# Table 2: Protective Action Criteria (PAC) Rev 24A based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

PAC Rev 24A – May 2009

Table 2 presents an alphabetical listing of the chemicals in the PAC data set and provides the Chemical Abstract Service Registry Numbers (CASRNs), PAC data, and technical comments focusing on changes in the PAC values since the previous version of the PAC/TEEL data set (Rev 23).

PAC values are provided for TEEL-0, PAC-1, PAC-2, and PAC-3.

Values are given in parts per million (ppm) for gases and volatile liquids and in milligrams per cubic meter ($mg/m^3$) for particulate materials (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 common name of the chemical. |
| CASRN | The Chemical Abstract Service Registry Number for this chemical. |
| TEEL-0 | This is the threshold concentration below which most people will experience no appreciable risk of health effects. This PAC is always based on TEEL-0 because AEGL-0 or ERPG-0 values do not exist. |
| 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. |
| Units | The units for the PAC values (ppm or $mg/m^3$). |
| Comments and changes from PAC Rev 23 | Technical comments by the developers of the PAC data set. Indicates changes from the previous version of the PAC/TEEL data set. A "T" in the comment field, typically stands for "TEEL." The term "SAR," in red font, stands for "Structure Activity Relationships."<br>This column will be enhanced in the near future to improve the clarity and completeness of its information. |

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

In the PAC columns of Table 2:

- ***Bold, green, and italicized*** font indicates a PAC between 10% and up to 50% of the LEL (10% LEL ≤ PAC < 50% LEL).
- ***Bold, underlined, pink and italicized*** font indicates a PAC between 50% and up to 100% of the LEL (50% LEL ≤ PAC < 100% LEL).
- ***Bold, double underlined, red and italicized*** font indicates a PAC at 100% or more of the LEL (PAC ≥ LEL).

Additional information on the chemicals presented here is provided in PAC Tables 1, 3, and 4.

Table 2, other PAC Tables, introductory/explanatory material (including a glossary of acronyms and abbreviations), definitions of PAC values, and alternative methods of displaying PAC information are available electronically at:
http://www.hss.energy.gov/HealthSafety/WSHP/chem_safety/teel.html.

Of particular interest might be Table 4 which presents all values in mass per unit volume ($mg/m^3$) and information on the source of the PAC values.

Additional information on PAC values and Temporary Emergency Exposure Limits (TEELs) and links to other sources of information is provided on the Subcommittee for Consequence Assessment and Protective Action (SCAPA) webpages at:
http://orise.orau.gov/emi/scapa/teels.htm.

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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1 | Acacia; (Gum Arabic) | 9000-01-5 | 200 | 500 | 500 | 500 | mg/m3 | |
| 2 | Acenaphthene | 83-32-9 | 0.4 | 1.25 | 7.5 | 250 | mg/m3 | |
| 3 | Acenaphthylene | 208-96-8 | 0.06 | 0.2 | 1.5 | 500 | mg/m3 | T-2 changed. |
| 4 | **Acetaldehyde** | **75-07-0** | 25 | **45** | **270** | **840** | ppm | **Interim AEGL-1, -2, -3.** |
| 5 | Acetamide | 60-35-5 | 25 | 75 | 500 | 500 | mg/m3 | |
| 6 | Acetanilide | 103-84-4 | 0.4 | 1 | 7.5 | 50 | mg/m3 | |
| 7 | **Acetic acid** | **64-19-7** | 5 | **5** | **35** | **250** | ppm | **ERPG-1, -2, -3** |
| 8 | Acetic acid ethenyl ester, polymer with 1,1-bis(ethenyloxy) butane and ethenol | 27360-07-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. |
| 9 | Acetic acid, 2-propenyl ester | 591-87-7 | 0.5 | 1.5 | 10 | 50 | ppm | |
| 10 | Acetic acid, lithium salt | 546-89-4 | 12.5 | 35 | 250 | 500 | mg/m3 | |
| 11 | Acetic acid, manganese(2+) salt, tetrahydrate | 6156-78-1 | 0.892 | 2.68 | 22.3 | 500 | mg/m3 | |
| 12 | Acetic acid, manganese(II) salt (2:1) | 638-38-0 | 0.63 | 9.45 | 15.7 | 500 | mg/m3 | |
| 13 | **Acetic Anhydride** | **108-24-7** | 0.5 | **0.5** | **15** | **100** | ppm | **New ERPG-1, -2, -3.** All Ts changed. |
| 14 | **Acetone** | **67-64-1** | 200 | **200** | ***3200*** | ***5700*** | ppm | **Interim AEGL-1, -2, -3.** See LEL Formattinng Note. |
| 15 | Acetone thiosemicarbazide | 1752-30-3 | 20 | 60 | 100 | 100 | mg/m3 | |
| 16 | Acetone-d6 | 666-52-4 | 200 | 200 | ***3200*** | ***5700*** | ppm | Pchem data ex ChemFinder. See LEL Formattinng Note. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 17 | **Acetonitrile** | **75-05-8** | 13 | **13** | **320** | **670** | ppm | **Interim AEGL-1, -2, -3.** All Ts changed. |
| 18 | Acetonitrile-d3 | 2206-26-0 | 40 | 60 | 60 | 500 | ppm | ChemFinder MW and MF. Used Acetonitrile (75-05-8) data. |
| 19 | Acetophenone | 98-86-2 | 10 | 30 | 50 | 350 | mg/m3 | |
| 20 | Acetoxytriphenylstannane | 900-95-8 | 0.345 | 0.689 | 20 | 50 | mg/m3 | |
| 21 | Acetyl bromide | 506-96-7 | 0.2 | 0.6 | 4 | 20 | ppm | |
| 22 | Acetyl carbinol; (Acetol (1); 1-Hydroxy-2-propanone) | 116-09-6 | 7.5 | 25 | 200 | 500 | mg/m3 | |
| 23 | Acetyl chloride | 75-36-5 | 0.0025 | 0.0075 | 0.05 | 125 | ppm | |
| 24 | Acetyl triethyl citrate | 77-89-4 | 6 | 20 | 125 | 500 | mg/m3 | |
| 25 | Acetylaminofluorene, 2- | 53-96-3 | 0.25 | 0.75 | 6 | 30 | mg/m3 | |
| 26 | Acetylaminofluorenone, 2- | 3096-50-2 | 0.75 | 2.5 | 15 | 75 | mg/m3 | |
| 27 | Acetylene | 74-86-2 | ***2500*** | ***2500*** | ***2500*** | ***6000*** | ppm | See LEL Formattinng Note. |
| 28 | **Acrolein** | **107-02-8** | 0.03 | **0.030** | **0.10** | **1.4** | ppm | **Interim AEGL-1, -2, -3.** |
| 29 | Acrylamide | 79-06-1 | 0.3 | 7.5 | 60 | 60 | mg/m3 | |
| 30 | Acrylamide, N,N'-methylenebisacrylamide copolymer | 25034-58-6 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found, PNOS default used |
| 31 | **Acrylic acid** | **79-10-7** | 1.5 | **1.5** | **46** | **180** | ppm | **Interim AEGL-1, -2, -3.** |
| 32 | Acrylic acid polymers; (Acrylic polymer or resin) | 9003-01-4 | 10 | 30 | 200 | 500 | mg/m3 | |

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Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

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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 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 33 | **Acrylonitrile** | **107-13-1** | 2 | **10** | **35** | **75** | ppm | **ERPG-1, -2, -3** |
| 34 | Acrylyl chloride; (Acryloyl chloride) | 814-68-6 | 0.05 | 0.15 | 0.243 | 10 | ppm | |
| 35 | **Adamsite; (Phenarsine chloride)** | **578-94-9** | 0.016 | **0.016** | **2.6** | **6.40** | mg/m3 | **New Interim AEGL-1, -2, -3.** Added. |
| 36 | Adipic acid | 124-04-9 | 5 | 5 | 5 | 125 | mg/m3 | |
| 37 | Adipic acid-TDI | 68609-57-4 | 10 | 30 | 50 | 250 | mg/m3 | Added. TSCA listed, no toxicity or pchem data found. See Adipic acid, 124-04-9 |
| 38 | Adiponitrile | 111-69-3 | 2 | 3.85 | 3.85 | 150 | ppm | |
| 39 | Aerosol, A-102; (Poly(oxy-1,2-ethanediyl), alpha-(3-carboxy-1-oxo-3-sulfopropyl)-omega-(dodecyloxy)-, -disodium salt) | 39354-45-5 | 125 | 400 | 500 | 500 | mg/m3 | No pchem data found, assumed density = 1.00. |
| 40 | Agar | 9002-18-0 | 500 | 500 | 500 | 500 | mg/m3 | |
| 41 | Agarose, type VII (low gelling temperature) | 9012-36-6 | 10 | 30 | 50 | 250 | mg/m3 | |
| 42 | Alamine 336 | 68814-95-9 | 20 | 60 | 500 | 500 | mg/m3 | No pchem data found. |
| 43 | Albumin (bovine) | 9048-46-8 | 150 | 500 | 500 | 500 | mg/m3 | RTECS, MERCK list Albumin (human) rather than "bovine" |
| 44 | Alcohol oxidase | 9073-63-6 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. |
| 45 | Alcohols, C6-C12 (N.O.S.) | 68603-15-6 | 10 | 30 | 50 | 250 | mg/m3 | |
| 46 | 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 | 0.25 | 0.25 | 10 | 25 | mg/m3 | T-1 changed. |

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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 47 | Aldrithiol-2: (2,2'-Dithiodipyridene) | 2127-03-9 | 10 | 30 | 50 | 250 | mg/m3 | Synonym, MW, MF, MP in ChemFinder. |
| 48 | Aliquat 336; (Adogen 464; Quaternary ammonium compounds, tri(C8-10)-alkylmethyl-, chlorides) | 63393-96-4 | 30 | 75 | 500 | 500 | mg/m3 | |
| 49 | Alizarin; (1,2-Dihydroxyanthraquinone; Turkey red oil) | 72-48-0 | 1.25 | 4 | 25 | 125 | mg/m3 | |
| 50 | Alizarine Red S, Monohydrate; (Sodium alizarin-3-sulfonate) | 130-22-3 | 0.6 | 1.5 | 12.5 | 60 | mg/m3 | |
| 51 | Alkanes, C4-12- | 68333-81-3 | 300 | 385 | 385 | ***2000*** | ppm | Based on octane, MW estimated. See LEL Formattinng Note. |
| 52 | Alkenyl dimethylethyl ammonium bromide; (Aliphatic hydrocarbon) | z-0108 | 2 | 6 | 40 | 200 | mg/m3 | |
| 53 | Alkyl benzenes (C8-C9) | z-0109 | 10 | 30 | 50 | 250 | mg/m3 | |
| 54 | Alkyl dimethylbenzyl ammonium chloride; (Benzalkonium chloride) | 8001-54-5 | 7.5 | 20 | 100 | 100 | mg/m3 | |
| 55 | Alkylamines | 63231-48-1 | 10 | 30 | 50 | 250 | mg/m3 | |
| 56 | Alkylbenzene (C10-C16) | 68648-87-3 | 10 | 30 | 50 | 500 | mg/m3 | |
| 57 | Allene; (1,2-Propadiene) | 463-49-0 | 40 | 125 | 750 | ***4000*** | ppm | See LEL Formattinng Note. |
| 58 | **Allyl alcohol** | **107-18-6** | 2 | **2.1** | **4.2** | **20** | ppm | **Interim AEGL-1, -2, -3.** |
| 59 | Allyl Bromide; (3-Bromopropene) | 106-95-6 | 4 | 12.5 | 75 | 400 | ppm | |
| 60 | **Allyl chloride** | **107-05-1** | 1 | **2.8** | **54** | **140** | ppm | **New interim AEGL-1, -2, -3. ERPG-1, -2, -3.** T-1, T-2, T-3 changed. |
| 61 | **Allyl chlorocarbonate** | **2937-50-0** | 0.035 | 0.1 | **0.70** | **2.1** | ppm | **New interim AEGL-2, -3.** All Ts changed. |

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|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 62 | Allyl isothiocyanate; (Mustard oil) | 57-06-7 | 0.35 | 1 | 2.5 | 12.5 | ppm | Ignored rat 14 day oral TDlo. |
| 63 | **Allylamine** | **107-11-9** | 0.125 | **0.42** | **3.3** | **18** | ppm | **New final AEGL-1, -2, -3.** |
| 64 | Allylmagnesium bromide | 1730-25-2 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. |
| 65 | **Allyltrichlorosilane** | **107-37-9** | 0.2 | **0.60** | **7.3** | **33** | ppm | **New interim AEGL-1, -2, -3.** Added. |
| 66 | Alpha,alpha,4-trimethyl-3-cyclohexene-1-methanol, (S)-; (alpha-Terpineol) | 10482-56-1 | 125 | 350 | 500 | 500 | mg/m3 | HSDB & TSCA listed, SAX, RTECS, TSCA CASRN = 98-55-5, RTECS & HC&P CASRN = 2438-12-2 |
| 67 | Alpha-hydroxybenzeneacetic acid, (+-)-; (DL-mandelic acid) | 611-72-3 | 15 | 50 | 350 | 500 | mg/m3 | TSCA listed, no toxicity data. Used normal Mandelic acid (CAS 90-64-2) data. |
| 68 | Aluminon | 569-58-4 | 0.0004 | 0.00125 | 0.0075 | 500 | mg/m3 | T-1 changed. |
| 69 | Aluminum | 7429-90-5 | 15 | 15 | 15 | 75 | mg/m3 | T-1, T-2, T-3 changed. |
| 70 | Aluminum acetate, basic | 7360-44-3 | 4.45 | 13.3 | 22.2 | 100 | mg/m3 | TSCA listed, TSCA MF, MW calculated, no toxicity data. All Ts changed. |
| 71 | Aluminum carbide | 1299-86-1 | 1.33 | 4 | 6.67 | 35 | mg/m3 | All Ts changed. |
| 72 | Aluminum chloride | 7446-70-0 | 4.94 | 7.5 | 60 | 500 | mg/m3 | T-0, T-1 changed. |
| 73 | Aluminum chloride hexahydrate | 7784-13-6 | 8.95 | 25 | 150 | 500 | mg/m3 | T-0 changed. |
| 74 | Aluminum fluoride | 7784-18-1 | 3.11 | 3.11 | 7.5 | 40 | mg/m3 | T-0, T-1 changed. |
| 75 | Aluminum grey LB; (Acid black 60) | 12218-95-0 | 8.44 | 25.3 | 42.2 | 422 | mg/m3 | Name changed. MF ex TSCA, no Al in MF. |
| 76 | Aluminum hexafluorosilicate | 17099-70-6 | 3.51 | 10.5 | 17.6 | 351 | mg/m3 | Added. |

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|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 77 | Aluminum hydroxide | 21645-51-2 | 1 | 3 | 125 | 125 | mg/m3 | T-0, T-1 changed. |
| 78 | Aluminum oxide hydrate | 1333-84-2 | 15 | 15 | 15 | 75 | mg/m3 | Found MF in NIH Chemical Information SIS, MW calculated for x = 2(H2.O). T-1, T-2, T-3 changed. |
| 79 | Aluminum oxide; (Alumina) | 1344-28-1 | 1.5 | 1.5 | 15 | 25 | mg/m3 | T-0, T-1 changed. |
| 80 | Aluminum phosphate; (Phosphoric acid, aluminum salt (1:1), solution) | 7784-30-7 | 4.52 | 13.56 | 500 | 500 | mg/m3 | T-0, T-1 changed. |
| 81 | **Aluminum phosphide** | **20859-73-8** | 0.907 | 0.907 | **2.0** | **3.6** | ppm | **New interim AEGL-2, -3.** All Ts changed. |
| 82 | Aluminum potassium sulfate | 10043-67-1 | 9.57 | 28.7 | 47.8 | 100 | mg/m3 | T-0, T-1, T-2 changed. |
| 83 | Aluminum potassium sulfate, dodecahydrate | 7784-24-9 | 17.6 | 52.7 | 125 | 500 | mg/m3 | T-0, T-1, T-2 changed. |
| 84 | Aluminum sulfate | 10043-01-3 | 6.34 | 19 | 31.7 | 500 | mg/m3 | T-0, T-1, T-2 changed. |
| 85 | Aluminum tris(dihydrogen phosphate); (Phosphoric acid, aluminum salt (3:1) | 13530-50-2 | 11.9 | 35.7 | 60 | 300 | mg/m3 | TSCA listed, no toxicity data. All Ts changed. |
| 86 | Aluminum yellow 4A; (Acid yellow 99) | 10343-58-5 | 4.77 | 28.6 | 50 | 239 | mg/m3 | MF ex TSCA, no Al in MF. T-1, T-2 changed. |
| 87 | Aluminum(III) isopropylate | 555-31-7 | 7.57 | 22.7 | 37.9 | 500 | mg/m3 | SAX, RTECS, H&N, ChemFinder MF used, differs from HSDB and TSCA. T-0, T-1, T-2 changed. |
| 88 | Aluminum(III) nitrate (1:3) | 13473-90-0 | 7.89 | 23.67 | 350 | 500 | mg/m3 | T-0, T-1 changed. |
| 89 | Aluminum(III) nitrate nonahydrate (1:3:9) | 7784-27-2 | 13.9 | 20 | 150 | 500 | mg/m3 | T-0, T-1 changed. |
| 90 | Aluminum(III) silicate (2:1); (Kyanite; Oil-dri) | 1302-76-7 | 3 | 9.01 | 75 | 400 | mg/m3 | T-0, T-1 changed. |

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| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 91 | Amberlite IR-120(PLUS) ion-exchange resin | 78922-04-0 | 10 | 30 | 50 | 200 | mg/m3 | ChemFinder listed, no toxicity data found, used Amberlite-LA-1, CASRN = 12642-13-6. MSDS has CASRN 39389-20-3 |
| 92 | Amberlite IR-120plus ion-exchange resin, sodium form; (Cation exchange resin) | 9002-23-7 | 7.5 | 25 | 150 | 500 | mg/m3 | Not found in databases, but several RTECS Amberlite IR-120 compound listings. MSDS vp and HHR. ChemFinder listed. |
| 93 | Amberlite IRA-400(Cl); (Amberlite IRA-400, ion-exchange resin) | 9002-24-8 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. MSDS pchem data. |
| 94 | Amberlite IRA-400(CL); (Ion exchange resin) | 122560-63-8 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. MSDS has no useful information. |
| 95 | Amberlite MB-1 ion-exchange resin; (Amberlite MB-150) | 100915-96-6 | 10 | 30 | 50 | 200 | mg/m3 | Not listed, used Amberlite-LA-1, CASRN = 12642-13-6; synonym from MSDS name. |
| 96 | Amberlite XAD-16, -7, -4 resin | 104219-63-8 | 10 | 30 | 50 | 200 | mg/m3 | Not listed, used Amberlite-LA-1, CASRN = 12642-13-6. Assumed to be mixture of resins, each with different MSDSs and CASRNs. |
| 97 | Amberlite XAD-2 resin, purified | 9060-05-3 | 10 | 30 | 50 | 200 | mg/m3 | Not listed, used Amberlite-LA-1, CASRN = 12642-13-6 |
| 98 | Amberlite XAD-7HP | 37380-43-1 | 10 | 30 | 50 | 200 | mg/m3 | No toxicity data found, used Amberlite-LA-1, CASRN = 12642-13-6. ChemFinder SG. "Amberlite" deleted. |
| 99 | Amberlyst 15 ion-exchange resin | 9037-24-5 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases; MSDS has CASRN 39389-20-3 |
| 100 | Amino-1,3-naphthalenedisulfonic acid, 7- | 86-65-7 | 3.5 | 10 | 75 | 400 | mg/m3 | |
| 101 | Amino-1-propanol, 3- | 156-87-6 | 0.015 | 0.04 | 0.3 | 500 | mg/m3 | |
| 102 | Amino-2-(hydroxymethyl)-1,3-propanediol, 2-, acetate salt; (Trizma acetate) | 6850-28-8 | 25 | 75 | 500 | 500 | mg/m3 | TSCA listed, MSDS toxicity data. |

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| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 103 | Amino-2-methyl-2-propanol, 1- | 2854-16-2 | 10 | 30 | 200 | 500 | mg/m3 | |
| 104 | Amino-4,6-dinitrotoluene, 2- | 35572-78-2 | 6 | 15 | 125 | 500 | mg/m3 | |
| 105 | Aminoacetaldehyde diethyl acetal; (2,2-diethoxyethylamine) | 645-36-3 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed, no toxicity data found, HHR assumed = 2. |
| 106 | Aminoacetaldehyde dimethyl acetal; (2,2-dimethoxyethylamine) | 22483-09-6 | 10 | 30 | 50 | 250 | mg/m3 | |
| 107 | Aminoanthraquinone, 2- | 117-79-3 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 108 | Aminobenzoic acid, p- | 150-13-0 | 5 | 15 | 100 | 500 | mg/m3 | |
| 109 | Aminobutyl)diethoxymethylsilane, (4- | 3037-72-7 | 2 | 6 | 45 | 45 | mg/m3 | |
| 110 | Aminodiphenyl, p- | 92-67-1 | 0.5 | 1.5 | 10 | 200 | mg/m3 | |
| 111 | Aminoethoxy)ethanol, 2(2- | 929-06-6 | 12.5 | 35 | 250 | 500 | mg/m3 | Added. |
| 112 | Aminoethyl)diphenylborinic acid, o-(2- | 524-95-8 | 0.4 | 1.25 | 10 | 50 | mg/m3 | |
| 113 | Aminoethylethanolamine | 111-41-1 | 12.5 | 35 | 250 | 500 | mg/m3 | Added. |
| 114 | Aminoethylpiperazine, N- | 140-31-8 | 2.5 | 7.5 | 50 | 500 | mg/m3 | |
| 115 | Aminoheptane, 3-; (3-Heptylamine) | 28292-42-4 | 0.06 | 0.15 | 1.25 | 6 | ppm | |
| 116 | Aminoiminomethyl)urea sulfate(2:1), ( | 591-01-5 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data. |
| 117 | Aminophenol, 2-; (Aminophenol, o-) | 95-55-6 | 0.5 | 1.5 | 10 | 500 | mg/m3 | |
| 118 | Aminophenol, m- | 591-27-5 | 1 | 3 | 20 | 125 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 119 | Aminopropiophenone, 4- | 70-69-9 | 1 | 3.5 | 5.6 | 75 | mg/m3 | |
| 120 | Aminopropylmethyldiethoxysilane, 3- | 3179-76-8 | 15 | 50 | 400 | 500 | mg/m3 | MSDS pchem data. |
| 121 | Aminopropyltriehoxysilane; (3-(Triethoxysilyl)-1-propanamine) | 919-30-2 | 6 | 15 | 125 | 500 | mg/m3 | HC&P has BP = 119 C. Duplicate deleted. |
| 122 | Aminopterin; (Aminopteridine) | 54-62-6 | 5 | 15 | 25 | 25 | mg/m3 | |
| 123 | Aminopyrazine | 5049-61-6 | 0.5 | 1.5 | 2.5 | 5 | ppm | **SAR** |
| 124 | Aminopyridine, 4-; (4-Pyridinamine) | 504-24-5 | 4 | 12.5 | 20 | 20 | mg/m3 | |
| 125 | Amiton oxalate | 3734-97-2 | 0.6 | 1.5 | 3 | 3 | mg/m3 | |
| 126 | Amiton; (O,O-Diethyl-S-(2-diethylaminoethyl) thiophosphate) | 78-53-5 | 0.6 | 2 | 3.3 | 3.3 | mg/m3 | |
| 127 | Amitrole | 61-82-5 | 0.2 | 0.6 | 125 | 500 | mg/m3 | |
| 128 | **Ammonia** | **7664-41-7** | 25 | **30** | **160** | **1100** | ppm | **New Final AEGL-1, -2, -3.** |
| 129 | Ammonia-d3 | 13550-49-7 | 10 | 29 | 177 | 883 | ppm | Not found in databases. MW and MF ex ChemFinder. |
| 130 | Ammonium acetate | 631-61-8 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 131 | Ammonium aluminum fluoride; (Triammonium hexafluoroaluminate) | 7784-19-2 | 4.28 | 4.28 | 4.28 | 15 | mg/m3 | |
| 132 | Ammonium benzoate | 1863-63-4 | 3.5 | 10 | 75 | 350 | mg/m3 | |
| 133 | Ammonium bicarbonate | 1066-33-7 | 2 | 6 | 40 | 200 | mg/m3 | |
| 134 | Ammonium bisulfate; (Ammonium hydrogen sulfate) | 7803-63-6 | 0.025 | 0.075 | 0.5 | 2.5 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 135 | Ammonium bisulfite; (Ammonium hydrogen sulfite) | 10192-30-0 | 10 | 10 | 10 | 10 | mg/m3 | |
| 136 | Ammonium bromide | 12124-97-9 | 10 | 35 | 200 | 500 | mg/m3 | |
| 137 | Ammonium carbamate; (Carbamic acid, ammonium salt) | 1111-78-0 | 0.3 | 1 | 6 | 35 | mg/m3 | |
| 138 | Ammonium carbonate | 506-87-6 | 0.75 | 2.5 | 15 | 75 | mg/m3 | |
| 139 | Ammonium chloride | 12125-02-9 | 10 | 20 | 500 | 500 | mg/m3 | |
| 140 | Ammonium chromate | 7788-98-9 | 0.0146 | 0.438 | 7.5 | 43.9 | mg/m3 | |
| 141 | Ammonium citrate | 7632-50-0 | 10 | 10 | 30 | 150 | mg/m3 | |
| 142 | Ammonium citrate tribasic | 3458-72-8 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. MSDS pchem data. |
| 143 | Ammonium citrate, dibasic | 3012-65-5 | 10 | 10 | 10 | 10 | mg/m3 | |
| 144 | Ammonium dichromate | 7789-09-5 | 0.0121 | 0.363 | 7.5 | 36.4 | mg/m3 | |
| 145 | Ammonium dihydrogen phosphate; (Monoammonium phosphate) | 7722-76-1 | 15 | 50 | 350 | 500 | mg/m3 | |
| 146 | Ammonium ferrous sulfate hexahydrate | 7783-85-9 | 3.19 | 9.56 | 15.9 | 500 | mg/m3 | |
| 147 | Ammonium fluoborate | 13826-83-0 | 3.45 | 3.45 | 6 | 20 | mg/m3 | |
| 148 | Ammonium fluoride | 12125-01-8 | 4.88 | 4.88 | 4.88 | 12.5 | mg/m3 | |
| 149 | Ammonium formate | 540-69-2 | 10 | 30 | 50 | 500 | mg/m3 | |
| 150 | Ammonium hexachlorohydrate (III) | z-0001 | 10 | 30 | 50 | 250 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 151 | Ammonium hexafluorosilicate; (Ammonium silicofluoride) | 16919-19-0 | 3.91 | 11.7 | 20 | 30 | mg/m3 | |
| 152 | Ammonium hydrogen fluoride; (Ammonium bifluoride) | 1341-49-7 | 3.75 | 3.75 | 3.75 | 3.75 | mg/m3 | |
| 153 | Ammonium hydrogen oxalate hemihydrate | 37541-72-3 | 7.5 | 25 | 150 | 500 | mg/m3 | Not found in databases. ChemFinder MF, MW. MSDS HHR = 2. |
| 154 | Ammonium hydroxide | 1336-21-6 | 2 | 6 | 40 | 100 | ppm | |
| 155 | Ammonium iodide | 12027-06-4 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 156 | Ammonium lactate | 515-98-0 | 10 | 35 | 200 | 500 | mg/m3 | CASRN changed from 52003-58-4. Toxicity data added, T-1, T-2, T-3 changed. |
| 157 | Ammonium lignin sulfonate | 8061-53-8 | 10 | 30 | 50 | 250 | mg/m3 | |
| 158 | Ammonium molybdate(VI) tetrahydrate | 12054-85-2 | 60.7 | 60.7 | 60.7 | 150 | mg/m3 | |
| 159 | Ammonium molybdate; (Diammonium molybdate) | 13106-76-8 | 10.2 | 30.7 | 51.1 | 500 | mg/m3 | SAX rat LD50, RTECS LD lo and TDlo. T-3 changed. |
| 160 | Ammonium molybdophosphate | 12026-66-3 | 8.15 | 24.4 | 40.7 | 200 | mg/m3 | |
| 161 | Ammonium nickel sulfate | 15699-18-0 | 4.89 | 4.89 | 5 | 48.9 | mg/m3 | |
| 162 | Ammonium nitrate | 6484-52-2 | 10 | 10 | 10 | 500 | mg/m3 | |
| 163 | Ammonium oxalate monohydrate | 5972-73-6 | 1.5 | 4 | 30 | 150 | mg/m3 | This CASRN in H&N, with MW = 125.08 |
| 164 | Ammonium oxalate; (Diammonium oxalate monohydrate) | 6009-70-7 | 1.5 | 4 | 30 | 150 | mg/m3 | |
| 165 | Ammonium oxalate; (Ethanedioic acid, diammonium salt) | 1113-38-8 | 0.15 | 0.5 | 4 | 20 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 166 | Ammonium pentaborate | 12007-89-5 | 10 | 30 | 50 | 250 | mg/m3 | |
| 167 | Ammonium perchlorate | 7790-98-9 | 5 | 15 | 100 | 500 | mg/m3 | |
| 168 | Ammonium permanganate | 13446-10-1 | 0.2 | 3 | 5 | 500 | mg/m3 | |
| 169 | Ammonium persulfate | 7727-54-0 | 0.1 | 0.3 | 20 | 100 | mg/m3 | |
| 170 | Ammonium phosphate dibasic | 7783-28-0 | 10 | 30 | 50 | 250 | mg/m3 | |
| 171 | Ammonium picrate | 131-74-8 | 10 | 30 | 50 | 250 | mg/m3 | |
| 172 | Ammonium polyacrylate | 9003-03-6 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data, no MSDS, assumed solid. |
| 173 | Ammonium sulfamate | 7773-06-0 | 10 | 30 | 50 | 500 | mg/m3 | |
| 174 | Ammonium sulfate | 7783-20-2 | 40 | 125 | 500 | 500 | mg/m3 | |
| 175 | Ammonium sulfide | 12135-76-1 | 3.5 | 10 | 15 | 15 | ppm | |
| 176 | Ammonium sulfite | 10196-04-0 | 10 | 10 | 10 | 10 | mg/m3 | Soluble compound. |
| 177 | Ammonium sulfite monohydrate | 7783-11-1 | 10 | 30 | 50 | 250 | mg/m3 | HC&P listed, no toxicity data found |
| 178 | Ammonium tartrate | 14307-43-8 | 10 | 10 | 10 | 10 | mg/m3 | No useful data found. |
| 179 | Ammonium tartrate; (Diammonium tartrate) | 3164-29-2 | 1.5 | 5 | 40 | 200 | mg/m3 | |
| 180 | Ammonium thiocyanate | 1762-95-4 | 12.5 | 35 | 200 | 200 | mg/m3 | |
| 181 | Ammonium thiosulfate; (Ammonium hyposulfite) | 7783-18-8 | 10 | 30 | 50 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 182 | Ammonium tungstate(VI) | 11120-25-5 | 1.38 | 4.14 | 6.9 | 6.9 | mg/m3 | TSCA, HC&P listed, no toxicity data. |
| 183 | Ammonium vanadate; (Ammonium vanadium oxide; Ammonium metavanadate) | 7803-55-6 | 0.0322 | 0.0965 | 0.322 | 3.5 | mg/m3 | |
| 184 | Ammonium, hexadecyltrimethyl-, bromide; (Hexadecyltrimethylammonium bromide) | 57-09-0 | 0.035 | 0.1 | 0.75 | 150 | mg/m3 | |
| 185 | Ammonium, tetraethyl, bromide; (Tetraethyl ammonium bromide) | 71-91-0 | 1.25 | 4 | 30 | 40 | mg/m3 | |
| 186 | Ammonium, tetramethyl, bromide; (Tetramethylammonium bromide) | 64-20-0 | 0.2 | 0.6 | 4 | 20 | mg/m3 | |
| 187 | Amosite | 12172-73-5 | 0.005 | 0.05 | 40 | 200 | mg/m3 | |
| 188 | Amphetamine; (Benzedrine) | 300-62-9 | 4 | 12.5 | 20 | 20 | mg/m3 | |
| 189 | Amyl acetate | 628-63-7 | 100 | 100 | 100 | 1000 | ppm | SAX toxicity data not in RTECS. |
| 190 | Amyl alcohol; (1-Pentanol) | 71-41-0 | 100 | 100 | 100 | 100 | ppm | |
| 191 | Amyl methyl ether, tert-; (TAME) | 994-05-8 | 20 | 125 | 125 | 125 | ppm | |
| 192 | Amylamine, n-; (1-Pentylamine) | 110-58-7 | 0.3 | 0.75 | 6 | 30 | mg/m3 | |
| 193 | **Amyltrichlorosilane; (Pentyltrichlorosilane)** | **107-72-2** | 0.2 | **0.60** | **7.3** | **33** | ppm | **New interim AEGL-1, -2, -3.** Added. |
| 194 | Anhydrone; (Magnesium perchlorate) | 10034-81-8 | 6 | 15 | 125 | 500 | mg/m3 | |
| 195 | **Aniline** | **62-53-3** | 5 | **8.0** | **12** | **20** | ppm | **Final AEGL-1, -2, -3.** |
| 196 | Anisidine, o- | 90-04-0 | 0.5 | 1.5 | 2.5 | 50 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 197 | Anisidine, p- | 104-94-9 | 0.5 | 1.5 | 2.5 | 50 | mg/m3 | |
| 198 | Anisole; (Anisole anhydrous; Methoxybenzene) | 100-66-3 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 199 | Anthracene | 120-12-7 | 1.5 | 4 | 30 | 150 | mg/m3 | |
| 200 | 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 | 12.5 | 35 | 250 | 500 | mg/m3 | |
| 201 | Anthranilic acid | 118-92-3 | 4 | 12.5 | 100 | 500 | mg/m3 | T-2 changed. |
| 202 | Anthraquinone | 84-65-1 | 10 | 30 | 50 | 500 | mg/m3 | |
| 203 | Antimony | 7440-36-0 | 0.5 | 1.5 | 20 | 50 | mg/m3 | T-2 changed. |
| 204 | Antimony oxide | 1309-64-4 | 0.599 | 1.8 | 4 | 59.9 | mg/m3 | |
| 205 | Antimony pentachloride | 7647-18-9 | 1.23 | 3.68 | 6.14 | 123 | mg/m3 | |
| 206 | Antimony pentafluoride | 7783-70-2 | 0.89 | 0.89 | 2.7 | 89 | mg/m3 | |
| 207 | Antimony pentasulfide | 1315-04-4 | 0.829 | 2.49 | 4.15 | 82.9 | mg/m3 | |
| 208 | Antimony potassium tartrate trihydrate | 28300-74-5 | 1.31 | 3.92 | 6.53 | 131 | mg/m3 | |
| 209 | Antimony trichloride | 10025-91-9 | 0.937 | 0.937 | 0.937 | 93.7 | mg/m3 | |
| 210 | Antimony trifluoride | 7783-56-4 | 0.734 | 0.734 | 4 | 73.4 | mg/m3 | |
| 211 | Antimycin A | 1397-94-0 | 0.35 | 1 | 1.8 | 12.5 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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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 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 212 | Antioxidant G-16 (most toxic antiox) | 61373-87-3 | 10 | 30 | 50 | 125 | mg/m3 | |
| 213 | Aqua regia (75% hydrochloric + 25% nitric acid) | 8007-56-5 | 0.85 | 1.6 | 18 | 94.5 | ppm | 0.75 HCl+0.25 HNO3, MW from H&N. |
| 214 | Arginine, L- | 74-79-3 | 10 | 30 | 50 | 250 | mg/m3 | No useful data found. |
| 215 | Argon | 7440-37-1a | 65000 | 65000 | 230000 | 400000 | ppm | Simple asphyxiant. |
| 216 | Argon, cryogenic | 7440-37-1b | 65000 | 65000 | 230000 | 400000 | ppm | As Ar, simple asphyxiant. |
| 217 | Aromatic hydrocarbon solvents; (High flash naphtha distillates; Solvent naphtha (petroleum), light aromatic) | 64742-95-6 | 500 | 750 | 750 | 750 | ppm | |
| 218 | Aromatic isocyanate mixture "SWD 305A" | z-0111 | 1.25 | 4 | 20 | 125 | mg/m3 | Used 52% 9016-87-9, 5% 26447-40-5, 42% 101-68-8, 1% 103-71-9. All Ts changed. |
| 219 | Arsenic | 7440-38-2 | 0.01 | 0.35 | 2 | 350 | mg/m3 | REL-C suppressed. T-0, T-1, T-2 changed. |
| 220 | Arsenic acid | 1327-52-2 | 0.0189 | 0.0568 | 3 | 55 | mg/m3 | |
| 221 | Arsenic acid; (o-arsenic acid) | 7778-39-4 | 0.0189 | 0.4 | 3 | 9.5 | mg/m3 | |
| 222 | Arsenic pentoxide | 1303-28-2 | 0.0153 | 1 | 7.7 | 7.7 | mg/m3 | |
| 223 | **Arsenic trioxide** | **1327-53-3** | 0.0132 | 0.4 | **3.0** | **9.1** | mg/m3 | **New interim AEGL-2, -3.** All Ts changed. |
| 224 | Arsenious acid | 13464-58-9 | 0.0168 | 0.2 | 1.4 | 8.41 | mg/m3 | |
| 225 | Arsenous trichloride | 7784-34-1 | 0.0242 | 0.0726 | 1.35 | 12.1 | ppm | |
| 226 | **Arsine** | **7784-42-1** | 0.05 | 0.05 | **0.17** | **0.50** | ppm | **Final AEGL-2, -3.** |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 227 | Asbestos | 1332-21-4 | 0.005 | 0.075 | 0.5 | 2.5 | mg/m3 | T-1 changed. |
| 228 | Asbestos (Chrysotile) | 12001-29-5 | 0.005 | 7.5 | 50 | 250 | mg/m3 | T-1 changed. |
| 229 | Ascaridole | 512-85-6 | 0.75 | 2.5 | 20 | 75 | mg/m3 | |
| 230 | Ascarite; (Asbestos, 1332-21-4) | 81133-20-2 | 0.005 | 0.5 | 0.5 | 2.5 | mg/m3 | Assumed not to be "Ascarite-2", which does not contain asbestos. |
| 231 | Ascorbic acid | 50-81-7 | 60 | 200 | 500 | 500 | mg/m3 | |
| 232 | Asphalt; (Bitumen) | 8052-42-4a | 0.5 | 0.75 | 5 | 25 | mg/m3 | See also Petroleum asphalt, SAX PCR500 |
| 233 | Auramine; (4.4'-(Imidocarbonyl)bis(N,N-dimethylamine) monohydrochloride) | 2465-27-2 | 2.5 | 7.5 | 60 | 60 | mg/m3 | Synonym changed. PNOC deleted, MW corrected to RTECS and HSDB. |
| 234 | Azaserine; (L-Serine, diazoacetate (ester)) | 115-02-6 | 0.0125 | 0.04 | 0.25 | 75 | mg/m3 | |
| 235 | Azinphos ethyl; (Ethyl guthion) | 2642-71-9 | 0.75 | 2 | 3.9 | 150 | mg/m3 | |
| 236 | Azinphos methyl; (GuthionR) | 86-50-0 | 0.2 | 0.6 | 0.7 | 10 | mg/m3 | |
| 237 | Aziridine homopolymer; (Ethylenimine homopolyer; Poly(ethyleneimine) | 9002-98-6 | 5 | 15 | 100 | 500 | mg/m3 | Lowest MW compound selected. |
| 238 | Azobis(2-methylpropionitrile), 2,2'- | 78-67-1 | 7.5 | 25 | 150 | 300 | mg/m3 | |
| 239 | Azodicarbamide; (Azodicarbonamide) | 123-77-3 | 40 | 125 | 200 | 200 | mg/m3 | |
| 240 | Bacto peptone | 51142-18-8 | 10 | 30 | 50 | 250 | mg/m3 | Not in databases, no useful data in MSDS. |
| 241 | Barbituric acid | 67-52-7 | 2 | 6 | 40 | 200 | mg/m3 | |
| 242 | Barium | 7440-39-3 | 0.5 | 1.5 | 50 | 250 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 243 | Barium acetate; (Barium acetate anhydrous) | 543-80-6 | 0.93 | 2.79 | 4.65 | 93 | mg/m3 | |
| 244 | Barium carbonate | 513-77-9 | 0.3 | 0.75 | 6 | 500 | mg/m3 | |
| 245 | Barium chloride | 10361-37-2 | 0.5 | 1.5 | 15 | 50 | mg/m3 | |
| 246 | Barium chloride dihydrate | 10326-27-9 | 0.889 | 2.67 | 4.45 | 88.9 | mg/m3 | |
| 247 | Barium chromate | 10294-40-3 | 0.0246 | 0.737 | 1.25 | 73.7 | mg/m3 | |
| 248 | Barium cyanide | 542-62-1 | 0.69 | 2.07 | 3.5 | 69 | mg/m3 | |
| 249 | Barium dioxide; (Barium peroxide) | 1304-29-6 | 0.617 | 0.617 | 1.5 | 7.5 | mg/m3 | |
| 250 | Barium diphenylamine sulfonate | 6211-24-1 | 2.31 | 6.92 | 11.5 | 231 | mg/m3 | MF, MW, MP ex ChemFinder. |
| 251 | Barium fluoride | 7787-32-8 | 0.638 | 1.92 | 15 | 100 | mg/m3 | |
| 252 | Barium hydrogen phosphate; (Barium phosphate dibasic) | 10048-98-3 | 0.849 | 2.55 | 4.25 | 20 | mg/m3 | |
| 253 | Barium hydroxide | 17194-00-2 | 0.624 | 1.87 | 3.12 | 62.4 | mg/m3 | T-3 changed. |
| 254 | Barium hydroxide octahydrate | 12230-71-6 | 1.15 | 3 | 20 | 115 | mg/m3 | Loses water of crystallization at 78 C. |
| 255 | Barium metaborate | 13701-59-2 | 10 | 30 | 200 | 500 | mg/m3 | |
| 256 | Barium nitrate | 10022-31-8 | 0.952 | 2.5 | 20 | 95.2 | mg/m3 | T-2 changed. |
| 257 | Barium nitrite | 13465-94-6 | 0.835 | 2.5 | 4.17 | 20 | mg/m3 | |
| 258 | Barium oxide | 1304-28-5 | 0.558 | 1.67 | 2.79 | 55.8 | mg/m3 | Moisture sensitive. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 259 | Barium permanganate | 7787-36-2 | 1.37 | 20.5 | 34.1 | 34.1 | mg/m3 | Sparingly sol in H2O, |
| 260 | Barium phosphate | 13466-20-1 | 0.788 | 2.36 | 4 | 20 | mg/m3 | |
| 261 | Barium stearate | 6865-35-6 | 10 | 30 | 200 | 500 | mg/m3 | SAX & TSCA have H72, MW=706.4; RTECS & H&N have H70, MW=704.40. |
| 262 | Barium sulfate | 7727-43-7 | 15 | 30 | 350 | 500 | mg/m3 | |
| 263 | Basic Green 4; (Aizen malachite green) | 569-64-2 | 0.35 | 1 | 6 | 35 | mg/m3 | |
| 264 | Basic Red 1; (Rhodamine 6G extra base) | 989-38-8 | 0.025 | 0.075 | 0.6 | 2.5 | mg/m3 | |
| 265 | Bathophenanthroline | 1662-01-7 | 75 | 250 | 500 | 500 | mg/m3 | MSDS states non-hazardous, therefore assume HHR = 1. |
| 266 | Bentonite; (Clay absorbent) | 1302-78-9 | 10 | 30 | 50 | 50 | mg/m3 | |
| 267 | Benz(e)acephenanthrylene; (Benzo(b)fluoroanthene) | 205-99-2 | 0.2 | 0.6 | 4 | 20 | mg/m3 | |
| 268 | Benzal chloride | 98-87-3 | 0.4 | 1.25 | 2.3 | 500 | mg/m3 | |
| 269 | Benzaldehyde | 100-52-7 | 2 | 4 | 4 | 150 | ppm | |
| 270 | Benzamide | 55-21-0 | 3 | 10 | 60 | 350 | mg/m3 | |
| 271 | Benzenamine, sulfate (2:1) | 542-16-5 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data found. |
| 272 | **Benzene** | **71-43-2** | 1 | **52** | **800** | ***4000*** | ppm | **Interim AEGL-1, -2, -3.** See LEL Formattinng Note. |
| 273 | Benzene hexachloride; (Hexachlorocyclohexane, mixed isomers) | 608-73-1 | 0.15 | 0.5 | 4 | 300 | mg/m3 | Toxicity data updated, T-3 changed. |
| 274 | Benzene, 1-(chloromethyl)-4-nitro-; (p-Nitrobenzyl chloride) | 100-14-1 | 5 | 15 | 28 | 125 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 275 | Benzenearsonic acid; (Phenylarsonic acid) | 98-05-5 | 0.27 | 0.27 | 0.27 | 0.27 | mg/m3 | |
| 276 | Benzene-d6; (Deuterated benzene) | 1076-43-3 | 1 | 50 | 150 | 1000 | ppm | |
| 277 | Benzenesulfonic acid chloride; (Benzenesulfonyl chloride) | 98-09-9 | 0.5 | 1.5 | 200 | 200 | mg/m3 | |
| 278 | Benzenesulfonic acid, 4-chloro | 98-66-8 | 2 | 6 | 40 | 200 | mg/m3 | Added. |
| 279 | Benzenesulfonic acid, 5-chloro-2 | z-0114 | 10 | 30 | 50 | 250 | mg/m3 | Added. Not found in databases. |
| 280 | Benzenetetracarboxylic dianhydride, 1,2,4,5- | 89-32-7 | 1.5 | 5 | 15 | 15 | mg/m3 | |
| 281 | **Benzenethiol; (Thiophenol; Phenyl mercaptan)** | **108-98-5** | 0.1 | 0.1 | **0.53** | **1.6** | ppm | **New interim AEGL-2, -3.** All Ts changed. |
| 282 | Benzidene | 92-87-5 | 0.15 | 0.5 | 3.5 | 125 | mg/m3 | |
| 283 | Benzo(a)anthracene | 56-55-3 | 0.1 | 0.3 | 2 | 15 | mg/m3 | |
| 284 | Benzo(a)pyrene; (Coal tar pitch volatiles) | 50-32-8 | 0.2 | 0.6 | 15 | 80 | mg/m3 | |
| 285 | Benzo(ghi)perylene | 191-24-2 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 286 | Benzo(k)fluoranthene | 207-08-9 | 0.2 | 0.6 | 4 | 20 | mg/m3 | |
| 287 | Benzo-4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo(8.8.8)hexacosane, 5,6- | 31250-18-7 | 1.5 | 5 | 35 | 150 | mg/m3 | Not found in databases. MSDS MW, SG. |
| 288 | Benzoic acid | 65-85-0 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 289 | Benzoic acid, sodium salt | 532-32-1 | 100 | 350 | 500 | 500 | mg/m3 | No pchem data found. |
| 290 | Benzoin oxime | 441-38-3 | 0.6 | 1.5 | 12.5 | 60 | mg/m3 | Rat LD > 500 mg/kg. No pchem data found. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 291 | **Benzonitrile** | **100-47-0** | 1 | 3 | **22** | **56** | ppm | **Interim AEGL-2, -3.** Units changed. |
| 292 | Benzophenone | 119-61-9 | 0.5 | 1.5 | 350 | 500 | mg/m3 | |
| 293 | Benzoquinone, p-; (Quinone) | 106-51-4 | 0.1 | 0.3 | 0.5 | 22.6 | ppm | |
| 294 | Benzothiazole | 95-16-9 | 5 | 15 | 100 | 150 | mg/m3 | |
| 295 | Benzotriazole | 95-14-7 | 0.025 | 0.075 | 0.5 | 250 | mg/m3 | |
| 296 | Benzotrifluoride | 98-08-8 | 6.41 | 15 | 125 | 500 | mg/m3 | |
| 297 | **Benzoyl chloride** | **98-88-4** | 0.1 | **0.3** | **5** | **20** | ppm | **ERPG-1, -2, -3.** T-0 changed. |
| 298 | Benzoyl peroxide | 94-36-0 | 5 | 5 | 12.5 | 500 | mg/m3 | |
| 299 | Benzyl acetate | 140-11-4 | 10 | 10 | 10 | 30 | ppm | |
| 300 | Benzyl alcohol | 100-51-6 | 10 | 60 | 150 | 150 | ppm | |
| 301 | Benzyl aminopurine, 6-; (6-Benzyladenine) | 1214-39-7 | 5 | 15 | 100 | 500 | mg/m3 | |
| 302 | Benzyl benzoate | 120-51-4 | 12.5 | 35 | 250 | 500 | mg/m3 | |
| 303 | **Benzyl chloride** | **100-44-7** | 1 | **1** | **10** | **50** | ppm | **ERPG-1, -2, -3.** |
| 304 | **Benzyl chloroformate; (Carbobenzoxy chloride)** | **501-53-1** | 0.04 | 0.125 | **0.97** | **2.9** | ppm | **New interim AEGL-2, -3.** All Ts and units changed. |
| 305 | Benzyl cyanide; (Phenylacetonitrile) | 140-29-4 | 0.2 | 0.6 | 4.3 | 30 | mg/m3 | |
| 306 | Benzyl trichloride; (Trichloromethylbenzene) | 98-07-7 | 0.35 | 1 | 7 | 25 | mg/m3 | T-0, T-1 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 307 | Benzylamine | 100-46-9 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 308 | Benzyldimethylamine; (Dimethylbenzylamine, N,N-; BDMA) | 103-83-3 | 1 | 3 | 20 | 200 | mg/m3 | |
| 309 | Benzyldimethyloctadecylammonium chloride; (Dimethyloctadecylbenzylammonium chloride) | 122-19-0 | 5 | 15 | 100 | 500 | mg/m3 | |
| 310 | Benzylmagnesium chloride | 6921-34-2 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA listed. Water reactive, it is in solution of diethyl ether or tetrahydrofuran. No toxicity data found. |
| 311 | Benzyltrimethylammonium hydroxide; (Triton b) | 100-85-6 | 0.1 | 0.35 | 2.5 | 12.5 | mg/m3 | |
| 312 | **Beryllium** | **7440-41-7** | 0.002 | 0.01 | **0.025** | **0.1** | mg/m3 | **ERPG-2, -3.** T-1 changed**.** |
| 313 | Beryllium chloride | 7787-47-5 | 0.0177 | 0.0443 | 0.0443 | 35.5 | mg/m3 | |
| 314 | Beryllium fluoride | 7787-49-7 | 0.0104 | 0.0261 | 0.0261 | 20.9 | mg/m3 | |
| 315 | Beryllium hydroxide | 13327-32-7 | 0.00955 | 0.0239 | 0.239 | 19.1 | mg/m3 | |
| 316 | Beryllium nitrate | 13597-99-4 | 0.0295 | 0.0738 | 7.38 | 59 | mg/m3 | |
| 317 | Beryllium oxide | 1304-56-9 | 0.00555 | 0.0139 | 1.39 | 11.1 | mg/m3 | |
| 318 | Betaine, anhydrous; (Glycine betaine) | 107-43-7 | 40 | 125 | 500 | 500 | mg/m3 | |
| 319 | Bicyclo(2.2.1)heptane-2-carbonitrile, 5-chloro-6-((((methylamino)carbonyl)oxy)imino)-, (IS-(1-alpha,2-beta,4-alpha,5-alpha,6E))- | 15271-41-7 | 3.5 | 10 | 19 | 19 | mg/m3 | Names vary from source to source, CASRN identifies. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 320 | Bioxirane, 2,2'-; (1,2:3,4-Diepoxybutane) | 1464-53-5 | 0.04 | 0.125 | 0.995 | 10 | ppm | |
| 321 | Biphenylol, 4- | 92-69-3 | 10 | 35 | 60 | 60 | mg/m3 | |
| 322 | Biphenylol, sodium salt, 2-; | 132-27-4 | 2.5 | 7.5 | 60 | 300 | mg/m3 | |
| 323 | Bis(1,1-dimethylethyl)-4-ethylphenol, 2,6- | 4130-42-1 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 324 | Bis(1,1-dimethylethyl)-4-methylphenol, 2,6-; (BHT (food grade); 2,6-Di-tert-butyl-p-cresol) | 128-37-0 | 2 | 6 | 40 | 400 | mg/m3 | |
| 325 | Bis(1-methylethyl)benzene, 1,4-; (p- or 1,4-Diisopropylbenzene) | 100-18-5 | 12.5 | 40 | 300 | 500 | mg/m3 | |
| 326 | Bis(1-methylethyl)benzene; (Diisopropylbenzene) | 25321-09-9 | 5 | 15 | 100 | 500 | mg/m3 | |
| 327 | Bis(2,3-epoxypropoxy) butane, 1,4- | 2425-79-8 | 30 | 100 | 500 | 500 | mg/m3 | |
| 328 | Bis(2-butoxyethyl) ether; (Dibutyl carbitol; Diethylene glycol dibutyl ether) | 112-73-2 | 6 | 15 | 125 | 200 | ppm | |
| 329 | Bis(2-chlorethylthioethyl) ether; (2,2'-Di(3-chloroethylthio)diethyl ether) | 63918-89-8 | 0.3 | 0.75 | 6 | 30 | mg/m3 | |
| 330 | Bis(2-Chloroethoxy)ethane, 1,2-; (Triglycol dichloride) | 112-26-5 | 1 | 3 | 20 | 100 | mg/m3 | |
| 331 | **Bis(2-chloroethyl)sulfide; (HD; Sulfur mustard)** | **505-60-2** | 0.0035 | **0.010** | **0.020** | **0.32** | ppm | **Final AEGL-1, -2, -3.** |
| 332 | Bis(2-chloroethylthio)ethane, 1,2-; (Sesquimustard) | 3563-36-8 | 0.06 | 0.15 | 1.25 | 6 | mg/m3 | |
| 333 | Bis(2-chloroethylthio)methane | 63869-13-6 | 0.05 | 0.15 | 1 | 5 | mg/m3 | Not found in databases. |
| 334 | Bis(2-chloroethylthio)-n-butane, 1,4- | 142868-93-7 | 0.06 | 0.2 | 1.25 | 6 | mg/m3 | Not found in databases. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 335 | Bis(2-chloroethylthio)-n-pentane, 1,5- | 142868-94-8 | 0.075 | 0.2 | 1.5 | 7.5 | mg/m3 | Not found in databases. |
| 336 | Bis(2-chloroethylthio)-n-propane, 1,3- | 63905-10-2 | 0.06 | 0.15 | 1.25 | 6 | mg/m3 | Not found in databases. |
| 337 | Bis(2-chloroethylthiomethyl)ether | 63918-90-1 | 0.06 | 0.15 | 1.25 | 6 | mg/m3 | Not found in databases. |
| 338 | Bis(2-ethoxyethyl) ether; (Diethyl carbitol) | 112-36-7 | 75 | 250 | 500 | 500 | mg/m3 | |
| 339 | Bis(2-ethylhexyl) hydrogen phosphate | 298-07-7 | 0.02 | 0.06 | 0.4 | 2 | mg/m3 | |
| 340 | Bis(2-ethylhexyl) phenyl phosphate | 16368-97-1 | 0.075 | 0.2 | 1.5 | 7.5 | mg/m3 | No pchem data found, 17W mammal TClo ignored. |
| 341 | Bis(2-hydroxyethyl)dodecanamide, N,N- | 120-40-1 | 0.004 | 0.01 | 0.075 | 100 | ppm | |
| 342 | Bis(2-methylstyryl)benzene, 4-; (1,4-Bis(2-(2-methylphenyl)ethenyl)benzene) | 13280-61-0 | 10 | 30 | 50 | 250 | mg/m3 | No useful data found. |
| 343 | Bis(3-tert-butyl-4-hydroxy-6-methylphenyl) sulfide | 96-69-5 | 15 | 30 | 300 | 500 | mg/m3 | |
| 344 | Bis(chloromethyl)ketone; (1,3-Dichloroacetone) | 534-07-6 | 0.125 | 0.4 | 2 | 2 | mg/m3 | |
| 345 | Bis(chloromethyl)oxetane, 3,3- | 78-71-7 | 0.4 | 1.25 | 2 | 75 | mg/m3 | |
| 346 | Bis(Dimethylamino)acridine, 3,6-; (Acridine orange) | 494-38-2 | 0.4 | 1.25 | 7.5 | 40 | mg/m3 | |
| 347 | Bis(trifluoromethyl)benzene, 1,3- | 402-31-3 | 4.7 | 14.1 | 23.5 | 470 | mg/m3 | No toxicity data found. |
| 348 | Bis(tris(hydroxymethyl)methylamino)propane, 1,3-; (Bis-tris propane) | 64431-96-5 | 10 | 30 | 50 | 250 | mg/m3 | Not listed in databases. ChemFinder listed, MSDS pchem data. |
| 349 | Bis[(benzo-15-crown-5)-15-ylmethyl] pimelate | 69271-98-3 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. |
| 350 | Bisbutenylenetetrahydrofurfural; (2,3,4,5-bis(2-butylene)tetrahydro-2-furaldehyde) | 126-15-8 | 10 | 30 | 200 | 500 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 351 | Bismuth | 7440-69-9 | 1.5 | 5 | 40 | 200 | mg/m3 | |
| 352 | Bismuth acetate | 22306-37-2 | 10 | 30 | 50 | 250 | mg/m3 | HSDB, HC&P listed, no toxicity data, MSDS HHR =2. |
| 353 | Bismuth germanate | 12233-73-7 | 1.5 | 5 | 40 | 200 | mg/m3 | |
| 354 | Bismuth hydroxide | 10361-43-0 | 1 | 1 | 3 | 100 | mg/m3 | **SAR** |
| 355 | Bismuth hydroxide nitrate oxide; (White paint) | 1304-85-4 | 7.5 | 20 | 150 | 500 | mg/m3 | |
| 356 | Bismuth iodide | 7787-64-6 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA listed, ChemFinder pchem data. HHR = 3 |
| 357 | Bismuth nitrate | 10361-44-1 | 1.25 | 4 | 25 | 500 | mg/m3 | |
| 358 | Bismuth oxide | 1304-76-3 | 20 | 60 | 400 | 500 | mg/m3 | |
| 359 | Bismuth oxychloride | 7787-59-9 | 75 | 250 | 500 | 500 | mg/m3 | |
| 360 | Bismuth(III) nitrate, pentahydrate | 10035-06-0 | 2 | 6 | 40 | 500 | mg/m3 | |
| 361 | Bisphenol A | 80-05-7 | 5 | 15 | 100 | 500 | mg/m3 | |
| 362 | Bisphenol A diglycidyl ether | 1675-54-3 | 1.25 | 3.5 | 6 | 6 | mg/m3 | |
| 363 | Bitoscanate; (1,4-Phenylenediisothiocyanic acid) | 4044-65-9 | 4 | 12.5 | 20 | 20 | mg/m3 | |
| 364 | BoBCalix; (Calix[4]arene-bis(t-octylbenzo-crown-b) | z-0110 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. MF, MW from MSDS. |
| 365 | Borane methyl sulfide complex; (Methyl sulfide complex with borane (1:1)) | 13292-87-0 | 0.1 | 0.3 | 2 | 10 | ppm | |
| 366 | Borane-tetrahydrofuran | 14044-65-6 | 5 | 15 | 25 | 125 | mg/m3 | No toxicity data, unstable |

