97-6) TLV-TWA x 3, TEEL-3/6, MW-adjusted mercury IDLH (1990)	mg/m ³
1057	Diphenylamine	122-39-4	30	180	220	TLV-TWA x 3, rat oral TDLo, rat oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
1058	Diphenylchloroarsine; (Chlorodiphenylarsine)	712-48-1	0.035	0.39	1.2	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
1059	Diphenyldichlorosilane	80-10-4	0.90	11	50	AEGL-1, AEGL-2, AEGL-3	ppm
1060	Diphenylguanidine, 1,3-	102-06-7	0.97	11	64	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1061	Diphenylhydrazine, 1,2-	122-66-7	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
1062	Diphenylmethane	101-81-5	6.8	74	450	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1063	Diphenylnitrosamine	86-30-6	5.5	60	360	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1064	Diphenyloxazole, 2,5-	92-71-7	2.5	27	160	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1065	Dipicolinic acid; (2,6-Pyridinedicarboxylic acid)	499-83-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1066	Dipotassium cadmium oxide	z-0013	0.2	1.5	9.3	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
1067	Dipotassium dihydrogen silicate	z-0014	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1068	Dipotassium metasilicate	10006-28-7	3.9	43	260	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1069	Dipropyl ketone; (4-Heptanone)	123-19-3	150	1,700	9,900	TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
1070	Dipropylamine	142-84-7	2.8	31	180	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1071	Dipropylene glycol methyl ether	34590-94-8	150	1700*	9900**	TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	ppm
1072	Di-sec-octylphthalate	117-81-7	10	1,000	6,100	REL-STEL, TEEL-3/6, rat oral LD50	mg/m ³
1073	Disodium (2-ethylhexyl)phosphate	15505-13-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1074	Disodium 3,6-endoxohexahydrophthalate	129-67-9	0.15	1.7	10	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1075	Disodium butylphosphate	64114-42-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1076	Disodium cadmium oxide	z-0016	0.17	1.3	8	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
1077	Disodium dihydrogen silicate	z-0017	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1078	Disodium ethylenediaminediacetate (S and U isomers)	38011-25-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1079	Disodium hexafluorosilicate (2-)	16893-85-9	12	140	820	MW-adjusted fluorides TLV-TWA x 3, rat oral TDLo, MW-adjusted fluorides IDLH (1990)	mg/m ³
1080	Disodium iminodiacetate	928-72-3	3.3	37	220	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1081	Disodium monoxide; (Disodium oxide; Sodium oxide)	1313-59-3	0.5	5	50	Used sodium hydroxide (1310-73-2) ERPG values	mg/m ³
1082	Distillates (petroleum) hydrotreated heavy naphthenic	64742-52-5	140	1,500	8,900	Used mineral oil, heavy or light (8020-83-5) PAC values	mg/m ³
1083	Disulfiram	97-77-8	6	17	99	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1084	Disulfoton	298-04-4	0.18	2	8.8	TLV-TWA x 3, LOC, rat 240-min LC50	mg/m ³
1085	Di-tert-butyl dicarbonate	24424-99-5	0.067	0.73	4.4	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
1086	Di-tert-butylhydroquinone, 2,5-	88-58-4	6.3	69	110	TEEL-2/11, rat oral TDLo, mouse oral LD50	mg/m ³
1087	Dithiazanine iodide; (3,3'-Diethylpentamethinethiacyanine iodide)	514-73-8	1.8	20	33	TEEL-2/11, LOC, rat oral LD50	mg/m ³
1088	Dithiobiuret	541-53-7	0.45	5	11	TEEL-2/11, LOC, rat ip LD50	mg/m ³
1089	Dithiodiethanol, 2,2-; (Dithiodiglycol)	1892-29-1	0.52	5.7	34	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1090	Dithioerythritol, 1,4-	6892-68-8	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1091	Diurethane dimethacrylate	72869-86-4	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
1092	Dodecamethylcyclohexasiloxane	540-97-6	150	1,700	9,900	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1093	Dodecane	112-40-3	1.7	18	110	TEEL-2/11, TEEL-3/6, mouse iv LDLo	ppm

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1094	Dodecanethiol, 1-; (Dodecyl mercaptan; Lauryl mercaptan)	112-55-0	0.3	0.5	3	TLV-TWA x 3, REL-C, TEEL-2 x 6	ppm
1095	Dodecen-1-yl)succinic anhydride, (2-; (DDSA)	19780-11-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1096	Dodeceny succine anhydride; (Tetrapropenylsuccinic anhydride)	26544-38-7	7.7	84	510	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1097	Dodeceny succinic anhydride	25377-73-5	0.79	8.7	52	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	mg/m ³
1098	Dodecyl alcohol	112-53-8	12	140	820	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1099	Dodecyl methacrylate	142-90-5	6.9	76	460	TEEL-2/11, TEEL-3/6, rat ip LD50	ppm
1100	Dodecylbenzene sulfonic acid; (Laurylbenzenesulfonic acid)	27176-87-0	2	21	130	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1101	Dodecylphenol, 4- (mixture of isomers)	27193-86-8	4.1	45	420	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
1102	Dodecylsarcosine sodium salt, N-; (N-Lauryl sarcosine sodium salt)	7631-98-3	0.59	6.5	39	TEEL-2/11, TEEL-3/6, mouse iv, LD50	mg/m ³
1103	Dodecyltrichlorosilane	4484-72-4	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
1104	Dv methyl ester; (Methyl 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate)	61898-95-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1105	Dysprosium	7429-91-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1106	Dysprosium nickelide	12175-27-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1107	Dysprosium nitrate	10143-38-1	7.2	79	470	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1108	Dysprosium oxide; (Dysprosium(III) oxide)	1308-87-8	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1109	Ecolite	z-0018	16	170	1,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1110	Endosulfan	115-29-7	0.3	0.8	180	TLV-TWA x 3, LOC, human oral LDLo	mg/m ³
1111	Endothion	2778-04-3	1.5	17	100	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1112	Endrin	72-20-8	1.8	20	2,000	TEEL-2/11, LOC, IDLH (1990)	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1113	Epibatidine	140111-52-0	1.00E-04	0.0011	0.0068	TEEL-2/11, mouse ip TDLo, TEEL-2 x 6	mg/m ³
1114	Epibromohydrin	3132-64-7	0.98	11	65	TEEL-2/11, TEEL-3/6, mouse ip, LD50	mg/m ³
1115	Epichlorohydrin	106-89-8	1.7	24	72	AEGL-1, AEGL-2, AEGL-3	ppm
1116	EPN; (O-Ethyl-O-(4-nitrophenyl) phenylthiophosphonate)	2104-64-5	0.45	5	50	TEEL-2/11, LOC, IDLH (1990)	mg/m ³
1117	Epoxy resin includes EPON 1001, 1007, 820, ERL-2795	25068-38-6	90	990	5,900	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1118	Epoxy resin, cured; (4,4'-(1-Methylethylidene)biscyclohexanol, polymer with (chloromethyl)oxirane)	30583-72-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1119	Epoxy resin; (Bisphenol A-Bisphenol A diglycidyl ether polymer)	25036-25-3	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1120	Epoxy resin; (Epichlorohydrin, polymer with diethylene glycol)	25928-94-3	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1121	Epoxybutane, 1,2-; (1,2-Butylene oxide)	106-88-7	72	140	330	AEGL-1, AEGL-2, AEGL-3	ppm
1122	Epoxyethyl-7-oxabicyclo(4.1.0)heptane, 3-; (Vinyl cyclohexene dioxide)	106-87-6	0.3	5.9	35	TLV-TWA x 3, TEEL-3/6, rat 240-min LC50	ppm
1123	Erbium nitrate pentahydrate	10031-51-3	1.4	15	88	MW-adjusted erbium nitrate (10168-80-6) PAC values	mg/m ³
1124	Erbium(III) nitrate	10168-80-6	1.1	12	70	TEEL-2/11, TEEL-3/6, rat iv LD50	mg/m ³
1125	Erbium(III) nitrate hexahydrate	13476-05-6	1.4	15	91	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
1126	Erbium(III) oxide	12061-16-4	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1127	Ergotamine tartrate	379-79-3	0.91	10	32	TEEL-2/11, LOC, rat iv LD50	mg/m ³
1128	Estane; (Polyurethane resin; Urethane rubber)	61789-63-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1129	Ethanaminium, N,N,N-triethyl-, iodide (1:1); (Tetraethylammoniumiodide; Ammonium, tetraethyl-, iodide)	68-05-3	0.67	1.3	7.6	MW-adjusted iodine TLV-TWA x 3, TEEL-3/6, mouse ip LD50	mg/m ³
1130	Ethane	74-84-0	65000***	230000***	400000***	Simple asphyxiant	ppm

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1131	Ethanedioic acid, dimethyl ester	553-90-2	2	22	130	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
1132	Ethanedithiol, 1,2-	540-63-6	0.15	1.6	9.6	TEEL-2/11, TEEL-3/6, mouse oral LD50	ppm
1133	Ethanediy(bis)benzene, 1,1'-(1,2-; (Bibenzyl)	103-29-7	14	150	890	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1134	Ethanediy(bis(N-(carboxymethyl)glycine), N,N'-1,2-, dipotassium salt	2001-94-7	1.5	16	97	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1135	Ethanediy(bis(oxy))bisbenzene, 1,1'-(1,2-	104-66-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1136	Ethanethiol, 2-[bis(1-methylethyl)amino]-; (Ethanethiol, 2-(Diisopropylamino)-	5842-07-9	0.016	0.18	1.1	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1137	Ethanethiol; (Ethyl mercaptan)	75-08-1	1.0	120	360	AEGL-1, AEGL-2, AEGL-3	ppm
1138	Ethanol, titanium(4+) salt	3087-36-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1139	Ethanol: (Ethyl alcohol)	64-17-5	1,800	3300*	15000*	ERPG-1, ERPG-2 , IDLH (1990)	ppm
1140	Ethanolamine	141-43-5	6	170	1,000	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1141	Ethenylsilanetriol triacetate	4130-08-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1142	Ethidium bromide; (2,7-Diamino-10-ethyl-9-phenylphenanthridinium bromide)	1239-45-8	0.16	1.8	11	TEEL-2/11, TEEL-3/6, rat iv LD50	mg/m ³
1143	Ethion	563-12-2	1.2	13	38	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
1144	Ethoxyethanol, 2-	110-80-5	15	1,000	6000*	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1145	Ethoxyethoxy)ethanol, 2-(2-; (Carbitol cellosolve; Diethylene glycol monoethyl ether)	111-90-0	75	100	450	WEEL-TWA x 3, rat oral TDLo, dog iv LD50	ppm
1146	Ethoxyethyl methacrylate, 2-	2370-63-0	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
1147	Ethoxyethylacetate, 2-	111-15-9	15	420	2500*	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1148	Ethoxyimino)butyl)-5-(2-ethylthiopropyl)-3-hydroxycyclohex-2-en-1-one, 2-(1-; (Checkmate)	74051-80-2	9.6	110	630	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1149	Ethoxylated alcohols, C16-18; (Nonionic surfactant)	68439-49-6	3.8	42	250	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1150	Ethoxylated alcohols, C7-C21	68991-48-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1151	Ethoxylated nonylphenol; (Nonyl phenyl polyethylene glycol ether)	9016-45-9	43	470	5,400	TEEL-2/11, dog oral TDLo, rat oral LD50	mg/m ³
1152	Ethyl (or dimethyl) pyrrolidine	z-0020	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1153	Ethyl acetate	141-78-6	1,200	1,700	10000**	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1154	Ethyl acetoacetate	141-97-9	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1155	Ethyl acrylate	140-88-5	8.3	36	240	AEGL-1, AEGL-2, AEGL-3	ppm
1156	Ethyl alcohol-d; (Ethanol-d)	925-93-9	1,800	3300*	15000*	Used ethyl alcohol (64-17-5) PAC values	ppm
1157	Ethyl benzene	100-41-4	33	1100*	1800*	AEGL-1, AEGL-2, AEGL-3	ppm
1158	Ethyl benzoate	93-89-0	6.3	69	420	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1159	Ethyl bromoacetate	105-36-2	0.18	1.9	12	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1160	Ethyl butyl ketone; (3-Heptanone)	106-35-4	75	500	3000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1161	Ethyl chloride; (Chloroethane)	75-00-3	300	5100*	20000**	TLV-TWA x 3, rat 120-min TCLo, IDLH (1990)	ppm
1162	Ethyl chloroacetate	105-39-5	0.11	1.2	7.1	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1163	Ethyl chloroformate	541-41-3	0.15	1.6	4.8	AEGL-2/11, AEGL-2, AEGL-3	ppm
1164	Ethyl ether	60-29-7	500	3200*	19000***	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1165	Ethyl formate	109-94-4	100	1,300	8000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1166	Ethyl hexanoic acid, 2-; (Butyl ethyl acetic acid)	149-57-5	15	99	590	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1167	Ethyl isocyanate	109-90-0	0.0031	0.034	0.10	AEGL-2/11, AEGL-2, AEGL-3	ppm
1168	Ethyl lactate; (Ethyl (S)-(-)-lactate)	687-47-8	5.7	63	380	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
1169	Ethyl mercury chloride; (Chloroethyl mercury)	107-27-7	0.04	0.53	2.6	MW-adjusted mercury, alkyl compounds (7439-97-6) TLV-STEL, PEL-C (also adjusted based on ratio to toxicity data), MW-adjusted mercury, alkyl compounds IDLH (1994, See white paper)	mg/m ³
1170	Ethyl methacrylate; (2-Methyl-2-propenoic acid, ethyl ester)	97-63-2	5.5	61	370	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
1171	Ethyl methylphosphonic acid; (EMPA; VX acid; Ethyl methyl phosphonate; Ethyl methyl phosphonic acid)	1832-53-7	10	110	1,600	Used dimethyl methylphosphonate (756-79-6) PAC values	mg/m ³
1172	Ethyl nitrite	109-95-5	0.11	1.2	7.1	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
1173	Ethyl O-2-diisopropylaminoethylmethylphosphonite, O-; (QL)	57856-11-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1174	Ethyl propionate	105-37-3	6.3	69	410	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1175	Ethyl S,S-dipropylphosphorodithioate, O-; (Mocap PC-84; Ethoprophos)	13194-48-4	0.14	1.6	9.3	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1176	Ethyl sec-amyl ketone; (5-Methyl-3-heptanone)	541-85-5	30	500	3,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1177	Ethyl silicate polymer; (Silicic acid, ethyl ester)	11099-06-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1178	Ethyl trichlorosilane; (trichloroethylsilane)	115-21-9	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
1179	Ethyl-1,3-hexanediol, 2-; (Ethyl hexylene glycol)	94-96-2	6.9	75	90	TEEL-2/11, rat oral TDLo, rat oral LD50	ppm
1180	Ethyl-1-hexanol, 2-	104-76-7	0.1	100	200	ERPG-1, ERPG-2, ERPG-3	ppm
1181	Ethyl-2-methylheptane, 3-	14676-29-0	230	385	5,000	Used octane (111-65-9) PAC values	ppm
1182	Ethyl-2-methyloctane, 6-	62016-19-7	230	385	5,000	Used octane (111-65-9) PAC values	ppm
1183	Ethyl-2-oxazoline, 2-	10431-98-8	30	330	2,000	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	ppm
1184	Ethyl-4-hydroxybenzoate; (p-Hydroxybenzoic acid ethyl ester); Ethylparaben	120-47-8	31	340	2,100	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
1185	Ethyl-5-methylheptane, 3-	52896-90-9	230	385	5,000	Used octane (111-65-9) PAC values	ppm
1186	Ethyl-6-methyl-4-phenyl-3-cyclohexene-1-carboxylic acid sodium salt, 5-; (Mebane sodium salt)	16550-39-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1187	Ethylamine; (Monoethylamine; Ethylamine anhydrous)	75-04-7	7.5	49	270	AEGL-1, AEGL-2, AEGL-3	ppm
1188	Ethylbenzaldehyde, 2-	22927-13-5	22	240	1,400	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	ppm
1189	Ethylchloroformate	2941-64-2	0.024	0.26	0.79	AEGL-2/11, AEGL-2, AEGL-3	ppm
1190	Ethylidichloroarsine; (Dichloroethylarsine)	598-14-1	0.0026	0.029	0.086	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
1191	Ethylene	74-85-1	600	6600*	40000***	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
1192	Ethylene chlorohydrin; (2-Chloroethanol)	107-07-3	0.11	1.2	3.5	AEGL-2/11, AEGL-2, AEGL-3	ppm
1193	Ethylene dibromide; (Dibromoethane)	106-93-4	17	24	46	AEGL-1, AEGL-2, AEGL-3	ppm
1194	Ethylene dichloride; (1,2-Dichloroethane)	107-06-2	50	200	300	ERPG-1, ERPG-2, ERPG-3	ppm
1195	Ethylene fluorohydrin; (2-Fluoroethanol)	371-62-0	0.0025	0.027	0.35	TEEL-2/11, LOC, rat 10-min LC50	ppm
1196	Ethylene glycol	107-21-1	30	150	900	MAK-TWA x 3, TEEL-3/6, dog oral LD50	ppm
1197	Ethylene glycol diacetate	111-55-7	21	230	1,400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1198	Ethylene glycol dimethacrylate	97-90-5	9.9	110	650	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1199	Ethylene glycol dinitrate; ethanediol dinitrate, 1,2-	628-96-6	0.016	0.2	80	REL-STEL, PEL-C, IDLH (1994)	ppm
1200	Ethylene glycol monomethyl ether acetate; (EGMEA; 2-Methoxyethyl acetate)	110-49-6	0.3	670	4000*	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1201	Ethylene glycol monomethyl ether; (2-Methoxyethanol; EGME; Methyl Cellosolve(R))	109-86-4	0.3	14	2000*	TLV-TWA x 3, rat oral TDLo, IDLH (1990)	ppm
1202	Ethylene glycol monopropyl ether; (Propyl cellosolve; Ektasolve EP)	2807-30-9	2.2	24	140	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1203	Ethylene glycol mono-sec-butyl ether	7795-91-7	2.4	26	160	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1204	Ethylene oxide; (Oxirane)	75-21-8	5	45	200	PEL-STEL, AEGL-2, AEGL-3	ppm
1205	Ethylene/vinyl acetate copolmer	24937-78-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1206	Ethylenediamine dihydrochloride	333-18-6	2.7	29	180	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1207	Ethylenediamine, 1,2-	107-15-3	0.88	9.7	20	AEGL-2/11, AEGL-2, AEGL-3	ppm
1208	Ethylenediaminetetraacetic acid, disodium salt	139-33-3	11	120	730	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1209	Ethylenediaminetetraacetic acid, disodium salt, dihydrate	6381-92-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1210	Ethylenediaminetetraacetic acid, ferric ammonium salt	21265-50-9	97	1,100	6,300	MW-adjusted iron dust (1309-37-1) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1211	Ethylenediaminetetraacetic acid, tetrasodium salt, dihydrate	10378-23-1	82	900	5,500	Used MW-adjusted tetrasodium EDTA (64-02-8) PAC values	mg/m ³
1212	Ethylenediaminetetraacetic acid, tetrasodium salt; (Tetrasodium EDTA)	64-02-8	75	830	5,000	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
1213	Ethylenediaminetetraacetic acid; (EDTA)	60-00-4	4.1	45	200	TEEL-2/11, rat oral TDLo, rat ip LD50	mg/m ³
1214	Ethylenedinitrilo)tetra-2-propanol, 1,1',1'',1'''-(	102-60-3	34	370	2,200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1215	Ethyleneimine	151-56-4	0.1	4.6	9.9	TLV-STEL, AEGL-2, AEGL-3	ppm
1216	Ethylenethiourea; (2-Imidazolidinethione)	96-45-7	0.085	0.94	110	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
1217	Ethylheptane, 4-	2216-32-2	230	385	5,000	Used octane (111-65-9) PAC values	ppm
1218	Ethylhexyl acrylate, 2-; (Acrylic acid, 2-ethylhexyl ester)	103-11-7	15	120	150	MAK-TWA x 3, rat 360-min TCLo, rat oral LD50	ppm
1219	Ethylhexyl bromide, 2-	18908-66-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1220	Ethylhexylchloroformate, 2-	24468-13-1	0.088	0.97	2.9	AEGL-2/11, AEGL-2, AEGL-3	ppm
1221	Ethylhexyloxy)ethanol, 2-(2-	1559-35-9	9.2	100	610	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1222	Ethylidene chloride, 1,1-; (1,1-Dichloroethane)	75-34-3	300	670	4,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1223	Ethylidene norbornene	16219-75-3	0.2	100	500	ERPG-1, ERPG-2, ERPG-3	ppm
1224	Ethylmagnesium chloride; (Chloroethyl magnesium)	2386-64-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1225	Ethylphosphorodichloridate	1498-51-7	0.018	0.20	0.60	AEGL-2/11, AEGL-2, AEGL-3	ppm
1226	Ethylthiocyanate	542-90-5	20	100	170	MW-adjusted cyanides MAK-TWA x 3, LOC, MW-adjusted cyanides IDLH (1990)	mg/m ³
1227	Ethyltoluene, o-	611-14-3	20	220	1,300	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
1228	Ethyltoluene, p-	622-96-8	15	160	960	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1229	Europium	7440-53-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1230	Europium nitrate; (Europium trinitrate)	10138-01-9	11	130	760	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1231	Europium oxide	1308-96-9	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1232	Europium(II) iodide	22015-35-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1233	Farnesol	4602-84-0	18	200	1,200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1234	Fatty acids, tall-oil, polymers with glycerol, pentaerythritol and phthalic anhydride	66070-62-0	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1235	Fenamiphos	22224-92-6	0.15	0.9	3.1	TLV-TWA x 3, LOC, rat 60-min LC50	mg/m ³
1236	Fensulfothion	115-90-2	0.18	2	3.1	TEEL-2/11, LOC, rat 60-min LC50	mg/m ³
1237	Fenthion	55-38-9	0.15	5.9	35	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
1238	Ferric ammonium sulfate dodecahydrate	7783-83-7	26	280	1,700	Used MW-adjusted ferric ammonium sulfate (10138-04-2) PAC values	mg/m ³
1239	Ferric ammonium sulfate; (Sulfuric acid, ammonium iron(3e+) salt (2:1:1))	10138-04-2	14	160	950	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1240	Ferric chloride	7705-08-0	8.7	30	180	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1241	Ferric chloride hexahydrate	10025-77-1	15	39	240	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-3/6, rat oral LDLo	mg/m ³
1242	Ferric fluoride	7783-50-8	6.1	22	130	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-3/6, mouse ip LD50	mg/m ³
1243	Ferric hydroxide; (Iron(III) hydroxide)	1309-33-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1244	Ferric nitrate	10421-48-4	13	140	850	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1245	Ferric nitrate nonahydrate; (Iron(III) nitrate nonahydrate (1:3:9))	7782-61-8	22	110	640	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1246	Ferric phosphate	10045-86-0	8.1	89	530	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1247	Ferric sulfate; (Iron(III) sulfate)	10028-22-5	11	120	710	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1248	Ferrous ammonium sulfate	10045-89-3	15	170	1,000	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1249	Ferrous carbonate	563-71-3	6.2	69	410	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1250	Ferrous chloride	7758-94-3	6.8	76	460	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1251	Ferrous disulfide; (Iron disulfide)	12068-85-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1252	Ferrous hydroxide; (Iron(II) hydroxide)	18624-44-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1253	Ferrous Oxalate; (Iron(II) oxalate)	516-03-0	7.7	86	510	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1254	Ferrous sulfamate	14017-39-1	8.4	92	550	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1255	Ferrous sulfate	7720-78-7	8.2	41	250	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-3/6, dog oral LD50	mg/m ³
1256	Ferrous sulfate heptahydrate	7782-63-0	15	170	990	MW-adjusted iron soluble salts (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1257	Fibrous glass; (Fiber glass; Glass frit; Synthetic vitreous fibers)	65997-17-3	15	170	990	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1258	Fluonetil	4301-50-2	0.55	6	9.1	TEEL-2/11, LOC, mouse ip LD50	mg/m ³
1259	Fluoboric acid; (Tetrafluoroboric acid)	16872-11-0	8.7	97	580	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1260	Fluoranthene	206-44-0	8.2	90	400	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
1261	Fluorene, 9H-	86-73-7	6.6	72	430	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1262	Fluorides (as F)	16984-48-8	7.5	83	500	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
1263	Fluorine	7782-41-4	1.7	5	13	AEGL-1, AEGL-2, AEGL-3	ppm
1264	Fluoro-2-nitrobenzene, 1-; (o-Fluoronitrobenzene)	1493-27-2	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1265	Fluoro-4-nitrophenol, 2-	403-19-0	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1266	Fluoro-6-nitrophenol, 2-	1526-17-6	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
1267	Fluoroacetamide	640-19-7	0.53	5.8	19	TEEL-2/11, LOC, mouse 120-min LC50	mg/m ³
1268	Fluoroacetic acid, sodium salt; (Sodium fluoroacetate)	62-74-8	0.15	0.5	5	TLV-TWA x 3, LOC, IDLH (1990)	mg/m ³
1269	Fluoroacetic acid; (Fluoroethanoic acid)	144-49-0	0.043	0.47	0.93	TEEL-2/11, LOC, rat oral LD50	mg/m ³
1270	Fluoroacetyl chloride	359-06-8	0.91	10	60	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1271	Fluoroaniline, p-	371-40-4	1.3	14	83	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1272	Fluorobenzene	462-06-6	30	330	1,200	TEEL-2/11, rat 1440-min TClO, rat 240-min LC50	mg/m ³
1273	Fluorosulfonic acid; (Fluorosulfuric acid)	7789-21-1	2	10	30	ERPG-1, ERPG-2, ERPG-3	mg/m ³
1274	Fluorotrimethylsilane	420-56-4	32	350	2,100	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	ppm
1275	Fluorouracil	51-21-8	1.7	19	46	TEEL-2/11, LOC, rat oral LD50	mg/m ³
1276	Fonofos	944-22-9	0.3	1.3	53	TLV-TWA x 3, LOC, rat 60-min LC50	mg/m ³
1277	Forane	26675-46-7	21	230	610	TEEL-2/11, mouse 12-min TClO, rat 180-min LC50	ppm
1278	Formaldehyde	50-00-0	0.90	14	56	AEGL-1, AEGL-2, AEGL-3	ppm
1279	Formaldehyde cyanohydrin; (Hydroxyacetonitrile; Glycolonitrile)	107-16-4	0.24	2.6	11	TEEL-2/11, LOC, rat 240-min LCLo	ppm
1280	Formamide	75-12-7	30	110	650	TLV-TWA x 3, TEEL-3/6, rat oral LD50	ppm
1281	Formetanate hydrochloride	23422-53-9	0.12	1.3	7.9	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
1282	Formic acid	64-18-6	3	25	250	ERPG-1, ERPG-2, ERPG-3	ppm
1283	Formic acid, 2-propenyl ester; (Allyl formate)	1838-59-1	0.65	7.2	43	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
1284	Formic acid, butyl ester; (n-Butyl formate)	592-84-7	4.6	51	300	TEEL-2/11, TEEL-3/6, cat 70-min LC50	ppm
1285	Formothion	2540-82-1	2.1	24	140	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
1286	Formparanate	17702-57-7	0.65	7.2	43	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1287	Formylpiperidine, 1-	2591-86-8	0.58	6.3	38	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1288	Fosthietan	21548-32-3	0.43	4.7	28	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1289	Fuberidazole	3878-19-1	0.3	3.3	15	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1290	Fulminic acid; (Carbyloxime)	506-85-4	0.68	7.5	45	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	ppm
1291	Furan	110-00-9	0.62	6.8	19	AEGL-2/11, AEGL-2, AEGL-3	ppm
1292	Furancarboxaldehyde, 2-; (Furfural)	98-01-1	2	10	100	ERPG-1, ERPG-2, ERPG-3	ppm
1293	Furancarboxylic acid, ethyl ester, 2-; (Ethyl furoate)	614-99-3	0.1	1.1	6.8	TEEL-2/11, TEEL-3/6, mouse iv LD50	ppm
1294	Furfuryl alcohol	98-00-0	15	42	250	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1295	Fusariotoxin T2; (T2-Trichothecene)	21259-20-1	0.0014	0.015	0.093	TEEL-2/11, TEEL-3/6, rat 10-min LC50	mg/m ³
1296	Gadolinium	7440-54-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1297	Gadolinium chloride hexahydrate	13450-84-5	2.2	24	140	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1298	Gadolinium hydroxide	16469-18-4	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1299	Gadolinium nitrate, solid	10168-81-7	11	130	750	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1300	Gadolinium nitrite	z-0022	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1301	Gadolinium(III) oxide	12064-62-9	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1302	Gallic acid monohydrate	5995-86-8	18	190	1,200	TEEL-2/11, TEEL-3/6, rabbit oral LD50	mg/m ³
1303	Gallium	7440-55-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1304	Gallium oxide	12024-21-4	16	180	1,100	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1305	Gallium trichloride	13450-90-3	2.9	32	930	TEEL-2/11, LOC, rat oral LD50	mg/m ³
1306	Gallium trifluoride	7783-51-9	17	180	1,100	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1307	Gasoline	86290-81-5	200	1,000	4000*	ERPG-1, ERPG-2, ERPG-3	ppm

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1308	Germane; (Germanium tetrahydride)	7782-65-2	0.015	0.17	0.50	AEGL-2/11, AEGL-2, AEGL-3	ppm
1309	Germanium	7440-56-4	3.2	35	170	TEEL-2/11, rat 360-min TCLo, rat 240-min LCLo	mg/m ³
1310	Germanium oxide	1310-53-8	3.8	41	250	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1311	Germanium tetrafluoride	7783-58-6	15	160	980	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1312	Germanous acid	z-0023	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1313	Giemsa's stain; (Blood stain)	51811-82-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1314	Gluconic acid, D-	526-95-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1315	Gluteraldehyde	111-30-8	0.2	1	5	ERPG-1, ERPG-2, ERPG-3	ppm
1316	Glycerine (mist); (Glycerol; Glycerin)	56-81-5	45	180	1,100	PEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1317	Glycerine carbonate; (4-Hydroxymethyl-1,3-dioxolan-2-one)	931-40-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1318	Glyceryl monostearate; (Octadecanoic acid, monoester with 1,2,3-propanetriol)	31566-31-1	0.66	7.2	43	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1319	Glycidaldehyde	765-34-4	0.39	4.3	26	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
1320	Glycidol; (Oxiranemethanol, 1-Propanol, 2,3-epoxy)	556-52-5	6	83	500	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1321	Glycidoxypropyltrimethoxysilane; (3-(2,3-Epoxypropoxy)propyltrimethoxysilane)	2530-83-8	9.3	100	230	TEEL-2/11, rat 360-min TCLo, rat 240-min LCLo	mg/m ³
1322	Glycidyl acrylate; (2,3-Epoxypropyl acrylate)	106-90-1	0.081	0.89	5.4	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
1323	Glycol carbonate; (Ethylene carbonate)	96-49-1	30	330	2,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1324	Glycolic acid; (Hydroxyacetic acid)	79-14-1	25	280	390	TEEL-2/11, rat 360-min TCLo, rat oral LD50	mg/m ³
1325	Glycols, polyethylene, dimethyl ether	24991-55-7	37	400	2,000	TEEL-2/11, rat oral TDLo, rat oral LDLo	mg/m ³

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1326	Glycols, polyethylene, mono(p-nonylphenyl) ether	26027-38-3	4.5	49	300	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1327	Glycoluril; (Acetyleneurea)	496-46-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1328	Glyoxal; (Ethanedione, 1, 2-)	107-22-2	0.3	46	280	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1329	Gold	7440-57-5	0.46	5.1	30	TEEL-2/11, TEEL-3/6, rat iv LDLo	mg/m ³
1330	Guanidine hydrochloride	50-01-1	1.4	16	94	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1331	Guanidine, N-methyl-N'-nitro-N-nitroso-	70-25-7	0.27	3	18	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1332	Hafnium	7440-58-6	1.5	17	99	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1333	Hafnium oxide	12055-23-1	1.8	19	120	MW-adjusted hafnium (7440-58-6) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1334	Halon 1211; (Bromochlorodifluoromethane)	353-59-3	13	140	1,400	TEEL-2/11, rat 360-min TCLo, rat 15-min LC50	ppm
1335	Hansa yellow	13515-40-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1336	HCFC-123; (Dichloro-1,1,1-trifluoroethane, 2,2-)	306-83-2	150	1,000	10,000	WEEL-TWA x 3, ERPG-2, ERPG-3	ppm
1337	HCFC-141b; (Dichloro-1-fluoroethane, 1,1-, Freon 141)	1717-00-6	1,000	1,700	3,000	AEGL-1, AEGL-2, AEGL-3	ppm
1338	Helium	7440-59-7	65,000	2.30E+05	4.00E+05	Simple asphyxiant	ppm
1339	Heptachlor	76-44-8	0.15	14	700	TLV-TWA x 3, rat oral TDLo, IDLH (1990)	mg/m ³
1340	Heptachlor epoxide; (Epoxyheptachlor)	1024-57-3	0.15	0.5	3	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1341	Heptachlorodibenzofuran, 1,2,3,4,6,7,8-; (HeptaCDF, 1,2,3,4,6,7,8-)	67562-39-4	0.013	0.14	0.85	Used TCDD (1746-01-6) PACs divided by TEF = 0.01 (See white paper)	mg/m ³
1342	Heptachlorodibenzofuran, 1,2,3,4,7,8,9-; (HeptaCDF, 1,2,3,4,7,8,9-)	55673-89-7	0.013	0.14	0.85	Used TCDD (1746-01-6) PACs divided by TEF = 0.01 (See white paper)	mg/m ³
1343	Heptachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8-; (HeptaCDD, 1,2,3,4,6,7,8-)	35822-46-9	0.013	0.14	0.85	Used TCDD (1746-01-6) PACs divided by TEF = 0.01 (See white paper)	mg/m ³