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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 367 | Borate | 14213-97-9 | 60 | 150 | 500 | 500 | mg/m3 | ot found in databases. Used human median lethal dose for boric acid. |
| 368 | Boric acid | 10043-35-3 | 2 | 6 | 100 | 125 | mg/m3 | |
| 369 | Boric acid, tributyl ester; (Tri-n-butyl borate) | 688-74-4 | 1 | 3 | 20 | 100 | ppm | T-0, T-1 changed. |
| 370 | Boron | 7440-42-8 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 371 | Boron carbide | 12069-32-8 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 372 | Boron nitride | 10043-11-5 | 400 | 500 | 500 | 500 | mg/m3 | Rat LD > 50 g/kg |
| 373 | Boron oxide | 1303-86-2 | 15 | 30 | 300 | 500 | mg/m3 | |
| 374 | **Boron tribromide** | **10294-33-4** | 0.1 | **0.33** | **7.3** | **40** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 375 | Boron trichloride | 10294-34-5 | 0.1 | 0.3 | 2.09 | 2.5 | ppm | |
| 376 | **Boron trifluoride** | **7637-07-2** | 0.75 | **2.5** | **37** | **110** | mg/m3 | **Interim AEGL-1, -2, -3. ERPG-1, -2, -3.** T-0 changed. |
| 377 | Boron trifluoride etherate | 109-63-7 | 9.34 | 25 | 150 | 500 | mg/m3 | |
| 378 | **Boron trifluoride-dimethyl ether** | **353-42-4** | 0.75 | **2.5** | **37** | **110** | mg/m3 | **Interim AEGL-1, -2, -3. AEGLs for boron trifluoride added.** All Ts changed. |
| 379 | Botulinum toxin-A | 93384-43-1 | 1.5E-09 | 4E-09 | 3E-08 | 0.00003 | mg/m3 | Added. Dose 2.8 units/kg, assume unit = 1 ng |
| 380 | Botulinum toxin-B | z-0117 | 0.000004 | 0.0000125 | 0.000015 | 0.000015 | mg/m3 | Added. Dose is 20.8 units/kg, assume unit = 1 ng |
| 381 | Botulinum toxin-F | z-0118 | 7.5E-08 | 0.0000002 | 1.5E-06 | 0.00001 | mg/m3 | Added. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 382 | Botulinum, clostridium | z-0119 | 6E-09 | 1.5E-08 | 1.25E-07 | 6E-07 | mg/m3 | Added. |
| 383 | Brij-35; (alpha-Dodecyl-omega-hydroxypolyoxy-ethylene) | 9002-92-0 | 0.15 | 0.5 | 3.5 | 400 | mg/m3 | |
| 384 | Brilliant blue | 2650-18-2 | 0.06 | 0.06 | 0.06 | 0.06 | mg/m3 | ChemFinder has different MF, MW |
| 385 | Bromadiolone | 28772-56-7 | 0.2 | 0.6 | 1 | 1 | mg/m3 | |
| 386 | **Bromine** | **7726-95-6** | 0.033 | **0.033** | **0.24** | **8.5** | ppm | **Interim AEGL-1, -2, -3.** |
| 387 | **Bromine chloride** | **13863-41-7** | 0.15 | **0.5** | **2.5** | **7.6** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 388 | **Bromine pentafluoride** | **7789-30-2** | 0.1 | 0.15 | **1.0** | **33** | ppm | **Interim AEGL-2, -3.** |
| 389 | **Bromine trifluoride** | **7787-71-5** | 0.04 | **0.12** | **2.0** | **21** | ppm | **Interim AEGL-1, -2, -3.** T-0 and units changed. |
| 390 | Bromo acetic acid, methyl ester | 96-32-2 | 0.25 | 0.75 | 5 | 25 | mg/m3 | Pchem data differs in SAX, HC&P, ChemFinder. |
| 391 | Bromo-1-chloro-5,5-dimethylhydantoin, 3-; (Bromo-1-chloro-5,5-dimethyl-2,4-imidazolidinedione, 3-) | 126-06-7 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 392 | Bromo-2-chloro-1,1,2-trifluoroethane, 1-; (1,1,2-Trifluoro-1-bromo-2-chloroethane) | 354-06-3 | 50 | 150 | 1000 | 5000 | ppm | Deleted Halon 1301, CASRN = 75-63-8, from synonyms. |
| 393 | Bromo-3-chloro-5,5-dimethylhydantoin, 1-; (1-Bromo-3-chloro-5,5-dimethyl-2,4-imidazolidinedione) | 16079-88-2 | 6 | 15 | 125 | 500 | mg/m3 | |
| 394 | Bromo-3-methylbutane, 1- | 107-82-4 | 4 | 12.5 | 75 | 400 | ppm | |
| 395 | Bromoacetaldehyde diethyl acetul | 2032-35-1 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed. MSDS HHR = 2. |
| 396 | Bromoacetic acid | 79-08-3 | 0.04 | 0.125 | 0.75 | 4 | mg/m3 | Corrosiveto skin and mucous membranes. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 397 | Bromoacetone | 598-31-2 | 0.075 | 0.2 | 1.5 | 7.5 | ppm | |
| 398 | Bromoanisole, 99, 3- | 2398-37-0 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data, no HHR found. |
| 399 | Bromobenzene; (Phenyl bromide) | 108-86-1 | 0.75 | 2.5 | 20 | 350 | ppm | T-2 changed. |
| 400 | Bromochlorobenzene, m- | 108-37-2 | 10 | 30 | 50 | 250 | mg/m3 | |
| 401 | Bromochlorobenzene, p- | 106-39-8 | 10 | 30 | 50 | 250 | mg/m3 | |
| 402 | Bromochloromethane | 74-97-5 | 200 | 600 | 1000 | 2000 | ppm | |
| 403 | Bromocresol green | 76-60-8 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 404 | Bromocresol purple | 115-40-2 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 405 | Bromocyclohexanol, Cis-2- | 16536-57-5 | 0.04 | 0.125 | 0.75 | 40 | ppm | **SAR** |
| 406 | Bromodecane, 1- | 112-29-8 | 1.5 | 5 | 35 | 150 | ppm | |
| 407 | Bromodichloromethane | 75-27-4 | 1.5 | 4 | 30 | 150 | mg/m3 | |
| 408 | Bromododecane, 1- | 143-15-7 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed, MSDS HHR = 2. |
| 409 | Bromoethane; (Ethyl bromide) | 74-96-4 | 5 | 750 | 2000 | 2000 | ppm | PEL-TWA ignored. T-1, T-2, T-3 changed. |
| 410 | Bromoethanol , 2- (ethylene bromohydrin) | 540-51-2 | 0.075 | 0.2 | 1.5 | 60 | mg/m3 | |
| 411 | Bromoethylmagnesium | 925-90-6 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA listed, no toxicity data found, MSDS HHR = 3. |
| 412 | Bromofluorobenzene, 4-; (p-fluorobromobenzene) | 460-00-4 | 75 | 200 | 500 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 413 | Bromoform; (Tribromomethane) | 75-25-2 | 0.5 | 0.5 | 1 | 850 | ppm | |
| 414 | Bromohexane; (n-Hexyl bromide) | 111-25-1 | 40 | 125 | 750 | 4000 | ppm | |
| 415 | Bromomesitylene, 2-; (2-Bromo-1,3,5-trimethylbenzene) | 576-83-0 | 10 | 30 | 50 | 250 | mg/m3 | TSCA & HC&P listed. No toxicity data found. |
| 416 | Bromomethyl-1,3-dioxolane, 2- | 4360-63-8 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed, no toxicity data found, MSDS HHR. |
| 417 | Bromonaphthalene | 90-11-9 | 3.5 | 10 | 60 | 350 | mg/m3 | |
| 418 | Bromonitromethane | 563-70-2 | 0.75 | 2.5 | 15 | 75 | mg/m3 | MSDS HHR = 2. |
| 419 | Bromooctane , 1-; (Octyl bromide) | 111-83-1 | 2.5 | 7.5 | 50 | 250 | ppm | |
| 420 | Bromophenol blue | 115-39-9 | 10 | 30 | 50 | 250 | mg/m3 | RTECS, TSCA, HC&P listed, no toxicity data found. |
| 421 | Bromophenyl phenyl ether, 4- | 101-55-3 | 2 | 6 | 40 | 200 | mg/m3 | |
| 422 | Bromopropane, 1- | 106-94-5 | 10 | 30 | 2500 | 2500 | ppm | |
| 423 | Bromopropane, 2- | 75-26-3 | 600 | 1500 | 12500 | 25000 | ppm | |
| 424 | Bromopyrene, 3- | 1714-29-0 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases, assumed solid or non-volatile liquid. |
| 425 | Bromosuccinimide, N- | 128-08-5 | 2 | 6 | 40 | 200 | mg/m3 | |
| 426 | Bromothymol blue | 76-59-5 | 10 | 30 | 50 | 250 | mg/m3 | RTECS, TSCA, HC&P listed, no toxicity data. |
| 427 | Bromotoluene, A-; (Benzyl bromide) | 100-39-0 | 0.6 | 1.5 | 12.5 | 60 | mg/m3 | |
| 428 | Bromotrichloromethane | 75-62-7 | 0.06 | 0.15 | 1.25 | 6 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 429 | Bromotrifluoroethylene | 598-73-2 | 7.06 | 21.2 | 125 | 125 | ppm | |
| 430 | Bromotrifluoromethane; (Trifluorobromomethane) | 75-63-8 | 1000 | 3500 | 25000 | 40000 | ppm | |
| 431 | Bromotrimethylsilane; (Trimethylsilyl bromide) | 2857-97-8 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA listed, no yoxicity data found, MSDS HHR = 3. |
| 432 | Brown menhaden fish oil | 68440-42-6 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found |
| 433 | Brucine; (2,3-Dimethoxystrychnine) | 357-57-3 | 0.6 | 1.5 | 12.5 | 40 | mg/m3 | |
| 434 | Buffer solution, aequeous | 7732-18-5 | 500 | 500 | 500 | 500 | mg/m3 | |
| 435 | **Butadiene,1,3-** | **106-99-0** | 1 | **670** | ***5300*** | ***22000*** | ppm | **Interim AEGL-1, -2, -3. T-0 changed.** See LEL Formattinng Note. |
| 436 | Butanaminium,N,N,N-tributyl bromide, 1-; (Tetrabutylammonium bromide) | 1643-19-2 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 437 | **Butane** | **106-97-8** | 1000 | ***5500*** | ***17000*** | ***53000*** | ppm | **Interim AEGL-1, -2, -3. T-0 changed.** See LEL Formattinng Note. |
| 438 | Butanedioic acid, diethyl ester; (Succinic acid, diethyl ester) | 123-25-1 | 5 | 15 | 100 | 500 | ppm | |
| 439 | Butanedioic acid, dimethyl ester; (Succinic acid, dimethyl ester) | 106-65-0 | 3.5 | 10 | 75 | 350 | ppm | |
| 440 | Butanediol dinitrate, 1,4- | 3457-91-8 | 0.05 | 0.125 | 0.4 | 3 | ppm | **SAR** |
| 441 | Butanediol, 1,3- | 107-88-0 | 25 | 75 | 500 | 500 | mg/m3 | |
| 442 | Butanediol, 1,4-; (1,4-Tetramethylene glycol) | 110-63-4 | 1.25 | 3.5 | 25 | 250 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 443 | Butanedione, 2,3- | 431-03-8 | 20 | 60 | 400 | 400 | mg/m3 | |
| 444 | Butanenitrile; (Butyronitrile) | 109-74-0 | 8 | 24 | 40 | 50 | ppm | |
| 445 | Butanephosphonic acid | 3321-64-0 | 0.02 | 0.06 | 0.4 | 2 | mg/m3 | **SAR** |
| 446 | Butanethiol; (n-Butyl mercaptan) | 109-79-5 | 0.5 | 7.5 | 50 | 500 | ppm | |
| 447 | Butanoic acid, butyl ester; (n-Butyl n-butanoate) | 109-21-7 | 1.5 | 5 | 35 | 150 | ppm | |
| 448 | Butanol, aluminum salt, 2- | 2269-22-9 | 18.3 | 54.8 | 91.3 | 400 | mg/m3 | TSCA, HC&P listed, no toxicity data. |
| 449 | Butanol-d10, n- | 34193-38-9 | 0.5 | 1.5 | 10 | 50 | ppm | LC50 eztimated from HHR. |
| 450 | Butanone oxime; (Ethyl methyl ketoxime) | 96-29-7 | 10 | 40 | 100 | 100 | ppm | |
| 451 | **Butanone, 2-; (Methyl ethyl ketone; MEK)** | **78-93-3** | 200 | **200** | ***2700*** | ***4000*** | ppm | **Interim AEGL-1, -2, -3.** See LEL Formattinng Note. |
| 452 | Butene, 1-; (Butylene) | 106-98-9 | 250 | 750 | ***50000*** | ***75000*** | ppm | HSDB toxicity data used, all Ts changed. See LEL Formattinng Note. |
| 453 | Butene, 2- | 107-01-7 | 250 | ***750*** | ***1250*** | ***60000*** | ppm | New TLV-TWA, RTECS data used, all Ts changed. See LEL Formattinng Note. |
| 454 | Butene, cis-2-; (cis-1,2-Dimethylethylene) | 590-18-1 | 250 | ***65000*** | ***230000*** | ***400000*** | ppm | New TLV-TWA, T-0 changed. Simple asphyxiant. See LEL Formattinng Note. |
| 455 | Butene, trans-2-; (Trans-1,2-dimethylethylene) | 624-64-6 | 250 | 750 | ***40000*** | ***75000*** | ppm | HSDB toxicity data used, all Ts changed. See LEL Formattinng Note. |
| 456 | Butoxyethanol acetate, 2-; (Ethylene glycol monobutyl ether acetate) | 112-07-2 | 20 | 60 | 100 | 150 | ppm | T-0, T-1, T-2 changed. |
| 457 | Butoxyethanol phosphate, 2- | 78-51-3 | 7.5 | 20 | 150 | 500 | mg/m3 | |
| 458 | Butoxyethanol, 2-; (Glycol ether EB) | 111-76-2 | 50 | 50 | 100 | 700 | ppm | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 459 | Butoxyethoxy)ethanol, 2-(2-; (Diethylene glycol monobutyl ether) | 112-34-5 | 100 | 100 | 500 | 500 | mg/m3 | |
| 460 | Butoxyethoxy)ethyl thiocyanate, 2-(2- | 112-56-1 | 0.35 | 1 | 7.5 | 40 | mg/m3 | |
| 461 | Butoxypolypropylene glycol | 9003-13-8 | 35 | 100 | 500 | 500 | mg/m3 | RTECS has six entries for this CASRN |
| 462 | **Butyl acetate, n-** | **123-86-4** | 5 | **5** | **200** | ***3000*** | ppm | **ERPG-1, -2, -3.** See LEL Formattinng Note. |
| 463 | Butyl acetate, sec- | 105-46-4 | 200 | 200 | 350 | ***1700*** | ppm | T-2, T-3 changed. See LEL Formattinng Note. |
| 464 | Butyl acetate, tert- | 540-88-5 | 200 | 600 | 1000 | ***1500*** | ppm | See LEL Formattinng Note. |
| 465 | Butyl acetoacetate, tert- | 1694-31-1 | 20 | 60 | 400 | 500 | mg/m3 | TSCA listed, no toxicity data found. MSDS rat oral LD50 > 5 g/kg. |
| 466 | **Butyl acrylate, n-** | **141-32-2** | 2 | **8.3** | **130** | **480** | ppm | **Interim AEGL-1, -2, -3.** |
| 467 | Butyl alcohol, n- | 71-36-3 | 50 | 50 | 50 | ***1400*** | ppm | See LEL Formattinng Note. |
| 468 | Butyl alcohol, sec-; (2-Butanol) | 78-92-2 | 100 | 150 | ***2000*** | ***2000*** | ppm | See LEL Formattinng Note. |
| 469 | Butyl bis(2-ethylhexyl)phosphate | z-0002 | 0.2 | 0.6 | 0.75 | 0.75 | ppm | **SAR** |
| 470 | Butyl bromide, n-; (1-Bromobutane) | 109-65-9 | 15 | 50 | 350 | 1500 | ppm | |
| 471 | **Butyl chloroformate, n-** | **592-34-7** | 0.2 | 0.3 | **2.2** | **6.7** | ppm | **New interim AEGL-2, -3.** All Ts changed. |
| 472 | **Butyl chloroformate, sec-** | **17462-58-7** | 0.1 | 0.3 | **2.2** | **6.7** | ppm | **New interim AEGL-2, -3.** All Ts changed. |
| 473 | Butyl ether, n-; (Dibutyl ether) | 142-96-1 | 1 | 3 | 20 | 400 | ppm | |
| 474 | Butyl glycidyl ether, n- | 2426-08-6 | 3 | 3 | 5.6 | 250 | ppm | PEL-TWA ignored. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 475 | **Butyl isocyanate, n-** | **111-36-4** | 0.0035 | **0.01** | **0.05** | **1** | ppm | **ERPG-1, -2, -3** |
| 476 | Butyl isocyanate, Tert- | 1609-86-5 | 0.25 | 0.75 | 5 | 25 | mg/m3 | TSCA listed, MSDS toxicity data. |
| 477 | Butyl levulinate | 2052-15-5 | 20 | 60 | 400 | 500 | mg/m3 | Rat LD50 > 5 g/m3 |
| 478 | Butyl lithium | 109-72-8 | 0.231 | 0.231 | 1.25 | 6 | mg/m3 | No toxicity data, based on LiH LClo. |
| 479 | Butyl methyl-d3 ether, tert- | 29366-08-3 | 50 | 150 | 4000 | 4000 | ppm | Listed in ChemFinder, no pchem or toxicity data found, used Tert-butyl methyl ether 1634-04-4 data. |
| 480 | Butyl perbenzoate, tert- | 614-45-9 | 7.5 | 25 | 150 | 400 | mg/m3 | Rat and mouse 240 min LC > 57 mg/m3 |
| 481 | Butyl propanoate; (Propanoic acid, butyl ester) | 590-01-2 | 500 | 500 | 500 | 500 | mg/m3 | |
| 482 | Butyl-2-methylcyclopropane, T-1- | 38851-70-6 | 10 | 30 | 50 | 250 | mg/m3 | Not found in any databases. |
| 483 | Butyl-3-iodo-2-propynylcarbamate | 55406-53-6 | 10 | 30 | 50 | 250 | mg/m3 | Not found in any databases. |
| 484 | Butylamine, (S)-sec- | 513-49-5 | 0.5 | 1.5 | 10 | 50 | ppm | |
| 485 | Butylamine, n- | 109-73-9 | 2.5 | 7.5 | 50 | 300 | ppm | T-0, T-1 changed. |
| 486 | Butylamine, sec- | 13952-84-6 | 5 | 5 | 10 | 20 | ppm | |
| 487 | Butylamine, tert- | 75-64-9 | 5 | 5 | 10 | 125 | ppm | |
| 488 | Butylbenzene, n-; (1-Phenylbutane) | 104-51-8 | 7.5 | 20 | 150 | 750 | ppm | |
| 489 | Butylbenzene, sec-; (2-Phenylbutane) | 135-98-8 | 1.5 | 5 | 35 | 150 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 490 | Butylbenzene, tert- | 98-06-6 | 7.5 | 20 | 150 | ***750*** | ppm | See LEL Formattinng Note. |
| 491 | Butylcyclohexane; (1-Cyclohexylbutane) | 1678-93-9 | 1.5 | 5 | 40 | 200 | ppm | |
| 492 | Butylcyclohexanone, p-tert- | 98-53-3 | 20 | 60 | 400 | 500 | mg/m3 | |
| 493 | Butylene carbonate; (1,2-Butanediol, cyclic carbonate) | 4437-85-8 | 20 | 60 | 400 | 500 | mg/m3 | Rat LD50 > 5 g/kg. No pchem data found. |
| 494 | Butylpyrocatechol, 4-tert-; (4-tert-Butylcatechol) | 98-29-3 | 0.1 | 0.3 | 2 | 500 | mg/m3 | 2006 OEV Guide and 2006 ERPG and WEEL booklet WEEL data conflict. WEEL-TWA should be WEEL-C. |
| 495 | **Butyltrichlorosilane** | **7521-80-4** | 0.2 | **0.60** | **7.3** | **33** | ppm | **New interim AEGL-1, -2, -3.** Added. |
| 496 | Butyne-1,4-diol, 2-; (1,4-Butynediol) | 110-65-6 | 0.35 | 1 | 20 | 30 | mg/m3 | |
| 497 | Butyraldehyde | 123-72-8 | 0.02 | 0.06 | 0.4 | 12.5 | ppm | WEEL-TWA = 25 ppm not used. |
| 498 | Butyric acid | 107-92-6 | 15 | 40 | 250 | 250 | ppm | |
| 499 | Butyric acid, sodium salt | 156-54-7 | 50 | 150 | 500 | 500 | mg/m3 | Dog iv data ex HSDB. |
| 500 | **BZ; (3-Quinuclidinyl benzilate)** | **6581-06-2** | 0.006 | 0.02 | **0.033** | **0.62** | mg/m3 | **New interim AEGL-2, -3.** Added. |
| 501 | C.I. pigment red 53:1; (5-Chloro-2-((2-hydroxy-1-naphthyl)azo)-p-toluene sulfonic acid, barium salt) | 5160-02-1 | 12.5 | 35 | 250 | 500 | mg/m3 | MSDS not found. |
| 502 | C-18 Unsarturated fatty acid, dimers, reaction products with polyethylenepolyamines; (Versamid 140 polyamide resin; Versamid 125) | 68410-23-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data. |
| 503 | Cacodylic acid | 75-60-5 | 0.5 | 1.5 | 5 | 5 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 504 | Cadmium and compounds, as Cd. | 7440-43-9 | 0.005 | 0.03 | 1.25 | 9 | mg/m3 | |
| 505 | Cadmium bromide | 7789-42-6 | 0.0121 | 0.0727 | 4 | 21.8 | mg/m3 | |
| 506 | Cadmium carbonate | 513-78-0 | 0.00767 | 0.046 | 4 | 13.8 | mg/m3 | |
| 507 | Cadmium chloride | 10108-64-2 | 0.00815 | 0.0489 | 0.5 | 14.7 | mg/m3 | |
| 508 | Cadmium chloride hemipentahydrate; (Cadmium chloride, 2.5-hydrate) | 7790-78-5 | 0.25 | 0.75 | 5 | 300 | mg/m3 | |
| 509 | Cadmium fluoride | 7790-79-6 | 0.00669 | 0.0401 | 4 | 12 | mg/m3 | |
| 510 | Cadmium hydroxide | 21041-95-2 | 0.00651 | 0.0391 | 4 | 11.7 | mg/m3 | |
| 511 | Cadmium nitrate | 10325-94-7 | 0.0105 | 0.0631 | 4 | 18.9 | mg/m3 | |
| 512 | Cadmium nitrate tetrahydrate | 10022-68-1 | 0.0137 | 0.6 | 4 | 24.7 | mg/m3 | |
| 513 | Cadmium nitrite | 7790-83-2 | 0.00909 | 0.0546 | 4 | 16.4 | mg/m3 | |
| 514 | Cadmium oxide | 1306-19-0 | 0.00571 | 0.0343 | 4 | 10.3 | mg/m3 | |
| 515 | Cadmium stearate; (Octadecanoic acid, cadmium salt) | 2223-93-0 | 0.0303 | 0.182 | 13 | 54.6 | mg/m3 | |
| 516 | Cadmium sulfate | 10124-36-4 | 0.00928 | 0.0557 | 4 | 16.7 | mg/m3 | |
| 517 | Cadmium sulfate, hydrate | 7790-84-3 | 0.0157 | 0.0941 | 0.3 | 28.2 | mg/m3 | MF, MW differ in HSDB, HC&P, ChemFinder from SAX and RTECS. |
| 518 | Cadmium sulfide | 1306-23-6 | 0.00643 | 0.0386 | 11.6 | 11.6 | mg/m3 | |
| 519 | Cadmium tungstate | 7790-85-4 | 0.016 | 0.0961 | 4 | 28.8 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 520 | Cadmium(II) acetate | 543-90-8 | 0.00517 | 0.031 | 4 | 9.3 | mg/m3 | |
| 521 | Calcium | 7440-70-2 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 522 | Calcium acetate | 62-54-4 | 0.02 | 0.06 | 0.4 | 30 | mg/m3 | |
| 523 | Calcium arsenate | 7778-44-1 | 0.0266 | 1.5 | 10 | 13.3 | mg/m3 | T-0, T-1, T-3 changed. |
| 524 | Calcium carbide | 75-20-7 | 10 | 30 | 50 | 250 | mg/m3 | |
| 525 | Calcium carbonate; (Dolomite, Limestone) | 1317-65-3 | 15 | 15 | 60 | 300 | mg/m3 | T-1, T-2, T-3 changed. |
| 526 | Calcium chloride | 10043-52-4 | 25 | 75 | 400 | 400 | mg/m3 | |
| 527 | Calcium chloride dihydrate | 10035-04-8 | 40 | 125 | 500 | 500 | mg/m3 | |
| 528 | Calcium chloride hexahydrate | 7774-34-7 | 5 | 15 | 100 | 500 | mg/m3 | |
| 529 | Calcium chloride hydrate | 22691-02-7 | 30 | 100 | 450 | 500 | mg/m3 | Not found in databases. |
| 530 | Calcium chromate | 13765-19-0 | 0.015 | 0.0901 | 1.25 | 45 | mg/m3 | |
| 531 | Calcium cyanamide | 156-62-7 | 0.5 | 1.5 | 125 | 500 | mg/m3 | |
| 532 | Calcium fluoride | 7789-75-5 | 5.14 | 15.4 | 200 | 500 | mg/m3 | |
| 533 | Calcium formate | 544-17-2 | 10 | 30 | 200 | 500 | mg/m3 | |
| 534 | Calcium hydride | 7789-78-8 | 1.5 | 5 | 35 | 150 | mg/m3 | LD50 estimated from HHR. |
| 535 | Calcium hydroxide | 1305-62-0 | 15 | 15 | 500 | 500 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 536 | Calcium hypochlorite; (Calcium oxychloride) | 7778-54-3 | 3.5 | 10 | 75 | 350 | mg/m3 | |
| 537 | Calcium metasilicate | 10101-39-0 | 10 | 30 | 50 | 250 | mg/m3 | MF, MW differ in databases. No toxicity or pchem data found. No MSDS, assumed solid. |
| 538 | Calcium monohydrogen phosphate dihydrate | 7789-77-7 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 539 | Calcium nitrite | 13780-06-8 | 0.03 | 0.075 | 0.6 | 50 | mg/m3 | Listed as "Nitrous acid, calcium salt", MF = Ca.2(HNO2), MW = 134.10 **SAR** |
| 540 | Calcium oxalate | 563-72-4 | 6 | 15 | 50 | 50 | mg/m3 | Listed as "Ethanedioic acid, calcium salt", MF = C2H2O4.Ca, MW = 130.11 **SAR** |
| 541 | Calcium oxalate, hydrate | 5794-28-5 | 10 | 30 | 50 | 250 | mg/m3 | In ChemFinder, no toxicity data. |
| 542 | Calcium oxide | 1305-78-8 | 5 | 5 | 5 | 25 | mg/m3 | |
| 543 | Calcium phosphate tribasic | 12167-74-7 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity or pchem data found. MSDS MP, SG. |
| 544 | Calcium phosphate; (Tricalcium phosphate) | 10103-46-5 | 7.5 | 20 | 35 | 350 | mg/m3 | **SAR** |
| 545 | **Calcium phosphide** | **1305-99-3** | 0.05 | 0.15 | **1.0** | **1.8** | ppm | **New Interim AEGL-2, -3.** Added. |
| 546 | Calcium sulfate anhydrous; (Drierite; Gypsum; Plaster of Paris) | 7778-18-9 | 15 | 30 | 50 | 250 | mg/m3 | MF and MW in HSDB not compatible. |
| 547 | Calcium(II) nitrate | 10124-37-5 | 1.25 | 3.5 | 25 | 125 | mg/m3 | |
| 548 | Calcium(II) nitrate tetrahydrate (1:2:4) | 13477-34-4 | 15 | 50 | 350 | 500 | mg/m3 | |
| 549 | Calcium(II) sulfate dihydrate (1:1:2) | 10101-41-4 | 15 | 30 | 50 | 75 | mg/m3 | Long-term human TClo ignored. |
| 550 | Camphor | 76-22-2 | 2 | 19 | 19 | 200 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 551 | Camphorsulfonic acid, (1R)-(-)-10- | 35963-20-3 | 4 | 12.5 | 75 | 400 | mg/m3 | Not found in databases, used Reychler's acid, 3144-16-9, same MF and MW. |
| 552 | Cantharidin | 56-25-7 | 0.75 | 2.5 | 4.3 | 4.3 | mg/m3 | |
| 553 | Caprolactam (dust) | 105-60-2 | 1 | 3 | 3 | 20 | mg/m3 | |
| 554 | Caprolactone; (epsilon-Lactone hexanoic acid) | 502-44-3 | 15 | 50 | 350 | 500 | mg/m3 | |
| 555 | Caprylyl chloride; (Octanoyl chloride) | 111-64-8 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found, "Y" concentration dependence ignored. |
| 556 | CAPSO | 73463-39-5 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases, MSDS pchem data. |
| 557 | Captan | 133-06-2 | 5 | 15 | 30 | 500 | mg/m3 | |
| 558 | Carbachol Chloride | 51-83-2 | 3 | 7.5 | 15 | 15 | mg/m3 | |
| 559 | Carbamic acid, methyl-, O-(((2,4-dimethyl-1,3-dithiolan-2-yl)methylene)amino)- | 26419-73-8 | 0.2 | 0.6 | 1 | 1 | mg/m3 | SAX has "2,4-Dimethyl-1,3-dithiolane-2-carboxaldehyde o-(methylcarbamoyl)oxime" |
| 560 | Carbanolate; (Aldicarb; Methyl-2-(methylthio)propionaldehyde-o-(methylcarbamoyl)oxime, 2-) | 116-06-3 | 0.07 | 0.21 | 0.3 | 100 | mg/m3 | See also "Carbanolate CASRN = 471-04-5 in RTECS, HSDB, MF = C10.H12,Cl.N.O2, MW = 213.68" |
| 561 | Carbaryl | 63-25-2 | 5 | 5 | 15 | 100 | mg/m3 | T-1, T-2 changed. |
| 562 | Carbazole | 86-74-8 | 0.75 | 2.5 | 15 | 75 | mg/m3 | |
| 563 | Carbazole violet | 6358-30-1 | 75 | 250 | 500 | 500 | mg/m3 | TSCA listed, no toxicity or pchem data found. MSDS solid, HHR = 1. |
| 564 | Carbethoxyethylidine(triphenylphosphorane) | 5717-37-3 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |

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## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 565 | Carbofuran | 1563-66-2 | 0.1 | 0.3 | 0.43 | 0.5 | mg/m3 | |
| 566 | Carbon black | 1333-86-4 | 3.5 | 10.5 | 17.5 | 500 | mg/m3 | |
| 567 | Carbon dioxide | 124-38-9 | 5000 | 30000 | 30000 | 40000 | ppm | T-2 changed. |
| 568 | **Carbon disulfide** | **75-15-0** | 13 | **13.0** | **160** | **480** | ppm | **Interim AEGL-1, -2, -3.** |
| 569 | **Carbon monoxide** | **630-08-0** | 50 | 83 | **83** | **330** | ppm | **Interim AEGL-2, -3.** |
| 570 | **Carbon tetrachloride** | **56-23-5** | 10 | **44** | **190** | **520** | ppm | **Interim AEGL-1, -2, -3.** |
| 571 | Carbon tetrafluoride; (Tetrafluoromethane) | 75-73-0 | 200 | 600 | 5000 | 25000 | ppm | |
| 572 | Carbon trifluoride; (Trifluoromethane, Fluoroform) | 75-46-7 | 1000 | 3000 | 20000 | 100000 | ppm | No toxicity data, TClo based on HSDB HTOX profile. T-0 changed. |
| 573 | Carbon; (Graphite, synthetic) | 7440-44-0 | 2 | 6 | 10 | 500 | mg/m3 | (Graphite, synthetic) is synonym, CASRN = 7782-42-5, Graphite, natural |
| 574 | Carbonic acid, calcium salt | 471-34-1 | 15 | 45 | 500 | 500 | mg/m3 | T-1 changed. |
| 575 | **Carbonyl fluoride** | **353-50-4** | 0.28 | 0.28 | **0.28** | **0.83** | ppm | **New interim AEGL-2, -3.** All Ts changed. |
| 576 | **Carbonyl sulfide** | **463-58-1** | 10 | 30 | **55** | **150** | ppm | **New interim AEGL-2, -3.** All Ts changed. |
| 577 | Carbonyldiphthalic anhydride, 4,4'- | 2421-28-5 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data. |
| 578 | Carbophenothion; (Trithion) | 786-19-6 | 1.25 | 4 | 6.8 | 6.8 | mg/m3 | |
| 579 | Carboxymethyl cellulose | 9000-11-7 | 40 | 125 | 500 | 500 | mg/m3 | RTECS rat oral LD > 5 mg/kg, MW given is for x = 1 |
| 580 | Carboxymethyl sepharose; (CM sepharose) | 68894-07-5 | 7.5 | 25 | 150 | 500 | mg/m3 | Not found in databases. HHR = 2 in MSDS. |

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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 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 581 | Casamino acids | z-0008 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases; two hits in HSDB refer to use as a nitrogen source. CASRN changed. |
| 582 | Casein; (Casamino acids; Casein hydrolysate type 1) | 9000-71-9 | 10 | 30 | 50 | 250 | mg/m3 | TSCA & Merck listed, no toxicity data. H&N gives "milk protein". |
| 583 | Castor oil | 8001-79-4 | 40 | 125 | 500 | 500 | mg/m3 | |
| 584 | Catechol | 120-80-9 | 5 | 5 | 7.5 | 20 | ppm | Changed "N" to "Y", T-1, T-2, T-3 changed. |
| 585 | Cation exchange resin 200-400 mesh Hyd. Dowex 50W-X8 | 11119-67-8 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases |
| 586 | Cation exchange resin 50W-X12, 200 - 400 mesh | 9056-03-5 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases |
| 587 | Cellulose | 9004-34-6 | 15 | 30 | 500 | 500 | mg/m3 | RTECS r LD50 & LC50 greater than values entered |
| 588 | Cellulose acetate butanoate | 9004-36-8 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, H&N listed, no toxicity data, |
| 589 | Cellulose, 2-(diethylamino)ethyl ether | 9013-34-7 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data |
| 590 | Ceric ammonium nitrate | 16774-21-3 | 39.1 | 117 | 200 | 500 | mg/m3 | |
| 591 | Ceric ammonium sulfate | 7637-03-8 | 42.9 | 129 | 214 | 500 | mg/m3 | |
| 592 | Ceric ammonium sulfate, dihydrate | 10378-47-9 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. No MSDS. ChemFinder MP. |
| 593 | Ceric oxide | 1306-38-3 | 6 | 20 | 150 | 500 | mg/m3 | Rat oral LD50 > 5 g/kg. T-2 changed. |
| 594 | Cerium | 7440-45-1 | 10 | 30 | 50 | 250 | mg/m3 | |
| 595 | Cerium (iv) nitrate, 1.5 | 13093-17-9 | 10 | 30 | 50 | 250 | mg/m3 | Added. TSCA listed, no pchem or toxicity data found. |

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|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 596 | Cerium acetate | 537-00-8 | 0.1 | 0.35 | 2 | 10 | mg/m3 | |
| 597 | Cerium chloride | 7790-86-5 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 598 | Cerium fluoride | 7758-88-5 | 8.65 | 25.9 | 43.2 | 500 | mg/m3 | Rat oral LD50 > 5 g/kg. |
| 599 | Cerium hydroxide | 15785-09-8 | 0.75 | 0.75 | 2 | 75 | mg/m3 | **SAR** |
| 600 | Cerium nitrate hexahydrate | 10294-41-4 | 15 | 50 | 350 | 500 | mg/m3 | |
| 601 | Cerium oxalate | 15750-47-7 | 22.6 | 67.7 | 113 | 500 | mg/m3 | No toxicity data found. |
| 602 | Cerium sulfate | 13590-82-4 | 1 | 3.5 | 20 | 100 | mg/m3 | |
| 603 | Cerium trioxide | 1345-13-7 | 2 | 6 | 40 | 200 | mg/m3 | |
| 604 | Cerium(III) sulfate | 13454-94-9 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed, no toxicity data found. HHR = 2 in MSDS. |
| 605 | Cerium(IV) hydroxide | 12014-56-1 | 14.9 | 44.6 | 75 | 350 | mg/m3 | TSCA listed, no toxicity data, irritation, S, ex ChemFinder. |
| 606 | Cerous nitrate; (Cerium(III) nitrate) | 10108-73-3 | 1 | 3 | 20 | 500 | mg/m3 | |
| 607 | Cerous nitrite | z-0004 | 0.04 | 0.1 | 0.75 | 75 | mg/m3 | **SAR** |
| 608 | Cesium | 7440-46-2 | 6 | 20 | 150 | 500 | mg/m3 | |
| 609 | Cesium carbonate | 534-17-8 | 10 | 30 | 200 | 500 | mg/m3 | |
| 610 | Cesium chloride | 7647-17-8 | 0.4 | 1.25 | 10 | 500 | mg/m3 | |
| 611 | Cesium fluoride | 13400-13-0 | 20 | 60 | 100 | 500 | mg/m3 | |

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|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 612 | Cesium hydroxide | 21351-79-1 | 2 | 2 | 7.5 | 250 | mg/m3 | |
| 613 | Cesium iodide | 7789-17-5 | 10 | 30 | 200 | 500 | mg/m3 | |
| 614 | Cesium nitrate | 7789-18-6 | 10 | 30 | 200 | 500 | mg/m3 | |
| 615 | Cesium nitrite | 13454-83-6 | 0.075 | 0.2 | 1.5 | 60 | mg/m3 | **SAR** |
| 616 | Cesium oxide | 20281-00-9 | 2.24 | 6.72 | 11.2 | 500 | mg/m3 | No toxicity data, but reacts with water to form Cs.O.H |
| 617 | Charcoal, activated | 64365-11-3 | 10 | 30 | 50 | 250 | mg/m3 | |
| 618 | Chloramben; (3-Amino-2,5-dichlorobenzoic acid) | 133-90-4 | 35 | 100 | 500 | 500 | mg/m3 | |
| 619 | Chloramphenicol | 56-75-7 | 0.5 | 1.5 | 7.5 | 350 | mg/m3 | Added. |
| 620 | Chlordane | 57-74-9 | 0.5 | 1.5 | 50 | 100 | mg/m3 | |
| 621 | Chlorfenvinfos | 470-90-6 | 2 | 6 | 10 | 10 | mg/m3 | |
| 622 | Chloric acid, sodium salt; (Sodium chlorate) | 7775-09-9 | 0.15 | 0.4 | 3 | 75 | mg/m3 | |
| 623 | Chloride | 16887-00-6 | 0.5 | 1 | 1 | 10 | ppm | Listed in ChemFinder. Chlorine concentration limits used. |
| 624 | Chlorinated polyolefins | 68410-99-1 | 10 | 30 | 50 | 250 | mg/m3 | |
| 625 | **Chlorine** | **7782-50-5** | 0.5 | **0.50** | **2.0** | **20** | ppm | **Final AEGL-1, -2, -3.** |
| 626 | **Chlorine dioxide** | **10049-04-4** | 0.1 | **0.15** | **1.1** | **2.4** | ppm | **Final AEGL-1, -2, -3.** |
| 627 | Chlorine Hi dry granular (as Cl) | z-0006 | 0.5 | 1 | 3 | 20 | ppm | |

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|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 628 | **Chlorine pentafluoride** | **13637-63-3** | 0.1 | **0.30** | **1.0** | **8.0** | ppm | **Interim AEGL-1, -2, -3.** |
| 629 | **Chlorine trifluoride** | **7790-91-2** | 0.04 | **0.12** | **2.0** | **21** | ppm | **Final AEGL-1,-2, -3.** T-0 changed. |
| 630 | Chlormephos | 24934-91-6 | 1.25 | 4 | 7 | 35 | mg/m3 | |
| 631 | Chlormequat Chloride; (Choline dichloride) | 999-81-5 | 0.35 | 1 | 7 | 7.5 | mg/m3 | |
| 632 | **Chloro-1,1,1,2-tetrafluoroethane, 2-** | **2837-89-0** | 1000 | **1000** | **5000** | **10000** | ppm | **New ERPG-1, -2, -3.** Added. |
| 633 | **Chloro-1,1-difluoroethane, 1-; (HCFC-142b)** | **75-68-3** | 1000 | ***10000*** | ***15000*** | ***25000*** | ppm | **ERPG-1, -2, -3.** See LEL Formattinng Note. |
| 634 | Chloro-1,2-propanediol, 3-; (Chlorohydrin) | 96-24-2 | 0.02 | 0.06 | 0.5 | 12.5 | ppm | |
| 635 | Chloro-1-butanol, 4- | 928-51-8 | 1.5 | 5 | 40 | 400 | mg/m3 | T-2 changed. |
| 636 | Chloro-2,4-dinitrobenzene, 1- | 97-00-7 | 3 | 10 | 60 | 350 | mg/m3 | |
| 637 | Chloro-2-methyl-1-propene, 3- | 563-47-3 | 0.75 | 2.5 | 15 | 75 | ppm | |
| 638 | Chloro-2-methylpropane, 2-; (Tert-butyl chloride) | 507-20-0 | 0.4 | 1 | 7.5 | 2000 | ppm | |
| 639 | Chloro-2-nitrophenol, 4- | 89-64-5 | 0.4 | 1.25 | 7.5 | 40 | mg/m3 | TSCA, HC&P listed, MSDS toxicity data. |
| 640 | Chloro-4-nitrophenol, 2- | 619-08-9 | 0.5 | 1.5 | 10 | 50 | ppm | Name changed |
| 641 | **Chloroacetaldehyde** | **107-20-0** | 0.4 | **1.3** | **2.2** | **9.9** | ppm | **Interim AEGL-1, -2, -3.** T-0 changed. |
| 642 | Chloroacetaldehyde dimethyl acetal | 97-97-2 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed, no toxicity data. MSDS pchem data, assumed HHR = 2. |
| 643 | Chloroacetic acid, sodium salt | 3926-62-3 | 2.38 | 7.14 | 40 | 40 | mg/m3 | WEEL-TWA added, T-0, T-1 changed. |

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|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 644 | **Chloroacetic acid; (Monochloroacetic acid)** | **79-11-8** | 0.5 | 1.5 | **6.6** | 20 | ppm | **Interim AEGL-2.** |
| 645 | **Chloroacetone** | **78-95-5** | 0.2 | 0.6 | **4.4** | **13** | ppm | **Interim AEGL-2, -3.** T-0, T-1 changed. |
| 646 | **Chloroacetonitrile** | **107-14-2** | 1.5 | 4 | **32** | **67** | ppm | **Interim AEGL-2, -3.** All Ts changed. |
| 647 | **Chloroacetyl chloride** | **79-04-9** | 0.04 | **0.040** | **1.6** | **52** | ppm | **Interim AEGL-1, -2, -3.** |
| 648 | Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride, 1-(3- | 4080-31-3 | 1 | 3 | 20 | 200 | mg/m3 | |
| 649 | Chloroaniline, p- | 106-47-8 | 0.5 | 1.5 | 10 | 300 | mg/m3 | |
| 650 | **Chlorobenzene; (Benzene chloride)** | **108-90-7** | 10 | **10** | **150** | **400** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 651 | Chlorobenzotrifluoride, 2- | 88-16-4 | 6 | 20 | 125 | 500 | mg/m3 | |
| 652 | Chlorobenzylate; (4,4'-Dichlorobenzilic acid ethyl ester) | 510-15-6 | 0.3 | 0.75 | 6 | 300 | mg/m3 | |
| 653 | **Chlorobenzylidene malononitrile, o-** | **2698-41-1** | 0.005 | **0.005** | **0.1** | **25** | mg/m3 | **ERPG-1, -2, -3. T-3 corrected.** |
| 654 | Chlorobutane, 1-; (Butyl chloride) | 109-69-3 | 7.5 | 25 | 150 | 750 | ppm | Ignored inconsistent Russian TDlo, used NTP TDlo data. |
| 655 | Chlorobutane, 2-; (Sec-butyl chloride) | 78-86-4 | 0.4 | 1.25 | 7.5 | 3500 | ppm | |
| 656 | Chlorobutyryl chloride, 4- | 4635-59-0 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 657 | Chlorocyclohexanol, trans-2- | 6628-80-4 | 3.5 | 10 | 75 | 400 | mg/m3 | |
| 658 | Chlorocyclohexene; (4-Chlorocyclohexene) | 930-65-4 | 20 | 60 | 500 | ***2500*** | ppm | **SAR.** See LEL Formattinng Note. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 659 | Chlorodecane, 1- | 1002-69-3 | 48.5 | 145 | 249 | 1250 | ppm | TSCA listed, no toxicity data. |
| 660 | Chlorodiethylaluminum; (Diethylaluminum chloride) | 96-10-6 | 8.94 | 26.82 | 200 | 500 | mg/m3 | SAX MW (110.56) incorrect. |
| 661 | Chlorodifluoromethane | 75-45-6 | 1000 | 1250 | 7500 | 7500 | ppm | |
| 662 | Chloroethanesulfonyl chloride, 2- | 1622-32-8 | 1.25 | 3.5 | 25 | 150 | mg/m3 | |
| 663 | Chloroethyl chloroformate | 627-11-2 | 4 | 12.5 | 20 | 20 | mg/m3 | |
| 664 | Chloroethyl vinyl ether, 2-; (Ethene, 2-chloroethoxy-) | 110-75-8 | 0.25 | 0.75 | 5 | 25 | ppm | . |
| 665 | Chloroethylchloromethylsulfide, 2- | 2625-76-5 | 0.0035 | 0.01 | 0.02 | 0.32 | ppm | Not found in databases. Used AEGLs for structurally similar sulfur mustard, CASRN = 505-60-2. |
| 666 | **Chloroform** | **67-66-3** | 2 | 2 | **64** | **3200** | ppm | **AEGL-2, -3.** |
| 667 | Chloroform-D; (Deuterated chloroform) | 865-49-6 | 2 | 2 | 50 | 500 | ppm | Not found in databases, has deuterium in place of H in chloroform, so used its limits. |
| 668 | Chloro-m-cresol, 4- | 59-50-7 | 7.5 | 20 | 150 | 500 | mg/m3 | |
| 669 | **Chloromethyl methyl ether** | **107-30-2** | 0.075 | 0.25 | **0.47** | **2.0** | ppm | **Interim AEGL-2, -3.** T-0, T-1 changed. |
| 670 | **Chloromethyl(trichloro)silane** | **1558-25-4** | 0.2 | **0.60** | **7.3** | **33** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 671 | Chloro-methyl-isothiazolin-3-one, 5- | 26172-55-4 | 0.2 | 0.6 | 1 | 1 | mg/m3 | Added. No pchem data found. |
| 672 | Chloronaphthalene, 1-; (alpha-Chloronaphthalene) | 90-13-1 | 6 | 20 | 125 | 500 | mg/m3 | |
| 673 | Chloronaphthalene, 2-; (beta-Chloronaphthalene) | 91-58-7 | 0.2 | 0.6 | 1 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 674 | Chloronitrobenzene, p- ; (p-Nitrochlorobenzene) | 100-00-5 | 1 | 1.92 | 100 | 100 | mg/m3 | |
| 675 | Chloroperoxybenzoic acid, 3- | 937-14-4 | 0.3 | 1 | 6 | 35 | mg/m3 | |
| 676 | Chlorophacinone | 3691-35-8 | 0.2 | 0.6 | 1 | 1 | mg/m3 | |
| 677 | Chlorophenol, 4-; (p-Chlorophenol) | 106-48-9 | 250 | 400 | 400 | 400 | mg/m3 | Severe irritant. Inconsistent rat LC50 not used. |
| 678 | Chlorophenol, m- | 108-43-0 | 0.3 | 0.75 | 6 | 250 | mg/m3 | |
| 679 | Chlorophenol, o- | 95-57-8 | 0.4 | 1.25 | 7.5 | 50 | ppm | |
| 680 | Chlorophenyl phenyl ether, 4- | 7005-72-3 | 0.0025 | 0.0075 | 0.05 | 0.25 | mg/m3 | |
| 681 | Chlorophenyl thiourea, 2- | 5344-82-1 | 0.75 | 2.5 | 4.6 | 4.6 | mg/m3 | |
| 682 | Chloropicrin/Methyl bromide mixture | 8004-09-9 | 2 | 3 | 12.5 | 60 | mg/m3 | 0.15 to 0.85 mixture assumed |
| 683 | Chloropicrin/Methyl chloride mixture | z-0007 | 2 | 2 | 6 | 30 | mg/m3 | 0.30 to 0.70 mixture assumed |
| 684 | **Chloropicrin; (Trichloronitromethane)** | **76-06-2** | 0.05 | **0.050** | **0.15** | **1.4** | ppm | **New interim AEGL-1, -2, -3. ERPG-1, -2, -3.** All Ts changed. |
| 685 | Chloroprene; (Neoprene) | 126-99-8 | 1 | 1 | 1 | 300 | ppm | |
| 686 | Chloropropanol, 3-; (1-Propanol, 3-chloro) | 627-30-5 | 10 | 30 | 200 | 500 | mg/m3 | |
| 687 | Chloropropionitrile, 3- | 542-76-7 | 0.5 | 1.5 | 2.46 | 12.5 | ppm | |
| 688 | Chloropropyl)trimethoxysilane, 3-(; (3-(Trimethoxysilyl)propyl chloride) | 2530-87-2 | 10 | 30 | 200 | 350 | ppm | |
| 689 | Chloropropylene, 2- | 557-98-2 | 1000 | 3000 | ***20000*** | ***35000*** | ppm | See LEL Formattinng Note. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 690 | Chloropropyl-n-octylsulfoxide, 3- | 3569-57-1 | 1.5 | 5 | 8 | 500 | mg/m3 | |
| 691 | Chloro-p-toluenesulfonamide, sodium salt, n-; (Chloramine T) | 127-65-1 | 0.075 | 0.25 | 2 | 250 | mg/m3 | See also SFV550, dog TDlo added. T-0, T-1, T-2 changed. |
| 692 | Chlorosarin; (o-Isopropyl methylphosphonochloridate) | 1445-76-7 | 0.00015 | 0.0005 | 0.006 | 0.022 | ppm | Not found in databases. Treated as Sarin, CASRN = 107-44-8. T-0, T-1 changed. |
| 693 | Chlorosoman; (o-Pinacolyl methylphosphonochloridate) | 7040-57-5 | 0.03 | 0.075 | 0.6 | 3 | ppm | RTECS toxicity data, no pchem data found. |
| 694 | **Chlorosulfonic acid; (Chlorosulfuric acid)** | **7790-94-5** | 0.1 | **0.10** | **4.4** | **25** | mg/m3 | **New interim AEGL-1, -2, -3. ERPG-1, -2, -3.** All Ts changed. |
| 695 | Chlorothalonil; (Tetrachloroisophthalonitrile) | 1897-45-6 | 3 | 7.5 | 30 | 30 | mg/m3 | Added. |
| 696 | Chlorotoluene, 2-; (o-Chlorotoluene) | 95-49-8 | 50 | 75 | 400 | 400 | ppm | T-2, T-3 changed. |
| 697 | Chlorotoluene, 4-; (p-Tolyl chloride) | 106-43-4 | 25 | 75 | 500 | ***2500*** | ppm | See LEL Formattinng Note. |
| 698 | Chlorotrifluoroethene, homopolymer | 9002-83-9 | 0.015 | 0.04 | 0.3 | 500 | mg/m3 | Many synonyms, used first of multiple RTECS listings. |
| 699 | **Chlorotrifluoroethylene** | **79-38-9** | 5 | **16** | **86** | **420** | ppm | **New interim AEGL-1, -2, -3. ERPG-1, -2, -3.** T-1, T-2, T-3 changed. |
| 700 | Chlorotrifluoromethane; (CFC-13) | 75-72-9 | 1000 | 3000 | 5000 | 25000 | ppm | |
| 701 | **Chlorovinylarsine dichloride; (Lewisite 1)** | **541-25-3** | 0.12 | 0.12 | **0.12** | **0.74** | mg/m3 | **Interim AEGL-2, -3.** |
| 702 | Chloroxuron | 1982-47-4 | 2 | 6 | 10 | 500 | mg/m3 | |
| 703 | Chlorpyrifos; (Dursban) | 2921-88-2 | 0.1 | 0.6 | 15 | 20 | mg/m3 | |
| 704 | Chlorsulfuran | 64902-72-3 | 0.125 | 0.35 | 2.5 | 500 | mg/m3 | SAX r LC50 > 5900 mg/m3. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 705 | Chlorthiophos | 21923-23-9 | 0.35 | 1 | 7.8 | 7.8 | mg/m3 | RTECS CASRN = 60238-56-4 data match SAX CASRN = 21923-23-9 for which RTECS data differs. ChemFinder lists both. |
| 706 | Chromates | 13907-45-4 | 0.00962 | 0.2886 | 6 | 28.8 | mg/m3 | Minimum values, depending upon compound. T-2 changed. |
| 707 | Chromic acetate; (Chromium(III) acetate) | 1066-30-4 | 2.2 | 6.61 | 11 | 110 | mg/m3 | |
| 708 | Chromic acid ester | 11115-74-5 | 0.0113 | 0.339 | 6 | 34 | mg/m3 | |
| 709 | Chromic chloride; (Chromium(III) chloride) | 10025-73-7 | 1.52 | 4.57 | 7.61 | 76.1 | mg/m3 | |
| 710 | Chromic oxide; (Chromium(III) oxide, chromium sesquioxide) | 1308-38-9 | 0.731 | 15 | 36.5 | 36.5 | mg/m3 | |
| 711 | Chromic sulfate; (Chromium(III) sulfate (2:3)) | 10101-53-8 | 1.89 | 2.5 | 15 | 94.3 | mg/m3 | |
| 712 | Chromic trihydroxide; (Chromic(III) acid; Chromium hydroxide) | 1308-14-1 | 0.991 | 1.25 | 10 | 49.5 | mg/m3 | |
| 713 | Chromic trioxide; (Chromium(VI) oxide (1:3)) | 1333-82-0 | 0.00962 | 0.00962 | 0.06 | 28.8 | mg/m3 | Minimum values, depending upon compound. |
| 714 | Chromic(VI) acid | 7738-94-5 | 0.0113 | 0.339 | 6 | 34 | mg/m3 | New OSHA PEL-TWA. Minimum values, depending upon compound. All Ts changed. |
| 715 | Chromite; (Chromite (mineral)) | 1308-31-2 | 1.08 | 3.23 | 5.38 | 500 | mg/m3 | |
| 716 | Chromium | 7440-47-3 | 1 | 1.5 | 2.5 | 250 | mg/m3 | |
| 717 | Chromium nitrate | 10103-47-6 | 4.74 | 14.2 | 23.7 | 237 | mg/m3 | RTECS listed, no toxicity or pchem data. |
| 718 | Chromium nitrate nonahydrate | 7789-02-8 | 3.85 | 11.5 | 20 | 192 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 719 | Chromium perchlorate, hydrated | 13537-21-8 | 3.37 | 10.1 | 16.8 | 168 | mg/m3 | No toxicity or pchem data found. |
| 720 | Chromium(III) acetate hydroxide | 39430-51-8 | 2.4 | 7.21 | 12.5 | 120 | mg/m3 | TSCA listed. Chromium(III) acetate, CASRN =1066-30-4, MW = 229.13, MF = Cr.3(C2.H4.O2). LANL MW = 603.3? |
| 721 | Chromium(III) chloride, hexahydrate | 10060-12-5 | 2.56 | 100 | 128 | 128 | mg/m3 | Not found in databases. ChemFinder listed. |
| 722 | Chromium(III) fluoride | 7788-97-8 | 1.05 | 3.14 | 5.24 | 52.4 | mg/m3 | |
| 723 | Chromium(III) nitrate | 13548-38-4 | 2.29 | 6.87 | 11.4 | 114 | mg/m3 | |
| 724 | Chromium(III) oxide hydroxide; (Chromium oxyhydroxide) | 20770-05-2 | 0.817 | 1 | 7.5 | 40.9 | mg/m3 | TSCA listed, no toxicity data. |
| 725 | Chromium(III) potassium sulfate (1:1:2), dodecahydrate | 7788-99-0 | 4.8 | 14.4 | 40 | 240 | mg/m3 | |
| 726 | Chromium(VI) hydroxide | 12626-43-6 | 0.005 | 0.03 | 0.05 | 15 | mg/m3 | Used Cr(VI) limits, not SAR. T-2 changed. |
| 727 | Chromous chloride; (Chromium(II) chloride (1:2)) | 10049-05-5 | 1.18 | 3.55 | 6 | 500 | mg/m3 | |
| 728 | Chrysene (coal tar volatile) | 218-01-9 | 0.2 | 0.6 | 1 | 80 | mg/m3 | |
| 729 | Cinnamaldehyde | 104-55-2 | 1.25 | 4 | 30 | 500 | mg/m3 | |
| 730 | Cinnamaldehyde, (E); (trans-Cinnamaldehyde) | 14371-10-9 | 0.075 | 0.25 | 2 | 250 | ppm | |
| 731 | Citric acid | 77-92-9 | 12.5 | 35 | 250 | 500 | mg/m3 | |
| 732 | Citric acid monohydrate | 5949-29-1 | 1.5 | 4 | 30 | 150 | mg/m3 | |
| 733 | Citric acid, trisodium salt, dihydrate | 6132-04-3 | 6 | 20 | 125 | 500 | mg/m3 | Used Trisodium citrate, CASRN = 68-04-2, SAX TNL000 |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 734 | Coal tar pitch volatiles; (Particulate polycyclic aromatic hydrocarbons) | 65996-93-2 | 0.2 | 0.6 | 12.5 | 80 | mg/m3 | |
| 735 | Coal tar, aerosol | 8007-45-2a | 0.1 | 1.25 | 7.5 | 40 | mg/m3 | |
| 736 | Coal tar; (Coal tar volatiles) | 8007-45-2b | 0.2 | 80 | 80 | 80 | mg/m3 | |
| 737 | Cobalt | 7440-48-4 | 0.1 | 3 | 20 | 20 | mg/m3 | |
| 738 | Cobalt acetate tetrahydrate; (Cobaltous acetate tetrahydrate) | 6147-53-1 | 3 | 7.5 | 60 | 300 | mg/m3 | |
| 739 | Cobalt carbonyl | 10210-68-1 | 0.27 | 0.27 | 27 | 60 | mg/m3 | |
| 740 | Cobalt chloride | 7646-79-9 | 0.0441 | 0.132 | 25 | 500 | mg/m3 | |
| 741 | **Cobalt hydrocarbonyl** | **16842-03-8** | 0.0415 | 0.0415 | **0.13** | **0.42** | ppm | **ERPG-2, -3.** T-0, T-1 changed. |
| 742 | Cobalt hydroxide | 21041-93-0 | 0.0315 | 0.0946 | 0.158 | 0.75 | mg/m3 | |
| 743 | Cobalt nitrate hexahydrate; (Cobaltous nitrate hexahydrate) | 10026-22-9 | 0.0988 | 0.296 | 0.5 | 98.8 | mg/m3 | |
| 744 | Cobalt nitrate; (Cobalt(II) nitrate) | 10141-05-6 | 0.0621 | 0.186 | 12.5 | 150 | mg/m3 | |
| 745 | Cobalt nitrite | 32486-57-0 | 0.0512 | 0.154 | 0.256 | 1.25 | mg/m3 | |
| 746 | Cobalt oxide | 1308-06-1 | 0.136 | 0.136 | 0.136 | 500 | mg/m3 | |
| 747 | Cobalt sulfate | 10124-43-3 | 0.0526 | 0.158 | 0.263 | 150 | mg/m3 | |
| 748 | Cobalt sulfate heptahydrate; (Cobalt(II) sulfate(1:1), heptahydrate) | 10026-24-1 | 0.0954 | 0.286 | 250 | 250 | mg/m3 | RTECS listed, no toxicity dara. |
| 749 | Cobalt tetraphenylporphine | 14172-90-8 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 750 | Cobalt(II) chloride hexahydrate | 7791-13-1 | 0.0808 | 0.242 | 20 | 80.8 | mg/m3 | |
| 751 | Cobalt(II) oxide | 1307-96-6 | 0.127 | 0.127 | 20 | 75 | mg/m3 | See also CND020: Co3O4, CND825: Co2O3 |
| 752 | Cobalt(II) perchlorate, hexahydrate | 13478-33-6 | 0.124 | 0.373 | 0.621 | 60 | mg/m3 | No pchem data found. |
| 753 | Cobalt(II) sulfate hydrate | 60459-08-7 | 0.0587 | 0.176 | 0.3 | 58.7 | mg/m3 | Not found in databases. Cobalt and inorganic compounds, as Co. T-3 changed. |
| 754 | Cobalt, ((2,2'-(1,2-ethanediylbis(nitrilomethylidyne))bis(6-fluorophenolato))(2-)-N,N',O,O')- | 62207-76-5 | 0.15 | 0.4 | 3 | 15 | mg/m3 | SAX name = "n,n'Ethylene bis(3-fluorosalicylideneiminato)cobalt(II)" |
| 755 | Cobaltous bromide; (Cobalt(II) bromide) | 7789-43-7 | 0.0742 | 0.223 | 0.371 | 150 | mg/m3 | |
| 756 | Cobaltous carbonate | 513-79-1 | 0.0404 | 0.121 | 0.202 | 250 | mg/m3 | |
| 757 | Colchicine | 64-86-8 | 0.04 | 0.125 | 0.9 | 0.9 | mg/m3 | |
| 758 | Copper | 7440-50-8 | 1 | 1 | 1 | 100 | mg/m3 | |
| 759 | Copper cyanide | 544-92-3 | 1.41 | 4.23 | 7.05 | 25 | mg/m3 | |
| 760 | Copper hydroxide | 20427-59-2 | 1.54 | 4.61 | 7.68 | 400 | mg/m3 | |
| 761 | Copper nitrate; (Cupric nitrate) | 3251-23-8 | 0.148 | 0.444 | 60 | 295 | mg/m3 | |
| 762 | Copper oxide | 1317-39-1 | 0.113 | 3.38 | 15 | 113 | mg/m3 | |
| 763 | Copper sulfate | 7758-98-7 | 2.51 | 2.51 | 6 | 40 | mg/m3 | |
| 764 | Copper(I) chloride; (Cuprous chloride) | 7758-89-6 | 0.0779 | 0.234 | 0.4 | 60 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 765 | Copper(I) sulfide | 22205-45-4 | 1.25 | 3.76 | 6.26 | 30 | mg/m3 | |
| 766 | Copper(II) acetate monohydrate | 6046-93-1 | 0.314 | 7.5 | 60 | 300 | mg/m3 | |
| 767 | Copper(II) carbonate hydroxide (2:1:2) | 12069-69-1 | 0.174 | 0.522 | 0.87 | 174 | mg/m3 | |
| 768 | Copper(II) chloride (1:2); (Cupric chloride) | 7447-39-4 | 0.106 | 0.317 | 0.529 | 3 | mg/m3 | |
| 769 | Copper(II) chloride dihydrate; (Cupric chloride) | 10125-13-0 | 0.134 | 0.402 | 0.671 | 268 | mg/m3 | See CASRN 7447-39-4, SAX No. CNK500, Copper(II) chloride (1:2). |
| 770 | Copper(II) oxalate | 814-91-5 | 2.42 | 7.25 | 12.5 | 242 | mg/m3 | |
| 771 | Copper(II) perchlorate, dihydrate | 17031-32-2 | 4.7 | 14.1 | 23.5 | 23.5 | mg/m3 | No pchem data found. |
| 772 | Copper(II) sulfate pentahydrate | 7758-99-8 | 0.393 | 1.18 | 150 | 200 | mg/m3 | |
| 773 | Copper(II) sulfide | 1317-40-4 | 1.5 | 4.51 | 7.52 | 150 | mg/m3 | |
| 774 | Corn oil | 8001-30-7 | 200 | 500 | 500 | 500 | mg/m3 | Rat LD50 > 100 mL/kg, TDlo data are inconsistant. |
| 775 | Coumaphos | 56-72-4 | 0.05 | 0.15 | 30 | 125 | mg/m3 | New TLV-TWA, T-0, T-1 changed. |
| 776 | Coumarin | 91-64-5 | 0.025 | 0.075 | 0.6 | 125 | mg/m3 | |
| 777 | Coumatetralyl; (Endrocide) | 5836-29-3 | 3 | 10 | 16.5 | 16.5 | mg/m3 | |
| 778 | Creosote (coal tar) | 8001-58-9 | 0.2 | 0.6 | 80 | 80 | mg/m3 | |
| 779 | Cresols | 1319-77-3 | 5 | 15 | 24.9 | 250 | ppm | |
| 780 | Cresyl violet acetate | 10510-54-0 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 781 | Crimidine; (Castrix) | 535-89-7 | 0.25 | 0.75 | 1.2 | 1.2 | mg/m3 | |
| 782 | Cristobalite | 14464-46-1 | 0.025 | 0.075 | 25 | 25 | mg/m3 | TLV-TWA changed, mppcc to mg/m3 conversion changed. T-0, T-1, T-2 changed. |
| 783 | Crocidolite | 12001-28-4 | 0.005 | 0.015 | 5 | 250 | mg/m3 | |
| 784 | **Crotonaldehyde, cis-** | **4170-30-3** | 0.19 | **0.19** | **4.4** | **14** | ppm | **New final AEGL-1, -2, -3.** |
| 785 | **Crotonaldehyde, trans-** | **123-73-9** | 0.06 | **0.19** | **4.4** | **14** | ppm | **New final AEGL-1, -2, -3.** |
| 786 | Crotonic Acid | 3724-65-0 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 787 | Crystal violet; (Aniline violet) | 548-62-9 | 0.075 | 0.25 | 1.5 | 150 | mg/m3 | |
| 788 | Cs7SB; (1-(2,2,3,3-tetrafluoropropoxy),3-(4-sec-butylphenoxy)-2-propanol) | 308362-88-1 | 11.1 | 30 | 200 | 500 | mg/m3 | Not found in databases. MF, MW from MSDS. |
| 789 | Cumene hydroperoxide; (Isopropylbenzene hydroperoxide) | 80-15-9 | 1 | 5 | 20 | 20 | ppm | Human TClo = 0.02 mg/m3 ignored. |
| 790 | **Cumene; (Isopropyl benzene)** | **98-82-8** | 50 | **50** | **300** | **730** | ppm | **Interim AEGL-1, -2, -3.** |
| 791 | Cumenol methylcarbamate, m-; (3-(1-methylethyl)phenol methylcarbamate) | 64-00-6 | 3 | 10 | 16 | 16 | mg/m3 | |
| 792 | Cupferron; (Ammonium-n-nitrosophenylhydroxylamine) | 135-20-6 | 7.5 | 25 | 75 | 75 | mg/m3 | |
| 793 | Cupric acetate, anhydrous; (Copper acetate) | 142-71-2 | 0.143 | 0.429 | 3.5 | 200 | mg/m3 | |
| 794 | Cupric nitrate hemipentahydrate | 19004-19-4 | 3.8 | 11.4 | 19 | 380 | mg/m3 | |
| 795 | Cupric nitrite | 14984-71-5 | 0.122 | 0.184 | 0.6 | 60 | mg/m3 | CASRN in TSCA, MF = Cu.2 H-N-O2. SAR |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 796 | Cupric oxide | 1317-38-0 | 0.125 | 0.376 | 0.626 | 125 | mg/m3 | |
| 797 | Cyanamide | 420-04-2 | 2 | 6 | 30 | 35 | mg/m3 | |
| 798 | Cyanic acid; (Hydrogen cyanate) | 420-05-3 | 0.04 | 0.1 | 0.75 | 4 | ppm | No toxicity data found, pchem data ex HC&P. Lewis' Toxicology states "strong irritant, lacrimator & vesicant". HHR assigned. |
| 799 | Cyanide | 57-12-5 | 5 | 5 | 5 | 25 | mg/m3 | |
| 800 | Cyanoacetamide | 107-91-5 | 6 | 20 | 150 | 500 | mg/m3 | |
| 801 | Cyanogen | 460-19-5 | 10 | 10 | 10 | 15 | ppm | |
| 802 | Cyanogen bromide | 506-68-3 | 20.4 | 44 | 44 | 44 | mg/m3 | |
| 803 | **Cyanogen chloride** | **506-77-4** | 0.02 | 0.06 | **0.4** | **4** | ppm | **ERPG-2, -3.** T-0, T-1 changed. |
| 804 | Cyanogen iodide | 506-78-5 | 35 | 100 | 180 | 180 | mg/m3 | |
| 805 | Cyanoguanidene | 461-58-5 | 0.5 | 1.5 | 10 | 200 | mg/m3 | |
| 806 | Cyanophos | 2636-26-2 | 1.25 | 3.5 | 25 | 25 | mg/m3 | CN limits not used |
| 807 | Cyanuric acid; (1,3,5-Triazine-2,4,6-triol) | 108-80-5 | 10 | 10 | 25 | 500 | mg/m3 | |
| 808 | Cyanuric fluoride; (2,4,6-Trifluoro-s-triazine) | 675-14-9 | 0.17 | 0.17 | 0.17 | 74.8 | mg/m3 | |
| 809 | Cyclohexane | 110-82-7 | 300 | 300 | 500 | ***1300*** | ppm | See LEL Formattinng Note. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 810 | Cyclohexane-1,2-dinitrilotetraacetic acid, trans-; (CyDTA) | 13291-61-7 | 10 | 30 | 50 | 250 | mg/m3 | No tox data except irritation and physical data from ChemFinder vendor catalog. |
| 811 | Cyclohexanediamine, 1,2- | 694-83-7 | 3 | 10 | 60 | 350 | mg/m3 | Added. |
| 812 | Cyclohexanedimethanol, cis and trans, 1,4- | 105-08-8 | 12.5 | 40 | 250 | 500 | mg/m3 | |
| 813 | Cyclohexanol | 108-93-0 | 50 | 50 | 50 | 400 | ppm | |
| 814 | Cyclohexanone; (Ketohexamethylene) | 108-94-1 | 50 | 50 | 50 | 700 | ppm | |
| 815 | Cyclohexene | 110-83-8 | 300 | 300 | 500 | ***2000*** | ppm | See LEL Formattinng Note. |
| 816 | Cycloheximide | 66-81-9 | 0.1 | 0.3 | 2 | 2 | mg/m3 | |
| 817 | **Cyclohexyl isocyanate** | **3173-53-3** | 0.004 | 0.0125 | 0.02 | **0.10** | ppm | Added. **New Interim AEGL-3** |
| 818 | Cyclohexyl methyl phosphonic acid | 1932-60-1 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. MSDS pchem data. |
| 819 | **Cyclohexylamine** | **108-91-8** | 1.8 | **1.8** | **8.6** | **30** | ppm | **Final AEGL-1, -2, -3** |
| 820 | Cyclohexylamino)-1-propanesulfonic acid, 3-(; (CAPS) | 1135-40-6 | 1.25 | 4 | 25 | 125 | mg/m3 | |
| 821 | Cyclohexylethanol, 2- | 4442-79-9 | 4 | 10 | 75 | 400 | mg/m3 | |
| 822 | Cyclooctadiene, 1,5- | 111-78-4 | 100 | 300 | ***2000*** | ***10000*** | ppm | See LEL Formattinng Note. |
| 823 | Cyclooctane | 292-64-8 | 5 | 15 | 100 | 500 | ppm | In HC&P, ChemFinder, no toxicity data. "Y" corrected, all Ts changed. |
| 824 | Cyclooctatetraene, 1,3,5,7- | 629-20-9 | 65000 | 65000 | 230000 | 400000 | ppm | TSCA listed. Simple asphyxiant. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 825 | Cyclooctene, cis- | 931-87-3 | 3.5 | 10 | 60 | 350 | mg/m3 | TSCA listed, no toxicity data, assumed HHR =3. |
| 826 | Cyclopentane | 287-92-3 | 600 | ***1800*** | ***3840*** | ***15000*** | ppm | See LEL Formattinng Note. |
| 827 | Cyclopentanone | 120-92-3 | 25 | 25 | 125 | 600 | ppm | |
| 828 | Cyclopropane | 75-19-4 | 200 | 600 | ***4000*** | ***60000*** | ppm | See LEL Formattinng Note. |
| 829 | Cyclotetramethylene tetranitramine; (HMX) | 2691-41-0 | 0.04 | 0.125 | 0.75 | 500 | mg/m3 | |
| 830 | Cyclotol; (RDX-TNT mixture) | 8065-53-0 | 0.2 | 3 | 250 | 250 | mg/m3 | 2,4,6-Trinitrotoluene mixed with Hexahydro-1,3,5-trinitro-1,3,5-triazine. See PBX (RTECS tox data). |
| 831 | Cyclotrimethylenetrinitramine; (RDX or Cyclonite) | 121-82-4 | 0.5 | 3 | 40 | 40 | mg/m3 | CASRN also used for RDX and HMX mixtures. T-2 changed. |
| 832 | Cytidine monophosphate; (Cytidine 5-monophosphate free acid) | 63-37-6 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 833 | Dawsonite; (Crystalline dehydroxy sodium aluminum, carbonate) | 12011-76-6 | 3.5 | 10 | 150 | 500 | mg/m3 | **SAR** |
| 834 | DDD; (1,1-bis(4-Chlorophenyl)-2,2-dichloroethane) | 72-54-8 | 12.5 | 35 | 250 | 500 | mg/m3 | |
| 835 | DDE; (2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene) | 72-55-9 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 836 | DDT; (Dichlorodiphenyltrichloroethane) | 50-29-3 | 1 | 1 | 2 | 500 | mg/m3 | |
| 837 | DEAE Sepharose CL-6B | 57407-08-6 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. CASRN changed from 62610-50-8 per LLNL. |
| 838 | Decaborane | 17702-41-9 | 0.3 | 0.75 | 10 | 15 | mg/m3 | |
| 839 | Decafluoropentane, 1,1,1,2,3,4,4,5,5,5- | 138495-42-8 | 200 | 200 | 400 | 1250 | ppm | MSDS HHR, exposure limits, toxicity data. T-3 changed. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 840 | Decahydronaphthalene | 91-17-8 | 0.5 | 1.5 | 10 | 75 | ppm | |
| 841 | Decahydronaphthalene, cis-; (cis-Decalin) | 493-01-6 | 0.5 | 1.5 | 10 | 75 | ppm | SAX has CASRN = 91-17-8 for generic Decalin. HC&P has 493-01-6 for "cis", 493-02-7 for "trans" |
| 842 | Decahydronaphthalene, trans-; (trans-Decalin) | 493-02-7 | 0.5 | 1.5 | 10 | 75 | ppm | SAX has CASRN = 91-17-8 for generic Decalin. HC&P has 493-01-6 for "cis", 493-02-7 for "trans" |
| 843 | Decamethylcyclopentasiloxane | 541-02-6 | 15 | 50 | 350 | 500 | mg/m3 | Synonym = Silicone (several formulations). |
| 844 | Decanal | 112-31-2 | 2.5 | 7.5 | 50 | 250 | ppm | |
| 845 | Decane | 124-18-5 | 0.06 | 0.2 | 1.25 | ***5000*** | ppm | See LEL Formattinng Note. |
| 846 | Decene, 1-, homopolymer, hydrogenated | 68037-01-4 | 10 | 30 | 50 | 250 | mg/m3 | |
| 847 | Decyl alcohol; (1-Decanol) | 112-30-1 | 4 | 12.5 | 75 | 500 | mg/m3 | |
| 848 | Demeton | 8065-48-3 | 0.1 | 0.15 | 2 | 10 | mg/m3 | SAX name = "Demeton-o+demeton-s"; MW is 258.34 in some references. |
| 849 | Demeton-s-methyl | 919-86-8 | 0.05 | 0.15 | 5 | 200 | mg/m3 | |
| 850 | Deoxyribonucleac acid; (DNA) | 9007-49-2 | 12.5 | 35 | 250 | 500 | mg/m3 | No pchem data found. |
| 851 | Deuterium | 7782-39-0 | ***65000*** | ***65000*** | ***230000*** | ***400000*** | ppm | See LEL Formattinng Note. |
| 852 | Deuterium oxide; (Heavy water) | 7789-20-0 | 2000 | ***6000*** | ***40000*** | ***200000*** | ppm | See LEL Formattinng Note. |
| 853 | Deuterochloric acid; (Deuterium chloride) | 7698-05-7 | 2 | 2 | 5 | 50 | ppm | |
| 854 | Dextran | 9004-54-0 | 0.35 | 1 | 6 | 500 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 855 | Dextran sulfate sodium | 9011-18-1 | 15 | 40 | 300 | 500 | mg/m3 | |
| 856 | Di(ethylene glycol) diacrylate | 4074-88-8 | 1 | 3 | 20 | 100 | mg/m3 | |
| 857 | Di-2-ethylhexyl adipate | 103-23-1 | 50 | 150 | 500 | 500 | mg/m3 | |
| 858 | Diacetoxydibutyl stannane | 1067-33-0 | 0.296 | 0.592 | 7.5 | 73.9 | mg/m3 | |
| 859 | Diacetyl peroxide; (Acetyl peroxide) | 110-22-5 | 7.5 | 20 | 150 | 500 | mg/m3 | |
| 860 | Dialifor | 10311-84-9 | 1 | 3 | 5 | 5 | mg/m3 | |
| 861 | Diallyl phthalate | 131-17-9 | 1 | 1 | 300 | 300 | mg/m3 | |
| 862 | Diallyldimethylammonium chloride | 7398-69-8 | 25 | 75 | 500 | 500 | mg/m3 | |
| 863 | Diallyldimethylammonium chloride polymer | 26062-79-3 | 12.5 | 35 | 250 | 500 | mg/m3 | |
| 864 | Diaminodiphenyl ether, 4,4'-; (4,4'-Oxydianiline) | 101-80-4 | 0.5 | 1.5 | 10 | 300 | mg/m3 | |
| 865 | Diaminodiphenylsulfone; (4,4'-Sulfonyldianiline) | 80-08-0 | 1 | 3 | 20 | 400 | mg/m3 | |
| 866 | Diaminodipropylamine, 3,3-; (Aminobis(propylamine)) | 56-18-8 | 0.6 | 1.5 | 12.5 | 60 | ppm | |
| 867 | Diaminopyridine, 2,6- | 141-86-6 | 0.4 | 1.25 | 7.5 | 40 | mg/m3 | |
| 868 | Diammonium molybdate | 27546-07-2 | 8.81 | 8.81 | 8.81 | 500 | mg/m3 | TSCA listed, no pchem data. Assumed soluble compound. |
| 869 | Diamond | 7782-40-3 | 7.5 | 20 | 150 | 500 | mg/m3 | |
| 870 | Dianisidine dihydrochloride, o-; (3,3'-Dimethoxybenzidine dihydrochloride) | 20325-40-0 | 0.1 | 0.35 | 2.5 | 7.5 | mg/m3 | |

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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 871 | Diatomaceous earth (flux calcinated; Filter agent, celite) | 68855-54-9 | 0.3 | 0.9 | 1.5 | 500 | mg/m3 | HSDB, TSCA listed. |
| 872 | Diatomaceous earth; (Silica-amorphous diatomaceous earth (uncalcined)) | 61790-53-2 | 6 | 18 | 30 | 500 | mg/m3 | PEL-TWA = 80 mg/m3 / % SIO2. |
| 873 | Diatomaceous silica, calcined | 91053-39-3 | 0.3 | 0.9 | 1.5 | 500 | mg/m3 | TSCA listed. MAK for Silica-amorphous diatomaceous earth (calcined). |
| 874 | Diazabicyclo(2,2,2)octane, 1,4- | 280-57-9 | 1 | 3 | 20 | 500 | mg/m3 | |
| 875 | Diazabicyclo(5.4.0)undec-7-ene, 1,8- | 6674-22-2 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA listed, no toxicity data found. MSDS HHR = 3. |
| 876 | Diazoacetic acid; (Ethyl diazoacetate) | 623-73-4 | 0.2 | 0.6 | 4 | 150 | mg/m3 | |
| 877 | Diazomethane | 334-88-3 | 0.2 | 0.6 | 2 | 2 | ppm | |
| 878 | Dibenza(a,h)anthracene | 53-70-3 | 0.00075 | 0.0025 | 0.015 | 15 | mg/m3 | |
| 879 | Dibenzo(a,e)pyrene; (Naphtho(1,2,3,4-def)chrysene) | 192-65-4 | 0.005 | 0.015 | 0.1 | 0.5 | mg/m3 | |
| 880 | Dibenzofuran | 132-64-9 | 10 | 30 | 50 | 250 | mg/m3 | |
| 881 | Dibenzo-p-dioxin | 262-12-4 | 1.5 | 4 | 30 | 500 | mg/m3 | |
| 882 | **Diborane** | **19287-45-7** | 0.1 | 0.15 | **1.0** | **3.7** | ppm | **Final AEGL-2, -3.** |
| 883 | Dibromo-3-chloropropane, 1,2-; (DBCP) | 96-12-8 | 0.001 | 0.075 | 0.5 | 15 | ppm | |
| 884 | Dibromo-4-nitrophenol, 2,6- | 99-28-5 | 0.04 | 0.1 | 0.75 | 4 | ppm | |
| 885 | Dibromochloromethane; (Chlorodibromomethane) | 124-48-1 | 2 | 6 | 40 | 150 | mg/m3 | |
| 886 | Dibromohexane, 1,6- | 629-03-8 | 1 | 3.5 | 20 | 100 | mg/m3 | |

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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 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 887 | Dibromomethane; (Methylene dibromide) | 74-95-3 | 10 | 30 | 200 | 1250 | ppm | Duplicate deleted. Original units changed to ppm. All Ts changed. |
| 888 | Dibromophenol, 2,6- | 608-33-3 | 0.5 | 0.5 | 2.5 | 2.5 | mg/m3 | **SAR** |
| 889 | Dibromopropane, 1,3- | 109-64-8 | 2 | 6 | 40 | 200 | mg/m3 | |
| 890 | Dibromotetrafluoroethane; (Halon 2402) | 124-73-2 | 150 | 500 | 3500 | 15000 | ppm | |
| 891 | Dibutyl (2-ethylhexyl)phosphate | z-0011 | 0.2 | 0.6 | 0.7 | 0.7 | ppm | **SAR** |
| 892 | Dibutyl butylphosphonate | 78-46-6 | 0.04 | 0.125 | 1 | 5 | ppm | |
| 893 | Dibutyl peroxide, tert- | 110-05-4 | 1.25 | 4 | 25 | 400 | ppm | |
| 894 | Dibutyl phosphate | 107-66-4 | 1 | 2 | 5 | 30 | ppm | |
| 895 | Dibutyl phosphite | 1809-19-4 | 12.5 | 40 | 250 | 500 | mg/m3 | |
| 896 | Dibutyl phthalate | 84-74-2 | 5 | 15 | 500 | 500 | mg/m3 | |
| 897 | Dibutylboron triflate; (Dibutylboryl trifluoromethanesulfonate) | 60669-69-4 | 12 | 36.1 | 60.1 | 500 | mg/m3 | Not found in databases, no useful information in MSDS. |
| 898 | Dibutylhexamethylenediamine, N,N'- | 4835-11-4 | 1 | 3 | 22 | 75 | mg/m3 | |
| 899 | Dichloran; (2,6-Dichloro-4-nitroaniline; Resisan) | 99-30-9 | 0.004 | 0.0125 | 0.075 | 500 | mg/m3 | |
| 900 | Dichloro(4,4-dimethylzinc - 5((((methylamino)carbonyl) oxy)-imino)pentanenitrile), (trans-4)-; (Ethienocarb) | 58270-08-9 | 1.5 | 5 | 9 | 9 | mg/m3 | |
| 901 | **Dichloro-1,1,1-trifluoroethane, 2,2-; (HCFC-123)** | **306-83-2** | 50 | 150 | **1000** | **10000** | ppm | ERPG-2, -3 |

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## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 902 | **Dichloro-1-fluoroethane, 1,1-; (HCFC-141b; Freon 141)** | **1717-00-6** | 500 | **1000** | **1700** | **3000** | ppm | **Final AEGL-1, -2, -3.** |
| 903 | Dichloro-2-butene 1,4- | 764-41-0 | 0.005 | 0.015 | 20 | 125 | ppm | |
| 904 | Dichloro-2-propanol, 1,3- | 96-23-1 | 6 | 15 | 50 | 50 | ppm | |
| 905 | Dichloro-2-trifluoromethylbenzimidazole, 4,5-; (Chloroflurazole) | 3615-21-2 | 2.5 | 7.5 | 13 | 13 | mg/m3 | |
| 906 | Dichloroacetic acid | 79-43-6 | 0.5 | 10 | 75 | 200 | ppm | |
| 907 | **Dichloroacetyl chloride** | **79-36-7** | 0.0125 | **0.040** | **1.60** | **52** | ppm | **Interim AEGL-1, -2, -3.** |
| 908 | Dichloroacetylene | 7572-29-4 | 0.5 | 1.5 | 4 | 4 | ppm | T-0, T-1 changed. |
| 909 | Dichloroamine; (Chlorimide) | 3400-09-7 | 0.25 | 0.75 | 6 | 30 | ppm | |
| 910 | Dichlorobenzene, m- | 541-73-1 | 0.75 | 2 | 15 | 75 | ppm | |
| 911 | Dichlorobenzene, o- | 95-50-1 | 25 | 50 | 50 | 200 | ppm | |
| 912 | Dichlorobenzene, p- | 106-46-7 | 10 | 10 | 30 | 150 | ppm | T-0, T-1, T-2 changed. |
| 913 | Dichlorobenzidene 3,3'- | 91-94-1 | 0.2 | 0.6 | 4 | 200 | ppm | |
| 914 | Dichlorocyclohexane, 1,1- | 2108-92-1 | 0.25 | 0.75 | 6 | 30 | ppm | **SAR** |
| 915 | Dichlorocyclohexane, trans-1,2- | 822-86-6 | 75 | 250 | 500 | 500 | mg/m3 | In H&N, used chlorocyclohexane, CASRN 542-18-7 |
| 916 | Dichlorodifluoromethane; (Freon 12, CFC 12) | 75-71-8 | 1000 | 3000 | 10000 | 15000 | ppm | |
| 917 | Dichloroethanol acetate, 1,2- | 10140-87-1 | 0.35 | 1 | 1.71 | 6 | ppm | |

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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 918 | Dichloroethyl ether; (1,1'-Oxybis(2-chloro)ethane) | 111-44-4 | 5 | 10 | 25.7 | 100 | ppm | |
| 919 | Dichloroethylaluminum | 563-43-9 | 9.41 | 9.41 | 9.41 | 9.41 | mg/m3 | Alkylaluminums |
| 920 | Dichloroethylbenzene; (Ethyldichlorobenzene) | 1331-29-9 | 20 | 60 | 500 | 500 | mg/m3 | |
| 921 | Dichloroethylene, 1,2- | 540-59-0 | 200 | 600 | 1000 | 1000 | ppm | |
| 922 | **Dichloroethylene, cis-1,2-** | **156-59-2** | 140 | **140** | **500** | **850** | ppm | **Interim AEGL-1, -2, -3.** |
| 923 | **Dichloroethylene, cis-and trans-1,2-** | **156-60-5** | 200 | **280** | **1000** | **1700** | ppm | **Interim AEGL-1, -2, -3. AEGL name used.** |
| 924 | Dichlorofluoromethane; (Freon 21, CFC 21) | 75-43-4 | 10 | 30 | 100 | 5000 | ppm | PEL-TWA not used. |
| 925 | Dichlorohexane, 1,2- | 2162-92-7 | 0.25 | 0.75 | 6 | 30 | ppm | **SAR** |
| 926 | Dichloroisopropyl ether | 108-60-1 | 3.5 | 10 | 75 | 350 | ppm | |
| 927 | Dichloromethane-d2 | 1665-00-5 | 25 | 200 | 750 | ***4000*** | ppm | Not found in data bases. Used TEELs from methylene chloride, CASRN 75-09-2, MSDS data. See LEL Formattinng Note. |
| 928 | Dichloromethoxy ethane; (bis(2-Chloroethoxy)methane) | 111-91-1 | 0.6 | 2 | 6 | 6 | ppm | |
| 929 | **Dichloromethyl ether; (bis(Chloromethyl)ether)** | **542-88-1** | 0.001 | 0.006 | **0.044** | **0.18** | ppm | **New interim AEGL-2, -3. ERPG-2, -3.** T-1, T-2, T-3 changed. |
| 930 | Dichloromethylphenylsilane | 149-74-6 | 1 | 3 | 20 | 20 | mg/m3 | |
| 931 | Dichloromethylphosphine; (Methylphosphonous dichloride) | 676-83-5 | 0.1 | 0.3 | 2 | 10 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 932 | Dichlorophene | 97-23-4 | 6 | 15 | 125 | 500 | mg/m3 | |
| 933 | **Dichlorophenol, 2,4-** | **120-83-2** | 0.2 | **0.2** | **2** | **20** | ppm | **ERPG-1, -2, -3** |
| 934 | Dichlorophenol, 2,6- | 87-65-0 | 1.5 | 5 | 35 | 150 | mg/m3 | |
| 935 | Dichlorophenoxyacetic acid, 2,4-; (2,4-D) | 94-75-7 | 10 | 10 | 40 | 100 | mg/m3 | |
| 936 | Dichloropropane | 26638-19-7 | 10 | 300 | 400 | 400 | ppm | Used Propylene dichloride (78-87-5). |
| 937 | Dichloropropane, 1,1- | 78-99-9 | 4 | 12.5 | 75 | 400 | ppm | Toxicity data used. |
| 938 | Dichloropropane, 1,2-; (Propylene dichloride) | 78-87-5 | 10 | 300 | 400 | 400 | ppm | Revised TLV-TWA, PEL-TWA ignored. |
| 939 | Dichloropropane, 1,3- | 142-28-9 | 5 | 15 | 100 | 350 | ppm | Toxicity data used. |
| 940 | Dichloropropane, 2,2- | 594-20-7 | 4 | 12.5 | 75 | 400 | ppm | Toxicity data used. |
| 941 | Dichloropropene, 1,1- | 563-58-6 | 1 | 3 | 5 | 200 | ppm | |
| 942 | Dichloropropene, 1,2- | 563-54-2 | 1.5 | 5 | 40 | 200 | ppm | |
| 943 | Dichloropropene, 1,3- | 542-75-6 | 1 | 12.5 | 50 | 50 | ppm | |
| 944 | Dichloropropene, 2,3- | 78-88-6 | 0.5 | 1.5 | 10 | 50 | ppm | |
| 945 | Dichloropropene, cis-1,2-; (1,2-dichloro-1-propene, (Z)-) | 6923-20-2 | 1.5 | 5 | 40 | 200 | ppm | |
| 946 | Dichloropropene, cis-1,3- | 10061-01-5 | 1 | 12.5 | 50 | 50 | ppm | Mixture of cis- and trans- has CASRN 542-75-6. |
| 947 | Dichloropropene, trans-1,3- | 10061-02-6 | 1 | 1.5 | 10 | 50 | ppm | Not found, no toxicity data. Used cis-1,3 isomer (DGH200). |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 948 | **Dichlorosilane** | **4109-96-0** | 0.3 | **0.90** | **11** | **50** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 949 | Dichlorotetrafluoroethane | 1320-37-2 | 1000 | 3000 | 15000 | 15000 | ppm | See CASRN = 76-14-2; RTECS toxicity data differ. T-2 changed. |
| 950 | Dichlorotetrafluoroethane, 1,2-; (Freon 114, CFC 114) | 76-14-2 | 1000 | 3000 | 15000 | 15000 | ppm | See CASRN 1320-37-2; RTECS toxicity data differ. T-2 changed. |
| 951 | Dichlorovos; (Dichlorvos) | 62-73-7 | 1 | 1 | 2.21 | 100 | ppm | |
| 952 | Dicrotophos | 141-66-2 | 0.05 | 0.15 | 0.9 | 40 | mg/m3 | |
| 953 | Dicyclohexano-18-crown-6 | 16069-36-6 | 0.2 | 0.6 | 4 | 75 | mg/m3 | |
| 954 | Dicyclohexyl; (Cyclohexylcyclohexane) | 92-51-3 | 7.5 | 25 | 150 | 500 | mg/m3 | No toxicity data found. Assumed HHR = 2. |
| 955 | Dicyclohexylcarbodiimide | 538-75-0 | 0.0035 | 0.01 | 0.06 | 100 | mg/m3 | |
| 956 | **Dicyclopentadiene** | **77-73-6** | 0.01 | **0.01** | **5** | **75** | ppm | **ERPG-1, -2, -3.** |
| 957 | Didecyldimethylammonium chloride | 7173-51-5 | 1.5 | 5 | 35 | 35 | mg/m3 | Added, no pchem data found. |
| 958 | Dieldrin | 60-57-1 | 0.25 | 0.75 | 2.5 | 50 | mg/m3 | |
| 959 | Diesel fuel marine; (Diesel fuel No. 4) | z-0012 | 100 | 350 | 500 | 500 | mg/m3 | |
| 960 | Diesel fuel marine; (Fuel oil No.2) | 68476-30-2 | 100 | 100 | 100 | 500 | mg/m3 | |
| 961 | Diesel fuels | 68334-30-5 | 100 | 100 | 500 | 500 | mg/m3 | |
| 962 | Diethanolamine | 111-42-2 | 2 | 150 | 300 | 300 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 963 | Diethenylbenzene, polymer with ethenylbenzene and ethenylethylbenzene, sulfonated; (Dowex 50-X8 resin) | 69011-20-7 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity or pchem data found. |
| 964 | Diethoxydimethylsilane | 78-62-6 | 5 | 15 | 100 | 500 | ppm | T-0, T-1 changed. |
| 965 | Diethyl (methylthiomethyl) phosphonate | 28460-01-7 | 0.05 | 0.15 | 1 | 5 | ppm | Not found; LD50 based on Methyl demeton methyl, CASRN=2587-90-8, MF=C5.H13.O3.P.S2. MSDS states irritant |
| 966 | **Diethyl benzene isomers; (Dowtherm J)** | **25340-17-4** | 5 | **10** | **100** | **500** | ppm | **New ERPG-1, -2, -3.** |
| 967 | Diethyl carbonate | 105-58-8 | 3 | 7.5 | 60 | 300 | ppm | |
| 968 | Diethyl chlorophosphate | 814-49-3 | 0.4 | 1 | 8 | 8 | mg/m3 | |
| 969 | Diethyl ethylphosphonate | 78-38-6 | 2 | 6 | 40 | 500 | mg/m3 | New RTECS toxicity data added. |
| 970 | Diethyl malonate; (Ethyl malonate) | 105-53-3 | 10 | 30 | 200 | 1000 | ppm | |
| 971 | Diethyl mercury | 627-44-1 | 0.0129 | 0.0387 | 0.0516 | 2.58 | mg/m3 | As Hg, alkyl compounds. |
| 972 | Diethyl methylphosphonate; (DEMP) | 683-08-9 | 7.5 | 25 | 200 | 500 | mg/m3 | |
| 973 | Diethyl oxalate | 95-92-1 | 1.5 | 5 | 35 | 150 | mg/m3 | |
| 974 | Diethyl phosphite | 762-04-9 | 15 | 50 | 350 | 500 | mg/m3 | |
| 975 | Diethyl phthalate; (Ethyl phthalate) | 84-66-2 | 5 | 15 | 100 | 500 | mg/m3 | |
| 976 | Diethyl pyrocarbonate | 1609-47-8 | 10 | 30 | 200 | 500 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 977 | Diethyl sulfate | 64-67-5 | 0.075 | 0.2 | 1.5 | 25 | ppm | Toxicity data changed, |
| 978 | Diethyl tartrate | 87-91-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data found. No HHR found. |
| 979 | Diethyl telluride | 627-54-3 | 0.1 | 0.3 | 6 | 10 | mg/m3 | Added. |
| 980 | Diethylamine | 109-89-7 | 15 | 15 | 75 | 200 | ppm | T-2 changed. |
| 981 | Diethylaminoacetone | 1620-14-0 | 0.5 | 1.5 | 10 | 50 | ppm | **SAR** |
| 982 | Diethylaminopropylamine | 104-78-9 | 2 | 6 | 50 | 250 | mg/m3 | |
| 983 | Diethylaniline, N,N- | 91-66-7 | 3 | 10 | 60 | 350 | mg/m3 | |
| 984 | Diethylbenzene, m- | 141-93-5 | 40 | 125 | 500 | 500 | mg/m3 | |
| 985 | Diethylbenzene, o- | 135-01-3 | 1.5 | 5 | 35 | 500 | mg/m3 | |
| 986 | **Diethyldichlorosilane** | **1719-53-5** | 0.3 | **0.9** | **11** | **50** | ppm | **New interim AEGL-1, -2, -3.** Added. |
| 987 | Diethylene glycol | 111-46-6 | 2.31 | 40 | 200 | 200 | ppm | |
| 988 | Diethylene glycol di(3-aminopropyl) ether; (Polyglycol diamine) | 4246-51-9 | 15 | 50 | 350 | 500 | mg/m3 | |
| 989 | Diethylene glycol diacetate; (2,2'-oxybisethanol diacetate) | 628-68-2 | 100 | 300 | 500 | 500 | mg/m3 | |
| 990 | Diethylene glycol dimethyl ether; (Bis(2-methoxy ethyl)ether) | 111-96-6 | 5 | 15 | 25 | 400 | ppm | |
| 991 | Diethylene glycol hexyl ether; (n-Hexyl carbitol) | 112-59-4 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 992 | Diethylenetriamine | 111-40-0 | 1 | 1 | 1.25 | 100 | ppm | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 993 | Diethylenetriaminepentaacetic acid | 67-43-6 | 2 | 6 | 50 | 250 | mg/m3 | T-2, T-3 changed. |
| 994 | Diethylethanolamine, N,N-; (Diethylaminoethanol) | 100-37-8 | 10 | 10 | 20 | 100 | ppm | 2007 GOEV, RTECS. T-3 changed. |
| 995 | Diethylphosphatoethyltriethoxy silane | 757-44-8 | 75 | 200 | 500 | 500 | mg/m3 | |
| 996 | Diethylstilbestrol; ((E)-4,4'-(1,2-diethyl-1,2-ethenediyl)bisphenol) | 56-53-1 | 0.025 | 0.075 | 0.6 | 15 | mg/m3 | |
| 997 | Diethylthiourea, N,N'- | 105-55-5 | 0.6 | 1.5 | 12.5 | 125 | mg/m3 | |
| 998 | Diethylurea, 1,3- | 623-76-7 | 5 | 15 | 100 | 600 | ppm | |
| 999 | Diethylzinc | 557-20-0 | 1.89 | 3.78 | 3.78 | 10 | ppm | Limits and LC50 based on SAX Safety Profile. |
| 1000 | **Difluoroethane; (1,1-Difluoroethane; HFC 152a)** | **75-37-6** | 1000 | ***10000*** | ***15000*** | ***25000*** | ppm | **ERPG-1, -2, -3.** See LEL Formattinng Note. |
| 1001 | Digitoxin | 71-63-6 | 0.0075 | 0.025 | 0.18 | 0.25 | mg/m3 | |
| 1002 | Diglycidyl Ether | 2238-07-5 | 0.01 | 10 | 10 | 10 | ppm | T-0, T-1 changed. |
| 1003 | Diglycol monoethyl ether acetate; (Carbitol acetate) | 112-15-2 | 40 | 125 | 500 | 500 | mg/m3 | |
| 1004 | Digoxin | 20830-75-5 | 0.04 | 0.125 | 0.2 | 0.35 | mg/m3 | |
| 1005 | Dihexyl((diethylcarbamoyl)methyl)phosphonate; (Dihexyl-N,N-diethylcarbamoylmethyl phosphonate) | 7369-66-6 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 1006 | Dihydro-2(3H)-furanone; (4-Butanolide) | 96-48-0 | 2 | 6 | 40 | 500 | mg/m3 | |
| 1007 | Dihydro-2H-pyran, 3,4- | 110-87-2 | 0.4 | 1.25 | 7.5 | 40 | ppm | VD =2.90, no toxicity data found. Toxicity based on HHR. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1008 | Dihydro-3-(Nonenyl)-2,5-furandione | 28928-97-4 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, H&N listed, MFs differ, no toxicity data found, assumed nonvolatile. |
| 1009 | Dihydro-4-methyl furan, 2,3- | 34314-83-5 | 1.5 | 5 | 35 | 150 | mg/m3 | No toxicity data found, based on methylfuran |
| 1010 | Dihydrogen hexachloroplatinate; (Chloroplatinic acid) | 16941-12-1 | 0.0042 | 0.0126 | 1.5 | 8.4 | mg/m3 | Platinum soluble salts limits used. |
| 1011 | Dihydroxy-1,3-indandione, 2,2-; (Ninhydrin monohydrate) | 485-47-2 | 0.3 | 1 | 6 | 35 | mg/m3 | |
| 1012 | Dihydroxy-2-butene, 1,4-; (2-Butene-1,4-diol) | 110-64-5 | 1.5 | 4 | 30 | 150 | ppm | |
| 1013 | Dihydroxyanthraquinone, 1,8- | 117-10-2 | 25 | 75 | 200 | 200 | mg/m3 | |
| 1014 | Dihydroxybenzoic acid, 2,4- | 89-86-1 | 1 | 3 | 20 | 350 | mg/m3 | Mouse LD50 > 800 mg/kg |
| 1015 | Dihydroxynaphthalene-2,7-disulfonic acid, disodium salt dihydrate, 4,5- | 5808-22-0 | 10 | 30 | 50 | 250 | mg/m3 | Chemfinder MF, MW. No toxicity data, MSDS pchem data. |
| 1016 | Diiodomethane; (Methylene iodide) | 75-11-6 | 75 | 200 | 500 | 500 | mg/m3 | |
| 1017 | Diisoamylamine | 544-00-3 | 5 | 15 | 25 | 125 | ppm | TSCA listed. No toxicity or HHR found. |
| 1018 | Diisobutyl ketone | 108-83-8 | 50 | 50 | 50 | 500 | ppm | |
| 1019 | Diisobutylaluminum hydride; (Diisobutylhydroaluminum) | 1191-15-7 | 10.5 | 31.6 | 52.7 | 1000 | ppm | |
| 1020 | Diisobutylamine | 110-96-3 | 0.2 | 0.6 | 4 | 20 | ppm | |
| 1021 | Diisooctyl acid phosphate | 27215-10-7 | 7.5 | 25 | 150 | 500 | mg/m3 | Added. No toxicity data found. Used default rat oral LD50 based on SAX HR. |
| 1022 | Diisopropyl methylphosphonate | 1445-75-6 | 3.5 | 10 | 75 | 350 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1023 | Diisopropyl peroxydicarbonate | 105-64-6 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 1024 | Diisopropylamine | 108-18-9 | 5 | 6 | 40 | 200 | ppm | |
| 1025 | Diisopropylamino)ethyl chloride hydrochloride, 2-(- | 4261-68-1 | 0.0125 | 0.035 | 0.25 | 1.25 | mg/m3 | |
| 1026 | Diisopropylaminoethanol, 2-; (N,N-Diisopropyl ethanolamine) | 96-80-0 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 1027 | Diisopropylaniline, 2,6- | 24544-04-5 | 35 | 100 | 500 | 500 | mg/m3 | |
| 1028 | Diisopropylbenzene, 1,3- | 99-62-7 | 150 | 500 | 500 | 500 | mg/m3 | |
| 1029 | Diisopropylethylamine, N,N- | 7087-68-5 | 2 | 6 | 40 | 200 | ppm | TSCA, HC&P, H&N listed, no toxicity data. HHR ex MSDS. |
| 1030 | Diisopropylfluorophosphate; (Phosphorofluoridic acid, bis(1-methylethyl) ester) | 55-91-4 | 0.75 | 2 | 3.6 | 3.6 | mg/m3 | |
| 1031 | Diisopropylnaphthalene; (Bis(isopropyl)naphthalene) | 38640-62-9 | 12.5 | 40 | 300 | 500 | mg/m3 | |
| 1032 | **Diketene; (Ketene dimer)** | **674-82-8** | 0.35 | **1** | **6** | **18** | ppm | **New interim AEGL-2, -3. ERPG-1, -2, -3.** T-0, T-1 changed. |
| 1033 | Dilauroyl peroxide | 105-74-8 | 0.003 | 0.01 | 0.06 | 0.35 | mg/m3 | |
| 1034 | Dimefox; (bis(Dimethylamido)fluorophosphate)) | 115-26-4 | 0.2 | 0.6 | 1 | 1 | mg/m3 | |
| 1035 | Dimethoate | 60-51-5 | 6 | 15 | 30 | 30 | mg/m3 | |
| 1036 | Dimethoxybenzene, 1,3- | 151-10-0 | 3.5 | 10 | 75 | 400 | mg/m3 | |
| 1037 | Dimethoxybenzene, o- | 91-16-7 | 3.5 | 10 | 75 | 400 | mg/m3 | |

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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1038 | Dimethoxybenzidene 3,3'-; (o-Dianisidine) | 119-90-4 | 1.25 | 4 | 25 | 500 | mg/m3 | |
| 1039 | Dimethoxybutane, 1,3- | 10143-66-5 | 7.5 | 25 | 150 | 750 | ppm | |
| 1040 | Dimethoxybutane, 2,2- | 3453-99-4 | 7.5 | 20 | 150 | 750 | ppm | Not found. Based on 1,3-dimethoxybutane. |
| 1041 | Dimethoxydiphenylsilane | 6843-66-9 | 0.15 | 0.5 | 3.5 | 15 | mg/m3 | Rat LC > 42 mg/m3 |
| 1042 | Dimethoxyethane, 1,2- | 110-71-4 | 3.5 | 10 | 75 | 1000 | ppm | |
| 1043 | Dimethoxypropane, 2,2- | 77-76-9 | 0.4 | 1.25 | 7.5 | 40 | ppm | No toxicity data found. |
| 1044 | Dimethyglyoxime; (Diacetyldioxime) | 95-45-4 | 2 | 6 | 40 | 200 | mg/m3 | |
| 1045 | Dimethyl butane, 2,2- | 75-83-2 | 500 | 510 | 510 | ***2500*** | ppm | See LEL Formattinng Note. |
| 1046 | Dimethyl carbamoyl chloride | 79-44-7 | 0.005 | 0.015 | 4 | 100 | ppm | New TLV-TWA. T-0, T-1 changed. |
| 1047 | Dimethyl carbonate | 616-38-6 | 15 | 40 | 300 | 1500 | ppm | |
| 1048 | Dimethyl cyclopentanol, 1,3- | 19550-46-0 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. MF, MW from ChemFinder. |
| 1049 | **Dimethyl disulfide** | **624-92-0** | 0.01 | **0.01** | **50** | **250** | ppm | **ERPG-1, -2, -3** New TLV-TWA, T-0 changed. |
| 1050 | Dimethyl hydrogen phosphite | 868-85-9 | 20 | 60 | 400 | 500 | mg/m3 | |
| 1051 | Dimethyl mercury | 593-74-8 | 0.0115 | 0.0345 | 0.046 | 2.3 | mg/m3 | Alkyl mercury compound, as Hg. |
| 1052 | Dimethyl methylphosphonate; (DMMP) | 756-79-6 | 100 | 350 | 500 | 500 | mg/m3 | |
| 1053 | Dimethyl phosphorochloridothioate | 2524-03-0 | 1.5 | 4 | 32 | 150 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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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 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1054 | Dimethyl siloxane; (Dimethylpolysiloxane; Syltherm XLT; Syltherm 800; Silicone 360) | 63148-62-9 | 15 | 50 | 350 | 500 | mg/m3 | Several RTECS entries for this CASRN |
| 1055 | **Dimethyl sulfate** | **77-78-1** | 0.024 | **0.024** | **0.12** | **1.6** | ppm | **Interim AEGL-1, -2, -3.** |
| 1056 | **Dimethyl sulfide; (2-Thiopropane)** | **75-18-3** | 10 | 150 | **1000** | ***5000*** | ppm | **ERPG-2, -3, odor-based ERPG-1 ignored.** See LEL Formattinng Note. |
| 1057 | Dimethyl sulfone | 67-71-0 | 20 | 60 | 400 | 500 | mg/m3 | Rat LD50 > 5 g/kg |
| 1058 | Dimethyl sulfoxide; (DMSO) | 67-68-5 | 250 | 250 | 250 | 2000 | ppm | |
| 1059 | Dimethyl(1-phenylethyl)benzene | 40766-31-2 | 4 | 12.5 | 75 | 500 | mg/m3 | |
| 1060 | Dimethyl(polysiloxane); (Polydimethylsiloxane, silanol terminated; Dimethylsiloxane, poly, hydroxy end-blocked) | 70131-67-8 | 250 | 500 | 500 | 500 | mg/m3 | Assumed density, rat oral LD50 > 64 mL/kg |
| 1061 | Dimethyl-1,3-dioxolane-4-methanol, 2,2- | 100-79-8 | 5 | 15 | 100 | 500 | ppm | |
| 1062 | Dimethyl-1,3-propanediamine, N,N-; (1-Amino-3-dimethylaminopropane) | 109-55-7 | 2.5 | 7.5 | 50 | 200 | ppm | |
| 1063 | Dimethyl-1-butanamine, N,N- | 927-62-8 | 200 | 500 | 500 | 500 | mg/m3 | MSDS toxicity data inconsistent with RTECS. |
| 1064 | Dimethyl-2-pentene, (E)-3,4- | 4914-92-5 | 0.4 | 1.25 | 7.5 | 40 | ppm | No toxicity data found, estimated HHR. |
| 1065 | Dimethyl-3-nitrobenzene, 1,2- | 83-41-0 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, HC&P listed, no toxicity data. MSDS pchem data differs. |
| 1066 | Dimethyl-3-pentanone, 2,4- | 565-80-0 | 5 | 15 | 100 | 1000 | ppm | |
| 1067 | Dimethyl-5-phenylphenazinium chloride, 3,7-diamino-2,8-; (Safranine; Gossypimine) | 477-73-6 | 0.25 | 0.75 | 5 | 25 | mg/m3 | No pchem data found. |
| 1068 | Dimethylacetamide, N,N- | 127-19-5 | 10 | 75 | 300 | 300 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1069 | Dimethylacrylamide, N,N- | 2680-03-7 | 0.6 | 1.5 | 12.5 | 200 | mg/m3 | No pchem data found |
| 1070 | **Dimethylamine** | **124-40-3** | 10 | **10** | **66** | **250** | ppm | **New interim AEGL-1, -2, -3. ERPG-1, -2, -3;** odor-based ERPG-1 ignored. T-1, T-2, T-3 changed. |
| 1071 | Dimethylamino)benzaldehyde, p-( | 100-10-7 | 7.5 | 25 | 150 | 250 | mg/m3 | |
| 1072 | Dimethylamino)phenyl)azo)benzenesulfonic acid, sodium salt, P-((P-(; (Methyl orange,sodium salt) | 547-58-0 | 0.25 | 0.75 | 5 | 25 | mg/m3 | SAX, RTECS, HC&P, H&N all have H14, but HSDB, TSCA have H15 in MF |
| 1073 | Dimethylaminoazobenzene, 4- | 60-11-7 | 15 | 50 | 75 | 75 | mg/m3 | |
| 1074 | Dimethylaminoethanol, 2- | 108-01-0 | 12.5 | 35 | 150 | 150 | ppm | |
| 1075 | Dimethylaminoethyl chloride hydrochloride, 2- | 4584-46-7 | 0.6 | 2 | 15 | 100 | mg/m3 | |
| 1076 | Dimethylammonium N,N-dimethylcarbamate | 4137-10-4 | 1.5 | 5 | 35 | 150 | mg/m3 | Not listed in databases, MSDS pchem data, no HHR found. |
| 1077 | Dimethylaniline, N,N- | 121-69-7 | 5 | 10 | 10 | 100 | ppm | |
| 1078 | Dimethylbenzidene 3,3'-; (o-Tolidine) | 119-93-7 | 0.1 | 0.3 | 2 | 100 | mg/m3 | |
| 1079 | Dimethylbutyric acid, 2,2- | 595-37-9 | 7.5 | 25 | 150 | 500 | mg/m3 | No toxicity data found. MSDS pchem and HHR data. |
| 1080 | **Dimethylchlorosilane; (Chlorodimethylsilane)** | **1066-35-9** | 0.6 | **1.8** | **22** | **100** | ppm | **New interim AEGL-1, -2, -3.** Added. |
| 1081 | Dimethylcyclohexane, cis-1,4- | 624-29-3 | 0.75 | 2 | 15 | 75 | ppm | In H&N, based on cyclohexane |
| 1082 | Dimethyldecane, 2,2- | 17302-37-3 | 50.3 | 50.3 | 259 | ***1250*** | ppm | See LEL Formattinng Note. |
| 1083 | **Dimethyldichlorosilane** | **75-78-5** | 0.3 | **0.90** | **13** | **53** | ppm | **Interim AEGL-1, -2, -3.** |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1084 | Dimethyldicyclopentadiene | 26472-00-4 | 7.5 | 25 | 200 | 500 | mg/m3 | |
| 1085 | Dimethyldimethoxysilane | 1112-39-6 | 20 | 60 | 400 | 500 | mg/m3 | |
| 1086 | Dimethylethyl hydroperoxide, 1,1-; (tert-Butylhydroperoxide) | 75-91-2 | 0.75 | 2.5 | 15 | 50 | ppm | |
| 1087 | **Dimethylformamide, N,N-** | **68-12-2** | 2 | **2** | **91** | **530** | ppm | **Interim AEGL-2, -3. ERPG-1, -2, -3.** AEGL-3 values changed. |
| 1088 | Dimethylheptane, 2,2- | 1071-26-7 | 66.8 | 66.8 | 343 | ***1500*** | ppm | In HC&P; NIOSH limits for Alkanes used. See LEL Formattinng Note. |
| 1089 | Dimethylhexane, 3,3- | 563-16-6 | 75 | 75 | 386 | ***2000*** | ppm | In HC&P; NIOSH limits for Alkanes used. See LEL Formattinng Note. |
| 1090 | **Dimethylhydrazine, 1,1-** | **57-14-7** | 0.5 | 0.5 | **3.0** | **11** | ppm | **Final AEGL-2, -3.** 120-min REL-C ignored. |
| 1091 | **Dimethylhydrazine, 1,2-** | **540-73-8** | 0.6 | 1.5 | **3.0** | **11** | ppm | **Final AEGL-2, -3.** |
| 1092 | Dimethylimidizole, 1,2- | 1739-84-0 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 1093 | Dimethylisopropylamin, n,n- | 996-35-0 | 1 | 3 | 5 | 25 | mg/m3 | |
| 1094 | Dimethylnonane, 4,5. | 17302-23-7 | 125 | 250 | 250 | 250 | ppm | Not found in databases. |
| 1095 | Dimethyloctane, 3,5- | 15869-93-9 | 100 | 200 | 500 | ***2500*** | ppm | Based on octane-butane ratio. See LEL Formattinng Note. |
| 1096 | Dimethylphenol, 2,4-; (2,4-Xylenol) | 105-67-9 | 0.3 | 1 | 6 | 500 | mg/m3 | |
| 1097 | Dimethylphenol, 2,6-; (2,6-Xylenol) | 576-26-1 | 0.75 | 2 | 15 | 125 | mg/m3 | |
| 1098 | Dimethylphthalate | 131-11-3 | 5 | 15 | 75 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1099 | Dimethylpolysilane; (Poly(dimethylsilane)) | 28883-63-8 | 0.75 | 2.5 | 10 | 25 | mg/m3 | Synonym added. Not found in databases, in ChemFinder, no pchem data. |
| 1100 | Dimethyl-p-phenylenediamine, N,N- | 99-98-9 | 0.025 | 0.075 | 0.13 | 1 | mg/m3 | |
| 1101 | Dimethylpropane, 2,2-; (Neopentane) | 463-82-1 | 610 | 610 | 610 | ***50000*** | ppm | Used pentane limits. See LEL Formattinng Note. |
| 1102 | Dimethylpyridine, 2,4-; (2,4-Lutidine) | 108-47-4 | 0.2 | 0.6 | 4 | 20 | ppm | T-0, T-1 changed. |
| 1103 | Dimethyltetramethoxydisiloxane, 1,3- | 18186-97-5 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. |
| 1104 | Dimetilan | 644-64-4 | 5 | 15 | 25 | 25 | mg/m3 | |
| 1105 | Di-N-amylamine | 2050-92-2 | 0.06 | 0.2 | 1.25 | 6 | ppm | |
| 1106 | Di-n-butylamine | 111-92-2 | 0.25 | 0.75 | 5 | 50 | ppm | |
| 1107 | Dinitraniline orange; (Hansa orange RN) | 3468-63-1 | 10 | 30 | 50 | 250 | mg/m3 | No data found. |
| 1108 | Dinitroaniline, 2,4- | 97-02-9 | 0.035 | 0.1 | 0.75 | 12.5 | mg/m3 | |
| 1109 | Dinitrobenzene, m- | 99-65-0 | 1 | 3 | 5 | 50 | mg/m3 | |
| 1110 | Dinitrobenzene, o- | 528-29-0 | 1 | 3 | 5 | 50 | mg/m3 | |
| 1111 | Dinitrobenzene, p- | 100-25-4 | 1 | 3 | 5 | 50 | mg/m3 | |
| 1112 | Dinitro-o-cresol, 4,6- | 534-52-1 | 0.2 | 0.2 | 0.5 | 5 | mg/m3 | |
| 1113 | Dinitrophenol | 25550-58-7 | 0.25 | 0.75 | 5 | 25 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1114 | Dinitrophenol, 2,3- | 66-56-8 | 0.75 | 2 | 15 | 75 | mg/m3 | |
| 1115 | Dinitrophenol, 2,4- | 51-28-5 | 1.5 | 5 | 30 | 30 | mg/m3 | See also CASRN 25550-58-7, mixed isomers. |
| 1116 | Dinitrophenol, 2,6- | 573-56-8 | 0.15 | 0.4 | 3 | 15 | mg/m3 | |
| 1117 | Dinitro-p-toluidine, 2,6-; (4-Amino-3,5-dinitrotoluene) | 6393-42-6 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 1118 | Dinitrosopiperazine; (Piperazine, 1,4-dinitroso-) | 140-79-4 | 0.5 | 1.5 | 10 | 60 | mg/m3 | |
| 1119 | Dinitrotoluene | 25321-14-6 | 0.2 | 0.6 | 12.5 | 50 | mg/m3 | |
| 1120 | Dinitrotoluene, 2,4- | 121-14-2 | 0.2 | 0.6 | 30 | 50 | mg/m3 | |
| 1121 | Dinitrotoluene, 2,6- | 606-20-2 | 0.2 | 0.6 | 6 | 50 | mg/m3 | |
| 1122 | Dinitrotoluene, 3,4- | 610-39-9 | 0.2 | 0.6 | 10 | 50 | mg/m3 | Limits are for mixed isomers |
| 1123 | Dinoseb; (2-sec-Butyl-4,6-dinitrophenol) | 88-85-7 | 0.75 | 2.5 | 4.5 | 10 | mg/m3 | |
| 1124 | Dinoterb; (2-(1,1-Dimethylethyl)-4,6-dinitrophenol) | 1420-07-1 | 5 | 15 | 25 | 25 | mg/m3 | |
| 1125 | Dioctyl phthalate, n- | 117-84-0 | 15 | 50 | 400 | 500 | mg/m3 | |
| 1126 | Dioctyl sebacate; (Bis(2-ethylhexyl) sebacate) | 122-62-3 | 7.5 | 20 | 150 | 500 | mg/m3 | |
| 1127 | Dioctyl sodium sulfosuccinate; (Di-(2-ethylhexyl) sodium sulfosuccinate) | 577-11-7 | 7.5 | 20 | 150 | 500 | mg/m3 | |
| 1128 | **Dioxane, 1,4-** | **123-91-1** | 17 | **17** | **320** | **760** | ppm | **Interim AEGL-1, -2, -3.** |
| 1129 | Dioxathion | 78-34-2 | 0.1 | 0.3 | 3.4 | 150 | mg/m3 | |