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1344	Heptadecane	629-78-7	4.3	48	290	TEEL-2/11, TEEL-3/6, mouse iv LDLo	ppm
1345	Heptafluorobutyric acid	375-22-4	0.5	5.5	33	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1346	Heptafluorotetrahydro-5-(nonafluorobutyl)furan, 2,2,3,3,4,4,5-; (Perfluoro-2-butyltetrahydrofuran; Fluorinert FC-75)	335-36-4	10	110	680	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1347	Heptane	142-82-5	500	830	5000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1348	Heptanoic acid	111-14-8	3.9	43	260	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1349	Heptanol, 1-; (Heptyl alcohol)	111-70-6	10	120	640	TEEL-2/11, rat ip TDLo, rat oral LD50	mg/m ³
1350	Heptene, 1-	592-76-7	130	1,400	8,700	TEEL-2/11, mouse 120-min TCLo, TEEL-2 x 6	ppm
1351	Hexacarbonylchromium; (Chromium hexacarbonyl)	13007-92-6	0.13	11	66	MW-adjusted chromium (VI) (7440-47-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
1352	Hexachloroacetone	116-16-5	0.22	2.4	29	TEEL-2/11, rat oral TDLo, rat 180-min LC50	mg/m ³
1353	Hexachlorobenzene	118-74-1	0.006	14	91	TLV-TWA x 3, monkey oral TDLo, rabbit 360-min LC50	mg/m ³
1354	Hexachlorobutadiene	87-68-3	1	3	10	ERPG-1, ERPG-2, ERPG-3	ppm
1355	Hexachlorocyclopentadiene	77-47-4	0.03	0.55	1	TLV-TWA x 3, rat oral TDLo, dog 30-min LCLo	ppm
1356	Hexachlorodibenzodioxin, 1,2,3,4,7,8-; (HexaCDD, 1,2,3,4,7,8-)	39227-28-6	0.0013	0.014	0.085	Used TCDD (1746-01-6) PACs divided by TEF = 0.1 (See white paper)	mg/m ³
1357	Hexachlorodibenzofuran, 1,2,3,4,7,8-	70648-26-9	0.0013	0.014	0.085	Used TCDD (1746-01-6) PACs divided by TEF = 0.1 (See white paper)	mg/m ³
1358	Hexachlorodibenzofuran, 1,2,3,6,7,8-	57117-44-9	0.0013	0.014	0.085	Used TCDD (1746-01-6) PACs divided by TEF = 0.1 (See white paper)	mg/m ³
1359	Hexachlorodibenzofuran, 1,2,3,7,8,9-; (HexaCDF, 1,2,3,7,8,9-)	72918-21-9	0.0013	0.014	0.085	Used TCDD (1746-01-6) PACs divided by TEF = 0.1 (See white paper)	mg/m ³
1360	Hexachlorodibenzofuran, 2,3,4,6,7,8-	60851-34-5	0.0013	0.014	0.085	Used TCDD (1746-01-6) PACs divided by TEF = 0.1 (See white paper)	mg/m ³
1361	Hexachlorodibenzo-p-dioxin, 1,2,3,6,7,8-	57653-85-7	0.0013	0.014	0.085	Used TCDD (1746-01-6) PACs divided by TEF = 0.1 (See white paper)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1362	Hexachlorodibenzo-p-dioxin, 1,2,3,7,8,9-; (HexaCDD, 1,2,3,7,8,9-)	19408-74-3	0.0013	0.014	0.085	Used TCDD (1746-01-6) PACs divided by TEF = 0.1 (See white paper)	mg/m ³
1363	Hexachloroethane	67-72-1	3	36	300	TLV-TWA x 3, rat 360-min TCLo, IDLH (1990 and 1994)	ppm
1364	Hexachloronaphthalene	1335-87-1	0.6	6.6	40	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1365	Hexachloropropene	1888-71-7	0.089	0.98	5.9	TEEL-2/11, TEEL-3/6, rat 30-min LC50	ppm
1366	Hexadecanamine, 1-	143-27-1	0.66	7.2	43	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1367	Hexadecane	544-76-3	35	380	2,800	TEEL-2/11, mouse ip TDLo, mouse iv LDLo	mg/m ³
1368	Hexadecanoic acid; (Palmitic acid)	57-10-3	0.19	2.1	12	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
1369	Hexadecanol, 1-	36653-82-4	1.6	18	110	TEEL-2/11, TEEL-3/6, rat 360-min LCLo	mg/m ³
1370	Hexadecene, 1-	629-73-2	0.46	5.1	31	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
1371	Hexadecylpyridinium chloride, 1-; (Cepacol chloride)	123-03-5	0.06	0.66	4	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
1372	Hexadecyltrimethylammonium chloride	112-02-7	1.1	12	70	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
1373	Hexafluoro-2-propanol, 1,1,1,3,3,3-	920-66-1	1.3	15	87	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
1374	Hexafluoroacetone	684-16-2	0.018	0.2	80	AEGL-2/11, AEGL-2, AEGL-3	ppm
1375	Hexafluorobenzene	392-56-3	6.6	73	440	TEEL-2/11, TEEL-3/6, rat 120-min LC50	ppm
1376	Hexafluorobutyne-2; (1,1,1,4,4,4-Hexafluoro-2-butyne)	692-50-2	0.054	0.6	3.6	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
1377	Hexafluoroethane; (Freon 116; Perfluoroethane)	76-16-4	100	1,100	6,800	TEEL-2/11, TEEL-3/6, rat 120-min LCLo	ppm
1378	Hexafluoropropylene; (Hexafluoropropene)	116-15-4	40	91	480	AEGL-1, AEGL-2, AEGL-3	ppm
1379	Hexafluoropropylene-vinylidene fluoride polymer; (Viton)	9011-17-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1380	Hexamethylcyclotrisiloxane	541-05-9	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1381	Hexamethyldisilazane	999-97-3	2.5	28	170	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1382	Hexamethyldisiloxane	107-46-0	13	140	150	TEEL-2/11, rat 360-min TCLo, mouse ip LD50	ppm
1383	Hexamethylene diisocyanate polymer	28182-81-2	7.8	86	510	TEEL-2/11, TEEL-3/6, rat 60-min LC50	mg/m ³
1384	Hexamethylene diisocyanate; (1,6-Diisocyanatohexane)	822-06-0	0.018	0.2	3	TEEL-2/11, REL-C (adjusted based on the ratio to toxicity data), rat 240-min LC50	ppm
1385	Hexamethyleneimine	111-49-9	5.7	63	380	TEEL-2/11, TEEL-3/6, mouse 120-min LC50	mg/m ³
1386	Hexamethylenetetraamine hydrochloride	58713-21-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1387	Hexamethylenetetraamine; (Methenamine)	100-97-0	55	610	3,600	TEEL-2/11, TEEL-3/6, rat iv LD50	mg/m ³
1388	Hexamethylphosphoramidate	680-31-9	0.34	3.7	17	TEEL-2/11, rat oral TDLo, rat 240-min LCLo	ppm
1389	Hexamethyltetracosane, 2,6,10,15,19,23-; (Squalane)	111-01-3	0.69	7.6	46	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	ppm
1390	Hexanal	66-25-1	6	66	86	TEEL-2/11, rat oral TDLo, rat 240-min LCLo	ppm
1391	Hexane	110-54-3	260	2900*	8600**	AEGL-2/11, AEGL-2, AEGL-3	ppm
1392	Hexanediol diacrylate, 1,6-	13048-33-4	3	170	990	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1393	Hexanediol, 1,6-; (Hexamethylene glycol)	629-11-8	30	610	730	WEEL-TWA x 3, rat ip TDLo, rat oral LD50	mg/m ³
1394	Hexanenitrile	628-73-9	0.19	2.1	13	TEEL-2/11, TEEL-3/6, mouse oral LD50	ppm
1395	Hexanethiol, 1-; (N-Hexylmercaptan)	111-31-9	0.045	0.5	48	TEEL-2/11, REL-C, rat 240-min LC50	ppm
1396	Hexanoic acid; (caproic acid)	142-62-1	2.2	24	140	TEEL-2/11, TEEL-3/6, mouse 120-min LC50	mg/m ³
1397	Hexanol, 2-; (2-Hydroxyhexane)	626-93-7	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³

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			PAC-1	PAC-2	PAC-3		
1398	Hexanol, n-; (n-Hexyl alcohol)	111-27-3	10	110	580	TEEL-2/11, dog oral TDLo, rat 60-min LC50	ppm
1399	Hexanone, 2-; (Methyl n-butyl ketone)	591-78-6	10	830	5000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1400	Hexanone, 3-; (Ethyl propyl ketone)	589-38-8	2.6	29	170	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
1401	Hexanoyl chloride	142-61-0	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1402	Hexaphenylcyclotrisiloxane	512-63-0	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1403	Hexene, 1-	592-41-6	150	500	5000*	TLV-TWA x 3, ERPG-2, ERPG-3	ppm
1404	Hexylene glycol	107-41-5	2.3	25	150	TEEL-2/11, TLV-C, rat oral LD50	ppm
1405	Hexyltrichlorosilane	928-65-4	0.6	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
1406	HFC 134a; (Tetrafluoroethane, 1,1,1,2-)	811-97-2	8,000	13,000	27,000	AEGL-1, AEGL-2, AEGL-3	ppm
1407	HFO-1234yf; 2,3,3,3-Tetrafluoropropene	754-12-1	2,200	24,000	1.40E+05	ERPG-2/11, ERPG-2 , ERPG-2 x 6	ppm
1408	HFO-1234ze; 1,3,3,3-Tetrafluoropropylene	29118-24-9	1,400	15,000	69,000	ERPG-2/11, ERPG-2, ERPG-3	ppm
1409	Holmium	7440-60-0	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1410	Holmium trioxide	12055-62-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1411	Hydrazine	302-01-2	0.10	13	35	AEGL-1, AEGL-2, AEGL-3	ppm
1412	Hydrazine hydrate; (Hydrazine monohydrate; aqueous solutions - 10217-52-4)	7803-57-8	0.16	20	55	Used MW-adjusted hydrazine (302-01-2) AEGL values	mg/m ³
1413	Hydrazine hydrochloride; (Hydrazine monochloride)	2644-70-4	0.33	3.7	22	TEEL-2/11, TEEL-3/6, dog iv LD50	mg/m ³
1414	Hydrazine nitrate; (Hydrazinium nitrate)	13464-97-6	0.3	39	100	Used MW-adjusted hydrazine (302-01-2) AEGL values	mg/m ³
1415	Hydrazine sulfate	10034-93-2	0.5	5.5	33	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1416	Hydrazine, dihydrochloride	5341-61-7	1.8	20	120	TEEL-2/11, rat oral TDLo, TEEL-2 x 6	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1417	Hydrogen	1333-74-0	65000***	230000***	400000***	Simple asphyxiant	ppm
1418	Hydrogen bromide; (Hydrobromic acid)	10035-10-6	1.0	40	120	AEGL-1, AEGL-2, AEGL-3	ppm
1419	Hydrogen chloride; (Hydrochloric acid)	7647-01-0	1.8	22	100	AEGL-1, AEGL-2, AEGL-3	ppm
1420	Hydrogen cyanide; (Hydrocyanic acid)	74-90-8	2.0	7.1	15	AEGL-1, AEGL-2, AEGL-3	ppm
1421	Hydrogen fluoride; (Hydrofluoric acid)	7664-39-3	1.0	24	44	AEGL-1, AEGL-2, AEGL-3	ppm
1422	Hydrogen iodide; (Hydriodic acid)	10034-85-2	1.0	25	120	AEGL-1, AEGL-2, AEGL-3	ppm
1423	Hydrogen peroxide	7722-84-1	10	50	100	ERPG-1, ERPG-2, ERPG-3	ppm
1424	Hydrogen potassium phthalate; (Phthalic acid, monopotassium salt; Potassium acid phthalate; Potassium biphthalate)	877-24-7	9.6	110	630	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1425	Hydrogen selenide	7783-07-5	0.045	0.11	0.33	MAK-TWA x 3, AEGL-2, AEGL-3	ppm
1426	Hydrogen sulfide	7783-06-4	0.51	27	50	AEGL-1, AEGL-2, AEGL-3	ppm
1427	Hydrogenated terphenyl	61788-32-7	1.5	47	280	TLV-TWA x 3, TEEL-3/6, rat oral LD50	ppm
1428	Hydroquinone	123-31-9	3	20	120	TLV-TWA x 3, LOC, dog oral LD50	mg/m ³
1429	Hydroxy-2-methylpropanoic acid, 2-; (2-Methylactic acid)	594-61-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1430	Hydroxy-4'-hydroxyethoxy-2-methylpropiophenone, 2-	106797-53-9	12	130	810	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1431	Hydroxy-4-methyl-2-pentanone, 4-; (Diacetone alcohol)	123-42-2	150	350	2100*	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1432	Hydroxyapatite; (Calcium hydroxyapatite)	1306-06-5	190	2,100	12,000	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
1433	Hydroxybenzenesulfonic acid, 4-; (4-Hydroxyphenylsulfonic acid)	98-67-9	10	120	690	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1434	Hydroxybenzoic acid, 4-; (p-Salicylic acid)	99-96-7	15	110	240	WEEL-TWA x 3, rat oral TDLo, mouse oral LD50	mg/m ³

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1435	Hydroxybenzotriazole, 1-; (1-Hydroxybenzotriazole hydrate)	2592-95-2	20	220	1,300	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
1436	Hydroxyethyl acrylate, 2-; (Acrylic acid, 2-hydroxyethyl ester)	818-61-1	0.1	1.1	21	TEEL-2/11, rat 360-min TCLo, rat 240-min LCLo	ppm
1437	Hydroxyethyl methacrylate, 2-	868-77-9	1.9	21	1,000	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
1438	Hydroxyethyl-1-piperazineethanesulfonic acid, 4-(2-	7365-45-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1439	Hydroxyethylenediaminetriacetic acid, N-	150-39-0	2	22	130	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
1440	Hydroxyethylidene-1,1-diphosphonic acid, 1-; (Hydroxyethylidene bisphosphonic acid, 1-)	2809-21-4	7.2	79	480	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1441	Hydroxylamine	7803-49-8	0.35	3.9	23	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
1442	Hydroxylamine chloride; (Hydroxylamine hydrochloride)	5470-11-1	0.42	4.7	28	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1443	Hydroxylamine nitrate	13465-08-2	0.24	37	140	Used MW-adjusted nitric acid (7697-37-2) AEGL values	mg/m ³
1444	Hydroxylamine sulfate; (Oxammonium sulfate)	10039-54-0	2.8	31	190	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1445	Hydroxymethanesulfonic acid, monosodium salt; (Formaldehyde hydrosulfite)	149-44-0	6.6	72	430	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1446	Hydroxy-N-phenylbenzamide, N-; (Phenylbenzohydroxamic acid, N-)	304-88-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1447	Hydroxyphenyl)benzothiazole, 2-(2-	3411-95-8	17	190	1,100	TEEL-2/11, TEEL-3/6, mouse ip LDLo	mg/m ³
1448	Hydroxyphenylacetic acid, alpha-	90-64-2	25	270	1,600	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
1449	Hydroxyquinoline sulfate, 8-	134-31-6	3.6	40	240	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1450	Hypophosphorous acid-d3; (Hydrophosphorus acid-d3 solution, 50 wt.% in D2O)	57583-56-9	30	330	2,000	Used hypophosphorous acid (6303-21-5) PAC values	mg/m ³
1451	Hypophosphorus acid; (Phosphonic acid)	6303-21-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1452	Imidazole	288-32-4	0.66	7.3	44	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1453	Imidazole hydrochloride	1467-16-9	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1454	Iminodiacetic acid	142-73-4	0.82	9	54	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1455	Iminodiacetic acid, disodium salt hydrate	17593-73-6	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1456	Indan	496-11-7	20	220	1,300	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
1457	Indene	95-13-6	15	22	130	TLV-TWA x 3, TEEL-3/6, rat 240-min LC50	ppm
1458	Indeno(1,2,3-cd)pyrene	193-39-5	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1459	Indigo carmine; (FD&C blue No 2)	860-22-0	6	66	400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1460	Indium	7440-74-6	0.3	3.3	20	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1461	Indium oxide (vapor); (Diindium monoxide)	12030-22-7	0.33	3.6	22	MW-adjusted indium (7440-74-6) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1462	Indium sulfate	13464-82-9	0.68	7.6	46	MW-adjusted indium (7440-74-6) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1463	Indium trichloride	10025-82-8	0.58	6.3	38	MW-adjusted indium (7440-74-6) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1464	Indium(III) oxide	1312-43-2	0.36	4.8	29	MW-adjusted indium (7440-74-6) TLV-TWA x 3, rat 240-min TLo, TEEL-2 x 6	mg/m ³
1465	Indole-3-carboxaldehyde, 1H-; (3-Formylindole)	487-89-8	0.44	4.8	29	TEEL-2/11, TEEL-3/6, mouse ip LDLo	ppm
1466	Iodic acid	7782-68-5	0.15	1.7	10	TEEL-2/11, TEEL-3/6, iodine (7553-56-2) IDLH (1990)	mg/m ³
1467	Iodine	7553-56-2	0.1	0.5	5	ERPG-1, ERPG-2, ERPG-3	ppm
1468	Iodine 125	17144-19-3	0.1	0.5	5	Used Iodine (7553-56-2) ERPG values	ppm
1469	Iodobenzene	591-50-4	5.4	59	360	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1470	Iodoethane; (Ethyl iodide)	75-03-6	2.1	24	140	TEEL-2/11, TEEL-3/6, rat 30-min LC50	ppm
1471	Iodoheptafluoropropane, 1-; (Heptafluoropropyl iodide)	754-34-7	18	190	1,200	TEEL-2/11, TEEL-3/6, mouse 120-min LC50	ppm
1472	Iodopentane, 1-	628-17-1	0.38	63	380	MW-adjusted iodides (7553-56-2) TLV-TWA x 3, TEEL-3/6, rat ip LD50	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1473	lotalamic acid	2276-90-6	120	1,300	7,800	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
1474	Iridium	7439-88-5	4.7	51	310	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1475	Iron	7439-89-6	3.2	35	150	TEEL-2/11, rat 360-min TCLo, rat oral LD50	mg/m ³
1476	Iron carbide	12011-67-5	16	180	1,100	MW-adjusted insoluble iron dust (1309-37-1) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1477	Iron hydroxide oxide	20344-49-4	24	260	1,600	MW-adjusted insoluble iron fume (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1478	Iron oxide; (Ferric oxide)	1309-37-1	15	360	2,200	TLV-TWA x 3, TEEL-3/6, rat ip LD50	mg/m ³
1479	Iron pentacarbonyl	13463-40-6	0.0055	0.060	0.18	AEGL-2/11, AEGL-2, AEGL-3	ppm
1480	Iron sulfide	1317-37-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1481	Iron(II) chloride tetrahydrate	13478-10-9	11	120	710	MW-adjusted soluble iron (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1482	Iron(II) oxide; (Ferrous oxide)	1345-25-1	45	500	3,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1483	Iron(II) perchlorate hexahydrate	13520-69-9	19	210	1,200	MW-adjusted soluble iron (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1484	Iron(II,III) oxide; (Ferrosferric oxide)	1317-61-9	21	230	1,400	MW-adjusted soluble iron (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1485	Iron(III) perchlorate	13537-24-1	19	210	1,200	MW-adjusted soluble iron (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1486	Iron(III) sulfate heptahydrate	35139-28-7	28	310	1,900	MW-adjusted soluble iron (1309-37-1) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1487	Isoamyl acetate; (Isopentyl acetate)	123-92-2	100	500	3000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1488	Isoamyl alcohol (primary); (3-Methyl-1-butanol); includes Isoamyl alcohol (584-02-1), 2-pentanol (6032-29-7), amyl alcohol (71-41-0), and 2-methyl-2-butanol (75-85-4)	123-51-3	125	1700*	10000**	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1489	Isoamyl nitrite; (Isopentyl nitrite)	110-46-3	0.48	5.3	32	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1490	Isobenzan	297-78-9	0.01	0.11	0.66	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
1491	Isobutanol-2-amine	124-68-5	17	190	570	TEEL-2/11, dog oral TDLo, rat oral LD50	mg/m ³
1492	Isobutyl acetate	110-19-0	450	1300*	7500**	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1493	Isobutyl alcohol	78-83-1	150	1,300	8000*	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1494	Isobutyl chloride; (1-Chloro-2-methylpropane)	513-36-0	32	350	2100*	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	ppm
1495	Isobutyl chloroformate	543-27-1	0.6	2.2	6.7	MAK-TWA x 3, AEGL-2, AEGL-3	ppm
1496	Isobutyl isobutyrate	97-85-8	23	250	1,500	TEEL-2/11, TEEL-3/6, rat 360-min LD50	mg/m ³
1497	Isobutylamine	78-81-9	6	10	15	MAK-TWA x 3, MAK-C, rat oral LD50	ppm
1498	Isobutyraldehyde	78-84-2	75	78	470	WEEL-TWA x 3, TEEL-3/6, mouse 120-min LC50	ppm
1499	Isobutyric acid	79-31-2	0.23	2.6	15	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1500	Isobutyric anhydride; (2-Methylpropionic anhydride)	97-72-3	0.19	2	12	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	ppm
1501	Isobutyronitrile	78-82-0	0.18	2.0	6.1	AEGL-2/11, AEGL-2, AEGL-3	ppm
1502	Isocyanatoethyl methacrylate, 2-	30674-80-7	0.0091	0.1	1	ERPG-2/11, ERPG-2, ERPG-3	ppm
1503	Isocyanic acid	75-13-8	2	7.1	15	Used hydrogen cyanide (74-90-8) AEGL values	ppm
1504	Isocyanic acid, 3,4-dichlorophenyl ester; (3,4-Dichlorophenyl isocyanate)	102-36-3	1.3	14	120	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
1505	Isodrin	465-73-6	0.64	7	42	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1506	Isonate 181 MDI prepolymer	z-0113	0.45	5.5	55	Used methylene diphenyl diisocyanate (101-68-8) ERPG values	mg/m ³
1507	Isooctane; (2,2,4-Trimethylpentane)	540-84-1	230	830	5000*	REL-TWA x 3, TEEL-3/6, IDLH (1990)	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1508	Isopentane; (Ethylidimethylmethane; 2-Methylbutane)	78-78-4	3000*	33000***	200000***	TLV-TWA (pentane, all isomers) x 3, TEEL-1 x 11, TEEL-2 x 6 (See white paper)	ppm
1509	Isophorone	78-59-1	12	33	200	REL-TWA x 3, TEEL-3/6, IDLH (1994)	ppm
1510	Isophorone diisocyanate	4098-71-9	0.02	0.14	0.6	REL-STEL, LOC, rat 240-min LC50	ppm
1511	Isophthalic acid; (Phthalic acid, m isomer)	121-91-5	30	340	2,100	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1512	Isoprene	78-79-5	5	1,000	4000*	ERPG-1, ERPG-2, ERPG-3	ppm
1513	Isopropyl acetate	108-21-4	200	2700*	16000**	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1514	Isopropyl alcohol	67-63-0	400	2000*	12000**	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1515	Isopropyl chloride; (2-Chloropropane)	75-29-6	150	270	1,600	TLV-STEL, TEEL-3/6, rat 240-min LC50	ppm
1516	Isopropyl chloroformate; (Isopropyl chlorocarbonate)	108-23-6	0.3	3.3	10	AEGL-2/11, AEGL-2, AEGL-3	ppm
1517	Isopropyl ether; (Diisopropyl ether)	108-20-3	310	1700*	10000**	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1518	Isopropyl nitrate	1712-64-7	15	50	300	Swedish OEL-STEL, TEEL-3/6, rat 240-min LC50	ppm
1519	Isopropyl titanate(IV); (Titanium(IV) isopropoxide)	546-68-9	22	250	1,500	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1520	Isopropylamine; (2-Propanamine)	75-31-0	10	670	4000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1521	Isopropylmagnesium chloride; (Chloro(1-methylethyl)magnesium)	1068-55-9	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1522	Isopropylmethylpyrazolyl dimethylcarbamate; (Isolan)	119-38-0	0.51	5.6	34	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1523	Isopropyltoluene, 4-; (p-Cymene)	99-87-6	120	1,300	1,900	TEEL-2/11, rat 300-min TCLo, rat 240-min LCLo	mg/m ³
1524	Jeffamine M-600	77110-54-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1525	Jet fuels, (JP-5 and JP-8); (Kerosene, 8008-20-6, Fuel Oil No. 1)	70892-10-3	290	1,100	4,800	AEGL-1, AEGL-2 , rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1526	Kepone; (Chlordecone)	143-50-0	1.6	17	100	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
1527	Ketene; (Carbomethene, Ethenone)	463-51-4	0.0057	0.063	0.19	AEGL-2/11, AEGL-2, AEGL-3	ppm
1528	Krypton	7439-90-9	65,000	2.30E+05	4.00E+05	Simple asphyxiant	ppm
1529	Lactic acid, sodium salt, DL-; (Propanoic acid, 2-hydroxy-, monosodium salt)	312-85-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1530	Lactonitrile	78-97-7	0.24	2.6	16	TEEL-2/11, TEEL-2/6, rat 240-min LCLo	mg/m ³
1531	Lanthanum	7439-91-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1532	Lanthanum alizarin	z-0026	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1533	Lanthanum boride	12008-21-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1534	Lanthanum carbonate	6487-39-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1535	Lanthanum chloride	10099-58-8	7.1	78	470	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1536	Lanthanum fluoride	13709-38-1	26	280	1,700	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1537	Lanthanum hydroxide	14507-19-8	1.2	13	79	TEEL-2/11, TEEL-2/6, rat oral LD50 (HHR = 3)	mg/m ³
1538	Lanthanum nitrate	10099-59-9	14	150	890	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1539	Lanthanum oxide	1312-81-8	4	44	270	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1540	Lanthanum phosphate	14913-14-5	12	130	790	TEEL-2/11, TEEL-2/6, rat oral LD50 (HHR = 2)	mg/m ³
1541	Lanthanum(III) nitrate hexahydrate	10277-43-7	1.3	15	89	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1542	Laromin C 260; (bis(4-Amino-3-methylcyclohexyl) methane; Dimethyldicyane)	6864-37-5	0.28	3.1	19	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
1543	Lauryl sulfate; (Dodecyl sulfate)	151-41-7	3.9	43	260	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1544	Lead	7439-92-1	0.15	120	700	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
1545	Lead acetate(II), trihydrate; (Bis(acetato)trihydroxytrilead)	6080-56-4	14	150	920	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1546	Lead acetate, basic; (Lead subacetate)	1335-32-6	5.4	59	360	TEEL-2/11, TEEL-3/6, guinea pig oral LD50	mg/m ³
1547	Lead acetate; (Lead diacetate)	301-04-2	5	55	330	TEEL-2/11, TEEL-3/6, dog iv LDLo	mg/m ³
1548	Lead acid arsenate; (Dibasic lead arsenate)	7784-40-9	7	77	460	TEEL-2/11, TEEL-3/6, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
1549	Lead arsenate; (Trilead diarsenate)	3687-31-8	9.1	100	600	TEEL-2/11, TEEL-3/6, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
1550	Lead bromide	10031-22-8	0.27	200	1,200	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1551	Lead carbonate	598-63-0	0.19	24	900	MW-adjusted lead (7439-92-1) TLV-TWA x 3, dog oral TDLo, MW-adjusted lead IDLH (1990)	mg/m ³
1552	Lead chloride	7758-95-4	0.2	160	940	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1553	Lead chromate	7758-97-6	0.036	16	97	TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
1554	Lead dioxide	1309-60-0	0.17	140	810	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1555	Lead fluoborate	13814-96-5	0.28	220	1,300	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1556	Lead fluoride	7783-46-2	0.18	140	830	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1557	Lead hydroxide	19783-14-3	0.17	140	810	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1558	Lead iodide	10101-63-0	0.33	270	1,600	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1559	Lead nitrate	10099-74-8	0.24	180	1,100	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1560	Lead nitrite	13826-65-8	0.22	170	1,000	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1561	Lead oxalate	814-93-7	11	120	700	TEEL-2/11, TEEL-3/6, MW-adjusted lead (7439-92-1) IDLH (1990)	mg/m ³
1562	Lead oxide; (Lead monoxide)	1317-36-8	0.16	130	750	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1563	Lead phosphate	7446-27-7	0.2	150	910	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1564	Lead sulfate; (Sulfuric acid, lead(2+) salt (1:1))	7446-14-2	0.22	170	1,000	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1565	Lead sulfide	1314-87-0	0.17	140	810	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1566	Lead tetroxide	1314-41-6	0.17	130	770	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1567	Lead(II) arsenite	10031-13-7	4.2	47	280	TEEL-2/11, TEEL-3/6, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
1568	Lead(II) perchlorate trihydrate	13453-62-8	0.33	270	1,600	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
1569	Leco set 7007 powder	z-0027	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1570	Leptophos; (Fosvel)	21609-90-5	2.7	30	53	TEEL-2/11, LOC, rat ip LD50	mg/m ³
1571	Lewisite 1; (Chlorovinylarsine dichloride)	541-25-3	0.023	0.25	0.74	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
1572	Lewisite 2; (Bis(2-chlorovinyl)chloroarsine)	40334-69-8	0.023	0.25	0.74	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1573	Lewisite 3; (Tris(2-chlorovinyl)arsine)	40334-70-1	0.023	0.25	0.74	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
1574	Lignosulfonate (aqueous)	8062-15-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1575	Limonene, d-	5989-27-5	15	67	170	MAK-TWA x 3, rat oral TDLo, rat oral LD50	ppm
1576	Lindane; (gamma-Benzenehexachloride); includes the isomers (319-84-6, 319-85-7, 608-73-1)	58-89-9	9.1	100	1,000	TEEL-2/11, LOC, IDLH (1990)	mg/m ³
1577	Liquified petroleum gas; (L.P.G.)	68476-85-7	65,000	2.30E+05	4.00E+05	Simple asphyxiant	ppm
1578	Lithium	7439-93-2	3.3	36	220	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1579	Lithium acetate dihydrate	6108-17-4	3.2	36	210	TEEL-2/11, TEEL-3/6, mouse oral LDLo	mg/m ³
1580	Lithium aluminate	12003-67-7	37	400	2,400	MW-adjusted aluminum pyro powder REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1581	Lithium aluminum oxide; (Lithium aluminate)	11089-89-7	28	310	1,800	MW-adjusted aluminum pyro powder REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1582	Lithium aluminum silicate; (Petalite)	1302-66-5	34	360	2,200	MW-adjusted aluminum (7429-90-5) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1583	Lithium azide	19597-69-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1584	Lithium borohydride; (Lithium tetrahydroborate)	16949-15-8	2.2	24	150	MW-adjusted borate, inorganic compounds TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1585	Lithium bromide	7550-35-8	3.9	42	250	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1586	Lithium carbonate	554-13-2	3.1	34	210	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
1587	Lithium chloride	7447-41-8	2.3	25	150	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1588	Lithium chromate; (Lithium chromium oxide)	14307-35-8	0.37	6.5	39	MW-adjusted soluble chromium (VI) (7440-47-3) TLV-TWA x 3, TEEL-3/6, chromates (1333-82-0) IDLH (1990)	mg/m ³
1589	Lithium deuteride	13587-16-1	0.025	0.1	0.5	Used lithium hydride (7580-67-8) ERPG values	mg/m ³
1590	Lithium diisopropylamide; (LDA)	4111-54-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1591	Lithium fluoride	7789-24-4	10	110	680	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1592	Lithium hexafluorophosphate	21324-40-3	7.5	83	500	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1593	Lithium hydride	7580-67-8	0.025	0.1	0.5	ERPG-1, ERPG-2, ERPG-3	mg/m ³
1594	Lithium hydroxide	1310-65-2	0.091	1	42	TEEL-2/11, WEEL-C, rat 240-min LC50	mg/m ³
1595	Lithium hydroxide monohydrate	1310-66-3	0.16	1.8	74	Used MW-adjusted lithium hydroxide (1310-65-2) PAC values	mg/m ³
1596	Lithium iodide	10377-51-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1597	Lithium metaborate, anhydrous	13453-69-5	6	77	460	Used sodium metaborate (7775-19-1) PAC values	mg/m ³
1598	Lithium molybdate	13568-40-6	2.7	30	180	MW-adjusted soluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1599	Lithium niobium oxide; (Lithium niobate)	12031-63-9	32	350	2,100	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
1600	Lithium nitrate	7790-69-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1601	Lithium nitride	26134-62-3	30	160	1,100	Used ammonia (7664-41-7) AEGL values	ppm
1602	Lithium nitrite	13568-33-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1603	Lithium oxide	12057-24-8	0.091	1	6	TEEL-2/11, WEEL-C, TEEL-2 x 6	mg/m ³
1604	Lithium perchlorate, anhydrous	7791-03-9	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1605	Lithium silicon	68848-64-6	46	500	3,100	Used MW-adjusted lithium (7439-93-2) PAC values	mg/m ³
1606	Lithium stearate	4485-12-5	45	500	3,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1607	Lithium sulfate	10377-48-7	1.8	20	120	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1608	Lithium tetraborate	12007-60-2	4.3	47	280	MW-adjusted borate, inorganic compounds TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1609	Lithium tetraborate pentahydrate	1303-94-2	6.6	72	430	Used MW-adjusted lithium tetraborate (12007-60-2) PAC values	mg/m ³
1610	Lithium tetrahydroaluminate(1-); (Lithium aluminum hydride)	16853-85-3	8.4	92	550	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1611	Lithium triethylborodeuteride; (Super-deuteride)	74540-86-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1612	Lithium triethylborohydride; (Super-hydride)	22560-16-3	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1613	Lutetium	7439-94-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1614	Lutetium oxide	12032-20-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1615	Lutidine, 2,6-; (2,6-Dimethylpyridine)	108-48-5	31	340	2,000	TEEL-2/11, TEEL-3/6, rat 60-min LCLo	ppm
1616	Magnesium	7439-95-4	18	200	1,200	TLV-TWA (magnesium oxide, 1309-48-4) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1617	Magnesium acetate	142-72-3	26	280	1,700	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1618	Magnesium acetate tetrahydrate	16674-78-5	46	490	3,000	Used MW-adjusted magnesium acetate (142-72-3) PAC values	mg/m ³
1619	Magnesium aluminum phosphide	z-0116	0.061	0.67	1.2	AEGL-2/11, AEGL-2, AEGL-3	ppm
1620	Magnesium carbonate hydroxide	7760-50-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1621	Magnesium carbonate; (Magnesite)	546-93-0	45	260	1,600	PEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1622	Magnesium carbonate-magnesium hydroxide, pentahydrate	39409-82-0	45	500	3,000	Magnesite (546-93-0) PEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1623	Magnesium chloride	7786-30-3	11	120	550	TEEL-2/11, mouse ip TDLo, rat oral LD50	mg/m ³
1624	Magnesium chloride hexahydrate	7791-18-6	34	370	1,600	TEEL-2/11, mouse oral TDLo, rat oral LD50	mg/m ³
1625	Magnesium ethoxide	2414-98-4	30	330	2,000	Magnesium oxide (1309-48-4) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1626	Magnesium fluoride	7783-40-6	12	140	820	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1627	Magnesium formate	557-39-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1628	Magnesium hydroxide	1309-42-8	26	280	1,700	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1629	Magnesium iodate tetrahydrate	7790-32-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1630	Magnesium nitrate; (Magnesium(II) nitrate (1:2))	10377-60-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1631	Magnesium oxide	1309-48-4	30	120	730	TLV-TWA x 3, rat 240-min TClO, TEEL-2 x 6	mg/m ³
1632	Magnesium phosphide	12057-74-8	0.091	1.0	1.8	AEGL-2/11, AEGL-2, AEGL-3	ppm
1633	Magnesium silicate hydrate	1343-90-4	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
1634	Magnesium silicate; (Florisol)	1343-88-0	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
1635	Magnesium sulfate (1:1)	7487-88-9	20	220	1,300	TEEL-2/11, TEEL-3/6, dog ip LDLo	mg/m ³
1636	Magnesium sulfate heptahydrate	10034-99-8	33	370	2,300	Used MW-adjusted magnesium sulfate (7487-88-9) PAC values	mg/m ³
1637	Magnesium(II) nitrate (1:2), hexahydrate	13446-18-9	16	180	1,100	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1638	Malathion	121-75-5	15	120	390	AEGL-1, AEGL-2, AEGL-3	mg/m ³
1639	Maleic acid	110-16-7	2.1	23	140	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1640	Maleic acid, disodium salt	371-47-1	13	150	880	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
1641	Maleic anhydride	108-31-6	0.2	2	20	ERPG-1, ERPG-2, ERPG-3	ppm
1642	Maleic hydrazide; (3,6-Pyridazinedione, 1,2-dihydro-)	123-33-1	11	130	750	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1643	Malic acid; (Malic acid, DL)	6915-15-7	4.8	53	320	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1644	Malonic acid; (Carboxyacetic acid)	141-82-2	20	230	590	TEEL-2/11, rat ip TDLo, rat ip LD50	mg/m ³
1645	Mancozeb; (Dithane M-45)	8018-01-7	3	56	990	WEEL-TWA x 3, rat oral TDLo, rat oral LD50	mg/m ³
1646	Manganese	7439-96-5	3	5	1,800	REL-STEL, PEL-C, rat oral LD50	mg/m ³
1647	Manganese carbonate	598-62-9	6.3	10	60	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1648	Manganese dioxide	1313-13-9	4.7	7.9	690	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, rat oral LD50	mg/m ³
1649	Manganese hydroxide	18933-05-6	4.9	8.1	49	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1650	Manganese nitrite	18488-90-9	8	13	78	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1651	Manganese oxalate	640-67-5	7.8	13	78	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1652	Manganese oxide; (Manganese tetroxide)	1317-35-7	4.2	6.9	41	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1653	Manganese phosphate	10124-54-6	6.5	11	66	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1654	Manganese tricarbonyl methylcyclopentadienyl	12108-13-3	0.3	0.6	6.9	TLV-TWA x 3, LOC, rat 60-min LC50	mg/m ³
1655	Manganese(II) chloride (1:2); (Manganous chloride)	7773-01-5	6.9	11	170	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1656	Manganese(II) chloride tetrahydrate	13446-34-9	11	18	290	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1657	Manganese(II) nitrate	10377-66-9	9.8	16	96	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1658	Manganese(II) nitrate hydrate	15710-66-4	11	18	110	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1659	Manganese(II) sulfate monohydrate	10034-96-5	9.2	15	90	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1660	Manganese(III) oxide	1317-34-6	4.3	7.2	43	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1661	Manganese(VII) oxide	12057-92-0	6.1	10	60	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1662	Manganous oxide; (Manganese(II) oxide)	1344-43-0	3.9	6.5	39	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1663	Manganous sulfate	7785-87-7	8.2	14	430	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, rat oral LD50	mg/m ³
1664	Manganous sulfide; (Manganese(II) sulfide)	18820-29-6	4.8	7.9	47	MW-adjusted manganese (7439-96-5) REL-STEL, PEL-C, TEEL-2 x 6	mg/m ³
1665	Mastic (resin)	61789-92-2	20	220	1,300	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
1666	Melamine	108-78-1	30	340	630	WEEL-TWA x 3, rat oral TDLo, rat oral LD50	mg/m ³
1667	Memtetrahydrophthalic anhydride; (Tetrahydrophthalic anhydride)	85-43-8	16	180	1,100	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1668	Mephosfolan	950-10-7	0.82	9	54	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1669	Mercaptoacetic acid; (Thioglycolic acid)	68-11-1	3	33	200	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
1670	Mercaptobenzoic acid, o-	147-93-3	0.16	1.8	11	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1671	Mercaptobenzothiazole, 2-; (2-Benzothiazolethiol)	149-30-4	15	27	56	WEEL-TWA x 3, mouse ip TDLo, rat 240-min LC50	mg/m ³
1672	Mercaptoethanol, 2-	60-24-2	0.6	3.5	29	WEEL-TWA x 3, rat oral TDLo, mouse 15-min LC50	ppm
1673	Mercaptopropionic acid, 3-	107-96-0	0.29	3.2	19	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1674	Mercuric acetate	1600-27-7	0.048	0.064	3.2	MW-adjusted alkyl mercury (7439-97-6) TLV-STEL, PEL-C, IDLH (1994, See white paper)	mg/m ³
1675	Mercuric cyanide	592-04-1	0.094	0.13	35	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³
1676	Mercuric iodide; (Mercury(II) iodide)	7774-29-0	0.17	0.23	63	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³
1677	Mercuric sulfate; (Mercury(II) sulfate)	7783-35-9	0.11	0.15	41	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³
1678	Mercuric thiocyanate; (Mercuric sulfocyanate)	592-85-8	0.12	0.16	44	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted IDLH (1990)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1679	Mercuric trifluoroacetate	13257-51-7	0.064	0.085	4.3	MW-adjusted alkyl mercury (7439-97-6) TLV-STEL, PEL-C, MW-adjusted alkyl mercury IDLH (1994, See white paper)	mg/m ³
1680	Mercuriol; (Mercury nucleate)	12002-19-6	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1681	Mercurous chloride; (Mercury monochloride)	7546-30-7	0.088	0.12	33	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted IDLH (1990)	mg/m ³
1682	Mercurous nitrate monohydrate	7782-86-7	0.11	0.14	39	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³
1683	Mercurous nitrate; (Mercury(I) nitrate(1:1))	10415-75-5	0.098	0.13	37	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³
1684	Mercurous oxide; (Mercury(I) oxide)	15829-53-5	0.078	0.1	29	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³
1685	Mercury hydroxide	12135-13-6	0.088	0.12	33	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³
1686	Mercury nitrate; (Mercury(II) nitrate (1:2))	10045-94-0	0.12	0.16	45	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³
1687	Mercury nitrite; (Mercury(II) nitrite)	18541-72-5	0.11	0.15	41	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³
1688	Mercury vapor	7439-97-6	0.15	1.7	8.9	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
1689	Mercury(I) chloride; (Dimercury dichloride)	10112-91-1	0.088	0.12	33	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³
1690	Mercury(II) chloride; (Mercury bichloride)	7487-94-7	0.1	0.14	38	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³
1691	Mercury(II) nitrate monohydrate	7783-34-8	0.13	0.17	48	MW-adjusted inorganic mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted mercury IDLH (1990)	mg/m ³