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Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1130 | Dioxin; (TCDD; 2,3,7,8-tetrachlorodibenzo-p-dioxin) | 1746-01-6 | 0.0006 | 0.0015 | 0.0075 | 0.0075 | mg/m3 | SAX has synonym 2,3,6,7-tetrachlorodibenzo-p-dioxin, not other databases |
| 1131 | Dioxolane, 1,3- | 646-06-0 | 20 | 20 | 69.3 | ***5000*** | ppm | See LEL Formattinng Note. |
| 1132 | Dipentaerythritol; (Dipentek) | 126-58-9 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1133 | Dipentyl pentylphosphonate | 6418-56-0 | 25 | 75 | 500 | 500 | mg/m3 | RTECS LD > 3160 mg/kg. |
| 1134 | Diphacinone; (Diphenadione) | 82-66-6 | 0.15 | 0.5 | 0.9 | 500 | mg/m3 | |
| 1135 | Diphenyl mercury | 587-85-9 | 0.177 | 0.177 | 0.177 | 17.7 | mg/m3 | Mercury, aryl compound limits, as Hg. |
| 1136 | Diphenyl o-cresol phosphate; (Diphenyl cresol phosphate) | 26444-49-5 | 2.5 | 7.5 | 50 | 500 | mg/m3 | Added. |
| 1137 | **Diphenyl; (Biphenyl)** | **92-52-4** | 0.2 | 1.25 | **9.6** | 15.9 | ppm | **New interim AEGL-2.** All Ts changed. |
| 1138 | Diphenylamine | 122-39-4 | 10 | 30 | 125 | 125 | mg/m3 | |
| 1139 | **Diphenylchloroarsine; (Chlorodiphenylarsine)** | **712-48-1** | 0.39 | 0.39 | **0.39** | **1.2** | mg/m3 | Added. **New Interim AEGL-2, -3** |
| 1140 | **Diphenyldichlorosilane** | **80-10-4** | 0.3 | **0.90** | **11** | **50** | ppm | Added. **New interim AEGL-1, -2, -3.** |
| 1141 | Diphenylguanidine, 1,3- | 102-06-7 | 0.2 | 0.6 | 4 | 125 | mg/m3 | |
| 1142 | Diphenylhydrazine, 1,2- | 122-66-7 | 0.2 | 0.6 | 4 | 125 | mg/m3 | |
| 1143 | Diphenylmethane | 101-81-5 | 7.5 | 25 | 200 | 500 | mg/m3 | |
| 1144 | Diphenylnitrosamine | 86-30-6 | 7.5 | 25 | 150 | 500 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1145 | Diphenyloxazole, 2,5- | 92-71-7 | 3 | 7.5 | 60 | 300 | mg/m3 | |
| 1146 | Dipicolinic acid; (2,6-Pyridinedicarboxylic acid) | 499-83-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, HC&P listed, no toxicity data. MSDS MW = 147.12 |
| 1147 | Dipotassium cadmium oxide | z-0013 | 0.0099 | 0.0594 | 0.1 | 17.8 | mg/m3 | Cadmium compounds, as Cd. |
| 1148 | Dipotassium dihydrogen silicate | z-0014 | 10 | 30 | 50 | 250 | mg/m3 | MW = 140.30 for MF = K2H2SiO2 |
| 1149 | Dipotassium metasilicate | 10006-28-7 | 6 | 15 | 125 | 500 | mg/m3 | **SAR** |
| 1150 | Dipropyl ketone; (4-Heptanone) | 123-19-3 | 50 | 50 | 60 | 350 | ppm | |
| 1151 | Dipropylamine | 142-84-7 | 15 | 50 | 350 | 500 | mg/m3 | |
| 1152 | Dipropylene glycol methyl ether | 34590-94-8 | 100 | 150 | 300 | 600 | ppm | IDLH added. T-2, T-3 changed. |
| 1153 | Direct Black 38; (Apomine black GX) | 1937-37-7 | 25 | 75 | 500 | 500 | mg/m3 | |
| 1154 | Di-sec-octylphthalate | 117-81-7 | 5 | 10 | 75 | 500 | mg/m3 | |
| 1155 | Disodium (2-ethylhexyl)phosphate | 15505-13-2 | 0.02 | 0.06 | 0.4 | 2 | mg/m3 | TSCA and H&N listed. SAR |
| 1156 | Disodium 3,6-endoxohexahydrophthalate | 129-67-9 | 1 | 3 | 20 | 20 | mg/m3 | |
| 1157 | Disodium butylphosphate | 64114-42-7 | 0.02 | 0.06 | 0.4 | 2 | mg/m3 | SAR |
| 1158 | Disodium cadmium oxide | z-0016 | 0.00847 | 0.0508 | 0.0847 | 15.2 | mg/m3 | Cadmium compound, as Cd. |
| 1159 | Disodium dihydrogen silicate | z-0017 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1160 | Disodium ethylenediaminediacetate (S and U isomers) | 38011-25-5 | 4 | 12.5 | 75 | 400 | mg/m3 | RTECS MW = 222.18 SAR |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1161 | Disodium hexafluorosilicate (2-) | 16893-85-9 | 4.12 | 4.12 | 5 | 5 | mg/m3 | Use human toxicit rather than fluoride IDLH. |
| 1162 | Disodium iminodiacetate | 928-72-3 | 4 | 12.5 | 100 | 500 | ppm | TSCA has MF with H7 rather than H5. |
| 1163 | Disulfiram | 97-77-8 | 2 | 2 | 3 | 125 | mg/m3 | |
| 1164 | Disulfoton | 298-04-4 | 0.05 | 0.15 | 2 | 75 | mg/m3 | |
| 1165 | Di-tert-butyl dicarbonate | 24424-99-5 | 0.4 | 1.25 | 7.5 | 40 | mg/m3 | |
| 1166 | Di-tert-butylhydroquinone, 2,5- | 88-58-4 | 12.5 | 40 | 250 | 400 | mg/m3 | |
| 1167 | Dithiazanine iodide; (3,3'-Diethylpentamethinethiacyanine iodide) | 514-73-8 | 4 | 12.5 | 20 | 20 | mg/m3 | |
| 1168 | Dithiobiuret | 541-53-7 | 1 | 3 | 5 | 5 | mg/m3 | |
| 1169 | Dithiodiethanol, 2,2-; (Dithiodiglycol) | 1892-29-1 | 0.75 | 2 | 15 | 75 | mg/m3 | HC&P pchem data. |
| 1170 | Dithioerythritol, 1,4- | 6892-68-8 | 1.25 | 4 | 25 | 125 | mg/m3 | |
| 1171 | Diurethane dimethacrylate | 72869-86-4 | 75 | 250 | 500 | 500 | mg/m3 | TSCA listed. No toxicity or pchem data found. MSDS HHR = 0. |
| 1172 | Divinylbenzene, m-; (m-Vinylstyrene) | 108-57-6 | 10 | 10 | 75 | 350 | ppm | |
| 1173 | Divinylbenzene, mixed isomers; (Vinylstyrene) | 1321-74-0 | 10 | 10 | 75 | 350 | ppm | |
| 1174 | Dodecamethylcyclohexasiloxane | 540-97-6 | 10 | 30 | 50 | 500 | mg/m3 | r os LD50 > 50 g/kg SAR |
| 1175 | Dodecane | 112-40-3 | 0.015 | 0.05 | 0.35 | 20 | ppm | |
| 1176 | Dodecanethiol, 1-; (Dodecyl mercaptan; Lauryl mercaptan) | 112-55-0 | 0.1 | 0.3 | 0.5 | 2.5 | ppm | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1177 | Dodecen-1-yl)succinic anhydride, (2-; (DDSA) | 19780-11-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data or HHR found. |
| 1178 | Dodecenylsuccinic anhydride | 25377-73-5 | 5 | 15 | 100 | 500 | mg/m3 | |
| 1179 | Dodecyl alcohol | 112-53-8 | 0.4 | 1 | 7.5 | 500 | mg/m3 | |
| 1180 | Dodecyl methacrylate | 142-90-5 | 5 | 15 | 100 | 500 | ppm | |
| 1181 | Dodecylbenzene sulfonic acid; (Laurylbenzenesulfonic acid) | 27176-87-0 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 1182 | Dodecylphenol, 4- (mixture of isomers) | 27193-86-8 | 7.5 | 25 | 150 | 500 | mg/m3 | Pchem data varies in SAX, HSDB, HC&P. |
| 1183 | Dodecylsarcosine sodium salt, N-; (N-laurel sarcosine sodium salt) | 7631-98-3 | 1.5 | 4 | 30 | 150 | mg/m3 | |
| 1184 | **Dodecyltrichlorosilane** | **4484-72-4** | 0.2 | **0.60** | **7.3** | **33** | ppm | **New interim AEGL-1, -2, -3.** Added. |
| 1185 | Dodenyl succine anhydride; (Tetrapropenylsuccinic anhydride) | 26544-38-7 | 10 | 30 | 200 | 500 | mg/m3 | |
| 1186 | Dowex 50WX4 (50-400 ion exchange resin) | 11113-61-4 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. No MSDS, assume solid. |
| 1187 | Dv methyl ester; (Methyl 3-(2,2-dichlorovinyl)-2,2- | 61898-95-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed. No toxicity data found. MW, BP, SG ex MSDS. |
| 1188 | Dysprosium | 7429-91-6 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 1189 | Dysprosium nickelide | 12175-27-8 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. |
| 1190 | Dysprosium nitrate | 10143-38-1 | 10 | 30 | 200 | 500 | mg/m3 | |
| 1191 | Dysprosium oxide; (Dysprosium(III) oxide) | 1308-87-8 | 20 | 60 | 400 | 500 | mg/m3 | Rat oral LD50 > 5 g/kg |
| 1192 | Ecolite | z-0018 | 20 | 60 | 400 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1193 | Emetine dihydrochloride, l- | 316-42-7 | 0.05 | 0.15 | 0.25 | 0.25 | mg/m3 | |
| 1194 | Endosulfan | 115-29-7 | 0.1 | 0.3 | 0.8 | 35 | mg/m3 | |
| 1195 | Endothion | 2778-04-3 | 3.5 | 10 | 17 | 17 | mg/m3 | |
| 1196 | Endrin | 72-20-8 | 0.1 | 0.3 | 2 | 2 | mg/m3 | |
| 1197 | Epibatadine (nicotine-like) | z-0019 | 0.0015 | 0.004 | 0.025 | 0.025 | mg/m3 | |
| 1198 | Epibromohydrin | 3132-64-7 | 1.25 | 3.5 | 25 | 125 | mg/m3 | |
| 1199 | **Epichlorohydrin** | **106-89-8** | 0.5 | **5.7** | **24** | **72** | ppm | **Interim AEGL-1, -2, -3.** |
| 1200 | Epinephrine; (Vasotonin; (R)-4-(1-Hydroxy-2-(methylamino)ethyl)-1,2-benzenediol) | 51-43-4 | 0.25 | 0.25 | 0.25 | 0.25 | mg/m3 | |
| 1201 | EPN; (O-Ethyl-O-(4-nitrophenyl) phenylthiophosphonate) | 2104-64-5 | 0.5 | 0.5 | 5 | 5 | mg/m3 | |
| 1202 | Epoxy resin (EPON 1001) | 25068-38-6a | 125 | 350 | 500 | 500 | mg/m3 | |
| 1203 | Epoxy resin (EPON 1007) | 25068-38-6b | 125 | 350 | 500 | 500 | mg/m3 | |
| 1204 | Epoxy resin (EPON 820) | 25068-38-6c | 50 | 150 | 500 | 500 | mg/m3 | |
| 1205 | Epoxy resin ERL-2795 | 25068-38-6d | 4 | 12.5 | 100 | 500 | mg/m3 | |
| 1206 | Epoxy resin, cured; (4,4'-(1-Methylethylidene)biscyclohexanol, polymer with (chloromethyl)oxirane) | 30583-72-3 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1207 | Epoxy resin; (Bisphenol A-Bisphenol A diglycidyl ether polymer)) | 25036-25-3 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA, H&N listed. No toxicity data found. Used SRS HHR = 2. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1208 | Epoxy resin; (Epichlorhydrin, polymer with diethylene glycol) | 25928-94-3 | 0.06 | 0.2 | 1.25 | 6 | mg/m3 | |
| 1209 | Epoxybutane, 1,2- ; (1,2-Butylene oxide) | 106-88-7 | 2 | 75 | 200 | 200 | ppm | |
| 1210 | Epoxyethyl)-7-oxabicyclo(4.1.0)heptane, 3-( ; (Vinyl cyclohexene dioxide) | 106-87-6 | 0.1 | 0.35 | 2.5 | 75 | ppm | Human skin exposure ignored. |
| 1211 | Erbium nitrate pentahydrate | 10031-51-3 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1212 | Erbium(III) nitrate | 10168-80-6 | 0.2 | 0.6 | 5 | 25 | mg/m3 | |
| 1213 | Erbium(III) nitrate hexahydrate | 13476-05-6 | 1 | 3 | 20 | 100 | mg/m3 | |
| 1214 | Erbium(III) oxide | 12061-16-4 | 20 | 60 | 400 | 500 | mg/m3 | Rat LD50 > 5 g/kg |
| 1215 | Ergocalciferol; (Vitamin D2) | 50-14-6 | 7.5 | 25 | 40 | 40 | mg/m3 | |
| 1216 | Ergotamine tartrate | 379-79-3 | 2 | 6 | 10 | 60 | mg/m3 | |
| 1217 | Estane; (Polyurethane resin; Urethane rubber) | 61789-63-7 | 10 | 30 | 50 | 250 | mg/m3 | OHMTADS lists "Estane-5703", CASRN = 51-79-6, MSDS not useful |
| 1218 | Ethane | 74-84-0 | 1000 | ***3000*** | ***5000*** | ***25000*** | ppm | Aliphatic hydrocarbon gas TLV-TWA. See LEL Formattinng Note. |
| 1219 | Ethanedioic acid, dimethyl ester | 553-90-2 | 4 | 12.5 | 75 | 400 | mg/m3 | Rat LD lo > 500 mg/kg. |
| 1220 | Ethanedithiol, 1,2- | 540-63-6 | 0.35 | 1 | 7.5 | 40 | ppm | |
| 1221 | Ethanediyl)bisbenzene, 1,1'-(1,2-; (Bibenzyl) | 103-29-7 | 15 | 50 | 400 | 500 | mg/m3 | |
| 1222 | Ethanediylbis(N-(carboxymethyl)glycine), N,N'-1,2-, dipotassium salt | 2001-94-7 | 1.5 | 5 | 40 | 200 | mg/m3 | |
| 1223 | Ethanediylbis(oxy))bisbenzene, 1,1'-(1,2- | 104-66-5 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data. MSDS solid. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1224 | **Ethanethiol; (Ethyl mercaptan)** | **75-08-1** | 0.5 | **1.0** | **120** | **360** | ppm | **Interim AEGL-1, -2, -3.** T-2 changed. |
| 1225 | Ethanol, titanium(4+) salt | 3087-36-3 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, H&N listed, no toxicity data, assumed nonvolatile liquid. |
| 1226 | Ethanolamine | 141-43-5 | 3 | 6 | 30 | 30 | ppm | |
| 1227 | Ethenylsilanetriol triacetate | 4130-08-9 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, HC&P listed, no toxicity data, no MSDS found, assumed nonvolatile. |
| 1228 | Ethidium bromide; (2,7-Diamino-10-ethyl-9-phenylphenanthridinium bromide) | 1239-45-8 | 0.15 | 0.5 | 4 | 20 | mg/m3 | |
| 1229 | Ethion | 563-12-2 | 0.05 | 0.15 | 13 | 350 | mg/m3 | |
| 1230 | Ethoxyethanol, 2- | 110-80-5 | 5 | 15 | 500 | 500 | ppm | |
| 1231 | Ethoxyethoxy)ethanol, 2-(2-; (Carbitol cellosolve; Diethylene glycol monoethyl ether) | 111-90-0 | 25 | 30 | 200 | 400 | ppm | |
| 1232 | Ethoxyethyl methacrylate, 2- | 2370-63-0 | 4 | 12.5 | 75 | 400 | mg/m3 | TSCA listed, no toxicity or pchem data found. Toxicity based on Ethoxyethyl acrylate (106-74-1). |
| 1233 | Ethoxyethylacetate, 2- | 111-15-9 | 5 | 75 | 500 | 500 | ppm | PEL-TWA ignored. |
| 1234 | Ethoxyimino)butyl)-5-(2-ethylthiopropyl)-3-hydroxycyclohex-2-en-1-one, 2-(1-( ; (Checkmate) | 74051-80-2 | 12.5 | 40 | 250 | 500 | mg/m3 | |
| 1235 | Ethoxylated alcohols, C16-18; (Nonionic surfactant) | 68439-49-6 | 5 | 15 | 100 | 500 | mg/m3 | Pchem data ex MSDS. |
| 1236 | Ethoxylated alcohols, C7-C21 | 68991-48-0 | 10 | 10 | 10 | 10 | mg/m3 | No toxicity data found. |
| 1237 | Ethoxylated nonylphenol; (Nonyl phenyl polyethylene glycol ether) | 9016-45-9 | 5 | 15 | 100 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1238 | Ethyhexyloxy)ethanol, 2-(2- | 1559-35-9 | 100 | 350 | 500 | 500 | mg/m3 | Added. |
| 1239 | Ethyl (or dimethyl) pyrrolidine | z-0020 | 5 | 15 | 100 | 500 | mg/m3 | **SAR** |
| 1240 | Ethyl acetate | 141-78-6 | 400 | 400 | 400 | ***2000*** | ppm | See LEL Formattinng Note. |
| 1241 | Ethyl acetoacetate | 141-97-9 | 15 | 50 | 350 | 500 | mg/m3 | |
| 1242 | **Ethyl acrylate** | **140-88-5** | 5 | **8.3** | **36** | **240** | ppm | **Interim AEGL-1, -2, -3.** PEL-TWA suppressed. T-0 changed. |
| 1243 | Ethyl alcohol; (ethanol) | 64-17-5 | 1000 | 3000 | ***3300*** | ***3300*** | ppm | See LEL Formattinng Note. |
| 1244 | Ethyl alcohol-d; (Ethanol-d) | 925-93-9 | 1000 | 3000 | 3300 | 3300 | ppm | Not listed in databases, MSDS pchem data. |
| 1245 | Ethyl amyl ketone; (5-Methyl-3-heptanone; 3-Octanone) | 106-68-3 | 25 | 25 | 25 | 100 | ppm | CASRN = 541-85-5 in OEV Guide, SAX, RTECS, TSCA, but not ChemFinder. TLV-TWA changed. |
| 1246 | Ethyl benzene | 100-41-4 | 100 | 125 | 125 | ***800*** | ppm | See LEL Formattinng Note. |
| 1247 | Ethyl benzoate | 93-89-0 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 1248 | Ethyl bromoacetate | 105-36-2 | 0.00075 | 0.0025 | 0.02 | 0.1 | ppm | |
| 1249 | Ethyl butyl ketone; (3-Heptanone) | 106-35-4 | 50 | 75 | 200 | 1000 | ppm | |
| 1250 | Ethyl cellulose | 9004-57-3 | 20 | 60 | 400 | 500 | mg/m3 | Rat oral LD50 > 5 g/kg |
| 1251 | Ethyl chloride | 75-00-3 | 100 | 1500 | ***3800*** | ***3800*** | ppm | PEL-TWA ignored. See LEL Formattinng Note. |
| 1252 | Ethyl chloroacetate | 105-39-5 | 0.15 | 0.4 | 3 | 15 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1253 | **Ethyl chloroformate** | **541-41-3** | 1 | 1 | **1.6** | **4.8** | ppm | **New interim AEGL-2, -3. New ERPG-2, -3.** T-2, T-3 changed. |
| 1254 | **Ethyl dimethylamido-cyanophosphate; (Tabun; GA)** | **77-81-6** | 0.000125 | **0.00042** | **0.0053** | **0.039** | ppm | **Final AEGL-1, -2, -3.** |
| 1255 | Ethyl ether | 60-29-7 | 400 | 500 | 500 | ***1900*** | ppm | See LEL Formattinng Note. |
| 1256 | Ethyl formate | 109-94-4 | 100 | 300 | 500 | 1500 | ppm | |
| 1257 | Ethyl hexanoic acid, 2-; (Butyl ethyl acetic acid) | 149-57-5 | 5 | 15 | 125 | 500 | mg/m3 | T-0 changed. |
| 1258 | Ethyl lactate; (Ethyl (s)-(-)-lactate) | 687-47-8 | 15 | 40 | 300 | 500 | mg/m3 | HHR = 2. HSDB toxicity data. |
| 1259 | Ethyl mercury chloride; (Chloroethyl mercury) | 107-27-7 | 0.0132 | 0.0396 | 0.0529 | 2.64 | mg/m3 | Concentration limits, mercury, alkyl compounds. |
| 1260 | Ethyl methacrylate; (2-Methyl-2-propenoic acid, ethyl ester) | 97-63-2 | 50 | 150 | 750 | 750 | ppm | |
| 1261 | Ethyl nitrite | 109-95-5 | 0.6 | 2 | 12.5 | 60 | ppm | |
| 1262 | Ethyl O-2-diisopropylaminoethylmethylphosphonite, O-; (QL) | 57856-11-8 | 10 | 30 | 50 | 250 | mg/m3 | CHEMFINDER, TSCA listed, no toxicity data, assumed nonvolatile liquid or solid. |
| 1263 | Ethyl propionate | 105-37-3 | 7.5 | 25 | 150 | 750 | ppm | |
| 1264 | Ethyl S,S-dipropylphosphorodithioate, O-; (Mocap PC-84; Ethoprophos) | 13194-48-4 | 0.25 | 0.75 | 5 | 15 | mg/m3 | Pchem data added. |
| 1265 | Ethyl silicate polymer; (Silicic acid, ethyl ester) | 11099-06-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, H&N listed, no pchem or toxicity data found. ChemFinder MW, MF. |
| 1266 | Ethyl-1,3-hexanediol, 2-; (Ethyl hexylene glycol) | 94-96-2 | 12.5 | 40 | 300 | 750 | ppm | |
| 1267 | **Ethyl-1-hexanol, 2-** | **104-76-7** | 0.1 | **0.1** | **120** | **227** | ppm | **ERPG-1, -2, -3.** |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1268 | Ethyl-2-methylheptane, 3- | 14676-29-0 | 15 | 50 | 350 | ***1500*** | ppm | No toxicity data found, ChemFinder listed, LC50 estimated. See LEL Formattinng Note. |
| 1269 | Ethyl-2-methyloctane, 6- | 62016-19-7 | 0.35 | 1 | 6 | 35 | ppm | Undecane toxicity data used (C11 Alkanes) |
| 1270 | Ethyl-2-oxazoline, 2- | 10431-98-8 | 0.1 | 0.3 | 2 | 10 | ppm | TSCA listed, no toxicity or HHR found, MSDS pchem data. |
| 1271 | Ethyl-4-hydroxybenzoate; (p-Hydroxybenzoic acid ethyl ester) | 120-47-8 | 250 | 500 | 500 | 500 | mg/m3 | |
| 1272 | Ethyl-5-methylheptane, 3- | 52896-90-9 | 0.06 | 0.2 | 1.25 | ***5000*** | ppm | See LEL Formattinng Note. (Don't know source of data) |
| 1273 | Ethyl-6-methyl-4-phenyl-3-cyclohexene-1-carboxylic acid sodium salt, 5-; (Mebane sodium salt) | 16550-39-3 | 0.001 | 0.003 | 0.02 | 0.1 | mg/m3 | |
| 1274 | **Ethylamine; (Monoethylamine; Ethylamine anhydrous)** | **75-04-7** | 7.5 | **7.5** | **49** | **270** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 1275 | Ethylbenzaldehyde, 2- | 22927-13-5 | 10 | 30 | 200 | ***1000*** | ppm | TSCA, HC&P, H&N & MSDS CASRN = 4748-78-1 for 4-ethylbenzaldehyde, TSCA has 53951-50-1 without "4-". "2-" not found. See LEL Formattinng Note. |
| 1276 | **Ethylbis(2-chloroethyl)amine; (Bis(2-chloroethyl)ethylamine; Nitrogen mustard-1)** | **538-07-8** | 0.004 | 0.0125 | **0.022** | **0.37** | mg/m3 | **Added. New interim AEGL-2, -3.** LC data ex SAX, not in RTECS. All Ts changed. |
| 1277 | **Ethylchlorothioformate** | **2941-64-2** | 0.05 | 0.15 | **0.26** | **0.79** | ppm | Added. **New interim AEGL-2, -3.** |
| 1278 | **Ethyldichloroarsine; (Dichloroethylarsine)** | **598-14-1** | 0.029 | 0.029 | **0.029** | **0.086** | mg/m3 | Added. **New Interim AEGL-2, -3** |
| 1279 | Ethylene | 74-85-1 | 200 | 600 | ***7500*** | ***7500*** | ppm | Mouse 120 min RTECS LC50 ignored, See LEL Formattinng Note. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1280 | **Ethylene chlorohydrin; (2-Chloroethanol)** | **107-07-3** | 1 | 1 | **4.0** | **12** | ppm | **New interim AEGL-2, -3.** T-2, T-3 changed. |
| 1281 | **Ethylene dibromide; (Dibromoethane)** | **106-93-4** | 17 | **17** | **24** | **46** | ppm | **New interim AEGL-1, -2, -3.** |
| 1282 | **Ethylene dichloride; (1,2-Dichloroethane)** | **107-06-2** | 50 | **50** | **200** | **300** | ppm | **ERPG-1, -2, -3** |
| 1283 | Ethylene fluorohydrin; (2-Fluoroethanol) | 371-62-0 | 0.005 | 0.015 | 0.0267 | 1.25 | ppm | |
| 1284 | Ethylene glycol | 107-21-1 | 10 | 10 | 40 | 60 | ppm | T-1 changed. |
| 1285 | Ethylene glycol diacetate | 111-55-7 | 25 | 75 | 500 | 500 | mg/m3 | Added. |
| 1286 | Ethylene glycol dimethacrylate | 97-90-5 | 12.5 | 40 | 300 | 500 | mg/m3 | |
| 1287 | Ethylene glycol monomethyl ether acetate; (EGMEA; 2-Methoxyethyl acetate) | 110-49-6 | 0.1 | 0.3 | 20 | 200 | ppm | TLV-TWA used, PEL-TWA ignored. |
| 1288 | Ethylene glycol monomethyl ether; (2-Methoxyethanol; EGME; Methyl Cellosolve(R)) | 109-86-4 | 0.1 | 0.35 | 2.5 | 200 | ppm | PEL-TWA ignored. All Ts changed. |
| 1289 | Ethylene glycol monopropyl ether; (Propyl cellosolve; Ektasolve EP) | 2807-30-9 | 4 | 12.5 | 75 | 1000 | ppm | |
| 1290 | Ethylene glycol mono-sec-butyl ether | 7795-91-7 | 3 | 10 | 60 | 350 | mg/m3 | |
| 1291 | **Ethylene oxide; (Oxirane)** | **75-21-8** | 1 | 5 | **45** | **200** | ppm | **Interim AEGL-2, -3.** |
| 1292 | Ethylene/vinyl acetate copolmer | 24937-78-8 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, H&N listed, no toxicity data; MSDS states, MP and SG. |
| 1293 | Ethylenediamine dihydrochloride | 333-18-6 | 0.1 | 0.3 | 2 | 60 | mg/m3 | Human TClo skin ignored. No pchem data found. |
| 1294 | **Ethylenediamine, 1,2-** | **107-15-3** | 9.7 | 9.7 | **9.7** | **20** | ppm | **Final AEGL-2, -3.** |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1295 | Ethylenediaminetetraacetic acid, disodium salt | 139-33-3 | 60 | 150 | 500 | 500 | mg/m3 | |
| 1296 | Ethylenediaminetetraacetic acid, disodium salt, dihydrate | 6381-92-6 | 10 | 30 | 50 | 250 | mg/m3 | RTECS listed. No toxicity data found. |
| 1297 | Ethylenediaminetetraacetic acid, ferric ammonium salt | 21265-50-9 | 2.5 | 7.5 | 50 | 250 | mg/m3 | Source of mouse toxicity data not traced. |
| 1298 | Ethylenediaminetetraacetic acid, tetrasodium salt, dihydrate | 10378-23-1 | 7.5 | 25 | 150 | 500 | mg/m3 | MSDS HHR =2 used to estimate toxicity. |
| 1299 | Ethylenediaminetetraacetic acid, tetrasodiumn salt; (Tetrasodium EDTA) | 64-02-8 | 40 | 125 | 500 | 500 | mg/m3 | MF corrected. MP =>300 C in HSDB. |
| 1300 | Ethylenediaminetetraacetic acid; (EDTA) | 60-00-4 | 40 | 125 | 150 | 150 | mg/m3 | |
| 1301 | Ethylenedinitrilo)tetra-2-propanol, 1,1',1",1'"-( | 102-60-3 | 15 | 50 | 350 | 500 | mg/m3 | Rat oral LD > 500 mg/kg. |
| 1302 | **Ethyleneimine** | **151-56-4** | 0.5 | 0.6 | **4.6** | **9.9** | ppm | **Interim AEGL-2, -3.** |
| 1303 | Ethylenethiourea; (2-Imidazolidinethione) | 96-45-7 | 0.75 | 2.5 | 15 | 500 | mg/m3 | Human 10 year TClo ignored. |
| 1304 | Ethylheptane, 4- | 2216-32-2 | 3 | 10 | 60 | 350 | ppm | Assumed HHR = 3 to estimate toxicity. |
| 1305 | Ethylhexyl acrolate, 2-; (Acrylic acid, 2-ethylhexyl ester) | 103-11-7 | 0.5 | 1.5 | 10 | 10 | ppm | Synonym corrected. |
| 1306 | Ethylhexyl bromide, 2- | 18908-66-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. MSDS pchem data, not helpful, assumed non-volatile. |
| 1307 | **Ethylhexylchloroformate, 2-** | **24468-13-1** | 0.04 | 0.125 | **0.97** | **2.9** | ppm | Added. **New interim AEGL-2, -3.** |
| 1308 | Ethylidene chloride, 1,1-; (1,1-Dichloroethane) | 75-34-3 | 100 | 300 | 3000 | 3000 | ppm | |
| 1309 | **Ethylidene norbornene** | **16219-75-3** | 0.06 | **0.2** | **100** | **500** | ppm | **ERPG-1, -2, -3** T-0 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1310 | Ethylmagnesium chloride; (Chloroethyl magnesium) | 2386-64-3 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data found, no HHR in MSDS. Used "N" for conc. dependence. |
| 1311 | **Ethyl-S-dimethylaminoethyl methylphosphonothiolate; (VX nerve agent)** | **50782-69-9** | 0.000005 | **1.6E-05** | **0.0003** | **0.0009** | ppm | **Final AEGL-1, -2, -3.** |
| 1312 | Ethylthiocyanate | 542-90-5 | 20 | 60 | 100 | 100 | mg/m3 | |
| 1313 | Ethyltoluene, o- | 611-14-3 | 500 | 500 | 500 | 500 | mg/m3 | |
| 1314 | Ethyltoluene, p- | 622-96-8 | 500 | 500 | 500 | 500 | mg/m3 | |
| 1315 | Europium | 7440-53-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data found. |
| 1316 | Europium nitrate; (Europium trinitrate) | 10138-01-9 | 15 | 50 | 350 | 500 | mg/m3 | |
| 1317 | Europium oxide | 1308-96-9 | 20 | 60 | 400 | 500 | mg/m3 | Rat oral LD50 > 5 g/kg |
| 1318 | Europium(II) iodide | 22015-35-6 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, HC&P listed, no toxicity toxicity data found. |
| 1319 | Farnesol | 4602-84-0 | 25 | 75 | 500 | 500 | mg/m3 | |
| 1320 | Fatty acids, tall-oil, polymers with glycerol, pentaerythritol and phthalic anhydride | 66070-62-0 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1321 | Fenamiphos | 22224-92-6 | 0.05 | 0.15 | 0.9 | 40 | mg/m3 | |
| 1322 | Fensulfothion | 115-90-2 | 0.01 | 0.03 | 2 | 12.5 | mg/m3 | |
| 1323 | Fenthion | 55-38-9 | 0.05 | 0.15 | 40 | 40 | mg/m3 | |
| 1324 | Ferric ammonium citrate | 1185-57-5 | 1 | 3 | 500 | 500 | mg/m3 | Hygroscopic, light sensitive. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1325 | Ferric ammonium sulfate dodecahydrate | 7783-83-7 | 8.64 | 25.9 | 43.2 | 200 | mg/m3 | RTECS listed, no toxicity data. |
| 1326 | Ferric ammonium sulfate; (Sulfuric acid, ammonium iron(3e+) salt (2:1:1)) | 10138-04-2 | 4.82 | 14.5 | 25 | 125 | mg/m3 | |
| 1327 | Ferric chloride | 7705-08-0 | 2.9 | 3.5 | 25 | 125 | mg/m3 | |
| 1328 | Ferric chloride hexahydrate | 10025-77-1 | 4.84 | 75 | 100 | 100 | mg/m3 | |
| 1329 | Ferric fluoride | 7783-50-8 | 14.8 | 40 | 300 | 500 | mg/m3 | |
| 1330 | Ferric hydroxide; (Iron(III) hydroxide) | 1309-33-7 | 3.5 | 10 | 75 | 400 | mg/m3 | Insoluble iron compound. Rabbit fed 870 mg/kg died. |
| 1331 | Ferric nitrate | 10421-48-4 | 4.33 | 13 | 21.7 | 100 | mg/m3 | Iron salts, soluble, as Fe. |
| 1332 | Ferric nitrate nonahydrate; (Iron(III) nitrate nonahydrate (1:3:9)) | 7782-61-8 | 7.24 | 21.72 | 250 | 500 | mg/m3 | Iron salts, soluble, as Fe. |
| 1333 | Ferric phosphate | 10045-86-0 | 2.75 | 8.26 | 13.8 | 60 | mg/m3 | Iron salts, soluble, as Fe. |
| 1334 | Ferric sulfate; (Iron(III) sulfate) | 10028-22-5 | 3.58 | 10.7 | 17.9 | 75 | mg/m3 | Iron salts, soluble, as Fe. |
| 1335 | Ferrous ammonium sulfate | 10045-89-3 | 5.09 | 15.3 | 25.4 | 125 | mg/m3 | |
| 1336 | Ferrous carbonate | 563-71-3 | 15 | 40 | 300 | 500 | mg/m3 | Insoluble iron compound.. HSDB toxicity data. All Ts changed. |
| 1337 | Ferrous chloride | 7758-94-3 | 2.27 | 6.81 | 11.3 | 200 | mg/m3 | |
| 1338 | Ferrous disulfide; (Iron disulfide) | 12068-85-8 | 2.15 | 6.44 | 10.7 | 50 | mg/m3 | |
| 1339 | Ferrous hydroxide; (Iron(III) hydroxide) | 18624-44-7 | 1.61 | 4.83 | 8.05 | 400 | mg/m3 | OHMTADS and TSCA listed. ChemBank differs from other sources including HC&P. T-0, T-1, T-2 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1340 | Ferrous sulfamate | 14017-39-1 | 1 | 3 | 5 | 25 | mg/m3 | |
| 1341 | Ferrous sulfate | 7720-78-7 | 2.72 | 8.16 | 13.6 | 350 | mg/m3 | |
| 1342 | Ferrous sulfate heptahydrate | 7782-63-0 | 4.98 | 14.9 | 25 | 500 | mg/m3 | |
| 1343 | Fibrous glass; (Fiber glass; Glass frit; Synthetic vitreous fibers) | 65997-17-3 | 5 | 15 | 60 | 500 | mg/m3 | |
| 1344 | Fluenetil | 4301-50-2 | 1.25 | 3.5 | 6 | 6 | mg/m3 | |
| 1345 | Fluoboric acid; (Tetrafluoroboric acid) | 16872-11-0 | 2.89 | 2.89 | 7.5 | 40 | mg/m3 | |
| 1346 | Fluoranthene | 206-44-0 | 0.004 | 0.01 | 0.075 | 500 | mg/m3 | |
| 1347 | Fluorene, 9H- | 86-73-7 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 1348 | Fluorides (as F) | 16984-48-8 | 2.5 | 2.5 | 2.5 | 250 | mg/m3 | |
| 1349 | **Fluorine** | **7782-41-4** | 0.1 | **1.7** | **5.0** | **13** | ppm | **Interim AEGL-1, -2, -3** |
| 1350 | Fluoro-2-nitrobenzene, 1-; (o-Fluoronitrobenzene) | 1493-27-2 | 7.5 | 25 | 150 | 500 | mg/m3 | No toxicity data found. MSDS HHR = 2. |
| 1351 | Fluoro-4-nitrophenol, 2- | 403-19-0 | 0.75 | 2.5 | 15 | 75 | mg/m3 | **SAR.** ChemFinder also has CASRN = 21571-34-6, deleted as separate entry. |
| 1352 | Fluoro-6-nitrophenol, 2- | 1526-17-6 | 0.75 | 2.5 | 15 | 75 | mg/m3 | **SAR,** ChemFinder listed. |
| 1353 | Fluoroacetamide | 640-19-7 | 1 | 3.5 | 5.8 | 5.8 | mg/m3 | |
| 1354 | Fluoroacetic acid, sodium salt; (Sodium fluoroacetate) | 62-74-8 | 0.05 | 0.15 | 0.5 | 2.5 | mg/m3 | |
| 1355 | Fluoroacetic acid; (Fluoroethanoic acid) | 144-49-0 | 0.075 | 0.25 | 0.47 | 2 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1356 | Fluoroacetyl chloride | 359-06-8 | 2 | 6 | 10 | 10 | mg/m3 | |
| 1357 | Fluoroaniline, p- | 371-40-4 | 1.5 | 5 | 35 | 150 | mg/m3 | Rat oral TDlo, unspecified time, not used. |
| 1358 | Fluorobenzene | 462-06-6 | 125 | 350 | 500 | 500 | mg/m3 | |
| 1359 | **Fluorosulfonic acid; (Fluorosulfuric acid)** | **7789-21-1** | 2 | **2** | **10** | **30** | mg/m3 | Added. **New ERPG-1, -2, -3.** |
| 1360 | Fluorotrimethylsilane | 420-56-4 | 2.5 | 7.5 | 50 | 250 | ppm | Based on silicon fluoride. |
| 1361 | Fluorouracil | 51-21-8 | 0.75 | 2.5 | 19 | 100 | mg/m3 | |
| 1362 | Fonofos | 944-22-9 | 0.01 | 0.03 | 1.3 | 200 | mg/m3 | |
| 1363 | Food Red 15; (FD&C Red No. 19) | 81-88-9 | 0.4 | 1.25 | 7.5 | 50 | mg/m3 | |
| 1364 | Forane | 26675-46-7 | 2000 | 5000 | 5000 | 5000 | ppm | |
| 1365 | **Formaldehyde** | **50-00-0** | 0.3 | **0.90** | **14** | **56** | ppm | **Interim AEGL-1, -2, -3.** |
| 1366 | Formaldehyde cyanohydrin; (Hydroxyacetonitrile; Glycolonitrile) | 107-16-4 | 0.125 | 0.35 | 2.57 | 4 | ppm | |
| 1367 | Formamide | 75-12-7 | 10 | 20 | 125 | 1250 | ppm | |
| 1368 | Formetanate hydrochloride | 23422-53-9 | 3.5 | 10 | 18 | 18 | mg/m3 | |
| 1369 | Formic acid | 64-18-6 | 5 | 10 | 10 | 30 | ppm | |
| 1370 | Formic acid, 2-propenyl ester; (Allyl formate) | 1838-59-1 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 1371 | Formic acid, butyl ester; (n-Butyl formate) | 592-84-7 | 50 | 150 | 1000 | 1000 | ppm | |

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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1372 | Formothion | 2540-82-1 | 0.05 | 0.15 | 0.27 | 10 | mg/m3 | |
| 1373 | Formparanate | 17702-57-7 | 1.5 | 4 | 7.2 | 7.2 | mg/m3 | |
| 1374 | Formylpiperidine, 1- | 2591-86-8 | 4 | 12.5 | 75 | 75 | ppm | |
| 1375 | Fosthietan | 21548-32-3 | 0.75 | 2.5 | 4.7 | 4.7 | mg/m3 | |
| 1376 | Fuberidazole | 3878-19-1 | 0.6 | 2 | 3.3 | 125 | mg/m3 | |
| 1377 | Fuel oil, residual | 68476-33-5 | 35 | 100 | 500 | 500 | mg/m3 | |
| 1378 | Fuller's earth | 8031-18-3 | 5 | 6 | 500 | 500 | mg/m3 | |
| 1379 | Fulminic acid; (Carbyloxime) | 506-85-4 | 0.6 | 1.5 | 12.5 | 60 | ppm | No toxicity data found, pchem data ex HC&P, |
| 1380 | Fumaric acid | 110-17-8 | 40 | 100 | 500 | 500 | mg/m3 | |
| 1381 | **Furan** | **110-00-9** | 1.25 | 4 | **6.8** | **19** | ppm | **Interim AEGL-2, -3.** |
| 1382 | **Furancarboxaldehyde, 2-; (Furfural)** | **98-01-1** | 2 | **2** | **10** | **100** | ppm | **ERPG-1, -2, -3** |
| 1383 | Furancarboxylic acid, ethyl ester, 2-; (Ethyl furoate) | 614-99-3 | 0.25 | 0.75 | 5 | 25 | ppm | |
| 1384 | Furfuryl alcohol | 98-00-0 | 15 | 15 | 15 | 75 | ppm | |
| 1385 | Fusariotoxin T2; (T2-Trichothecene) | 21259-20-1 | 0.0015 | 0.004 | 0.03 | 0.4 | mg/m3 | |
| 1386 | Gadolinium | 7440-54-2 | 500 | 500 | 500 | 500 | mg/m3 | |
| 1387 | Gadolinium chloride hexahydrate | 13450-84-5 | 40 | 75 | 75 | 75 | mg/m3 | No pchem data found. |

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|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1388 | Gadolinium hydroxide | 16469-18-4 | 0.75 | 0.75 | 2.5 | 75 | mg/m3 | **SAR** |
| 1389 | Gadolinium nitrate, solid | 10168-81-7 | 10 | 30 | 50 | 500 | mg/m3 | |
| 1390 | Gadolinium nitrite | z-0022 | 0.04 | 0.125 | 0.75 | 75 | mg/m3 | **SAR** |
| 1391 | Gadolinium(III) oxide | 12064-62-9 | 2 | 6 | 50 | 500 | mg/m3 | Rat LD50 > 5000 mg/m3 |
| 1392 | Gallic acid monohydrate | 5995-86-8 | 15 | 50 | 350 | 500 | mg/m3 | Not found in databases. MSDS LD50. |
| 1393 | Gallium | 7440-55-3 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1394 | Gallium oxide | 12024-21-4 | 10 | 30 | 50 | 500 | mg/m3 | |
| 1395 | Gallium trichloride | 13450-90-3 | 6 | 20 | 32 | 100 | mg/m3 | |
| 1396 | Gallium trifluoride | 7783-51-9 | 5.56 | 16.7 | 27.8 | 125 | mg/m3 | |
| 1397 | Gasoline | 8006-61-9 | 300 | 500 | 500 | ***1500*** | ppm | See LEL Formattinng Note. |
| 1398 | Gelatin; (Pharmagel A) | 9000-70-8 | 2.5 | 7.5 | 60 | 300 | mg/m3 | |
| 1399 | Germane; (Germanium tetrahydride) | 7782-65-2 | 0.2 | 0.6 | 1 | 150 | ppm | |
| 1400 | Germanium | 7440-56-4 | 0.0125 | 0.035 | 0.25 | 500 | mg/m3 | |
| 1401 | Germanium oxide | 1310-53-8 | 0.75 | 2 | 15 | 500 | mg/m3 | |
| 1402 | Germanium tetrafluoride | 7783-58-6 | 4.89 | 12.5 | 100 | 489 | mg/m3 | Reacts with H2.O All Ts changed. |
| 1403 | Germanous acid | z-0023 | 2 | 6 | 40 | 200 | mg/m3 | Used minimum germanium compound LD50 |

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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 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1404 | Giemsa's stain; (… blood stain) | 51811-82-6 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 1405 | Gluconic acid, D- | 526-95-4 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 1406 | Glucose monohydrate, D(+)-; (Dextrose) | 14431-43-7 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity or pchem data found. |
| 1407 | Glucose, alpha-D-; (alpha-Dextrose) | 492-62-6 | 0.4 | 1.25 | 7.5 | 500 | mg/m3 | Glucose, CASRN = 50-99-7, toxicity data used. |
| 1408 | Glucose, D-; (Dextrose, anhydrous) | 50-99-7 | 0.4 | 1.25 | 7.5 | 500 | mg/m3 | Woman TDlo ex SAX, 20-fold lower value in RTECS ignored. |
| 1409 | Glutamic acid, L-; ((S)-(+)-Glutamic acid) | 56-86-0 | 2 | 6 | 40 | 200 | mg/m3 | |
| 1410 | **Gluteraldehyde** | **111-30-8** | 0.05 | **0.2** | **1** | **5** | ppm | **ERPG-1, -2, -3** |
| 1411 | Glycerine (mist); (Glycerol, glycerin) | 56-81-5 | 15 | 125 | 500 | 500 | mg/m3 | T-1 changed. |
| 1412 | Glycerine carbonate; (4-Hydroxymethyl]-1,3-dioxolan-2-one) | 931-40-8 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data found. |
| 1413 | Glyceryl monostearate; (Octadecanoic acid, monoester with 1,2,3-propanetriol) | 31566-31-1 | 10 | 30 | 50 | 75 | mg/m3 | |
| 1414 | Glycidaldehyde | 765-34-4 | 0.025 | 0.075 | 0.5 | 25 | ppm | |
| 1415 | Glycidol; (Oxiranemethanol) | 556-52-5 | 2 | 4 | 30 | 150 | ppm | Outdated PEL-TWA not used. |
| 1416 | Glycidoxypropyltrimethoxysilane; (3-(2,3-Epoxypropoxy) propyltrimetyh-oxysilane) | 2530-83-8 | 150 | 400 | 500 | 500 | mg/m3 | |
| 1417 | Glycidyl acrylate; (2,3-Epoxypropyl acrylate) | 106-90-1 | 0.125 | 0.4 | 2.5 | 12.5 | ppm | Human skin contact TClo not used. |
| 1418 | Glycine; (Aminoacetic acid) | 56-40-6 | 25 | 75 | 500 | 500 | mg/m3 | |
| 1419 | Glycol carbonate; (Ethylene carbonate) | 96-49-1 | 40 | 125 | 500 | 500 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1420 | Glycolic acid | 79-14-1 | 0.75 | 0.75 | 0.75 | 0.75 | mg/m3 | |
| 1421 | Glycols, polyethylene, dimethyl ether | 24991-55-7 | 75 | 200 | 500 | 500 | mg/m3 | No pchem data found, SG = 1 assumed. |
| 1422 | Glycols, polyethylene, mono(p-nonylphenyl) ether; (Nonoxynol-9) | 26027-38-3 | 0.025 | 0.075 | 0.6 | 60 | mg/m3 | |
| 1423 | Glycoluril; (Acetyleneurea) | 496-46-8 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 1424 | Glyoxal | 107-22-2 | 0.1 | 35 | 75 | 75 | mg/m3 | |
| 1425 | Goethite; (Iron hydroxide oxide) | 1310-14-1 | 5 | 7.5 | 12.5 | 250 | mg/m3 | **SAR** |
| 1426 | Gold | 7440-57-5 | 7.5 | 25 | 100 | 100 | mg/m3 | |
| 1427 | Graphite; (Mineral carbon) | 7782-42-5 | 2 | 6 | 10 | 500 | mg/m3 | |
| 1428 | Grease; (Animal grease, inedible) | 68153-81-1 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 1429 | Guanidine, N-methyl-N'-nitro-N-nitroso- | 70-25-7 | 0.125 | 0.35 | 2.5 | 40 | mg/m3 | |
| 1430 | Guanidinehydrochloride | 50-01-1 | 2 | 6 | 40 | 200 | mg/m3 | SAX MW wrong |
| 1431 | Hafnium | 7440-58-6 | 0.5 | 1.5 | 2.5 | 50 | mg/m3 | |
| 1432 | Hafnium oxide | 12055-23-1 | 0.59 | 1.77 | 3 | 59 | mg/m3 | |
| 1433 | Halon 1211; (Bromochlorodifluoromethane) | 353-59-3 | 12.5 | 40 | 250 | 5000 | ppm | |
| 1434 | Hansa yellow | 13515-40-7 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1435 | Helium | 7440-59-7 | 65000 | 65000 | 230000 | 400000 | ppm | Simple asphyxiant. |

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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1436 | Hematoxylin | 517-28-2 | 10 | 30 | 50 | 50 | mg/m3 | |
| 1437 | Heptachlor | 76-44-8 | 0.5 | 0.5 | 0.5 | 35 | mg/m3 | |
| 1438 | Heptachlor epoxide; (Epoxyheptachlor) | 1024-57-3 | 0.05 | 0.15 | 6 | 6 | mg/m3 | T-0, T-1, T-2 changed. |
| 1439 | Heptachlorodibenzofuran, 1,2,3,4,6,7,8-; (HeptaCDF, 1,2,3,4,6,7,8-) | 67562-39-4 | 0.06 | 0.15 | 1.25 | 6 | mg/m3 | |
| 1440 | Heptachlorodibenzofuran, 1,2,3,4,7,8,9- ; (HeptaCDF, 1,2,3,4,7,8,9-) | 55673-89-7 | 0.075 | 0.25 | 1.5 | 7.5 | mg/m3 | |
| 1441 | Heptachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8-; (HeptaCDD, 1,2,3,4,6,7,8-) | 35822-46-9 | 0.15 | 0.5 | 2.5 | 2.5 | mg/m3 | |
| 1442 | Heptadecane | 629-78-7 | 15 | 50 | 350 | ***1500*** | ppm | See LEL Formattinng Note. |
| 1443 | Heptafluorobutyric acid | 375-22-4 | 0.6 | 2 | 12.5 | 60 | mg/m3 | |
| 1444 | Heptafluorotetrahydro-5-(nonafluorobutyl)furan, 2,2,3,3,4,4,5-; (Perfluoro-2-butyltetrahydrofuran; Fluorinert FC-75) | 335-36-4 | 3.42 | 10.3 | 17.1 | 75 | mg/m3 | |
| 1445 | Heptane | 142-82-5 | 440 | 440 | 440 | 750 | ppm | |
| 1446 | Heptanoic acid | 111-14-8 | 5 | 15 | 100 | 600 | ppm | |
| 1447 | Heptanol, 1-; (Heptyl alcohol) | 111-70-6 | 3.5 | 10 | 500 | 500 | mg/m3 | |
| 1448 | Heptene, 1- | 592-76-7 | 1500 | 5000 | 40000 | 200000 | ppm | |
| 1449 | Hexacarbonylchromium; (Chromium hexacarbonyl) | 13007-92-6 | 0.05 | 1.25 | 1.25 | 1.25 | mg/m3 | T-1 changed. |
| 1450 | Hexachloroacetone | 116-16-5 | 0.4 | 1.25 | 7.5 | 200 | mg/m3 | |

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Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1451 | Hexachlorobenzene | 118-74-1 | 0.002 | 0.006 | 2 | 200 | mg/m3 | |
| 1452 | **Hexachlorobutadiene** | **87-68-3** | 0.02 | **1** | **3** | **10** | ppm | **ERPG-1, -2, -3** |
| 1453 | Hexachlorocyclohexane, alpha-; (Benzene hexachloride-alpha-isomer) | 319-84-6 | 0.5 | 1.5 | 2.5 | 500 | mg/m3 | Toxicity data updated, T-2 changed. |
| 1454 | Hexachlorocyclohexane, beta-1,2,3,4,5,6-; (Benzene hexachloride, trans-alpha-) | 319-85-7 | 0.5 | 1.5 | 2.5 | 500 | mg/m3 | Toxicity data updated, T-2 changed. |
| 1455 | Hexachlorocylopentadiene | 77-47-4 | 0.01 | 0.0179 | 0.0179 | 0.0179 | ppm | |
| 1456 | Hexachlorodibenzodioxin, 1,2,3,4,7,8-; (HexaCDD, 1,2,3,4,7,8-) | 39227-28-6 | 0.0004 | 0.00125 | 0.0075 | 0.4 | mg/m3 | |
| 1457 | Hexachlorodibenzofuran, 1,2,3,4,7,8- | 70648-26-9 | 0.0025 | 0.0075 | 0.06 | 0.3 | mg/m3 | |
| 1458 | Hexachlorodibenzofuran, 1,2,3,6,7,8- | 57117-44-9 | 0.00075 | 0.0025 | 0.015 | 0.075 | mg/m3 | |
| 1459 | Hexachlorodibenzofuran, 1,2,3,7,8,9-; (HexaCDF, 1,2,3,7,8,9-) | 72918-21-9 | 0.04 | 0.125 | 0.75 | 4 | mg/m3 | |
| 1460 | Hexachlorodibenzofuran, 2,3,4,6,7,8- | 60851-34-5 | 0.0005 | 0.0015 | 0.01 | 0.05 | mg/m3 | |
| 1461 | Hexachlorodibenzo-p-dioxin, 1,2,3,6,7,8- | 57653-85-7 | 0.005 | 0.015 | 0.1 | 0.5 | mg/m3 | SAX name differs from other sources, "4" changed to "6" |
| 1462 | Hexachlorodibenzo-p-dioxin, 1,2,3,7,8,9-; (HexaCDD, 1,2,3,7,8,9-) | 19408-74-3 | 0.005 | 0.015 | 0.1 | 0.5 | mg/m3 | |
| 1463 | Hexachloroethane | 67-72-1 | 1 | 3 | 40 | 300 | ppm | |
| 1464 | Hexachloronaphthalene | 1335-87-1 | 0.2 | 0.2 | 0.2 | 2 | mg/m3 | |
| 1465 | Hexachlorophene | 70-30-4 | 10 | 10 | 20 | 200 | mg/m3 | |
| 1466 | Hexachloropropene | 1888-71-7 | 0.15 | 0.4 | 3 | 15 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1467 | Hexadecanamine, 1- | 143-27-1 | 0.125 | 0.35 | 2.5 | 75 | mg/m3 | |
| 1468 | Hexadecane | 544-76-3 | 3 | 7.5 | 60 | 500 | mg/m3 | |
| 1469 | Hexadecanoic acid; (Palmitic acid) | 57-10-3 | 25 | 50 | 50 | 50 | mg/m3 | |
| 1470 | Hexadecanol, 1- | 36653-82-4 | 2.5 | 7.5 | 60 | 300 | mg/m3 | |
| 1471 | Hexadecene, 1- | 629-73-2 | 0.4 | 1.25 | 10 | 50 | ppm | LD>10 g/kg, and LC>8500 mg/m3. |
| 1472 | Hexadecylpyridinium chloride, 1-; (Cepacol chloride) | 123-03-5 | 0.075 | 0.25 | 2 | 10 | mg/m3 | |
| 1473 | Hexadecyltrimethylammonium chloride | 112-02-7 | 2.5 | 7.5 | 50 | 250 | mg/m3 | Mouse iv LD50 ex HSDB. |
| 1474 | Hexafluoro-2-propanol, 1,1,1,3,3,3- | 920-66-1 | 7.5 | 25 | 150 | 750 | ppm | |
| 1475 | **Hexafluoroacetone** | **684-16-2** | 0.1 | 0.1 | **0.20** | **80** | ppm | **New interim AEGL-2, -3. ERPG-2, -3.** T-1, T-2, T-3 changed. |
| 1476 | Hexafluorobenzene | 392-56-3 | 150 | 500 | 1500 | 1500 | ppm | |
| 1477 | Hexafluorobutyne-2; (1,1,1,4,4,4-Hexafluoro-2-butyne) | 692-50-2 | 0.3 | 1 | 6 | 35 | ppm | |
| 1478 | Hexafluoroethane; (Freon 116; Perfluoroethane) | 76-16-4 | 40000 | 40000 | 40000 | 40000 | ppm | LC > 20 pph |
| 1479 | **Hexafluoropropylene; (Hexafluoropropene)** | **116-15-4** | 0.1 | **40** | **91** | **480** | ppm | **New interim AEGL-1, -2, -3. ERPG-1, -2, -3.** T-1, T-2 changed. |
| 1480 | Hexafluoropropylene-vinylidene fluoride polymer; (Viton) | 9011-17-0 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data, polymer. MSDS not useful |
| 1481 | Hexamethylcyclotrisiloxane | 541-05-9 | 10 | 30 | 200 | 500 | mg/m3 | Based on other silanes |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1482 | Hexamethyldisilazane | 999-97-3 | 12.5 | 40 | 250 | 350 | mg/m3 | |
| 1483 | Hexamethyldisiloxane | 107-46-0 | 40 | 125 | 300 | 300 | ppm | |
| 1484 | Hexamethylene diisocyanate polymer | 28182-81-2 | 7.5 | 25 | 200 | 500 | mg/m3 | |
| 1485 | Hexamethylene diisocyanate; (1,6-Diisocyanatohexane) | 822-06-0 | 0.005 | 0.015 | 0.2 | 3.5 | ppm | |
| 1486 | Hexamethyleneimine | 111-49-9 | 15 | 40 | 300 | 500 | mg/m3 | T-0 changed. |
| 1487 | Hexamethylenetetraamine hydrochloride | 58713-21-6 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1488 | Hexamethylenetetraamine; (Methenamine) | 100-97-0 | 10 | 30 | 500 | 500 | mg/m3 | |
| 1489 | Hexamethylphosphoramide | 680-31-9 | 0.04 | 0.125 | 0.75 | 150 | ppm | |
| 1490 | Hexamethyltetracosane, 2,6,10,15,19,23-; (Squalane) | 111-01-3 | 5 | 15 | 100 | 500 | ppm | No toxicity data found. |
| 1491 | Hexanal | 66-25-1 | 12.5 | 35 | 200 | 200 | ppm | |
| 1492 | **Hexane** | **110-54-3** | 50 | 400 | ***3300*** | ***8600*** | ppm | **Interim AEGL-2, -3.** See LEL Formattinng Note. |
| 1493 | Hexanediol diacrylate, 1,6- | 13048-33-4 | 1 | 3.5 | 25 | 500 | mg/m3 | |
| 1494 | Hexanediol, 1,6-; (Hexamethylene glycol) | 629-11-8 | 50 | 150 | 500 | 500 | mg/m3 | |
| 1495 | Hexanehexol, 1,2,3,4,5,6-; (Mannitol) | 69-65-8 | 500 | 500 | 500 | 500 | mg/m3 | |
| 1496 | Hexanenitrile | 628-73-9 | 0.5 | 1.5 | 10 | 50 | ppm | |
| 1497 | Hexanethiol, 1-; (N-Hexylmercaptan) | 111-31-9 | 0.025 | 0.075 | 0.5 | 100 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1498 | Hexanitrostilbene | 20062-22-0 | 0.25 | 0.75 | 6 | 30 | mg/m3 | TSCA listed, no pchem or toxicity data found. Used 4-Nitrostilbene, 4003-94-5, as surrogate. |
| 1499 | Hexanoic acid | 142-62-1 | 5 | 15 | 100 | 500 | mg/m3 | |
| 1500 | Hexanol, 2-; (2-Hydroxyhexane) | 626-93-7 | 5 | 15 | 100 | 500 | mg/m3 | |
| 1501 | Hexanol, n-; (n-Hexyl alcohol) | 111-27-3 | 0.75 | 2 | 15 | 75 | ppm | |
| 1502 | Hexanone, 2-; (Methyl n-butyl ketone) | 591-78-6 | 5 | 10 | ***1500*** | ***1600*** | ppm | See LEL Formattinng Note. |
| 1503 | Hexanone, 3-; (Ethyl propyl ketone) | 589-38-8 | 4 | 12.5 | 75 | 400 | ppm | |
| 1504 | Hexanoyl chloride | 142-61-0 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA listed, no toxicity data found. MSDS states "corrosive lacrynator, HHR = 3 estimated. |
| 1505 | Hexaphenylcyclotrisiloxane | 512-63-0 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed, no toxicity data. MSDS HHR = 2. |
| 1506 | **Hexene, 1-** | **592-41-6** | 50 | 75 | **500** | ***5000*** | ppm | **New ERPG-2, -3. All Ts changed.** See LEL Formattinng Note. |
| 1507 | Hexylene glycol | 107-41-5 | 10 | 10 | 25 | 350 | ppm | T-1 changed. |
| 1508 | **Hexyltrichlorosilane** | **928-65-4** | 0.2 | **0.60** | **7.3** | **33** | ppm | Added. **New interim AEGL-1, -2, -3.** |
| 1509 | Holmium | 7440-60-0 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 1510 | Holmium trioxide | 12055-62-8 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 1511 | Humic acid, sodium salt | 68131-04-4 | 2 | 6 | 40 | 200 | mg/m3 | No pchem data found. |
| 1512 | **Hydrazine** | **302-01-2** | 0.1 | **0.10** | **13** | **35** | ppm | **Interim AEGL-1, -2, -3.** |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1513 | Hydrazine hydrate, aequeous solutions | 10217-52-4 | 0.03 | 0.0625 | 0.0625 | 0.0625 | mg/m3 | |
| 1514 | Hydrazine hydrate; (Hydrazine monohydrate) | 7803-57-8 | 0.003 | 0.0075 | 0.0625 | 50 | mg/m3 | |
| 1515 | Hydrazine hydrochloride; (Hydrazine monochloride) | 2644-70-4 | 0.0075 | 0.025 | 0.04 | 50 | mg/m3 | |
| 1516 | Hydrazine nitrate; (Hydrazinium nitrate) | 13464-97-6 | 1 | 3 | 5 | 25 | mg/m3 | |
| 1517 | Hydrazine sulfate | 10034-93-2 | 0.6 | 2 | 15 | 250 | mg/m3 | . |
| 1518 | Hydrazine, dihydrochloride | 5341-61-7 | 25 | 75 | 500 | 500 | mg/m3 | |
| 1519 | **Hydriodic acid; (Hydrogen iodide)** | **10034-85-2** | 0.35 | **1.0** | **22** | **120** | ppm | **Interim AEGL-1, -2, -3.** |
| 1520 | **Hydrobromic acid; (Hydrogen bromide)** | **10035-10-6** | 1 | **1.0** | **22** | **120** | ppm | **Interim AEGL-1, -2, -3.** |
| 1521 | Hydrogen | 1333-74-0 | ***65000*** | ***65000*** | ***230000*** | ***400000*** | ppm | Simple asphyxiant. See LEL Formattinng Note. |
| 1522 | **Hydrogen chloride; (Hydrochloric acid)** | **7647-01-0** | 0.5 | **1.8** | **22** | **100** | ppm | **Final AEGL-1, -2, -3.** |
| 1523 | **Hydrogen cyanide; (Hydrocyanic acid)** | **74-90-8** | 1.9 | **2.0** | **7.1** | **15** | ppm | **Final AEGL-1, -2, -3.** |
| 1524 | **Hydrogen fluoride; (Hydrofluoric acid)** | **7664-39-3** | 1 | **1.0** | **24** | **44** | ppm | **Final AEGL-1, -2, -3.** |
| 1525 | **Hydrogen peroxide** | **7722-84-1** | 1 | **10** | **50** | **100** | ppm | **ERPG-1, -2, -3** |
| 1526 | Hydrogen peroxide - 30% | 7722-84-1a | 10 | 33.3 | 167 | 333 | ppm | Pchem data ex ChemFinder. |
| 1527 | Hydrogen potassium phthalate; (Phthalic acid, monopotassium salt; Potassium acid phthalate; Potassium biphthalate) | 877-24-7 | 12.5 | 40 | 250 | 500 | mg/m3 | Rat LD50 > 3200 mg/kg. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1528 | **Hydrogen selenide** | **7783-07-5** | 0.05 | 0.1 | **0.73** | **2.2** | ppm | **Interim AEGL-2, -3.** |
| 1529 | **Hydrogen sulfide** | **7783-06-4** | 0.51 | **0.51** | **27** | **50** | ppm | **Interim AEGL-1, -2, -3.** |
| 1530 | Hydrogenated terphenyl | 61788-32-7 | 0.5 | 1.5 | 2.5 | 500 | mg/m3 | |
| 1531 | Hydroquinone | 123-31-9 | 2 | 3 | 20 | 50 | mg/m3 | |
| 1532 | Hydrotreated (mild & severe) heavy paraffinic distillates | 64742-54-7 | 60 | 150 | 500 | 500 | mg/m3 | |
| 1533 | Hydrotreated middle distillate (Petroleum base oil) | 64742-46-7 | 3 | 7.5 | 60 | 300 | mg/m3 | |
| 1534 | Hydroxy-2-methylpropanoic acid, 2-; (2-Methyllactic acid) | 594-61-6 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 1535 | Hydroxy-4'-hydroxyethoxy-2-methylpropiophenone, 2- | 106797-53-9 | 15 | 50 | 350 | 500 | mg/m3 | No pchem data found. |
| 1536 | Hydroxy-4-methyl-2-pentanone, 4-; (Diacetone alcohol) | 123-42-2 | 50 | 50 | 50 | ***1800*** | ppm | See LEL Formattinng Note. |
| 1537 | Hydroxyapatite; (Calcium hydroxyapatite) | 1306-06-5 | 12.5 | 35 | 60 | 500 | mg/m3 | **SAR** |
| 1538 | Hydroxybenezenesulfonic acid, 4-; (4-Hydroxyphenylsulfonic acid) | 98-67-9 | 25 | 75 | 500 | 500 | mg/m3 | |
| 1539 | Hydroxybenzoic acid, 4-; (p-Salicylic acvid) | 99-96-7 | 20 | 60 | 400 | 500 | mg/m3 | Added. |
| 1540 | Hydroxybenzotriazole, 1-; (1-Hydroxybenzotriazole hydrate) | 2592-95-2 | 40 | 125 | 500 | 500 | mg/m3 | ChemFinder pchem data. |
| 1541 | Hydroxyethyl acrylate, 2-; (Acrylic acid, 2-hydroxyethyl ester) | 818-61-1 | 0.35 | 1 | 6 | 50 | ppm | |
| 1542 | Hydroxyethyl methacrylate, 2- | 868-77-9 | 0.1 | 0.3 | 2 | 500 | mg/m3 | |
| 1543 | Hydroxyethyl)-1-piperazineethanesulfonic acid, 4-(2- | 7365-45-9 | 1.25 | 4 | 25 | 125 | mg/m3 | Quail LD50 > 316 mg/kg |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1544 | Hydroxyethylenediaminetriacetic acid, N- | 150-39-0 | 1.25 | 4 | 30 | 150 | mg/m3 | |
| 1545 | Hydroxyethylidene-1,1-diphosphonic acid, 1-; (Hydroxyethylidine bisphosphonic acid, 1-) | 2809-21-4 | 10 | 30 | 50 | 500 | mg/m3 | |
| 1546 | Hydroxylamine | 7803-49-8 | 0.25 | 0.75 | 5 | 25 | mg/m3 | |
| 1547 | Hydroxylamine chloride; (Hydroxylamine hydrochloride) | 5470-11-1 | 10 | 35 | 60 | 60 | mg/m3 | |
| 1548 | Hydroxylamine nitrate | 13465-08-2 | 7.62 | 15.2 | 26 | 150 | mg/m3 | Concentration limits as HNO3 |
| 1549 | Hydroxylamine sulfate; (Oxammonium sulfate) | 10039-54-0 | 4 | 10 | 75 | 400 | mg/m3 | |
| 1550 | Hydroxymethanesulfinic acid, monosodium salt; (Formaldehyde hydrosulfite) | 149-44-0 | 15 | 50 | 350 | 500 | mg/m3 | |
| 1551 | Hydroxy-N-phenylbenzamide, N-; (Phenylbenzohydroxamic acid, N-) | 304-88-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. MSDS data. |
| 1552 | Hydroxyphenyl)benzothiazole, 2(2- | 3411-95-8 | 35 | 100 | 500 | 500 | mg/m3 | Mouse LD lo > 4 g/kg |
| 1553 | Hydroxyphenylacetic acid, alpha- | 90-64-2 | 15 | 50 | 350 | 500 | mg/m3 | |
| 1554 | Hydroxypropyl cellulose | 9004-64-2 | 40 | 125 | 500 | 500 | mg/m3 | MF, MW ex ChemFinder. |
| 1555 | Hydroxyquinoline sulfate, 8- | 134-31-6 | 5 | 15 | 100 | 500 | mg/m3 | |
| 1556 | Hypophosphorous acid-d3; (Hydrophosphorus acid-d3 solution, 50 wt.% in D2O) | 57583-56-9 | 0.75 | 2.5 | 15 | 300 | ppm | Not found in databases. MW, MF, SG from MSDS, no HHR. Used CASRN 13598-36-2, H3.O3.P toxicity. |
| 1557 | Hypophosphorus acid; (Phosphinic acid) | 6303-21-5 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1558 | Imidazole | 288-32-4 | 4 | 12.5 | 75 | 100 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1559 | Imidazole hydrochloride | 1467-16-9 | 7.5 | 25 | 150 | 500 | mg/m3 | MSDS HHR = 2 |
| 1560 | Imidazole, substituted; (1,3,5-Triazine-2,4-diamine, 6-[2-(2-metyhyl-1H-imidazol-1-yl)ethyl]; Curezol 2MEA-PW) | 38668-46-1 | 10 | 30 | 50 | 250 | mg/m3 | Added. TSCA listed, no toxicity data found, no MSDS found. |
| 1561 | Iminodiacetic acid | 142-73-4 | 1 | 3 | 20 | 100 | mg/m3 | |
| 1562 | Iminodiacetic acid, disodium salt hydrate | 17593-73-6 | 35 | 100 | 500 | 500 | mg/m3 | Not found in databases. ChemFinder irritation and pchem data.. |
| 1563 | Indan | 496-11-7 | 40 | 125 | 500 | 500 | mg/m3 | |
| 1564 | Indene | 95-13-6 | 5 | 7.5 | 60 | 300 | ppm | T-0, T-1 changed. |
| 1565 | Indeno(1,2,3-cd)pyrene | 193-39-5 | 0.15 | 0.5 | 3.5 | 15 | mg/m3 | |
| 1566 | Indigo carmine; (FD&C blue No 2) | 860-22-0 | 20 | 60 | 75 | 75 | mg/m3 | |
| 1567 | Indium | 7440-74-6 | 0.1 | 0.1 | 0.6 | 3.5 | mg/m3 | |
| 1568 | Indium oxide (vapor) | 1312-43-2b | 0.107 | 0.321 | 0.535 | 2.5 | mg/m3 | |
| 1569 | Indium sulfate | 13464-82-9 | 0.225 | 0.676 | 1.13 | 4 | mg/m3 | |
| 1570 | Indium trichloride | 10025-82-8 | 0.193 | 0.578 | 1 | 1 | mg/m3 | |
| 1571 | Indium(III) oxide | 1312-43-2a | 0.121 | 0.363 | 100 | 500 | mg/m3 | |
| 1572 | Indole-3-carboxaldehyde, 1H-; (3-Formylindole) | 487-89-8 | 0.75 | 2.5 | 15 | 75 | ppm | |
| 1573 | Iodic acid | 7782-68-5 | 0.0139 | 0.02 | 0.139 | 2.77 | mg/m3 | T-0, T-1 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1574 | Iodide, Ammonium, tetraethyl-; (Tetraethylammoniumiodide) | 68-05-3 | 0.0203 | 0.0608 | 0.101 | 15 | mg/m3 | T-0, T-1, T-2 changed. |
| 1575 | **Iodine** | **7553-56-2** | 0.01 | **0.1** | **0.5** | **5** | ppm | **ERPG-1, -2, -3** |
| 1576 | Iodine 125 | 17144-19-3 | 0.01 | 0.1 | 0.5 | 5 | ppm | Used Iodine PACs. T-0 changed. |
| 1577 | Iodobenzene | 591-50-4 | 0.0161 | 0.0482 | 500 | 500 | mg/m3 | T-0, T-1 changed. |
| 1578 | Iodoethane; (Ethyl iodide) | 75-03-6 | 0.0123 | 0.0369 | 0.0615 | 500 | ppm | T-0, T-1, T-2 changed. |
| 1579 | Iodoheptafluoropropane, 1-; (Heptafluoropropyl iodide) | 754-34-7 | 0.0233 | 0.07 | 0.117 | 12500 | ppm | T-0, T-1, T-2 changed. BP and SG ex ChemFinder. |
| 1580 | Iodopentane, 1- | 628-17-1 | 0.0156 | 0.0468 | 0.078 | 400 | mg/m3 | T-0, T-1, T-2 changed. |
| 1581 | Iotalamic acid | 2276-90-6 | 0.0161 | 0.0484 | 1.25 | 500 | mg/m3 | T-0, T-1 changed. |
| 1582 | Iridium | 7439-88-5 | 6 | 20 | 125 | 500 | mg/m3 | HSDB has three entries, data are conflicting, rat oral LD50 = 4.67 mg/kg or 1560 mg/kg. |
| 1583 | Iron | 7439-89-6 | 1.5 | 4 | 30 | 500 | mg/m3 | |
| 1584 | Iron carbide | 12011-67-5 | 5.36 | 16.1 | 26.8 | 125 | mg/m3 | Treated as insoluble Fe fume. |
| 1585 | Iron hydroxide oxide | 20344-49-4 | 15.9 | 47.7 | 79.6 | 400 | mg/m3 | |
| 1586 | Iron oxide; (Ferric oxide) | 1309-37-1 | 5 | 15 | 40 | 500 | mg/m3 | PEL-TWA ignored. |
| 1587 | **Iron pentacarbonyl** | **13463-40-6** | 0.06 | 0.06 | **0.060** | **0.18** | ppm | **Final AEGL-2, -3.** |
| 1588 | Iron(II) chloride tetrahydrate | 13478-10-9 | 3.56 | 3.56 | 7.5 | 40 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1589 | Iron(II) perchlorate hexahydrate | 13520-69-9 | 6.33 | 19 | 31.6 | 150 | mg/m3 | Not found in databases, assumed MF, calculated MW. |
| 1590 | Iron(II,III) oxide; (Ferrosoferric oxide; Iron(III) oxide) | 1317-61-9 | 20.7 | 31.1 | 51.8 | 250 | mg/m3 | No toxicity data found. |
| 1591 | Iron(III) perchlorate | 13537-24-1 | 6.34 | 19 | 31.7 | 150 | mg/m3 | TSCA listed, no toxicity or pchem data found. Assumed soluble. |
| 1592 | Iron(III) sulfate heptahydrate | 35139-28-7 | 4.98 | 14.9 | 25 | 500 | mg/m3 | Iron(II) found under CASRN = 7782-63-0, used its toxicity data. |
| 1593 | Isoamyl acetate; (Isopentyl acetate) | 123-92-2 | 100 | 100 | 200 | ***1000*** | ppm | See LEL Formattinng Note. |
| 1594 | Isoamyl alcohol (primary); (3-Methyl-1-butanol) | 123-51-3 | 100 | 125 | 125 | 500 | ppm | |
| 1595 | Isoamyl alcohol (secondary); (3-Pentanol) | 584-02-1 | 100 | 125 | 125 | 500 | ppm | |
| 1596 | Isoamyl nitrite; (Isopentyl nitrite) | 110-46-3 | 3 | 7.5 | 60 | 300 | ppm | |
| 1597 | Isobenzan | 297-78-9 | 0.5 | 1.5 | 2 | 2 | mg/m3 | |
| 1598 | Isobutanol-2-amine | 124-68-5 | 0.03 | 0.075 | 0.6 | 500 | mg/m3 | |
| 1599 | Isobutyl acetate | 110-19-0 | 150 | 150 | 250 | ***1300*** | ppm | See LEL Formattinng Note. |
| 1600 | Isobutyl alcohol | 78-83-1 | 100 | ***1250*** | ***1600*** | ***1600*** | ppm | See LEL Formattinng Note. |
| 1601 | Isobutyl chloride; (1-Chloro-2-methylpropane) | 513-36-0 | 0.4 | 1.25 | 7.5 | 40 | ppm | No toxicity data found. |
| 1602 | **Isobutyl Chloroformate; (Chloroformic acid butyl ester)** | **543-27-1** | 0.2 | 0.6 | **2.2** | **6.7** | ppm | **New interim AEGL-2, -3.** Added. |
| 1603 | Isobutyl isobutyrate | 97-85-8 | 150 | 500 | 500 | 500 | mg/m3 | |
| 1604 | Isobutylamine | 78-81-9 | 5 | 5 | 6 | 35 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1605 | Isobutyraldehyde | 78-84-2 | 25 | 300 | 1500 | 1500 | ppm | |
| 1606 | Isobutyric acid | 79-31-2 | 0.3 | 1 | 6 | 35 | ppm | |
| 1607 | Isobutyric anhydride; (2-Methylpropionic anhydride) | 97-72-3 | 0.1 | 0.3 | 2 | 10 | ppm | No toxicity data found. Rat LC50 based on HHR = 3. |
| 1608 | **Isobutyronitrile** | **78-82-0** | 8 | **10** | **18** | **68** | ppm | **Interim AEGL-2, -3, ERPG-1, -2, -3.** |
| 1609 | Isocyanate-bearing waste (as CNs N.O.S.) | z-0024 | 5 | 5 | 5 | 25 | mg/m3 | |
| 1610 | **Isocyanatoethyl methacrylate, 2-** | **30674-80-7** | 0.02 | 0.06 | **0.1** | **1** | ppm | **ERPG-2, -3.** |
| 1611 | Isocyanic acid | 75-13-8 | 0.04 | 0.1 | 0.75 | 4 | ppm | Not found in databases. Lewis' Toxicology states "irritant to skin and eyes … will blister skin on contact". |
| 1612 | Isocyanic acid, 3,4-dichlorophenyl ester; (3,4-Dichlorophenyl isocyanate) | 102-36-3 | 2.5 | 7.5 | 14 | 500 | mg/m3 | SAX and RTECS tox data conflict |
| 1613 | Isodrin | 465-73-6 | 1.25 | 4 | 7 | 7 | mg/m3 | |
| 1614 | Isonate 181 MDI prepolymer | z-0113 | 7.5 | 25 | 100 | 225 | mg/m3 | Used 25% 26447-40-5, 25% 101-68-8, 25% 68092-58-0/, 25% z-0112). T-0, T-1, T-3 changed. |
| 1615 | Isooctane; (2,2,4-Trimethylpentane) | 540-84-1 | 300 | 385 | 385 | 1000 | ppm | PEL-TWA suppressed. T-1, T-2, T-3 changed. |
| 1616 | Isopentane; (Ethyldimethylmethane; 2-Methylbutane) | 78-78-4 | 610 | 610 | 610 | ***20000*** | ppm | See LEL Formattinng Note. |
| 1617 | Isophorone | 78-59-1 | 5 | 5 | 5 | 200 | ppm | |
| 1618 | Isophorone diisocyanate | 4098-71-9 | 0.005 | 0.02 | 0.135 | 6 | ppm | |
| 1619 | Isophthalic acid | 121-91-5 | 10 | 30 | 50 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1620 | **Isoprene** | **78-79-5** | 2 | **5** | ***1000*** | ***4000*** | ppm | **ERPG-1, -2, -3.** See LEL Formattinng Note. |
| 1621 | Isopropyl acetate | 108-21-4 | 200 | 200 | 200 | ***1800*** | ppm | T-0, T-1, T-2 changed. See LEL Formattinng Note. |
| 1622 | Isopropyl alcohol | 67-63-0 | 400 | 400 | 400 | ***2000*** | ppm | T-2 changed. See LEL Formattinng Note. |
| 1623 | Isopropyl chloride; (2-Chloropropane) | 75-29-6 | 50 | 150 | ***15000*** | ***15000*** | ppm | See LEL Formattinng Note. |
| 1624 | **Isopropyl chloroformate; (Isopropyl chlorocarbonate)** | **108-23-6** | 0.15 | 0.4 | **3.3** | **10** | ppm | **New interim AEGL-2, -3. ERPG-2, -3.** All Ts changed. |
| 1625 | Isopropyl ether; (Diisopropyl ether) | 108-20-3 | 310 | 310 | 310 | ***1400*** | ppm | See LEL Formattinng Note. |
| 1626 | **Isopropyl methanefluoro-phosphonate; (Sarin; GB)** | **107-44-8** | 0.00015 | **0.00048** | **0.0060** | **0.022** | ppm | **Final AEGL-1, -2, -3.** |
| 1627 | Isopropyl nitrate | 1712-64-7 | 1.5 | 5 | 150 | 750 | ppm | RTECS replaced SAX data. T-2, T-3 changed. |
| 1628 | Isopropyl titanate(IV); (Titanium(IV) isopropoxide) | 546-68-9 | 30 | 75 | 500 | 500 | mg/m3 | |
| 1629 | Isopropylamine; (2-Propanamine) | 75-31-0 | 5 | 10 | 150 | 750 | ppm | |
| 1630 | Isopropylmagnesium chloride; (Chloro(1-methylethyl)magnesium) | 1068-55-9 | 1 | 3 | 20 | 100 | mg/m3 | No toxicity data found. Rat LD50 estimated from other Mg compounds |
| 1631 | Isopropylmethylpyrazolyl dimethylcarbamate; (Isolan) | 119-38-0 | 1 | 3.5 | 5.6 | 5.6 | mg/m3 | |
| 1632 | Isopropyltoluene, 4-; (p-Cymene) | 99-87-6 | 75 | 250 | 500 | 500 | mg/m3 | Added. |
| 1633 | Jeffamine M-600 | 77110-54-4 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases, no MSDS, assumed nonvolatile. |
| 1634 | **Jet fuels (JP-5 and JP-8)** | **70892-10-3** | 200 | **290** | **1100** | 1100 | mg/m3 | **Interim AEGL-1, -2.** (also CASRN = 8008-20-6). T-0, T-2, T-3 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1635 | Kaolin; (Aluminum silicate hydroxide) | 1332-58-7 | 5 | 6 | 125 | 500 | mg/m3 | |
| 1636 | Kepone; (Chlordecone) | 143-50-0 | 0.001 | 0.003 | 0.6 | 40 | mg/m3 | |
| 1637 | **Kerosene** | **8008-20-6** | 200 | **290** | **1100** | 1100 | mg/m3 | **Interim AEGL-1, -2.** All Ts changed. |
| 1638 | **Ketene; (Carbomethene, Ethenone)** | **463-51-4** | 0.19 | **0.19** | **0.66** | **2.0** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 1639 | Krypton | 7439-90-9 | 65000 | 65000 | 230000 | 400000 | ppm | Simple asphyxiant. |
| 1640 | Lactic acid | 50-21-5 | 15 | 40 | 300 | 500 | mg/m3 | |
| 1641 | Lactic acid, sodium salt, DL-; (Propanoic acid, 2-hydroxy-, monosodium salt) | 312-85-6 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. |
| 1642 | Lactonitrile | 78-97-7 | 3.5 | 10 | 18 | 150 | mg/m3 | |
| 1643 | Lactose, beta-D; (beta-D-Glucopyranose, 4-O-beta-D-galactopyranosyl-) | 5965-66-2 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 1644 | Lanthanum | 7439-91-0 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1645 | Lanthanum alizarin | z-0026 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1646 | Lanthanum boride | 12008-21-8 | 14.7 | 44 | 75 | 350 | mg/m3 | Used PNOS default as La. |
| 1647 | Lanthanum carbonate | 6487-39-4 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1648 | Lanthanum chloride | 10099-58-8 | 6 | 20 | 150 | 500 | mg/m3 | T-2 changed. |
| 1649 | Lanthanum fluoride | 13709-38-1 | 8.59 | 8.59 | 50 | 250 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1650 | Lanthanum hydroxide | 14507-19-8 | 0.2 | 0.75 | 2 | 2.5 | mg/m3 | **SAR** |
| 1651 | Lanthanum nitrate | 10099-59-9 | 0.4 | 1.25 | 7.5 | 500 | mg/m3 | |
| 1652 | Lanthanum oxide | 1312-81-8 | 40 | 125 | 500 | 500 | mg/m3 | |
| 1653 | Lanthanum phosphate | 14913-14-5 | 0.3 | 0.75 | 3 | 3 | mg/m3 | **SAR** |
| 1654 | Lanthanum(III) nitrate hexahydrate | 10277-43-7 | 1.5 | 5 | 35 | 150 | mg/m3 | |
| 1655 | Laromin C 260; (bis(4-Amino-3-methylcyclohexyl) methane; Dimethyldicyane) | 6864-37-5 | 1.5 | 5 | 35 | 150 | mg/m3 | Added, pchem data ex Sigma-Aldrich |
| 1656 | Lauryl sulfate; (Dodecyl sulfate) | 151-41-7 | 5 | 15 | 100 | 500 | mg/m3 | |
| 1657 | Lead | 7439-92-1 | 0.05 | 0.15 | 0.25 | 100 | mg/m3 | |
| 1658 | Lead acetate(II), trihydrate; (Bis(acetato)trihydroxytrilead) | 6080-56-4 | 0.0915 | 0.275 | 100 | 183 | mg/m3 | |
| 1659 | Lead acetate, basic; (Lead subacetate) | 1335-32-6 | 0.065 | 0.195 | 130 | 130 | mg/m3 | |
| 1660 | Lead acetate; (Lead diacetate) | 301-04-2 | 0.0785 | 0.235 | 75 | 157 | mg/m3 | |
| 1661 | Lead acid arsenate; (Dibasic lead arsenate) | 7784-40-9 | 0.0838 | 0.251 | 168 | 168 | mg/m3 | |
| 1662 | Lead arsenate | 3687-31-8 | 0.012 | 0.012 | 0.012 | 30 | mg/m3 | |
| 1663 | Lead bromide | 10031-22-8 | 0.0886 | 0.266 | 0.443 | 177 | mg/m3 | |
| 1664 | Lead carbonate | 598-63-0 | 0.0645 | 0.193 | 4 | 500 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1665 | Lead chloride | 7758-95-4 | 0.0671 | 0.201 | 7.5 | 134 | mg/m3 | |
| 1666 | Lead chromate | 7758-97-6 | 0.0311 | 0.186 | 1 | 93.2 | mg/m3 | |
| 1667 | Lead dioxide | 1309-60-0 | 0.0577 | 0.1731 | 20 | 115 | mg/m3 | |
| 1668 | Lead fluoborate | 13814-96-5 | 0.0919 | 0.276 | 0.459 | 184 | mg/m3 | Only stable in aequeous solution. |
| 1669 | Lead fluoride | 7783-46-2 | 0.0592 | 0.178 | 15 | 118 | mg/m3 | T-2 changed. |
| 1670 | Lead hydroxide | 19783-14-3 | 0.0582 | 0.175 | 0.3 | 1.5 | mg/m3 | |
| 1671 | Lead iodide | 10101-63-0 | 0.111 | 0.334 | 0.556 | 222 | mg/m3 | |
| 1672 | Lead nitrate | 10099-74-8 | 0.0799 | 0.6 | 4 | 160 | mg/m3 | |
| 1673 | Lead nitrite | 13826-65-8 | 0.0722 | 0.217 | 0.361 | 1.5 | mg/m3 | |
| 1674 | Lead oxalate | 814-93-7 | 0.0712 | 0.214 | 0.356 | 1.5 | mg/m3 | |
| 1675 | Lead oxide; (Lead monoxide) | 1317-36-8 | 0.0539 | 0.0539 | 0.0539 | 108 | mg/m3 | |
| 1676 | Lead phosphate | 7446-27-7 | 0.0653 | 0.196 | 30 | 150 | mg/m3 | |
| 1677 | Lead sulfate; (Sulfuric acid, lead(2+) salt (1:1)) | 7446-14-2 | 0.0732 | 0.2196 | 30 | 146 | mg/m3 | OHMTADS, TSCA, ChemFinder list CASRN = 15739-80-7, deleted as a separate entry. |
| 1678 | Lead sulfide | 1314-87-0 | 0.0577 | 0.173 | 350 | 500 | mg/m3 | |
| 1679 | Lead tetroxide | 1314-41-6 | 0.0551 | 0.165 | 0.276 | 110 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1680 | Lead(II) arsenite | 10031-13-7 | 0.0281 | 0.0843 | 0.14 | 14 | mg/m3 | |
| 1681 | Lead(II) perchlorate hydrate | 13453-62-8 | 0.111 | 0.333 | 0.555 | 100 | mg/m3 | Not found in databases. ChemFinder pchem data. |
| 1682 | Leco set 7007 powder | z-0027 | 10 | 30 | 50 | 250 | mg/m3 | Mixture: 80-62-6 (94-96%), 2082-81-7 (3%), 5995-42-6 ()>8%), 99-97-8 (0.7%) |
| 1683 | Leptophos | 21609-90-5 | 6 | 15 | 30 | 30 | mg/m3 | |
| 1684 | **Lewisite 2; (Bis(2-chlorovinyl)chloroarsine)** | **40334-69-8** | 0.12 | 0.12 | **0.12** | **0.74** | mg/m3 | **Interim AEGLs-2,-3.** All Ts changed. |
| 1685 | **Lewisite 3; (Tris(2-chlorovinyl)arsine)** | **40334-70-1** | 0.12 | 0.12 | **0.12** | **0.74** | mg/m3 | **Interim AEGLs-2,-3.** All Ts changed. |
| 1686 | Lignosulfonate (aqueous) | 8062-15-5 | 10 | 30 | 500 | 500 | mg/m3 | |
| 1687 | Limonene, d- | 5989-27-5 | 30 | 90 | 150 | 350 | ppm | WEEL CASRN = 138-86-3. HSDB: (L)-Limonene for CASRN = 5989-54-8. H&N has both. |
| 1688 | Lindane; (gamma-Benzenehexachloride) | 58-89-9 | 0.5 | 1.5 | 50 | 50 | mg/m3 | |
| 1689 | Linseed oil | 8001-26-1 | 0.5 | 1.5 | 10 | 60 | mg/m3 | |
| 1690 | Liquified petroleum gas; (L.P.G.) | 68476-85-7 | 1000 | ***2000*** | ***2000*** | ***2000*** | ppm | See LEL Formattinng Note. |
| 1691 | Lithium | 7439-93-2 | 10 | 30 | 50 | 400 | mg/m3 | |
| 1692 | Lithium acetate dihydrate | 6108-17-4 | 12.5 | 35 | 250 | 500 | mg/m3 | Used Li acetate, CASRN = 546-89-4, mouse LDlo |
| 1693 | Lithium aluminate | 12003-67-7 | 12.2 | 36.6 | 61.1 | 300 | mg/m3 | TSCA listed, no toxicity data. |
| 1694 | Lithium aluminum oxide; (Lithium aluminate) | 11089-89-7 | 10 | 30 | 50 | 250 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1695 | Lithium aluminum silicate; (Petalite) | 1302-66-5 | 2 | 6 | 10 | 50 | mg/m3 | |
| 1696 | Lithium azide | 19597-69-4 | 10 | 10 | 10 | 10 | mg/m3 | |
| 1697 | Lithium borohydride; (Lithium tetrahydroborate) | 16949-15-8 | 4.03 | 12.1 | 20.2 | 35 | mg/m3 | |
| 1698 | Lithium bromide | 7550-35-8 | 1 | 7 | 15 | 500 | mg/m3 | |
| 1699 | Lithium carbonate | 554-13-2 | 0.2 | 0.6 | 4 | 200 | mg/m3 | |
| 1700 | Lithium chloride | 7447-41-8 | 0.5 | 1.5 | 10 | 60 | mg/m3 | |
| 1701 | Lithium chromate; (Lithium chromate dihydrate) | 14307-35-8 | 0.016 | 0.479 | 0.798 | 47.9 | mg/m3 | |
| 1702 | Lithium deuteride | 13587-16-1 | 0.0282 | 0.0282 | 0.1 | 0.5 | mg/m3 | Used Lithium hydride limits. T-0, T-1 changed. |
| 1703 | Lithium diisopropylamide; (LDA) | 4111-54-0 | 10 | 30 | 50 | 250 | mg.m3 | TSCA listed, MF differs from ChemFinder, no toxicity data found. |
| 1704 | Lithium fluoride | 7789-24-4 | 3.41 | 10.2 | 17.1 | 341 | mg/m3 | |
| 1705 | **Lithium hydride** | **7580-67-8** | 0.025 | **0.025** | **0.100** | **0.500** | mg/m3 | **ERPG-1, -2, -3** |
| 1706 | Lithium hydroxide | 1310-65-2 | 0.05 | 0.15 | 1 | 100 | mg/m3 | |
| 1707 | Lithium hydroxide monohydrate | 1310-66-3 | 0.05 | 0.15 | 1 | 100 | mg/m3 | Not found in databases, used LiOH, CASRN 1310-65-2, values. |
| 1708 | Lithium iodide | 10377-51-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, HC&P, H&N listed, no toxicity data found. |
| 1709 | Lithium metaborate, anhydrous | 13453-69-5 | 2 | 6 | 10 | 50 | mg/m3 | MW and MF ex HC&P. |
| 1710 | Lithium molybdate | 13568-40-6 | 9.06 | 27.2 | 45.3 | 200 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1711 | Lithium niobium oxide; (Lithium niobate) | 12031-63-9 | 5 | 15 | 25 | 500 | mg/m3 | |
| 1712 | Lithium nitrate | 7790-69-4 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1713 | Lithium nitride | 26134-62-3 | 10 | 10 | 10 | 10 | mg/m3 | Reacts with water |
| 1714 | Lithium nitrite | 13568-33-7 | 0.025 | 0.06 | 0.4 | 40 | mg/m3 | HC&P: LiNO2.H2O MW = 127.96, CASRN = 13568-33-7. TSCA: Li.H.NO2 SAR |
| 1715 | Lithium perchlorate, anhydrous | 7791-03-9 | 0.0005 | 0.0015 | 0.01 | 0.06 | mg/m3 | IRIS LOEL used, no ther toxicity data found |
| 1716 | Lithium stearate | 4485-12-5 | 60 | 150 | 500 | 500 | mg/m3 | Probable hmn LD = 0.5-5 g/kg |
| 1717 | Lithium sulfate | 10377-48-7 | 0.15 | 0.5 | 3.5 | 500 | mg/m3 | |
| 1718 | Lithium tetraborate | 12007-60-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, H&N, ChemFinder listed, no toxicity data found. MW=169.12 without 5H2O. |
| 1719 | Lithium tetraborate pentahydrate | 1303-94-2 | 1 | 3 | 5 | 25 | mg/m3 | MF, MW by analogy with Na tetraborate pentahydrate. |
| 1720 | Lithium tetrahydroaluminate(1-); (Lithium aluminum hydride) | 16853-85-3 | 2.81 | 2.81 | 7.5 | 35 | mg/m3 | Al soluble salt. |
| 1721 | Lithium triethylborodeuteride; (Super-deuteride) | 74540-86-6 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. MW, MF, SG ex ChemFinder. |
| 1722 | Lithium triethylborohydride; (Super-hydride) | 22560-16-3 | 1.5 | 5 | 35 | 150 | mg/m3 | Not listed in databases. MSDS gives HHR = 3 |
| 1723 | Lubricating oil, rerefined | 68476-77-7 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data. |
| 1724 | Lutetium | 7439-94-3 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA listed, no toxicity data. SRS HHR = 3 |
| 1725 | Lutetium oxide | 12032-20-1 | 10 | 30 | 50 | 250 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1726 | Lutidine, 2,6-; (2,6-Dimethylpyridine) | 108-48-5 | 75 | 200 | 1500 | 7500 | ppm | |
| 1727 | Magnesium | 7439-95-4 | 1.25 | 4 | 30 | 150 | mg/m3 | Toxicity data added. All Ts changed. |
| 1728 | Magnesium acetate tetrahydrate | 16674-78-5 | 0.75 | 2.5 | 20 | 100 | mg/m3 | Not found in databases, used Mg acetate, CASRN = 142-72-3 |
| 1729 | **Magnesium aluminum phosphide** | **z-0116** | 0.67 | 0.67 | **0.67** | **1.2** | ppm | Added. **New Interim AEGL-2, -3** |
| 1730 | Magnesium carbonate hydroxide | 7760-50-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data, MF, MW from H&N. |
| 1731 | Magnesium carbonate; (Magnesite) | 546-93-0 | 15 | 45 | 200 | 500 | mg/m3 | Toxicity data added. T-1, T-2, T-3 changed. |
| 1732 | Magnesium carbonate-magnesium hydroxide, pentahydrate | 39409-82-0 | 48.8 | 97.7 | 163 | 500 | mg/m3 | Not found in databases. MF, MW ex ChemFinder. MSDS PEL-TWA. |
| 1733 | Magnesium chloride | 7786-30-3 | 10 | 30 | 50 | 500 | mg/m3 | |
| 1734 | Magnesium chloride hexahydrate | 7791-18-6 | 75 | 250 | 500 | 500 | mg/m3 | |
| 1735 | Magnesium ethoxide | 2414-98-4 | 47.1 | 141 | 235 | 500 | mg/m3 | TSCA listed, no toxicity or pchem data. |
| 1736 | Magnesium fluoride | 7783-40-6 | 4.1 | 12.3 | 20.5 | 410 | mg/m3 | |
| 1737 | Magnesium formate | 557-39-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no data found. Changed "Y" to "N". |
| 1738 | Magnesium hydroxide | 1309-42-8 | 75 | 200 | 500 | 500 | mg/m3 | |
| 1739 | Magnesium iodate tetrahydrate | 7790-32-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data. MSDS solid. |
| 1740 | Magnesium nitrate hexahydrate | 13446-18-9 | 20 | 60 | 500 | 500 | mg/m3 | Primary irritant, no toxicity data found. |
| 1741 | Magnesium nitrate; (Magnesium(II) nitrate (1:2)) | 10377-60-3 | 10 | 30 | 50 | 250 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1742 | Magnesium oxide | 1309-48-4 | 10 | 30 | 150 | 500 | mg/m3 | |
| 1743 | **Magnesium phosphide** | **12057-74-8** | 0.2 | 0.6 | **1.0** | **1.8** | ppm | Added. **New Interim AEGL-2, -3** |
| 1744 | Magnesium silicate hydrate | 1343-90-4 | 10 | 30 | 50 | 250 | mg/m3 | |
| 1745 | Magnesium silicate; (Florisil) | 1343-88-0 | 10 | 30 | 50 | 500 | mg/m3 | Human LD > 15 g/kg |
| 1746 | Magnesium sulfate (1:1) | 7487-88-9 | 0.5 | 1.5 | 10 | 125 | mg/m3 | |
| 1747 | Magnesium sulfate heptahydrate | 10034-99-8 | 5 | 15 | 100 | 500 | mg/m3 | |
| 1748 | Magnesium(II) nitrate (1:2), hexahydrate | 13446-18-9 | 20 | 60 | 500 | 500 | mg/m3 | CASRN changed from 10213-15-7. T-2 changed. |
| 1749 | Malathion | 121-75-5 | 15 | 15 | 15 | 250 | mg/m3 | T-1, T-2 changed. |
| 1750 | Maleic acid | 110-16-7 | 3 | 7.5 | 60 | 300 | mg/m3 | PNOS deleted, not appropriate. T-0, T-1 changed. |
| 1751 | Maleic acid, disodium salt | 371-47-1 | 25 | 75 | 500 | 500 | mg/m3 | No pchem data found. |
| 1752 | **Maleic anhydride** | **108-31-6** | 0.2 | **0.2** | **2** | **20** | ppm | **ERPG-1, -2, -3.** |
| 1753 | Maleic hydrazide; (3,6-Pyridazinedione,1,2-dihydro-) | 123-33-1 | 0.6 | 2 | 12.5 | 500 | mg/m3 | |
| 1754 | Malic acid, DL- | 617-48-1 | 6 | 20 | 125 | 500 | mg/m3 | HSDB, TSCA listed. Mouse LD50 1600-3200 mg/kg |
| 1755 | Malonic acid; (Carboxyacetic acid) | 141-82-2 | 10 | 15 | 100 | 500 | mg/m3 | |
| 1756 | Mancozeb; (Dithane M-45) | 8018-01-7 | 1 | 3 | 200 | 500 | mg/m3 | |
| 1757 | Manganese | 7439-96-5 | 0.2 | 3 | 5 | 500 | mg/m3 | |

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Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1758 | Manganese carbonate | 598-62-9 | 0.418 | 6.28 | 10.5 | 500 | mg/m3 | |
| 1759 | Manganese dioxide | 1313-13-9 | 0.317 | 4.75 | 79.1 | 500 | mg/m3 | |
| 1760 | Manganese hydroxide | 18933-05-6 | 0.324 | 4.86 | 8.1 | 500 | mg/m3 | |
| 1761 | Manganese nitrite | 18488-90-9 | 0.535 | 8.02 | 13.4 | 500 | mg/m3 | |
| 1762 | Manganese oxalate | 640-67-5 | 0.52 | 7.81 | 13 | 500 | mg/m3 | |
| 1763 | Manganese oxide; (Manganese tetroxide) | 1317-35-7 | 0.278 | 0.833 | 69.4 | 500 | mg/m3 | |
| 1764 | Manganese phosphate | 10124-54-6 | 0.43 | 6.46 | 10.8 | 500 | mg/m3 | MF changed Previous MF =xMn.PH3O4 ex TSCA. |
| 1765 | Manganese tricarbonyl methylcyclopentadienyl | 12108-13-3 | 0.6 | 0.6 | 0.6 | 7.5 | mg/m3 | |
| 1766 | Manganese(II) chloride (1:2); (Manganous chloride) | 7773-01-5 | 0.458 | 6.87 | 11.5 | 100 | mg/m3 | |
| 1767 | Manganese(II) chloride tetrahydrate | 13446-34-9 | 0.721 | 10.8 | 180 | 500 | mg/m3 | |
| 1768 | Manganese(II) nitrate | 10377-66-9 | 0.651 | 9.77 | 16.3 | 500 | mg/m3 | |
| 1769 | Manganese(II) nitrate hydrate | 15710-66-4 | 0.717 | 10.8 | 17.9 | 500 | mg/m3 | ChemFinder listed. |
| 1770 | Manganese(II) sulfate monohydrate | 10034-96-5 | 0.615 | 9.23 | 15.4 | 75 | mg/m3 | |
| 1771 | Manganese(III) oxide | 1317-34-6 | 0.287 | 4.31 | 71.8 | 500 | mg/m3 | |
| 1772 | Manganese(VII) oxide | 12057-92-0 | 0.404 | 6.06 | 10.1 | 50 | mg/m3 | |
| 1773 | Manganous oxide; (Manganese(II) oxide) | 1344-43-0 | 0.258 | 0.775 | 6.46 | 150 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1774 | Manganous sulfate | 7785-87-7 | 0.55 | 8.25 | 13.7 | 500 | mg/m3 | |
| 1775 | Manganous sulfide; (Manganese(II) sulfide) | 18820-29-6 | 0.317 | 0.95 | 7.92 | 500 | mg/m3 | |
| 1776 | Mastic (resin) | 61789-92-2 | 4 | 12.5 | 100 | 500 | mg/m3 | |
| 1777 | Melamine | 108-78-1 | 10 | 10 | 10 | 350 | mg/m3 | |
| 1778 | Mephosfolan | 950-10-7 | 1.5 | 5 | 9 | 9 | mg/m3 | |
| 1779 | Mercaptoacetic acid; (Thioglycolic acid) | 68-11-1 | 1 | 1 | 1.25 | 6 | ppm | |
| 1780 | Mercaptobenzoic acid, o- | 147-93-3 | 0.2 | 0.6 | 4 | 20 | mg/m3 | |
| 1781 | Mercaptobenzothiazole, 2-; (2-Benzothiazolethiol) | 149-30-4 | 5 | 15 | 40 | 40 | mg/m3 | |
| 1782 | Mercaptoethanol, 2- | 60-24-2 | 0.2 | 2 | 12.5 | 200 | ppm | |
| 1783 | Mercaptopropionic acid, 3- | 107-96-0 | 0.25 | 0.75 | 6 | 40 | mg/m3 | |
| 1784 | Mercuric acetate | 1600-27-7 | 0.159 | 0.159 | 0.159 | 15.9 | mg/m3 | All Ts changed. |
| 1785 | Mercuric cyanide | 592-04-1 | 0.0315 | 1.5 | 12.6 | 12.6 | mg/m3 | PAC-2 modified by human oral TDlo. All Ts changed. |
| 1786 | Mercuric iodide; (Mercury(II) iodide) | 7774-29-0 | 0.0566 | 0.17 | 0.227 | 22.7 | mg/m3 | |
| 1787 | Mercuric sulfate; (Mercury(II) sulfate) | 7783-35-9 | 0.037 | 0.037 | 0.148 | 14.8 | mg/m3 | T-1 changed. |
| 1788 | Mercuric thiocyanate; (Mercuric sulfocyanate) | 592-85-8 | 0.0395 | 0.118 | 0.158 | 15.8 | mg/m3 | |
| 1789 | Mercuric trifluoroacetate | 13257-51-7 | 0.0213 | 0.0638 | 0.0851 | 4.3 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1790 | Mercurol; (Mercury nucleate) | 12002-19-6 | 0.025 | 0.075 | 0.1 | 10 | mg/m3 | |
| 1791 | Mercurous chloride; (Mercury monochloride) | 7546-30-7 | 0.0294 | 0.0883 | 0.118 | 11.8 | mg/m3 | |
| 1792 | Mercurous nitrate monohydrate | 7782-86-7 | 0.0351 | 0.0351 | 0.14 | 14 | mg/m3 | T-1 changed. |
| 1793 | Mercurous nitrate; (Mercury(I) nitrate(1:1)) | 10415-75-5 | 0.0327 | 0.0327 | 0.131 | 13.1 | mg/m3 | T-1 changed. |
| 1794 | Mercurous oxide; (Mercury(I) oxide) | 15829-53-5 | 0.026 | 0.026 | 0.104 | 10.4 | mg/m3 | T-1 changed. |
| 1795 | Mercury hydroxide | 12135-13-6 | 0.0292 | 0.0292 | 0.117 | 11.7 | mg/m3 | T-1 changed. |
| 1796 | Mercury nitrate; (Mercury(II) nitrate (1:2)) | 10045-94-0 | 0.0405 | 0.0405 | 0.162 | 16.2 | mg/m3 | T-1 changed. |
| 1797 | Mercury nitrite; (Mercury(II) nitrite) | 18541-72-5 | 0.0365 | 0.0365 | 0.146 | 14.6 | mg/m3 | CASRN changed from 13492-25-6 per LLNL. T-1 changed. |
| 1798 | **Mercury vapor** | **7439-97-6** | 0.025 | 0.3 | **2.05** | **4.10** | mg/m3 | **Hg vapor ERPG-2 & -3** = 0.25 & 0.5 ppm, converted to mg/m3. T-1 changed. |
| 1799 | Mercury(I) chloride; (Dimercury chloride) | 10112-91-1 | 0.0294 | 0.0883 | 1.18 | 11.8 | mg/m3 | Light sensitive. |
| 1800 | Mercury(II) chloride; (Mercury bichloride) | 7487-94-7 | 0.0338 | 2 | 13.5 | 13.5 | mg/m3 | T-1 changed. |
| 1801 | Mercury(II) nitrate monohydrate | 7783-34-8 | 0.0427 | 0.128 | 0.171 | 17.1 | mg/m3 | |
| 1802 | Mercury(II) oxide; (Mercuric oxide) | 21908-53-2 | 0.027 | 0.15 | 1.08 | 10.8 | mg/m3 | T-1 changed. |
| 1803 | **Mesitylene; (1,3,5-Trimethylbenzene)** | **108-67-8** | 25 | **140** | **360** | 500 | ppm | **New interim AEGL-1, -2.** T-1, T-2 changed. |
| 1804 | Metaphosphoric acid | 37267-86-0 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, HC&P listed, no toxicity data, pchem data ex ChemFinder. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1805 | Methacrolein diacetate; (Acetic acid, 2-methyl-2-propene-1,1-diol diester) | 10476-95-6 | 7.5 | 25 | 44 | 44 | mg/m3 | Synonym spelling corrected. SAX and RTECS tox data differ |
| 1806 | **Methacrylaldehyde** | **78-85-3** | 0.06 | **0.2** | **2.8** | **4.7** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 1807 | Methacrylamide | 79-39-0 | 0.015 | 0.04 | 0.3 | 200 | mg/m3 | |
| 1808 | **Methacrylic acid** | **79-41-4** | 6.7 | **6.7** | **61** | **220** | ppm | **Interim AEGL-1, -2, -3.** |
| 1809 | Methacrylic acid, diester with triethylene glycol; (Polyester TGM3) | 109-16-0 | 10 | 30 | 50 | 500 | mg/m3 | |
| 1810 | Methacrylic anhydride | 760-93-0 | 0.75 | 2.5 | 4.5 | 150 | mg/m3 | |
| 1811 | **Methacrylonitrile; (Methylacrylonitrile)** | **126-98-7** | 1 | **1.0** | **13** | **25** | ppm | **Interim AEGL-1, -2, -3.** |
| 1812 | Methacryloyl chloride | 920-46-7 | 0.025 | 0.075 | 0.14 | 6 | ppm | |
| 1813 | Methamidophos | 10265-92-6 | 3.5 | 10 | 60 | 60 | mg/m3 | |
| 1814 | Methane | 74-82-8 | 1000 | 3000 | ***5000*** | ***200000*** | ppm | TLV-TWA for aliphatic hydrocarbon gas. T-3 changed. See LEL Formattinng Note. |
| 1815 | Methane-d3 | 676-80-2 | 1000 | 3000 | 5000 | 25000 | ppm | TLV-TWA for aliphatic hydrocarbon gases. |
| 1816 | Methanesulfonic acid | 75-75-2 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 1817 | Methanesulfonic acid, ethyl ester; (Ethyl methanesulfonate) | 62-50-0 | 0.5 | 1.5 | 10 | 150 | mg/m3 | |
| 1818 | **Methanesulfonyl chloride** | **124-63-0** | 0.1 | 0.3 | **2.1** | **6.2** | ppm | **New interim AEGL-2, -3.** All Ts changed. |
| 1819 | Methanesulfonyl fluoride | 558-25-8 | 3.49 | 3.49 | 3.49 | 3.49 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1820 | Methidathion; (O,O-Dimethyl-S-(5-methoxy-1,3,4-thiadiazolinyl-3-methyl)dithiophosphate) | 950-37-8 | 1 | 3 | 20 | 400 | mg/m3 | |
| 1821 | Methiocarb; (Mercaptodimethur) | 2032-65-7 | 3 | 7.5 | 15 | 15 | mg/m3 | |
| 1822 | Methomyl | 16752-77-5 | 2.5 | 7.5 | 10 | 200 | mg/m3 | |
| 1823 | Methoxybenzaldehyde; (p-Anisaldehyde) | 123-11-5 | 0.075 | 0.2 | 1.5 | 500 | mg/m3 | |
| 1824 | Methoxybenzyl alcohol, 4- | 105-13-5 | 7.5 | 25 | 200 | 500 | mg/m3 | |
| 1825 | Methoxychlor | 72-43-5 | 15 | 30 | 250 | 500 | mg/m3 | |
| 1826 | Methoxyethoxy)ethanol, 2-(2-; (Diethylene glycol monomethyl ether) | 111-77-3 | 0.35 | 0.35 | 0.35 | 0.35 | ppm | |
| 1827 | Methoxyethylamine, 2- | 109-85-3 | 0.5 | 1.5 | 10 | 50 | ppm | |
| 1828 | Methoxyethylmercuric acetate | 151-38-2 | 0.0159 | 0.0477 | 3.18 | 3.18 | mg/m3 | |
| 1829 | Methoxyphenol, p- | 150-76-5 | 5 | 15 | 100 | 500 | mg/m3 | |
| 1830 | Methoxypropylamine, 3-; (3-MPA) | 5332-73-0 | 5 | 15 | 15 | 40 | ppm | |
| 1831 | Methoxytrimethylsilane | 1825-61-2 | 0.05 | 0.5 | 2 | 5 | ppm | **SAR** |
| 1832 | Methyl 2-cyanoacrylate; (Permabond 910 adhesive) | 137-05-3 | 0.2 | 4 | 12.5 | 12.5 | ppm | MF in SAX wrong. |
| 1833 | Methyl 2-pyrrolidinone, 1-; (N-Methylpyrrolidone) | 872-50-4 | 10 | 10 | 25 | 25 | ppm | |
| 1834 | Methyl acetate | 79-20-9 | 200 | 250 | 500 | ***3100*** | ppm | See LEL Formattinng Note. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1835 | Methyl acetylene | 74-99-7 | 1000 | ***1700*** | ***1700*** | ***1700*** | ppm | See LEL Formattinng Note. |
| 1836 | Methyl acetylene-propadiene mixture; (MAPP) | 59355-75-8 | 1000 | 1250 | 1250 | ***3400*** | ppm | See LEL Formattinng Note. |
| 1837 | Methyl acrylate | 96-33-3 | 2 | 2 | 7.5 | 150 | ppm | |
| 1838 | **Methyl alcohol; (Methanol)** | **67-56-1** | 200 | **530** | **2100** | ***7200*** | ppm | **Interim AEGL-1, -2, -3.** See LEL Formattinng Note. |
| 1839 | Methyl alcohol-d | 1455-13-6 | 200 | 250 | 1000 | ***6000*** | ppm | No toxicity data found. Methanol ERPGs not used. See LEL Formattinng Note. |
| 1840 | Methyl alcohol-d4 | 811-98-3 | 200 | 250 | 500 | 500 | mg/m3 | TSCA listed, no toxicity data found. Methanol ERPGs not used. |
| 1841 | Methyl benzoate; (Benzoic acid, methyl ester) | 93-58-3 | 2 | 6 | 40 | 75 | ppm | |
| 1842 | Methyl bis(2-hydroxyethyl) cocoalkyl quaternary ammonium chlorides | 70750-47-9 | 1.5 | 5 | 35 | 150 | mg/m3 | Added. RTECS, TSCA, ChemFinder listed, no data. MSDS toxicity data. |
| 1843 | Methyl bis(2-hydroxyethyl) cocoalkyl quaternary ammonium nitrates | 71487-00-8 | 1.5 | 5 | 35 | 150 | mg/m3 | Added. TSCA listed, no data. MSDS toxicity data based on similar material. |
| 1844 | **Methyl bromide; (Bromomethane)** | **74-83-9** | 1 | 30 | **210** | **740** | ppm | **Interim AEGL-2, -3.** T-1, T-3 changed. |
| 1845 | Methyl butylacrylate, 2-; (Butyl methacrylate) | 97-88-1 | 2.5 | 7.5 | 50 | 500 | mg/m3 | |
| 1846 | **Methyl chloride** | **74-87-3** | 100 | 100 | **910** | **3000** | ppm | **Interim AEGL-2, -3.** |
| 1847 | **Methyl chloroformate; (Methyl chlorocarbonate)** | **79-22-1** | 0.2 | 0.3 | **2.2** | **2.4** | ppm | **New interim AEGL-2, -3. ERPG-2, -3.** T-2, T-3 changed. |
| 1848 | **Methyl chlorosilane; (Chloromethylsilane)** | **993-00-0** | 0.6 | **1.8** | **22** | **100** | ppm | Added. **New interim AEGL-1,-2, -3.** All Ts changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1849 | **Methyl cyclohexylfluorophosphonate; (GF)** | **329-99-7** | 0.00006 | **0.00020** | **0.0024** | **0.018** | ppm | **Final AEGL-1, -2, -3.** |
| 1850 | Methyl demeton methyl; (Phosphorothioic acid, O,O-dimethyl-S-(2-methylthio)ethyl ester) | 2587-90-8 | 4 | 12.5 | 20 | 20 | mg/m3 | |
| 1851 | **Methyl dichlorosilane; (Dichloromethylsilane)** | **75-54-7** | 0.3 | **0.90** | **11** | **47** | ppm | Added. **New Interim AEGL-1, -2, -3** |
| 1852 | Methyl difluorophosphite; (Methylphosphonic difluoride) | 676-99-3 | 0.75 | 2.5 | 20 | 100 | mg/m3 | |
| 1853 | Methyl ether; (Dimethyl ether) | 115-10-6 | 1000 | ***3000*** | ***10000*** | ***60000*** | ppm | See LEL Formattinng Note. |
| 1854 | Methyl ethyl ketone peroxide | 1338-23-4 | 1 | 3 | 20 | 20 | ppm | T-0, T-1 changed. |
| 1855 | Methyl fluoride; (Fluoromethane) | 593-53-3 | 4.48 | 13.4 | 22.4 | 448 | mg/m3 | |
| 1856 | Methyl fluoroacetate | 453-18-9 | 0.015 | 0.05 | 0.35 | 5 | mg/m3 | |
| 1857 | Methyl fluorosulfate | 421-20-5 | 0.0025 | 0.0075 | 0.05 | 0.25 | ppm | |
| 1858 | Methyl formate; (Formic acid, methyl ester) | 107-31-3 | 100 | 150 | 750 | ***4500*** | ppm | See LEL Formattinng Note. |
| 1859 | **Methyl iodide** | **74-88-4** | 5 | **25** | **50** | **125** | ppm | **ERPG-1, -2, -3.** |
| 1860 | Methyl isobutyl ketone; (Hexone) | 108-10-1 | 75 | 75 | 75 | 500 | ppm | T-2 changed. |
| 1861 | **Methyl isocyanate** | **624-83-9** | 0.02 | **0.025** | **0.067** | **0.20** | ppm | **Final AEGL -2, -3. ERPG-1, -2, -3.** |
| 1862 | Methyl isopropyl ketone; (3-Methyl-2-butanone) | 563-80-4 | 200 | 200 | 200 | 600 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1863 | Methyl isothiocyanate; (Isothiocyanatomethane) | 556-61-6 | 1.5 | 4 | 33 | 500 | mg/m3 | |
| 1864 | Methyl lithium | 917-54-4 | 1 | 3 | 20 | 100 | mg/m3 | No toxicity data found. Spontaneous ignition in air: estimated from LiO and LiOH toxicity |
| 1865 | **Methyl mercaptan** | **74-93-1** | 0.5 | 6 | **47** | **68** | ppm | **Interim AEGL -2, -3. ERPG-1, -2, -3;** odor-based ERPG-1 ignored. T-1 changed. |
| 1866 | Methyl mercury | 22967-92-6 | 0.0107 | 0.0322 | 0.043 | 2.15 | mg/m3 | T-3 changed. |
| 1867 | **Methyl methacrylate** | **80-62-6** | 17 | **17** | **120** | **570** | ppm | **Interim AEGL-1, -2, -3.** |
| 1868 | Methyl n-amyl ketone | 110-43-0 | 100 | 100 | 125 | 800 | ppm | |
| 1869 | Methyl nitrate; (Nitric acid, methyl ester) | 598-58-3 | 5 | 15 | 100 | 500 | ppm | |
| 1870 | **Methyl nonafluorobutyl ether (40%) and Methyl nonafluoroisobutyl ether (60%) (ppm) (HFE-7100)** | **163702-07-6 163702-08-7** | 750 | **2500** | **8200** | **15000** | ppm | **Final AEGL-1, -2, -3.** |
| 1871 | Methyl parathion | 298-00-0 | 0.2 | 0.34 | 0.34 | 15 | mg/m3 | |
| 1872 | Methyl phencapton | 3735-23-7 | 2 | 6 | 11 | 100 | mg/m3 | |
| 1873 | Methyl phosphonic dichloride | 676-97-1 | 0.06 | 0.2 | 1.4 | 15 | mg/m3 | |
| 1874 | Methyl phosphonothioic dichloride | 676-98-2 | 1.5 | 4 | 30 | 150 | mg/m3 | LC50 estimated from similar compounds |
| 1875 | Methyl pyridine, 3-; (3-Picoline) | 108-99-6 | 2 | 5 | 125 | 600 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1876 | Methyl salicylate | 119-36-8 | 0.125 | 0.4 | 2.5 | 12.5 | ppm | |
| 1877 | Methyl sulfoxide-d6; (Dimethyl-d6-sulfoxide) | 2206-27-1 | 35 | 100 | 500 | 500 | mg/m3 | H&N listed, no toxicity data, but use dimethylsulfoxide, CASRN=67-68-5 |
| 1878 | **Methyl tert-butyl ether; (MTBE)** | **1634-04-4** | 50 | **50** | **570** | ***5300*** | ppm | **New interim AEGL-1, -2, -3. T-1, T-2, T-3 changed.** See LEL Formattinng Note. |
| 1879 | Methyl thiocyanate | 556-64-9 | 5 | 15 | 28.4 | 28.4 | ppm | |
| 1880 | Methyl vinyl carbinol; (3-Buten-2-ol) | 598-32-3 | 0.25 | 0.75 | 5 | 25 | ppm | |
| 1881 | **Methyl vinyl ketone; (3-Buten-2-one)** | **78-94-4** | 0.05 | **0.17** | **1.2** | **2.4** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 1882 | Methyl-1-butene, 2- | 563-46-2 | ***65000*** | ***65000*** | ***230000*** | ***400000*** | ppm | Simple asphyxiant, all Ts changed. See LEL Formattinng Note. |
| 1883 | Methyl-1H-benzotriazole | 29385-43-1 | 10 | 30 | 50 | 300 | mg/m3 | |
| 1884 | Methyl-1-phenyl-2-pyrazolin-5-one, 3- | 89-25-8 | 15 | 40 | 300 | 500 | mg/m3 | |
| 1885 | Methyl-1-propanethiol, 1-; (sec-Butyl mercaptan; 2-Butanethiol) | 513-53-1 | 2 | 6 | 40 | 200 | ppm | NFPA HHR = 2 |
| 1886 | Methyl-1-propen-1-one, 2-; (Dimethylketene) | 598-26-5 | 0.03 | 0.1 | 0.6 | 3.5 | ppm | Toxicity based on ketene. |
| 1887 | Methyl-2-(1-methylethyl)phenol, 5-; (Thymol) | 89-83-8 | 0.075 | 0.25 | 1.5 | 400 | mg/m3 | |
| 1888 | Methyl-2-butene, 2- | 513-35-9 | 2 | 6 | 40 | 200 | ppm | No toxicity data found, HHR = 2 in MSDS. |
| 1889 | Methyl-2-chloroacrylate | 80-63-7 | 0.05 | 0.15 | 1.01 | 7.5 | ppm | |
| 1890 | Methyl-2-heptanone, 6- | 928-68-7 | 1.91 | 5.73 | 10 | 50 | ppm | TSCA, HC&P listed, no toxicity data. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1891 | Methyl-2-hexanone, 5-; (Methyl isoamyl ketone) | 110-12-3 | 100 | 150 | ***1500*** | ***1500*** | ppm | See LEL Formattinng Note. |
| 1892 | Methyl-3-penten-2-one, 4-; (Mesityl oxide) | 141-79-7 | 25 | 25 | 25 | ***1400*** | ppm | See LEL Formattinng Note. |
| 1893 | Methyl-4-penten-2-one, 4- | 3744-02-3 | 25 | 25 | 25 | ***1400*** | ppm | Based on mesityl oxide (CASRN 141-79-7) See LEL Formattinng Note. |
| 1894 | Methyl-5-nitroaniline, 2-; (5-Nitro-o-toluidine; Benzenamine, 2-methyl-5-nitro-) | 99-55-8 | 1 | 3 | 150 | 250 | mg/m3 | T-0, T-1 changed. |
| 1895 | Methyl-5-vinylpyridine, 2- | 140-76-1 | 0.35 | 1 | 1.9 | 40 | mg/m3 | |
| 1896 | Methyl-8-quinolinol, 2- | 826-81-3 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. MSDS data. |
| 1897 | Methylal; (Dimethoxymethane) | 109-87-5 | 1000 | ***2200*** | ***2200*** | ***2200*** | ppm | See LEL Formattinng Note. |
| 1898 | Methylamine hydrochloride | 593-51-1 | 3.5 | 10 | 60 | 500 | mg/m3 | |
| 1899 | Methylamino)ethanol, 2-( | 109-83-1 | 3 | 10 | 60 | 350 | ppm | |
| 1900 | Methylaniline, N- | 100-61-8 | 2 | 2 | 2.5 | 100 | ppm | |
| 1901 | Methylaziridine, 1- | 1072-44-2 | 2 | 2 | 2 | 100 | ppm | LClo > 2000 mg/m3, SAR |
| 1902 | Methylbutanamide, 3-; (Isovaleramide) | 541-46-8 | 6 | 20 | 125 | 500 | mg/m3 | |
| 1903 | Methylbutylamine, N- | 110-68-9 | 2 | 6 | 40 | 200 | ppm | |
| 1904 | Methylcellulose | 9004-67-5 | 10 | 30 | 50 | 500 | mg/m3 | |
| 1905 | Methylchlorodisilane; (Chloromethyldisilane) | 68937-17-7 | 0.1 | 0.3 | 2 | 10 | ppm | |
| 1906 | Methylcholanthrene 3- | 56-49-5 | 0.2 | 0.6 | 4 | 75 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1907 | Methylcyclohexane | 108-87-2 | 500 | ***1200*** | ***1200*** | ***1200*** | ppm | See LEL Formattinng Note. |
| 1908 | Methylcyclohexanone | 1331-22-2 | 1.5 | 5 | 40 | 200 | ppm | |
| 1909 | Methylcyclohexanone, 2-; (o-Methylcyclohexanone) | 583-60-8 | 75 | 75 | 125 | 600 | ppm | |
| 1910 | Methylcyclopentane | 96-37-7 | 4 | 12.5 | 75 | ***4000*** | ppm | See LEL Formattinng Note. |
| 1911 | Methyldecane, 4- | 2847-72-5 | 1.57 | 4.7 | 7.83 | 40 | ppm | HC&P listed, no toxicity data found. |
| 1912 | **Methyldichloroarsine; (Dichloromethylarsine)** | **593-89-5** | 0.053 | 0.053 | **0.053** | **0.16** | mg/m3 | Added. **New Interim AEGL-2, -3** |
| 1913 | Methylene bis(2-chloroaniline), 4,4'-; (MBOCA) | 101-14-4 | 0.01 | 0.03 | 0.6 | 40 | ppm | |
| 1914 | Methylene bis(4-isocyanatocyclohexane), 1,1'- | 5124-30-1 | 0.005 | 0.005 | 0.01 | 0.15 | ppm | |
| 1915 | **Methylene chloride; (Dichloromethane)** | **75-09-2** | 25 | **200** | **560** | **6900** | ppm | **Interim AEGL-1, -2, -3.** |
| 1916 | **Methylene diphenyl diisocyanate; (Diphenylmethane diisocyanate; MDI)** | **101-68-8** | 0.05 | **0.2** | **2** | **25** | mg/m3 | **ERPG-1, -2, -3** |
| 1917 | Methylene fluoride; (Difluoromethane; HFC-32) | 75-10-5 | 1000 | 3000 | 200000 | 400000 | ppm | T-3 changed. |
| 1918 | Methylenebis(isocyanato-benzene), 1,1'-; (Diphenyl methane diisocyanate) | 26447-40-5 | 5 | 15 | 25 | 125 | mg/m3 | TSCA listed. Used Cyanides PEL-TWA. |
| 1919 | Methylenebisacrylamide, N,N'- | 110-26-9 | 1.5 | 5 | 35 | 150 | mg/m3 | |
| 1920 | Methylenedianiline, 4,4'- | 101-77-9 | 0.01 | 0.1 | 0.6 | 15 | ppm | |
| 1921 | Methylethyl hydroperoxide, 1-; (Isopropyl hydroperoxide) | 3031-75-2 | 0.6 | 2 | 12.5 | 60 | mg/m3 | Based on Isopropylbenzenehydroperoxide. T-1 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1922 | Methylformamide, N- | 123-39-7 | 15 | 50 | 350 | 500 | ppm | |
| 1923 | Methylfuran, 2- | 534-22-5 | 6 | 20 | 50 | 50 | ppm | |
| 1924 | Methylheptane, 2- | 592-27-8 | 2 | 6 | 40 | 200 | ppm | HC&P listed, no toxicity data, pchem data ex ChemFinder. Duplicate entry deleted. All Ts changed. |
| 1925 | Methylheptane, 4- | 589-53-7 | 10 | 30 | 50 | 250 | ppm | No toxicity data. |
| 1926 | Methylhydrosiloxane (3-4%) + dimethylsiloxane (96-97%) copolymer | 68037-59-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA and ChemFinder listed, no pchem or toxicity data found. |
| 1927 | Methylimidazole, 1- | 616-47-7 | 6 | 15 | 125 | 500 | mg/m3 | |
| 1928 | Methylimidazole, 4- | 822-36-6 | 20 | 60 | 300 | 300 | mg/m3 | Added. |
| 1929 | Methyllactic acid ethyl ester, 2-; (Ethyl 2-hydroxyisobutyrate) | 80-55-7 | 15 | 50 | 400 | 500 | mg/m3 | |
| 1930 | **Methyllactonitrile 2-; (Acetone cyanohydrin)** | **75-86-5** | 1.44 | **2.0** | **7.1** | **15** | ppm | **Interim AEGL-1, -2, -3.** T-0 changed. |
| 1931 | Methylmagnesium bromide, 3.0 m in diethyl ether | 75-16-1 | 0.4 | 1.25 | 7.5 | 40 | ppm | No toxicity data found. |
| 1932 | Methylmagnesium chlordie | 676-58-4 | 1.5 | 5 | 35 | 150 | mg/m3 | No toxicity data found, HHR = 3. |
| 1933 | Methylmercuric dicyanamide | 502-39-6 | 0.0149 | 0.0447 | 2.98 | 2.98 | mg/m3 | |
| 1934 | Methylmorpholine, 4- | 109-02-4 | 2 | 6 | 40 | 200 | ppm | |
| 1935 | Methylnaphthalene, 1- | 90-12-0 | 0.5 | 20 | 20 | 500 | mg/m3 | T-0, T-2 changed. |
| 1936 | Methylnaphthalene, 2- | 91-57-6 | 0.5 | 0.5 | 3.5 | 500 | mg/m3 | T-0, T-1, T-2 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