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 * indicates 10% LEL ≤ PAC < 50% LEL; ** indicates 50% LEL ≤ PAC < 100% LEL; *** indicates PAC ≥ LEL.

Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1692	Mercury(II) oxide; (Mercuric oxide)	21908-53-2	1.5	16	30	TEEL-2/11, LOC, MW-adjusted inorganic mercury (7439-97-6) IDLH (1990)	mg/m ³
1693	Metaphosphoric acid	37267-86-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1694	Methacrolein diacetate; (Acetic acid, 2-methyl-2-propene-1,1-diol diester)	10476-95-6	0.18	2	12	TEEL-2/11, TEEL-3/6, rat 60-min LCLo	mg/m ³
1695	Methacrylaldehyde	78-85-3	0.20	0.33	3.5	AEGL-1, AEGL-2, AEGL-3	ppm
1696	Methacrylamide	79-39-0	1.3	15	91	TEEL-2/11, mouse oral TDLo, rat oral LD50	mg/m ³
1697	Methacrylic acid	79-41-4	6.7	61	220	AEGL-1, AEGL-2, AEGL-3	ppm
1698	Methacrylic acid, diester with triethylene glycol; (Polyester TGM3)	109-16-0	33	360	2,100	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1699	Methacrylic anhydride	760-93-0	0.41	4.5	16	TEEL-2/11, LOC, mouse 120-min LC50	mg/m ³
1700	Methacrylonitrile; (Methylacrylonitrile)	126-98-7	0.091	1.0	3.1	AEGL-2/11, AEGL-2, AEGL-3	ppm
1701	Methacryloyl chloride	920-46-7	0.013	0.14	0.62	TEEL-2/11, LOC, rat 240-min LC50	ppm
1702	Methamidophos	10265-92-6	0.11	1.2	7.1	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
1703	Methane	74-82-8	65000***	230000***	400000***	Simple asphyxiant	ppm
1704	Methane-d3	676-80-2	65000***	230000***	400000***	Used methane (74-82-8) PAC values	ppm
1705	Methanesulfonic acid	75-75-2	0.99	11	65	TEEL-2/11, TEEL-3/6, rat 360-min LC50	mg/m ³
1706	Methanesulfonic acid, ethyl ester; (Ethyl methanesulfonate)	62-50-0	2.1	23	140	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
1707	Methanesulfonyl chloride	124-63-0	0.019	0.21	0.62	AEGL-2/11, AEGL-2, AEGL-3	ppm
1708	Methanesulfonyl fluoride	558-25-8	0.018	0.19	1.2	TEEL-2/11, TEEL-3/6, dog iv LD50	ppm
1709	Methanol; (Methyl alcohol)	67-56-1	530	2,100	7200*	AEGL-1, AEGL-2, AEGL-3	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1710	Methidathion; (O,O-Dimethyl-S-(5-methoxy-1,3,4-thiadiazoliny-3-methyl)dithiophosphate)	950-37-8	1.8	20	160	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
1711	Methiocarb; (Mercaptodimethur)	2032-65-7	1.4	15	90	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1712	Methomyl	16752-77-5	0.91	10	23	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
1713	Methoxybenzaldehyde; (p-Anisaldehyde)	123-11-5	21	230	300	TEEL-2/11, mouse oral TDLo, rat oral LD50	mg/m ³
1714	Methoxybenzyl alcohol, 4-	105-13-5	2.2	25	260	TEEL-2/11, rat dermal TDLo, rat oral LD50	mg/m ³
1715	Methoxychlor	72-43-5	30	150	4,500	TLV-TWA x 3, human dermal TDLo, human oral LDLo	mg/m ³
1716	Methoxyethoxy)ethanol, 2-(2-; (Diethylene glycol monomethyl ether)	111-77-3	3.4	37	220	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1717	Methoxyethylamine, 2-	109-85-3	0.43	4.7	28	TEEL-2/11, TEEL-3/6, mouse ip LD50	ppm
1718	Methoxyethylmercuric acetate	151-38-2	0.048	0.064	3.2	MW-adjusted alkyl mercury (7439-97-6) TLV-STEL, PEL-C, IDLH (1994, See white paper)	mg/m ³
1719	Methoxyphenol, p-	150-76-5	15	49	320	TLV-TWA x 3, mouse ip TDLo, rat oral LD50	mg/m ³
1720	Methoxypropylamine, 3-; (3-MPA)	5332-73-0	15	94	560	TLV-STEL, TEEL-2/6, rat 360-min LCLo	ppm
1721	Methoxytrimethylsilane	1825-61-2	12	130	800	Used MW-adjusted dimethyldimethoxysilane (1112-39-6) PAC values	ppm
1722	Methyl 2-cyanoacrylate; (Permabond 910 adhesive)	137-05-3	0.6	0.85	5.1	TLV-TWA x 3, REL-STEL, rat 360-min LC50	ppm
1723	Methyl 2-pyrrolidinone, 1-; (N-Methylpyrrolidone)	872-50-4	30	32	190	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	ppm
1724	Methyl acetate	79-20-9	250	1,700	10000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1725	Methyl acetylene	74-99-7	230	2500*	15000**	TEEL-2/11, TEEL-3/6, IDLH (1990)	ppm
1726	Methyl acetylene-propadiene mixture; (MAPP)	59355-75-8	1,250	2,500	15,000	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1727	Methyl acrylate	96-33-3	6	170	1,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm

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			PAC-1	PAC-2	PAC-3		
1728	Methyl alcohol-d	1455-13-6	530	2,100	7200*	Used methyl alcohol (67-56-1) AEGL values	ppm
1729	Methyl alcohol-d4	811-98-3	530	2,100	7200*	Used methyl alcohol (67-56-1) AEGL values	ppm
1730	Methyl benzoate; (Benzoic acid, methyl ester)	93-58-3	1.1	12	42	TEEL-2/11, rat oral TDLo, rat oral LD50	ppm
1731	Methyl bromide; (Bromomethane)	74-83-9	19	210	740	AEGL-2/11, AEGL-2, AEGL-3	ppm
1732	Methyl butylacrylate, 2-; (Butyl methacrylate)	97-88-1	19	210	1,300	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
1733	Methyl chloride	74-87-3	150	910	3,000	ERPG-1, AEGL-2, AEGL-3	ppm
1734	Methyl chloroformate; (Methyl chlorocarbonate)	79-22-1	0.6	2.2	6.7	MAK-TWA x 3, AEGL-2, AEGL-3	ppm
1735	Methyl chlorosilane; (Chloromethylsilane)	993-00-0	1.8	22	100	AEGL-1, AEGL-2, AEGL-3	ppm
1736	Methyl demeton methyl; (Phosphorothioic acid, O,O-dimethyl-S-(2-methylthio)ethyl ester)	2587-90-8	1.8	20	120	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1737	Methyl dichlorosilane; (Dichloromethylsilane)	75-54-7	0.90	11	50	AEGL-1, AEGL-2, AEGL-3	ppm
1738	Methyl difluorophosphite; (Methylphosphonic difluoride)	676-99-3	0.38	4.1	25	TEEL-2/11, TEEL-3/6, rat 30-min LCLo	mg/m ³
1739	Methyl ether; (Dimethyl ether)	115-10-6	3,000	3800*	7200*	WEEL-TWA x 3, human 60-min TCLo, rat 240-min LC50	ppm
1740	Methyl ethyl ketone peroxide	1338-23-4	1.8	20	22	TEEL-2/11, TLV-C adjusted based on the ratio to toxicity data, rat 240-min LC50	ppm
1741	Methyl fluoride; (Fluoromethane)	593-53-3	13	150	900	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1742	Methyl fluoroacetate	453-18-9	0.021	0.23	1.4	TEEL-2/11, TEEL-3/6, rat 10-min LC50	mg/m ³
1743	Methyl fluorosulfate	421-20-5	0.0021	0.023	0.14	TEEL-2/11, TEEL-3/6, rat 60-min LC50	ppm
1744	Methyl formate; (Formic acid, methyl ester)	107-31-3	100	830	5000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1745	Methyl iodide	74-88-4	25	50	125	ERPG-1, ERPG-2, ERPG-3	ppm
1746	Methyl isobutyl ketone; (Hexone)	108-10-1	75	500	3000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1747	Methyl isocyanate	624-83-9	0.025	0.067	0.20	ERPG-1, AEGL-2, AEGL-3	ppm
1748	Methyl isopropyl ketone; (3-Methyl-2-butanone)	563-80-4	60	660	4,000	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
1749	Methyl isothiocyanate; (Isothiocyanatomethane)	556-61-6	0.27	17	50	AEGL-1, AEGL-2, AEGL-3	ppm
1750	Methyl lithium	917-54-4	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1751	Methyl mercaptan	74-93-1	0.005	23	68	ERPG-1, AEGL-2, AEGL-3	ppm
1752	Methyl mercury	22967-92-6	0.032	0.043	2.1	MW-adjusted alkyl mercury (7439-97-6) TLV-STEL, PEL-C, & IDLH (1994, See white paper)	mg/m ³
1753	Methyl methacrylate	80-62-6	17	120	570	AEGL-1, AEGL-2, AEGL-3	ppm
1754	Methyl n-amyl ketone	110-43-0	150	670	4000*	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1755	Methyl nitrate; (Nitric acid, methyl ester)	598-58-3	0.85	9.4	56	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
1756	Methyl nonafluorobutyl ether (40%) and Methyl nonafluoroisobutyl ether (60%) (ppm) (HFE-7100)	163702-07-6 163702-08-7	2,500	8,200	15,000	AEGL-1, AEGL-2, AEGL-3	ppm
1757	Methyl parathion	298-00-0	0.11	1.2	3.5	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
1758	Methyl phencapton	3735-23-7	1	11	44	TEEL-2/11, LOC, rat oral LD50	mg/m ³
1759	Methyl phosphonic dichloride	676-97-1	0.13	1.4	6.2	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
1760	Methyl phosphonothioic dichloride	676-98-2	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1761	Methyl pyridine, 3-; (3-Picoline)	108-99-6	5	49	300	WEEL-STEL, TEEL-3/6, rat 120-min LCLo	ppm

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			PAC-1	PAC-2	PAC-3		
1762	Methyl salicylate	119-36-8	2.3	25	150	TEEL-2/11, TEEL-3/6, human oral LDLo	ppm
1763	Methyl sulfoxide-d6; (Dimethyl-d6-sulfoxide)	2206-27-1	150	290	1,800	Used DMSO (67-68-5) PAC values	ppm
1764	Methyl tert-butyl ether; (MTBE)	1634-04-4	50	570	5300*	AEGL-1, AEGL-2, AEGL-3	ppm
1765	Methyl thiocyanate	556-64-9	17	28	140	MW-adjusted cyanides MAK-TWA x 3, LOC, MW-adjusted cyanides IDLH (1990)	ppm
1766	Methyl vinyl carbinol; (3-Buten-2-ol)	598-32-3	41	450	2,700	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	ppm
1767	Methyl vinyl ketone; (3-Buten-2-one)	78-94-4	0.17	1.2	2.4	AEGL-1, AEGL-2, AEGL-3	ppm
1768	Methyl-1-butene, 2-	563-46-2	42	460	2800*	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	ppm
1769	Methyl-1H-benzotriazole	29385-43-1	2	22	130	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1770	Methyl-1-phenyl-2-pyrazolin-5-one, 3-	89-25-8	11	120	690	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1771	Methyl-1-propanethiol, 1-; (sec-Butyl mercaptan; 2-Butanethiol)	513-53-1	4.2	46	280	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1772	Methyl-1-propen-1-one, 2-; (Dimethylketene)	598-26-5	0.011	0.12	0.69	TEEL-2/11, TEEL-3/6, mouse 30-min LC50	ppm
1773	Methyl-2-(1-methylethyl)phenol, 5-; (Thymol)	89-83-8	2.9	32	190	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1774	Methyl-2-butene, 2-; (Amylene)	513-35-9	4.2	46	280	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	ppm
1775	Methyl-2-chloroacrylate	80-63-7	0.091	1	3.6	TEEL-2/11, LOC, rat 120-min LC50	ppm
1776	Methyl-2-heptanone, 6-	928-68-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1777	Methyl-2-hexanone, 5-; (Methyl isoamyl ketone)	110-12-3	50	69	190	TLV-STEL, rat oral TDLo, rat 360-min LC50	ppm
1778	Methyl-3-penten-2-one, 4-; (Mesityl oxide)	141-79-7	25	830	5000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1779	Methyl-4-penten-2-one, 4-	3744-02-3	25	830	5,000	Used mesityl oxide (141-79-7) PAC values	ppm

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			PAC-1	PAC-2	PAC-3		
1780	Methyl-5-nitroaniline, 2-; (5-Nitro-o-toluidine; Benzenamine, 2-methyl-5-nitro-)	99-55-8	3	19	110	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1781	Methyl-5-vinylpyridine, 2-	140-76-1	0.17	1.9	6.6	TEEL-2/11, LOC, rat 120-min LC50	mg/m ³
1782	Methyl-8-quinolinol, 2-	826-81-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1783	Methylal; (Dimethoxymethane)	109-87-5	230	2500*	15000**	TEEL-2/11, TEEL-3/6, IDLH (1990)	ppm
1784	Methylamine hydrochloride	593-51-1	2.7	30	320	TEEL-2/11, mouse ip TDLo, rat oral LD50	mg/m ³
1785	Methylamino)ethanol, 2-(	109-83-1	2.3	25	150	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1786	Methylaniline, N-	100-61-8	1.5	17	100	TLV-TWA x 3, TEEL-3/6, IDLH (1990 and 1994)	ppm
1787	Methylaziridine, 1-	1072-44-2	0.058	0.64	3.9	TEEL-2/11, TEEL-3/6, mouse 10-min LCLo	ppm
1788	Methylbutanamide, 3-; (Isovaleramide)	541-46-8	1.7	19	110	TEEL-2/11, TEEL-3/6, mouse iv LDLo	mg/m ³
1789	Methylbutylamine, N-	110-68-9	1.3	14	86	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
1790	Methylchlorodisilane; (Chloromethylsilane)	68937-17-7	0.067	0.73	4.4	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
1791	Methylcholanthrene, 3-	56-49-5	0.2	2.3	29	TEEL-2/11, rat oral TDLo, mouse ip LDLo	mg/m ³
1792	Methylcyclohexane	108-87-2	1200*	1700*	10000**	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1793	Methylcyclohexanone	1331-22-2	15	170	1,000	TEEL-2/11, rabbit 60-min TCLo, TEEL-2 x 6	ppm
1794	Methylcyclohexanone, 2-; (o-Methylcyclohexanone)	583-60-8	75	420	2,500	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
1795	Methylcyclopentane	96-37-7	14	160	940	TEEL-2/11, TEEL-3/6, mouse 120-min LCLo	ppm
1796	Methyldecane, 4-	2847-72-5	6.6	73	440	Used decane (124-18-5) PAC values	ppm
1797	Methyldichloroarsine; (Dichloromethylarsine)	593-89-5	0.0048	0.053	0.16	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1798	Methylene bis(2-chloroaniline), 4,4'-; (MBOCA)	101-14-4	0.03	0.94	21	TLV-TWA x 3, mouse oral TDLo, rat oral LD50	ppm
1799	Methylene bis(4-isocyanatocyclohexane), 1,1'-	5124-30-1	0.015	0.29	1.7	TLV-TWA x 3, TEEL-3/6, rat 240-min LCLo	ppm
1800	Methylene chloride; (Dichloromethane)	75-09-2	200	560	6,900	AEGL-1, AEGL-2, AEGL-3	ppm
1801	Methylene diphenyl diisocyanate; (Diphenylmethane diisocyanate; MDI)	101-68-8	0.45	5	55	ERPG-2/11, ERPG-2, ERPG-3	mg/m ³
1802	Methylene fluoride; (Difluoromethane; HFC-32)	75-10-5	3,000	6,500	39,000	WEEL-TWA x 3, TEEL-3/6, rat 240-min LC50	ppm
1803	Methylenebis(isocyanato-benzene), 1,1'-; (Diphenyl methane diisocyanate)	26447-40-5	29	40	240	MW-adjusted cyanides MAK-TWA x 3, TEEL-3/6, MW-adjusted cyanides IDLH (1990)	mg/m ³
1804	Methylenebisacrylamide, N,N'-	110-26-9	0.64	7.1	77	TEEL-2/11, mouse oral TDLo, rat oral LD50	mg/m ³
1805	Methylenedianiline, 4,4'-	101-77-9	0.1	3.4	20	PEL-STEL, TEEL-3/6, dog oral LDLo	ppm
1806	Methylethyl hydroperoxide, 1-; (Isopropyl hydroperoxide)	3031-75-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1807	Methylformamide, N-	123-39-7	5.1	56	220	TEEL-2/11, rat 360-min TCLo, rat oral LD50	ppm
1808	Methylfuran, 2-	534-22-5	0.33	3.7	22	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
1809	Methylheptane, 2-	592-27-8	230	385	5,000	Used octane (111-65-9) PAC values	ppm
1810	Methylheptane, 4-	589-53-7	230	385	5,000	Used octane (111-65-9) PAC values	ppm
1811	Methylhydrosiloxane (3-4%) + dimethylsiloxane (96-97%) copolymer	68037-59-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1812	Methylimidazole, 1-	616-47-7	2.3	25	150	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1813	Methylimidazole, 4-	822-36-6	10	110	150	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
1814	Methylsuccinic acid ethyl ester, 2-; (Ethyl 2-hydroxyisobutyrate)	80-55-7	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1815	Methylactonitrile, 2-; (Acetone cyanohydrin)	75-86-5	2.0	7.1	15	AEGL-1, AEGL-2, AEGL-3	ppm