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

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|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1937 | Methylnitrosopiperidine, 3-; (Piperidine, 3-methyl-1-nitroso-) | 13603-07-1 | 0.06 | 0.15 | 1.25 | 6 | ppm | |
| 1938 | Methylnonane, 4- | 17301-94-9 | 2 | 6 | 40 | 200 | ppm | HC&P, no toxicity data, toxicity estimated. |
| 1939 | Methylpentane, 2-; (Isohexane) | 107-83-5 | 500 | 510 | 510 | ***2500*** | ppm | See LEL Formattinng Note. |
| 1940 | Methylpentane, 3- | 96-14-0 | 500 | 510 | 510 | ***2500*** | ppm | See LEL Formattinng Note. |
| 1941 | Methylpentanol-1, 2-; (Amyl methyl alcohol) | 105-30-6 | 0.25 | 0.75 | 5 | 150 | ppm | |
| 1942 | Methylphenol, 2-; (o-Cresol) | 95-48-7 | 5 | 5 | 24.9 | 250 | ppm | |
| 1943 | Methylphenol, 3-; (m-Cresol) | 108-39-4 | 5 | 5 | 24.9 | 250 | ppm | |
| 1944 | Methylphenol, 4-; (p-Cresol) | 106-44-5 | 5 | 5 | 24.9 | 250 | ppm | |
| 1945 | Methylphenylthiourea, 2-; (o-Tolyl thiourea) | 614-78-8 | 10 | 30 | 50 | 50 | mg/m3 | |
| 1946 | Methylphosphonate | 993-13-5 | 10 | 10 | 10 | 10 | mg/m3 | HSDB, HC&P listed, no toxicity data found. |
| 1947 | Methylphosphonothioic acid, S-(2-(dimethylamino)ethyl) O-ethyl ester | 20820-80-8 | 0.00006 | 0.0002 | 0.00125 | 0.006 | ppm | "Vsub; (VXR)" deleted. No pchem data found. Client human LC50. |
| 1948 | Methylphosphonothioic acid-O-(4-nitrophenyl)-O-phenyl ester | 2665-30-7 | 1.5 | 5 | 8 | 8 | mg/m3 | |
| 1949 | Methylphosphonothioic acid-O-ethyl O-(4-(methylthio)phenyl) ester | 2703-13-1 | 2 | 6 | 10 | 10 | mg/m3 | |
| 1950 | Methylpropane, 2-; (Isobutane) | 75-28-5 | 1000 | ***3000*** | ***5000*** | ***15000*** | ppm | T-0, T-1, T-2 changed. See LEL Formattinng Note. |
| 1951 | Methylpropene, 2-; (Isobutene) | 115-11-7 | 250 | 750 | 1250 | ***100000*** | ppm | New TLV-TWA, T-0, T-1, T-2 changed. See LEL Formattinng Note. |
| 1952 | Methylpropylnitrosoamine; (N-Methyl-N-nitroso-1-propanamine) | 924-46-9 | 0.01 | 0.03 | 0.2 | 4 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1953 | Methylpyridine, 2-; (2-Picoline) | 109-06-8 | 2 | 5 | 5 | 300 | ppm | |
| 1954 | Methylpyrrole, N- | 96-54-8 | 75 | 250 | 500 | 500 | mg/m3 | No toxicity data found. MSDS NFPA HHR = 0 |
| 1955 | Methylpyrrolidine; (Methylpyrrolidine, 1-) | 120-94-5 | 0.75 | 2 | 15 | 75 | mg/m3 | |
| 1956 | Methylstyrene, alpha- | 98-83-9 | 50 | 100 | 100 | 700 | ppm | |
| 1957 | Methyltetrahydrofuran, 2- | 96-47-9 | 6 | 15 | 125 | 600 | ppm | |
| 1958 | Methyltriacetoxysilane | 4253-34-3 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 1959 | **Methyltrichlorosilane; (Trichloromethyl silane)** | **75-79-6** | 0.2 | **0.60** | **6.2** | **28** | ppm | **Interim AEGL-1, -2, -3.** |
| 1960 | Methyltriethoxysilane | 2031-67-6 | 6 | 15 | 125 | 600 | ppm | |
| 1961 | Methyl-trifluoromethanesulfonate | 333-27-7 | 7.2 | 21.6 | 36 | 500 | mg/m3 | No toxicity data found. |
| 1962 | Methyltrimethoxysilane | 1185-55-3 | 50 | 150 | 500 | 500 | mg/m3 | |
| 1963 | Methyltrioctylammonium chloride | 5137-55-3 | 0.75 | 2.5 | 20 | 100 | mg/m3 | |
| 1964 | **Methylvinyldichlorosilane; (Dichloromethylvinylsilane)** | **124-70-9** | 0.3 | **0.90** | **11** | **50** | ppm | Added. **New interim AEGL-1, -2, -3.** |
| 1965 | Methylvinylsiloxane-dimethylsiloxane copolymer, vinyl terminated | 68083-18-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found |
| 1966 | Metolcarb; (Methylcarbamic acid m-tolyl ester) | 1129-41-5 | 1 | 3 | 4.8 | 200 | mg/m3 | |
| 1967 | Mevinphos; (Phosdrin) | 7786-34-7 | 0.1 | 0.3 | 4 | 4 | mg/m3 | T-1 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1968 | Mexacarbate; (4-(Dimethylamine)-3,5-xylyl N-methylcarbamate) | 315-18-4 | 2.5 | 7.5 | 14 | 14 | mg/m3 | |
| 1969 | Mica; (mica silicates) | 12001-26-2 | 3 | 9 | 15 | 75 | mg/m3 | IDLH = 1500 mg/m3 suppressed. |
| 1970 | Michler's ketone; (4,4'-bis(dimethylamino)benzophenone) | 90-94-8 | 1 | 3.5 | 25 | 40 | mg/m3 | |
| 1971 | Mineral fibers, fine | z-0032 | 10 | 30 | 50 | 50 | mg/m3 | |
| 1972 | Mineral oil, heavy or light; (Paraffin oil; Deobase, deodorized) | 8020-83-5 | 0.2 | 0.6 | 500 | 500 | mg/m3 | |
| 1973 | Mineral oil, petroleum distillates, heavy naphthenic | 64741-53-3 | 0.2 | 0.6 | 100 | 500 | mg/m3 | |
| 1974 | Mineral oil, petroleum distillates, solvent-refined (mild) heavy paraffinic | 64741-88-4 | 0.2 | 0.6 | 1 | 500 | mg/m3 | No toxicity data found. Rat oral LD50 for similar compounds > 5 g/kg. |
| 1975 | Mineral oil, petrolleum distillates, solvent refined light naphthenic | 64741-97-5 | 40 | 125 | 500 | 500 | mg/m3 | Rat LD > 5 g/kg. No pchem data found. |
| 1976 | Mineral oil, white | 8042-47-5 | 0.2 | 0.6 | 500 | 500 | mg/m3 | |
| 1977 | Mineral oil; (Oil mist, mineral) | 8012-95-1 | 5 | 10 | 10 | 500 | mg/m3 | |
| 1978 | Mirex; (Perchloropentacyclodecane) | 2385-85-5 | 0.03 | 0.075 | 0.6 | 100 | mg/m3 | |
| 1979 | Mitomycin C | 50-07-7 | 4 | 12.5 | 23 | 23 | mg/m3 | |
| 1980 | Molecular sieve 13X | 63231-69-6 | 7.5 | 25 | 150 | 500 | mg/m3 | MSDS HHR = 2. |
| 1981 | Molybdate orange | 12656-85-8 | 5 | 15 | 75 | 500 | mg/m3 | |
| 1982 | Molybdenum | 7439-98-7 | 10 | 30 | 50 | 500 | mg/m3 | |
| 1983 | Molybdenum carbide | 12011-97-1 | 11.3 | 33.8 | 56.3 | 500 | mg/m3 | LD > 250 mg/kg. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 1984 | Molybdenum dioxide | 18868-43-4 | 6.67 | 6.67 | 6.67 | 500 | mg/m3 | |
| 1985 | Molybdenum disilicide | 12136-78-6 | 15.9 | 47.6 | 79.3 | 500 | mg/m3 | |
| 1986 | Molybdenum hexacarbonyl | 13939-06-5 | 27.5 | 82.6 | 138 | 500 | mg/m3 | Insoluble Mo compound. |
| 1987 | Molybdenum pentachloride | 10241-05-1 | 14.2 | 14.2 | 500 | 500 | mg/m3 | |
| 1988 | Molybdenum trioxide | 1313-27-5 | 7.5 | 7.5 | 7.5 | 500 | mg/m3 | |
| 1989 | Molybdenum(IV) sulfide | 1317-33-5 | 16.7 | 50.1 | 83.4 | 500 | mg/m3 | Rat oral LD50 > 2 g/kg. |
| 1990 | Molybdic acid | 7782-91-4 | 8.44 | 8.44 | 8.44 | 500 | mg/m3 | Mo compounds, treated as soluble. |
| 1991 | Molybdic acid, ammonium salt; (Ammonium molibdate) | 11098-84-3 | 11.7 | 11.7 | 500 | 500 | mg/m3 | Could not confirm MF, MW. RTECS toxicity data. T-2 changed. |
| 1992 | Molybdic acid, disodium salt; (Disodium molybdate) | 7631-95-0 | 10.7 | 10.7 | 10.7 | 500 | mg/m3 | |
| 1993 | Molybdic acid, hexaammonium salt; (Ammonium heptamolybdate) | 12027-67-7 | 8.67 | 8.67 | 8.67 | 500 | mg/m3 | |
| 1994 | Molybdophosphoric acid | 12026-57-2 | 7.93 | 7.93 | 7.93 | 500 | mg/m3 | TSCA listed, no toxicity data. Assumed soluble compound. |
| 1995 | Molybdophosphoric acid hydrate; (Phosphomolybdic acid hydrate) | 51429-74-4 | 8.07 | 8.07 | 8.07 | 500 | mg/m3 | No toxicity data found. |
| 1996 | Monobutyl phosphite | 16456-56-7 | 6 | 20 | 150 | 500 | mg/m3 | |
| 1997 | Monochloroamine; (Chloramide) | 10599-90-3 | 0.05 | 0.15 | 1 | 5 | ppm | RTECS data used, all Ts changed. |
| 1998 | Monochloropentafluoroethane; (CFC-115) | 76-15-3 | 1000 | 3000 | 5000 | 300000 | ppm | |
| 1999 | Monocrotophos | 6923-22-4 | 0.05 | 0.15 | 0.63 | 25 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2000 | **Monomethylamine; (Methylamine)** | **74-89-5** | 10 | **15** | **64** | **350** | ppm | **New interim AEGL-1, -2, -3. ERPG-1, -2, -3.** T-1, T-2, T-3 changed. |
| 2001 | **Monomethylhydrazine; (Methyl hydrazine)** | **60-34-4** | 0.01 | 0.2 | **0.9** | **2.7** | ppm | **Final AEGL-2, -3.** |
| 2002 | Monosodium titanate | 60704-88-3 | 10 | 30 | 50 | 250 | mg/m3 | MSDS #18858-00 CASRN 12034-36-5 TSCA has MF = Na.H-O5-Ti2 |
| 2003 | Montmorillonite | 1318-93-0 | 30 | 30 | 30 | 30 | mg/m3 | Used Bentonite, 1302-78-9 |
| 2004 | Morpholine | 110-91-8 | 20 | 30 | 30 | ***1400*** | ppm | See LEL Formattinng Note. |
| 2005 | Morpholinepropanesulfonic acid, 4- | 1132-61-2 | 1.25 | 4 | 25 | 125 | mg/m3 | Quail LD50 > 316 mg/m3 |
| 2006 | Morpholino)ethanesulfonic acid monohydrate, 2-(N- | 4432-31-9 | 1.25 | 4 | 25 | 125 | mg/m3 | Quail LD50 > 316 mg/kg |
| 2007 | Muscimol; (5-Aminomethyl-3-isoxyzole) | 2763-96-4 | 3.5 | 10 | 17 | 20 | mg/m3 | |
| 2008 | Mustard gas sulfoxide; (bis(2-chloroethyl)sulfoxide) | 5819-08-9 | 0.4 | 1.25 | 7.5 | 40 | mg/m3 | No pchem data found. |
| 2009 | Myoglobins | 9008-45-1 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. MSDS states Solid. |
| 2010 | Myristic acid, butyl ester; (Tetradecanoic acid, butyl ester) | 110-36-1 | 3 | 7.5 | 60 | 300 | ppm | Rat oral LD50 > 8 g/kg. |
| 2011 | Myristic acid, isopropyl ester; (Tetradecanoic acid, isopropyl; Isopropyl myristate) | 110-27-0 | 200 | 500 | 500 | 500 | mg/m3 | |
| 2012 | Nabumetone; (Relafen; 4-(6-methoxy-2-naphthyl)-2-butanone) | 42924-53-8 | 10 | 30 | 125 | 500 | mg/m3 | |
| 2013 | Nadic methyl anhydride | 25134-21-8 | 0.75 | 2 | 15 | 75 | mg/m3 | |
| 2014 | Naphtha (coal tar); (Naphtha [petroleum] light aliphatic; Aliphatic naphtha) | 8030-30-6 | 100 | 350 | ***1000*** | ***1000*** | ppm | T-1, T-2 changed. See LEL Formattinng Note. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2015 | Naphtha (petroleum), heavy catalytic cracked | 64741-54-4 | 15 | 40 | 300 | 500 | mg/m3 | Rat 240 min LC > 5700 mg/m3, oral LD > 5000 mg/kg. |
| 2016 | Naphtha (petroleum), light straight-run | 64741-46-4 | 100 | 350 | ***1000*** | ***1000*** | ppm | Added. No toxicity data found. Used Naphtha (Coal tar) PACs. See LEL Formattinng Note. |
| 2017 | Naphtha, heavy aliphatic solvent | 64742-96-7 | 15 | 40 | 300 | 500 | mg/m3 | TSCA listed, no toxicity data found. Used Naphtha (petroleum) heavy catalytic cracked (64741-54-4) PACs. All Ts changed. |
| 2018 | Naphtha, hydrotreated heavy; (Isopar L-rev 2) | 64742-48-9 | 171 | 513 | ***855*** | ***1250*** | ppm | OEL-TWA = 171 ppm (1200 mg/m3) from Exxon MSDS. See LEL Formattinng Note. |
| 2019 | Naphthalenamine, 1-; (1-Naphthylamine) | 134-32-7 | 0.6 | 1.5 | 12.5 | 350 | mg/m3 | |
| 2020 | Naphthalene | 91-20-3 | 10 | 15 | 15 | 250 | ppm | T-2 changed. |
| 2021 | Naphthaleneacetamide, 1- | 86-86-2 | 6 | 20 | 150 | 500 | mg/m3 | |
| 2022 | Naphthalenetrisulfonic acid sodium salt, 1,3,6- | 19437-42-4 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. MSDS Solid. |
| 2023 | Naphthenic acid, lead salt | 61790-14-5 | 0.0544 | 0.163 | 30 | 109 | mg/m3 | For stated MW, x = 7. |
| 2024 | Naphthol, 1- | 90-15-3 | 25 | 75 | 500 | 500 | mg/m3 | |
| 2025 | Naphthol, 2- | 135-19-3 | 0.0025 | 0.0075 | 0.05 | 500 | mg/m3 | |
| 2026 | Naphthol-8-sulfonic acid, sodium salt, 2- | 832-85-9 | 2 | 6 | 40 | 200 | mg/m3 | Not found in databases. Used 2-Naphthol-6-sulfonic acid (93-01-6) toxicity data. |
| 2027 | Naphthoquinone, 1,4- | 130-15-4 | 0.075 | 0.25 | 1.5 | 75 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2028 | Naphthylamine, beta- | 91-59-8 | 1.5 | 5 | 35 | 300 | mg/m3 | |
| 2029 | Naphthylthiourea, alpha-; (ANTU) | 86-88-4 | 0.3 | 0.9 | 10 | 100 | mg/m3 | |
| 2030 | Neatsfoot oil; (Fats and glyceridic oils) | 8002-64-0 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found, assumed non-volatile. |
| 2031 | Neodecanoic acid | 26896-20-8 | 12.5 | 40 | 300 | 500 | mg/m3 | |
| 2032 | Neodymium | 7440-00-8 | 0.00075 | 0.0025 | 0.02 | 0.1 | mg/m3 | |
| 2033 | Neodymium bromide | 13536-80-6 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2034 | Neodymium fluoride | 13709-42-7 | 8.83 | 26.5 | 44.1 | 500 | mg/m3 | T-3 changed. |
| 2035 | Neodymium hydroxide | 16469-17-3 | 0.75 | 0.75 | 2 | 75 | mg/m3 | **SAR** |
| 2036 | Neodymium nitrate | 10045-95-1 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 2037 | Neodymium nitrate, pentahydrate | 14517-29-4 | 10 | 30 | 50 | 250 | mg/m3 | HC&P listed, no toxicity data found. |
| 2038 | Neodymium nitrite | z-0033 | 0.04 | 0.1 | 0.75 | 75 | mg/m3 | **SAR** |
| 2039 | Neodymium(III) chloride | 10024-93-8 | 0.6 | 1.5 | 12.5 | 60 | mg/m3 | All Ts and units changed. |
| 2040 | Neodymium(III) oxide | 1313-97-9 | 10 | 30 | 50 | 500 | mg/m3 | Rat oral LD50 > 5 g/kg |
| 2041 | Neon | 7440-01-9 | 65000 | 65000 | 230000 | 400000 | ppm | Simple asphyxiant. |
| 2042 | Nickel | 7440-02-0 | 1 | 4.5 | 10 | 10 | mg/m3 | |
| 2043 | Nickel acetate tetrahydrate | 6018-89-9 | 4.24 | 4.24 | 4.24 | 42.4 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2044 | Nickel aluminide | 12003-78-0 | 1.36 | 1.36 | 1.36 | 13.6 | mg/m3 | TSCA listed, no toxicity data found. |
| 2045 | Nickel carbonate hydroxide; (Basic nickel carbonate tetrahydrate) | 39430-27-8 | 2.14 | 2.14 | 4 | 21.4 | mg/m3 | See also SAX NCY600, 12607-70-4 |
| 2046 | Nickel carbonate hydroxide; (Basic nickel(II) carbonate) | 12607-70-4 | 1.73 | 1.73 | 1.73 | 17.3 | mg/m3 | |
| 2047 | **Nickel carbonyl** | **13463-39-3** | 0.001 | 0.036 | **0.036** | **0.16** | ppm | **New Final AEGL-2, -3.** T-0 changed. |
| 2048 | Nickel chloride; (Nickelous chloride) | 7718-54-9 | 2.21 | 2.21 | 2.21 | 22.1 | mg/m3 | |
| 2049 | Nickel cyanide | 557-19-7 | 0.377 | 1.13 | 9.44 | 18.9 | mg/m3 | PEL-TWA ignored. |
| 2050 | Nickel fluoride | 13940-83-5 | 2.88 | 2.88 | 3 | 28.8 | mg/m3 | ChemFinder has Nickel(II) fluoride tetrahydrate. |
| 2051 | Nickel formate | 3349-06-2 | 3.15 | 3.15 | 6 | 31.5 | mg/m3 | |
| 2052 | Nickel oxalate (liquids) | 6018-94-6a | 2.5 | 2.5 | 2.5 | 25 | mg/m3 | |
| 2053 | Nickel oxalate (solids) | 6018-94-6b | 2.5 | 2.5 | 2.5 | 25 | mg/m3 | |
| 2054 | Nickel oxide; (Nickel(II) oxide) | 1313-99-1 | 1.27 | 1.27 | 12.7 | 12.7 | mg/m3 | |
| 2055 | Nickel perchlorate | 13637-71-3 | 6.23 | 6.23 | 6.23 | 62.3 | mg/m3 | HC&P listed, no toxicity data found. |
| 2056 | Nickel sulfamate; (Nickel(II) sulfamate) | 13770-89-3 | 4.27 | 4.27 | 4.27 | 200 | mg/m3 | |
| 2057 | Nickel sulfate hexahydrate; (Nickel(II) sulfate hexahydrate) | 10101-97-0 | 4.48 | 4.48 | 10 | 44.8 | mg/m3 | |
| 2058 | Nickel sulfate; (Nickel(II) sulfate) | 7786-81-4 | 2.64 | 2.64 | 2.64 | 26.4 | mg/m3 | |
| 2059 | Nickel(2+) stearate | 2223-95-2 | 10.7 | 32 | 53.3 | 107 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2060 | Nickel(II) bromide | 13462-88-9 | 3.72 | 3.72 | 3.72 | 37.2 | mg/m3 | No toxicity data, soluble compound. |
| 2061 | Nickel(II) carbonate (1:1) | 3333-67-3 | 2.02 | 2.02 | 2.02 | 20.2 | mg/m3 | |
| 2062 | Nickel(II) chloride hexahydrate | 7791-20-0 | 4.05 | 4.05 | 40.5 | 40.5 | mg/m3 | |
| 2063 | Nickel(II) hydroxide; (Nickelous hydroxide) | 12054-48-7 | 1.58 | 1.58 | 1.58 | 15.8 | mg/m3 | SAX has CASRNs of nickelous and nickelic reversed. |
| 2064 | Nickel(II) nitrate hexahydrate | 13478-00-7 | 4.96 | 4.96 | 49.6 | 49.6 | mg/m3 | |
| 2065 | Nickel(II) nitrate; (Nickelous nitrate) | 13138-45-9 | 3.11 | 3.11 | 12.5 | 31.1 | mg/m3 | |
| 2066 | Nickel(II) nitrite | 17861-62-0 | 1 | 1 | 1 | 10 | mg/m3 | |
| 2067 | Nickel(II) phosphate | 10381-36-9 | 1 | 1 | 1 | 10 | mg/m3 | |
| 2068 | Nickel(III) hydroxide; (Nickelic hydroxide) | 12125-56-3 | 1.87 | 1.87 | 1.87 | 18.7 | mg/m3 | CASRN = 12125-56-3 is Ni(OH)3; 12054-48-7 is Ni(OH)2; 11113-74-9 is Ni.OH, but databases differ. Ni.OOH (Ni oxy OH) not found |
| 2069 | Nicotinamide | 98-92-0 | 6 | 20 | 150 | 500 | mg/m3 | |
| 2070 | Nicotine sulfate | 65-30-5 | 4 | 9 | 9 | 9 | mg/m3 | |
| 2071 | Nicotine, dl-beta-; (DL-Nicotine) | 22083-74-5 | 1.29 | 3.5 | 3.5 | 75 | mg/m3 | |
| 2072 | Nicotine; (Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-) | 54-11-5 | 0.5 | 1.5 | 3.5 | 5 | mg/m3 | |
| 2073 | Nicotinic acid; (Niacin) | 59-67-6 | 0.75 | 2.5 | 15 | 500 | mg/m3 | T-1 changed. |
| 2074 | Niobium | 7440-03-1 | 40 | 125 | 500 | 500 | mg/m3 | Rat LD50 > 10 g/kg |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2075 | Niobium chloride | 10026-12-7 | 6 | 15 | 125 | 500 | mg/m3 | |
| 2076 | Niobium pentoxide; (Niobium(V) oxide) | 1313-96-8 | 10 | 30 | 200 | 500 | mg/m3 | Rat oral LD50 > 10 g/kg. |
| 2077 | Niobium(IV) carbide | 12069-94-2 | 11.3 | 33.9 | 56.5 | 250 | mg/m3 | TSCA listed, no toxicity data found. |
| 2078 | Nitrapyrin; (2-Chloro-6-(trichloromethyl)pyridine) | 1929-82-4 | 15 | 20 | 20 | 400 | mg/m3 | T-2 changed. |
| 2079 | Nitrate(s) | 14797-55-8 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2080 | **Nitric acid** | **7697-37-2** | 0.53 | **0.53** | **24** | **92** | ppm | **Interim AEGL-1, -2, -3. WFNA (ERPGs for "white fuming")** |
| 2081 | Nitric acid, butyl ester; (Butyl nitrate) | 928-45-0 | 2.05 | 6.16 | 10.3 | 50 | ppm | No toxicity data found. |
| 2082 | Nitric acid, ethyl ester; (Ethyl nitrate) | 625-58-1 | 0.35 | 1 | 6 | 35 | ppm | HSDB MP = -94.6, BP = 87.2. |
| 2083 | Nitric acid, pentyl ester; (Amyl nitrate) | 1002-16-0 | 25 | 75 | 500 | 2500 | ppm | CASRN corrected, 10023-16-0 fails checksum.. |
| 2084 | **Nitric oxide** | **10102-43-9** | 0.5 | **0.50** | **12** | **20** | ppm | On AEGL list, no values but EPA recommends use of nitrogen dioxide AEGLs. All Ts changed. |
| 2085 | Nitrilotriacetic acid, disodium salt; (Disodium nitrilotriacetate) | 15467-20-6 | 6 | 15 | 125 | 500 | mg/m3 | |
| 2086 | Nitrilotriacetic acid, trisodium salt, monohydrate | 18662-53-8 | 0.06 | 0.2 | 1.25 | 500 | mg/m3 | Some toxicity data ex HSDB. |
| 2087 | Nitrilotriacetic acid; (Aminotriacetic acid) | 139-13-9 | 35 | 100 | 500 | 500 | mg/m3 | |
| 2088 | Nitrilotris tri-phosphonic acid; (Amino, tris[methylene phosphonic acid]) | 6419-19-8 | 10 | 10 | 35 | 500 | mg/m3 | Added. |
| 2089 | Nitroaniline, 2-; (o-Nitroaniline) | 88-74-4 | 6 | 20 | 125 | 500 | mg/m3 | Rat 4 hr LC50 > 2529 mg/m3 |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2090 | Nitroaniline, 3-; (m-Nitroaniline) | 99-09-2 | 0.6 | 1.5 | 12.5 | 200 | mg/m3 | |
| 2091 | Nitroaniline, p- | 100-01-6 | 6 | 9 | 300 | 300 | mg/m3 | |
| 2092 | Nitrobenzene | 98-95-3 | 1 | 3 | 19.9 | 200 | ppm | |
| 2093 | Nitrobenzenesulfonic acid, sodium salt, 3- | 127-68-4 | 40 | 125 | 500 | 500 | mg/m3 | |
| 2094 | Nitrobiphenyl, 4-; (p-Nitrobiphenyl) | 92-93-3 | 0.25 | 0.75 | 5 | 500 | mg/m3 | |
| 2095 | Nitrochlorobenzene, m-; (1-Chloro-3-nitrobenzene; m-chloronitrobenzene) | 121-73-3 | 0.06 | 0.2 | 1.25 | 150 | mg/m3 | |
| 2096 | Nitrocyclohexane | 1122-60-7 | 0.3 | 0.75 | 1.5 | 60 | mg/m3 | |
| 2097 | Nitrocyclohexene, 1-; (1-Nitrocyclohex-1-ene) | 2562-37-0 | 0.35 | 1 | 7.5 | 40 | ppm | **SAR** |
| 2098 | Nitrodiphenylamine, 2- | 119-75-5 | 30 | 100 | 500 | 500 | mg/m3 | Used p-nitrodiphenylamine (CASRN = 836-30-6) |
| 2099 | Nitroethane | 79-24-3 | 100 | 100 | 200 | 1000 | ppm | |
| 2100 | Nitrogen | 7727-37-9 | 65000 | 65000 | 230000 | 400000 | ppm | Simple asphyxiant, all Ts changed. TEELs represent added nitogen. |
| 2101 | **Nitrogen dioxide** | **10102-44-0** | 0.5 | **0.50** | **12** | **20** | ppm | **Interim AEGL-1, -2, -3.** |
| 2102 | Nitrogen mustard hydrochloride | 55-86-7 | 0.75 | 2.5 | 4 | 4 | mg/m3 | |
| 2103 | **Nitrogen mustard; (Bis(b-chloroethyl)methylamine)** | **51-75-2** | 0.001 | 0.003 | **0.022** | **0.37** | mg/m3 | Added. **New interim AEGL-2, -3.** All Ts changed. |
| 2104 | Nitrogen tetroxide | 10544-72-6 | 3 | 5 | 5 | 20 | ppm | |
| 2105 | **Nitrogen trifluoride** | **7783-54-2** | 10 | 60 | **400** | **800** | ppm | **ERPG-2, -3.** |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2106 | Nitrogen trioxide; (Dinitrogen trioxide) | 10544-73-7 | 25 | 50 | 100 | 500 | ppm | TSCA, HC&P listed, CASRN 12033-49-7 not found, data source uncertain |
| 2107 | Nitroglycerin | 55-63-0 | 0.1 | 0.1 | 2 | 75 | mg/m3 | |
| 2108 | Nitromethane | 75-52-5 | 20 | 60 | 750 | 750 | ppm | PEL-TWA ignored. |
| 2109 | Nitromethane-d3; (Trideuteronitromethane) | 13031-32-8 | 20 | 60 | 100 | 750 | ppm | Used nitromethane, 72-52-5. |
| 2110 | Nitro-m-xylene, 2-; (1,3-Dimethyl-2-nitrobenzene) | 81-20-9 | 10 | 30 | 200 | 500 | mg/m3 | SAX MF and MW incorrect. Rat oral LD50 from MSDS. |
| 2111 | Nitronium Tetrafluoroborate | 13826-86-3 | 4.37 | 13.1 | 21.8 | 150 | mg/m3 | No pchem data found, HHR = 3 from MSDS. |
| 2112 | Nitrophenol (mixed isomers) | 25154-55-6 | 0.75 | 2.5 | 15 | 75 | mg/m3 | Used most toxic isomer Ts (4-Nitrophenol, 100-02-7). |
| 2113 | Nitrophenol, 2-; (o-Nitrophenol) | 88-75-5 | 1.25 | 4 | 30 | 150 | mg/m3 | |
| 2114 | Nitrophenol, 3-; (m-Nitrophenol) | 554-84-7 | 1.25 | 4 | 30 | 150 | mg/m3 | |
| 2115 | Nitrophenol, 4-; (p-Nitrophenol) | 100-02-7 | 0.75 | 2.5 | 15 | 75 | mg/m3 | |
| 2116 | Nitropropane, 1- | 108-03-2 | 25 | 25 | 25 | 1000 | ppm | |
| 2117 | Nitropropane, 2- | 79-46-9 | 25 | 30 | 50 | 100 | ppm | |
| 2118 | Nitropyrene, 1- | 5522-43-0 | 0.1 | 0.3 | 2 | 10 | mg/m3 | |
| 2119 | Nitropyridine-N-oxide, 4-; (Pyridine, 4-nitro, 1-oxide) | 1124-33-0 | 15 | 50 | 80 | 80 | mg/m3 | |
| 2120 | Nitrosodimethylamine | 62-75-9 | 3.5 | 10 | 19 | 19 | mg/m3 | |
| 2121 | Nitrosodiphenylamine, p- | 156-10-5 | 0.1 | 0.3 | 2 | 150 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2122 | Nitrosodipropylamine; (DPNA) | 621-64-7 | 0.06 | 0.2 | 1.25 | 200 | mg/m3 | |
| 2123 | Nitrosomorpholine | 59-89-2 | 12.5 | 30 | 30 | 30 | mg/m3 | |
| 2124 | Nitroso-N-methylurea, N- | 684-93-5 | 0.015 | 0.05 | 0.35 | 50 | mg/m3 | |
| 2125 | Nitrosophenol, p- | 104-91-6 | 2 | 6 | 40 | 200 | mg/m3 | |
| 2126 | Nitrosotoluene, 2-: (o-Nitrosotoluene) | 611-23-4 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 2127 | Nitrosyl chloride | 2696-92-6 | 0.025 | 0.075 | 0.5 | 2.5 | ppm | |
| 2128 | Nitrosylsulfuric acid | 7782-78-7 | 1.5 | 5 | 35 | 150 | mg/m3 | No toxicity data found. |
| 2129 | Nitrotoluene, m- | 99-08-1 | 5 | 6 | 50 | 200 | ppm | |
| 2130 | Nitrotoluene, o- | 88-72-2 | 5 | 6 | 10 | 200 | ppm | T-2, T-3 changed. |
| 2131 | Nitrotoluene, p- | 99-99-0 | 5 | 6 | 10 | 200 | ppm | |
| 2132 | Nitrous acid | 7782-77-6 | 1 | 3 | 15 | 200 | mg/m3 | Used HNO3 limits |
| 2133 | Nitrous oxide | 10024-97-2 | 50 | 150 | 10000 | 20000 | ppm | |
| 2134 | Nonacosane | 630-03-5 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2135 | Nonanal | 124-19-6 | 2 | 6 | 40 | 500 | mg/m3 | |
| 2136 | Nonane; (Shellsol 140) | 111-84-2 | 200 | 600 | ***1000*** | ***1250*** | ppm | See LEL Formattinng Note. |
| 2137 | Nonanenitrile; (1-Octyl cyanide) | 2243-27-8 | 26.8 | 26.8 | 30 | 150 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2138 | Nonanoic acid | 112-05-0 | 25 | 75 | 500 | 500 | mg/m3 | |
| 2139 | Nonanone, 2- | 821-55-6 | 1 | 3 | 20 | 75 | ppm | |
| 2140 | Nonene, 1- | 124-11-8 | 0.5 | 1.5 | 10 | 50 | ppm | HSDB, OHMTADS, TSCA, no toxicity data, estimated. |
| 2141 | Nonoxynol-4 | 7311-27-5 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2142 | Nonyl alcohol | 143-08-8 | 25 | 75 | 500 | 500 | mg/m3 | |
| 2143 | Nonyl phenol (mixed isomers) | 25154-52-3 | 6 | 20 | 125 | 500 | mg/m3 | |
| 2144 | Nonyl phenol, 4- (branched) | 84852-15-3 | 5 | 15 | 100 | 500 | mg/m3 | |
| 2145 | Nonyl phenol, p- | 104-40-5 | 6 | 20 | 125 | 500 | mg/m3 | |
| 2146 | Nonylphenol, 4-, branched, ethoxylated | 127087-87-0 | 10 | 30 | 200 | 500 | mg/m3 | |
| 2147 | Nonylphenoxypolyethoxyethanol | 68412-54-4 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2148 | **Nonyltrichlorosilane** | **5283-67-0** | 0.2 | **0.60** | **7.3** | **33** | ppm | Added. **New interim AEGL-1, -2, -3.** |
| 2149 | Norbormide | 991-42-4 | 0.75 | 2 | 3.8 | 3.8 | mg/m3 | |
| 2150 | Norchlorofluoroepibatidine | z-0034 | 0.00004 | 0.000125 | 0.00075 | 0.00125 | mg/m3 | |
| 2151 | Octachlorodibenzodioxin, 1,2,3,4,6,7,8,9-; (OCDD, Octachlorodibenzo-p-dioxin) | 3268-87-9 | 0.004 | 0.01 | 0.075 | 0.4 | mg/m3 | |
| 2152 | Octachlorodibenzofuran, 1,2,3,4,6,7,8,9- | 39001-02-0 | 0.003 | 0.0075 | 0.06 | 10 | mg/m3 | LC50 based on other CDFs |
| 2153 | Octachloronaphthalene | 2234-13-1 | 0.1 | 0.3 | 0.5 | 1 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2154 | Octacosane | 630-02-4 | 21.7 | 21.7 | 112 | 500 | ppm | TSCA listed, no toxicity data found. |
| 2155 | Octadecane, n- | 593-45-3 | 33.7 | 33.7 | 173 | 750 | ppm | TSCA, HC&P listed. |
| 2156 | Octadecanoic acid, n-; (Stearic acid) | 57-11-4 | 60 | 150 | 500 | 500 | mg/m3 | |
| 2157 | Octadecanol, 1- | 112-92-5 | 2.5 | 7.5 | 50 | ***750*** | ppm | See LEL Formattinng Note. |
| 2158 | Octadecenoic acid, 9-; (Oleic acid) | 112-80-1 | 0.015 | 0.05 | 0.4 | 500 | mg/m3 | |
| 2159 | Octadecyl methacrylate | 32360-05-7 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, HC&P listed, no toxicity data. MSDS MP, SG data. Assumed nonvolatile. |
| 2160 | **Octadecyltrichlorosilane** | **112-04-9** | 0.2 | **0.60** | **7.3** | **33** | ppm | **New interim AEGL-1, -2, -3.** All Ts and units changed. |
| 2161 | Octafluorocyclobutane; (Cyclooctafluorobutane; Freon C-318) | 115-25-3 | 25000 | 65000 | 230000 | 300000 | ppm | |
| 2162 | Octamethylcyclotetrasiloxane | 556-67-2 | 12.5 | 35 | 250 | 300 | ppm | SAR Ts = 10, 30, 50, 500 mg/m3 not used. |
| 2163 | Octamethyldiphosphoramide; (Octamethylpyrophosphoramide) | 152-16-9 | 0.15 | 0.5 | 0.8 | 3.5 | mg/m3 | |
| 2164 | Octanal, 1-; (Octanal; Octanaldehyde) | 124-13-0 | 20 | 60 | 500 | 500 | mg/m3 | |
| 2165 | Octanamine, 1- | 111-86-4 | 0.4 | 1.25 | 7.5 | 40 | mg/m3 | |
| 2166 | Octane, n- | 111-65-9 | 300 | 300 | 385 | ***1000*** | ppm | See LEL Formattinng Note. |
| 2167 | Octanedione, 2,5- | 3214-41-3 | 20 | 60 | 500 | 500 | mg/m3 | Not found in databases. Toxicity based on octane |
| 2168 | Octanenitrile | 124-12-9 | 1.5 | 4 | 30 | 150 | ppm | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2169 | Octanethiol, 1- | 111-88-6 | 0.025 | 0.075 | 0.5 | 150 | ppm | Toxicity data ex HSDB |
| 2170 | Octanoic acid; (Caprylic acid) | 124-07-2 | 40 | 125 | 500 | 500 | mg/m3 | |
| 2171 | Octanol, 2- | 123-96-6 | 12.5 | 35 | 250 | 350 | mg/m3 | HSDB, TSCA give CASRN = 123-96-6, changed from 4128-31-8. T-2, T-3 changed. |
| 2172 | Octanone, 2- | 111-13-7 | 60 | 200 | 200 | 500 | mg/m3 | |
| 2173 | Octaphenylcyclotetrasiloxane | 546-56-5 | 20 | 60 | 400 | 500 | mg/m3 | RTECS LD 50 > 4640 mg/kg |
| 2174 | **Octene, 1-** | **111-66-0** | 40 | **40** | **800** | ***2000*** | ppm | **ERPG-1, -2, -3.** See LEL Formattinng Note. |
| 2175 | Octyl alcohol; (n-octanol) | 111-87-5 | 50 | 50 | 50 | 350 | mg/m3 | |
| 2176 | Octyl(phenyl)-N,N-diisobutylcarbamoylmethylphosphine oxide | 83242-95-9 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2177 | **Octyltrichlorosilane** | **5283-66-9** | 0.2 | **0.60** | **7.3** | **33** | ppm | Added. **New interim AEGL-1, -2, -3.** |
| 2178 | Oil gas; (Oil fog) | z-0035 | 450 | 1750 | 3000 | 4500 | ppm | 4.2% illuminants, 10.4% CO, 47.6% H, 27.0% CH4, 4.6% CO2, 5.8% N, 0.4% O2 |
| 2179 | **Oleum; (fuming sulfuric acid)** | **8014-95-7** | 0.2 | **0.20** | **8.7** | **160** | mg/m3 | **Interim AEGL-1, -2, -3. All Ts changed.** |
| 2180 | Organorhodium complex | z-0036 | 0.292 | 8.75 | 15 | 500 | mg/m3 | MW assumed, insol Rh conc. limits used. |
| 2181 | Orthoformic acid, trimethyl ester; (Trimethyl orthoformate) | 149-73-5 | 0.1 | 0.3 | 2 | 10 | ppm | An irritant, but no toxicity data found. Rat LC50 based on HR. |
| 2182 | Osmium | 7440-04-2 | 0.25 | 0.75 | 6 | 30 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2183 | **Osmium tetroxide** | **20816-12-0** | 0.000193 | 0.0006 | **0.0084** | **4.0** | ppm | **New interim AEGL-2, -3.** All Ts changed. |
| 2184 | **Otto Fuel (mainly Propylene glycol dinitrate 6423-43-4)** | **106602-80-6** | 0.05 | **0.17** | **1.0** | **13** | ppm | **Final AEGL-1, -2, -3** |
| 2185 | Ouabain | 630-60-4 | 1.5 | 5 | 8.3 | 12.5 | mg/m3 | |
| 2186 | Oxalic acid dihydrate | 6153-56-6 | 1 | 2 | 100 | 500 | mg/m3 | Cannot confirm previously used toxicity data. Used HSDB data. T-2 changed. |
| 2187 | Oxalic acid, anhydrous; (Ethanedioic acid) | 144-62-7 | 1 | 2 | 40 | 500 | mg/m3 | T-2 changed. |
| 2188 | Oxalyl chlorine | 79-37-8 | 1.5 | 5 | 40 | 200 | ppm | |
| 2189 | Oxamide | 471-46-5 | 1.5 | 5 | 40 | 200 | mg/m3 | |
| 2190 | Oxamyl | 23135-22-0 | 0.35 | 1 | 1.7 | 15 | mg/m3 | |
| 2191 | Oxathiane, 1,4- | 15980-15-1 | 4 | 12.5 | 75 | 400 | ppm | |
| 2192 | Oxirane, ethenyl-; (3,4-Epoxy-1-butene) | 930-22-3 | 3 | 10 | 25 | 25 | ppm | |
| 2193 | Oxone, monopersulfate compound | 37222-66-5 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases |
| 2194 | Oxybis(n,n-dimethylethanamine), 2,2'-; (Bis(2-dimethylaminoethyl) ether; DMAEE) | 3033-62-3 | 0.05 | 0.15 | 15 | 15 | ppm | Added. |
| 2195 | Oxydiacetic acid; (Oxodiacetic acid) | 110-99-6 | 2 | 6 | 40 | 200 | mg/m3 | |
| 2196 | Oxydiethylenedicarbonic acid, diallyl ester | 142-22-3 | 3 | 10 | 60 | 125 | mg/m3 | |
| 2197 | Oxydiphenoxarsine, 10,10'-; (Phenoxyarsine oxide) | 58-36-6 | 1.68 | 2 | 14 | 14 | mg/m3 | Organic arsenic compound. |
| 2198 | Oxydisulfoton | 2497-07-6 | 0.6 | 2 | 3.5 | 3.5 | mg/m3 | |

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## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2199 | Oxygen (liquid) | 7782-44-7 | | | | | ppm | TEEL values withdrawn, see SCAPA FAQ. |
| 2200 | **Oxygen difluoride; (Fluorine monoxide)** | **7783-41-7** | 0.05 | 0.1 | **0.83** | **2.5** | ppm | **New interim AEGL-2, -3.** T-1, T-2, T-3 changed. |
| 2201 | Ozone | 10028-15-6 | 0.1 | 0.15 | 1 | 5 | ppm | T-1 changed. |
| 2202 | Palladium | 7440-05-3 | 10 | 30 | 50 | 200 | mg/m3 | |
| 2203 | Palladium chloride | 7647-10-1 | 0.15 | 0.4 | 3 | 500 | mg/m3 | |
| 2204 | Palladium hydroxide | 12135-22-7 | 0.125 | 0.3 | 2.5 | 75 | mg/m3 | **SAR** |
| 2205 | Paraffin waxes, petroleum, clay-treated, reaction products with petroleum white mineral oil, stearic acid and triethanolamine | 71808-29-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA-listed. |
| 2206 | Paraffin, n- | 8002-74-2 | 2 | 15 | 15 | 500 | mg/m3 | |
| 2207 | Paraffins, petroleum, normal C5-C20 | 64771-72-8 | 300 | 300 | 300 | 300 | ppm | |
| 2208 | Paraformaldehyde | 30525-89-4 | 4 | 12.5 | 75 | 100 | mg/m3 | |
| 2209 | Paraldehyde | 123-63-7 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2210 | Paraquat | 4685-14-7 | 0.15 | 0.2 | 1.5 | 150 | mg/m3 | T-1,T-2 changed. |
| 2211 | Paraquat dichloride | 1910-42-5 | 0.5 | 0.5 | 0.5 | 1 | mg/m3 | T-0, T-1, T-2 changed. |
| 2212 | Paraquat methosulfate; (Paraquat dimethyl sulphate) | 2074-50-2 | 0.75 | 2 | 15 | 40 | mg/m3 | |
| 2213 | Parathion | 56-38-2 | 0.1 | 0.15 | 2 | 10 | mg/m3 | T-1 changed. |

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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 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2214 | Paris Green; (Cupric acetoarsenite) | 12002-03-8 | 1.13 | 3.38 | 22 | 22 | mg/m3 | |
| 2215 | Particulate material (PNOS) | z-0037 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2216 | PBX (mixture of HMX and nitrocellulose) | z-0038 | 0.24 | 0.6 | 5 | 500 | mg/m3 | |
| 2217 | **Pentaborane** | **19624-22-7** | 0.005 | 0.015 | **0.14** | **0.70** | ppm | **New interim AEGL-2, -3.** T-2, T-3 changed. |
| 2218 | Pentachlorobenzene | 608-93-5 | 10 | 30 | 150 | 400 | mg/m3 | |
| 2219 | Pentachlorodibenzofuran, 1,2,3,7,8- | 57117-41-6 | 0.0025 | 0.0075 | 0.06 | 0.3 | mg/m3 | |
| 2220 | Pentachlorodibenzofuran, 2,3,4,7,8- | 57117-31-4 | 0.000025 | 0.000075 | 0.0006 | 0.4 | mg/m3 | |
| 2221 | Pentachlorodibenzo-p-dioxin, 1,2,3,7,8- | 40321-76-4 | 0.00075 | 0.0025 | 0.015 | 0.075 | mg/m3 | |
| 2222 | Pentachloroethane | 76-01-7 | 10 | 30 | 500 | 500 | mg/m3 | |
| 2223 | Pentachloronitrobenzene | 82-68-8 | 0.5 | 1.5 | 300 | 500 | mg/m3 | |
| 2224 | Pentachlorophenol | 87-86-5 | 0.5 | 2.5 | 2.5 | 2.5 | mg/m3 | |
| 2225 | Pentadecafluorooctanoic acid | 335-67-1 | 4 | 12.5 | 75 | 75 | mg/m3 | |
| 2226 | Pentadecane | 629-62-9 | 3.5 | 10 | 60 | 350 | ppm | |
| 2227 | Pentadecanoic acid | 1002-84-2 | 0.04 | 0.125 | 1 | 5 | ppm | |
| 2228 | Pentadecylamine | 2570-26-5 | 0.1 | 0.3 | 2 | 100 | mg/m3 | |
| 2229 | Pentaerythritol | 115-77-5 | 15 | 30 | 50 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2230 | Pentaerythritol tetra(3-mercaptopropionate), reaction products with 2-(hydroxymethyl)-2-((3-mercapto-1-oxopropoxy)methyl)-1,3-propanediyl bis(3-mercaptopropanoate) and 1-octene | 95823-35-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no MSDS, toxicity or pchem data found, |
| 2231 | Pentaerythritol tetranitrate | 78-11-5 | 0.015 | 0.05 | 0.35 | 500 | mg/m3 | |
| 2232 | Pentafluorobenzoic acid | 602-94-8 | 0.75 | 2 | 15 | 75 | mg/m3 | |
| 2233 | Pentafluoropropane, 1,1,1,3,3- | 460-73-1 | 300 | 900 | 60000 | 60000 | ppm | |
| 2234 | Pentane, n- | 109-66-0 | 610 | 610 | 610 | ***1500*** | ppm | See LEL Formattinng Note. |
| 2235 | Pentanediol, 1,5- | 111-29-5 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 2236 | Pentanedione, 2,4-; (Acetylacetone) | 123-54-6 | 15 | 50 | 100 | 100 | ppm | |
| 2237 | Pentanenitrile | 110-59-8 | 1.5 | 4 | 25 | 25 | ppm | |
| 2238 | Pentanol, 2-; (sec-amyl alcohol; Methyl propyl carbinol; Isoamyl alcohol, secondary) | 6032-29-7 | 100 | 125 | 125 | 500 | ppm | |
| 2239 | Pentanone, 2-; (Methyl propyl ketone) | 107-87-9 | 150 | 150 | 150 | ***1500*** | ppm | Input data changed, T-0, T-1, T-2 changed. See LEL Formattinng Note. |
| 2240 | Pentanone, 3-; (Diethyl ketone) | 96-22-0 | 200 | 300 | 300 | 750 | ppm | |
| 2241 | Pentatriacontane | 630-07-9 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2242 | Pentene, 1- | 109-67-1 | 300 | 750 | ***6000*** | ***75000*** | ppm | HSDB TClo used. RTECS data added. See LEL Formattinng Note. |
| 2243 | Pentobarbital sodium; (Nembutal sodium) | 57-33-0 | 0.15 | 0.5 | 3.5 | 50 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2244 | Pentyl alcohol, tert-; (tert-Amyl alcohol) | 75-85-4 | 60 | 100 | 100 | 100 | ppm | Pchem data varies in sources. Irritant in HSDB. |
| 2245 | Peptone; (Hydrolized protein, Tryptones) | 73049-73-7 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, H&N listed with Tryptones, no toxicity data found. |
| 2246 | **Peracetic acid** | **79-21-0** | 0.15 | **0.52** | **1.60** | **15** | mg/m3 | **Interim AEGL-1, -2, -3.** All Ts changed. Units changed from ppm to mg/m3. |
| 2247 | Perboric acid, sodium salt | 7632-04-4 | 0.5 | 1.5 | 10 | 500 | mg/m3 | |
| 2248 | Perchloric acid | 7601-90-3 | 1 | 3.5 | 20 | 100 | ppm | |
| 2249 | Perchloric acid, zinc salt, hexahydrate | 10025-64-6 | 0.6 | 1.5 | 12.5 | 60 | mg/m3 | |
| 2250 | **Perchloroethylene; (Tetrachloroethylene)** | **127-18-4** | 25 | **35** | **230** | **1200** | ppm | **Interim AEGL-1, -2, -3.** |
| 2251 | **Perchloromethyl mercaptan** | **594-42-3** | 0.013 | **0.013** | **0.30** | **0.90** | ppm | **Interim AEGL-1, -2, -3.** |
| 2252 | Perchloryl fluoride; (Chlorine oxyfluoride) | 7616-94-6 | 3 | 6 | 20 | 100 | ppm | |
| 2253 | Percoll | 65455-52-9 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases, assumed nonvolatile liquid. |
| 2254 | Perfluoro compounds, C5-C18; (Fluorinert electronic liquid perfluoro compounds) | 86508-42-1 | 200 | 600 | 4000 | 25000 | ppm | RTECS has LC > 40000 ppm. Pchem data varies between sources. All Ts changed. |
| 2255 | Perfluoroalkylether polymer; (Capped homopolymers of hexafluoropropylene epoxide, Fluorine End-) | 60164-51-4 | 75 | 250 | 500 | 500 | mg/m3 | Added. TSCA listed, no toxicity data, HHR = 1 ex SRS . |
| 2256 | **Perfluoroisobutylene; (Octafluoro-sec-butene)** | **382-21-8** | 0.005 | 0.015 | **0.1** | **0.3** | ppm | **ERPG-2, -3.** T-0, T-1 changed. |
| 2257 | Perfluoropolyether; (1,1,2,3,3,3-hexafluoro-1-propene, oxidized, polymerized; Vacuum pump oil) | 69991-67-9 | 10 | 30 | 200 | 500 | mg/m3 | Toxicity estimated from Hexafluoropropene, MSDS states an irritant. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2258 | Periodic acid | 10450-60-9 | 0.18 | 0.18 | 0.5 | 5 | mg/m3 | No toxicity data found, used iodine values. |
| 2259 | Periodic acid, sodium salt | 7790-28-5 | 0.25 | 0.75 | 5 | 25 | mg/m3 | |
| 2260 | Perlite; (Fused NaKAl silicate, < 1% quartz) | 93763-70-3 | 15 | 45 | 75 | 500 | mg/m3 | T-0, T-1, T-2 changed. |
| 2261 | Permafluor E+ | z-0039 | 100 | 150 | 500 | 500 | mg/m3 | Mixture ex MSDS |
| 2262 | Permafluor-V (85+% toluene) | z-0040 | 50 | 150 | 300 | 500 | ppm | Mixture PPO, bis-MSB is 85-90% toluene, 10% methanol |
| 2263 | Peroxydicarbonic acid, disodium salt | 3313-92-6 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 2264 | Petrolatum | 8009-03-8 | 15 | 50 | 350 | 500 | mg/m3 | |
| 2265 | Petroleum 50 thinner; (Paint thinner) | z-0041 | 7.5 | 25 | 150 | 750 | ppm | |
| 2266 | Petroleum asphalt | 8052-42-4b | 1.25 | 4 | 25 | 125 | mg/m3 | See Asphalt (ARO500), same CASRN, different toxicity |
| 2267 | Petroleum coke, calcined | 64743-05-1 | 10 | 30 | 50 | 500 | mg/m3 | TSCA listed, no toxicity data. |
| 2268 | Petroleum distillate | 8002-05-9a | 350 | 350 | 500 | 500 | mg/m3 | See Petroleum (PCR250), same CASRN, different toxicity. Suppressed PEL-TWA. |
| 2269 | Petroleum distillates, clay-treated light naphthenic | 64742-45-6 | 20 | 60 | 400 | 500 | mg/m3 | |
| 2270 | Petroleum distillates, low boiling | 68477-31-6 | 350 | 350 | 500 | 500 | mg/m3 | NIOSH petroleum distillates limits used. PEL-TWA suppressed, all Ts changed. |
| 2271 | Petroleum mineral oil; (Extracts, petroleum, middle distillate solvent) | 64742-06-9 | 10 | 30 | 500 | 500 | mg/m3 | |
| 2272 | Petroleum spirits; (Mineral spirits; Soltrol) | 64475-85-0 | 20 | 60 | 400 | ***2000*** | ppm | See LEL Formattinng Note. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2273 | Petroleum spirits; (VM & P Naphtha) | 8032-32-4 | 300 | 300 | 395 | 395 | ppm | |
| 2274 | Petroleum; (Petroleum crude oil) | 8002-05-9b | 350 | 500 | 500 | 500 | mg/m3 | Same CASRN as Petroleum distillate, PCS250, different toxicity. T-0 changed. |
| 2275 | Phenacetin; (p-acetophenetidide) | 62-44-2 | 10 | 30 | 50 | 60 | mg/m3 | |
| 2276 | Phenaglycodol; (Ultran; 2-p-chlorophenyl-3-methyl-2,3-butanediol) | 79-93-6 | 10 | 30 | 50 | 350 | mg/m3 | |
| 2277 | Phenanthrene | 85-01-8 | 0.4 | 1 | 7.5 | 300 | mg/m3 | |
| 2278 | Phenanthroline ferrous sulfate, 1,10- | 14634-91-4 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2279 | Phenanthroline, 1,10- | 66-71-7 | 0.1 | 0.3 | 2 | 30 | mg/m3 | |
| 2280 | **Phenol** | **108-95-2** | 5 | **15** | **23** | **200** | ppm | **Interim AEGL-1, -2. ERPG-1, -2, -3.** |
| 2281 | Phenol red, sodium salt | 34487-61-1 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed, no toxicity data found. |
| 2282 | Phenol, polymer with formaldehyde, oxiranylmethyl ether | 28064-14-4 | 15 | 50 | 350 | 500 | mg/m3 | TSCA listed mixture, no toxicity data, MSDS state, BP, VP, SG. |
| 2283 | Phenolphthalein | 77-09-8 | 0.75 | 2.5 | 15 | 400 | mg/m3 | |
| 2284 | Phenoxyethanol, 2-; (Phenyl cellosolve) | 122-99-6 | 20 | 20 | 20 | 100 | ppm | |
| 2285 | **Phenyl Chloroformate; (Carbonochloridic acid, phenyl ester)** | **1885-14-9** | 0.0075 | 0.025 | **0.19** | **0.57** | ppm | **New interim AEGL-2, -3.** Pchem data ex MSDS. All Ts changed. |
| 2286 | **Phenyl dichloroarsine; (Dichlorophenylarsine)** | **696-28-6** | 0.061 | 0.061 | **0.061** | **0.18** | mg/m3 | **New interim AEGL-2, -3.** All Ts changed. |

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Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2287 | Phenyl ether; (Diphenyl ether) | 101-84-8 | 1 | 2 | 20 | 100 | ppm | |
| 2288 | Phenyl isocyanate. | 103-71-9 | 0.3 | 0.75 | 2 | 2 | mg/m3 | All Ts changed. |
| 2289 | Phenyl sepharose cl-4b | 69106-59-8 | 10 | 30 | 50 | 250 | mg/m3 | Name corrected. Not found in databases, no MSDS for this CASRN. MSDS for Phenyl sepharose 6-fast flow gives HHR = 2. |
| 2290 | Phenyl-1,2-propanedione, 1- | 579-07-7 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 2291 | Phenyl-2-oxzaoline, 2- | 7127-19-7 | 1 | 3 | 5 | 25 | ppm | Not found in databases. No useful data in MSDS. |
| 2292 | Phenyl-2-propanol, 2-; (Dimethylphenylmethanol) | 617-94-7 | 1 | 3 | 20 | 100 | ppm | SAR Ts = 4, 12.5, 100, 200 mg/m3 not used. |
| 2293 | Phenylacetylene; (Ethynylbenzene) | 536-74-3 | 40 | 100 | 500 | 500 | mg/m3 | |
| 2294 | Phenylazo)aniline, p-( | 60-09-3 | 0.6 | 2 | 12.5 | 75 | mg/m3 | |
| 2295 | Phenylboric acid; (Benzeneboronic acid) | 98-80-6 | 3 | 7.5 | 60 | 300 | mg/m3 | |
| 2296 | Phenylcyclohexane; (Cyclohexylbenzene) | 827-52-1 | 40 | 125 | 500 | 500 | mg/m3 | Mouse ip LD50 ignored. |
| 2297 | Phenylene diisocyanate, 1,4- | 104-49-4 | 3.5 | 10 | 35 | 35 | mg/m3 | |
| 2298 | Phenylenediamine dihydrochloride, 1,2- | 615-28-1 | 10 | 30 | 125 | 125 | mg/m3 | |
| 2299 | Phenylenediamine dihydrochloride, 1,4- | 624-18-0 | 0.6 | 1.5 | 12.5 | 60 | mg/m3 | |
| 2300 | Phenylenediamine, 1,2-; (o-Phenylenediamine) | 95-54-5 | 0.1 | 0.3 | 200 | 500 | mg/m3 | |
| 2301 | Phenylenediamine, 1,3-; (m-Phenylenediamine) | 108-45-2 | 0.1 | 0.3 | 10 | 125 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2302 | Phenylenediamine, p- | 106-50-3 | 0.1 | 0.6 | 4 | 25 | mg/m3 | |
| 2303 | Phenylhydrazine | 100-63-0 | 0.1 | 0.3 | 2 | 15 | ppm | PEL-TWA and REL-C ignored. |
| 2304 | Phenylhydrazine hydrochloride | 59-88-1 | 50 | 150 | 250 | 250 | mg/m3 | |
| 2305 | Phenylmagnesium bromide | 100-58-3 | 1.5 | 5 | 35 | 150 | mg/m3 | No toxicity or pchem data found, HHR = 3 from MSDS. |
| 2306 | Phenylmercury acetate; (Acetoxyphenylmercury) | 62-38-4 | 0.168 | 16.8 | 16.8 | 16.8 | mg/m3 | As mercury compounds, all Ts changed. |
| 2307 | Phenylphenol, 2- | 90-43-7 | 25 | 75 | 500 | 500 | mg/m3 | |
| 2308 | Phenylphosphine | 638-21-1 | 0.01 | 0.03 | 0.05 | 15 | ppm | T-0, T-1 changed. |
| 2309 | Phenylpropanolamine hydrochloride; (Propadrine hydrochloride) | 154-41-6 | 0.06 | 0.15 | 1.25 | 500 | mg/m3 | |
| 2310 | Phenylsilatrane | 2097-19-0 | 0.2 | 0.6 | 1 | 1 | mg/m3 | |
| 2311 | Phenylthiourea; (1-phenyl-2-thiourea) | 103-85-5 | 3 | 3 | 3 | 3 | mg/m3 | |
| 2312 | Phenyltriethoxysilane | 780-69-8 | 10 | 35 | 250 | 500 | mg/m3 | |
| 2313 | Phenyltrimethoxysilane | 2996-92-1 | 1.5 | 4 | 30 | 150 | mg/m3 | |
| 2314 | Phenylxylylethane; (PXE) | 6196-95-8 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2315 | Phloroglucinol dihydrate | 6099-90-7 | 4 | 12.5 | 75 | 400 | mg/m3 | Mouse LD > 500 mg/kg. |
| 2316 | Phorate | 298-02-2 | 0.05 | 0.1 | 0.6 | 0.6 | mg/m3 | |
| 2317 | Phosacetim | 4104-14-7 | 0.75 | 2 | 3.7 | 3.7 | mg/m3 | |

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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 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2318 | Phosfolan | 947-02-4 | 1.5 | 5 | 9 | 9 | mg/m3 | |
| 2319 | **Phosgene** | **75-44-5** | 0.1 | 0.1 | **0.30** | **0.75** | ppm | **Final AEGL-2, -3.** |
| 2320 | Phosmet | 732-11-6 | 0.025 | 0.075 | 0.54 | 40 | mg/m3 | |
| 2321 | Phosphamidon; (Famfos) | 13171-21-6 | 0.06 | 0.15 | 0.3 | 60 | mg/m3 | |
| 2322 | **Phosphine** | **7803-51-2** | 0.3 | 1 | **2.0** | **3.6** | ppm | **New Final AEGL-2, -3.** |
| 2323 | Phosphomolybdic acid | 11104-88-4 | 16.7 | 50 | 83.3 | 400 | mg/m3 | TSCA listed, no toxicity or pchem data found. SG and HR ex SRS. |
| 2324 | Phosphonic acid | 13598-36-2 | 2 | 6 | 50 | 500 | mg/m3 | |
| 2325 | Phosphonic acid, dioctadecyl ester | 19047-85-9 | 0.02 | 0.06 | 0.4 | 2 | mg/m3 | **SAR** |
| 2326 | Phosphonic acid, tridodecyl ester | 3076-63-9 | 12.5 | 40 | 250 | 500 | mg/m3 | Rat oral LD > 3160 mg/kg |
| 2327 | Phosphoric acid | 7664-38-2 | 1 | 3 | 500 | 500 | mg/m3 | |
| 2328 | Phosphoric acid, dimethyl-p-(methylthio)phenyl ester | 3254-63-5 | 1.25 | 4 | 7 | 7 | mg/m3 | |
| 2329 | Phosphorous acid, o-; (Phosphonic acid) | 10294-56-1 | 1 | 3 | 200 | 500 | mg/m3 | TSCA and ChemFinder listed with no pchem or toxicity data. Assumed phosphoric acid limits. |
| 2330 | Phosphorous pentafluoride | 7647-19-0 | 0.644 | 1.5 | 12.5 | 64.4 | ppm | |
| 2331 | Phosphorous trifluoride | 7783-55-3 | 1.07 | 3 | 20 | 107 | ppm | |
| 2332 | Phosphorus (red) | 7723-14-0 | 0.04 | 0.125 | 0.75 | 4 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2333 | Phosphorus (yellow); (White phosphorus) | 12185-10-3 | 0.1 | 0.4 | 3 | 5 | mg/m3 | |
| 2334 | **Phosphorus oxychloride** | **10025-87-3** | 0.1 | 0.479 | 0.479 | **0.85** | ppm | **Interim AEGL-3.** |
| 2335 | Phosphorus pentachloride | 10026-13-8 | 1 | 2 | 12.5 | 70 | mg/m3 | |
| 2336 | Phosphorus pentasulfide | 1314-80-3 | 1 | 3 | 50 | 250 | mg/m3 | |
| 2337 | **Phosphorus pentoxide** | **1314-56-3** | 1 | **1** | **10** | **50** | mg/m3 | **ERPG-1, -2, -3** |
| 2338 | **Phosphorus trichloride** | **7719-12-2** | 0.34 | **0.34** | **2.0** | **5.6** | ppm | **Interim AEGL-1, -2, -3.** T-0, T-1 changed. |
| 2339 | Phosphorus trioxide | 1314-24-5 | 0.4 | 1.25 | 7.5 | 40 | mg/m3 | No toxicity data found, LC50 based on SAX HR |
| 2340 | Phthalic acid | 88-99-3 | 0.02 | 0.06 | 0.5 | 500 | mg/m3 | |
| 2341 | Phthalic acid, benzyl butyl ester; (Benzyl butyl phthalate) | 85-68-7 | 5 | 15 | 500 | 500 | mg/m3 | |
| 2342 | Phthalic anhydride | 85-44-9 | 12 | 12 | 40 | 60 | mg/m3 | |
| 2343 | Phthaloyl dichloride; (Phthaloyl chloride) | 88-95-9 | 0.1 | 0.3 | 2 | 10 | ppm | TSCA listed, no toxicity data found. HHR =3 from MSDS. |
| 2344 | Physostigmine | 57-47-6 | 0.75 | 2.5 | 4.5 | 4.5 | mg/m3 | |
| 2345 | Physostigmine salicylate (1:1) | 57-64-7 | 0.5 | 1.5 | 2.5 | 2.5 | mg/m3 | |
| 2346 | Picolinic acid; (2-Pyridinecarboxylic acid) | 98-98-6 | 10 | 35 | 150 | 150 | mg/m3 | HC&P pchem data |
| 2347 | Picric acid | 88-89-1 | 0.1 | 0.3 | 15 | 75 | mg/m3 | |
| 2348 | Picrotoxin | 124-87-8 | 3 | 7.5 | 15 | 15 | mg/m3 | |

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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2349 | Pigment green 36 | 14302-13-7 | 15 | 50 | 350 | 500 | mg/m3 | |
| 2350 | 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 | 75 | 250 | 500 | 500 | mg/m3 | |
| 2351 | Pigment yellow 14 | 5468-75-7 | 20 | 60 | 400 | 500 | mg/m3 | |
| 2352 | Pigment yellow 36; (Zinc chromate) | 13530-65-9 | 0.0176 | 0.106 | 15 | 52.9 | mg/m3 | |
| 2353 | Pinacolone; (3,3-Dimethyl-2-butanone) | 75-97-8 | 1.5 | 4.88 | 200 | 1000 | ppm | |
| 2354 | Pinacolyl alcohol; ((tert-Butyl methyl carbinol) | 464-07-3 | 250 | 750 | 750 | 750 | ppm | |
| 2355 | Piperazine | 110-85-0 | 2 | 6 | 40 | 500 | mg/m3 | |
| 2356 | **Piperidine** | **110-89-4** | 1 | **6.6** | **33** | **110** | ppm | **Interim AEGL-1, -2, -3.** |
| 2357 | Pirimifos-ethyl | 23505-41-1 | 5 | 15 | 25 | 60 | mg/m3 | |
| 2358 | Pivalic anhydride; (Trimethylacetic anhydride) | 1538-75-6 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data, no MSDS found, assumed non-volatile. |
| 2359 | Platinum | 7440-06-4 | 1 | 3 | 4 | 4 | mg/m3 | |
| 2360 | Platinum cyanide | 592-06-3 | 0.00253 | 0.0076 | 0.0127 | 5.07 | mg/m3 | |
| 2361 | Poly alpha olefin; (Synthetic hydrocarbon mixture, PAO; Hydrogenated trimer and tetramer of decene) | 68649-12-7 | 5 | 10 | 50 | 250 | mg/m3 | |
| 2362 | Poly(1-(2-oxo-1-pyrrolidinyl)ethylene)iodine complex; (Iodine solutions) | 25655-41-8 | 12.5 | 50 | 400 | 500 | mg/m3 | T-1, T-2, T-3 changed. |