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1816	Methylmagnesium bromide, 3.0 m in diethyl ether	75-16-1	0.25	2.7	16	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	ppm
1817	Methylmagnesium chloride	676-58-4	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1818	Methylmercuric dicyanamide	502-39-6	0.045	0.06	3	MW-adjusted alkyl mercury (7439-97-6) TLV-TWA x 3, PEL-C, MW-adjusted alkyl mercury IDLH (1994, See white paper)	mg/m ³
1819	Methylmorpholine, 4-	109-02-4	1.3	14	86	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
1820	Methylnaphthalene, 1-	90-12-0	20	61	360	Russian OEL-STEL, TEEL-3/6, rat oral LD50	mg/m ³
1821	Methylnaphthalene, 2-	91-57-6	9	54	320	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1822	Methylnitrosopiperidine, 3-; (Piperidine, 3-methyl-1-nitroso-)	13603-07-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
1823	Methylnonane, 4-	17301-94-9	230	385	5,000	Used octane (111-65-9) PAC values	ppm
1824	Methylpentane, 2-; (Isohexane)	107-83-5	1,000	11000**	66000***	TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	ppm
1825	Methylpentane, 3-	96-14-0	1,000	11000**	66000***	TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	ppm
1826	Methylpentanol-1, 2-; (Amyl methyl alcohol)	105-30-6	0.087	0.96	67	TEEL-2/11, human TCLo 15-min, rat oral LD50	ppm
1827	Methylphenylthiourea, 2-; (o-Tolyl thiourea)	614-78-8	4.5	50	300	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1828	Methylphosphonate	993-13-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1829	Methylphosphonothioic acid, O-(4-nitrophenyl) O-phenyl ester	2665-30-7	0.73	8	48	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1830	Methylphosphonothioic acid-, O-ethyl O-(4-(methylthio)phenyl) ester	2703-13-1	0.91	10	60	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1831	Methylphosphonothioic acid, S-(2-(dimethylamino)ethyl) O-ethyl ester	20820-80-8	0.0057	0.062	0.37	TEEL-2/11, TEEL-3/6, mouse iv LD50	ppm
1832	Methylpropane, 2-; (Isobutane)	75-28-5	5500*	17000**	53000***	Used butane (106-97-8) AEGL values	ppm
1833	Methylpropene, 2-; (Isobutene)	115-11-7	750	2500*	11000**	TLV-TWA x 3, mouse 10-min TCLo, rat 240-min LC50	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1834	Methylpyridine, 2-; (2-Picoline)	109-06-8	5	7.7	46	WEEL-STEL, TEEL-3/6, rat 240-min LC50	ppm
1835	Methylpyrrole, N-	96-54-8	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
1836	Methylpyrrolidine; (Methylpyrrolidine, 1-)	120-94-5	0.58	6.4	39	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1837	Methylstyrene, alpha-	98-83-9	100	830	5000*	REL-STEL, TEEL-3/6, IDLH (1990)	ppm
1838	Methyltetrahydrofuran, 2-	96-47-9	4	44	260	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
1839	Methyltriacetoxysilane	4253-34-3	5	35	250	Used acetic acid (64-19-7) ERPG values.	mg/m ³
1840	Methyltrichlorosilane; (Trichloromethyl silane)	75-79-6	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
1841	Methyltriethoxysilane	2031-67-6	3.3	36	220	TEEL-2/11, TEEL-3/6, rat 480-min LCLo	ppm
1842	Methyl-trifluoromethanesulfonate	333-27-7	22	230	1,400	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1843	Methyltrimethoxysilane	1185-55-3	38	410	2,500	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1844	Methyltriocylammonium chloride	5137-55-3	0.67	7.4	44	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1845	Methylvinylidichlorosilane; (Dichloromethylvinylsilane)	124-70-9	0.90	11	50	AEGL-1, AEGL-2, AEGL-3	ppm
1846	Methylvinylsiloxane-dimethylsiloxane copolymer, vinyl terminated	68083-18-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1847	Metolcarb; (Methylcarbamic acid m-tolyl ester)	1129-41-5	0.44	4.8	21	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
1848	Mevinphos; (Phosdrin)	7786-34-7	0.3	4	40	REL-STEL, LOC, IDLH (1990 and 1994)	mg/m ³
1849	Mexacarbate; (4-(Dimethylamine)-3,5-xylyl N-methylcarbamate)	315-18-4	1.3	14	84	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
1850	Mica; (mica silicates)	12001-26-2	9	99	590	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1851	Michler's ketone; (4,4'-Bis(dimethylamino)benzophenone)	90-94-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1852	Microcystins	101043-37-2	9.00E-04	0.0099	0.048	TEEL-2/11, mouse ip TDLo, rat ip LD50	mg/m ³
1853	Mineral oil, heavy or light; (paraffin oil; Deobase, deodorized; heavy paraffinic; heavy naphthenic); distillates; includes 64741-53-3, 64741-88-4, 8042-47-5, 8012-95-1; 64742-54-7	8020-83-5	140	1,500	8,900	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1854	Mirex; (Perchloropentacyclodecane)	2385-85-5	6.3	69	410	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
1855	Modeccin toxin; (Adenia digitata toxin)	65988-88-7	5.40E-06	5.90E-05	3.60E-04	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
1856	Molybdate orange	12656-85-8	5.4	59	350	MW-adjusted soluble molybdenum (7439-98-7) TLV-TWA x 3, dog oral TDLo, TEEL-2 x 6	mg/m ³
1857	Molybdenum	7439-98-7	30	330	2,000	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1858	Molybdenum carbide	12011-97-1	34	360	2,200	MW-adjusted insoluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1859	Molybdenum dioxide	18868-43-4	40	430	2,600	MW-adjusted insoluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1860	Molybdenum disilicide	12136-78-6	48	530	3,200	MW-adjusted insoluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1861	Molybdenum hexacarbonyl	13939-06-5	83	920	5,500	MW-adjusted insoluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1862	Molybdenum pentachloride	10241-05-1	4.3	410	2,400	MW-adjusted soluble molybdenum (7439-98-7) TLV-TWA x 3, rat oral TDLo, TEEL-2 x 6	mg/m ³
1863	Molybdenum trioxide (Molybdenum(VI) oxide)	1313-27-5	2.3	43	260	MW-adjusted soluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-3/6, rat 240-min LC50	mg/m ³
1864	Molybdenum(IV) sulfide	1317-33-5	50	260	1,600	MW-adjusted insoluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-3/6, rat oral LDLo	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1865	Molybdic acid	7782-91-4	2.5	28	170	MW-adjusted insoluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1866	Molybdic acid, ammonium salt; (Ammonium molybdate)	11098-84-3	3.5	290	1,700	MW-adjusted soluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-3/6, dog oral LDLo	mg/m ³
1867	Molybdic acid, disodium salt; (Disodium molybdate)	7631-95-0	3.2	17	100	MW-adjusted soluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-3/6, dog oral LD50	mg/m ³
1868	Molybdic acid, hexaammonium salt; (Ammonium heptamolybdate)	12027-67-7	2.6	230	1,400	MW-adjusted soluble molybdenum (7439-98-7) TLV-TWA x 3, rat oral TDLo, TEEL-2 x 6	mg/m ³
1869	Molybdophosphoric acid	12026-57-2	2.4	26	160	MW-adjusted insoluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1870	Molybdophosphoric acid hydrate; (Phosphomolybdic acid hydrate)	51429-74-4	2.4	27	160	MW-adjusted insoluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1871	Monobutyl phosphite	16456-56-7	2.7	30	180	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1872	Monochloroamine; (Chloramide)	10599-90-3	0.026	0.29	1.7	TEEL-2/11, rat oral TDLo, TEEL-2 x 6	ppm
1873	Monochloropentafluoroethane; (CFC-115)	76-15-3	3,000	5,700	34,000	TLV-TWA x 3, TEEL-3/6, rat 240-min LC50	ppm
1874	Monochlorophenyl ether	55398-86-2	1.5	35	210	Finland OEL-TWA x 3, TEEL-3/6, guinea pig oral LDLo	mg/m ³
1875	Monocrotophos	6923-22-4	0.15	0.63	3.5	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
1876	Monomethylamine; (Methylamine)	74-89-5	15	64	350	AEGL-1, AEGL-2, AEGL-3	ppm
1877	Monomethylhydrazine; (Methyl hydrazine)	60-34-4	0.082	0.90	2.7	AEGL-2/11, AEGL-2, AEGL-3	ppm
1878	Monosodium titanate	60704-88-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1879	Morpholine	110-91-8	30	1,300	8000**	REL-STEL, TEEL-3/6, IDLH (1990)	ppm
1880	Muscimol; (5-Aminomethyl-3-isoxazole)	2763-96-4	1.5	17	100	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³

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			PAC-1	PAC-2	PAC-3		
1881	Mustard gas sulfoxide; (bis(2-Chloroethyl)sulfoxide)	5819-08-9	0.52	5.7	34	TEEL-2/11, TEEL-3/6, mouse iv LDLo	mg/m ³
1882	Myristic acid, butyl ester; (Tetradecanoic acid, butyl ester)	110-36-1	2.1	23	140	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
1883	Myristic acid, isopropyl ester; (Tetradecanoic acid, isopropyl; Isopropyl myristate)	110-27-0	81	900	5,400	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1884	Nabumetone; (Relafen; 4-(6-Methoxy-2-naphthyl)-2-butanone)	42924-53-8	1.5	16	620	TEEL-2/11, human oral TDLo, monkey oral LD50	mg/m ³
1885	Nadic methyl anhydride	25134-21-8	0.49	5.4	32	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	mg/m ³
1886	Naphtha (coal tar); includes solvent naphtha, petroleum (64742-88-7), naphtha (petroleum) light aliphatic, rubber solvent (64742-89-8), heavey catalytic cracked (64741-54-4), light straight run (64741-46-4), heavy aliphatic solvent (64742-96-7), high flash aromatic and aromatic solvent naphtha (64742-95-6)	8030-30-6	1,200	6,700	40,000	PEL-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
1887	Naphtha (petroleum),hydrotreated light	64742-49-0	1,000	11,000	66,000	United Kingdom OEL-STEL, TEEL-1 x 2, TEEL-2 x 6	mg/m ³
1888	Naphtha, hydrotreated heavy; (Isopar L-rev 2)	64742-48-9	350	1,800	40,000	Used petroleum distillates (8002-05-9) PAC values	mg/m ³
1889	Naphthalenamine, 1-; (1-Naphthylamine)	134-32-7	2	22	130	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1890	Naphthalene	91-20-3	15	83	500	REL-STEL, PAC-3/6, IDLH (1990)	ppm
1891	Naphthaleneacetamide, 1-	86-86-2	5.1	56	330	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1892	Naphthalenetrisulfonic acid sodium salt, 1,3,6-	19437-42-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1893	Naphthenic acid, lead salt	61790-14-5	15	170	1,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1894	Naphthol, 1-	90-15-3	2.2	25	450	TEEL-2/11, mouse oral TDLo, rat oral LD50	mg/m ³
1895	Naphthol, 2-	135-19-3	5.9	65	390	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1896	Naphthol-6-sulfonic acid, 6-; (Schaeffer's acid)	93-01-6	0.54	6	36	TLV-TWA x 3, TEEL-3/6, mouse oral LDLo	mg/m ³

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
 * indicates 10% LEL ≤ PAC < 50% LEL; ** indicates 50% LEL ≤ PAC < 100% LEL; *** indicates PAC ≥ LEL.

Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1897	Naphthol-8-sulfonic acid, sodium salt, 2-	832-85-9	0.54	6	36	Used 2-naphthol-6-sulfonic acid (93-01-6) PAC values	mg/m ³
1898	Naphthoquinone, 1,4-	130-15-4	0.57	6.3	38	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1899	Naphthylamine, beta-	91-59-8	2.2	24	140	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1900	Naphthylthiourea, alpha-; (ANTU)	86-88-4	0.91	10	100	TEEL-2/11, LOC, IDLH (1990 and 1994)	mg/m ³
1901	Neodecanoic acid	26896-20-8	6	66	400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1902	Neodecanoic acid, calcium salt; (Calcium neodecanoate)	27253-33-4	13	147	890	Used MW-adjusted neodecanoic acid (26896-20-8) PAC values	mg/m ³
1903	Neodymium	7440-00-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1904	Neodymium bromide	13536-80-6	0.053	0.38	14	Used MW-adjusted bromine (7726-95-6) AEGL values	mg/m ³
1905	Neodymium fluoride	13709-42-7	26	300	1,800	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1906	Neodymium hydroxide	16469-17-3	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1907	Neodymium nitrate	10045-95-1	6.2	68	410	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1908	Neodymium nitrate, pentahydrate	14517-29-4	8.2	90	540	MW-adjusted neodymium nitrate (10045-95-1) PAC values	mg/m ³
1909	Neodymium nitrite	z-0033	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1910	Neodymium(III) chloride	10024-93-8	0.9	9.9	59	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
1911	Neodymium(III) oxide	1313-97-9	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1912	Neon	7440-01-9	65,000	2.30E+05	4.00E+05	Simple asphyxiant	ppm
1913	Nerve Agent GA; (Tabun, Ethyl dimethylamido-cyanophosphate)	77-81-6	4.20E-04	0.0053	0.039	AEGL-1, AEGL-2, AEGL-3	ppm
1914	Nickel	7440-02-0	4.5	50	99	TEEL-2/11, LOC, rat ip LD50	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1915	Nickel acetate tetrahydrate	6018-89-9	13	140	830	MW-adjusted organic nickel (7440-02-0) PEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1916	Nickel aluminide	12003-78-0	0.81	8.9	53	MW-adjusted insoluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1917	Nickel carbonate hydroxide; (Basic nickel carbonate tetrahydrate)	39430-27-8	1.3	28	170	MW-adjusted insoluble nickel (7440-02-0) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1918	Nickel carbonate hydroxide; (Basic nickel(II) carbonate)	12607-70-4	1	12	69	MW-adjusted insoluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1919	Nickel carbonyl	13463-39-3	0.0033	0.036	0.16	AEGL-2/11, AEGL-2, AEGL-3	ppm
1920	Nickel chloride; (Nickelous chloride)	7718-54-9	0.66	22	130	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, rat oral TDLo, rat oral LD50	mg/m ³
1921	Nickel cyanide	557-19-7	1.1	13	75	MW-adjusted insoluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1922	Nickel fluoride, tetrahydrate	13940-83-5	1.7	19	110	MW-adjusted insoluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1923	Nickel formate	3349-06-2	7.6	83	500	MW-adjusted organic nickel (7440-02-0) PEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1924	Nickel oxalate	547-67-1	0.75	8.3	50	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1925	Nickel oxide; (Nickel(II) oxide)	1313-99-1	0.76	220	1,300	MW-adjusted insoluble nickel (7440-02-0) TLV-TWA x 3, TEEL-3/6, rat oral LDLo	mg/m ³
1926	Nickel perchlorate	13637-71-3	1.9	20	120	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1927	Nickel sulfamate; (Nickel(II) sulfamate)	13770-89-3	1.3	12	71	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-3/6, mouse ip LDLo	mg/m ³
1928	Nickel sulfate hexahydrate; (Nickel(II) sulfate hexahydrate)	10101-97-0	1.3	8.7	52	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1929	Nickel sulfate; (Nickel(II) sulfate)	7786-81-4	0.79	8.6	51	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1930	Nickel(2+) stearate	2223-95-2	32	360	2,200	MW-adjusted organic nickel (7440-02-0) PEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1931	Nickel(II) bromide	13462-88-9	1.1	12	73	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1932	Nickel(II) carbonate (1:1)	3333-67-3	0.61	6.6	40	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1933	Nickel(II) chloride hexahydrate	7791-20-0	1.2	5.2	31	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1934	Nickel(II) hydroxide; (Nickelous hydroxide)	12054-48-7	0.95	8.8	53	MW-adjusted insoluble nickel (7440-02-0) TWA-TWA x 3, TEEL-3/6, rat 240-min LC50	mg/m ³
1935	Nickel(II) nitrate hexahydrate	13478-00-7	1.5	53	320	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1936	Nickel(II) nitrate; (Nickelous nitrate)	13138-45-9	0.93	10	61	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1937	Nickel(II) nitrite	17861-62-0	0.77	8.6	51	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1938	Nickel(II) phosphate	10381-36-9	1.2	14	83	MW-adjusted insoluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1939	Nickel(III) hydroxide; (Nickelic hydroxide)	12125-56-3	1.1	12	73	MW-adjusted insoluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1940	Nicotinamide	98-92-0	5.6	62	690	TEEL-2/11, mouse ip TDLo, rat oral LD50	mg/m ³
1941	Nicotine sulfate	65-30-5	0.82	9	18	TEEL-2/11, LOC, rat oral LD50	mg/m ³
1942	Nicotine; (Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-); (Includes DL-Nicotine, 22083-74-5)	54-11-5	1.5	3.5	35	TLV-TWA x 3, LOC, IDLH (1990)	mg/m ³
1943	Niobium	7440-03-1	30	330	2,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1944	Niobium chloride	10026-12-7	4.2	46	280	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1945	Niobium pentoxide; (Niobium(V) oxide)	1313-96-8	6.6	72	430	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1946	Niobium(IV) carbide	12069-94-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL- 2 x 6	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1947	Nitrapyrin; (2-Chloro-6-(trichloromethyl)pyridine)	1929-82-4	20	31	190	TLV-STEL, TEEL-3/6, rat oral LD50	mg/m ³
1948	Nitrate(s)	14797-55-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
1949	Nitric acid	7697-37-2	0.16	24	92	AEGL-1, AEGL-2, AEGL-3	ppm
1950	Nitric acid, butyl ester; (Butyl nitrate)	928-45-0	40	330	2,000	Used propyl nitrate (627-13-4) PAC values	ppm
1951	Nitric acid, ethyl ester; (Ethyl nitrate)	625-58-1	0.59	6.5	39	TEEL-2/11, TEEL-3/6, cat ip LD50	ppm
1952	Nitric acid, pentyl ester; (Amyl nitrate)	1002-16-0	1.5	16	98	TEEL-2/11, TEEL-3/6, mouse 420-min LCLo	ppm
1953	Nitric oxide	10102-43-9	0.5	12	20	Used nitrogen dioxide (10102-44-0) AEGL values	ppm
1954	Nitrilotriacetic acid, disodium salt; (Disodium nitrilotriacetate)	15467-20-6	4.4	48	290	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1955	Nitrilotriacetic acid, trisodium salt, monohydrate	18662-53-8	1.6	18	110	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
1956	Nitrilotriacetic acid; (Aminotriacetic acid)	139-13-9	4.4	49	290	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1957	Nitrilotris(methylene)trisphosphonic acid; (Amino, tris[methylene phosphonic acid])	6419-19-8	30	69	420	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
1958	Nitroaniline, 2-; (o-Nitroaniline)	88-74-4	6.2	68	410	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1959	Nitroaniline, 3-; (m-Nitroaniline)	99-09-2	1.6	18	110	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1960	Nitroaniline, p-	100-01-6	9	71	300	TLV-TWA x 3, rat 360-min TCLo, IDLH (1990 and 1994)	mg/m ³
1961	Nitrobenzene	98-95-3	3	20	200	TLV-TWA x 3, LOC, IDLH (1990 and 1994)	ppm
1962	Nitrobenzenesulfonic acid, sodium salt, 3-	127-68-4	33	360	2,200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1963	Nitrobiphenyl, 4-; (p-Nitrobiphenyl)	92-93-3	6.7	74	440	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1964	Nitrochlorobenzene, m-; (1-Chloro-3-nitrobenzene; m-Chloronitrobenzene)	121-73-3	0.9	9.9	59	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1965	Nitrocyclohexane	1122-60-7	0.14	1.5	9	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
1966	Nitrocyclohexene, 1-; (1-Nitrocyclohex-1-ene)	2562-37-0	2.3	25	150	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	ppm
1967	Nitrodiphenylamine, 2-	119-75-5	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1968	Nitroethane	79-24-3	60	170	1,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1969	Nitrogen	7727-37-9	7.96E+05	8.32E+05	8.69E+05	Simple asphyxiant – TEEL values are the total of atmospheric nitrogen and added nitrogen resulting in oxygen deficient atmosphere.	ppm
1970	Nitrogen dioxide	10102-44-0	0.50	12	20	AEGL-1, AEGL-2, AEGL-3	ppm
1971	Nitrogen mustard hydrochloride	55-86-7	0.013	0.14	0.83	TEEL-2/11, TEEL-3/6, dog iv LD50	mg/m ³
1972	Nitrogen mustard-1; (Ethylbis(2-chloroethyl)amine; Bis(2-chloroethyl)ethylamine)	538-07-8	0.002	0.022	0.37	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
1973	Nitrogen mustard-2; (Bis(b-chloroethyl)methylamine)	51-75-2	0.002	0.022	0.37	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
1974	Nitrogen mustard-3; (Tris(2-chloroethyl)amine)	555-77-1	0.002	0.022	0.37	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
1975	Nitrogen tetroxide	10544-72-6	0.25	6.2	10	AEGL-1, AEGL-2, AEGL-3	ppm
1976	Nitrogen trifluoride	7783-54-2	200	530	860	AEGL-1, AEGL-2, AEGL-3	ppm
1977	Nitrogen trioxide; (Dinitrogen trioxide)	10544-73-7	0.83	20	33	Used MW-adjusted nitrogen dioxide (10102-44-0) AEGL values	ppm
1978	Nitroglycerin	55-63-0	0.1	2	75	REL-STEL, PEL-C, IDLH (1994, See white paper)	mg/m ³
1979	Nitromethane	75-52-5	60	210	1,000	TLV-TWA x 3, rat 360-min TCLo, IDLH (1990)	ppm
1980	Nitromethane-d3; (Trideuteronitromethane)	13031-32-8	60	210	1,000	Used nitromethane (75-52-5) PAC values	ppm
1981	Nitro-m-xylene, 2-; (1,3-Dimethyl-2-nitrobenzene)	81-20-9	7.9	86	520	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
1982	Nitronium Tetrafluoroborate	13826-86-3	13	150	870	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
1983	Nitrophenol, 2-; (o-Nitrophenol)	88-75-5	2.1	23	140	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
1984	Nitrophenol, 3-; (m-Nitrophenol)	554-84-7	2.8	31	180	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1985	Nitrophenol, 4-; (p-Nitrophenol); Includes 25154-55-6 (mixed isomers)	100-02-7	0.69	7.6	46	TEEL-2/11, TEEL-3/6, rat LD50	mg/m ³
1986	Nitropropane, 1-	108-03-2	75	380	2300*	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1987	Nitropropane, 2-	79-46-9	30	380	2,300	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
1988	Nitropyrene, 1-	5522-43-0	0.0064	0.07	0.42	TEEL-2/11, rat 360-min TCLo, TEEL-2 x 6	mg/m ³
1989	Nitropyridine-N-oxide, 4-; (Pyridine, 4-nitro, 1-oxide)	1124-33-0	7.3	80	1,600	TEEL-2/11, LOC, dog oral LD50	mg/m ³
1990	Nitrosodimethylamine	62-75-9	0.082	0.9	10	TEEL-2/11, rat oral TDLo, rat 240-min LC50	mg/m ³
1991	Nitrosodiphenylamine, p-	156-10-5	0.58	6.4	39	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
1992	Nitrosodipropylamine; (DPNA)	621-64-7	5.6	62	95	TEEL-2/11, mouse ip TDLo, rat oral LD50	mg/m ³
1993	Nitrosomorpholine, N-	59-89-2	0.85	9.3	56	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1994	Nitroso-N-methylurea, N-	684-93-5	0.33	3.6	22	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
1995	Nitrosophenol, p-	104-91-6	1.1	12	71	TEEL-2/11, TEEL-3/6, mouse ip LDLo	mg/m ³
1996	Nitrosotoluene, 2-; (o-Nitrosotoluene)	611-23-4	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
1997	Nitrosyl chloride	2696-92-6	0.014	0.15	0.9	TEEL-2/11, TEEL-3/6, cat 20-min LCLo	ppm
1998	Nitrosylsulfuric acid	7782-78-7	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
1999	Nitrotoluene, m-	99-08-1	6	14	200	TLV-TWA x 3, rat oral TDLo, IDLH (1990 and 1994)	ppm

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			PAC-1	PAC-2	PAC-3		
2000	Nitrotoluene, o-	88-72-2	6	33	200	TLV-TWA x 3, TEEL-3/6, IDLH (1990 and 1994)	ppm
2001	Nitrotoluene, p-	99-99-0	6	33	200	TLV-TWA x 3, TEEL-3/6, IDLH (1990 and 1994)	ppm
2002	Nitrous acid	7782-77-6	0.41	62	240	Used nitric acid (7697-37-2) AEGL values converted to mg/m ³	mg/m ³
2003	Nitrous oxide	10024-97-2	910	10,000	20,000	TEEL-2/11, EEGL 60-min, EEGL 30-min	ppm
2004	Nonacosane	630-03-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2005	Nonanal	124-19-6	0.86	9.5	410	TEEL-2/11, rabbit dermal TDLo, rat 240-min LCLo	mg/m ³
2006	Nonane; (Shellsol 140)	111-84-2	600	830	5,000	TLV-TWA x 3, TEEL-3/6, n-octane (111-65-3) IDLH (1990)	ppm
2007	Nonanenitrile; (1-Octyl cyanide)	2243-27-8	5.9	8	47	Used MW-adjusted cyanide (57-12-5) PAC values, converted to ppm	ppm
2008	Nonanoic acid	112-05-0	13	140	840	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
2009	Nonanone, 2-	821-55-6	0.51	5.6	34	TEEL-2/11, TEEL-3/6, rat 360-min LCLo	ppm
2010	Nonene, 1-	124-11-8	40	800	2,000	Used 1-octene (111-66-0) ERPG values	ppm
2011	Nonoxynol-4	7311-27-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2012	Nonyl alcohol	143-08-8	11	120	710	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2013	Nonyl phenol (mixed isomers, includes p-nonyl phenol, 104-40-5)	25154-52-3	4.9	53	320	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2014	Nonyl phenol, 4- (branched)	84852-15-3	3.9	43	260	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2015	Nonylphenol, 4-, branched, ethoxylated	127087-87-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2016	Nonylphenoxypolyethoxyethanol	68412-54-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2017	Nonyltrichlorosilane	5283-67-0	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
2018	Norbormide	991-42-4	0.35	3.8	190	TEEL-2/11, LOC, monkey oral LD50	mg/m ³

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2019	Novol ketone; (5-dithylamino-2-pentanone)	105-14-6	0.62	6.9	41	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
2020	n-Propanol (Propyl alcohol, n-)	71-23-8	250	670	4000*	REL-STEL, TEEL-3/6, IDLH (1990)	ppm
2021	Octachlorodibenzodioxin, 1,2,3,4,6,7,8,9-; (OCDD, Octachlorodibenzo-p-dioxin)	3268-87-9	0.43	4.7	28	Used TCDD (1746-01-6) PACs divided by TEF = 0.0003 (See white paper)	mg/m ³
2022	Octachlorodibenzofuran, 1,2,3,4,6,7,8,9-	39001-02-0	0.43	4.7	28	Used TCDD (1746-01-6) PACs divided by TEF = 0.0003 (See white paper)	mg/m ³
2023	Octachloronaphthalene	2234-13-1	0.3	3.3	20	TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2024	Octacosane	630-02-4	230	385	5,000	Used n-octane (111-65-9) PAC values	ppm
2025	Octadecane, n-	593-45-3	230	385	5,000	Used n-octane (111-65-9) PAC values	ppm
2026	Octadecanoic acid, n-; (Stearic acid)	57-11-4	14	150	910	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2027	Octadecanol, 1-	112-92-5	5.4	60	360	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2028	Octadecenoic acid, 9-; (Oleic acid)	112-80-1	220	2,400	15,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2029	Octadecyl methacrylate	32360-05-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2030	Octadecyltrichlorosilane	112-04-9	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
2031	Octafluorocyclobutane; (Cyclooctafluorobutane; Freon C-318)	115-25-3	400	4,400	27,000	TEEL-2/11, TEEL-3/6, mouse 120-min LCLo	ppm
2032	Octamethylcyclotetrasiloxane	556-67-2	30	68	130	WEEL-TWA x 3, rat 360-min TCLo, rat 240-min LC50	ppm
2033	Octamethyldiphosphoramidate; (Octamethylpyrophosphoramidate, Schradan)	152-16-9	0.073	0.8	4.9	TEEL-2/11, LOC, rat oral LD50	mg/m ³
2034	Octanal, 1-; (Octanal; Octanaldehyde)	124-13-0	17	190	1,100	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2035	Octanamine, 1-	111-86-4	0.2	2.2	13	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
2036	Octane, n-	111-65-9	230	385	5000**	REL-TWA x 3, REL-C, IDLH (1990)	ppm
2037	Octanedione, 2,5-	3214-41-3	10	110	670	Used MW-adjusted 2-octanone (111-13-7) PAC values	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2038	Octanenitrile	124-12-9	0.57	6.2	37	TEEL-2/11, TEEL-3/6, mouse oral LD50	ppm
2039	Octanethiol, 1-	111-88-6	0.045	0.5	66	TEEL-2/11, REL-C, rat oral LD50	ppm
2040	Octanoic acid; (Caprylic acid)	124-07-2	30	330	2,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2041	Octanol, 2-	123-96-6	9.6	110	630	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2042	Octanone, 2-	111-13-7	9.3	100	610	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2043	Octaphenylcyclotetrasiloxane	546-56-5	14	150	920	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2044	Octene, 1-	111-66-0	40	800*	2000*	ERPG-1, ERPG-2, ERPG-3	ppm
2045	Octyl alcohol; (n-Octanol)	111-87-5	5	20	150	ERPG-1, ERPG-2, ERPG-3	ppm
2046	Octyl mercaptan, t-	141-59-3	0.055	0.60	1.8	AEGL-2/11, AEGL-2, AEGL-3	ppm
2047	Octyl(phenyl)-N,N-diisobutylcarbamoylmethylphosphine oxide	83242-95-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2048	Octyltrichlorosilane	5283-66-9	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
2049	Oil gas; (Oil fog)	z-0035	13	140	860	TEEL-2/11, TEEL-3/6, rat 1440-min LC50	ppm
2050	Oleum; (fuming Sulfuric acid)	8014-95-7	0.20	8.7	160	AEGL-1, AEGL-2, AEGL-3	mg/m ³
2051	Organorhodium complex	z-0036	0.087	0.8	4.8	MW-adjusted soluble rhodium (7440-16-6) TLV-TWA x 3, LOC, TEEL-2 x 6	mg/m ³
2052	Orthoformic acid, trimethyl ester; (Trimethyl orthoformate)	149-73-5	0.28	3	18	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	ppm
2053	Osmium	7440-04-2	0.28	3.1	19	TEEL-2/11, TEEL-3/6, dog iv LDLo	mg/m ³
2054	Osmium tetroxide	20816-12-0	6.00E-04	0.0084	4.0	TLV-STEL, AEGL-2, AEGL-3	ppm
2055	Otto Fuel (mainly Propylene glycol dinitrate 6423-43-4)	106602-80-6	0.17	1.0	13	AEGL-1, AEGL-2, AEGL-3	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2056	Ouabain	630-60-4	0.75	8.3	50	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2057	Oxalic acid dihydrate	6153-56-6	2	83	500	TLV-STEL, TEEL-3/6, oxalic acid (144-62-7) IDLH (1990 and 1994)	mg/m ³
2058	Oxalic acid, anhydrous; (Ethanedioic acid)	144-62-7	2	20	500	TLV-STEL, rat ip TDLo, IDLH (1990 and 1994)	mg/m ³
2059	Oxalyl chlorine	79-37-8	0.77	8.5	51	TEEL-2/11, TEEL-3/6, rat 60-min LC50	ppm
2060	Oxamide	471-46-5	1.3	15	89	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2061	Oxamyl	23135-22-0	0.15	1.7	4.7	TEEL-2/11, LOC, rat 60-min LC50	mg/m ³
2062	Oxathiane, 1,4-	15980-15-1	2.6	29	170	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
2063	Oxirane, ethenyl-; (3,4-Epoxy-1-butene)	930-22-3	0.35	3.9	23	TEEL-2/11, TEEL-3/6, rat ip LD50	ppm
2064	Oxone, monopersulfate compound	37222-66-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2065	Oxybis(N,N-dimethylethanamine), 2,2'-; (Bis(2-dimethylaminoethyl) ether; DMAEE)	3033-62-3	0.15	1.4	8.4	TEEL-2/11, TEEL-3/6, rat 360-min LC50	ppm
2066	Oxydiacetic acid; (Oxodiacetic acid)	110-99-6	1.5	17	99	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2067	Oxydiethylenedicarbonic acid, diallyl ester	142-22-3	4.7	51	100	TEEL-2/11, rat dermal TDLo, rat oral LD50	mg/m ³
2068	Oxydiphenoxarsine, 10,10'-; (Phenoxarsine oxide)	58-36-6	5	14	84	MW-adjusted organic arsenic (7440-38-2) PEL-TWA x 3, LOC, TEEL-2 x 6	mg/m ³
2069	Oxydisulfoton	2497-07-6	0.32	3.5	21	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2070	Oxygen difluoride; (Fluorine monoxide)	7783-41-7	0.0075	0.083	0.25	AEGL-2/11, AEGL-2, AEGL-3	ppm
2071	Ozone	10028-15-6	0.24	1	10	TLV-TWA x 3, EEGL 60-min, IDLH (1990)	ppm
2072	Palladium	7440-05-3	6	66	400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2073	Palladium chloride (Palladium(II) chloride)	7647-10-1	8.1	89	540	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2074	Palladium hydroxide	12135-22-7	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2075	Palladium nitrate	10102-05-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2076	Palladium oxide	1314-08-5	15	160	970	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2077	Paraformaldehyde	30525-89-4	2	23	47	TEEL-2/11, rat oral TDLo, rat 240-min LC50	mg/m ³
2078	Paraldehyde	123-63-7	14	150	930	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	mg/m ³
2079	Paraquat	4685-14-7	0.3	4.4	26	TLV-TWA x 3, TEEL-3/6, rat ip LDLo	mg/m ³
2080	Paraquat dichloride	1910-42-5	0.15	1.6	9.6	TEEL-2/11, TEEL-3/6, monkey oral LD50	mg/m ³
2081	Paraquat methosulfate; (Paraquat dimethyl sulphate)	2074-50-2	0.014	0.15	20	TEEL-2/11, LOC, rat oral LD50	mg/m ³
2082	Parathion	56-38-2	0.15	1.5	2.0	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
2083	Paris Green; (Cupric acetoarsenite)	12002-03-8	3.4	22	130	MW-adjusted organic arsenic (7440-38-2) PEL-TWA x 3, LOC, TEEL-2 x 6	mg/m ³
2084	PBX (mixture of HMX and nitrocellulose [CTN])	z-0038	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2085	Pentaborane	19624-22-7	0.015	0.14	0.51	TLV-STEL, AEGL-2, AEGL-3	ppm
2086	Pentachlorobenzene	608-93-5	4.4	49	220	TEEL-2/11, mouse oral TDLo, rat oral LD50	mg/m ³
2087	Pentachlorodibenzofuran, 1,2,3,7,8-	57117-41-6	0.0043	0.046	0.28	Used TCDD (1746-01-6) PACs divided by TEF = 0.03 (See white paper)	mg/m ³
2088	Pentachlorodibenzofuran, 2,3,4,7,8-	57117-31-4	4.30E-04	0.0046	0.028	Used TCDD (1746-01-6) PACs divided by TEF = 0.3 (See white paper)	mg/m ³
2089	Pentachlorodibenzo-p-dioxin, 1,2,3,7,8-	40321-76-4	1.30E-04	0.0014	0.0085	Used TCDD (1746-01-6) PACs divided by TEF = 1 (See white paper)	mg/m ³
2090	Pentachloroethane	76-01-7	130	730	1,200	MAK-TWA x 3, mouse 120-min TCLo, rat 120-min LC50	mg/m ³
2091	Pentachloronitrobenzene	82-68-8	1.5	28	62	TLV-TWA x 3, mouse oral TDLo, rat 240-min LC50	mg/m ³
2092	Pentachlorophenol	87-86-5	1	15	150	TLV-STEL, LOC, IDLH (1990)	mg/m ³
2093	Pentadecafluorooctanoic acid	335-67-1	1.1	12	75	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2094	Pentadecane	629-62-9	1.3	15	87	TEEL-2/11, TEEL-3/6, mouse iv LD50	ppm
2095	Pentadecanoic acid	1002-84-2	0.018	0.2	1.2	TEEL-2/11, TEEL-3/6, mouse iv LD50	ppm
2096	Pentadecylamine	2570-26-5	0.18	2	40	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
2097	Pentaerythritol	115-77-5	30	90	540	TLV-TWA x 3, TEEL-3/6, rat 360-min LCLo	mg/m ³
2098	Pentaerythritol tetra(3-mercaptopropionate), reaction products with 2-(hydroxymethyl)-2-((3-mercapto-1-oxopropoxy)methyl)-1,3-propanediyl bis(3-mercaptopropionate) and 1-octene	95823-35-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2099	Pentaerythritol tetranitrate	78-11-5	5	55	330	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2100	Pentafluorobenzoic acid	602-94-8	0.58	6.4	39	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2101	Pentafluoropropane, 1,1,1,3,3-	460-73-1	900	25,000	1.50E+05	WEEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
2102	Pentane, n-	109-66-0	3000*	33000***	200000***	TLV-TWA (pentane, all isomers) x 3, TEEL-1 x 11, TEEL-2 x 6 (See white paper)	ppm
2103	Pentandiol, 1,5-	111-29-5	6	66	400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2104	Pentanedione, 2,4-; (Acetylacetone)	123-54-6	75	110	200	TLV-TWA x 3, rat 360-min TCLO, rat 55-min LC50	ppm
2105	Pentanenitrile; (Valeronitrile)	110-59-8	0.092	1	6.1	TEEL-2/11, TEEL-3/6, mouse LD50	ppm
2106	Pentanone, 2-; (Methyl propyl ketone)	107-87-9	150	830	5000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
2107	Pentanone, 3-; (Diethyl ketone)	96-22-0	300	830	5000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
2108	Pentatriacontane	630-07-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2109	Pentene, 1-	109-67-1	120	1,300	7700**	TEEL-3/6, TEEL-3/6, rat 240-min LC50	ppm
2110	Peracetic acid	79-21-0	0.52	1.6	15	AEGL-1, AEGL-2, AEGL-3	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2111	Perboric acid, sodium salt	7632-04-4	8	88	530	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2112	Perchloric acid	7601-90-3	0.61	6.7	40	TEEL-2/11, TEEL-3/6, dog oral LD50	ppm
2113	Perchloric acid, zinc salt, hexahydrate	10025-64-6	0.33	3.6	22	TEEL-2/11, TEEL-3/6, mouse ip LDLo	mg/m ³
2114	Perchloroethylene; (Tetrachloroethylene)	127-18-4	35	230	1,200	AEGL-1, AEGL-2, AEGL-3	ppm
2115	Perchloromethyl mercaptan	594-42-3	0.013	0.30	0.90	AEGL-1, AEGL-2, AEGL-3	ppm
2116	Perchloryl fluoride; (Chlorine oxyfluoride)	7616-94-6	1.5	4.0	12	AEGL-1, AEGL-2, AEGL-3	ppm
2117	Percoll	65455-52-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2118	Perfluoro compounds, C5-C18; (Fluorinert electronic liquid perfluoro compounds); includes 60164-51-4 and 69991-67-9	86508-42-1	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
2119	Perfluoroisobutylene; (Octafluoro-sec-butene)	382-21-8	0.01	0.11	0.33	AEGL-2/11, AEGL-2, AEGL-3	ppm
2120	Periodic acid	10450-60-9	0.18	2.1	12	Used MW-adjusted iodic acid (7782-68-5) PAC values	mg/m ³
2121	Periodic acid, sodium salt	7790-28-5	0.19	2.1	13	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2122	Perlite; (Fused NaKAl silicate, < 1% quartz)	93763-70-3	15	230	1,400	PEL-TWA x 3, TEEL-3/6, mouse oral LD50	mg/m ³
2123	Permafluor E+	z-0039	140	360	2,200	1,2,4-trimethylbenzene (95-63-6) AEGL-1, AEGL-2, TEEL-2 x 6	mg/m ³
2124	Permafluor-V (85+% toluene)	z-0040	67	560	3,700	Used toluene (108-88-3) AEGL values	ppm
2125	Peroxydicarbonic acid, disodium salt	3313-92-6	3.4	37	220	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2126	Petroleum asphalt; (Bitumen)	8052-42-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2127	Petroleum coke, calcined	64743-05-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2128	Petroleum distillates; petroleum ether; includes clay-treated light naphthenic [64742-45-6]; low boiling [68477-31-6]; petroleum extracts [64742-06-9]; petroleum base oil [64742-46-7]; petroleum 50 thinner, petroleum spirits [64475-85-0], Soltrol, VM&P naphtha [8032-32-4]; Ligroine, and paint solvent; petroleum paraffins C5-C20 [64771-72-8]; hydrotreated light naphthenic [64742-53-6]; solvent refined light naphthenic [64741-97-5]; and machine coolant 1	8002-05-9	1,100	1,800	40,000	REL-TWA x 3, REL-C, IDLH (1990)	mg/m ³
2129	Phenacetin; (p-Acetophenetidide)	62-44-2	7.3	80	330	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2130	Phenaglycodol; (Ultran; 2-p-Chlorophenyl-3-methyl-2,3-butanediol)	79-93-6	2.5	27	160	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2131	Phenanthrene	85-01-8	5.4	59	360	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2132	Phenanthroline ferrous sulfate, 1,10-	14634-91-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2133	Phenanthroline, 1,10-	66-71-7	0.25	2.7	16	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2134	Phenol	108-95-2	15	23	200	AEGL-1, AEGL-2, ERPG-3	ppm
2135	Phenol red, sodium salt	34487-61-1	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2136	Phenol, polymer with formaldehyde, oxiranylmethyl ether	28064-14-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2137	Phenolphthalein	77-09-8	4	44	260	TEEL-2/11, TEEL-3/6, rat ip LDLo	mg/m ³
2138	Phenoxyethanol, 2-; (Phenyl cellosolve)	122-99-6	1.5	16	97	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2139	Phenyl Chloroformate; (Carbochloridic acid, phenyl ester)	1885-14-9	0.017	0.19	0.57	AEGL-2/11, AEGL-2, AEGL-3	ppm
2140	Phenyl dichloroarsine; (Dichlorophenylarsine)	696-28-6	0.0055	0.061	0.18	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
2141	Phenyl ether; (Diphenyl ether)	101-84-8	2	16	96	TLV-STEL, TEEL-3/6, rat oral LD50	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2142	Phenyl isocyanate	103-71-9	8.70E-04	0.0096	0.029	AEGL-2/11, AEGL-2, AEGL-3	ppm
2143	Phenyl mercaptan; (benzenethiol, thiophenol)	108-98-5	0.3	0.53	1.6	TLV-TWA x 3, AEGL-2, AEGL-3	ppm
2144	Phenyl-1,2-propanedione, 1-	579-07-7	0.4	4.5	27	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
2145	Phenyl-2-oxazoline, 2-	7127-19-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
2146	Phenyl-2-propanol, 2-; (Dimethylphenylmethanol)	617-94-7	0.7	7.7	46	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2147	Phenylacetylene; (Ethylnylbenzene)	536-74-3	28	310	1,900	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2148	Phenylazo)aniline, p-(	60-09-3	0.66	7.2	43	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2149	Phenylboric acid; (Benzeneboronic acid)	98-80-6	2.2	24	150	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2150	Phenylcyclohexane; (Cyclohexylbenzene)	827-52-1	20	220	1,300	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
2151	Phenylene diisocyanate, 1,4-	104-49-4	1	11	14	TEEL-2/11, rat 420-min TCLo, rat 240-min LCLo	mg/m ³
2152	Phenylenediamine dihydrochloride, 1,2-	615-28-1	1.7	19	110	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
2153	Phenylenediamine dihydrochloride, 1,4-	624-18-0	0.44	4.9	29	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2154	Phenylenediamine, 1,2-; (o-Phenylenediamine)	95-54-5	0.3	35	210	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2155	Phenylenediamine, 1,3-; (m-Phenylenediamine)	108-45-2	0.3	21	130	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2156	Phenylenediamine, 1,4-; (p-Phenylenediamine)	106-50-3	0.3	6.8	41	TLV-TWA x 3, TEEL-3/6, rat 240-min LC50	mg/m ³
2157	Phenylhydrazine	100-63-0	0.3	6.4	295	TLV-TWA x 3, rat oral TDLo, IDLH (1990)	ppm
2158	Phenylhydrazine hydrochloride	59-88-1	23	250	1,500	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2159	Phenylmagnesium bromide	100-58-3	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR =3)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2160	Phenylmercury acetate; (Acetoxyphenylmercury)	62-38-4	2	22	47	TEEL-2/11, LOC, MW-adjusted aryl mercury (7439-97-6) IDLH (1990)	mg/m ³
2161	Phenylphenol, 2-: (Biphenylol)	90-43-7	29	320	490	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2162	Phenylphosphine	638-21-1	0.0045	0.05	1.7	TEEL-2/11, TLV-C, rat 240-min LC50	ppm
2163	Phenylpropanolamine hydrochloride; (Propadrine hydrochloride)	154-41-6	4.5	49	300	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2164	Phenylsilatrane	2097-19-0	0.091	1	6	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2165	Phenylthiourea; (1-Phenyl-2-thiourea)	103-85-5	0.27	3	18	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2166	Phenyltriethoxysilane	780-69-8	8.5	93	560	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2167	Phenyltrimethoxysilane	2996-92-1	0.59	6.5	39	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
2168	Phenylxylylethane; (PXE)	6196-95-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2169	Phloroglucinol dihydrate	6099-90-7	2.2	24	140	TEEL-2/11, TEEL-3/6, mouse ip LDLo	mg/m ³
2170	Phorate	298-02-2	0.0036	0.040	0.12	AEGL-2/11, AEGL-2, AEGL-3	mg/m ³
2171	Phosacetim	4104-14-7	0.34	3.7	11	TEEL-2/11, LOC, dog oral LD50	mg/m ³
2172	Phosfolan	947-02-4	0.82	9	54	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2173	Phosgene	75-44-5	0.027	0.30	0.75	AEGL-2/11, AEGL-2, AEGL-3	ppm
2174	Phosgene oxime	1794-86-1	0.028	0.083	13	AEGL-1, AEGL-2, AEGL-3	mg/m ³
2175	Phosmet	732-11-6	0.049	0.54	77	TEEL-2/11, LOC, rat 60-min LC50	mg/m ³
2176	Phosphamidon; (Famfos)	13171-21-6	0.027	0.3	21	TEEL-2/11, LOC, dog oral LD50	mg/m ³
2177	Phosphine	7803-51-2	1	2.0	3.6	TLV-STEL, AEGL-2, AEGL-3	ppm