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| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2363 | Poly(1-vinyl-2-pyrrolidinone) homopolymer; (Polyvinylpyrrolidone; Plasdone) | 9003-39-8 | 100 | 300 | 500 | 500 | mg/m3 | RTECS 9 listings, used "homopolymer". |
| 2364 | Poly(acrylamide-co-diallyldimethylammonium chloride) | 26590-05-6 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data found. |
| 2365 | Poly(dimethylsiloxane), ethoxylated, dihydroxy terminated; (Silicon oil polymer) | 68037-63-8 | 75 | 250 | 500 | 500 | mg/m3 | TSCA listed, no toxicity data found, HHR =1 estimated. |
| 2366 | Poly(dimethylsiloxane), hydride terminated | 70900-21-9 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. |
| 2367 | Poly(dimethylsiloxane), vinyl dimethylsiloxy terminated | 68083-19-2 | 60 | 200 | 500 | 500 | mg/m3 | RTECS rat LD50 > 16 mL/kg. No pchem data found, SG = 1 assumed. |
| 2368 | Poly(divinylbenzene); (Diethylbenzene homopolymer) | 9003-69-4 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed, no toxicity data. MSDS HHR = 2. Name changed and TSCA name added as synonym. |
| 2369 | Poly(ethylene glycol methyl ether) | 9004-74-4 | 75 | 250 | 500 | 500 | mg/m3 | Lowest MW and most toxic of three entries chosen, assumed SG - 1. |
| 2370 | Poly(ethylene glycol)diacrylate | 26570-48-9 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA listed, no toxicity or pchem data found, HHR = 3 in MSDS. |
| 2371 | Poly(melamine-co-formaldehyde), methylated | 68002-20-0 | 60 | 150 | 500 | 500 | mg/m3 | MW average. |
| 2372 | Poly(oxy-1,2-ethanediyl), alpha-(4-octylphenyl)-omega-hydroxy-; (Polyethylene glycol mono(p-octylphenol)ether) | 26636-32-8 | 3 | 7.5 | 60 | 300 | mg/m3 | |
| 2373 | Poly(oxyethylene)(2) stearyl ether | 9005-00-9 | 7.5 | 20 | 150 | 500 | mg/m3 | Most toxic of three RTECS entries used. |
| 2374 | Poly(Styrene-co-divinylbenzene); (Dowex Optipore V-502) | 69011-14-9 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no pchem or toxicity data found. |
| 2375 | Polyamide 6; (Capron; Poly(iminocarbonylpentamethylene)) | 25038-54-4 | 10 | 30 | 200 | 500 | mg/m3 | MW = 111 x n |
| 2376 | Polybutyl acrylate | 9003-49-0 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2377 | Polychlorinated biphenyl (Aroclor 1016); (Chlorodiphenyl (41% Cl)) | 12674-11-2 | 0.2 | 0.6 | 1 | 5 | mg/m3 | |
| 2378 | Polychlorinated biphenyl (Aroclor 1016/1242): (Chlorodiphenyl (37% Cl)) | z-0042 | 0.2 | 0.6 | 1 | 5 | mg/m3 | |
| 2379 | Polychlorinated biphenyl (Aroclor 1221); (Chlorodiphenyl (21% Cl)) | 11104-28-2 | 0.2 | 0.6 | 1 | 5 | mg/m3 | |
| 2380 | Polychlorinated biphenyl (Aroclor 1232); (Chlorodiphenyl (32% Cl)) | 11141-16-5 | 0.2 | 0.6 | 1 | 5 | mg/m3 | |
| 2381 | Polychlorinated biphenyl (Aroclor 1242); (Chlorodiphenyl (42% Cl)) | 53469-21-9 | 1 | 3 | 5 | 5 | mg/m3 | |
| 2382 | Polychlorinated biphenyl (Aroclor 1248); (Chlorodiphenyl (48% Cl)) | 12672-29-6 | 0.2 | 0.6 | 1 | 5 | mg/m3 | |
| 2383 | Polychlorinated biphenyl (Aroclor 1254); (Chlorodiphenyl (54% Cl)) | 11097-69-1 | 0.5 | 1.5 | 2.5 | 5 | mg/m3 | |
| 2384 | Polychlorinated biphenyl (Aroclor 1260); (Chlorodiphenyl (60% Cl)) | 11096-82-5 | 0.2 | 0.6 | 1.5 | 5 | mg/m3 | |
| 2385 | Polychlorinated biphenyl (Aroclor 1260/1262): (Chlorodiphenyl (61% Cl?)) | z-0043 | 0.2 | 0.6 | 1.5 | 5 | mg/m3 | Used Aroclor 60% Cl. LANL CASRN not used since it is for 60% Cl |
| 2386 | Polychlorinated biphenyl (Aroclor 1262); (Chlorodiphenyl (62% Cl)) | 37324-23-5 | 1 | 3 | 5 | 5 | mg/m3 | |
| 2387 | Polychlorinated biphenyl (Aroclor 1268); (Chlorodiphenyl (68% Cl)) | 11100-14-4 | 0.2 | 0.6 | 1 | 5 | mg/m3 | Used IDLH for other aroclors |
| 2388 | Polychlorinated biphenyl; (Aroclor; PCBs) | 1336-36-3 | 1 | 3 | 5 | 5 | mg/m3 | MW range = 292-361 |
| 2389 | Polydimethyl siloxane; (Dimethylpolysiloxane) | 9016-00-6 | 7.5 | 25 | 150 | 500 | mg/m3 | Rat ip LD50 |
| 2390 | Polyether polyol ester | z-0112 | 15 | 50 | 350 | 500 | mg/m3 | Listed in RTECS, no CASRN or pchem data. T-0, T-1, T-2 changed. |
| 2391 | **Polyethylbenzene residue; (Dowtherm Q)** | **68987-42-8** | 1 | 3 | **19.2** | 100 | ppm | **ERPG-2 only (150 mg/m3).** |
| 2392 | Polyethylene | 9002-88-4 | 10 | 30 | 50 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2393 | Polyethylene glycol | 25322-68-3 | 10 | 60 | 500 | 500 | mg/m3 | |
| 2394 | Polyethylene glycol 20M | 37225-26-6 | 10 | 30 | 500 | 500 | mg/m3 | No toxicity data, CASRN 37225-26-6, SAX PJT000 data used. |
| 2395 | Polyethylene glycol dimethacrylate | 25852-47-5 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. |
| 2396 | Polyglycol 15-200: (Calthane NF and ND "B") | 9082-00-2 | 40 | 125 | 500 | 500 | mg/m3 | |
| 2397 | Polyisocyanate prepolymer (based on MDI) | z-0115 | 0.6 | 1.5 | 12.5 | 60 | mg/m3 | Added. Used "… -hexamethalene-1,6-diisocyanate-based-", RTECS NQ9190000 |
| 2398 | Polymaleic acid; (2-Butenediiodic acid homopolymer) | 26099-09-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. |
| 2399 | Polymerized linseed oil | 67746-08-1 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed. No toxicity or pchem data found. No MSDS found. SRS HHR = 2. |
| 2400 | Polymethylene polyphenyl isocyanate; (Polymeric diphenylmethane diisocyanate) | 9016-87-9 | 2 | 6 | 40 | 200 | mg/m3 | |
| 2401 | Polymethylhydrosiloxane; (Methyl hydrogen polysiloxane) | 63148-57-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA and ChemFinder listed, no pchem or toxicity data found. |
| 2402 | Polymethylmethacrylate; (Lucite) | 9011-14-7 | 5 | 15 | 100 | 500 | mg/m3 | |
| 2403 | Polyoxyalkyleneamine; (Poly(oxypropylene)diamine) | 9046-10-0 | 10 | 30 | 50 | 100 | mg/m3 | |
| 2404 | Polyoxyethylene (20) sorbitan monolaurate | 9005-64-5 | 3 | 7.5 | 60 | 500 | mg/m3 | Polysorbate 20 same CASRN, less toxic. |
| 2405 | Polyoxyethylene monooctylphenyl ether | 9036-19-5 | 15 | 50 | 350 | 500 | mg/m3 | |
| 2406 | Polyoxyethylene sorbitan monopalmitate; (Tween 40) | 9005-66-7 | 12.5 | 40 | 250 | 500 | mg/m3 | No pchem data found. |
| 2407 | Polyoxypropylene polyamine | 39423-51-3 | 10 | 30 | 50 | 250 | mg/m3 | Added. TSCA listed, no toxicity or pchem data found. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2408 | Polyphosphoric acid | 8017-16-1 | 1.5 | 5 | 40 | 200 | mg/m3 | No toxicity data, based Ts on MSDS data |
| 2409 | Polypropylene | 9003-07-0 | 12.5 | 40 | 250 | 500 | mg/m3 | SAX PKI250 has same CASRN for "combustion products", tox. data not used |
| 2410 | Polypropylene glycol,chloromethyl) oxirane polymer | 9072-62-2 | 7.5 | 25 | 150 | 500 | mg/m3 | Rat oral LD50 > 2 g/kg. No MSDS found. |
| 2411 | Polypropylene glycols | 25322-69-4 | 10 | 30 | 200 | 500 | mg/m3 | RTECS has 16 listings, used PPG 425. |
| 2412 | Polypropylene-polyethylene glycol; (Pluronic L-81) | 9003-11-6 | 10 | 30 | 200 | 500 | mg/m3 | |
| 2413 | Polysorbate 85; (Tween 85) | 9005-70-3 | 75 | 250 | 500 | 500 | mg/m3 | No toxicity data found. |
| 2414 | Polystyrene resin; (Styrene polymer) | 9003-53-6 | 10 | 30 | 50 | 75 | mg/m3 | |
| 2415 | Polysulfone resin | 25135-51-7 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. |
| 2416 | Polytetrafluoroethylene; (Teflon) | 9002-84-0 | 3.5 | 10 | 60 | 350 | mg/m3 | |
| 2417 | Polyurethane foam; (Urethane polymers) | 9009-54-5 | 0.2 | 0.6 | 5 | 25 | mg/m3 | |
| 2418 | Polyurethane prepolymer of MDI + polyether polyol | 65636-36-4 | 10 | 30 | 50 | 250 | mg/m3 | Added. TSCA listed, no toxicity or pchem data found. |
| 2419 | Polyurethane prepolymer of MDI and PEP | 68092-58-0 | 10 | 30 | 50 | 250 | mg/m3 | Listed in TSCA, no pchem or toxicity data. |
| 2420 | Polyvinyl alcohol | 9002-89-5 | 40 | 125 | 500 | 500 | mg/m3 | |
| 2421 | Polyvinyl chloride | 9002-86-2 | 1 | 3 | 40 | 200 | mg/m3 | New TLV-TWA and toxicity data added. All Ts changed. |
| 2422 | Potassium | 7440-09-7 | 0.075 | 0.2 | 1.5 | 300 | mg/m3 | All Ts changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2423 | Potassium acetate | 127-08-2 | 12.5 | 40 | 250 | 500 | mg/m3 | |
| 2424 | Potassium acid fluoride | 7789-29-9 | 5.14 | 15.4 | 25.7 | 500 | mg/m3 | |
| 2425 | Potassium aluminate | 12003-63-3 | 7.27 | 21.8 | 36.3 | 150 | mg/m3 | No toxicity data found. |
| 2426 | Potassium aluminite | z-0044 | 2.5 | 7.5 | 12.5 | 500 | mg/m3 | **SAR** |
| 2427 | Potassium aluminosilicate | 1327-44-2 | 5 | 30 | 50 | 500 | mg/m3 | **SAR** |
| 2428 | Potassium antimonate | 29638-69-5 | 2.1 | 6.31 | 10.5 | 210 | mg/m3 | No toxicity data found. |
| 2429 | Potassium antimonate; (Potassium hexahydroxyantimonate) | 12208-13-8 | 1.08 | 3.24 | 5.4 | 108 | mg/m3 | Used H&N MW & MF for this CASRN. KSbO3 not found. |
| 2430 | Potassium antimonite | z-0045 | 0.94 | 2.82 | 4.7 | 94 | mg/m3 | |
| 2431 | Potassium argentate | z-0046 | 0.0168 | 0.0503 | 0.0839 | 16.8 | mg/m3 | |
| 2432 | Potassium arsenate; (Monopotassium arsenate) | 7784-41-0 | 0.024 | 0.072 | 2.5 | 12 | mg/m3 | MW and MF differ by one H in RTECS, HSDB, etc. |
| 2433 | Potassium arsenite | 10124-50-2 | 0.0533 | 6 | 26.7 | 26.7 | mg/m3 | Used RTECS, HSDB, H&N, TSCA CASRN, MW, MF. |
| 2434 | Potassium arsenite; (Arsenous acid, potassium salt) | 13464-35-2 | 0.0195 | 0.0585 | 6 | 9.74 | mg/m3 | |
| 2435 | Potassium beryllium oxide | z-0047 | 0.016 | 0.08 | 6 | 32 | mg/m3 | |
| 2436 | Potassium bicarbonate | 298-14-6 | 12.5 | 35 | 60 | 500 | mg/m3 | TSCA MF = C-H2-O3.K; both H&N and HC&P same as SAX; no toxicity data found. SAR |
| 2437 | Potassium bi-iodate | 13455-24-8 | 4 | 12.5 | 75 | 400 | mg/m3 | TSCA listed, No pchem data found, MSDS toxicity data. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2438 | Potassium bismuthate | 12589-75-2 | 1.25 | 4 | 25 | 200 | mg/m3 | RTECS CASRN, with mw = 296.08, MF = Bi-O3.K., lists both LD50 & TDlo. **SAR** |
| 2439 | Potassium bisulfate | 7646-93-7 | 10 | 30 | 200 | 500 | mg/m3 | |
| 2440 | Potassium bromate | 7758-01-2 | 0.1 | 0.3 | 60 | 60 | mg/m3 | |
| 2441 | Potassium bromide | 7758-02-3 | 12.5 | 40 | 250 | 500 | mg/m3 | |
| 2442 | Potassium cadminate | z-0048 | 0.0115 | 0.069 | 0.115 | 20.7 | mg/m3 | MF based on MW. |
| 2443 | Potassium carbonate | 584-08-7 | 10 | 20 | 150 | 500 | mg/m3 | |
| 2444 | Potassium chlorate | 3811-04-9 | 12.5 | 40 | 300 | 350 | mg/m3 | |
| 2445 | Potassium chloride | 7447-40-7 | 1.5 | 5 | 15 | 15 | mg/m3 | |
| 2446 | Potassium chromate(VI) | 7789-00-6 | 0.0187 | 0.75 | 6 | 56 | mg/m3 | |
| 2447 | Potassium citrate | 866-84-2 | 1.25 | 4 | 30 | 150 | mg/m3 | |
| 2448 | Potassium citrate, monohydrate | 6100-05-6 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases |
| 2449 | Potassium columbate; (Potassium niobate) | 12030-85-2 | 12.5 | 35 | 250 | 500 | mg/m3 | |
| 2450 | Potassium cyanide | 151-50-8 | 5 | 5 | 5 | 62.6 | mg/m3 | |
| 2451 | Potassium dichromate | 7778-50-9 | 0.0141 | 1.5 | 10 | 42.4 | mg/m3 | |
| 2452 | Potassium dideuterium phosphate | 13761-79-0 | 0.0015 | 0.004 | 0.0075 | 0.015 | mg/m3 | ChemFinder MF = D2.K.O4.P, MW = 138.08936. T-3 changed. |
| 2453 | Potassium ferricyanide | 13746-66-2 | 5.9 | 17.7 | 30 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2454 | Potassium ferrocyanide; (Tetrapotassium hexacyanoferrate) | 13943-58-3 | 11.8 | 35.4 | 59 | 59 | mg/m3 | "Trihydrate removed from name and MF, CASRN and MW correct. |
| 2455 | Potassium fluoride | 7789-23-3 | 7.65 | 22.9 | 38.2 | 500 | mg/m3 | |
| 2456 | Potassium fluoride dihydrate | 13455-21-5 | 12.4 | 37.2 | 61.9 | 500 | mg/m3 | |
| 2457 | Potassium formate | 590-29-4 | 20 | 60 | 500 | 500 | mg/m3 | |
| 2458 | Potassium glycolate | 1932-50-9 | 7.5 | 20 | 150 | 750 | ppm | **SAR** |
| 2459 | Potassium gold cyanide | 554-07-4 | 27.7 | 83 | 138 | 138 | mg/m3 | No toxicity or pchem data found, MW and MF ex ChemFinder. |
| 2460 | Potassium hexacyanoferrate(II) trihydrate; (Potassium ferricyanide trihydrate) | 14459-95-1 | 13.5 | 40.6 | 67.6 | 67.6 | mg/m3 | |
| 2461 | Potassium hexafluorosilicate; (Silicate(2-), hexafluoro-, dipotassium) | 16871-90-2 | 0.4 | 1.25 | 7.5 | 60 | mg/m3 | |
| 2462 | Potassium hydride | 7693-26-7 | 1.5 | 5 | 35 | 150 | mg/m3 | No toxicity data found. |
| 2463 | Potassium hydrogen lead oxide | z-0049 | 0.06 | 0.06 | 0.06 | 125 | mg/m3 | **SAR** |
| 2464 | Potassium hydrogen metasilicate | z-0051 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. MF changed. |
| 2465 | Potassium hydrogen pyrophosphate | z-0050 | 4 | 12.5 | 20 | 400 | mg/m3 | **SAR** |
| 2466 | Potassium hydroxide | 1310-58-3 | 0.1 | 0.3 | 2 | 125 | mg/m3 | GOEV REL incorrect. T-0, T-1, T-3 changed. |
| 2467 | Potassium iminodiacetate; (Potassium IDA) | z-0052 | 4 | 12.5 | 100 | 500 | ppm | Disodium iminodiacetate is CASRN 928-72-3, MW = 177.08. MW does not match MF. **SAR** |
| 2468 | Potassium iodate | 7758-05-6 | 20 | 60 | 60 | 60 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2469 | Potassium iodide | 7681-11-0 | 0.25 | 0.75 | 6 | 300 | mg/m3 | |
| 2470 | Potassium lanthanate | z-0053 | 0.4 | 1.25 | 2.5 | 2.5 | mg/m3 | **SAR** |
| 2471 | Potassium metaborate | 13709-94-9 | 12.5 | 35 | 250 | 500 | mg/m3 | CASRN ex LANL added, TSCA MF, MW used. SAR |
| 2472 | Potassium molybdate | 13446-49-6 | 12.4 | 37.2 | 62.1 | 500 | mg/m3 | |
| 2473 | Potassium nickel oxide (liquids); (Nickel potassium oxide) | 50811-97-7 | 2.88 | 2.88 | 3 | 28.8 | mg/m3 | |
| 2474 | Potassium nickelate (liquids) | z-0055 | 3.49 | 3.49 | 3.5 | 34.9 | mg/m3 | |
| 2475 | Potassium nickelate (solids) | z-0056 | 3.49 | 3.49 | 3.5 | 34.9 | mg/m3 | |
| 2476 | Potassium nitrate | 7757-79-1 | 1 | 3.5 | 25 | 500 | mg/m3 | SAX MW incorrect. T-2 changed. |
| 2477 | Potassium nitrilotriacetate; (Potassium NTA) | 2399-85-1 | 5 | 15 | 100 | 500 | mg/m3 | |
| 2478 | Potassium nitrite | 7758-09-0 | 0.04 | 0.1 | 0.75 | 500 | mg/m3 | |
| 2479 | Potassium orthovanadate | 14293-78-8 | 0.0638 | 0.191 | 0.638 | 44.6 | mg/m3 | |
| 2480 | Potassium oxalate | 583-52-8 | 7.5 | 25 | 150 | 500 | mg/m3 | MF and MW from RTECS, TSCA and SAX.used but differ from HC&P, H&N, ChemFinder. |
| 2481 | Potassium oxalate monohydrate | 6487-48-5 | 7.5 | 25 | 150 | 500 | mg/m3 | No toxicity data found. Used Potassium oxalate, CASRN 583-52-8 |
| 2482 | Potassium oxide | 12136-45-7 | 0.05 | 0.15 | 1 | 60 | mg/m3 | Added. No toxicity or conc. limit data found. Based on KOH values. |
| 2483 | Potassium perchlorate | 7778-74-7 | 125 | 400 | 500 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2484 | Potassium periodate | 7790-21-8 | 1 | 3 | 20 | 100 | mg/m3 | Rat LC50 estimated from HR |
| 2485 | Potassium permanganate | 7722-64-7 | 0.575 | 8.63 | 14.4 | 125 | mg/m3 | |
| 2486 | Potassium persulfate; (Dipotassium persulfate) | 7727-21-1 | 0.1 | 0.3 | 60 | 350 | mg/m3 | |
| 2487 | Potassium phosphate dibasic trihydrate | 16788-57-1 | 300 | 500 | 500 | 500 | mg/m3 | Not found, but K phosphate dibasic, CASRN = 7758-11-4, SAX PLQ400 toxicity used |
| 2488 | Potassium phosphate, dibasic | 7758-11-4 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2489 | Potassium phosphate, monobasic | 7778-77-0 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2490 | Potassium phosphate, tribasic | 7778-53-2 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2491 | **Potassium phosphide** | **20770-41-6** | 0.4 | 1.25 | **2.0** | **3.6** | ppm | Added. **New Interim AEGL-2, -3.** |
| 2492 | Potassium pyrophosphate; (Tetrapotassium diphosphorate) | 7320-34-5 | 10 | 30 | 500 | 500 | mg/m3 | |
| 2493 | Potassium pyrosulfate; (Disulfuric acid, dipotassium salt) | 7790-62-7 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2494 | Potassium pyrosulfite; (Potassium metabisulfite) | 16731-55-8 | 20 | 60 | 400 | 500 | mg/m3 | Added. MF and MW vary between sources. |
| 2495 | Potassium selenate | 7790-59-2 | 0.56 | 1.68 | 2.8 | 2.8 | mg/m3 | |
| 2496 | Potassium selenite | 10431-47-7 | 0.52 | 0.52 | 0.52 | 2.6 | mg/m3 | TSCA MF = 2K.H2SeO3. |
| 2497 | Potassium silicate; (Silicic acid, potassium salt) | 1312-76-1 | 10 | 30 | 50 | 250 | mg/m3 | Listed in HSDB and TSCA |
| 2498 | Potassium silver cyanide | 506-61-6 | 1 | 3 | 20 | 20 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2499 | Potassium stannate | 12142-33-5 | 2.5 | 7.5 | 12.5 | 125 | mg/m3 | **SAR** Potassium stannate trihydrate has CASRN = 12125-03-0 mu iv LD50, and Sn cmpnd limits, Ts are 4, 12.5, 20, 150 |
| 2500 | Potassium strontium phosphate | 53201-92-6 | 10 | 30 | 50 | 500 | mg/m3 | **SAR** |
| 2501 | Potassium sulfate (2:1); (Dipotassium sulfate) | 7778-80-5 | 2 | 6 | 40 | 500 | mg/m3 | |
| 2502 | Potassium sulfite | 10117-38-1 | 7.5 | 25 | 150 | 500 | mg/m3 | HSDB oral lethal dose range 0.5 to 5 g/kg. MF and MW vary between sources. All Ts changed. |
| 2503 | Potassium tellurate | 15571-91-2 | 0.211 | 0.634 | 1.06 | 2 | mg/m3 | TSCA MF = 2K-Te-H2-O4. |
| 2504 | Potassium tellurite | 7790-58-1 | 0.199 | 0.597 | 3.5 | 15 | mg/m3 | |
| 2505 | Potassium tetrafluoroborate(1-) | 14075-53-7 | 4.14 | 124 | 207 | 414 | mg/m3 | |
| 2506 | Potassium tetraphenylborate | 3244-41-5 | 1 | 3 | 5 | 25 | mg/m3 | Data from MSDS |
| 2507 | Potassium thiocyanate | 333-20-0 | 12.5 | 35 | 60 | 60 | mg/m3 | T-0 changed. |
| 2508 | Potassium trihydrogen silicate | z-0058 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2509 | Potassium tungstate (liquids) | 7790-60-5a | 1.77 | 5.32 | 5.32 | 5.32 | mg/m3 | |
| 2510 | Potassium tungstate (solids) | 7790-60-5b | 1.77 | 5.32 | 5.32 | 5.32 | mg/m3 | |
| 2511 | Potassium uranyl carbonate | z-0059 | 0.429 | 1.03 | 3.5 | 17.2 | mg/m3 | |
| 2512 | Potassium zirconate; (Dipotassium zirconium oxide) | 12030-98-7 | 11.9 | 23.8 | 25 | 119 | mg/m3 | T-2, T-3 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2513 | Potassium-tert-butoxide; (tert-Butyl alcohol, potassium derivitave) | 865-47-4 | 1.5 | 5 | 35 | 150 | mg/m3 | LD50 estimated, databases MF differ |
| 2514 | Praseodymium | 7440-10-0 | 1.5 | 5 | 35 | 150 | mg/m3 | No toxicity data found. |
| 2515 | Praseodymium nitrate | 10361-80-5 | 7.5 | 20 | 150 | 500 | mg/m3 | |
| 2516 | Praseodymium oxide | 12036-32-7 | 7.5 | 25 | 150 | 500 | mg/m3 | No toxicity data found, rat oral LD50 estimated from other Pr compounds |
| 2517 | Praseodymium(III,IV) oxide | 12037-29-5 | 20 | 60 | 400 | 500 | mg/m3 | RTECS rat LD50 > 5 g/kg' no pchem data found. |
| 2518 | Promecarb; (m-Cym-5-yl methylcarbamate) | 2631-37-0 | 3 | 10 | 16 | 25 | mg/m3 | |
| 2519 | Propanamine, 1-; (Propylamine) | 107-10-8 | 15 | 50 | 250 | 250 | ppm | |
| 2520 | **Propane** | **74-98-6** | 1000 | ***5500*** | ***17000*** | ***33000*** | ppm | **Interim AEGL-1, -2, -3.** See LEL Formattinng Note. |
| 2521 | Propane sultone, 1,3- | 1120-71-4 | 0.4 | 1.25 | 7.5 | 20 | mg/m3 | |
| 2522 | Propanediamine, 1,2- | 78-90-0 | 7.5 | 25 | 200 | 500 | mg/m3 | |
| 2523 | Propanediamine, 1,3- | 109-76-2 | 0.2 | 0.6 | 4 | 40 | ppm | |
| 2524 | **Propanedinitrile; (Malononitrile)** | **109-77-3** | 3 | 3 | **4.9** | **10** | ppm | **Interim AEGL-2, -3.** All Ts changed. |
| 2525 | Propanediol, 1,3- | 504-63-2 | 20 | 60 | 400 | 500 | mg/m3 | |
| 2526 | Propanediol, 2,2-dimethyl-, 1,3- | 126-30-7 | 600 | 600 | 600 | 600 | ppm | |
| 2527 | Propanethiol | 107-03-9 | 0.025 | 0.075 | 0.5 | 750 | ppm | |
| 2528 | Propanol, zirconium(4+) salt, 1- | 23519-77-9 | 18 | 53.9 | 89.8 | 180 | mg/m3 | Not found in databases. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2529 | **Propargyl alcohol** | **107-19-7** | 1 | **2.5** | **16** | **74** | ppm | **New interim AEGL-1, A-2, -3.** T-1, T-2, T-3 changed. |
| 2530 | Propargyl bromide | 106-96-7 | 0.03 | 0.03 | 0.03 | 20 | mg/m3 | |
| 2531 | Propiolactone, b- | 57-57-8 | 0.5 | 0.509 | 5.09 | 15 | ppm | |
| 2532 | **Propionaldehyde** | **123-38-6** | 20 | **45** | **260** | **840** | ppm | **Interim AEGL-1, -2, -3.** |
| 2533 | Propionic acid | 79-09-4 | 10 | 10 | 15 | 350 | ppm | |
| 2534 | Propionic acid, 3-ethoxy-, ethyl ester | 763-69-9 | 20 | 60 | 400 | 500 | mg/m3 | |
| 2535 | Propionic acid, sodium salt | 137-40-6 | 15 | 50 | 350 | 500 | mg/m3 | |
| 2536 | Propionic anhydride | 123-62-6 | 10 | 30 | 200 | 500 | mg/m3 | |
| 2537 | **Propionitrile; (Propiononitrile)** | **107-12-0** | 6 | 6 | **7.0** | **37** | ppm | **Interim AEGL-2, -3.** |
| 2538 | Propionyl chloride | 79-03-8 | 0.075 | 0.2 | 1.5 | 7.5 | ppm | |
| 2539 | Propoxur | 114-26-1 | 0.5 | 1.5 | 20 | 20 | mg/m3 | |
| 2540 | Propoxypropanol, , n-; (Propylene glycol monpropyl ether) | 30136-13-1 | 1.25 | 4 | 25 | 125 | ppm | Added. |
| 2541 | Propyl acetate, n- | 109-60-4 | 200 | 250 | 1000 | ***1700*** | ppm | See LEL Formattinng Note. |
| 2542 | Propyl alcohol, n-; (n-Propanol) | 71-23-8 | 200 | 250 | 250 | 800 | ppm | |
| 2543 | **Propyl chloroformate; (Propyl chlorocarbonate)** | **109-61-5** | 0.75 | 2 | **3.7** | **11** | ppm | **New interim AEGL-2, -3.** All Ts changed. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2544 | Propyl nitrate | 627-13-4 | 25 | 40 | 100 | 500 | ppm | T-2, T-3 changed. |
| 2545 | Propyl-1-butanamine, N- | 20193-21-9 | 15 | 50 | 350 | 500 | mg/m3 | **SAR** |
| 2546 | Propylbenzene, n-; (Isocumene) | 103-65-1 | 30 | 75 | 600 | ***3000*** | ppm | See LEL Formattinng Note. |
| 2547 | Propylene carbonate, 1,2- | 108-32-7 | 0.125 | 0.35 | 2.5 | 12.5 | mg/m3 | |
| 2548 | **Propylene glycol dinitrate** | **6423-43-4** | 0.05 | **0.17** | **1.0** | **13** | ppm | **New final AEGL-1, -2, -3.** Component of "Otto fuel". T-1, T-2, T-3 changed. |
| 2549 | Propylene glycol monomethyl ether acetate; (1-Methoxypropyl-2-acetate) | 108-65-6 | 50 | 150 | 250 | 600 | ppm | |
| 2550 | Propylene glycol monomethyl ether; (Ucar Triol HG-170) | 107-98-2 | 100 | 150 | 300 | 750 | ppm | |
| 2551 | Propylene glycol mono-n-butyl ether; (3-butoxy-1-propanol) | 10215-33-5 | 50 | 50 | 300 | 500 | ppm | |
| 2552 | Propylene glycol; (1,2-Propanediol) | 57-55-6 | 10 | 10 | 10 | 500 | mg/m3 | |
| 2553 | **Propylene oxide; (Methyl ethylene oxide)** | **75-56-9** | 2 | **73** | **290** | **870** | ppm | **Interim AEGL-1, -2, -3.** PEL-TWA ignored. T-0 changed. |
| 2554 | Propylene; (1-Propene) | 115-07-1 | 500 | 1500 | ***10000*** | ***20000*** | ppm | See LEL Formattinng Note. |
| 2555 | **Propyleneimine, 1,2-** | **75-55-8** | 2 | 2 | **12** | **23** | ppm | **Interim AEGL-2, -3.** |
| 2556 | **Propyltrichlorosilane** | **141-57-1** | 0.2 | **0.60** | **7.3** | **33** | ppm | **New interim AEGL-1, -2, -3.** Added. |
| 2557 | Prothoate; (Isopropyl diethyldithiophosphorylacetamide) | 2275-18-5 | 0.35 | 1 | 1.7 | 7.5 | mg/m3 | |
| 2558 | Pump oil | 64742-65-0 | 100 | 300 | 500 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2559 | Pyrene | 129-00-0 | 2.5 | 7.5 | 15 | 15 | mg/m3 | |
| 2560 | Pyridine | 110-86-1 | 5 | 15 | 200 | 1000 | ppm | |
| 2561 | Pyridinecarboxaldehyde, 4-; (Isonicotinaldehyde) | 872-85-5 | 12.5 | 40 | 250 | 500 | mg/m3 | |
| 2562 | Pyridine-d5 | 7291-22-7 | 5 | 15 | 25 | 100 | ppm | Not listed in databases, MSDS toxicity and pchem data. |
| 2563 | Pyriminil; (Pyriminyl) | 53558-25-1 | 1.25 | 3.5 | 6.2 | 20 | mg/m3 | |
| 2564 | Pyrogallic acid | 87-66-1 | 0.75 | 2.5 | 15 | 25 | mg/m3 | |
| 2565 | Pyromellitic acid | 89-05-4 | 1.25 | 3.5 | 25 | 125 | mg/m3 | |
| 2566 | Pyroxylin; (Cellulose tetranitrate) | 9004-70-0 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2567 | Pyrrole; (Imidole) | 109-97-7 | 0.035 | 0.1 | 0.75 | 4 | ppm | |
| 2568 | Pyrrolidine | 123-75-1 | 5 | 15 | 100 | 500 | mg/m3 | |
| 2569 | Pyrrolidinone, 2- | 616-45-5 | 1 | 3 | 20 | 40 | ppm | |
| 2570 | Pyruvate kinase | 9001-59-6 | 2.5 | 7.5 | 50 | 500 | mg/m3 | No data found. Glycolytic enzyme toxicity based on Kinase (9039-53-6) and Pyruvic acid (127-17-3) |
| 2571 | Quaternary ammonium compounds, benzyl-C12-C16-alkyldimethyl, chlorides | 68424-85-1 | 1.5 | 5 | 35 | 150 | mg/m3 | |
| 2572 | Quinhydrone | 106-34-3 | 0.3 | 0.75 | 6 | 30 | mg/m3 | |
| 2573 | Quinoline | 91-22-5 | 0.001 | 0.6 | 5 | 25 | ppm | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2574 | Quinolinol, 8- | 148-24-3 | 2.5 | 7.5 | 50 | 500 | mg/m3 | |
| 2575 | Resorcinol | 108-46-3 | 10 | 20 | 20 | 20 | ppm | |
| 2576 | Rexyn I-300; (Ethylene glycol dimethacrylate polymer with styrene, chloromethylated, trimethylamine-quanternized, hydroxide) | 69011-49-0 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, MW is for x = 1. No toxicity data found. SG ex MSDS. |
| 2577 | Rhenium hexafluoride | 10049-17-9 | 6.58 | 19.8 | 32.9 | 500 | mg/m3 | TSCA, HC&P listed. No toxicity data found. |
| 2578 | Rhenium oxide; (Rhenium(VII) oxide) | 1314-68-7 | 1.3 | 3.9 | 6.5 | 30 | mg/m3 | Soluble W limits used. |
| 2579 | Rhodium | 7440-16-6 | 0.1 | 3 | 5 | 100 | mg/m3 | |
| 2580 | Rhodium oxide (liquids); (Rhodium(IV) oxide) | 12137-27-8a | 0.00131 | 0.0393 | 0.5 | 2.6 | mg/m3 | Liquid treated as soluble. |
| 2581 | Rhodium oxide (solids); (Rhodium((IV) oxide) | 12137-27-8b | 0.131 | 3.93 | 6.56 | 131 | mg/m3 | Solids treated as insoluble. |
| 2582 | Rhodium(III) hydroxide (liquids) | 21656-02-0a | 0.0015 | 0.045 | 0.6 | 2.99 | mg/m3 | Liquid treated as soluble. |
| 2583 | Rhodium(III) hydroxide (solids) | 21656-02-0b | 0.15 | 4.49 | 7.5 | 150 | mg/m3 | Solids treated as insoluble. |
| 2584 | Rhodium(III) oxide (solids) | 12036-35-0 | 0.123 | 3.7 | 6.17 | 123 | mg/m3 | |
| 2585 | Riboflavine | 83-88-5 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 2586 | Ribonuclease T1 | 9026-12-4 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data. PNOS option used. |
| 2587 | Rosin core solder decomposition products; (Colophony Gum) | 8050-09-7 | 0.1 | 0.3 | 40 | 40 | mg/m3 | SAX listing new, ignored very high human skin TClo. |
| 2588 | Rotenone | 83-79-4 | 5 | 15 | 25 | 125 | mg/m3 | IDLH suppressed, >> human LD lo. T-1, T-2, T-3 changed. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2589 | Rubber solvent; (Naphtha (petroleum) light aliphatic) | 64742-89-8 | 100 | 100 | 200 | 1100 | ppm | CASRN = 8030-30-6 in SAX & HSDB. T-3 changed. |
| 2590 | Rubidium | 7440-17-7 | 5 | 15 | 100 | 500 | mg/m3 | |
| 2591 | Rubidium bromide | 7789-39-1 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2592 | Rubidium chloride | 7791-11-9 | 0.015 | 0.05 | 0.35 | 500 | mg/m3 | |
| 2593 | Rubidium hydroxide | 1310-82-3 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 2594 | Rubidium nitrate | 13126-12-0 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2595 | Ruthenium | 7440-18-8 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2596 | Ruthenium trichloride | 10049-08-8 | 1.5 | 4 | 30 | 150 | mg/m3 | |
| 2597 | Ruthenium(IV) oxide | 12036-10-1 | 4 | 12.5 | 15 | 15 | mg/m3 | |
| 2598 | Safrol; (5-(2-Propenyl)-1,3-benzodioxole) | 94-59-7 | 5 | 15 | 100 | 500 | mg/m3 | |
| 2599 | Salcomine; (bis(Salicylaldehyde)ethylenediimine cobalt(II)) | 14167-18-1 | 7.5 | 20 | 39 | 400 | mg/m3 | |
| 2600 | Salicylaldehyde | 90-02-8 | 0.6 | 1.5 | 12.5 | 200 | mg/m3 | |
| 2601 | Salicylic acid | 69-72-7 | 0.3 | 0.75 | 6 | 400 | mg/m3 | |
| 2602 | Salicylic acid, monoammonium salt | 528-94-9 | 1.5 | 4 | 30 | 500 | mg/m3 | No pchem data found. |
| 2603 | Salicylic acid, phenyl ester | 118-55-8 | 4 | 12.5 | 75 | 500 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2604 | Samarium | 7440-19-9 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 2605 | Samarium nitrate | 10361-83-8 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 2606 | Samarium(ii) iodide solution | 32248-43-4 | 7.5 | 25 | 150 | 500 | mg/m3 | Not found in databases. HRR = 2 from MSDS. |
| 2607 | Samarium(III) chloride hexahydrate | 13465-55-9 | 12.5 | 40 | 250 | 500 | mg/m3 | Not found in databases. ChemFinder MF, MW, MSDS toxicity data. |
| 2608 | Samarium(III) oxide | 12060-58-1 | 20 | 60 | 400 | 500 | mg/m3 | Rat oral LD50 > 5 g/kg |
| 2609 | Saxitoxin | 35523-89-8 | 0.000035 | 0.0001 | 0.0006 | 0.0035 | mg/m3 | ChemFinder has MW = 315.3314, MF = C11.H21.N7.O4 |
| 2610 | Scandium | 7440-20-2 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data. |
| 2611 | Scandium oxide | 12060-08-1 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found, PNOS used |
| 2612 | Sec-butyllithium | 598-30-1 | 0.4 | 1.25 | 7.5 | 40 | ppm | TSCA listed, no toxicity data found. MSDS HHR - 3. |
| 2613 | Selenious acid | 7783-00-8 | 0.327 | 0.98 | 1.6 | 1.6 | mg/m3 | |
| 2614 | Selenium | 7782-49-2 | 0.2 | 0.6 | 1 | 1 | mg/m3 | |
| 2615 | Selenium dioxide | 7446-08-4 | 0.281 | 0.843 | 1.4 | 1.4 | mg/m3 | |
| 2616 | **Selenium hexafluoride** | **7783-79-1** | 0.053 | **0.053** | **0.087** | **0.26** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 2617 | Selenium monosulfide | 7446-34-6 | 0.281 | 0.844 | 12.5 | 15 | mg/m3 | |
| 2618 | Selenium oxychloride | 7791-23-3 | 0.42 | 1.26 | 4.41 | 4.41 | mg/m3 | |
| 2619 | Selenium sulfide; (Selenium(IV) disulfide (1:2)) | 7488-56-4 | 0.362 | 1.09 | 1.81 | 60 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2620 | Semicarbazide hydrochloride | 563-41-7 | 20 | 60 | 100 | 100 | mg/m3 | |
| 2621 | Sephacryl s-200, superfine | 65546-95-4 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. |
| 2622 | Sephacryl s-300 | 82785-74-8 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. |
| 2623 | Sephadex G-25 | 9041-35-4 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases, PNOS option used |
| 2624 | Sepharose cl-4b | 61970-08-9 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. Chromatography gel. |
| 2625 | **Silane; (Silicon tetrahydride)** | **7803-62-5** | 5 | **100** | **130** | **270** | ppm | **New interim AEGL-1, -2, -3.** T-1, T-2, T-3 changed. |
| 2626 | Silica amorphous hydrated | 7631-86-9 | 6 | 18 | 125 | 500 | mg/m3 | SAX name for this CASRN. T-1, T-2 changed. |
| 2627 | Silica gel | 63231-67-4 | 6 | 18 | 30 | 150 | mg/m3 | PEL = 80/% SiO2 not used; see 7631-86-9, SCI000, and 112926-00-8 (Silica gel). All Ts changed. |
| 2628 | Silica gel dessicant | 1343-98-2 | 6 | 18 | 30 | 100 | mg/m3 | See 7631-86-9, SCI000, and 112926-00-8 (Silica gel). T-1, T-2, T-3 changed. |
| 2629 | Silica gel, amorphous synthetic | 112926-00-8 | 6 | 18 | 100 | 500 | mg/m3 | TLV-TWA deleted, toxicity data added. All Ts changed. |
| 2630 | Silica, amorphous fume | 69012-64-2 | 0.3 | 0.9 | 1.5 | 3.5 | mg/m3 | Rat oral LD50 > 7.9 mg/kg. All Ts changed. |
| 2631 | Silica, amorphous fumed | 112945-52-5 | 6 | 18 | 200 | 500 | mg/m3 | T-0, T-1 changed. |
| 2632 | Silica, crystalline-quartz; (Silicon dioxide) | 14808-60-7 | 0.3 | 0.3 | 0.3 | 50 | mg/m3 | |
| 2633 | Silicic acid | 7699-41-4 | 10 | 10 | 75 | 400 | mg/m3 | |
| 2634 | Silicic acid, aluminum calcium sodium salt | 1344-01-0 | 10 | 30 | 50 | 250 | mg/m3 | HSDB, TSCA listed, no toxicity data, suspected minor eye irritation ignored. . MW is a minimum. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2635 | Silicic acid, sodium salt; (Sodium silicate) | 1344-09-8 | 7.5 | 25 | 150 | 500 | mg/m3 | ChemFinder pchem data. |
| 2636 | Silicofluoric acid; (Fluorosilicic acid) | 16961-83-4 | 3.16 | 9.48 | 15.8 | 50 | mg/m3 | |
| 2637 | Silicon | 7440-21-3 | 15 | 45 | 75 | 500 | mg/m3 | "Y" changed to N, TLV-TWA deleted. T-1, T-2 changed. |
| 2638 | Silicon carbide | 409-21-2 | 15 | 30 | 250 | 500 | mg/m3 | |
| 2639 | Silicon nitride | 12033-89-5 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, HC&Plisted, no toxicity data.. |
| 2640 | **Silicon tetrafluoride; (Tetrafluorosilane)** | **7783-61-1** | 0.05 | **0.050** | **3.3** | **10** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 2641 | Silicon(II) oxide; (Silicon oxide) | 10097-28-6 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2642 | Siloprene k 1000 | 63394-02-5 | 35 | 100 | 500 | 500 | mg/m3 | No pchem data found. |
| 2643 | Siloxanes and silicones, -di-Me,-reaction products with silica; (Hydrophobic silicon dioxide, amorphous) | 67762-90-7 | 6 | 15 | 125 | 500 | mg/m3 | SAX has CASRN = 63148-62-9, teratogen |
| 2644 | Siloxanes and silicones, methyl phenyl; (Silicone fluid, high temp) | 63148-58-3 | 10 | 10 | 50 | 250 | mg/m3 | MW estimated and used toxicity data for Silicone Y-6607 (Siloxanes), 67762-92-9 |
| 2645 | Silver | 7440-22-4 | 0.01 | 0.3 | 0.5 | 10 | mg/m3 | |
| 2646 | Silver carbonate; (Silver(I) carbonate) | 534-16-7 | 0.0128 | 0.0383 | 0.0639 | 12.8 | mg/m3 | |
| 2647 | Silver chloride | 7783-90-6 | 0.0133 | 0.0399 | 0.0664 | 13.3 | mg/m3 | Solubility 6.9 g/100 mLwater @20C. |
| 2648 | Silver cyanide | 506-64-9 | 25.7 | 25.7 | 25.7 | 129 | mg/m3 | |
| 2649 | Silver hydroxide | 12673-77-7 | 0.0116 | 0.0347 | 0.06 | 11.6 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2650 | Silver nitrate | 7761-88-8 | 0.0157 | 0.4 | 3 | 15.7 | mg/m3 | T-1,T-2 changed. |
| 2651 | Silver nitrite; (Silver(I) nitrite) | 7783-99-5 | 0.0143 | 0.0428 | 0.075 | 14.3 | mg/m3 | T-2 changed. |
| 2652 | Silver oxide | 20667-12-3 | 10 | 30 | 50 | 50 | mg/m3 | Insoluble compound. |
| 2653 | Soda lime | 8006-28-8 | 5 | 5 | 5 | 25 | mg/m3 | Used CaO limits |
| 2654 | Sodium | 7440-23-5 | 0.5 | 0.5 | 5 | 50 | mg/m3 | NaOH limits used |
| 2655 | Sodium acetate | 127-09-3 | 15 | 40 | 300 | 500 | mg/m3 | |
| 2656 | Sodium acetate trihydrate; (Acetic acid, sodium salt trihydrate) | 6131-90-4 | 15 | 40 | 300 | 500 | mg/m3 | Monohydrate CASRN 31304-44-6, SAX SEG650 (LANL pchem data differs) |
| 2657 | Sodium aluminate anhydrous; (Aluminum sodium dioxide anhydrous) | 11138-49-1 | 8.75 | 8.75 | 8.75 | 8.75 | mg/m3 | HSDB and TSCA listed, no toxicity data found. MSDS data used. All Ts changed. |
| 2658 | Sodium aluminate; (Aluminum sodium dioxide) | 1302-42-7 | 6.08 | 6.08 | 6.08 | 6.08 | mg/m3 | HSDB and TSCA listed, no toxicity data found. MSDS data used. All Ts changed. |
| 2659 | Sodium aluminosilicate | 1344-00-9 | 3.5 | 10 | 150 | 500 | mg/m3 | Rat oral LD50 > 27 g/kg, LC > 140 mg/m3 not used. SAR |
| 2660 | Sodium aluminum hydride | 13770-96-2 | 3 | 7.5 | 60 | 300 | mg/m3 | Added. |
| 2661 | Sodium aluminum silicate | 73987-94-7 | 3.5 | 10 | 15 | 500 | mg/m3 | **SAR** |
| 2662 | Sodium antimonate; (Antimonic acid, sodium salt) | 11112-10-0 | 1.01 | 3.04 | 5.07 | 101 | mg/m3 | TSCA lists CASRN = 15432-85-6 for Na.SbO3 |
| 2663 | Sodium antimonate; (Sodium hexahydroxoantimonate) | 33908-66-6 | 0.792 | 2.37 | 4 | 79.2 | mg/m3 | TSCA has CASRN= 33908-66-6 for Na.Sb.(OH)6. |
| 2664 | Sodium antimonite | z-0061 | 0.874 | 2.62 | 4.37 | 87.4 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2665 | Sodium argentate | z-0062 | 0.0153 | 0.0459 | 0.0764 | 15.3 | mg/m3 | |
| 2666 | Sodium arsenate | 7631-89-2 | 0.0271 | 7.5 | 13.5 | 13.5 | mg/m3 | REL-C ignored. |
| 2667 | Sodium arsenite | 7784-46-5 | 0.0173 | 0.075 | 0.6 | 8.67 | mg/m3 | REL-C ignored. |
| 2668 | Sodium azide | 26628-22-8 | 0.0125 | 0.04 | 0.29 | 12.5 | mg/m3 | T-0, T-1 changed. |
| 2669 | Sodium beryllium oxide | z-0063 | 0.0124 | 0.0621 | 5 | 24.9 | mg/m3 | |
| 2670 | Sodium bicarbonate | 144-55-8 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2671 | Sodium bifluoride; (Sodium hydrogen fluoride) | 1333-83-1 | 4.08 | 4.08 | 6 | 35 | mg/m3 | |
| 2672 | Sodium bis(2-methoxyethoxy) aluminum hydride | 22722-98-1 | 15 | 45 | 75 | 350 | mg/m3 | No toxicity data found. |
| 2673 | Sodium bismuthate | 12232-99-4 | 1.5 | 5 | 35 | 150 | mg/m3 | SAR TEELs 1.25, 4, 25, 200 mg/m3 not used |
| 2674 | Sodium bisulfate monohydrate | 10034-88-5 | 0.75 | 2.5 | 15 | 75 | mg/m3 | |
| 2675 | Sodium bisulfate; (Sodium acid sulfate) | 7681-38-1 | 1.25 | 3.5 | 25 | 125 | mg/m3 | |
| 2676 | Sodium bisulfite | 7631-90-5 | 5 | 15 | 25 | 500 | mg/m3 | |
| 2677 | Sodium borate decahydrate | 1303-96-4 | 2 | 6 | 200 | 500 | mg/m3 | RTECS, HSDB, TSCA, GOEV, HC&P, H&N and SAX used. T-2 changed. |
| 2678 | Sodium borate; (Disodium tetraborate; Borates, tetrasodium salts) | 1330-43-4 | 2 | 6 | 6 | 500 | mg/m3 | RTECS, HSDB, TSCA, GOEV, HC&P, H&N used, SAX ignored. T-2 changed. |
| 2679 | Sodium borohydride | 16940-66-2 | 0.075 | 0.2 | 1.5 | 7.5 | mg/m3 | |
| 2680 | Sodium bromate | 7789-38-0 | 0.6 | 1.5 | 12.5 | 60 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2681 | Sodium bromide | 7647-15-6 | 1.5 | 5 | 35 | 500 | mg/m3 | |
| 2682 | Sodium butyl (2-ethylhexyl)phosphate | z-0064 | 0.02 | 0.06 | 0.4 | 2 | mg/m3 | **SAR** |
| 2683 | Sodium butyl butylphosphonate | z-0065 | 0.02 | 0.06 | 0.4 | 2 | mg/m3 | **SAR** |
| 2684 | Sodium cacodylate; (Sodium dimethylarsinate) | 124-65-2 | 1.07 | 3.2 | 40 | 500 | mg/m3 | |
| 2685 | Sodium cadminate | z-0066 | 0.0101 | 0.0604 | 0.101 | 18.1 | mg/m3 | |
| 2686 | Sodium carbonate | 497-19-8 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2687 | Sodium carbonate monohydrate | 5968-11-6 | 1.5 | 5 | 35 | 150 | mg/m3 | HSDB data used. |
| 2688 | Sodium carboxymethyl cellulose; (Dowex 11) | 9004-32-4 | 0.4 | 1.25 | 7.5 | 500 | mg/m3 | |
| 2689 | Sodium chloride | 7647-14-5 | 15 | 40 | 300 | 500 | mg/m3 | |
| 2690 | Sodium chlorite | 7758-19-2 | 0.75 | 2.5 | 15 | 75 | mg/m3 | RTECS MF and MW differ from other sources |
| 2691 | Sodium chromate decahydrate | 13517-17-4 | 0.0329 | 0.987 | 20 | 98.7 | mg/m3 | |
| 2692 | Sodium chromate tetrahydrate | 10034-82-9 | 0.0291 | 0.873 | 15 | 87.4 | mg/m3 | |
| 2693 | Sodium chromate(VI); (Disodium chromate) | 7775-11-3 | 0.0156 | 0.125 | 0.75 | 46.7 | mg/m3 | |
| 2694 | Sodium citrate; (Monosodium citrate) | 18996-35-5 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2695 | Sodium cobaltinitrite | 13600-98-1 | 0.125 | 0.4 | 3 | 15 | mg/m3 | |
| 2696 | Sodium cyanide | 143-33-9 | 5 | 5 | 5 | 47.1 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2697 | Sodium cyclopentadienylide; (Cyclopentadienyl sodium) | 4984-82-1 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data. Ignites in air. |
| 2698 | Sodium deuteroxide | 14014-06-3 | 0.15 | 0.5 | 5 | 50 | mg/m3 | Not in databases, MSDS has no useful data. |
| 2699 | Sodium dichromate dihydrate | 7789-12-0 | 0.0143 | 0.43 | 0.716 | 43 | mg/m3 | |
| 2700 | Sodium dichromate; (Disodium dichromate) | 10588-01-9 | 0.0126 | 20 | 37.8 | 37.8 | mg/m3 | |
| 2701 | Sodium diethyldithiocarbamate trihydrate | 20624-25-3 | 6 | 15 | 125 | 500 | mg/m3 | |
| 2702 | Sodium diethyldithiocarbamate; (Diethyldithiocarbamic acid, sodium salt) | 148-18-5 | 2 | 6 | 250 | 500 | mg/m3 | |
| 2703 | Sodium dihydrogen phosphate; (Sodium phosphate monobasic, monohydrate) | 10049-21-5 | 100 | 300 | 500 | 500 | mg/m3 | HSDB data. |
| 2704 | Sodium dithionate dihydrate | 7631-94-9 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data; error in H&N |
| 2705 | Sodium dodecylbenzenesulfonate; (Dodecyl benzene sodium sulfonate) | 25155-30-0 | 4 | 12.5 | 75 | 200 | mg/m3 | |
| 2706 | Sodium ethoxide | 141-52-6 | 1.5 | 5 | 35 | 150 | mg/m3 | No toxicity data found. |
| 2707 | Sodium ferrocyanide | 13601-19-9 | 5.44 | 16.3 | 27.2 | 500 | mg/m3 | |
| 2708 | Sodium fluoride | 7681-49-4 | 5.53 | 5.53 | 5.53 | 75 | mg/m3 | |
| 2709 | Sodium formate | 141-53-7 | 40 | 125 | 500 | 500 | mg/m3 | |
| 2710 | Sodium gluconate | 527-07-1 | 0.6 | 2 | 15 | 75 | mg/m3 | |
| 2711 | Sodium glycinate | 6000-44-8 | 1 | 3.5 | 25 | 125 | ppm | |
| 2712 | Sodium glycolate; (Sodium hydroxyacetate) | 2836-32-0 | 10 | 30 | 200 | 750 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2713 | Sodium hexamethyldisilazane; (Sodium bis(trimethylsilyl)amide) | 1070-89-9 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed |
| 2714 | Sodium hydride | 7646-69-7 | 10 | 10 | 10 | 10 | mg/m3 | |
| 2715 | Sodium hydrogen lead oxide | z-0067 | 0.06 | 0.06 | 0.06 | 125 | mg/m3 | **SAR** |
| 2716 | Sodium hydrogen metasilicate | z-0068 | 4 | 12.5 | 75 | 400 | mg/m3 | **SAR** |
| 2717 | Sodium hydrogen pyrophosphate | z-0069 | 4 | 12.5 | 20 | 400 | mg/m3 | **SAR** |
| 2718 | Sodium hydrosulfite | 7775-14-6 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2719 | **Sodium hydroxide** | **1310-73-2** | 0.5 | **0.5** | **5** | **50** | mg/m3 | **ERPG-1, -2, -3** |
| 2720 | Sodium hypobromite | 13824-96-9 | 10 | 30 | 50 | 250 | mg/m3 | Added. Not found in available databases. MF and MW by comparison with Chlorine hypochlorite. |
| 2721 | Sodium hypochlorite | 7681-52-9 | 0.6 | 2 | 50 | 500 | mg/m3 | WEEL added, toxicity data updated. T-0, T-1, T-2 changed. |
| 2722 | Sodium hypochlorite pentahydrate | 10022-70-5 | 0.075 | 0.2 | 1.5 | 500 | mg/m3 | |
| 2723 | Sodium hypophosphite | 7681-53-0 | 6 | 20 | 125 | 500 | mg/m3 | No pchem data found. |
| 2724 | Sodium hypophosphite hydrate | 123333-67-5 | 6 | 20 | 125 | 500 | mg/m3 | Used toxicity data for Na hypophosphite, CASRN = 7681-53-0 |
| 2725 | Sodium iodate | 7681-55-2 | 2 | 6 | 40 | 200 | mg/m3 | Deleted iodine concentration limits. |
| 2726 | Sodium iodide | 7681-82-5 | 0.75 | 2.5 | 15 | 500 | mg/m3 | |
| 2727 | Sodium isothiocyanate; (Thiocyanic acid, sodium salt) | 540-72-7 | 0.25 | 0.75 | 6 | 100 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2728 | Sodium lactate; (Lactic acid, monosodium salt) | 72-17-3 | 15 | 40 | 300 | 500 | mg/m3 | |
| 2729 | Sodium lanthanate | z-0070 | 0.4 | 1.25 | 2.5 | 2.5 | mg/m3 | No "lanthanate" listing found SAR |
| 2730 | Sodium lauryl sulfate | 151-21-3 | 0.35 | 1 | 6 | 500 | mg/m3 | |
| 2731 | Sodium metabisulfite | 7681-57-4 | 5 | 15 | 25 | 100 | mg/m3 | |
| 2732 | Sodium metaborate | 7775-19-1 | 6.18 | 18.5 | 30.9 | 500 | mg/m3 | SAX, RTECS, HSDB MF = BHO2.Na, not NaBO2. |
| 2733 | Sodium metaphosphate | 10361-03-2 | 3.5 | 10 | 75 | 350 | mg/m3 | |
| 2734 | Sodium metasilicate nonahydrate | 13517-24-3 | 61.1 | 183 | 306 | 500 | mg/m3 | T-0, T-1, T-2 changed. |
| 2735 | Sodium metavanadate; (Sodium vanadate) | 13718-26-8 | 0.1 | 0.35 | 2 | 30 | mg/m3 | |
| 2736 | Sodium methylate | 124-41-4 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 2737 | Sodium molybdate dihydrate; (Disodium molybdate dihydrate) | 10102-40-6 | 12.6 | 12.6 | 200 | 200 | mg/m3 | |
| 2738 | Sodium monoxide; (Sodium oxide) | 12401-86-4 | 10 | 10 | 10 | 10 | mg/m3 | |
| 2739 | Sodium nickel oxide (Liquid) | 37367-09-2 | 2.33 | 2.33 | 2.33 | 23.3 | mg/m3 | |
| 2740 | Sodium nickelate (Liquids) | z-0073 | 2.94 | 2.94 | 3 | 29.4 | mg/m3 | |
| 2741 | Sodium nickelate (Solids) | z-0074 | 2.94 | 2.94 | 3 | 29.4 | mg/m3 | |
| 2742 | Sodium nitrate | 7631-99-4 | 0.4 | 1 | 7.5 | 100 | mg/m3 | |
| 2743 | Sodium nitrite | 7632-00-0 | 0.05 | 0.15 | 1 | 60 | mg/m3 | T-0, T-1 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2744 | Sodium nitroferricyanide | 14402-89-2 | 0.6 | 2 | 12.5 | 20 | mg/m3 | |
| 2745 | Sodium o-benzyl-p-chlorophenate | 3184-65-4 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2746 | Sodium orthovanadate | 13721-39-6 | 0.182 | 0.25 | 1.82 | 35.4 | mg/m3 | |
| 2747 | Sodium oxalate | 62-76-0 | 10 | 30 | 50 | 50 | mg/m3 | |
| 2748 | Sodium oxide; (Disodium oxide; Sodium monoxide) | 1313-59-3 | 0.25 | 0.25 | 2.5 | 25 | mg/m3 | Added. TSCA , HC&P listed. MSDS: Amorphous powder, reacts with H2.O to form Na.OH |
| 2749 | Sodium pentachlorophenate | 131-52-2 | 1 | 3.5 | 24 | 75 | mg/m3 | |
| 2750 | Sodium perchlorate | 7601-89-0 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2751 | Sodium perchlorate monohydrate | 7791-07-3 | 5 | 15 | 100 | 500 | mg/m3 | |
| 2752 | Sodium permanganate | 10101-50-5 | 0.517 | 7.75 | 12.9 | 500 | mg/m3 | HC&P data are for the trihydrate. |
| 2753 | Sodium peroxide | 1313-60-6 | 10 | 10 | 10 | 10 | mg/m3 | |
| 2754 | Sodium perrhenate; (Rhenium(VII) sodium oxide) | 13472-33-8 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2755 | Sodium persulfate | 7775-27-1 | 0.1 | 0.3 | 20 | 100 | mg/m3 | |
| 2756 | Sodium pertechnetate | 13718-28-0 | 10 | 30 | 50 | 250 | mg/m3 | Radiation dose will dominate |
| 2757 | Sodium phosphate | 7632-05-5 | 0.75 | 2.5 | 15 | 75 | mg/m3 | Mouse LD > 100 mg/kg |
| 2758 | Sodium phosphate, dibasic | 7558-79-4 | 60 | 200 | 500 | 500 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2759 | Sodium phosphate, dibasic, dodecahydrate | 10039-32-4 | 1.5 | 5 | 35 | 150 | mg/m3 | |
| 2760 | Sodium phosphate, dibasic, heptahydrate | 7782-85-6 | 50 | 150 | 500 | 500 | mg/m3 | |
| 2761 | Sodium phosphate, monobasic | 7558-80-7 | 35 | 100 | 500 | 500 | mg/m3 | |
| 2762 | Sodium phosphate, tribasic | 7601-54-9 | 1.5 | 5 | 500 | 500 | mg/m3 | |
| 2763 | Sodium phosphate, tribasic, dodecahydrate | 10101-89-0 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2764 | Sodium phosphate, tribasic; (Sodium hexametaphosphate; Calgon) | 10124-56-8 | 25 | 75 | 500 | 500 | mg/m3 | |
| 2765 | Sodium phosphate, tribasic; (Sodium trimetaphosphate) | 7785-84-4 | 15 | 40 | 300 | 500 | mg/m3 | |
| 2766 | **Sodium phosphide** | **12058-85-4** | 0.4 | 1.25 | **2.0** | **3.6** | ppm | Added. **New Interim AEGL-2, -3.** TSCA listed. |
| 2767 | Sodium polyphosphate | 68915-31-1 | 12.5 | 40 | 250 | 500 | mg/m3 | |
| 2768 | Sodium polytungstate | 12141-67-2 | 6.77 | 13.5 | 35 | 150 | mg/m3 | TSCA listed, no toxicity or pchem data found. |
| 2769 | Sodium potassium tartrate tetrahydrate | 6381-59-5 | 20 | 60 | 400 | 500 | mg/m3 | HC&N listed under CASRN 304-59-6, used HSDB toxicity data |
| 2770 | Sodium potassium tartrate; (Potassium sodium tartrate) | 304-59-6 | 20 | 60 | 400 | 500 | mg/m3 | HSDB toxicity data used. |
| 2771 | Sodium p-tert-amylphenate; (4-(1,1-dimethylpropyl)phenol, sodium salt) | 31366-95-7 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2772 | Sodium pyrophosphate decahydrate | 13472-36-1 | 10 | 30 | 200 | 500 | mg/m3 | Corrected name. Used toxicity of disodium pyrophosphate, CASRN = 7758-16-9 |
| 2773 | Sodium pyrophosphate, di- | 7758-16-9 | 10 | 30 | 200 | 500 | mg/m3 | |

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Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2774 | Sodium pyruvate; (Pyruvic acid, sodium salt) | 113-24-6 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data found. |
| 2775 | Sodium salicylate; (Salicylic acid, sodium salt) | 54-21-7 | 40 | 100 | 500 | 500 | mg/m3 | |
| 2776 | Sodium selenate; (Disodium selenate) | 13410-01-0 | 0.479 | 1.44 | 1.6 | 1.6 | mg/m3 | |
| 2777 | Sodium selenite | 10102-18-8 | 0.438 | 1.31 | 2.3 | 3 | mg/m3 | |
| 2778 | Sodium silicate; (Sodium metasilicate) | 6834-92-0 | 75 | 200 | 500 | 500 | mg/m3 | HSDB and TSCA MF = H2.O3.Si.2Na. T-0, T-1, T-2 changed. |
| 2779 | Sodium stannate | 12058-66-1 | 3.58 | 10.8 | 17.9 | 179 | mg/m3 | As inorganic tin compound Ts = 3.5, 10.5, 30, 150 mg/m3. All Ts changed. SAR not used. |
| 2780 | Sodium stearate | 822-16-2 | 0.15 | 0.5 | 3.5 | 15 | mg/m3 | |
| 2781 | Sodium strontium phosphate | 19553-80-1 | 10 | 30 | 50 | 500 | mg/m3 | **SAR** |
| 2782 | Sodium succinate | 150-90-3 | 5 | 15 | 125 | 600 | ppm | T-2 changed. |
| 2783 | Sodium succinate, hexahydrate | 6106-21-4 | 35 | 100 | 500 | 500 | mg/m3 | Not found in databases. MF and MW from ChemFinder |
| 2784 | Sodium sulfate, anhydrous | 7757-82-6 | 10 | 30 | 500 | 500 | mg/m3 | |
| 2785 | Sodium sulfhydrate; (Sodium hydrosulfide) | 16721-80-5 | 0.06 | 0.15 | 1.25 | 6 | mg/m3 | |
| 2786 | Sodium sulfide | 1313-82-2 | 0.75 | 2.5 | 15 | 75 | mg/m3 | |
| 2787 | Sodium sulfide nonahydrate | 1313-84-4 | 0.2 | 0.6 | 4 | 20 | mg/m3 | HHR = 3 in MSDS. |
| 2788 | Sodium sulfite | 7757-83-7 | 10 | 30 | 50 | 100 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2789 | Sodium tartrate dihydrate | 6106-24-7 | 5 | 15 | 100 | 500 | mg/m3 | Not found in databases. NFPA HHR = 1, MSDS pchem and rat LD50 data. |
| 2790 | Sodium tellurate | 10101-83-4 | 0.186 | 0.559 | 0.931 | 150 | mg/m3 | |
| 2791 | Sodium tellurite | 10102-20-2 | 0.174 | 0.521 | 7.5 | 25 | mg/m3 | |
| 2792 | Sodium tetrafluoroborate(1-) | 13755-29-8 | 3.61 | 10.8 | 18.1 | 100 | mg/m3 | |
| 2793 | Sodium tetraphenyl borate | 143-66-8 | 1.25 | 3.5 | 25 | 125 | mg/m3 | |
| 2794 | Sodium thiosulfate | 7772-98-7 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2795 | Sodium thiosulfate pentahydrate | 10102-17-7 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2796 | Sodium titanate | 12034-34-3 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. |
| 2797 | Sodium tolyltriazole; (1H-benzzotriazole, 4(or 5)-methyl-, sodium salt) | 64665-57-2 | 2.5 | 7.5 | 50 | 250 | mg/m3 | Added. TSCA listed. Toxicity data found "www.epa.gov/HPV/pubs/summaries/benzo/c13456tp.pdf" |
| 2798 | Sodium tridecylbenzene sulfonate | 26248-24-8 | 2 | 6 | 40 | 200 | mg/m3 | MF and MW differ in databases. No mammalian toxicity data found, HSDB probable human LD 0.5-5.0 g/kg |
| 2799 | Sodium triethylborohydride | 17979-81-6 | 22.6 | 67.7 | 113 | 150 | mg/m3 | Not found in databases, MSDS HHR = 3. |
| 2800 | Sodium trihydrogen silicate | z-0076 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2801 | Sodium tripolyphosphate | 7758-29-4 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2802 | Sodium tungstate | 13472-45-2 | 1 | 3 | 7.5 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2803 | Sodium tungstate dihydrate | 10213-10-2 | 1.79 | 5.38 | 15 | 75 | mg/m3 | |
| 2804 | Sodium uranate; (Disodium uranate hexahydrate) | 66018-57-3 | 0.0779 | 0.935 | 3 | 15.6 | mg/m3 | |
| 2805 | Sodium uranium oxide monohydrate | 13721-34-1 | 0.0685 | 0.822 | 2.5 | 13.7 | mg/m3 | TSCA listed, used HC&P "monohydrate" MW and MF. No toxicity data found. T-0, T-1, T-3 changed. |
| 2806 | Sodium uranyl carbonate | z-0078 | 0.395 | 0.948 | 3 | 15.8 | mg/m3 | |
| 2807 | Sodium zirconate; (Disodium zirconium oxide) | 12201-48-8 | 10.9 | 21.8 | 21.8 | 54.6 | mg/m3 | |
| 2808 | Sodium-Potassium | 11135-81-2 | 0.482 | 0.482 | 5 | 50 | mg/m3 | ERPGs for NaOH used. MW for 78wt.% K and 22 wt.% Na. |
| 2809 | Solvent naphtha, petroleum, medium aliphatic; (Mineral spirits, naphtha) | 64742-88-7 | 25 | 75 | 500 | 500 | mg/m3 | T-0, T-1, T-2 changed. |
| 2810 | Solvent Yellow 3 | 97-56-3 | 2 | 6 | 40 | 500 | mg/m3 | |
| 2811 | **Soman; (3,3-Dimethyl-2-butyl methylphosphonofluoridate; GD)** | **96-64-0** | 0.00003 | **0.00018** | **0.0022** | **0.017** | ppm | **Final AEGL-1, -2, -3.** T-0 changed. |
| 2812 | Sorbitan monolaurate; (D-Glucitol, 1,4-anhydro-, 6-dodecanoate) | 5959-89-7 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, H&N listed. No toxicity or pchem data found. |
| 2813 | Sorbitan monostearate polyoxyethylene; (Ethoxylated sorbitan monostearate) | 9005-67-8 | 0.75 | 2 | 15 | 500 | mg/m3 | No pchem data found. |
| 2814 | Sorbitan trioleate | 26266-58-0 | 15 | 50 | 350 | 500 | mg/m3 | No pchem data found. |
| 2815 | Sorbitan, monolaurate | 1338-39-2 | 350 | 500 | 500 | 500 | mg/m3 | No pchem data found. |
| 2816 | Sorbitan, monooleate | 1338-43-8 | 250 | 500 | 500 | 500 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2817 | Sorbitan, monooleate polyoxyethylene; (Polyethylene sorbitan monooleate; Tween 80) | 9005-65-6 | 0.75 | 2.5 | 15 | 500 | mg/m3 | MF and MW unknown. |
| 2818 | Sorbitan, monostearate | 1338-41-6 | 400 | 500 | 500 | 500 | mg/m3 | |
| 2819 | Sorbitol, D-; (D-Glucitol) | 50-70-4 | 40 | 125 | 500 | 500 | mg/m3 | Pchem data vary among sources |
| 2820 | Spiro(isobenzofuran-1(3H),9'-(9H)xanthen)-3-one, 3',6'-dihydroxy-; (Fluorescein) | 2321-07-5 | 0.4 | 1.25 | 7.5 | 250 | mg/m3 | Density not available, assumed to be 1.0. |
| 2821 | Squalene; (2,6,10,15,19,23-Hexamethyl-2,6,10,14,18,22-tetracosahexene, (all-E)-) | 111-02-4 | 20 | 60 | 400 | 500 | mg/m3 | Duplicate deleted. MSDS pchem data. |
| 2822 | Stannic chloride; (Tin(IV) chloride; Tin(IV) tetrachloride) | 7646-78-8 | 4.39 | 4.39 | 5 | 219 | mg/m3 | |
| 2823 | Stannous chloride; (Tin(II) chloride (1:2)) | 7772-99-8 | 3.19 | 9.58 | 50 | 160 | mg/m3 | Tin inorganic compounds, as Sn. Toxicity data updated, T-2 changed. |
| 2824 | Stannous octoate | 301-10-0 | 0.341 | 1.023 | 15 | 85.3 | mg/m3 | TSCA listed, MSDS data. |
| 2825 | Starch dust | 9005-25-8 | 15 | 30 | 500 | 500 | mg/m3 | Synonym deleted, conc. dep. changed from Y to N. T-2 changed. |
| 2826 | **Stibine; (Antimony hydride)** | **7803-52-3** | 0.1 | 0.2 | **1.5** | **9.6** | ppm | **New interim AEGL-2, -3. ERPG-2, -3.** T-1, T-2, T-3 changed. |
| 2827 | Stilbene | 588-59-0 | 5 | 15 | 100 | 500 | mg/m3 | |
| 2828 | Stilbene 3; (Stilbene 420; Tinopal CBS; Disodium 4,4'-bis(2-sulfostyryl)biphenyl) | 27344-41-8 | 0.25 | 0.75 | 6 | 500 | mg/m3 | |
| 2829 | Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene) | 8052-41-3 | 500 | 500 | 500 | 500 | mg/m3 | |
| 2830 | Strontium | 7440-24-6 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2831 | Strontium carbonate | 1633-05-2 | 20 | 20 | 20 | 20 | mg/m3 | HSDB and TSCA MF = C-H2-O3-Sr, but HSDB MW =147.63 SAR |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2832 | Strontium chloride | 10476-85-4 | 7.5 | 20 | 150 | 500 | mg/m3 | "Heptahydrate removed from name, MW and MF corrected. |
| 2833 | Strontium hydroxide | 18480-07-4 | 0.75 | 0.75 | 20 | 75 | mg/m3 | RTECS has some toxicity data. SAR |
| 2834 | Strontium nitrate | 10042-76-9 | 10 | 30 | 250 | 500 | mg/m3 | |
| 2835 | Strontium nitrite; (Nitrous acid, strontium salt) | 13470-06-9 | 0.04 | 0.1 | 0.75 | 75 | mg/m3 | **SAR** |
| 2836 | Strontium oxalate | 814-95-9 | 7.5 | 25 | 60 | 75 | mg/m3 | TSCA MF = C2-H2-O4.Sr No toxicity data found SAR |
| 2837 | Strontium phosphate; (Strontium orthophosphate) | 14414-90-5 | 10 | 30 | 500 | 500 | mg/m3 | RTECS MF = H3-O4-P.xSr, MW = 448.48, x = 4. HC&P CASRN = 7446-28-8, MW = 452.80. SAR |
| 2838 | **Strontium phosphide** | **12504-13-1** | 0.2 | 0.6 | **1.0** | **1.8** | ppm | Added. **New Interim AEGL-2, -3.** |
| 2839 | Strontium sulfate | 7759-02-6 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2840 | Strychnine | 57-24-9 | 0.15 | 0.3 | 0.3 | 3 | mg/m3 | |
| 2841 | Strychnine sulfate (2:1) | 60-41-3 | 1 | 3 | 5 | 30 | mg/m3 | |
| 2842 | **Styrene** | **100-42-5** | 20 | **20** | **130** | ***1100*** | ppm | **Interim AEGL-1, -2, -3.** |
| 2843 | Styrene oxide; (1,2-Epoxyethylbenzene) | 96-09-3 | 4 | 12.5 | 50 | 50 | ppm | |
| 2844 | Styrene-allyl alcohol copolymer | 25119-62-4 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. No MSDS, assumed solid. |
| 2845 | Styrene-divinylbenzene resin, chloromethylated, aminated with trimethylamine; (Bio-Rad AG1-X8 anion exchange resin, formate form) | 60177-39-1 | 10 | 30 | 50 | 250 | mg/m3 | Name changed, CASRN changed from 81133-20-2, Listed in SAX and TSCA, no toxicity data found. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2846 | Styrenesulfonate), poly(sodium 4- | 25704-18-1 | 150 | 500 | 500 | 500 | mg/m3 | Added. Rat oral LD50 > 8 g/kg |
| 2847 | Succinic acid | 110-15-6 | 7.5 | 25 | 200 | 500 | mg/m3 | |
| 2848 | Succinic anhydride | 108-30-5 | 0.75 | 2 | 15 | 500 | mg/m3 | |
| 2849 | Sucrose | 57-50-1 | 15 | 30 | 50 | 500 | mg/m3 | |
| 2850 | Sucrose, diacetate hexaisobutyrate; (Sucrose acetate isobutyrate; SAIB) | 126-13-6 | 12.5 | 40 | 300 | 500 | mg/m3 | |
| 2851 | Sulfamic acid | 5329-14-6 | 12.5 | 40 | 250 | 500 | mg/m3 | |
| 2852 | Sulfanilamide | 63-74-1 | 1 | 3 | 20 | 500 | mg/m3 | |
| 2853 | Sulfanilic acid | 121-57-3 | 50 | 150 | 500 | 500 | mg/m3 | |
| 2854 | Sulfonic acids, petroleum; (Petrolatum acid sulfonate) | 61789-85-3 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2855 | Sulfonylbis-ethanol, 2,2'- | 2580-77-0 | 1.5 | 5 | 35 | 150 | mg/m3 | Name corrected. TSCA, H&N listed, pchem data ex MSDS, no toxicity data. |
| 2856 | Sulfosalicylic acid | 97-05-2 | 10 | 30 | 200 | 500 | mg/m3 | |
| 2857 | Sulfosalicylic acid, dihydrate, crystal | 5965-83-3 | 7.5 | 20 | 150 | 500 | mg/m3 | Not found in databases. MSDS MP and rat LD50. |
| 2858 | Sulfotep; (TEDP) | 3689-24-5 | 0.2 | 0.5 | 3.5 | 10 | mg/m3 | |
| 2859 | Sulfur | 7704-34-9 | 0.125 | 0.4 | 2.5 | 12.5 | mg/m3 | |
| 2860 | **Sulfur dioxide** | **7446-09-5** | 0.2 | **0.20** | **0.75** | **30** | ppm | **Interim AEGL-1, -2, -3.** |
| 2861 | Sulfur hexafluoride | 2551-62-4 | 1000 | 3000 | 5000 | 5000 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2862 | **Sulfur monochloride** | **10025-67-9** | 0.53 | **0.53** | **6.4** | **15** | ppm | **Interim AEGL-1, -2, -3.** |
| 2863 | Sulfur pentafluoride | 5714-22-7 | 0.01 | 0.01 | 0.01 | 1 | ppm | |
| 2864 | Sulfur tetrafluoride | 7783-60-0 | 0.1 | 0.3 | 2.08 | 2.08 | ppm | T-1 changed. |
| 2865 | **Sulfur trioxide** | **7446-11-9** | 0.06 | **0.20** | **8.7** | **160** | mg/m3 | **Interim AEGL-1, -2, -3.** Separately listed 01/04/99. |
| 2866 | **Sulfuric acid** | **7664-93-9** | 0.2 | **0.20** | **8.7** | **160** | mg/m3 | **Interim AEGL-1, -2, -3.** |
| 2867 | Sulfuric Acid-d2; (Deuterosulfuric acid) | 13813-19-9 | 1 | 1 | 3 | 15 | mg/m3 | Added. TSCA listed, no toxicity data found, MBDS HHR = 3 |
| 2868 | Sulfurous acid | 7782-99-2 | 0.0125 | 0.04 | 0.3 | 1.5 | mg/m3 | Exists only in solution |
| 2869 | **Sulfuryl chloride** | **7791-25-5** | 0.15 | 0.5 | **3.7** | **11** | ppm | **New interim AEGL-2, -3.** All Ts changed. |
| 2870 | **Sulfuryl fluoride** | **2699-79-8** | 5 | 10 | **21** | **64** | ppm | **New interim AEGL-2, -3.** T-2, T-3 changed. |
| 2871 | Talc | 14807-96-6 | 2 | 2 | 10 | 500 | mg/m3 | |
| 2872 | Tall oil (alkyd resin) | 68333-62-0 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2873 | Tantalum | 7440-25-7 | 5 | 10 | 500 | 500 | mg/m3 | |
| 2874 | Tantalum carbide | 12070-06-3 | 5.33 | 10.7 | 500 | 500 | mg/m3 | TSCA and HSDB listed, no specific toxicity data. |
| 2875 | Tantalum(V) ethoxide | 6074-84-6 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, HC&P listed, no toxicity data, assumed nonvolatile.. |
| 2876 | Tantalum(V) fluoride | 7783-71-3 | 7.26 | 21.8 | 36.3 | 100 | mg/m3 | |
| 2877 | Tantalum(V) oxide | 1314-61-0 | 6.11 | 12.2 | 500 | 500 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2878 | Tartaric acid | 87-69-4 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 2879 | Tartaric acid, monopotassium salt | 868-14-4 | 150 | 500 | 500 | 500 | mg/m3 | |
| 2880 | Tartaric acid, monosodium salt | 526-94-3 | 15 | 50 | 400 | 500 | mg/m3 | No pchem data found. |
| 2881 | Technetium(IV) oxide | 12036-16-7 | 10 | 30 | 50 | 250 | mg/m3 | Radiation dose will dominate |
| 2882 | Technetium-99 | 14133-76-7 | | | | | mg/m3 | OHMTADS lists "Potassium pertechnetate" under this CASRN, but Chemfinder has "Iechnetium-99", agreeing with LLNL. Naturally radioactive, T1/2 22000 years, PACs eliminated. |
| 2883 | Tellurium | 13494-80-9 | 0.1 | 0.3 | 20 | 25 | mg/m3 | |
| 2884 | Tellurium chloride | 10026-07-0 | 0.211 | 0.633 | 15 | 52.8 | mg/m3 | |
| 2885 | Tellurium hexafluoride | 7783-80-4 | 0.0379 | 0.101 | 0.101 | 1.89 | ppm | |
| 2886 | Tellurium oxide; (Tellurium dioxide) | 7446-07-3 | 0.125 | 0.375 | 5 | 31.3 | mg/m3 | |
| 2887 | Tellurous acid | 10049-23-7 | 0.139 | 0.418 | 0.696 | 34.8 | mg/m3 | |
| 2888 | Terbium | 7440-27-9 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA listed, no toxicity data found. SRS HHR = 3. |
| 2889 | Terbium oxide | 12036-41-8 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data, PNOS used, no stable isotopes. |
| 2890 | Terbium(III,IV) oxide | 12037-01-3 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. MSDS S, MP, HHR =1. |
| 2891 | Terbufos | 13071-79-9 | 0.01 | 0.03 | 1 | 1 | mg/m3 | T-0, T-1 changed. |