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2178	Phosphomolybdic acid	11104-88-4	2.5	27	160	MW-adjusted soluble molybdenum (7439-98-7) TLV-TWA x 3, TEEL-2 x 11, TEEL-3 x 6	mg/m ³
2179	Phosphonic acid	13598-36-2	1.2	13	380	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2180	Phosphonic acid, dioctadecyl ester	19047-85-9	9.5	100	630	Used phosphonic acid, tridodecyl ester (3076-63-9) PAC values	mg/m ³
2181	Phosphonic acid, methyl-, mono(1-methylethyl) ester; (Isopropyl methylphosphonic acid)	1832-54-8	21	230	1,400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2182	Phosphonic acid, tridodecyl ester	3076-63-9	9.5	100	630	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2183	Phosphonoacetic acid	4408-78-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2184	Phosphoric acid	7664-38-2	3	30	150	ERPG-1, ERPG-2, ERPG-3	mg/m ³
2185	Phosphoric acid, dimethyl-p-(methylthio)phenyl ester	3254-63-5	0.64	7	42	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2186	Phosphorodifluoridic acid, ethyl ester; (Ethyl phosphorodifluoridate)	460-52-6	26	280	1,700	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2187	Phosphorodifluoridic acid, methyl ester	22382-13-4	23	250	1,500	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2188	Phosphorous acid, o-; (Phosphonic acid)	10294-56-1	3	30	150	Used phosphoric acid (7664-38-2) ERPG values	mg/m ³
2189	Phosphorous pentafluoride	7647-19-0	2	22	130	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990) converted to ppm	ppm
2190	Phosphorous trifluoride	7783-55-3	3.2	35	210	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990) converted to ppm	ppm
2191	Phosphorus (red, violet, and black)	7723-14-0	0.27	3	18	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2192	Phosphorus (yellow); (White phosphorus)	12185-10-3	0.3	0.91	5.5	TLV-TWA x 3, TEEL-3/6, dog oral LDLo	mg/m ³
2193	Phosphorus oxychloride	10025-87-3	0.3	0.48	0.85	TLV-TWA x 3, LOC, AEGL-3	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2194	Phosphorus pentachloride	10026-13-8	2.6	20	200	TEEL-2/11, LOC, IDLH (1990)	mg/m ³
2195	Phosphorus pentasulfide	1314-80-3	3	130	750	TLV-STEL, TEEL-3/6, IDLH (1990)	mg/m ³
2196	Phosphorus pentoxide	1314-56-3	1	10	50	ERPG-1, ERPG-2, ERPG-3	mg/m ³
2197	Phosphorus trichloride	7719-12-2	0.34	2.0	5.6	AEGL-1, AEGL-2, AEGL-3	ppm
2198	Phosphorus trioxide	1314-24-5	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2199	Phthalic acid	88-99-3	24	260	1,600	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2200	Phthalic acid, benzyl butyl ester; (Benzyl butyl phthalate)	85-68-7	15	77	460	United Kingdom OEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2201	Phthalic anhydride	85-44-9	18	56	10,000	TLV-TWA x 3, rat oral TDLo, IDLH (1990)	mg/m ³
2202	Phthaloyl dichloride; (Phthaloyl chloride)	88-95-9	0.14	1.6	9.5	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	ppm
2203	Phyllomedusin	26145-48-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2204	Physostigmine	57-47-6	0.41	4.5	27	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2205	Physostigmine salicylate (1:1)	57-64-7	0.23	2.5	15	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2206	Picolinic acid; (2-Pyridinecarboxylic acid)	98-98-6	1.2	13	78	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2207	Picric acid	88-89-1	0.3	17	100	REL-STEL, TEEL-3/6, IDLH (1990)	mg/m ³
2208	Picrotoxin; (Cocculin; PTX)	124-87-8	0.024	0.27	1.6	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2209	Pigment green 36	14302-13-7	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2210	Pigment yellow 13; (Butanamide, 2,2'-((3,3'-dichloro(1,1'-biphenyl)-4,4'-diyl)bis(azo))bis(N-(2,4-dimethylphenyl)-3-oxo-))	5102-83-0	5.2	57	990	TEEL-2/11, rat 360-min TCLo, rat oral LD50	mg/m ³
2211	Pigment yellow 14	5468-75-7	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2212	Pinacolone; (3,3-Dimethyl-2-butanone)	75-97-8	0.45	4.9	30	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2213	Pinacolyl alcohol; (tert-Butyl methyl carbinol)	464-07-3	1.9	21	130	TEEL-2/11, TEEL-3/6, rat 138-min LCLo	ppm
2214	Piperazine	110-85-0	0.09	8.9	54	TLV-TWA x 3, TEEL-3/6, mouse 120-min LC50	ppm
2215	Piperidine	110-89-4	6.6	33	110	AEGL-1, AEGL-2, AEGL-3	ppm
2216	Piperonyl butoxide	51-03-6	6.5	72	1,200	TEEL-2/11, rat 360-min TCLo, rat oral LD50	mg/m ³
2217	Pirimifos-ethyl	23505-41-1	2.3	25	28	TEEL-2/11, LOC, rat oral LD50	mg/m ³
2218	Pivalic anhydride; (Trimethylacetic anhydride)	1538-75-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2219	Platinum	7440-06-4	3	33	200	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2220	Platinum cyanide	592-06-3	0.0076	0.083	0.5	MW-adjusted soluble platinum (7440-06-4) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2221	Poly alpha olefin; (Synthetic hydrocarbon mixture, PAO; Hydrogenated trimer and tetramer of decene)	68649-12-7	2	22	130	TEEL-2/11, TEEL-3/6, rat 60-min LC50	mg/m ³
2222	Poly(1-(2-oxo-1-pyrrolidinyl)ethylene)iodine complex; (Iodine solutions)	25655-41-8	3.8	42	250	TEEL-2/11, TEEL-3/6, rat iv LD50	mg/m ³
2223	Poly(1-vinyl-2-pyrrolidinone) homopolymer; (Polyvinylpyrrolidone; Plasdone)	9003-39-8	51	560	20,000	TEEL-2/11, rat iv TDLo, rat oral LD50	mg/m ³
2224	Poly(acrylamide-co-diallyldimethylammonium chloride)	26590-05-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2225	Poly(dimethylsiloxane), ethoxylated, dihydroxy terminated; (Silicon oil polymer)	68037-63-8	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
2226	Poly(dimethylsiloxane), hydride terminated	70900-21-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2227	Poly(dimethylsiloxane), vinyl dimethylsiloxy terminated	68083-19-2	48	530	3,200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2228	Poly(divinylbenzene); (Diethenylbenzene homopolymer)	9003-69-4	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2229	Poly(ethylene glycol methyl ether)	9004-74-4	66	730	4,400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
2230	Poly(ethylene glycol)diacrylate	26570-48-9	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2231	Poly(melamine-co-formaldehyde), methylated	68002-20-0	44	490	2,900	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2232	Poly(oxy-1,2-ethanediyl), alpha-(4-octylphenyl)-omega-hydroxy-; (Polyethylene glycol mono(p-octylphenol)ether)	26636-32-8	1.2	14	81	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
2233	Poly(oxyethylene)(2) stearyl ether	9005-00-9	5.7	63	380	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2234	Poly(styrene-co-divinylbenzene); (Dowex Optipore V-502)	69011-14-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2235	Poly[oxy(methyl-1,2-ethanediyl)], alpha-hydro-omega-(2-aminomethylethoxy)-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1); (Polyoxypropylene polyamine)	39423-51-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2236	Polyamide 6; (Capron; Poly(iminocarbonylpentamethylene))	25038-54-4	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2237	Polybutyl acrylate	9003-49-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2238	Polychlorinated biphenyl (Aroclor 1016); (Chlorodiphenyl (41% Cl))	12674-11-2	5.6	62	460	TEEL-2/11, mouse oral TDLo, rat oral LD50	mg/m ³
2239	Polychlorinated biphenyl (Aroclor 1016/1242); (Chlorodiphenyl (37% Cl))	z-0042	13	140	860	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2240	Polychlorinated biphenyl (Aroclor 1221); (Chlorodiphenyl (21% Cl))	11104-28-2	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2241	Polychlorinated biphenyl (Aroclor 1232); (Chlorodiphenyl (32% Cl))	11141-16-5	13	150	890	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2242	Polychlorinated biphenyl (Aroclor 1242); (Chlorodiphenyl (42% Cl))	53469-21-9	3	140	840	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2243	Polychlorinated biphenyl (Aroclor 1248); (Chlorodiphenyl (48% Cl))	12672-29-6	6.6	72	2,200	TEEL-2/11, rat ip TDLo, rat oral LD50	mg/m ³
2244	Polychlorinated biphenyl (Aroclor 1254); (Chlorodiphenyl (54% Cl))	11097-69-1	1.5	68	200	TLV-TWA x 3, rat oral TDLo, rat oral LD50	mg/m ³
2245	Polychlorinated biphenyl (Aroclor 1260); (Chlorodiphenyl (60% Cl))	11096-82-5	0.41	4.5	260	TEEL-2/11, rat ip TDLo, rat oral LD50	mg/m ³
2246	Polychlorinated biphenyl (Aroclor 1260/1262); (Chlorodiphenyl (61% Cl))	z-0043	0.41	4.5	260	TEEL-2/11, rat ip TDLo, rat oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
2247	Polychlorinated biphenyl (Aroclor 1262); (Chlorodiphenyl (62% Cl))	37324-23-5	34	370	2,200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2248	Polychlorinated biphenyl (Aroclor 1268); (Chlorodiphenyl (68% Cl))	11100-14-4	33	360	2,200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2249	Polychlorinated biphenyl; (Aroclor; PCBs)	1336-36-3	13	140	840	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2250	Polydimethyl siloxane; (Dimethylpolysiloxane)	9016-00-6	6.8	75	450	TEEL-2/11, TEEL-3/6, dog ip LDLo	mg/m ³
2251	Polyether polyol ester	z-0112	7.9	87	520	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
2252	Polyethylbenzene residue; (Dowtherm Q)	68987-42-8	14	150	900	ERPG-2/11, ERPG-2 , ERPG-2 x 6	ppm
2253	Polyethylene	9002-88-4	16	170	1,000	TEEL-2/11, TEEL-3/6, rat 30-min LC50	mg/m ³
2254	Polyethylene glycol	25322-68-3	30	1,300	7,700	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2255	Polyethylene glycol 20M	37225-26-6	30	1,300	7,700	Used polyethylene glycol (25322-68-3) PAC values	mg/m ³
2256	Polyethylene glycol dimethacrylate	25852-47-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2257	Polyglycol 15-200; (Oxirane, 2-methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1); Calthane NF and ND "B")	9082-00-2	30	330	2,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2258	Polyisocyanate prepolymer	z-0115	0.45	5	55	Used methylene diphenyl diisocyanate (101-68-8) PAC values	mg/m ³
2259	Polymaleic acid; (2-Butenedioic acid (2Z)-, homopolymer)	26099-09-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2260	Polymethylene polyphenyl isocyanate; (Polymeric diphenylmethane diisocyanate)	9016-87-9	0.15	3.6	22	MAK-TWA x 3, TEEL-3/6, rat 240-min LC50	mg/m ³
2261	Polymethylhydrosiloxane; (Methyl hydrogen polysiloxane)	63148-57-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2262	Polyoxyalkyleneamine; (Poly(oxypropylene)diamine)	9046-10-0	4.8	53	320	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2263	Polyoxyethylene monoocetylphenyl ether	9036-19-5	13	140	830	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2264	Polyphosphoric acid	8017-16-1	3	30	150	Used phosphoric acid (7664-38-2) ERPG values	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2265	Polypropylene	9003-07-0	5.2	58	350	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2266	Polypropylene glycol, (chloromethyl) oxirane polymer	9072-62-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2267	Polypropylene glycol, polytetramethylene glycol, 1,3-diisocyanatomethylbenzene polymer	65636-36-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2268	Polypropylene glycols	25322-69-4	30	330	2,000	WEEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2269	Polypropylene-polyethylene glycol; (Pluronic L-81)	9003-11-6	6.9	76	460	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2270	Polysorbate 85; (Tween 85)	9005-70-3	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
2271	Polystyrene resin; (Styrene polymer)	9003-53-6	85	550	4,700	Used styrene (100-42-5) AEGL values converted to mg/m ³	mg/m ³
2272	Polysulfone resin	25135-51-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2273	Polytetrafluoroethylene; (Teflon)	9002-84-0	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2274	Polyurethane foam; (Urethane polymers)	9009-54-5	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2275	Polyurethane prepolymer of MDI and PEP	68092-58-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2276	Polyvinyl alcohol	9002-89-5	24	270	1,600	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2277	Polyvinyl chloride	9002-86-2	3	33	200	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2278	Potassium	7440-09-7	2.3	25	150	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2279	Potassium acetate	127-08-2	9.8	110	640	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2280	Potassium acid fluoride	7789-29-9	15	170	1,000	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2281	Potassium aluminate	12003-63-3	22	240	1,400	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2282	Potassium aluminosilicate	1327-44-2	35	400	2,400	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2283	Potassium antimonate; (Antimony potassium oxide)	29638-69-5	3.2	28	170	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, MW-adjusted antimony IDLH (1990)	mg/m ³
2284	Potassium antimonate; (Potassium hexahydroxyantimonate)	12208-13-8	3.2	28	170	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, MW-adjusted antimony IDLH (1990)	mg/m ³
2285	Potassium antimonite	z-0045	2.8	25	150	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, MW-adjusted antimony IDLH (1990)	mg/m ³
2286	Potassium argentate	z-0046	0.05	0.56	3.4	MW-adjusted soluble silver (7440-38-2) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2287	Potassium arsenate; (Monopotassium arsenate)	7784-41-0	3.6	40	240	TEEL-2/11, TEEL-3/6, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
2288	Potassium arsenite; (Arsenous acid, potassium salt)	13464-35-2	2.9	32	190	TEEL-2/11, TEEL-3/6, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
2289	Potassium beryllium oxide	z-0047	0.018	0.2	0.8	Used MW-adjusted beryllium (7440-41-7) PAC values	mg/m ³
2290	Potassium bicarbonate	298-14-6	140	1,600	9,500	TEEL-2/11, rat oral TDLo, TEEL-2 x 6	mg/m ³
2291	Potassium bi-iodate	13455-24-8	1.1	13	76	TEEL-2/11, TEEL-3/6, mouse oral LDLo	mg/m ³
2292	Potassium bismuthate	12589-75-2	3.3	36	220	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2293	Potassium bisulfate	7646-93-7	7	77	460	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2294	Potassium bromate	7758-01-2	0.3	3.1	89	WEEL-TWA x 3, rat oral TDLo, rat oral LD50	mg/m ³
2295	Potassium bromide	7758-02-3	9.2	100	610	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2296	Potassium cadminate	z-0048	0.23	1.7	11	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
2297	Potassium carbonate	584-08-7	5.6	62	370	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2298	Potassium chlorate	3811-04-9	5.6	62	370	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2299	Potassium chromate(VI)	7789-00-6	0.56	9.7	58	MW-adjusted chromium (VI) (7440-47-3) TLV-TWA x 3, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
2300	Potassium citrate	866-84-2	2.1	23	140	TEEL-2/11, TEEL-3/6, dog iv LD50	mg/m ³
2301	Potassium citrate, monohydrate	6100-05-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2302	Potassium columbate; (Potassium niobate)	12030-85-2	9	99	590	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2303	Potassium cyanide	151-50-8	5.3	19	40	AEGL-1, AEGL-2, AEGL-3	mg/m ³
2304	Potassium dichromate	7778-50-9	0.42	8.8	44	MW-adjusted soluble chromium (VI) (7440-47-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
2305	Potassium dideuterium phosphate	13761-79-0	9.6	110	630	Used potassium phosphate (7778-77-0) PAC values	mg/m ³
2306	Potassium ferricyanide	13746-66-2	13	18	110	MW-adjusted cyanides MAK-TWA x 3, TEEL-3/6, MW-adjusted cyanides IDLH (1990)	mg/m ³
2307	Potassium ferrocyanide; (Tetrapotassium hexacyanoferrate)	13943-58-3	14	20	120	MW-adjusted cyanides MAK-TWA x 3, TEEL-3/6, MW-adjusted cyanides IDLH (1990)	mg/m ³
2308	Potassium fluoride	7789-23-3	23	250	1,500	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2309	Potassium fluoride dihydrate	13455-21-5	37	420	2,500	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2310	Potassium formate	590-29-4	9	99	600	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2311	Potassium glycolate	1932-50-9	6	65	410	Used MW-adjusted sodium glycolate (2836-32-0) PAC values	ppm
2312	Potassium gold cyanide	554-07-4	33	47	280	Used MW-adjusted cyanide (57-12-5) PAC values	mg/m ³
2313	Potassium hexacyanoferrate(II) trihydrate; (Potassium ferricyanide trihydrate)	14459-95-1	16	23	140	Used MW-adjusted cyanide (57-12-5) PAC values	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2314	Potassium hexafluorosilicate; (Silicate(2-), hexafluoro-, dipotassium)	16871-90-2	0.47	5.1	31	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2315	Potassium hydride	7693-26-7	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2316	Potassium hydrogen lead oxide	z-0049	0.2	160	940	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
2317	Potassium hydrogen metasilicate	z-0051	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2318	Potassium hydrogen pyrophosphate	z-0050	54	600	1,100	Used MW-adjusted potassium pyrophosphate (7320-34-5) PAC values	mg/m ³
2319	Potassium hydroxide	1310-58-3	0.18	2	54	TEEL-2/11, TLV-C, rat oral LD50	mg/m ³
2320	Potassium iminodiacetate; (Potassium IDA)	z-0052	3.9	44	260	Used MW-adjusted disodium iminodiacetate (928-72-3) PAC values	ppm
2321	Potassium iodate	7758-05-6	0.45	4.9	29	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2322	Potassium iodide	7681-11-0	1.3	15	87	TEEL-2/11, TEEL-3/6, rat iv LDLo	mg/m ³
2323	Potassium lanthanate	z-0053	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2324	Potassium metaarsenite; (Potassium arsenite)	10124-50-2	1.3	14	530	TEEL-2/11, LOC, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
2325	Potassium metaborate	13709-94-9	6.8	77	460	Used sodium metaborate (7775-19-1) PAC values	mg/m ³
2326	Potassium molybdate; (Molybdic acid, dipotassium salt)	13446-49-6	3.7	40	240	MW-adjusted molybdenum (7439-98-7) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2327	Potassium nickel oxide (liquids); (Nickel potassium oxide)	50811-97-7	0.86	9.6	57	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2328	Potassium nickelate	z-0055	1	12	69	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2329	Potassium nitrate	7757-79-1	9	100	600	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2330	Potassium nitrilotriacetate; (Potassium NTA)	2399-85-1	3.7	40	240	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2331	Potassium nitrite	7758-09-0	4.1	45	3,000	TEEL-2/11, rat oral TDLo, mouse 120-min LC50	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2332	Potassium orthovanadate	14293-78-8	0.021	0.23	160	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C and IDLH (1994, See white paper)	mg/m ³
2333	Potassium oxalate	583-52-8	2	22	130	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2334	Potassium oxalate monohydrate	6487-48-5	2	22	130	Used potassium oxalate (583-52-8) PAC values	mg/m ³
2335	Potassium oxide	12136-45-7	0.18	2	54	Used potassium hydroxide (1310-58-3) PAC values	mg/m ³
2336	Potassium perchlorate	7778-74-7	6.3	69	420	Used sodium perchlorate (7601-89-0) PAC values	mg/m ³
2337	Potassium periodate	7790-21-8	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2338	Potassium permanganate	7722-64-7	8.6	14	150	MW-adjusted manganese (1317-35-7) REL-STEL and PEL-C, rat oral LD50	mg/m ³
2339	Potassium peroxydisulfate; (Peroxydisulfuric acid, dipotassium salt)	10058-23-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2340	Potassium persulfate; (Dipotassium persulfate)	7727-21-1	0.3	26	160	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2341	Potassium phosphate, dibasic	7758-11-4	13	140	830	Used MW-adjusted potassium phosphate, monobasic (7778-77-0) PAC values	mg/m ³
2342	Potassium phosphate, dibasic trihydrate	16788-57-1	16	180	1,100	Used MW-adjusted potassium phosphate, monobasic (7778-77-0) PAC values	mg/m ³
2343	Potassium phosphate, monobasic	7778-77-0	9.6	110	630	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2344	Potassium phosphate, tribasic	7778-53-2	15	170	980	Used MW-adjusted potassium phosphate, monobasic (7778-77-0) PAC values	mg/m ³
2345	Potassium phosphide	20770-41-6	0.18	2.0	3.6	AEGL-2/11, AEGL-2, AEGL-3	ppm
2346	Potassium pyrophosphate; (Tetrapotassium diphosphate)	7320-34-5	61	680	1,200	TEEL-2/11, rat oral TDLo, rat oral LDLo	mg/m ³
2347	Potassium pyrosulfate; (Disulfuric acid, dipotassium salt)	7790-62-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2348	Potassium pyrosulfite; (Potassium metabisulfite)	16731-55-8	5.4	59	360	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2349	Potassium selenate	7790-59-2	1.7	18	110	Used MW-adjusted selenium (7782-49-2) PAC values	mg/m ³
2350	Potassium selenite	10431-47-7	1.6	17	100	Used MW-adjusted selenium (7782-49-2) PAC values	mg/m ³
2351	Potassium silicate; (Silicic acid, potassium salt)	1312-76-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2352	Potassium silver cyanide	506-61-6	2.9	32	190	TEEL-2/11, TEEL-3/6, MW-adjusted cyanides IDLH (1990)	mg/m ³
2353	Potassium stannate	12142-33-5	12	140	810	MW-adjusted tin (7440-31-5) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2354	Potassium strontium phosphate	53201-92-6	16	180	1,000	Used MW-adjusted potassium phosphate, monobasic (7778-77-0) PAC values	mg/m ³
2355	Potassium sulfate (2:1); (Dipotassium sulfate)	7778-80-5	20	220	1,300	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2356	Potassium tellurate	15571-91-2	0.63	6.9	42	Used MW-adjusted tellurium (13494-80-9) PAC values	mg/m ³
2357	Potassium tellurite	7790-58-1	0.6	6.6	40	Used MW-adjusted tellurium (13494-80-9) PAC values	mg/m ³
2358	Potassium tetrafluoroborate(1-)	14075-53-7	12	140	830	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2359	Potassium tetraphenylborate	3244-41-5	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2360	Potassium thiocyanate	333-20-0	2.6	28	170	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2361	Potassium trihydrogen silicate	z-0058	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2362	Potassium tungstate	7790-60-5	5.3	58	350	Used MW-adjusted soluble tungsten (7440-33-7) PAC values	mg/m ³
2363	Potassium uranyl carbonate	17871-80-6	1.5	13	76	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
2364	Potassium zirconate; (Potassium zirconium oxide; Dipotassium zirconate)	12030-98-7	24	200	1,200	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
2365	Potassium-tert-butoxide; (tert-Butyl alcohol, potassium derivitave)	865-47-4	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2366	Praseodymium	7440-10-0	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2367	Praseodymium (III, IV) oxide	12037-29-5	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2368	Praseodymium nitrate	10361-80-5	5.6	61	370	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2369	Praseodymium oxide	12036-32-7	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2370	Promecarb; (m-Cym-5-yl methylcarbamate)	2631-37-0	1.5	16	96	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2371	Propanamine, 1-; (Propylamine)	107-10-8	5.4	59	100	TEEL-2/11, rat 420-min TCLo, rat 240-min LC50	ppm
2372	Propane	74-98-6	5500*	17000**	33000***	AEGL-1, AEGL-2, AEGL-3	ppm
2373	Propane sultone, 1,3-	1120-71-4	1.6	18	110	TEEL-2/11, TEEL-3/6, rat 360-min LCLo	mg/m ³
2374	Propanediamine, 1,2-	78-90-0	6.7	74	440	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2375	Propanediamine, 1,3-	109-76-2	0.93	10	61	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2376	Propanedinitrile; (Malononitrile)	109-77-3	0.07	0.77	2.3	AEGL-2/11, AEGL-2, AEGL-3	ppm
2377	Propanediol, 1,3-	504-63-2	7.8	86	520	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2378	Propanediol, 2,2-dimethyl-1,3-	126-30-7	29	320	1,900	TEEL-2/11, TEEL-3/6, rat 360-min LCLo	ppm
2379	Propanethiol; (n-Propylmercaptan)	107-03-9	0.045	0.5	320	TEEL-2/11, REL-C, rat 240-min LC50	ppm
2380	Propanol, zirconium(4+) salt, 1-	23519-77-9	36	300	1,800	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
2381	Propargyl alcohol	107-19-7	2.5	16	72	AEGL-1, AEGL-2, AEGL-3	ppm
2382	Propargyl bromide	106-96-7	1.4	63	380	WEEL-TWA x 3, TEEL-3/6, dog oral LD50	mg/m ³
2383	Propiolactone, b-	57-57-8	1.5	5	30	TLV-TWA x 3, TEEL-3/6, mouse ip LD50	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2384	Propionaldehyde	123-38-6	45	260	840	AEGL-1, AEGL-2, AEGL-3	ppm
2385	Propionic acid	79-09-4	15	28	170	REL-STEL, TEEL-3/6, rat oral LD50	ppm
2386	Propionic acid, 3-ethoxy-, ethyl ester; (Ethyl-3-ethoxypropionate)	763-69-9	1.6	18	110	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2387	Propionic acid, sodium salt	137-40-6	15	170	1,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2388	Propionic anhydride	123-62-6	7.1	78	470	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2389	Propionitrile; (Propiononitrile)	107-12-0	0.27	3.0	9.1	AEGL-2/11, AEGL-2, AEGL-3	ppm
2390	Propionyl chloride	79-03-8	0.05	0.55	3.3	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
2391	Propoxur (Baygon)	114-26-1	1.5	6.7	40	TLV-TWA x 3, TEEL-3/6, rat 60-min LC50	mg/m ³
2392	Propoxypropanol, n-; (Propylene glycol monpropyl ether)	30136-13-1	0.93	10	61	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2393	Propyl acetate, n-	109-60-4	250	1,300	8000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
2394	Propyl chloroformate; (Propyl chlorocarbonate)	109-61-5	0.34	3.7	11	AEGL-2/11, AEGL-2, AEGL-3	ppm
2395	Propyl nitrate	627-13-4	40	330	2000*	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
2396	Propyl-1-butanamine, N-	20193-21-9	3.2	35	210	Used MW-adjusted dipropylamine (142-84-7) PAC values	mg/m ³
2397	Propylbenzene, n-; (Isocumene)	103-65-1	3.7	41	240	TEEL-2/11, rat oral TDLo, rat oral LD50	ppm
2398	Propylene carbonate, 1,2-	108-32-7	34	370	2,200	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2399	Propylene glycol dinitrate	6423-43-4	0.17	1.0	13	AEGL-1, AEGL-2, AEGL-3	ppm
2400	Propylene glycol monomethyl ether acetate, alpha-isomer; (1-Methoxypropyl-2-acetate)	108-65-6	50	1,000	5000*	ERPG-1, ERPG-2, ERPG-3	ppm
2401	Propylene glycol monomethyl ether acetate, beta-isomer; (2-Methoxypropyl-1-acetate)	70657-70-4	50	1,000	5,000	ERPG-1, ERPG-2, ERPG-3	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2402	Propylene glycol monomethyl ether; (Ucar Triol HG-170)	107-98-2	100	160	660	TLV-STEL, rat oral TDLo, rat 240-min LC50	ppm
2403	Propylene glycol mono-n-butyl ether; (3-Butoxy-1-propanol)	10215-33-5	3.3	36	220	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2404	Propylene glycol; (1,2-Propanediol)	57-55-6	30	1,300	7,900	WEEL-TWA x 3, TEEL-3/6, dog oral LD50	mg/m ³
2405	Propylene oxide; (Methyl ethylene oxide)	75-56-9	73	290	870	AEGL-1, AEGL-2, AEGL-3	ppm
2406	Propylene; (1-Propene)	115-07-1	1,500	2800*	17000**	TLV-TWA x 3, TEEL-3/6, rat 240-minute LC50	ppm
2407	Propyleneimine, 1,2-	75-55-8	0.4	12	23	TLV-STEL, AEGL-2, AEGL-3	ppm
2408	Propyltrichlorosilane	141-57-1	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
2409	Prothoate; (Isopropyl diethyldithiophosphorylacetylacetamide)	2275-18-5	0.15	1.7	10	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2410	Pump oil; (petroleum distillates, solvent de-waxed heavy paraffinic)	64742-65-0	140	1,500	8,900	Used mineral oil, heavy or light (8020-83-5) PAC values	mg/m ³
2411	Pyrene	129-00-0	0.15	1.7	110	TEEL-2/11, mouse oral TDLo, rat oral LD50	mg/m ³
2412	Pyrethrin 1; (Cyclopropaneacrylic acid, 2,2-dimethyl-3-(2-methylpropenyl)-, ester with 4-hydroxy-3-methyl-2-(2,4-pentadienyl)-2-cyclopenten-1-one)	121-21-1	15	25	150	Pyrethrum (8003-34-7) TLV-TWA x 3, TEEL-3/6, rat 240-min LC50	mg/m ³
2413	Pyridine	110-86-1	3	19	3600*	TLV-TWA x 3, mouse oral TDLo, IDLH (1990)	ppm
2414	Pyridinecarboxaldehyde, 4-; (Isonicotinaldehyde)	872-85-5	3.5	38	230	TEEL-2/11, TEEL-3/6, mouse oral LDLo	mg/m ³
2415	Pyridine-d5	7291-22-7	3	19	3600*	Used pyridine (110-86-1) PAC values	ppm
2416	Pyriminil; (Pyriminyl)	53558-25-1	0.56	6.2	380	TEEL-2/11, LOC, monkey oral LD50	mg/m ³
2417	Pyrogalllic acid	87-66-1	0.41	4.5	20	TEEL-2/11, rat oral TDLo, human oral LDLo	mg/m ³
2418	Pyromellitic acid	89-05-4	0.98	11	65	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2419	Pyrrole; (Imidole)	109-97-7	0.12	1.3	7.7	TEEL-2/11, TEEL-3/6, mouse ip LD50	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2420	Pyrrolidine	123-75-1	0.69	7.6	45	TEEL-2/11, TEEL-3/6, mouse 120-min LC50	mg/m ³
2421	Pyrrolidinone, 2-	616-45-5	6.9	76	460	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2422	Quaternary ammonium compounds, benzyl-C12-C16-alkyldimethyl, chlorides	68424-85-1	1.3	14	84	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2423	Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, chlorides; (Methyl bis(2-hydroxyethyl) cocoalkyl quaternary ammonium chlorides)	70750-47-9	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2424	Quaternary ammonium compounds, coco alkylbis(hydroxyethyl)methyl, nitrates (salts); (Methyl bis(2-hydroxyethyl) cocoalkyl quaternary ammonium nitrates)	71487-00-8	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2425	Quinhydrone	106-34-3	0.21	2.3	14	TEEL-2/11, TEEL-3/6, rat iv LD50	mg/m ³
2426	Quinoline	91-22-5	0.003	2.9	17	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	ppm
2427	Quinolinol, 8-	148-24-3	3.6	40	240	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2428	Resorcinol	108-46-3	20	28	170	TLV-STEL, TEEL-3/6, dog iv LDLo	ppm
2429	Rexyn I-300; (Ethylene glycol dimethacrylate polymer with styrene, chloromethylated, trimethylamine-quaternized, hydroxide)	69011-49-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2430	Rhenium hexafluoride	10049-17-9	20	220	1,300	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2431	Rhenium oxide; (Rhenium(VII) oxide)	1314-68-7	3	33	200	Used MW-adjusted soluble tungsten (7440-33-7) PAC values	mg/m ³
2432	Rhodium	7440-16-6	3	33	200	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2433	Rhodium oxide; (Rhodium(IV) oxide)	12137-27-8	0.039	0.43	2.6	Used MW-adjusted soluble rhodium (7440-16-6) PAC values	mg/m ³
2434	Rhodium(III) hydroxide	21656-02-0	0.045	0.5	3	Used MW-adjusted soluble rhodium (7440-16-6) PAC values	mg/m ³
2435	Rhodium(III) oxide (solids)	12036-35-0	3.7	40	240	Used MW-adjusted soluble rhodium (7440-16-6) PAC values	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2436	Ricin	9009-86-3	8.20E-06	9.00E-05	5.40E-04	TEEL-2/11, TEEL-3/6, rat 10-min LCLo	mg/m ³
2437	Rosin core solder decomposition products; (Colophony Gum)	8050-09-7	72	790	1,500	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2438	Rotenone	83-79-4	15	420	2,500	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
2439	Rubidium	7440-17-7	3.9	43	260	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2440	Rubidium bromide	7789-39-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2441	Rubidium chloride	7791-11-9	6.2	69	410	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2442	Rubidium hydroxide	1310-82-3	1.8	19	120	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2443	Rubidium nitrate	13126-12-0	14	150	920	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2444	Ruthenium	7440-18-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2445	Ruthenium trichloride	10049-08-8	2.2	24	140	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
2446	Ruthenium(IV) oxide	12036-10-1	14	150	910	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2447	Safrol; (5-(2-Propenyl)-1,3-benzodioxole)	94-59-7	5.9	64	390	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2448	Salcomine; (bis(Salicylaldehyde)ethylenediimine cobalt(II))	14167-18-1	3.5	39	230	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2449	Salicylaldehyde	90-02-8	1.6	17	100	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2450	Samarium	7440-19-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2451	Samarium chloride	10361-82-7	1.2	13	79	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2452	Samarium nitrate	10361-83-8	6.5	71	430	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2453	Samarium(II) iodide solution	32248-43-4	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2454	Samarium(III) chloride hexahydrate	13465-55-9	1.7	19	110	Used MW-adjusted samarium chloride (10361-82-7) PAC values	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2455	Samarium(III) oxide	12060-58-1	15	170	990	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2456	Satratoxin H	53126-64-0	0.0046	0.051	0.3	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2457	Saxitoxin	35523-89-8	2.10E-05	2.30E-04	0.0014	TEEL-2/11, TEEL-3/6, mouse 10-min LC50	mg/m ³
2458	Scandium	7440-20-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2459	Scandium oxide	12060-08-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2460	Selenious acid	7783-00-8	23	250	1,500	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2461	Selenium	7782-49-2	0.6	6.6	40	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2462	Selenium dioxide	7446-08-4	0.84	1.6	9.5	MW-adjusted selenium (7782-49-2) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2463	Selenium hexafluoride	7783-79-1	0.053	0.087	0.26	AEGL-1, AEGL-2, AEGL-3	ppm
2464	Selenium monosulfide	7446-34-6	0.84	1.3	7.5	MW-adjusted selenium (7782-49-2) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2465	Selenium oxychloride	7791-23-3	1.3	10	60	MW-adjusted selenium (7782-49-2) TLV-TWA x 3, LOC, TEEL-2 x 6	mg/m ³
2466	Selenium sulfide; (Selenium(IV) disulfide (1:2))	7488-56-4	1.1	4.6	27	MW-adjusted selenium (7782-49-2) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2467	Semicarbazide hydrochloride	563-41-7	9.1	100	600	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2468	Shigella, shigatoxin; (shiga-like toxins)	75757-64-1	1.50E-06	1.60E-05	9.70E-05	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
2469	Silane; (Silicon tetrahydride)	7803-62-5	100	130	270	AEGL-1, AEGL-2, AEGL-3	ppm
2470	Silica amorphous hydrated	7631-86-9	18	740	4,500	REL-TWA x 3, TEEL-3/6, rat oral LDLo	mg/m ³
2471	Silica gel	63231-67-4	18	200	1,200	REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2472	Silica gel dessicant	1343-98-2	18	95	570	REL-TWA x 3, rat 360-min TCLo, TEEL-2 x 6	mg/m ³
2473	Silica gel, amorphous synthetic	112926-00-8	18	200	1,200	REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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			PAC-1	PAC-2	PAC-3		
2474	Silica, amorphous fume	69012-64-2	45	500	3,000	TEEL-2/11, TEEL-3/6, IDLH (1994)	mg/m ³
2475	Silica, amorphous fumed	112945-52-5	18	100	630	REL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2476	Silica, crystalline-quartz; (Silicon dioxide)	14808-60-7	0.075	33	200	TLV-TWA x 3, TEEL-3/6, rat iv LD50	mg/m ³
2477	Silicic acid	7699-41-4	0.9	11	67	Swiss OEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2478	Silicic acid, aluminum calcium sodium salt	1344-01-0	30	330	2,000	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2479	Silicic acid, sodium salt; (Sodium silicate)	1344-09-8	5.9	65	390	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2480	Silicofluoric acid; (Fluorosilicic acid)	16961-83-4	9.5	110	630	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2481	Silicon	7440-21-3	45	100	630	PEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2482	Silicon carbide	409-21-2	45	500	3,000	PEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2483	Silicon nitride	12033-89-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2484	Silicon tetrafluoride; (Tetrafluorosilane)	7783-61-1	0.05	3.3	10	AEGL-1, AEGL-2, AEGL-3	ppm
2485	Silicon(II) oxide; (Silicon oxide)	10097-28-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2486	Siloprene k 1000 (Polydimethylsiloxane rubber)	63394-02-5	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2487	Siloxanes and silicones, dimethyl, reaction products with silica; (Hydrophobic silicon dioxide, amorphous)	67762-90-7	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
2488	Siloxanes and silicones, methyl phenyl; (Silicon Y-6607; Silicone fluid, high temp)	67762-92-9	1.6	17	100	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
2489	Silver	7440-22-4	0.3	170	990	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2490	Silver carbonate; (Silver(I) carbonate)	534-16-7	11	120	740	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2491	Silver chloride	7783-90-6	22	240	1,400	TEEL-2/11, TEEL-3/6, mouse oral LDLo	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2492	Silver cyanide	506-64-9	0.37	4.1	24	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2493	Silver hydroxide	12673-77-7	0.035	0.4	2.4	MW-adjusted soluble silver (7440-22-4) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2494	Silver nitrate	7761-88-8	0.047	0.9	5.4	MW-adjusted soluble silver (7440-22-4) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2495	Silver nitrite; (Silver(I) nitrite)	7783-99-5	0.043	0.46	2.8	MW-adjusted soluble silver (7440-22-4) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2496	Silver oxide	20667-12-3	0.3	93	560	MW-adjusted silver dust and fume (7440-22-4) TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2497	Soda lime	8006-28-8	1	240	1,500	Used calcium hydroxide (1305-62-1) PAC values	mg/m ³
2498	Sodium	7440-23-5	13	140	870	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2499	Sodium acetate	127-09-3	11	120	700	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2500	Sodium acetate trihydrate; (Acetic acid, sodium salt trihydrate)	6131-90-4	11	120	690	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2501	Sodium aluminate anhydrous; (Aluminum sodium dioxide anhydrous)	11138-49-1	18	200	1,200	MW-adjusted soluble aluminum salts (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2502	Sodium aluminate; (Aluminum sodium dioxide)	1302-42-7	18	200	1,200	MW-adjusted soluble aluminum salts (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2503	Sodium aluminum hydride	13770-96-2	1.2	13	80	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2504	Sodium aluminum silicate; sodium aluminosilicate (1344-00-9)	73987-94-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2505	Sodium antimonate; (Antimonic acid, sodium salt)	11112-10-0	3	27	160	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, MW-adjusted antimony IDLH (1990)	mg/m ³
2506	Sodium antimonite	z-0061	2.6	23	140	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, MW-adjusted antimony IDLH (1990)	mg/m ³
2507	Sodium argentate	z-0062	0.046	0.5	3	MW-adjusted soluble silver (7440-22-4) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2508	Sodium arsenate	7631-89-2	4.1	45	270	TEEL-2/11, TEEL-3/6, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
2509	Sodium arsenite	7784-46-5	0.91	10	170	TEEL-2/11, LOC, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
2510	Sodium azide	26628-22-8	0.026	0.29	5.3	TEEL-2/11, TLV-C, rat oral LD50	mg/m ³
2511	Sodium beryllium oxide	z-0063	0.014	0.16	0.62	Used MW-adjusted beryllium (7440-41-7) PAC values	mg/m ³
2512	Sodium bicarbonate	144-55-8	13	140	840	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2513	Sodium bifluoride; (Sodium hydrogen fluoride)	1333-83-1	12	140	820	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2514	Sodium bis(2-methoxyethoxy) aluminum hydride	22722-98-1	45	500	3,000	MW-adjusted soluble aluminum (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2515	Sodium bismuthate	12232-99-4	1.3	14	83	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2516	Sodium bisulfate monohydrate	10034-88-5	0.63	7	42	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2517	Sodium bisulfate; (Sodium acid sulfate)	7681-38-1	0.82	9	54	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
2518	Sodium bisulfite	7631-90-5	15	66	400	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2519	Sodium borate decahydrate (Borax)	1303-96-4	6	190	1,100	TLV-STEL, TEEL-3/6, rat oral LD50	mg/m ³
2520	Sodium borate; (Disodium tetraborate)	1330-43-4	6	88	530	TLV-STEL, TEEL-3/6, rat oral LD50	mg/m ³
2521	Sodium borohydride	16940-66-2	0.49	5.3	32	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2522	Sodium bromate	7789-38-0	0.46	5.1	30	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2523	Sodium bromide	7647-15-6	12	130	830	TEEL-2/11, monkey oral TDLo, rat oral LD50	mg/m ³
2524	Sodium butyl (2-ethylhexyl)phosphate	z-0064	13	140	860	Used MW-adjusted bis(2-ethylhexyl) hydrogen phosphate (298-07-7) PAC values	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2525	Sodium butyl butylphosphonate	z-0065	0.017	0.19	1.1	Used MW-adjusted dibutyl butylphosphonate (78-46-6) PAC values	mg/m ³
2526	Sodium cacodylate; (Sodium dimethylarsinate)	124-65-2	3.2	86	510	MW-adjusted organic arsenic (7440-38-2) PEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2527	Sodium cadminate	z-0066	0.4	3	9.5	Used MW-adjusted cadmium (7440-43-9) AEGL values	mg/m ³
2528	Sodium carbonate	497-19-8	7.6	83	500	TEEL-2/11, TEEL-3/6, human oral LDLo	mg/m ³
2529	Sodium carbonate monohydrate	5968-11-6	14	150	910	Used MW-adjusted sodium carbonate (497-19-8) PAC values	mg/m ³
2530	Sodium chlorite	7758-19-2	0.19	2.1	13	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
2531	Sodium chromate decahydrate	13517-17-4	0.99	17	100	MW-adjusted soluble chromium (VI) (7440-47-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
2532	Sodium chromate tetrahydrate	10034-82-9	0.87	15	91	MW-adjusted soluble chromium (VI) (7440-47-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
2533	Sodium chromate(VI); (Disodium chromate)	7775-11-3	0.47	8.2	49	MW-adjusted soluble chromium (VI) (7440-47-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
2534	Sodium citrate; (Monosodium citrate)	18996-35-5	4	44	270	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2535	Sodium cobaltinitrite	13600-98-1	0.41	4.6	28	Used MW-adjusted cobalt (7440-48-4) PAC values	mg/m ³
2536	Sodium cyanide	143-33-9	4.0	14	30	AEGL-1, AEGL-2, AEGL-3	mg/m ³
2537	Sodium cyclopentadienylide; (Cyclopentadienyl sodium)	4984-82-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2538	Sodium deuterioxide	14014-06-3	0.5	5	50	Used sodium hydroxide (1310-73-2) ERPG values	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2539	Sodium dichromate dihydrate	7789-12-0	0.43	7.5	45	MW-adjusted soluble chromium (VI) (7440-47-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
2540	Sodium dichromate; (Disodium dichromate)	10588-01-9	0.38	6.5	39	MW-adjusted soluble chromium (VI) (7440-47-3) TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
2541	Sodium diethyldithiocarbamate trihydrate	20624-25-3	6	50	300	MAK-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2542	Sodium diethyldithiocarbamate; (Diethyldithiocarbamic acid, sodium salt)	148-18-5	6	27	300	MAK-TWA x 3, rat ip TDLo, rat oral LD50	mg/m ³
2543	Sodium dithionate dihydrate	7631-94-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2544	Sodium dodecylbenzenesulfonate; (Dodecyl benzene sodium sulfonate)	25155-30-0	2.1	23	87	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2545	Sodium ethoxide	141-52-6	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2546	Sodium ferrocyanide	13601-19-9	12	16	97	MW-adjusted cyanides MAK-TWA x 3, TEEL-3/6, MW-adjusted cyanides IDLH (1990)	mg/m ³
2547	Sodium fluoride	7681-49-4	17	90	1,100	MW-adjusted fluorides TLV-TWA x 3, rat oral TDLo, MW-adjusted fluorides IDLH (1990)	mg/m ³
2548	Sodium formate	141-53-7	0.45	4.9	30	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
2549	Sodium glycinate	6000-44-8	0.47	5.1	31	TEEL-2/11, TEEL-3/6, mouse iv LD50	ppm
2550	Sodium glycolate; (Sodium hydroxyacetate)	2836-32-0	5.1	56	350	TEEL-2/11, rat oral TDLo, rat oral LD50	ppm
2551	Sodium hexahydroxoantimonate; (Sodium antimonate)	33908-66-6	3	27	160	MW-adjusted antimony (7440-36-0) TLV-TWA x 3, TEEL-3/6, MW-adjusted antimony IDLH (1990)	mg/m ³
2552	Sodium hexamethyldisilazane; (Sodium bis(trimethylsilyl)amide)	1070-89-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2553	Sodium hydride	7646-69-7	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2554	Sodium hydrogen lead oxide	z-0067	0.19	150	890	MW-adjusted lead (7439-92-1) TLV-TWA x 3, TEEL-3/6, MW-adjusted lead IDLH (1990)	mg/m ³
2555	Sodium hydrogen metasilicate	z-0068	3.1	34	210	Used MW-adjusted sodium silicate (6834-92-0) PAC values	mg/m ³
2556	Sodium hydrogen pyrophosphate	z-0069	4.7	52	320	Used MW-adjusted disodium pyrophosphate (7758-16-9) PAC values	mg/m ³
2557	Sodium hydrosulfite	7775-14-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2558	Sodium hydroxide	1310-73-2	0.5	5	50	ERPG-1, ERPG-2, ERPG-3	mg/m ³
2559	Sodium hypobromite	13824-96-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2560	Sodium hypochlorite	7681-52-9	2	290	1,800	WEEL-STEL, TEEL-3/6, rat oral LD50	mg/m ³
2561	Sodium hypochlorite pentahydrate	10022-70-5	13	140	290	TEEL-2/11, rat oral TDLo, rat 60-min LC50	mg/m ³
2562	Sodium hypophosphite	7681-53-0	5.2	57	340	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2563	Sodium hypophosphite hydrate	123333-67-5	5.2	57	340	Used sodium hypophosphite (7681-53-0) PAC values	mg/m ³
2564	Sodium iodate	7681-55-2	0.83	9.1	55	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2565	Sodium iodide	7681-82-5	13	140	860	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2566	Sodium isothiocyanate; (Thiocyanic acid, sodium salt)	540-72-7	0.7	7.7	46	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2567	Sodium lactate; (Lactic acid, monosodium salt)	72-17-3	7.6	84	790	TEEL-2/11, rat iv TDLo, rat ip LD50	mg/m ³
2568	Sodium lanthanate	z-0070	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2569	Sodium lauryl sulfate	151-21-3	3.9	43	260	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2570	Sodium metabisulfite	7681-57-4	15	64	390	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2571	Sodium metaborate	7775-19-1	6.8	77	460	MW-adjusted borates, inorganic compounds TLV-STEL, TEEL-3/6, rat oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2572	Sodium metaphosphate	10361-03-2	2.7	30	180	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2573	Sodium metasilicate nonahydrate	13517-24-3	8.9	98	590	Used MW-adjusted sodium silicate (6834-92-0) PAC values	mg/m ³
2574	Sodium metasilicate pentahydrate	10213-79-3	6.6	73	440	Used MW-adjusted sodium silicate (6834-92-0) PAC values	mg/m ³
2575	Sodium metavanadate; (Sodium vanadate)	13718-26-8	0.011	0.12	84	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C & IDLH (1994, See white paper)	mg/m ³
2576	Sodium methylate	124-41-4	6.1	67	400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2577	Sodium molybdate dihydrate; (Disodium molybdate dihydrate)	10102-40-6	3.8	34	210	MW-adjusted molybdenum (7439-98-7) TLV-TWA x 3, TEEL-3/6, rat ip LD50	mg/m ³
2578	Sodium monoxide; (Sodium oxide)	12401-86-4	0.5	5	50	Used sodium hydroxide (1310-73-2) ERPG values	mg/m ³
2579	Sodium nickel oxide (Liquid)	37367-09-2	0.7	7.6	46	MW-adjusted soluble nickel TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2580	Sodium nickelate	z-0073	0.88	9.6	57	MW-adjusted soluble nickel (7440-02-0) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2581	Sodium nitrate	7631-99-4	4.1	45	270	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2582	Sodium nitrite	7632-00-0	6.4	71	240	TEEL-2/11, dog oral TDLo, rat 240-min LC50	mg/m ³
2583	Sodium o-benzyl-p-chlorophenate	3184-65-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2584	Sodium orthovanadate	13721-39-6	0.016	0.18	130	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C and IDLH (1994, See white paper)	mg/m ³
2585	Sodium oxalate	62-76-0	11	120	2,200	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2586	Sodium pentachlorophenate	131-52-2	0.22	2.4	8.4	TEEL-2/11, LOC, mouse 120-min LC50	mg/m ³
2587	Sodium perchlorate	7601-89-0	6.3	69	420	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2588	Sodium perchlorate monohydrate	7791-07-3	3.8	41	250	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2589	Sodium permanganate	10101-50-5	7.8	13	78	MW-adjusted manganese REL-STEL and PEL-C, TEEL-2 x 6	mg/m ³

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			PAC-1	PAC-2	PAC-3		
2590	Sodium peroxide	1313-60-6	0.5	5	50	Used sodium hydroxide (1310-73-2) ERPG values	mg/m ³
2591	Sodium perrhenate; (Rhenium(VII) sodium oxide)	13472-33-8	8.3	92	550	TEEL-2/11, TEEL-3/6, rat ip LDLo	mg/m ³
2592	Sodium persulfate	7775-27-1	0.3	8.2	49	TLV-TWA x 3, TEEL-3/6, mouse ip LD50	mg/m ³
2593	Sodium phosphide	12058-85-4	0.18	2.0	3.6	AEGL-2/11, AEGL-2, AEGL-3	ppm
2594	Sodium polyphosphate	68915-31-1	9.2	100	600	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2595	Sodium polytungstate	12141-67-2	14	150	920	MW-adjusted insoluble tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2596	Sodium potassium tartrate tetrahydrate	6381-59-5	9	99	590	TEEL-2/11, mouse iv TDLo, TEEL-2 x 6	mg/m ³
2597	Sodium potassium tartrate; (Potassium sodium tartrate)	304-59-6	9	99	590	TEEL-2/11, mouse iv TDLo, TEEL-2 x 6	mg/m ³
2598	Sodium p-tert-amylphenate; (4-(1,1-Dimethylpropyl)phenol, sodium salt)	31366-95-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2599	Sodium pyrophosphate decahydrate	13472-36-1	8.6	96	580	Used MW-adjusted sodium pyrophosphate (7758-16-9) PAC values	mg/m ³
2600	Sodium pyrophosphate, di-	7758-16-9	4.3	48	290	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2601	Sodium pyruvate; (Pyruvic acid, sodium salt)	113-24-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2602	Sodium selenate; (Disodium selenate)	13410-01-0	1.4	1.6	2	MW-adjusted selenium (7782-49-2) TLV-TWA x 3, LOC, rat ip LDLo	mg/m ³
2603	Sodium selenite	10102-18-8	1.3	2.3	3.1	MW-adjusted selenium (7782-49-2) TLV-TWA x 3, LOC, rat oral LD50	mg/m ³
2604	Sodium silicate; (Sodium metasilicate)	6834-92-0	3.8	42	250	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2605	Sodium stannate	12058-66-1	11	120	720	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
2606	Sodium stearate	822-16-2	0.17	1.8	11	TEEL-2/11, TEEL-3/6, dog iv LDLo	mg/m ³
2607	Sodium strontium phosphate	19553-80-1	6.3	83	900	Used MW-adjusted trisodium phosphate (7601-54-9) PAC values	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2608	Sodium succinate	150-90-3	2.2	25	150	TEEL-2/11, TEEL-3/6, mouse iv LD50	ppm
2609	Sodium succinate, hexahydrate	6106-21-4	25	270	1,600	Used MW-adjusted sodium succinate (150-90-3) PAC values, converted to mg/m ³	mg/m ³
2610	Sodium sulfamate	13845-18-6	36	120	6,000	Used MW-adjusted ammonium sulfamate (7773-06-0) PAC values	mg/m ³
2611	Sodium sulfate, anhydrous	7757-82-6	9.8	110	650	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2612	Sodium sulfhydrate; (Sodium hydrosulfide)	16721-80-5	0.088	0.96	5.8	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
2613	Sodium sulfide	1313-82-2	0.62	6.9	41	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2614	Sodium sulfide nonahydrate	1313-84-4	0.17	1.9	11	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2615	Sodium sulfite	7757-83-7	11	120	710	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2616	Sodium tartrate dihydrate	6106-24-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2617	Sodium tellurate	10101-83-4	0.56	3.7	22	MW-adjusted tellurium (13494-80-9) TLV-TWA x 3, TEEL-3/6, rat ip LD50	mg/m ³
2618	Sodium tellurite	10102-20-2	1.8	20	120	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2619	Sodium tetrafluoroborate(1-)	13755-29-8	11	120	720	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2620	Sodium Tetrahydroxoaluminate	12251-53-5	26	290	1,700	MW-adjusted soluble aluminum (7429-90-5) REL-TWA, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2621	Sodium tetraphenyl borate	143-66-8	0.86	9.5	57	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2622	Sodium thiosulfate	7772-98-7	38	410	2,500	TEEL-2/11, TEEL-3/6, dog iv LD50	mg/m ³
2623	Sodium thiosulfate pentahydrate	10102-17-7	50	550	3,300	TEEL-2/11, TEEL-3/6, dog iv LDLo	mg/m ³
2624	Sodium titanate	12034-34-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2625	Sodium tolyltriazole; (1H-Benzotriazole, 4(or 5)-methyl-, sodium salt)	64665-57-2	1.9	21	130	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2626	Sodium triethylborohydride	17979-81-6	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2627	Sodium trihydrogen silicate	z-0076	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2628	Sodium tripolyphosphate	7758-29-4	0.61	6.8	620	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2629	Sodium tungstate	13472-45-2	4.8	53	320	MW-adjusted tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2630	Sodium tungstate dihydrate	10213-10-2	5.4	59	360	MW-adjusted tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2631	Sodium uranate; (Disodium uranate hexahydrate)	66018-57-3	0.94	7.8	47	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
2632	Sodium uranium oxide monohydrate; (Sodium uranate(VI) monohydrate)	10135-92-9	0.82	6.8	41	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
2633	Sodium uranyl carbonate	128578-60-9	2.5	20	120	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
2634	Sodium zirconate; (Disodium zirconium oxide)	12201-48-8	22	180	1,100	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
2635	Sodium-Potassium	11135-81-2	0.5	5	50	Used sodium hydroxide (1310-73-2) ERPG values	mg/m ³
2636	Solvent Yellow 3; (2-Amino-5-azotoluene)	97-56-3	1.9	21	120	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
2637	Spiro(isobenzofuran-1(3H),9'-(9H)xanthen)-3-one, 3',6'-dihydroxy-; (Fluorescein)	2321-07-5	20	220	1,300	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2638	Squalene; (2,6,10,15,19,23-Hexamethyl-2,6,10,14,18,22-tetracosahexene, (all-E)-)	111-02-4	8.2	90	540	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2639	Stannic chloride; (Tin(IV) chloride; Tin(IV) tetrachloride)	7646-78-8	13	150	880	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, TEEL-3/6, MW-adjusted inorganic tin IDLH (1990)	mg/m ³
2640	Stannous chloride; (Tin(II) chloride (1:2))	7772-99-8	9.6	65	640	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, rat oral TDLo, MW-adjusted inorganic tin IDLH (1990)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2641	Stannous octoate	301-10-0	0.68	110	670	MW-adjusted organic tin (7440-31-5) TLV-STEL, TEEL-3/6, rat oral LD50	mg/m ³
2642	Staphylococcal enterotoxin (SEB); including 37337-57-8 (SEA)	11100-45-1	1.90E-04	0.0021	0.013	TEEL-2/11, TEEL-3/6, monkey iv LDLo	mg/m ³
2643	Stibine; (Antimony hydride)	7803-52-3	0.3	1.5	9.6	TLV-TWA x 3, AEGL-2, AEGL-3	ppm
2644	Stilbene	588-59-0	3.8	41	250	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2645	Stilbene 3; (Stilbene 420; Tinopal CBS; Disodium 4,4'-bis(2-sulfostyryl)biphenyl)	27344-41-8	8.1	89	530	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2646	Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene)	8052-41-3	300	1,800	29500**	TLV-TWA x 3, REL-C, IDLH (1990)	mg/m ³
2647	Strontium	7440-24-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2648	Strontium carbonate	1633-05-2	71	780	4,700	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2649	Strontium chloride	10476-85-4	8	88	360	TEEL-2/11, monkey oral TDLo, rat oral LD50	mg/m ³
2650	Strontium hydroxide	18480-07-4	0.75	7.6	76	Used MW-adjusted sodium hydroxide (1310-73-2) ERPG values adjusted for the 2 hydroxide ions.	mg/m ³
2651	Strontium nitrate	10042-76-9	5.7	62	370	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2652	Strontium nitrite; (Nitrous acid, strontium salt)	13470-06-9	6.4	71	240	Used sodium nitrite (7632-00-0) PAC values	mg/m ³
2653	Strontium oxalate	814-95-9	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HR = 1)	mg/m ³
2654	Strontium phosphate; (Strontium orthophosphate)	14414-90-5	32	370	2,100	Used MW-adjusted potassium phosphate, monobasic (7778-77-0) PAC values	mg/m ³
2655	Strontium phosphide	12504-13-1	0.091	1.0	1.8	AEGL-2/11, AEGL-2, AEGL-3	ppm
2656	Strontium sulfate	7759-02-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2657	Strychnine	57-24-9	0.45	0.5	3	TLV-TWA x 3, TEEL-3/6, IDLH (1990 and 1994)	mg/m ³
2658	Strychnine sulfate (2:1)	60-41-3	0.45	5	30	TEEL-2/11, LOC, TEEL-2 x 11	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2659	Styrene	100-42-5	20	130	1100*	AEGL-1, AEGL-2, AEGL-3	ppm
2660	Styrene oxide; (1,2-Epoxyethylbenzene)	96-09-3	0.33	3.6	21	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
2661	Styrene-allyl alcohol copolymer	25119-62-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2662	Styrene-divinylbenzene resin, chloromethylated, aminated with trimethylamine; (Bio-Rad AG1-X8 anion exchange resin, formate form)	60177-39-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2663	Styrenesulfonate), poly(sodium 4-	25704-18-1	48	530	3,200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2664	Succinic acid	110-15-6	6.8	75	450	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2665	Succinic anhydride	108-30-5	4.5	50	300	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2666	Succinimidyl-6-(beta-maleimidopropionamido)hexanoate; (SMPH)	z-0120	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2667	Sulfamic acid	5329-14-6	9.5	100	630	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2668	Sulfanilamide	63-74-1	13	140	830	TEEL-2/11, TEEL-3/6, dog oral LD50	mg/m ³
2669	Sulfanilic acid	121-57-3	37	410	2,400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2670	Sulfonic acids, petroleum; (Petrolatum acid sulfonate)	61789-85-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2671	Sulfonylbis-ethanol, 2,2'-	2580-77-0	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2672	Sulfosalicylic acid	97-05-2	7.4	81	490	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2673	Sulfosalicylic acid, dihydrate, crystal	5965-83-3	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2674	Sulfotep; (TEDP)	3689-24-5	0.32	3.5	35	TEEL-2/11, LOC, IDLH (1990)	mg/m ³
2675	Sulfur dioxide	7446-09-5	0.20	0.75	30	AEGL-1, AEGL-2, AEGL-3	ppm
2676	Sulfur hexafluoride	2551-62-4	3,000	33,000	2.00E+05	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2677	Sulfur monochloride	10025-67-9	0.53	6.4	15	AEGL-1, AEGL-2, AEGL-3	ppm
2678	Sulfur pentafluoride	5714-22-7	9.10E-04	0.01	1	TEEL-2/11, TLV-C, IDLH (1990 and 1994)	ppm
2679	Sulfur tetrafluoride	7783-60-0	0.0091	0.1	0.82	TEEL-2/11, TLV-C, rat 240-min LCLo	ppm
2680	Sulfur trioxide	7446-11-9	0.20	8.7	160	AEGL-1, AEGL-2, AEGL-3	mg/m ³
2681	Sulfuric acid	7664-93-9	0.20	8.7	160	AEGL-1, AEGL-2, AEGL-3	mg/m ³
2682	Sulfuric acid-d ₂ ; (Deuteriosulfuric acid)	13813-19-9	0.2	8.7	160	Used sulfuric acid (7664-93-9) AEGL values	mg/m ³
2683	Sulfurous acid	7782-99-2	0.17	7.3	130	Used MW-adjusted sulfuric acid (7664-93-9) AEGL values	mg/m ³
2684	Sulfuryl chloride	7791-25-5	0.3	3.7	11	ERPG-1, AEGL-2, AEGL-3	ppm
2685	Sulfuryl fluoride	2699-79-8	10	21	64	TLV-STEL, AEGL-2, AEGL-3	ppm
2686	Tall oil (alkyd resin)	68333-62-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2687	Tantalum	7440-25-7	10	11	64	REL-STEL, TEEL-3/6, mouse oral LD50	mg/m ³
2688	Tantalum carbide	12070-06-3	11	120	730	MW-adjusted tantalum (7440-25-7) REL-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2689	Tantalum(V) ethoxide	6074-84-6	22	240	1,500	MW-adjusted tantalum (7440-25-7) REL-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2690	Tantalum(V) fluoride	7783-71-3	22	250	1,500	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2691	Tantalum(V) oxide	1314-61-0	12	260	1,600	MW-adjusted tantalum (7440-25-7) REL-STEL, TEEL-3/6, rat oral LD50	mg/m ³
2692	Tartaric acid	87-69-4	1.6	17	100	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
2693	Tartaric acid, monopotassium salt	868-14-4	87	960	5,800	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
2694	Tartaric acid, monosodium salt	526-94-3	7.1	79	470	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2695	TCDD; (2,3,7,8-Tetrachlorodibenzo-p-dioxin; Dioxin)	1746-01-6	1.30E-04	0.0014	0.0085	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2696	Technetium(IV) oxide	12036-16-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2697	Tellurium	13494-80-9	1.8	20	110	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
2698	Tellurium chloride	10026-07-0	0.63	6.9	42	MW-adjusted tellurium (13494-80-9) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2699	Tellurium hexafluoride	7783-80-4	4.80E-04	0.0053	0.016	AEGL-2/11, AEGL-2, AEGL-3	ppm
2700	Tellurium oxide; (Tellurium dioxide)	7446-07-3	0.38	4.3	26	MW-adjusted tellurium (13494-80-9) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2701	Tellurous acid	10049-23-7	0.42	4.6	28	MW-adjusted tellurium (13494-80-9) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2702	Terbium	7440-27-9	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2703	Terbium oxide	12036-41-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2704	Terbium(III,IV) oxide	12037-01-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2705	Terbufos	13071-79-9	0.091	1	2.2	TEEL-2/11, LOC, dog oral LD50	mg/m ³
2706	Terephthalic acid	100-21-0	30	140	840	TLV-TWA x 3, TEEL-3/6, dog iv LDLo	mg/m ³
2707	Terephthaloyl chloride; (Benzenedicarbonyl dichloride, 1,4-)	100-20-9	7.5	83	500	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2708	Terphenyl, p-	92-94-4	0.45	5	150	TEEL-2/11, TLV-C, rabbit oral LDLo	mg/m ³
2709	Terphenyls; (Diphenylbenzene)	26140-60-3	0.45	5	1,400	TEEL-2/11, TLV-C, mouse oral LD50	mg/m ³
2710	Tert-butyl benzoic acid, p-	98-73-7	6	23	140	MAK-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2711	Tert-butyllithium	594-19-4	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2712	Tert-butylphenol, p-; (Tert-butylphenol, 4-)	98-54-4	1.5	40	240	MAK-TWA x 3, TEEL-3/6, rat 240-min LCLo	mg/m ³
2713	Tert-butylpyridine, 4-	3978-81-2	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2714	Tetanus toxin	676570-37-9	6.60E-09	7.20E-08	4.30E-07	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2715	Tetraamminepalladium(II) nitrate	13601-08-6	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2716	Tetrabromoethane, 1,1,2,2-; (Acetylene tetrabromide)	79-27-6	0.3	4.3	10	TLV-TWA x 3, mouse 180-min TCLo, IDLH (1990)	ppm
2717	Tetrabutyl ammonium phosphate	5574-97-0	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
2718	Tetrabutyl titanate; (Butyl titanate)	5593-70-4	0.67	7.4	44	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2719	Tetrabutylammonium fluoride; (N,N,N-Tributyl-1-butanaminium, fluoride)	429-41-4	100	1,200	6,900	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2720	Tetrabutylammonium hydroxide	2052-49-5	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2721	Tetrabutylammonium nitrate	1941-27-1	0.033	0.36	2.2	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
2722	Tetrachloro-1,2-difluoroethane, 1,1,2,2-	76-12-0	150	1,600	15,000	TLV-TWA x 3, rat 40-min TCLo, IDLH (1990)	ppm
2723	Tetrachlorobenzene, 1,2,3,4-	634-66-2	4.1	45	230	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2724	Tetrachlorobenzene, 1,2,4,5-	95-94-3	0.66	7.2	340	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2725	Tetrachlorodibenzofuran, 2,3,7,8-	51207-31-9	4.30E-04	0.0046	0.028	Used TCDD (1746-01-6) PACs divided by TEF = 0.3 (See white paper)	mg/m ³
2726	Tetrachlorodibenzo-p-dioxin, 1,2,3,8-	53555-02-5	0.003	0.033	0.2	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2727	Tetrachloroethane (mixed isomers)	25322-20-7	0.65	7.2	43	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
2728	Tetrachloroethane, 1,1,1,2-	630-20-6	0.2	2.2	13	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
2729	Tetrachloroethane, 1,1,2,2-	79-34-5	3	120	150	TLV-TWA x 3, mouse 120-min TCLo, IDLH (1990)	ppm
2730	Tetrachlorohexafluorobutane, 2,2,3,3-; (FLON; CFC316)	375-34-8	0.078	0.86	5.1	TEEL-2/11, TEEL-3/6, rat 60-min LCLo	ppm
2731	Tetrachlorosilane; (Silicon chloride)	10026-04-7	0.45	5.5	25	AEGL-1, AEGL-2, AEGL-3	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2732	Tetracosafuorotetradecahydro-phenanthrene; (Perfluorophenanthrene)	306-91-2	10	110	680	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2733	Tetracyanoquinodimethane	1518-16-7	0.18	2	12	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
2734	Tetracycline hydrochloride	64-75-5	19	210	1,300	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2735	Tetradecafluorohexane; (Perfluoro-n-hexane; Fluorinert FC72)	355-42-0	11	120	2,000	TEEL-2/11, rat 420-min TCLo, rat 360-min LCLo	ppm
2736	Tetradecane; (n-Tetradecane)	629-59-4	3.1	34	200	TEEL-2/11, TEEL-3/6, mouse iv LDLo	ppm
2737	Tetradecanoic acid; (Myristic acid)	544-63-8	0.14	1.6	9.3	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
2738	Tetradecyltrimethylammonium bromide	1119-97-7	12	130	770	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2739	Tetraethyl lead	78-00-2	0.3	4	40	TLV-TWA x 3, LOC, IDLH (1990 and 1994)	mg/m ³
2740	Tetraethyl orthosilicate; (Ethyl silicate; Tetraethoxysilane)	78-10-4	25	100	300	ERPG-1, ERPG-2, ERPG-3	ppm
2741	Tetraethyl pyrophosphate; (TEPP)	107-49-3	0.091	1	10	TEEL-2/11, LOC, IDLH (1990)	mg/m ³
2742	Tetraethylammonium chloride	56-34-8	0.45	5	30	TEEL-2/11, TEEL-3/6, dog iv LD50	mg/m ³
2743	Tetraethylene glycol	112-60-7	87	960	5,700	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2744	Tetraethylene glycol diacrylate	17831-71-9	3	27	160	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2745	Tetraethylenepentamine	112-57-2	15	130	790	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2746	Tetraethyltin; (Tetraethylstannane)	597-64-8	0.4	7	42	MW-adjusted organic tin (7440-31-5) TLV- STEL, LOC, TEEL-2 x 6	mg/m ³
2747	Tetrafluoroethane, 1,1,2,2-; (HFC 134)	359-35-3	8,000	13,000	27,000	Used HFC-134a (811-97-2) AEGL values	ppm
2748	Tetrafluoroethylene	116-14-3	22	55	330	AEGL-1, AEGL-2, AEGL-3	ppm
2749	Tetrafluorohydrazine	10036-47-2	2.4	110	680	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2750	Tetrahydro-2,5-dimethyl furan	1003-38-9	12	130	790	Used tetrahydrodimethylfuran (1320-94-1) PAC values.	mg/m ³
2751	Tetrahydrodimethylfuran	1320-94-1	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2752	Tetrahydrofuran	109-99-9	100	500	5000*	ERPG-1, ERPG-2, ERPG-3	ppm
2753	Tetrahydrofuran-d8	1693-74-9	100	500	5000*	Used tetrahydrofuran (109-99-9) ERPG values	ppm
2754	Tetrahydromethyl-1,3-isobenzofurandione, 3A,4,7,7A-; (Methyltetrahydrophthalic anhydride)	26590-20-5	7.7	85	510	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2755	Tetrahydronaphthalene, 1,2,3,4-; (Tetralin)	119-64-2	1.6	17	100	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2756	Tetrahydropyridine, 1,2,3,6-	694-05-3	8.7	96	570	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6 converted to ppm	ppm
2757	Tetramethoxypropane, 1,1,3,3-; (Malonaldehyde bis(dimethyl acetal))	102-52-3	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2758	Tetramethoxysilane; (Methyl silicate)	681-84-5	0.083	0.91	1.4	AEGL-2/11, AEGL-2, AEGL-3	ppm
2759	Tetramethyl ammonium, tetrahydroborate(1-)	16883-45-7	0.23	2.5	15	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2760	Tetramethyl ethylene diamine	110-18-9	3.2	35	58	TEEL-2/11, rat 360-min TCLo, rat 240-min LC50	ppm
2761	Tetramethyl lead	75-74-1	0.45	4	40	TLV-TWA x 3, LOC, IDLH (1990 and 1994)	mg/m ³
2762	Tetramethyl-1,3-butanediamine, N,N,N',N'-; (Tetramethyl butanediamine)	97-84-7	1.4	16	94	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
2763	Tetramethyl-3,5-heptanedione, 2,2,6,6-; (Dipivaloylmethane)	1118-71-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2764	Tetramethyl-5-decyne-4,7-diol, 2,4,7,9-	126-86-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2765	Tetramethylammonium chloride	75-57-0	0.15	1.7	9.9	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2766	Tetramethylammonium hydroxide	75-59-2	0.0093	0.1	0.62	TEEL-2/11, TEEL-3/6, rabbit iv LDLo	mg/m ³
2767	Tetramethylammonium hydroxide pentahydrate	10424-65-4	0.019	0.2	1.2	Used MW-adjusted tetramethylammonium hydroxide (75-59-2) PAC values	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2768	Tetramethylammonium silicate	53116-81-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2769	Tetramethylbenzene, 1,2,3,5-	527-53-7	15	170	1,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2770	Tetramethylbenzene, 1,2,4,5-	95-93-2	20	220	1,300	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2771	Tetramethylbenzidine, 3,3',5,5'-	54827-17-7	0.44	4.9	29	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2772	Tetramethylene sulfone; (Sulfolane; Tetrahydrothiophene-1,1-dioxide)	126-33-0	4.1	45	400	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2773	Tetramethylsilane	75-76-3	280	360	740	Used MW-adjusted silane (7803-62-5) AEGL values	ppm
2774	Tetranitromethane	509-14-8	0.047	0.52	1.7	AEGL-2/11, AEGL-2, AEGL-3	ppm
2775	Tetraoxadodecane, 2,5,8,11-	112-49-2	1.6	18	110	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	ppm
2776	Tetraoxatetracosan-1-ol, 3,6,9,12-; ((Lauryl alcohol tri(oxyethylene) ethanol; BRIJ 30)	5274-68-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2777	Tetraphenylarsonium chloride; (Tetraphenylarsenium chloride)	507-28-8	8.4	92	550	MW-adjusted organic arsenic (7440-38-2) PEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2778	Tetrapotassium ethylenediaminetetraacetate; (EDTA tetrapotassium salt)	5964-35-2	88	970	5,900	Used MW-adjusted tetrasodium EDTA (64-02-8) PAC values	mg/m ³
2779	Tetrapropoxysilane	682-01-9	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2780	Tetrapropylammonium hydroxide	4499-86-9	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2781	Tetrapropylorthotitanate	3087-37-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2782	Tetrasodium pyrophosphate	7722-88-5	15	130	790	REL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2783	Tetrazole, 1H-	288-94-8	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2784	Tetrodotoxin; (fugu poison)	4368-28-9	6.30E-05	6.90E-04	0.0041	TEEL-2/11, TEEL-3/6, dog iv LD50	mg/m ³
2785	Thallium	7440-28-0	0.06	3.3	20	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2786	Thallium chloride; (Thallium(I) chloride)	7791-12-0	0.18	2	23	TEEL-2/11, LOC, MW-adjusted soluble thallium (7440-28-0) IDLH (1990)	mg/m ³
2787	Thallium hydroxide	12026-06-1	0.065	3.7	22	MW-adjusted soluble thallium (7440-28-0) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble thallium IDLH (1990)	mg/m ³
2788	Thallium nitrite	13826-63-6	0.074	4.2	25	MW-adjusted soluble thallium (7440-28-0) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble thallium IDLH (1990)	mg/m ³
2789	Thallium oxide; (Thallos oxide)	1314-12-1	0.062	3.5	21	MW-adjusted soluble thallium (7440-28-0) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble thallium IDLH (1990)	mg/m ³
2790	Thallium sulfate; (Sulfuric acid, dithallium(1+) salt)	10031-59-1	0.18	2	21	TEEL-2/11, LOC, MW-adjusted soluble thallium (7440-28-0) IDLH (1990)	mg/m ³
2791	Thallium(I) acetate; (Acetic acid, thallium(1+) salt)	563-68-8	0.077	4.3	26	MW-adjusted soluble thallium (7440-28-0) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble thallium IDLH (1990)	mg/m ³
2792	Thallium(I) carbonate (2:1)	6533-73-9	0.18	2	23	TEEL-2/11, LOC, MW-adjusted soluble thallium (7440-28-0) IDLH (1990)	mg/m ³
2793	Thallium(I) sulfate; (Sulfuric acid, dithallium(1+) salt)	7446-18-6	0.18	2	25	TEEL-2/11, LOC, MW-adjusted soluble thallium (7440-28-0) IDLH (1990)	mg/m ³
2794	Thallium(III) oxide; (Thallium sesquioxide; Thallic oxide)	1314-32-5	0.18	2	8.7	TEEL-2/11, LOC, rat oral LD50	mg/m ³
2795	Thallium(III) perchlorate hexahydrate	15596-83-5	0.18	10	60	MW-adjusted soluble thallium (7440-28-0) TLV-TWA x 3, TEEL-3/6, MW-adjusted soluble thallium IDLH (1990)	mg/m ³
2796	Thallos malonate	2757-18-8	0.18	2	25	TEEL-2/11, LOC, MW-adjusted soluble thallium (7440-28-0) IDLH (1990)	mg/m ³
2797	Thallos nitrate; (Thallium nitrate; Thallium(I) nitrate)	10102-45-1	0.078	4.3	26	MW-adjusted soluble thallium (7440-28-0) TLV-TWA x 3, TEEL-3/6, soluble thallium IDLH (1990)	mg/m ³
2798	Thenoyltrifluoroacetone	326-91-0	0.9	9.9	59	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2799	Thioacetamide	62-55-5	0.92	10	60	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2800	Thioacetic acid	507-09-5	0.079	0.87	5.2	TEEL-2/11, TEEL-3/6, mouse ip LD50	ppm
2801	Thiobis(4-chloro-6-methyl)phenol, 2,2'-	4418-66-0	0.12	1.3	7.8	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2802	Thiocarbazide; (Thiocarbohydrazide)	2231-57-4	9.1	100	600	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2803	Thiocresol, p-; (p-Toluenethiol)	106-45-6	0.66	7.2	43	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2804	Thiocyanic acid, compound with guanidine (1:1); (Guanidine thiocyanate salt)	593-84-0	0.98	11	65	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2805	Thiodiglycol	111-48-8	20	220	1,300	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2806	Thiofanox; (Dacamox)	39196-18-4	0.77	8.5	51	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2807	Thionazin; (Ethyl pyrazinyl phosphorothioate)	297-97-2	0.32	3.5	21	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³
2808	Thionyl chloride	7719-09-7	0.2	2.4	14	ERPG-1, AEGL-2, AEGL-3	ppm
2809	Thiophosphoryl chloride	3982-91-0	0.093	1	6.1	TEEL-2/11, TEEL-3/6, rat 240-min LC50	mg/m ³
2810	Thiosemicarbazide; (1-Amino-2-thiourea)	79-19-6	1.1	12	13	TEEL-2/11, rat ip TDLo, mouse oral LDLo	mg/m ³
2811	Thiourea	62-56-6	0.38	4.1	25	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2812	Thiram; (Tetramethylthioperoxydicarbonic diamide)	137-26-8	0.15	250	1,500	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
2813	Thorium	7440-29-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2814	Thorium hydroxide	13825-36-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2815	Thorium nitrite	z-0079	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2816	Thorium oxalate	2040-52-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2817	Thorium oxide; (Thorium dioxide)	1314-20-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2818	Thorium perchlorate	16045-17-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2819	Thorium(IV) nitrate	13823-29-5	2.9	32	190	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2820	Thulium	7440-30-4	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2821	Thulium chloride	13537-18-3	7	77	460	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2822	Thulium oxide	12036-44-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2823	Thymol blue; (6,6'-(3H-2,1-benzoxathiol-3-ylidene)dithymol, S,S-dioxide)	76-61-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2824	Thyodene; (Amylodextrin)	9005-84-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2825	Tin	7440-31-5	6	67	400	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	mg/m ³
2826	Tin fluoroborate	13814-97-6	15	170	990	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, TEEL-3/6, MW-adjusted inorganic tin IDLH (1990)	mg/m ³
2827	Tin hydroxide	12026-24-3	7.7	85	510	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, TEEL-3/6, MW-adjusted inorganic tin IDLH (1990)	mg/m ³
2828	Tin nitrate	41480-79-9	12	140	820	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, TEEL-3/6, MW-adjusted inorganic tin IDLH (1990)	mg/m ³
2829	Tin nitrite	100737-27-7	11	120	710	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, TEEL-3/6, MW-adjusted inorganic tin IDLH (1990)	mg/m ³
2830	Tin(II) chloride dihydrate; (Stannous chloride dihydrate)	10025-69-1	11	20	760	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, rat ip TDLo, MW-adjusted inorganic tin IDLH (1990)	mg/m ³
2831	Tin(II) oxide	1332-29-2	7.6	85	510	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, TEEL-3/6, MW-adjusted inorganic tin IDLH (1990)	mg/m ³
2832	Tin(II) sulfate; (Stannous sulfate)	7488-55-3	11	120	720	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, TEEL-3/6, MW-adjusted inorganic tin IDLH (1990)	mg/m ³
2833	Tin(IV) isopropoxide	1184-61-8	0.7	7.7	46	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, TEEL-3/6, MW-adjusted inorganic tin IDLH (1990)	mg/m ³
2834	Tin(IV) oxide; (Stannic oxide)	18282-10-5	7.6	85	510	MW-adjusted inorganic tin (7440-31-5) TLV-TWA x 3, TEEL-3/6, MW-adjusted inorganic tin IDLH (1990)	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2835	Titanium	7440-32-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2836	Titanium aluminide	39410-63-4	8.3	92	550	MW-adjusted insoluble aluminum (7429-90-5) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2837	Titanium boride	12045-63-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2838	Titanium carbide	12070-08-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2839	Titanium chloride	7705-07-9	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2840	Titanium hydride	7704-98-5	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2841	Titanium oxide; (Titanium dioxide)	13463-67-7	30	330	2,000	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2842	Titanium tetrachloride	7550-45-0	0.65	1.0	5.7	ERPG-1, AEGL-2, AEGL-3	ppm
2843	Titanium(II) oxide	12137-20-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2844	Titanium(III) fluoride	13470-08-1	14	150	920	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2845	Titanium-based alloy; (Titanium compounds)	z-0081	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2846	Toluene	108-88-3	67	560	3700*	AEGL-1, AEGL-2, AEGL-3	ppm
2847	Toluene diisocyanate (mixed isomers)	26471-62-5	0.02	0.083	0.51	Used toluene-2,6-diisocyanate (584-84-9) AEGL values	ppm
2848	Toluene diisocyanate, trimethylolpropane, epsilon-caprolactone polymer, methylated	71342-93-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2849	Toluene-2,4-diisocyanate; (TDI)	584-84-9	0.020	0.083	0.51	AEGL-1, AEGL-2, AEGL-3	ppm
2850	Toluene-2,6-diamine; (2-Methyl-1,3-benzenediamine)	823-40-5	3	33	200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2851	Toluene-2,6-diisocyanate	91-08-7	0.020	0.083	0.51	AEGL-1, AEGL-2, AEGL-3	ppm
2852	Toluene-d8; (Deuterated toluene)	2037-26-5	67	560	3,700	Used toluene (108-88-3) AEGL values	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2853	Toluenediamine, 2,4-; (2,4-Diaminotoluene)	95-80-7	0.015	3.3	20	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	ppm
2854	Toluenesulfonamide, p-; (Pasam)	70-55-3	7	77	460	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2855	Toluenesulfonic acid, methyl ester, p-	80-48-8	1	11	68	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2856	Toluenesulfonyl chloride, p-	98-59-9	0.45	5	30	TEEL-2/11, WEEL-C, TEEL-2 x 6	mg/m ³
2857	Toluenesulphonic acid monohydrate, para-; (4-Methylbenzenesulphonic acid monohydrate)	6192-52-5	7.7	85	510	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2858	Toluenethiol, m-	108-40-7	0.16	1.8	11	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
2859	Toluidine, m-; (3-Methylaniline)	108-44-1	6	8.2	54	TLV-TWA x 3, rat oral TDLo, rat oral LD50	ppm
2860	Toluidine, o-	95-53-4	6	8.2	100	TLV-TWA x 3, rat oral TDLo, IDLH (1990)	ppm
2861	Toluidine, p-; (4-Methylbenzenamine)	106-49-0	6	8.2	30	TLV-TWA x 3, rat oral TDLo, rat oral LD50	ppm
2862	Toxaphene; (Chlorinated camphene)	8001-35-2	1	20	200	TLV-STEL, LOC, IDLH (1990 and 1994)	mg/m ³
2863	Trans-1,4-dichlorobutene; (2-Butylene dichloride)	110-57-6	0.078	0.86	3.8	TEEL-2/11, LOC, rat 240-min LC50	ppm
2864	Tri(2-ethylhexyl) phosphate; (Trioctyl phosphate)	78-42-2	21	230	1,400	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³
2865	Triacetin; (Triacetyl glycerin)	102-76-1	19	210	1,200	TEEL-2/11, TEEL-3/6, dog iv LD50	mg/m ³
2866	Triamphos	1031-47-6	0.06	0.66	4	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2867	Triaryl sulfonium chloride salts	109037-76-5	1.1	12	72	TEEL-2/11, TEEL-3/6, rabbit oral LD50	mg/m ³
2868	Triazine-1,3,5(2H,4H,6H)-triethanol, s-; (Onyxide 200)	4719-04-4	2.3	25	150	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2869	Triazofos; (Triazophos)	24017-47-8	0.25	2.8	12	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
2870	Tribenzylamine	620-40-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2871	Tributyl citrate	77-94-1	0.88	9.7	43	TEEL-2/11, mouse ip TDLo, mouse ip LD50	ppm

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2872	Tributyl phosphate	126-73-8	1.4	8.3	125	TLV-TWA x 3, rat oral TDLo, IDLH (1990)	ppm
2873	Tributyl(2,4-dichlorobenzyl) phosphonium chloride	115-78-6	0.53	5.9	35	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2874	Tributyl-1-butanaminium iodide, N,N,N-; (Tetrabutylammonium iodide)	311-28-4	6	66	390	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2875	Tributylphosphine	998-40-3	0.27	3	18	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2876	Tributyltetradecylphosphonium chloride	81741-28-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2877	Trichloramine; (Nitrogen chloride)	10025-85-1	0.062	0.68	3.9	TEEL-2/11, rat oral TDLo, rat 120-min LC50	ppm
2878	Trichloro(dichlorophenyl) silane; (Dichlorophenyltrichlorosilane)	27137-85-5	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
2879	Trichloro-2,2,2-trifluoroethane, 1,1,1-	354-58-5	100	1,200	6,900	TEEL-2/11, TEEL-3/6, rat 15-min LC50	mg/m ³
2880	Trichloro-2-nitrosobenzene, 1,3,5-	1196-13-0	2.3	25	150	Used 2,4,5-trichloronitrobenzene (89-69-0) PAC values	mg/m ³
2881	Trichloroacetaldehyde hydrate; (Chloral hydrate)	302-17-0	2.5	27	95	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2882	Trichloroacetaldehyde; (Chloral)	75-87-6	3.9	43	260	TEEL-2/11, TEEL-3/6, dog 240-min LC50	mg/m ³
2883	Trichloroacetic acid	76-03-9	1.5	16	99	TLV-TWA x 3, TEEL-3/6, dog oral LD50	ppm
2884	Trichloroacetyl chloride	76-02-8	0.055	0.61	2.8	TEEL-2/11, LOC, rat 240-min LC50	ppm
2885	Trichlorobenzene, 1,2,3-	87-61-6	15	60	360	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2886	Trichlorobenzene, 1,2,4-	120-82-1	0.45	5	20	TEEL-2/11, TLV-C, rat oral LD50	ppm
2887	Trichloroethane, 1,1,1-; (Methyl chloroform)	71-55-6	230	600	4,200	AEGL-1, AEGL-2, AEGL-3	ppm
2888	Trichloroethane, 1,1,2-	79-00-5	30	180	500	TLV-TWA x 3, mouse 120-min TCLo, IDLH (1990)	ppm
2889	Trichloroethanol, 2,2,2-	115-20-8	6.1	68	120	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2890	Trichloroethylene	79-01-6	130	450	3,800	AEGL-1, AEGL-2, AEGL-3	ppm
2891	Trichlorofluoromethane; (Fluorotrichloromethane; Freon 11)	75-69-4	91	1,000	10,000	TEEL-2/11, TLV-C, IDLH (1990)	ppm
2892	Trichlorohydroxyethyl dimethylphosphonate; ((2,2,2-Trichloro-1-hydroxyethyl)dimethylphosphonate; Trichlorophon)	52-68-6	3	13	57	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
2893	Trichloroisocyanuric acid	87-90-1	1.2	13	80	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2894	Trichloronaphthalene	1321-65-9	15	170	990	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2895	Trichloronate; (Ethyl trichlorophenylethylphosphonothioate)	327-98-0	0.91	10	30	TEEL-2/11, LOC, rat 240-min LCLo	mg/m ³
2896	Trichloronitrobenzene, 2,4,5-	89-69-0	2.3	25	150	TEEL-2/11, TEEL-3/6, mouse oral LDLo	mg/m ³
2897	Trichlorophenol, 2,3,6-	933-75-5	1.8	20	120	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
2898	Trichlorophenol, 2,4,5-	95-95-4	2.5	27	160	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2899	Trichlorophenol, 2,4,6-	88-06-2	2.5	27	160	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2900	Trichlorophenoxy)propionic acid, 2-(2,4,5-; (Silvex)	93-72-1	0.82	9	130	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2901	Trichlorophenoxyacetic acid, 2,4,5-; (2,4,5-T)	93-76-5	30	42	250	TLV-TWA x 3, TEEL-3/6, IDLH (1994, See white paper)	mg/m ³
2902	Trichlorophenylsilane	98-13-5	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
2903	Trichloropropane, 1,2,3-	96-18-4	0.015	170	1,000	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
2904	Trichlorosilane	10025-78-2	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
2905	Trichlorotrifluoroethane; (Freon 113; CFC113)	76-13-1	1,250	3,900	4,500	TLV-STEL, mouse 60-min TCLo, IDLH (1990)	ppm
2906	Tridecane	629-50-5	0.0073	0.08	2.3	TEEL-2/11, rabbit dermal TDLo, rat 480-min LC50	ppm
2907	Tridodecylamine; (Alamine 304; N,N-didodecyl-1-dodecanamine)	102-87-4	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2908	Triethanolamine; (Trihydroxytriethylamine)	102-71-6	15	240	1,500	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2909	Triethoxysilane	998-30-1	0.5	4	10	ERPG-1, ERPG-2, ERPG-3	ppm
2910	Triethoxyvinylsilane	78-08-0	2.6	29	170	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
2911	Triethyl phosphate; (TEP)	78-40-0	23	250	320	TEEL-2/11, rat 360-min TCLo, rat oral LD50	mg/m ³
2912	Triethyl phosphite	122-52-1	1.2	14	82	TEEL-2/11, TEEL-3/6, rat 360-min LC50	ppm
2913	Triethylaluminum	97-93-8	25	280	1,700	MW-adjusted alkyl aluminum (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2914	Triethylamine	121-44-8	1	170	1,000	TLV-STEL, TEEL-3/6, IDLH (1990)	ppm
2915	Triethylammonium bicarbonate buffer ph 8.5	15715-58-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2916	Triethylbenzene (mixed isomers)	25340-18-5	3	33	200	TEEL-2/11, TEEL-3/6, rat oral LDLo	ppm
2917	Triethylene glycol	112-27-6	130	1,400	4,400	TEEL-2/11, mouse oral TDLo, rat oral LD50	mg/m ³
2918	Triethylene glycol monomethyl ether	112-35-6	34	370	2,200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2919	Triethylenetetramine	112-24-3	3	14	83	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	ppm
2920	Triethylethanaminium hydroxide, N,N,N-; (Tetraethyl ammonium hydroxide)	77-98-5	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2921	Triethyloxonium tetrafluoroborate	368-39-8	19	220	1,300	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2922	Triethylphosphorothioate; (Tepeto)	126-68-1	0.027	0.3	1.8	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
2923	Trifluoro-1-(2-thienyl)-1,3-butanedione, 4,4,4-, boron difluoride	22502-27-8	0.33	3.6	22	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
2924	Trifluoro-4-nitro-m-cresol, alpha,alpha,alpha-; (4-Nitro-3-(trifluoromethyl)phenol)	88-30-2	0.42	4.7	28	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2925	Trifluoroacetaldehyde hydrate; (2,2,2-Trifluoro-1,1-ethanediol)	421-53-4	0.98	11	65	TEEL-2/11, TEEL-3/6, mouse oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
2926	Trifluoroacetic acid anhydride	407-25-0	14	150	920	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2927	Trifluoroacetic acid; (Trifluoroethanoic acid)	76-05-1	0.13	1.4	8.5	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2928	Trifluoroacetyl chloride	354-32-5	3.2	35	210	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990) converted to ppm	ppm
2929	Trifluoroethanol, 2,2,2-; (Trifluoroethyl alcohol)	75-89-8	0.9	10	24	WEEL-TWA, rat 240-min TClO, rat 360-min LC50	ppm
2930	Trifluoromethanesulfonic acid; (Triflic acid)	1493-13-6	2	22	130	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	ppm
2931	Trifluoromethanesulfonic anhydride	358-23-6	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2932	Trifluoromethyl iodide; (Iodotrifluoromethane)	2314-97-8	6.5	72	430	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
2933	Trifluoromethyl)benzenamine, 3-; (m-Aminobenzal fluoride)	98-16-8	0.4	4.4	19	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
2934	Trifluralin; (2,6-Dinitro-N,N-dipropyl-4-(trifluoromethyl)benzenamine)	1582-09-8	1.2	13	78	TEEL-2/11, TEEL-3/6, rat 60-min LC50	mg/m ³
2935	Triisobutylaluminum	100-99-2	44	290	1,800	MW-adjusted aluminum soluble salts (7429-90-5) REL-TWA x 3, TEEL-3/6, rat 60-min LCLo	mg/m ³
2936	Trimethoxy(3,3,3-trifluoropropyl)silane	429-60-7	29	320	1,900	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
2937	Trimethoxyboroxine	102-24-9	15	170	1,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2938	Trimethoxysilane	2487-90-3	0.5	0.83	2.5	ERPG-1, AEGL-2, AEGL-3	ppm
2939	Trimethoxysilyl-1-propanamine, 3-(	13822-56-5	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2940	Trimethoxysilyl-1-propanethiol, 3-; (3-Mercaptopropyltrimethoxysilane)	4420-74-0	2.2	24	150	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2941	Trimethoxysilylpropyl methacrylate, 3-; (Silane A-174)	2530-85-0	71	780	4,700	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2942	Trimethoxysilylpropyl) ethylenediamine, N-(3-	1760-24-3	23	250	1,500	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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			PAC-1	PAC-2	PAC-3		
2943	Trimethoxyvinylsilane; (Vinyltrimethoxysilane; Silane, trimethoxyvinyl-)	2768-02-7	9.5	100	120	TEEL-2/11, rat 360-min TCLo, rat 240-min LC50	ppm
2944	Trimethyl borate	121-43-7	4.3	48	290	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2945	Trimethyl phosphate; (TMP)	512-56-1	0.44	4.8	29	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2946	Trimethyl phosphite	121-45-9	6.1	61	310	AEGL-1, AEGL-2, AEGL-3	ppm
2947	Trimethyl-1,3-pentanediol monoisobutyrate, 2,2,4-; (Texanol)	25265-77-4	13	140	840	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
2948	Trimethyl-1-pentene, 2,4,4-; (Diisobutylene)	107-39-1	230	2500*	15000***	WEEL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
2949	Trimethyl-2,5,8,11-tetraoxatetradecan-13-ol, 4,7,10-	20324-34-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2950	Trimethyl-2-hexene, 4,4,5-	55702-61-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2951	Trimethyl-2-oxepanone (mixed isomers); (Hexanoic acid, 6-hydroxytrimethyl, epsilon-lactone)	64047-30-9	22	250	1,500	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2952	Trimethylacetic acid; (Pivalic acid)	75-98-9	2.7	30	180	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2953	Trimethylacetyl chloride; (Pivaloyl chloride)	3282-30-2	0.015	0.16	0.47	AEGL-2/11, AEGL-2, AEGL-3	ppm
2954	Trimethylaluminum	75-24-1	16	170	1,000	MW-adjusted aluminum soluble salts (7429-90-5) REL-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2955	Trimethylamine	75-50-3	8.0	120	380	AEGL-1, AEGL-2, AEGL-3	ppm
2956	Trimethylaniline, 2,4,6-	88-05-1	0.26	2.9	10	TEEL-2/11, LOC, mouse 120-min LC50	mg/m ³
2957	Trimethylbenzene, 1,2,3-	526-73-8	140	360	480	AEGL-1, AEGL-2 , rat oral LDLo	ppm
2958	Trimethylbenzene, 1,2,4-; (Pseudocumene)	95-63-6	140	360	480	AEGL-1, AEGL-2 used 1,2,3-trimethylbenzene (526-73-8) PAC-3	ppm
2959	Trimethylbenzene, -1,3,5; (Mesitylene)	108-67-8	140	360	480	AEGL-1, AEGL-2 used 1,2,3-trimethylbenzene (526-73-8) PAC-3	ppm
2960	Trimethylchlorosilane	75-77-4	1.8	22	100	AEGL-1, AEGL-2, AEGL-3	ppm

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2961	Trimethyldecane, all isomers; (includes 62238-01-1, 62108-23-0)	62338-09-4	230	385	5,000	Used n-octane (111-65-9) PAC values	ppm
2962	Trimethylgallium	1445-79-0	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2963	Trimethylhexane, 2,2,5-; (Neononane)	3522-94-9	600	6,600	40,000	Nonane (111-84-2) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	ppm
2964	Trimethyl-N'-(hydroxyethyl)-1,3-propanediamine, N,N,N'-; (2-((3-(Dimethylamino)propyl)methylamino)ethanol)	82136-26-3	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2965	Trimethyloctane, all isomers; (includes 62016-28-8, 62016-34-6, 62016-37-9, 54166-32-4)	98060-52-7	230	385	5,000	Used n-octane (111-65-9) PAC values	ppm
2966	Trimethylolpropane ethoxylate	50586-59-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2967	Trimethylolpropane phosphite	824-11-3	0.23	2.5	2.8	TEEL-2/11, LOC, rat 240-min LCLo	mg/m ³
2968	Trimethylphosphine	594-09-2	0.39	4.2	25	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	ppm
2969	Trimethylpyridine, 2,4,6-	108-75-8	1.3	14	85	TEEL-2/11, TEEL-3/6, rat 120-min LCLo	ppm
2970	Trimethylsilanol	1066-40-6	2.3	25	150	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2971	Trimethylsilylmethylithium	1822-00-0	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
2972	Trimethyltin chloride; (Chlorotrimethylstannane)	1066-45-1	0.34	20	120	MW-adjusted tin (7440-31-5) TLV-STEL, LOC, TEEL-2 x 6	mg/m ³
2973	Trimethyltriheptylamine, 6,6',6"-; (Triisooctylamine)	2757-28-0	4.3	48	290	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2974	Tri-n-butylamine	102-82-9	0.049	0.54	3.2	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
2975	Trinitrobenzene, 1,3,5-	99-35-4	1.5	16	54	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
2976	Trinitrochlorobenzene; (Picryl chloride)	28260-61-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2977	Trinitrophenylmethylnitramine, 2,4,6-; (Tetryl)	479-45-8	4.5	14	1,300	TLV-TWA x 3, rat oral TDLo, rat oral LDLo	mg/m ³
2978	Trinitrotoluene, 2,4,6-	118-96-7	0.3	17	1,000	TLV-TWA x 3, rat oral TDLo, IDLH (1990)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2979	Tri-n-octylphosphine oxide; (Trioctylphosphine oxide)	78-50-2	1	11	68	TEEL-2/11, rat dermal TDLo, TEEL-2 x 6	mg/m ³
2980	Trioctylamine; (N,N-Dioctyl-1-octanamine)	1116-76-3	6	66	400	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
2981	Trioctylphosphine; (Tri-n-octylphosphine)	4731-53-7	0.11	1.2	7.2	TEEL-2/11, TEEL-3/6, mouse 10-min LCLo	mg/m ³
2982	Tri-o-tolyl phosphate; (Triorthocresyl phosphate)	78-30-8	0.3	13	40	TLV-TWA x 3, TEEL-3/6, IDLH (1990 and 1994)	ppm
2983	Triphentaerythritol	78-24-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2984	Triphenyl phosphate	115-86-6	9	360	2,100	TLV-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
2985	Triphenyl phosphite	101-02-0	4.8	53	320	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2986	Triphenylborane	960-71-4	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
2987	Triphenylethoxysilane	1516-80-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2988	Triphenylmethane triglycidyl ether	66072-38-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
2989	Triphenylphosphine	603-35-0	2.9	32	540	TEEL-2/11, dog oral LD50, rat 240-min LC50	mg/m ³
2990	Triphenyltin chloride; (Chlorotriphenylstannane)	639-58-7	0.65	20	38	MW-adjusted organic tin (7440-31-5) TLV-STEL, LOC, rat oral LD50	mg/m ³
2991	Tripotassium (2-hydroxyethyl)ethylenediaminetriacetate; (Tripotassium HEDTA)	62029-50-9	30	330	2,000	Used trisodium HEDTA (139-89-9) PAC values	mg/m ³
2992	Tripotassium arsenate	13464-36-3	5.2	57	340	TEEL-2/11, TEEL-3/6, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
2993	Tripropyl phosphate; (TPP)	513-08-6	13	76	1,100	Used MW-adjusted tributyl phosphate (126-73-8) PAC values converted to mg/m ³	mg/m ³
2994	Tripropylamine	102-69-2	0.58	6.4	38	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
2995	Tripropylene glycol methyl ether	25498-49-1	9.6	110	630	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
2996	Tripropylene glycol monomethyl ether; (1-(2-(2-Methoxy-1-methylethoxy)-1-methylethoxy)-2-propanol)	20324-33-8	2	22	75	TEEL-2/11, rabbit dermal TDLo, rat oral LD50	ppm
2997	Tripropylene glycol; (((1-Methyl-1,2-ethanediyl)bis(oxy))bispropanol)	24800-44-0	1.1	13	76	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
2998	Tris hydrochloride; (Trizma hydrochloride; Tris(hydroxymethyl) aminomethane hydrochloride)	1185-53-1	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
2999	Tris((hydroxymethyl)methylamino)propane-1-sulphonic acid, 3-	29915-38-6	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3000	Tris(2-aminoethyl)amine	4097-89-6	1	11	49	TEEL-2/11, rat oral TDLo, rat oral LD50	mg/m ³
3001	Tris(2-chloroethyl) phosphate; (2-Chloroethanol phosphate)	115-96-8	3.7	41	240	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3002	Tris(dimethylaminomethyl)phenol, 2,4,6-	90-72-2	6.5	72	430	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3003	Tris-hydroxymethylaminomethane; (THAM)	77-86-1	18	190	1,200	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3004	Trisodium arsenate	13464-38-5	4.2	47	280	TEEL-2/11, TEEL-3/6, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
3005	Trisodium arsenate, heptahydrate; (Arsenic(V) acid, trisodium salt, heptahydrate (1:3:7))	64070-83-3	6.8	75	450	TEEL-2/11, TEEL-3/6, MW-adjusted arsenic (7440-38-2) IDLH (1990)	mg/m ³
3006	Trisodium citrate	68-04-2	9.3	100	610	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³
3007	Trisodium N-hydroxyethylethylenediaminetriacetate; (Trisodium N-(2-hydroxyethyl)ethylenediaminetriacetate)	139-89-9	30	330	2,000	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3008	Tungsten	7440-33-7	10	330	2,000	TLV-STEL, TEEL-3/6, rat ip LD50	mg/m ³
3009	Tungsten boride	12007-09-9	11	120	730	MW-adjusted insoluble tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3010	Tungsten carbide	12070-12-1	11	120	730	MW-adjusted insoluble tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3011	Tungsten hexafluoride	7783-82-6	4.9	54	320	MW-adjusted insoluble tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
3012	Tungsten trioxide; (Tungsten(VI) oxide)	1314-35-8	13	140	860	MW-adjusted insoluble tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3013	Tungsten(IV) chloride; (Tungsten tetrachloride)	13470-13-8	5.3	58	350	MW-adjusted insoluble tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3014	Tungsten(IV) oxide	12036-22-5	12	130	790	MW-adjusted insoluble tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3015	Tungstic acid	7783-03-1	14	150	920	MW-adjusted insoluble tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3016	Tungstosilicic acid	11130-20-4	13	140	860	MW-adjusted insoluble tungsten (7440-33-7) TLV-STEL, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3017	Turpentine, (Alpha and beta pinene, 80-56-8)	8006-64-2	60	120	1,500	TLV-TWA x 3, dog 360-min TCLo, IDLH (1990)	ppm
3018	Undecane	1120-21-4	2.3	26	150	TEEL-2/11, TEEL-3/6, rat oral LD50	ppm
3019	Undecanone, 2-; (Methyl nonyl ketone)	112-12-9	0.91	10	60	TEEL-2/11, TEEL-3/6, mouse oral LD50	ppm
3020	Uranium	7440-61-1	0.6	5	30	TLV-STEL, TEEL-3/6, IDLH (1990)	mg/m ³
3021	Uranium dioxide; (Uranium(IV) oxide)	1344-57-6	0.68	10	30	MW-adjusted soluble uranium (7440-61-1) TLV-STEL, ERPG-2, ERPG-3	mg/m ³
3022	Uranium hexafluoride; (Uranium fluoride)	7783-81-5	3.6	9.6	36	AEGL-1, AEGL-2, AEGL-3	mg/m ³
3023	Uranium hydride; (Uranium(III) hydride)	13598-56-6	0.61	5	30	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
3024	Uranium oxide; (Triuranium octaoxide)	1344-59-8	0.71	10	50	MW-adjusted as insoluble uranium (7440-61-1) TLV-STEL, ERPG-2, ERPG-3	mg/m ³
3025	Uranium telluride	12138-37-3	1.2	10	62	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³

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Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
3026	Uranium telluride (U ₃ Te ₄)	12040-21-0	1	8.5	51	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
3027	Uranium trioxide	1344-58-7	0.045	0.5	3	ERPG-2/11, ERPG-2, ERPG-3	mg/m ³
3028	Uranyl acetate; (Uranium oxyacetate)	541-09-3	0.98	5.5	33	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
3029	Uranyl fluoride; (Uranium oxyfluoride)	13536-84-0	0.78	4.3	26	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
3030	Uranyl hydroxide (includes liquids)	13470-18-3	0.77	4.3	26	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
3031	Uranyl nitrate (solid); (Bis(nitrato-O,O')dioxouranium)	10102-06-4	0.99	5.5	33	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
3032	Uranyl nitrate (yellow salt)	36478-76-9	0.99	5.5	33	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
3033	Uranyl nitrate hexahydrate	13520-83-7	1.3	7	42	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
3034	Uranyl nitrite (liquids)	z-0087	0.91	5	30	MW-adjusted insoluble uranium (7440-61-1) TLV-STEL, TEEL-3/6, MW-adjusted uranium IDLH (1990)	mg/m ³
3035	Urea	57-13-6	30	280	1,700	WEEL-TWA x 3, TEEL-3/6, rat oral LD50	mg/m ³
3036	Urea peroxide; (Urea hydrogen peroxide)	124-43-6	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
3037	Urea), N,N''-(4-methyl-1,3-phenylene)bis(N',N'-dimethyl-	17526-94-2	12	130	790	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 2)	mg/m ³
3038	Urethane; (Carbamic acid, ethyl ester; Ethyl carbamate)	51-79-6	5.4	60	360	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3039	Valeric acid; (n-Pentanoic acid)	109-52-4	2.2	24	140	TEEL-2/11, TEEL-3/6, mouse 120-min LC50	mg/m ³
3040	Valinomycin	2001-95-8	0.23	2.5	15	TEEL-2/11, LOC, TEEL-2 x 6	mg/m ³

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
3041	Vanadium	7440-62-2	3	5.8	35	REL-STEL (ferrovanadium, 12604-58-9), TEEL-3/6, IDLH (1994, See white paper)	mg/m ³
3042	Vanadium pentoxide; (Vanadium(V) oxide)	1314-62-1	0.64	7	70	TEEL-2/11, LOC, IDLH (1990)	mg/m ³
3043	Vanadium sulfate	13566-06-8	0.013	0.14	100	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C & IDLH (1994, See white paper)	mg/m ³
3044	Vanadium tetrachloride	7632-51-1	0.017	0.19	130	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C & IDLH (1994, See white paper)	mg/m ³
3045	Vanadium trioxide	1314-34-7	0.0067	0.074	51	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C & IDLH (1994, See white paper)	mg/m ³
3046	Vanadium(II) sulfate heptahydrate	36907-42-3	0.025	0.27	190	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C & IDLH (1994, See white paper)	mg/m ³
3047	Vanadium(III) sulfate	13701-70-7	0.017	0.19	130	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C & IDLH (1994, See white paper)	mg/m ³
3048	Vanadium, trichlorooxo-	7727-18-6	0.015	0.17	120	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C & IDLH (1994, See white paper)	ppm
3049	Vanadyl sulfate pentahydrate; (Vanadium(IV) sulfate oxide hydrate)	12439-96-2	0.023	0.25	170	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C & IDLH (1994, See white paper)	mg/m ³
3050	Vanadyl sulfate; (Oxysulfatovanadium)	27774-13-6	0.015	0.16	110	TEEL-2/11, MW-adjusted vanadium (1314-62-1) REL-C & IDLH (1994, See white paper)	mg/m ³
3051	Veratraldehyde	120-14-9	6	66	400	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3052	Vermiculite, exfoliated	1318-00-9	32	360	2,200	MW-adjusted insoluble aluminum (7429-90-5) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3053	Vinyl 2-chloroethylsulfide; (2-Chloroethylthio ethene)	81142-02-1	0.034	0.38	2.3	Used allyl 2-chloroethyl (19155-35-2) PAC values	mg/m ³
3054	Vinyl acetate	108-05-4	6.7	36	180	AEGL-1, AEGL-2, AEGL-3	ppm

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No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
3055	Vinyl acetate-vinyl chloride copolymer; (Acetic acid, vinyl ester, polymer with chloroethylene)	9003-22-9	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
3056	Vinyl acrylic resin; (Vinyl acetate, polymer with n-butyl acrylate)	25067-01-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3057	Vinyl bromide; (Bromoethylene)	593-60-2	39	430	2,600	TEEL-2/11, TEEL-3/6, rat 420-min LCLo	ppm
3058	Vinyl chloride	75-01-4	250	1,200	4800*	AEGL-1, AEGL-2, AEGL-3	ppm
3059	Vinyl ethyl ether; (Ethoxy ethene)	109-92-2	10	110	690	TEEL-2/11, TEEL-3/6, rat 240-min LCLo	ppm
3060	Vinyl fluoride	75-02-5	570	6200*	37000***	TEEL-2/11, TEEL-3/6, rat 240-min LC50	ppm
3061	Vinyl sulfoxide	1115-15-7	0.4	4.4	26	TEEL-2/11, TEEL-3/6, rat oral LDLo	mg/m ³
3062	Vinyl terminated dimethylsiloxane-diphenylsiloxane copolymer	68951-96-2	120	1,300	7,900	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 1)	mg/m ³
3063	Vinyl trichlorosilane	75-94-5	0.60	7.3	33	AEGL-1, AEGL-2, AEGL-3	ppm
3064	Vinyl-2-pyrrolidinone, 1-	88-12-0	0.15	6.3	31	TLV-TWA x 3, rat 360-min TCLo, rat 240-min LC50	ppm
3065	Vinylbenzylchloride; (4-Vinylbenzyl chloride)	1592-20-7	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
3066	Vinylcyclohexene, 4-; (Cyclohexenylethylene)	100-40-3	0.3	210	340	TLV-TWA x 3, rat 360-min TCLo, rat 240-min LCLo	ppm
3067	Vinylformamide, N-	13162-05-5	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
3068	Vinylidene chloride; (1,1-Dichloroethylene)	75-35-4	45	500	1,000	ERPG-2/11, ERPG-2, ERPG-3	ppm
3069	Vinylidene fluoride; (1,1-Difluoroethene)	75-38-7	1,500	5600*	11000*	TLV-TWA x 3, mouse 360-min TCLo, rat 240-min LC50	ppm
3070	Vinylmagnesium bromide	1826-67-1	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
3071	Vinylpyrrolidone/vinyl acetate copolymer	25086-89-9	1.9	21	120	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3072	Viscummin; (Mistletoe lectin)	83590-17-4	7.70E-06	8.50E-05	5.10E-04	TEEL-2/11, TEEL-3/6, mouse iv LD50	mg/m ³
3073	Volkensin	91933-11-8	3.70E-07	4.00E-06	2.40E-05	TEEL-2/11, TEEL-3/6, rat ip LD50	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
3074	Warfarin	81-81-2	1.8	20	350	TEEL-2/11, LOC, IDLH (1990)	mg/m ³
3075	Warfarin sodium	129-06-6	0.82	9	83	TEEL-2/11, LOC, dog oral LD50	mg/m ³
3076	Xenon	7440-63-3	65,000	2.30E+05	4.00E+05	Simple asphyxiant	ppm
3077	Xylene, m- (includes o- (95-47-6) and p- (106-42-3) isomers)	108-38-3	130	920	2500*	Used xylenes (1330-20-7) AEGL values	ppm
3078	Xylenes	1330-20-7	130	920*	2500*	AEGL-1, AEGL-2, AEGL-3	ppm
3079	Xylenol orange tetrasodium salt	3618-43-7	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3080	Xylidines, mixed isomers; includes 2,6-xylidine (87-62-7) and 2,3-xylidine (87-59-2)	1300-73-8	1.5	25	150	TLV-TWA x 3, TEEL-3/6, IDLH (1990)	ppm
3081	Xylylene dichloride	28347-13-9	0.18	2	8.8	TEEL-2/11, LOC, rat 240-min LC50	mg/m ³
3082	Ytterbium fluoride	13760-80-0	30	330	2,000	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
3083	Ytterbium oxide	1314-37-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3084	Yttrium	7440-65-5	3	33	200	TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3085	Yttrium chloride, hexahydrate	10025-94-2	10	110	670	MW-adjusted yttrium (7440-65-5) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3086	Yttrium oxide	11130-29-3	3.5	40	240	MW-adjusted yttrium (7440-65-5) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3087	Yttrium trioxide	1314-36-9	3.8	43	260	MW-adjusted yttrium (7440-65-5) TLV-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3088	Zeolites, CaA	68989-20-8	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3089	Zeolites, KA	68989-21-9	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3090	Zeolites, NaA	68989-22-0	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3091	Zeolites, NaX	68989-23-1	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
3092	Zinc	7440-66-6	6	21	120	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3093	Zinc acetate	557-34-6	0.19	2.1	12	TEEL-2/11, TEEL-3/6, mouse ip LD50	mg/m ³
3094	Zinc acetate dihydrate	5970-45-6	2.4	26	160	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3095	Zinc bromide	7699-45-8	6	66	400	MW-adjusted zinc (7440-66-6) MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3096	Zinc carbonate	3486-35-9	12	130	750	MW-adjusted zinc (7440-66-6) MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3097	Zinc carbonate hydroxide	5263-02-5	13	150	870	MW-adjusted zinc (7440-66-6) MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3098	Zinc chloride	7646-85-7	2	800	4,800	TLV-STEL, TEEL-3/6, IDLH (1990)	mg/m ³
3099	Zinc chromate; (Pigment yellow)	13530-65-9	0.03	9	54	TLV-TWA x 3, TEEL-3/6, MW-adjusted chromates (1333-82-0) IDLH (1990)	mg/m ³
3100	Zinc cyanide	557-21-1	14	18	110	MW-adjusted cyanides MAK-TWA x 3, TEEL-3/6, MW-adjusted cyanides IDLH (1990)	mg/m ³
3101	Zinc fluoride	7783-49-5	20	230	1,400	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
3102	Zinc hydroxide	20427-58-1	6	66	400	MW-adjusted zinc (7440-66-6) MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3103	Zinc nitrate	7779-88-6	17	190	1,100	MW-adjusted zinc (7440-66-6) MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3104	Zinc nitrate hexahydrate	10196-18-6	27	300	1,800	MW-adjusted zinc (7440-66-6) MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3105	Zinc nitrite	10102-02-0	14	160	950	MW-adjusted zinc (7440-66-6) MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3106	Zinc oxide	1314-13-2	10	15	2,500	TLV-STEL, REL-C, IDLH (1990)	mg/m ³
3107	Zinc perchlorate	13637-61-1	24	270	1,600	MW-adjusted zinc (7440-66-6) MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3108	Zinc phenolsulfonate; (Zinc p-hydroxybenzenesulfonate)	127-82-2	5.4	59	360	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3109	Zinc phosphate (3:2)	7779-90-0	12	36	220	MW-adjusted zinc (7440-66-6) MAK-TWA x 3, TEEL-3/6, rat ip LD50	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
3110	Zinc phosphide	1314-84-7	0.091	1.0	1.8	AEGL-2/11, AEGL-2, AEGL-3	ppm
3111	Zinc stearate	557-05-1	30	330	2,000	TLV-TWA x 3, TEEL-1 x 1, TEEL-2 x 6	mg/m ³
3112	Zinc sulfate	7733-02-0	15	97	580	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3113	Zinc sulfate heptahydrate (1:1:7)	7446-20-0	27	170	1,000	Used MW-adjusted zinc sulfate (7733-02-0) PAC values	mg/m ³
3114	Zinc sulfide	1314-98-3	8.9	99	590	MW-adjusted zinc (7440-66-6) MAK-TWA x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3115	Zirconium	7440-67-7	10	83	500	TLV-STEL, TEEL-3/6, IDLH (1990)	mg/m ³
3116	Zirconium boride	12045-64-6	12	100	620	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3117	Zirconium carbide	12070-14-3	13	110	630	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3118	Zirconium chloride oxide octahydrate	13520-92-8	35	300	1,800	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3119	Zirconium fluoride	7783-64-4	17	180	1,100	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
3120	Zirconium hydride	7704-99-6	10	85	510	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3121	Zirconium hydroxide	14475-63-9	17	150	870	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3122	Zirconium nitrate	13746-89-9	37	320	1,900	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3123	Zirconium nitride	25658-42-8	12	97	580	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³

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Table 2: Protective Action Criteria (PAC) Rev. 29
Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

No.	Chemical Name	CASRN	PACs based on AEGLs, ERPGs, or TEELs			Source of PACs PAC-1, PAC-2, PAC-3	Units
			PAC-1	PAC-2	PAC-3		
3124	Zirconium nitrite	z-0088	30	250	1,500	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3125	Zirconium oxide	1314-23-4	14	110	680	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3126	Zirconium oxynitrate hydrate	14985-18-3	27	230	1,400	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3127	Zirconium phosphide	12037-72-8	17	140	840	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3128	Zirconium potassium fluoride; (Potassium fluorozirconate)	16923-95-8	19	200	1,200	MW-adjusted fluorides TLV-TWA x 3, TEEL-3/6, MW-adjusted fluorides IDLH (1990)	mg/m ³
3129	Zirconium silane	z-0089	16	140	810	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3130	Zirconium silicate; (Zirconium silicon oxide; Zircon)	10101-52-7	21	170	1,000	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3131	Zirconium sulfate tetrahydrate	7446-31-3	39	320	1,900	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3132	Zirconium tetrachloride; (zirconium chloride)	10026-11-6	26	220	1,300	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3133	Zirconyl chloride; (Zirconium oxychloride)	7699-43-6	20	160	980	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3134	Zirconyl nitrate; (Bis(nitrato-O)oxozirconium)	13826-66-9	25	220	1,300	MW-adjusted zirconium (7440-67-7) TLV-STEL, TEEL-3/6, MW-adjusted zirconium IDLH (1990)	mg/m ³
3135	Zonyl fsn fluorosurfactant	65545-80-4	41	460	2,700	TEEL-2/11, TEEL-3/6, rat oral LD50	mg/m ³
3136	zzAcrylic latex	z-0090	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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			PAC-1	PAC-2	PAC-3		
3137	zzAlumination 301	z-0091	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3138	zzHydranal coulomat / AG	z-0092	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3139	zzHydrocarbon polymer	z-0093	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3140	zzHydrocount [®] , LSC cocktail	z-0094	130	920	2,500	Used xylenes (1330-20-7) AEGL values	ppm
3141	zzIconol [®]	z-0095	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3142	zzMonophase- S	z-0097	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3143	zzMornar	z-0098	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3144	zzOpti-Fluor; (Alkyl benzene blend, 3% tributylphosphate)	z-0099	1.2	13	79	TEEL-2/11, TEEL-3/6, rat oral LD50 (HHR = 3)	mg/m ³
3145	zzPropanol (-2) aluminum derivative	z-0101	6	66	400	REL-TWA x 3 (soluble aluminum salts), TEEL-1 x 11, TEEL-2 x 6	mg/m ³
3146	zzSicapent	z-0103	30	330	2,000	TLV-TWA (PNOS) x 3, TEEL-1 x 11, TEEL-2 x 6	mg/m ³

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