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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 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2892 | Terephthalic acid | 100-21-0 | 10 | 125 | 500 | 500 | mg/m3 | |
| 2893 | Terephthaloyl chloride | 100-20-9 | 0.75 | 2.5 | 20 | 500 | mg/m3 | |
| 2894 | Terphenyl; p- | 92-94-4 | 0.4 | 1.25 | 9 | 500 | mg/m3 | T-0, T-1 changed. |
| 2895 | Terphenyls; (Diphenylbenzene) | 26140-60-3 | 1.5 | 5 | 9 | 500 | mg/m3 | T-0 changed. |
| 2896 | Tert-butyl alcohol; (tert-Butanol) | 75-65-0 | 100 | 150 | 1600 | 1600 | ppm | |
| 2897 | Tert-butyl benzoic acid, p- | 98-73-7 | 2 | 6 | 50 | 200 | mg/m3 | |
| 2898 | Tert-butyllithium | 594-19-4 | 1.5 | 5 | 35 | 150 | mg/m3 | Unstable, stored in pentane or similar. No toxicity data found. |
| 2899 | Tert-butylphenol, p-; (Tert-butylphenol, 4-) | 98-54-4 | 0.5 | 0.5 | 0.75 | 500 | mg/m3 | |
| 2900 | Tert-butylpyridine, 4- | 3978-81-2 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. HC&P, ChemFinder listed. |
| 2901 | Tetraamminepalladium(II) nitrate | 13601-08-6 | 1.5 | 5 | 35 | 150 | mg/m3 | No toxicity information. LD50 based on HR |
| 2902 | Tetrabromoethane, 1,1,2,2-; (Acetylene tetrabromide) | 79-27-6 | 0.1 | 6 | 8 | 8 | ppm | Ignored PEL=TWA. |
| 2903 | Tetrabutyl ammonium phosphate | 5574-97-0 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. Duplicate with "dihydrogen" deleted. |
| 2904 | Tetrabutyl titanate; (Butyl titanate) | 5593-70-4 | 0.75 | 2.5 | 20 | 100 | ppm | |
| 2905 | Tetrabutylammonium fluoride; (N,N,N-Tributyl-1-butanaminium, fluoride) | 429-41-4 | 34.4 | 103 | 172 | 500 | mg/m3 | TSCA listed, no toxicity data, HHR = 3 in MSDS. |
| 2906 | Tetrabutylammonium hydroxide | 2052-49-5 | 0.06 | 0.15 | 1.25 | 6 | mg/m3 | |
| 2907 | Tetrabutylammonium nitrate | 1941-27-1 | 0.075 | 0.25 | 1.5 | 7.5 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2908 | Tetrachloro-1,2-difluoroethane, 1,1,2,2- | 76-12-0 | 500 | 500 | 2000 | 2000 | ppm | T-1 changed. |
| 2909 | Tetrachlorobenzene, 1,2,3,4- | 634-66-2 | 12.5 | 35 | 250 | 500 | mg/m3 | |
| 2910 | Tetrachlorobenzene, 1,2,4,5- | 95-94-3 | 10 | 30 | 50 | 500 | mg/m3 | |
| 2911 | Tetrachlorodibenzofuran, 2,3,7,8- | 51207-31-9 | 0.0006 | 0.002 | 0.002 | 0.002 | mg/m3 | |
| 2912 | Tetrachlorodibenzo-p-dioxin, 1,2,3,8- | 53555-02-5 | 0.004 | 0.0125 | 0.075 | 0.4 | mg/m3 | |
| 2913 | Tetrachloroethane (mixed isomers) | 25322-20-7 | 1.5 | 5 | 35 | 400 | ppm | |
| 2914 | Tetrachloroethane, 1,1,1,2- | 630-20-6 | 3 | 7.5 | 60 | 200 | ppm | |
| 2915 | Tetrachloroethane, 1,1,2,2- | 79-34-5 | 5 | 5 | 30 | 100 | ppm | |
| 2916 | Tetrachlorohexafluorobutane, 2,2,3,3-; (FLON; CFC316) | 375-34-8 | 0.2 | 0.6 | 4 | 20 | ppm | |
| 2917 | **Tetrachlorosilane; (Silicon chloride)** | **10026-04-7** | 0.15 | **0.45** | **5.5** | **25** | ppm | **New interim AEGL-1, -2, -3. ERPG-1, -2, -3.** All Ts changed. |
| 2918 | Tetracosafluorotetradecahydro-phenanthrene; (Perfluorophenanthrene) | 306-91-2 | 3.42 | 10.3 | 17.1 | 75 | mg/m3 | No toxicity data found. All Ts changed. |
| 2919 | Tetracyanoquinodimethane | 1518-16-7 | 0.4 | 1.25 | 10 | 50 | mg/m3 | |
| 2920 | Tetracycline hydrochloride | 64-75-5 | 0.75 | 2.5 | 15 | 500 | mg/m3 | |
| 2921 | Tetradecafluorohexane; (Perfluoro-n-hexane; Fluorinert FC72) | 355-42-0 | 200 | 600 | 4000 | 25000 | ppm | Rat LD50 > 5g/kg, rat LC lo > 40000 ppm |
| 2922 | Tetradecane; (N-tetradecane) | 629-59-4 | 0.015 | 0.04 | 0.3 | ***1250*** | ppm | T-0, T-1, T-2 changed. See LEL Formattinng Note. |
| 2923 | Tetradecanoic acid; (Myristic acid) | 544-63-8 | 0.35 | 1 | 7.5 | 35 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2924 | Tetradecyltrimethylammonium bromide | 1119-97-7 | 15 | 50 | 350 | 500 | mg/m3 | |
| 2925 | Tetraethyl lead | 78-00-2 | 0.117 | 0.468 | 0.781 | 62.4 | mg/m3 | |
| 2926 | **Tetraethyl orthosilicate; (Ethyl silicate; Tetraethoxysilane)** | **78-10-4** | 25 | **25** | **100** | **300** | ppm | **ERPG-1, -2, -3.** |
| 2927 | Tetraethyl pyrophosphate; (TEPP) | 107-49-3 | 0.05 | 0.15 | 1 | 5 | mg/m3 | |
| 2928 | Tetraethylammonium chloride | 56-34-8 | 0.25 | 0.75 | 6 | 500 | mg/m3 | |
| 2929 | Tetraethylene glycol | 112-60-7 | 125 | 350 | 500 | 500 | mg/m3 | |
| 2930 | Tetraethylene glycol diacrylate | 17831-71-9 | 1 | 3.5 | 25 | 350 | mg/m3 | ChemFinder states "pale yellow liquid", but gives MP = 112 C, insoluble in H2O. |
| 2931 | Tetraethylenepentamine | 112-57-2 | 5 | 15 | 350 | 500 | mg/m3 | WEEL added, toxicity data corrected. All Ts changed. |
| 2932 | Tetraethyltin; (Tetraethylstannane) | 597-64-8 | 0.198 | 0.396 | 7 | 49.5 | mg/m3 | |
| 2933 | **Tetrafluoroethane, 1,1,1,2-; (HFC 134a)** | **811-97-2** | 1000 | **8000** | **13000** | **27000** | ppm | **Final AEGLs -1,-2,-3.** |
| 2934 | Tetrafluoroethane, 1,1,2,2-; (HFC 134) | 359-35-3 | 0.805 | 2.41 | 4.02 | 80.5 | ppm | |
| 2935 | **Tetrafluoroethylene** | **116-14-3** | 2 | **220** | **550** | **3300** | ppm | **New interim AEGL-1, -2, -3. ERPG-1, -2, -3** T-1, T-2, T-3 changed. See LEL formatting note. |
| 2936 | Tetrafluorohydrazine | 10036-47-2 | 0.805 | 2.5 | 15 | 110 | ppm | |
| 2937 | Tetrahydro-2,5-dimethyl furan | 1003-38-9 | 15 | 50 | 350 | 500 | mg/m3 | Used Tetrahydrodimethylfuran CASRN 1320-94-1 |
| 2938 | **Tetrahydrofuran** | **109-99-9** | 50 | **100** | **500** | ***5000*** | ppm | **ERPG-1, -2, -3. PEL-TWA suppressed. T-0 changed.** See LEL Formattinng Note. |

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Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2939 | Tetrahydrofuran-d8 | 1693-74-9 | 100 | 100 | 500 | 5000 | ppm | Not found in databases. ChemFinder MW, MF and pchem data. |
| 2940 | Tetrahydronaphthalene, 1,2,3,4-; (Tetralin) | 119-64-2 | 0.2 | 0.6 | 5 | 20 | ppm | |
| 2941 | Tetrahydropyridine, 1,2,3,6- | 694-05-3 | 2.94 | 8.83 | 15 | 75 | ppm | HC&P, H&N listed, no toxicity data |
| 2942 | Tetramethoxypropane, 1,1,3,3-; (Malonaldehyde bis(dimethyl acetal)) | 102-52-3 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA and HC&P name inserted. No toxicity data found, assume HHR = 2.. |
| 2943 | **Tetramethoxysilane; (Methyl silicate)** | **681-84-5** | 0.91 | 0.91 | **0.91** | **1.4** | ppm | **Interim AEGL-2, -3, ERPG-2, -3.** All Ts changed. |
| 2944 | Tetramethyl ammonium, tetrahydroborate(1-) | 16883-45-7 | 0.3 | 1 | 6 | 35 | mg/m3 | |
| 2945 | Tetramethyl ethylene diamine | 110-18-9 | 10 | 30 | 125 | 125 | ppm | |
| 2946 | Tetramethyl lead | 75-74-1 | 0.0968 | 0.581 | 4 | 51.6 | mg/m3 | |
| 2947 | Tetramethyl-1,3-butanediamine, N,N,N',N'-; (Tetramethyl butanediamine) | 97-84-7 | 2 | 6 | 40 | 200 | mg/m3 | |
| 2948 | Tetramethyl-3,5-heptanedione, 2,2,6,6-; (Dipivaloylmethane) | 1118-71-4 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data found. |
| 2949 | Tetramethyl-5-decyne-4,7-diol, 2,4,7,9- | 126-86-3 | 10 | 30 | 50 | 250 | mg/m3 | |
| 2950 | Tetramethylammonium chloride | 75-57-0 | 0.2 | 0.6 | 4 | 20 | mg/m3 | |
| 2951 | Tetramethylammonium hydroxide | 75-59-2 | 0.06 | 0.15 | 1.25 | 6 | mg/m3 | |
| 2952 | Tetramethylammonium hydroxide pentahydrate | 10424-65-4 | 0.3 | 0.75 | 6 | 6 | mg/m3 | Used toxicity data for Tetramethylammonium hydroxide, 75-59-2 |
| 2953 | Tetramethylammonium silicate | 53116-81-7 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. MF, MW and SG ex MSDS. |

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Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2954 | Tetramethylbenzene, 1,2,3,5- | 527-53-7 | 0.15 | 0.5 | 3.5 | 500 | mg/m3 | |
| 2955 | Tetramethylbenzene, 1,2,4,5- | 95-93-2 | 30 | 100 | 500 | 500 | mg/m3 | |
| 2956 | Tetramethylbenzidine, 3,3',5,5'- | 54827-17-7 | 0.5 | 1.5 | 10 | 60 | mg/m3 | |
| 2957 | Tetramethylene sulfone; (Sulfolane; Tetrahydrothiophene-1,1-dioxide) | 126-33-0 | 125 | 200 | 200 | 200 | mg/m3 | Rat LC lo > 250 mg/m3. |
| 2958 | Tetramethylsilane | 75-76-3 | 5 | 15 | 25 | 125 | ppm | |
| 2959 | **Tetranitromethane** | **509-14-8** | 0.52 | 0.52 | **0.52** | **1.7** | ppm | **Final AEGL -2, -3.** |
| 2960 | Tetraoxadodecane, 2,5,8,11- | 112-49-2 | 1 | 3 | 20 | 100 | ppm | |
| 2961 | Tetraoxatetracosan-1-ol, 3,6,9,12-; ((Laurel alcohol tri(oxyethylene) ethanol; BRIJ 30) | 5274-68-0 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found |
| 2962 | Tetraphenylarsonium chloride; (Tetraphenylarsenium chloride) | 507-28-8 | 2.79 | 8.38 | 14 | 25 | mg/m3 | |
| 2963 | Tetrapotassium ethylenediaminetetraacetate; (EDTA tetrapotassium salt) | 5964-35-2 | 4 | 15 | 75 | 400 | mg/m3 | EDTA tetrapotassium salt, MW corrected to match MF. No toxicity data SAR |
| 2964 | Tetrapropoxysilane | 682-01-9 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed, no toxicity data found. MSDS pchem data, SRS HHR = 2. BP = 226 C in HC&P. |
| 2965 | Tetrapropylammonium hydroxide | 4499-86-9 | 0.15 | 0.5 | 3.5 | 15 | mg/m3 | |
| 2966 | Tetrapropylorthotitanate | 3087-37-4 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data. MSDS not helpful, assumed nonvolatile liquid. |
| 2967 | Tetrasodium pyrophosphate | 7722-88-5 | 5 | 15 | 25 | 500 | mg/m3 | TLV-TWA deleted. |
| 2968 | Tetrazole, 1H- | 288-94-8 | 10 | 30 | 50 | 150 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2969 | Thallium | 7440-28-0 | 0.1 | 0.3 | 2 | 15 | mg/m3 | |
| 2970 | Thallium chloride; (Thallium(I) chloride) | 7791-12-0 | 0.4 | 1.25 | 2 | 10 | mg/m3 | |
| 2971 | Thallium hydroxide | 12026-06-1 | 0.108 | 0.325 | 0.542 | 16.2 | mg/m3 | |
| 2972 | Thallium nitrate; (Thallium(I) nitrate) | 10102-45-1 | 0.13 | 0.391 | 19.6 | 19.6 | mg/m3 | |
| 2973 | Thallium nitrite | 13826-63-6 | 0.123 | 0.368 | 0.613 | 18.4 | mg/m3 | |
| 2974 | Thallium oxide | 1314-12-1 | 0.104 | 0.312 | 0.52 | 15 | mg/m3 | |
| 2975 | Thallium sulfate; (Sulfuric acid, dithallium(1+) salt) | 10031-59-1 | 0.107 | 0.32 | 2 | 16 | mg/m3 | RTECS & HSDB MW = 1528.67 |
| 2976 | Thallium(I) acetate; (Acetic acid, thallium(1+) salt) | 563-68-8 | 0.129 | 0.387 | 2.5 | 19.3 | mg/m3 | |
| 2977 | Thallium(I) carbonate (2:1) | 6533-73-9 | 0.4 | 1.25 | 2 | 10 | mg/m3 | |
| 2978 | Thallium(I) sulfate; (Sulfuric acid, dithallium(1+) salt) | 7446-18-6 | 0.123 | 0.37 | 0.617 | 1.5 | mg/m3 | PEL-TWA added, toxicity data updated, all Ts changed. |
| 2979 | Thallium(III) oxide | 1314-32-5 | 0.4 | 1.25 | 2 | 20 | mg/m3 | T-0, T-1 changed. |
| 2980 | Thallium(III) perchlorate hexahydrate | 15596-83-5 | 0.299 | 0.897 | 7.5 | 44.8 | mg/m3 | Used Thallium soluble compound limits, assumed to be "hexahydrate". |
| 2981 | Thallous malonate | 2757-18-8 | 0.125 | 0.375 | 2 | 18.7 | mg/m3 | |
| 2982 | Thenoyltrifluoroacetone | 326-91-0 | 1.25 | 3.5 | 25 | 125 | mg/m3 | |
| 2983 | Thioacetamide | 62-55-5 | 10 | 30 | 50 | 125 | mg/m3 | |
| 2984 | Thioacetic acid | 507-09-5 | 0.006 | 0.02 | 0.125 | 10 | ppm | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 2985 | Thiobis(4-chloro-6-methyl)phenol, 2,2'- | 4418-66-0 | 0.25 | 0.75 | 1.3 | 1.3 | mg/m3 | |
| 2986 | Thiocarbazide; (Thiocarbohydrazide) | 2231-57-4 | 20 | 60 | 100 | 100 | mg/m3 | |
| 2987 | Thiocresol, p-; (p-Toluenethiol) | 106-45-6 | 0.75 | 2.5 | 15 | 75 | mg/m3 | |
| 2988 | Thiocyanic acid, compound with guanidine (1:1); (Guanidene thiocyanate salt) | 593-84-0 | 1.25 | 3.5 | 25 | 125 | mg/m3 | |
| 2989 | Thiodiglycol | 111-48-8 | 25 | 75 | 500 | 500 | mg/m3 | |
| 2990 | Thiofanox; (Dacamox) | 39196-18-4 | 8.5 | 8.5 | 8.5 | 30 | mg/m3 | |
| 2991 | Thionazin; (Ethyl pyrazinyl phosphorothioate) | 297-97-2 | 0.6 | 2 | 3.5 | 3.5 | mg/m3 | |
| 2992 | **Thionyl chloride** | **7719-09-7** | 0.06 | **0.2** | **2.4** | **14** | ppm | **New interim AEGL-2, -3. ERPG-1, -2, -3.** T-0, T-2, T-3 changed. |
| 2993 | Thiophosphoryl chloride | 3982-91-0 | 1.25 | 4 | 25 | 60 | mg/m3 | |
| 2994 | Thiosemicarbazide | 79-19-6 | 0.075 | 0.2 | 1.5 | 4 | mg/m3 | |
| 2995 | Thiourea | 62-56-6 | 10 | 10 | 25 | 125 | mg/m3 | |
| 2996 | Thiram; (Tetramethylthioperoxydicarbonic diamide) | 137-26-8 | 5 | 5 | 5 | 100 | mg/m3 | |
| 2997 | Thorium | 7440-29-1 | 0.2 | 0.6 | 4 | 20 | mg/m3 | |
| 2998 | Thorium hydroxide | 13825-36-0 | 0.75 | 0.75 | 2.5 | 75 | mg/m3 | NLM has CASRN 12688-06-1, but no toxicity data found. **SAR.** |
| 2999 | Thorium nitrite | z-0079 | 0.05 | 0.125 | 0.75 | 75 | mg/m3 | **SAR** |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3000 | Thorium oxalate | 2040-52-0 | 42.1 | 126 | 210 | 500 | mg/m3 | TSCA listed, MF, MP ex Hawley. Ts based on Derived Response Level (DRL) for Th, converted from uCi/cm3 to mg/m3. |
| 3001 | Thorium oxide; (Thorium dioxide) | 1314-20-1 | 25 | 75 | 500 | 500 | mg/m3 | Rat it LD50 > 1140 mg/kg |
| 3002 | Thorium perchlorate | 16045-17-3 | 31.4 | 94.3 | 157 | 500 | mg/m3 | Ts based on Derived Response Level (DRL) for Th, converted from uCi/cm3 to mg/m3. |
| 3003 | Thorium(IV) nitrate | 13823-29-5 | 0.75 | 2 | 15 | 25 | mg/m3 | |
| 3004 | Thulium | 7440-30-4 | 10 | 30 | 50 | 250 | mg/m3 | SAX has no CASRN, no toxicity data found, but lanthanides have moderate toxicu=ity. |
| 3005 | Thulium chloride | 13537-18-3 | 15 | 50 | 350 | 500 | mg/m3 | "Heptahydrate" removed from name. |
| 3006 | Thulium oxide | 12036-44-1 | 11.4 | 34.3 | 60 | 300 | mg/m3 | No toxicity data found, PNOS used, no stable isotopes. T-2, T-3 changed. |
| 3007 | Thymol blue; (6,6-(3H-2,1-benzoxathiol-3-ylidene)dithymol, S,S-dioxide) | 76-61-9 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found. |
| 3008 | Thyodene; (Amylodextrin) | 9005-84-9 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3009 | Tin | 7440-31-5 | 2 | 6 | 100 | 100 | mg/m3 | |
| 3010 | Tin fluoroborate | 13814-97-6 | 4.93 | 14.8 | 25 | 246 | mg/m3 | Added. TSCA listed, no pchem data found. |
| 3011 | Tin hydroxide | 12026-24-3 | 2.57 | 7.72 | 12.9 | 129 | mg/m3 | |
| 3012 | Tin nitrate | 41480-79-9 | 4.09 | 12.3 | 20.4 | 204 | mg/m3 | |
| 3013 | Tin nitrite | 100737-27-7 | 3.55 | 10.7 | 17.8 | 178 | mg/m3 | |

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## Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3014 | Tin(II) chloride dihydrate; (Stannous chloride dihydrate) | 10025-69-1 | 3.8 | 11.4 | 20 | 190 | mg/m3 | |
| 3015 | Tin(II) oxide | 1332-29-2 | 2.54 | 7.62 | 12.7 | 60 | mg/m3 | Data corrected IDLH does not apply, T-3 changed. |
| 3016 | Tin(II) sulfate; (Stannous sulfate) | 7488-55-3 | 3.62 | 10.9 | 18.1 | 181 | mg/m3 | T-3 changed. |
| 3017 | Tin(IV) isopropoxide | 1184-61-8 | 0.35 | 0.7 | 15 | 87.4 | mg/m3 | MW and MF found, all Ts changed. |
| 3018 | Tin(IV) oxide; (Stannic oxide) | 18282-10-5 | 2.54 | 7.62 | 12.7 | 500 | mg/m3 | IDLH does not apply, T-3 changed. Rat oral LD50 > 20 g/kg |
| 3019 | Titanium | 7440-32-6 | 10 | 30 | 50 | 50 | mg/m3 | |
| 3020 | Titanium aluminide | 39410-63-4 | 10 | 30 | 50 | 250 | mg/m3 | TSCA lists CASRN = 12004-78-3 |
| 3021 | Titanium boride | 12045-63-5 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found |
| 3022 | Titanium carbide | 12070-08-5 | 12.5 | 37.5 | 62.6 | 300 | mg/m3 | No toxicity data found. |
| 3023 | Titanium chloride | 7705-07-9 | 0.5 | 1.5 | 10 | 50 | mg/m3 | |
| 3024 | Titanium hydride | 7704-98-5 | 1.5 | 5 | 35 | 150 | mg/m3 | |
| 3025 | Titanium oxide; (Titanium dioxide) | 13463-67-7 | 15 | 15 | 15 | 500 | mg/m3 | |
| 3026 | **Titanium tetrachloride** | **7550-45-0** | 0.0645 | **0.645** | **1.0** | **5.7** | ppm | **Interim AEGL-2, -3. ERPG-1, -2, -3.** All Ts changed. |
| 3027 | Titanium(II) oxide | 12137-20-1 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3028 | Titanium(III) fluoride | 13470-08-1 | 4.6 | 12.5 | 75 | 460 | mg/m3 | CASRN changed from 7783-63-3. |
| 3029 | Titanium-based alloy; (Titanium compounds) | z-0081 | 10 | 30 | 50 | 250 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3030 | **Toluene** | **108-88-3** | 20 | **200** | ***1200*** | ***4500*** | ppm | **Interim AEGL-1, -2, -3. T-0, T-2, T-3 changed.** See LEL Formattinng Note. |
| 3031 | Toluene diisocyanate (mixed isomers) | 26471-62-5 | 0.25 | 0.75 | 2 | 2 | ppm | T-2, T-3 changed. |
| 3032 | **Toluene-2,4-diisocyanate; (TDI)** | **584-84-9** | 0.005 | **0.020** | **0.083** | **0.51** | ppm | **Final AEGL-1, -2, -3.** |
| 3033 | Toluene-2,6-diamine; (2-Methyl-1,3-benzenediamine) | 823-40-5 | 1.5 | 4 | 30 | 150 | mg/m3 | LD50 estimated |
| 3034 | **Toluene-2,6-diisocyanate** | **91-08-7** | 0.005 | **0.020** | **0.083** | **0.51** | ppm | **Final AEGL-1, -2, -3.** |
| 3035 | Toluene-d8; (Deuterated toluene) | 2037-26-5 | 50 | 200 | 510 | 2900 | ppm | Not found in databases, pchem data ex ChemFinder. |
| 3036 | Toluenediamine, 2,4-; (2,4-Diaminotoluene) | 95-80-7 | 0.005 | 7.5 | 60 | 250 | mg/m3 | T-0 changed. |
| 3037 | Toluenesulfonamide, p-; (Pasam) | 70-55-3 | 1 | 3 | 20 | 100 | mg/m3 | ChemFinder MF, MW, but irritation not used. |
| 3038 | Toluenesulfonic acid, methyl ester, p- | 80-48-8 | 0.75 | 2.5 | 15 | 150 | mg/m3 | |
| 3039 | Toluenesulfonyl chloride, p- | 98-59-9 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 3040 | Toluenesulphonic acid monohydrate, para-; (4-Methylbenzenesulphonic acid monohydrate) | 6192-52-5 | 10 | 30 | 200 | 500 | mg/m3 | SAX CASRN = 104-15-4, MW = 172.21 without "hydrate"' |
| 3041 | Toluenethiol, m- | 108-40-7 | 0.2 | 0.6 | 4 | 20 | mg/m3 | |
| 3042 | Toluidine, m-; (3-Methylaniline) | 108-44-1 | 2 | 7.5 | 40 | 40 | ppm | Synonym corrected. |
| 3043 | Toluidine, o- | 95-53-4 | 5 | 5 | 5 | 50 | ppm | Name corrected. Conc. dep. Changed from N to Y, T-1, T-2 changed. |
| 3044 | Toluidine, p-; (4-Methylbenzenamine) | 106-49-0 | 2 | 15 | 125 | 150 | mg/m3 | New data inserted, T-1, T-2, T-3 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3045 | Toxaphene; (Chlorinated camphene) | 8001-35-2 | 0.5 | 1 | 20 | 200 | mg/m3 | |
| 3046 | Trans-1,4-dichlorobutene; (2-Butylene dichloride) | 110-57-6 | 0.04 | 0.125 | 0.861 | 7.5 | ppm | |
| 3047 | Transformer oil; (Mineral oil, petroleum distillates, hydrotreated (mild) light naphthenic) | 64742-53-6 | 5 | 15 | 100 | 500 | mg/m3 | Severe irritant rabbit skin. |
| 3048 | Tri(2-ethylhexyl) phosphate; (Tris(2-ethylhexyl)phosphate) | 78-42-2 | 12.5 | 12.5 | 12.5 | 12.5 | mg/m3 | |
| 3049 | Triacetin; (Triacetyl glycerin) | 102-76-1 | 12.5 | 35 | 250 | 500 | mg/m3 | |
| 3050 | Triamiphos | 1031-47-6 | 2 | 6 | 10 | 10 | mg/m3 | |
| 3051 | Triaryl sulfonium chloride salts | 109037-76-5 | 10 | 10 | 25 | 125 | mg/m3 | |
| 3052 | Triazine-1,3,5(2H,4H,6H)-triethanol, s-; (Onyxide 200) | 4719-04-4 | 3 | 10 | 60 | 350 | mg/m3 | |
| 3053 | Triazofos; (Triazophos) | 24017-47-8 | 0.5 | 1.5 | 2.8 | 125 | mg/m3 | |
| 3054 | Tribenzylamine | 620-40-6 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases, ChemFinder MF, MW, pchem data. |
| 3055 | Tributyl citrate | 77-94-1 | 1 | 3 | 20 | 75 | ppm | |
| 3056 | Tributyl phosphate | 126-73-8 | 0.459 | 2 | 15 | 30 | ppm | |
| 3057 | Tributyl(2,4-dichlorobenzyl)phosphonium chloride | 115-78-6 | 0.75 | 2 | 15 | 75 | mg/m3 | |
| 3058 | Tributyl-1-butanaminium iodide, N,N,N-; (Tetrabutylammonium iodide) | 311-28-4 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 3059 | Tributylphosphine | 998-40-3 | 0.35 | 1 | 7.5 | 40 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3060 | Tributyltetradecylphosphonium chloride | 81741-28-8 | 10 | 30 | 50 | 250 | mg/m3 | MW and MF from ChemFinder. Used PNOS default. |
| 3061 | Trichloramine; (Nitrogen chloride) | 10025-85-1 | 0.125 | 0.35 | 2.5 | 25 | ppm | |
| 3062 | **Trichloro(dichlorophenyl) silane; (Dichlorophenyltrichlorosilane)** | **27137-85-5** | 0.2 | **0.60** | **7.3** | **33** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |
| 3063 | Trichloro-2,2,2-trifluoroethane, 1,1,1- | 354-58-5 | 250 | 500 | 500 | 500 | mg/m3 | |
| 3064 | Trichloroacetaldehyde hydrate; (Chloral hydrate) | 302-17-0 | 10 | 30 | 50 | 50 | mg/m3 | |
| 3065 | Trichloroacetaldehyde; (Chloral) | 75-87-6 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 3066 | Trichloroacetic acid | 76-03-9 | 1 | 1 | 2 | 25 | ppm | |
| 3067 | Trichloroacetyl chloride | 76-02-8 | 0.03 | 0.075 | 0.606 | 6 | ppm | |
| 3068 | Trichlorobenzene, 1,2,3- | 87-61-6 | 6 | 15 | 125 | 500 | mg/m3 | |
| 3069 | Trichlorobenzene, 1,2,4- | 120-82-1 | 5 | 5 | 5 | 40 | ppm | |
| 3070 | **Trichloroethane, 1,1,1-; (Methyl chloroform)** | **71-55-6** | 230 | **230** | **600** | **4200** | ppm | **Interim AEGL-1, -2, -3.** |
| 3071 | Trichloroethane, 1,1,2- | 79-00-5 | 10 | 10 | 15 | 100 | ppm | |
| 3072 | Trichloroethanol, 2,2,2- | 115-20-8 | 12.5 | 35 | 250 | 250 | mg/m3 | |
| 3073 | **Trichloroethylene** | **79-01-6** | 10 | **130** | **450** | **3800** | ppm | **Interim AEGL-1, -2, -3.** PEL-TWA suppressed. T-0 changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3074 | **Trichloroethylsilane; (Ethyl trichlorosilane)** | **115-21-9** | 0.2 | **0.60** | **7.3** | **33** | ppm | **Interim AEGL-1, -2, -3.** All Ts changed. |
| 3075 | Trichlorofluoromethane; (Fluorotrichloromethane, Freon 11) | 75-69-4 | 1000 | 1000 | 1500 | 2000 | ppm | T-0, T-1 changed. |
| 3076 | Trichlorohydroxyethyl dimethylphosphonate; ((2,2,2-Trichloro-1-hydroxyethyl)dimethylphosphonate; Trichlorphon) | 52-68-6 | 1 | 3 | 5 | 500 | mg/m3 | |
| 3077 | Trichloroisocyanuric acid | 87-90-1 | 30 | 75 | 500 | 500 | mg/m3 | Added. |
| 3078 | Trichloronaphthalene | 1321-65-9 | 5 | 15 | 25 | 50 | mg/m3 | |
| 3079 | Trichloronate; (Ethyl trichlorophenylethylphosphonothioate) | 327-98-0 | 2 | 6 | 10 | 300 | mg/m3 | |
| 3080 | Trichlorophenol, 2,3,6- | 933-75-5 | 1.25 | 4 | 25 | 125 | mg/m3 | |
| 3081 | Trichlorophenol, 2,4,5- | 95-95-4 | 10 | 30 | 350 | 350 | mg/m3 | |
| 3082 | Trichlorophenol, 2,4,6- | 88-06-2 | 10 | 30 | 350 | 350 | mg/m3 | |
| 3083 | Trichlorophenoxy)propionic acid, 2-(2,4,5-; (Silvex) | 93-72-1 | 10 | 30 | 200 | 250 | mg/m3 | |
| 3084 | Trichlorophenoxyacetic acid, 2,4,5-; (2,4,5-T) | 93-76-5 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3085 | **Trichlorophenylsilane** | **98-13-5** | 0.2 | **0.60** | **7.3** | **33** | ppm | **New interim AEGL-1, -2, -3.** All nTs changed. |
| 3086 | Trichloropropane, 1,2,3- | 96-18-4 | 10 | 10 | 10 | 100 | ppm | PEL-TWA not used. |
| 3087 | **Trichlorosilane** | **10025-78-2** | 0.2 | **0.60** | **7.3** | **33** | ppm | **New interim AEGL-1, -2, -3.** All Ts changed. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3088 | Trichlorotrifluoroethane; (Freon 113; CFC113) | 76-13-1 | 1000 | 1250 | 1500 | 2000 | ppm | |
| 3089 | Tridecane | 629-50-5 | 0.015 | 0.05 | 0.35 | 6 | ppm | |
| 3090 | Tridodecylamine; (Alamine 304; N,N-didodecyl-1-dodecanamine) | 102-87-4 | 7.5 | 25 | 150 | 500 | mg/m3 | TSCA listed. No toxicity data found. HHR = 2 in MSDS. |
| 3091 | Triethanolamine; (Trihydroxytriethylamine) | 102-71-6 | 5 | 5 | 20 | 500 | mg/m3 | |
| 3092 | **Triethoxysilane** | **998-30-1** | 0.05 | **0.5** | **4** | **10** | ppm | **ERPG-1, -2, -3.** T-1, T-2, T-3 changed. |
| 3093 | Triethoxyvinylsilane | 78-08-0 | 15 | 50 | 350 | 1500 | ppm | |
| 3094 | Triethyl phosphate; (TEP) | 78-40-0 | 75 | 200 | 500 | 500 | mg/m3 | T-0, T-1, T-2 changed. |
| 3095 | Triethyl phosphite | 122-52-1 | 2 | 6 | 40 | 200 | ppm | |
| 3096 | Triethylaluminum | 97-93-8 | 8.46 | 8.46 | 50 | 250 | mg/m3 | |
| 3097 | Triethylamine | 121-44-8 | 1 | 3 | 3 | 200 | ppm | PEL-TWA not used. |
| 3098 | Triethylammonium bicarbonate buffer ph 8.5 | 15715-58-9 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases. |
| 3099 | Triethylbenzene (mixed isomers) | 25340-18-5 | 6 | 15 | 125 | 600 | ppm | |
| 3100 | Triethylene glycol | 112-27-6 | 300 | 500 | 500 | 500 | mg/m3 | |
| 3101 | Triethylene glycol monomethyl ether | 112-35-6 | 40 | 125 | 500 | 500 | mg/m3 | |
| 3102 | Triethylenetetramine | 112-24-3 | 1 | 7.5 | 60 | 150 | ppm | |
| 3103 | Triethylethanaminium hydroxide, N,N,N-; (Tetraethyl ammonium hydroxide) | 77-98-5 | 0.35 | 1 | 7.5 | 35 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3104 | Triethyloxonium tetrafluoroborate | 368-39-8 | 6.25 | 18.8 | 31.3 | 500 | mg/m3 | TSCA listed, no toxicity or pchem data found, MSDS HHR = 3. |
| 3105 | TrietHylphosphorothioate; (Tepto) | 126-68-1 | 0.15 | 0.5 | 3.5 | 15 | ppm | |
| 3106 | Trifluoro-1-(2-thienyl)-1,3-butanedione, 4,4,4-, boron difluoride | 22502-27-8 | 0.75 | 2.5 | 15 | 75 | mg/m3 | |
| 3107 | Trifluoro-4-nitro-m-cresol, alpha,alpha,alpha-; (4-Nitro-3-(trifluoromethyl)phenol) | 88-30-2 | 0.6 | 1.5 | 12.5 | 60 | mg/m3 | |
| 3108 | Trifluoroacetaldehyde hydrate; (2,2,2-Trifluoro-1,1-ethanediol) | 421-53-4 | 2.5 | 7.5 | 50 | 250 | mg/m3 | |
| 3109 | Trifluoroacetic acid anhydride | 407-25-0 | 4.61 | 13.8 | 23 | 461 | mg/m3 | |
| 3110 | Trifluoroacetic acid; (Trifluoroethanoic acid) | 76-05-1 | 10 | 15 | 15 | 15 | ppm | |
| 3111 | Trifluoroacetyl chloride | 354-32-5 | 1.07 | 3.21 | 50 | 249 | ppm | |
| 3112 | Trifluoroethanol, 2,2,2-; (Trifluoroethyl alcohol) | 75-89-8 | 0.3 | 7.5 | 60 | 60 | ppm | |
| 3113 | Trifluoromethanesulfonic acid; (Triflic acid) | 1493-13-6 | 0.1 | 0.3 | 2 | 10 | ppm | No toxicity data found. |
| 3114 | Trifluoromethanesulfonic anhydride | 358-23-6 | 1.5 | 5 | 35 | 150 | mg/m3 | Not found in databases. HHR = 3 from MSDS |
| 3115 | Trifluoromethyl iodide; (Iodotrifluoromethane) | 2314-97-8 | 2000 | 4000 | 4000 | 4000 | ppm | |
| 3116 | Trifluoromethyl)benzenamine, 3-( ; (m-Aminobenzal fluoride) | 98-16-8 | 0.75 | 2.5 | 4.4 | 150 | mg/m3 | |
| 3117 | Trifluralin; (2,6-Dinitro-N,N-dipropyl-4-(trifluoromethyl) benzenamine) | 1582-09-8 | 0.025 | 0.075 | 0.6 | 300 | mg/m3 | |
| 3118 | Triisobutylaluminum | 100-99-2 | 14.7 | 44.1 | 500 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3119 | Trimethoxy(3,3,3-fluoropropyl) silane | 429-60-7 | 9.57 | 28.7 | 50 | 500 | mg/m3 | TSCA listed, no toxicity or pchem data found. |
| 3120 | Trimethoxyboroxine | 102-24-9 | 20 | 60 | 400 | 500 | mg/m3 | |
| 3121 | **Trimethoxysilane** | **2487-90-3** | 0.05 | **0.5** | **0.83** | **2.5** | ppm | **Interim AEGL-2. -3. ERPG-1, -2, -3.** T-2, T-3 changed**.** |
| 3122 | Trimethoxysilyl)-1-propanamine, 3-( | 13822-56-5 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, H&N listed, no toxicity data. Assumed nonvolatile. |
| 3123 | Trimethoxysilyl-1-Propanethiol, 3-; (3-Mercaptopropyltrimethoxysilane) | 4420-74-0 | 3 | 7.5 | 60 | 300 | mg/m3 | Rat LD50 = 730uL/kg |
| 3124 | Trimethoxysilylpropyl methacrylate, 3-; (Silane A-174) | 2530-85-0 | 6 | 15 | 125 | 500 | mg/m3 | |
| 3125 | Trimethoxysilylpropyl) ethylenediamine, N-(3- | 1760-24-3 | 30 | 75 | 500 | 500 | mg/m3 | |
| 3126 | Trimethoxyvinylsilane; (Vinyltrimethoxysilane; Silane, trimethoxyvinyl) | 2768-02-7 | 150 | 400 | 1250 | 1250 | ppm | All Ts changed. |
| 3127 | Trimethyl borate | 121-43-7 | 6 | 15 | 125 | 600 | ppm | |
| 3128 | Trimethyl N', 2-hydroxyethyl-propylenediamine | 82136-26-3 | 10 | 30 | 50 | 250 | mg/m3 | Added. Not found in databases. |
| 3129 | Trimethyl phosphate; (TMP) | 512-56-1 | 5 | 15 | 60 | 60 | ppm | |
| 3130 | Trimethyl phosphite | 121-45-9 | 2 | 60 | 500 | 750 | ppm | |
| 3131 | Trimethyl-1,3-pentanediol monoisobutyrate, 2,2,4-; (Texanol) | 25265-77-4 | 25 | 75 | 500 | 500 | mg/m3 | |
| 3132 | Trimethyl-1-pentene, 2,4,4-; (Diisobutylene) | 107-39-1 | 75 | 225 | 375 | ***1500*** | ppm | Iso-octane not listed as synonym for this CASRN. No toxicity data found. See LEL Formattinng Note. |
| 3133 | Trimethyl-2,5,8,11-tetraoxatetradecan-13-ol, 4,7,10- | 20324-34-9 | 10 | 30 | 50 | 250 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3134 | Trimethyl-2-hexene, 4,4,5- | 55702-61-9 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3135 | Trimethyl-2-oxepanone (mixed isomers); (Hexanoic acid, 6-hydroxytrimethyl, epsilon-lactone) | 64047-30-9 | 30 | 75 | 500 | 500 | mg/m3 | Not in ChemBank, toxicity data ex SAX. No pchem data found. |
| 3136 | Trimethylacetic acid; (Pivalic acid) | 75-98-9 | 3.5 | 10 | 75 | 400 | mg/m3 | |
| 3137 | Trimethylacetyl chloride; (Pivaloyl chloride) | 3282-30-2 | 0.1 | 0.3 | 2 | 10 | ppm | No toxicity data found. |
| 3138 | Trimethylaluminum | 75-24-1 | 5.34 | 16 | 26.7 | 125 | mg/m3 | No toxicity data found, used Al alkyl cmpnds. MSDS says very corrosive, but use of "Y" would give all Ts equal to 2 mg/m3 |
| 3139 | **Trimethylamine** | **75-50-3** | 5 | **8.0** | **120** | **380** | ppm | **New interim AEGL-1, -2, -3. ERPG-2, -3;** odor-based ERPG-1 ignored. T-1, T-2, T-3 changed. |
| 3140 | Trimethylaniline, 2,4,6- | 88-05-1 | 0.125 | 0.4 | 2.9 | 40 | mg/m3 | |
| 3141 | **Trimethylbenzene, 1,2,3-** | **526-73-8** | 25 | **140** | **360** | ***1500*** | ppm | **Interim AEGL-1, -2. T-1, T-2, T-3 changed.** See LEL Formattinng Note. |
| 3142 | **Trimethylbenzene, 1,2,4-; (Pseudocumene)** | **95-63-6** | 25 | **140** | **360** | ***1500*** | ppm | **Interim AEGL-1, -2. T-1, T-2 changed.** See LEL Formattinng Note. |
| 3143 | Trimethylbicyclo(3.1.1)-2-hept-2-ene, 2,6,6-; (alpha-Pinene) | 80-56-8 | 0.00015 | 0.0005 | 0.0035 | 0.015 | mg/m3 | |
| 3144 | **Trimethylchlorosilane** | **75-77-4** | 0.6 | **1.8** | **32** | **130** | ppm | **Interim AEGL-1, -2, -3.** |
| 3145 | Trimethyldecane, 2,2,8- | 62238-01-1 | 46.5 | 46.5 | 239 | ***1250*** | ppm | NIOSH limits for Alkanes used. See LEL Formattinng Note. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3146 | Trimethyldecane, 2,5,6- | 62108-23-0 | 46.5 | 46.5 | 239 | ***1250*** | ppm | NIOSH limits for Alkanes used. See LEL Formattinng Note. |
| 3147 | Trimethyldecane, 3,3,4- | 49622-18-6 | 46.5 | 46.5 | 239 | ***1250*** | ppm | CASRN changed from 62338-09-4, NIOSH limits for Alkanes used. See LEL Formattinng Note. |
| 3148 | Trimethylene oxide; (Oxetane) | 503-30-0 | 0.1 | 0.3 | 2 | 75 | mg/m3 | SAX BP = 480C differs from other sources. |
| 3149 | Trimethylgallium | 1445-79-0 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA, HC&P listed. No toxicity data found. |
| 3150 | Trimethylhexane, 2,2,5- | 3522-94-9 | 66.8 | 66.8 | 343 | ***1500*** | ppm | NIOSH limits for Alkanes used. See LEL Formattinng Note. |
| 3151 | Trimethyloctane | 98060-52-7 | 54.8 | 54.8 | 282 | ***1000*** | ppm | NIOSH limits for Alkanes used. See LEL Formattinng Note. |
| 3152 | Trimethyloctane, 2,2,6- | 62016-28-8 | 54.8 | 54.8 | 282 | ***1250*** | ppm | NIOSH limits for Alkanes used. See LEL Formattinng Note. |
| 3153 | Trimethyloctane, 2,3,7- | 62016-34-6 | 54.8 | 54.8 | 282 | ***1250*** | ppm | NIOSH limits for Alkanes used. See LEL Formattinng Note. |
| 3154 | Trimethyloctane, 2,4,6- | 62016-37-9 | 54.8 | 54.8 | 282 | ***1250*** | ppm | NIOSH limits for Alkanes used. See LEL Formattinng Note. |
| 3155 | Trimethyloctane, 2,6,6- | 54166-32-4 | 54.8 | 54.8 | 282 | ***1250*** | ppm | NIOSH limits for Alkanes used. See LEL Formattinng Note. |
| 3156 | Trimethylolpropane ethoxylate | 50586-59-9 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data. No useful data in MSDS assumed nonvolatile. |
| 3157 | Trimethylolpropane phosphite | 824-11-3 | 0.125 | 0.35 | 2.5 | 6 | mg/m3 | |
| 3158 | Trimethylopropane methylated copolymer | 71342-93-3 | 10 | 30 | 50 | 250 | mg/m3 | Added. TSCA listed. No toxicity or pchem data found. |
| 3159 | Trimethylphosphine | 594-09-2 | 0.1 | 0.3 | 2 | 10 | ppm | |
| 3160 | Trimethylpyridine, 2,4,6- | 108-75-8 | 1.5 | 5 | 35 | 150 | ppm | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3161 | Trimethylsilanol | 1066-40-6 | 0.05 | 0.5 | 2 | 5 | ppm | **SAR** |
| 3162 | Trimethylsilylmethyllithium | 1822-00-0 | 1.5 | 5 | 35 | 150 | mg/m3 | No toxicity data found, used HHR = 3. |
| 3163 | Trimethyltin chloride; (Chlorotrimethylstannane) | 1066-45-1 | 0.168 | 0.336 | 20 | 42 | mg/m3 | |
| 3164 | Trimethyltriheptylamine, 6,6',6''-; (Triisooctylamine) | 2757-28-0 | 10 | 15 | 125 | 500 | mg/m3 | |
| 3165 | Tri-n-butylamine | 102-82-9 | 0.02 | 0.06 | 0.4 | 7.5 | ppm | |
| 3166 | Trinitrobenzene, 1,3,5- | 99-35-4 | 10 | 30 | 50 | 125 | mg/m3 | |
| 3167 | Trinitrochlorobenzene; (Picryl chloride) | 28260-61-9 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3168 | Trinitrophenylmethylnitramine, 2,4,6-; (Tetryl) | 479-45-8 | 1.5 | 7.5 | 50 | 500 | mg/m3 | |
| 3169 | Trinitrotoluene, 2,4,6- | 118-96-7 | 1.5 | 7.5 | 60 | 500 | mg/m3 | |
| 3170 | Tri-n-octylphosphine oxide; (Trioctylphophine oxide) | 78-50-2 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3171 | Trioctylamine; (N,N-Dioctyl-1-octanamine) | 1116-76-3 | 4 | 12.5 | 75 | 400 | mg/m3 | |
| 3172 | Trioctylphosphine; (Tri-n-octylphosphine) | 4731-53-7 | 0.5 | 1.5 | 10 | 50 | mg/m3 | No pchem data found. Mouse LC50 > 1600 mg/m3. |
| 3173 | Tri-o-tolyl phosphate; (Triorthocresyl phosphate) | 78-30-8 | 0.1 | 0.3 | 0.6 | 40 | ppm | |
| 3174 | Tripentaerythritol | 78-24-0 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found |
| 3175 | Triphenyl phosphate | 115-86-6 | 3 | 9 | 500 | 500 | mg/m3 | |
| 3176 | Triphenyl phosphite | 101-02-0 | 7.5 | 25 | 150 | 200 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3177 | Triphenylborane | 960-71-4 | 7.5 | 25 | 150 | 500 | mg/m3 | Severe irritant, but no toxicity data found. |
| 3178 | Triphenylethoxysilane | 1516-80-9 | 10 | 30 | 50 | 250 | mg/m3 | TSCA, HC&P listed, no toxicity data |
| 3179 | Triphenylolmethane triglycidyl ether | 66072-38-6 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data, no MSDS, assumed solid or nonvolatile liquid. |
| 3180 | Triphenylphosphine | 603-35-0 | 1.5 | 5 | 40 | 500 | mg/m3 | |
| 3181 | Triphenyltin chloride; (Chlorotriphenylstannane) | 639-58-7 | 0.325 | 0.65 | 20 | 81.2 | mg/m3 | |
| 3182 | Tripotassium (2-hydroxyethyl)ethylenediaminetriacetate; (Tripotassium HEDTA) | 62029-50-9 | 0.35 | 1 | 7.5 | 40 | ppm | TSCA listed. Synonym changed. **SAR** |
| 3183 | Tripotassium arsenate | 13464-36-3 | 0.0342 | 0.103 | 0.171 | 17.1 | mg/m3 | |
| 3184 | Tripropylamine | 102-69-2 | 3.5 | 10 | 75 | 350 | ppm | All Ts changed. |
| 3185 | Tripropylene glycol methyl ether | 25498-49-1 | 12.5 | 40 | 250 | 500 | mg/m3 | Pchem data ex CHRIS |
| 3186 | Tripropylene glycol monomethyl ether; (1-(2-(2-Methoxy-1-methylethoxy)-1-methylethoxy)-2-propanol) | 20324-33-8 | 0.004 | 0.0125 | 0.1 | 150 | ppm | |
| 3187 | Tripropylene glycol; (((1-methyl-1,2-ethanediyl)bis(oxy))bispropanol) | 24800-44-0 | 1.5 | 5 | 35 | 150 | ppm | CASRN changed from 1638-16-0. Both CASRNs in TSCA and ChemFinder. |
| 3188 | Tris hydrochloride; (Trizma hydrochloride; Tris(hydroxymethyl) aminomethane hydrochloride) | 1185-53-1 | 7.5 | 25 | 150 | 500 | mg/m3 | CASRN changed to 1185-53-1 (TSCA, ChemFinder and Sigma-Aldrich). Not found in databases, data ex MSDS. |
| 3189 | Tris((hydroxymethyl)methylamino)propane-1-sulphonic acid, 3- | 29915-38-6 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity data. ChemFinder MW, MP |
| 3190 | Tris(2-aminoethyl)amine | 4097-89-6 | 2 | 6 | 40 | 100 | mg/m3 | No pchem data found. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3191 | Tris(2-chloroethyl) phosphate; (2-Chloroethanol phosphate) | 115-96-8 | 7.5 | 20 | 150 | 500 | mg/m3 | |
| 3192 | **Tris(2-chloroethyl)amine; (Nitrogen mustard-3)** | **555-77-1** | 0.001 | 0.003 | **0.022** | **0.37** | mg/m3 | **Interim AEGL-2, -3.** All Ts changed. |
| 3193 | Tris(dimethylaminomethyl)phenol, 2,4,6- | 90-72-2 | 5 | 15 | 100 | 500 | mg/m3 | |
| 3194 | Tris-hydroxymethylaminomethane; (THAM) | 77-86-1 | 25 | 75 | 500 | 500 | mg/m3 | |
| 3195 | Trisodium arsenate | 13464-38-5 | 0.0277 | 0.0832 | 0.139 | 13.9 | mg/m3 | MW and MF vary in sources. |
| 3196 | Trisodium arsenate, heptahydrate; (Arsenic(V) acid, trisodium salt, heptahydrate (1:3:7)) | 64070-83-3 | 0.0446 | 0.134 | 0.223 | 22.3 | mg/m3 | |
| 3197 | Trisodium citrate | 68-04-2 | 0.6 | 1.5 | 12.5 | 60 | ppm | HSDB and TSCA have different MF |
| 3198 | Trisodium N-hydroxyethylethylenediaminetriacetate; (Trisodium N-(2-hydroxyethyl)ethylenediaminetriacetate) | 139-89-9 | 4 | 12.5 | 75 | 400 | mg/m3 | Name corrected. HSDB, HC&P MW = 344.2, but RTECS, H&N MW =347.27 SAR |
| 3199 | Triton X-100; (Poly(oxyethylene)-p-tert-octylphenyl ether) | 9002-93-1 | 15 | 40 | 300 | 500 | mg/m3 | |
| 3200 | Trypan blue | 72-57-1 | 10 | 30 | 50 | 500 | mg/m3 | |
| 3201 | Trypsin; (Parenzyme; Chymotrypsin inhibitor) | 9002-07-7 | 0.025 | 0.075 | 0.6 | 30 | mg/m3 | |
| 3202 | Trypsinogen | 9002-08-8 | 7.5 | 25 | 150 | 500 | mg/m3 | Not found in databases, MSDS HHR = 2. |
| 3203 | Tungsten | 7440-33-7 | 5 | 10 | 10 | 500 | mg/m3 | |
| 3204 | Tungsten boride | 12007-09-9 | 5.29 | 10.6 | 26.5 | 125 | mg/m3 | TSCA, HC&P listed, no toxicity data. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3205 | Tungsten carbide | 12070-12-1 | 5.33 | 10.7 | 10.7 | 10.7 | mg/m3 | No toxicity data found. |
| 3206 | Tungsten hexafluoride | 7783-82-6 | 1.62 | 4.86 | 75 | 405 | mg/m3 | |
| 3207 | Tungsten trioxide; (Tungsten(VI) oxide) | 1314-35-8 | 6.31 | 12.6 | 400 | 400 | mg/m3 | |
| 3208 | Tungsten(IV) chloride; (Tungsten tetrachloride) | 13470-13-8 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity or pchem data found. |
| 3209 | Tungsten(IV) oxide | 12036-22-5 | 5.87 | 11.7 | 11.7 | 11.7 | mg/m3 | |
| 3210 | Tungstic acid | 7783-03-1 | 6.8 | 13.6 | 13.6 | 13.6 | mg/m3 | No toxicity data found. Insoluble W compound. |
| 3211 | Tungstosilicic acid | 11130-20-4 | 6.52 | 13 | 13 | 13 | mg/m3 | TSCA listed, no pchem data. |
| 3212 | Turpentine | 8006-64-2 | 20 | 20 | 20 | ***800*** | ppm | PEL-TWA suppressed. T-0, T-1, T-2 changed. See LEL Formattinng Note. |
| 3213 | Undecane | 1120-21-4 | 0.35 | 1 | 6 | 35 | ppm | |
| 3214 | Undecanone, 2-; (Methyl nonyl ketone) | 112-12-9 | 0.2 | 0.6 | 4 | 300 | ppm | |
| 3215 | Uranine; (Fluorescein sodium) | 518-47-8 | 12.5 | 40 | 250 | 500 | mg/m3 | |
| 3216 | Uranium | 7440-61-1 | 0.05 | 0.6 | 2 | 10 | mg/m3 | |
| 3217 | **Uranium hexafluoride; (Uranium fluoride)** | **7783-81-5** | 0.0739 | **3.6** | **9.6** | **36** | mg/m3 | **Final AEGL-1, -2, -3.** |
| 3218 | Uranium hydride; (Uranium(III) hydride) | 13598-56-6 | 0.0506 | 0.608 | 2 | 10.1 | mg/m3 | |
| 3219 | **Uranium oxide; (Triuranium octaoxide)** | **1344-59-8** | 0.059 | 0.707 | **10** | **50** | mg/m3 | **ERPG-2, -3** |
| 3220 | Uranium telluride | 12138-37-3 | 0.104 | 1.24 | 4 | 20.7 | mg/m3 | Name and CASRN changed. Insoluble U compound. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3221 | Uranium telluride A | 12138-37-3a | 0.0857 | 1.03 | 3.5 | 17.1 | mg/m3 | Treated as insoluble. |
| 3222 | **Uranium trioxide** | **1344-58-7** | 0.0601 | 0.5 | **0.5** | **3** | mg/m3 | Added. **New ERPG-2, -3.** |
| 3223 | **Uranium(IV) oxide; (Uranium dioxide)** | **1344-57-6** | 0.0567 | 0.681 | **10** | **30** | mg/m3 | **ERPG-2, -3.** |
| 3224 | Uranium: insoluble compounds | z-0083 | 0.05 | 0.6 | 2 | 10 | mg/m3 | Insoluble U compound. T-0 changed. |
| 3225 | Uranium: soluble compounds | z-0084 | 0.05 | 0.6 | 2 | 10 | mg/m3 | |
| 3226 | Uranyl acetate; (Uranium oxyacetate) | 541-09-3 | 0.0891 | 1.07 | 3.5 | 17.8 | mg/m3 | |
| 3227 | Uranyl fluoride; (Uranium oxyfluoride) | 13536-84-0 | 0.0647 | 0.776 | 2.5 | 12.9 | mg/m3 | |
| 3228 | Uranyl hydroxide | 13470-18-3a | 0.0639 | 0.766 | 2.5 | 12.8 | mg/m3 | |
| 3229 | Uranyl hydroxide (liquids) | 13470-18-3b | 0.0639 | 0.766 | 2.5 | 12.8 | mg/m3 | |
| 3230 | Uranyl nitrate (solid); (Bis(nitrato-O,O')dioxouranium) | 10102-06-4 | 0.0828 | 0.993 | 3 | 16.6 | mg/m3 | |
| 3231 | Uranyl nitrate (yellow salt) | 36478-76-9 | 0.0828 | 0.993 | 0.993 | 16.6 | mg/m3 | |
| 3232 | Uranyl nitrate hexahydrate | 13520-83-7 | 0.105 | 1.27 | 1.27 | 21.1 | mg/m3 | |
| 3233 | Uranyl nitrite (liquids) | z-0087 | 0.076 | 0.913 | 3 | 15.2 | mg/m3 | |
| 3234 | Urea | 57-13-6 | 10 | 10 | 15 | 500 | mg/m3 | |
| 3235 | Urea peroxide; (Urea hydrogen peroxide) | 124-43-6 | 1.5 | 5 | 35 | 150 | mg/m3 | Added. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3236 | Urea, substituted; (Urea, N,N''-(4-methyl-1,3-phenylene)bis[N',N'-dimethyl-) | 17526-94-2 | 1.5 | 5 | 35 | 150 | mg/m3 | Added. TSCA listed, no toxicity data found. Based on MSDS NFPA HHR = 2. |
| 3237 | Urethane; (Carbamic acid, ethyl ester; Ethyl carbamate) | 51-79-6 | 500 | 500 | 500 | 500 | mg/m3 | |
| 3238 | Valeric acid | 109-52-4 | 30 | 75 | 500 | 500 | mg/m3 | |
| 3239 | Valinomycin | 2001-95-8 | 0.5 | 1.5 | 2.5 | 2.5 | mg/m3 | |
| 3240 | Vanadium | 7440-62-2 | 0.05 | 0.15 | 0.5 | 35 | mg/m3 | |
| 3241 | Vanadium pentoxide; (Vanadium(V) oxide) | 1314-62-1 | 0.05 | 0.075 | 0.5 | 35 | mg/m3 | T-1 changed. |
| 3242 | Vanadium sulfate | 16785-81-2 | 0.5 | 1.5 | 10 | 50 | mg/m3 | |
| 3243 | Vanadium tetrachloride | 7632-51-1 | 0.6 | 2 | 12.5 | 60 | mg/m3 | |
| 3244 | Vanadium trioxide | 1314-34-7 | 0.0412 | 0.124 | 50 | 50 | mg/m3 | |
| 3245 | Vanadium(II) sulfate heptahydrate | 36907-42-3 | 0.05 | 0.05 | 0.05 | 0.25 | mg/m3 | |
| 3246 | Vanadium(III) sulfate | 13701-70-7 | 0.107 | 0.107 | 0.107 | 0.5 | mg/m3 | |
| 3247 | Vanadium, trichlorooxo | 7727-18-6 | 0.075 | 0.25 | 1.5 | 7.5 | ppm | |
| 3248 | Vanadyl sulfate pentahydrate; (Vanadium(IV) sulfate oxide hydrate) | 12439-96-2 | 0.0696 | 3 | 20 | 200 | mg/m3 | |
| 3249 | Vanadyl sulfate; (Oxysulfatovanadium) | 27774-13-6 | 0.05 | 0.075 | 0.5 | 35 | mg/m3 | T-1 changed. |
| 3250 | Vanilin | 121-33-5 | 5 | 15 | 125 | 500 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3251 | Vegetable oil | 68956-68-3 | 15 | 30 | 50 | 500 | mg/m3 | |
| 3252 | Veratraldehyde | 120-14-9 | 7.5 | 25 | 150 | 500 | mg/m3 | |
| 3253 | Vermiculite, exfoliated | 1318-00-9 | 10 | 30 | 50 | 250 | mg/m3 | No toxicity data found |
| 3254 | Vinyl 2-chloroethylsulfide; (2-Chloroethylthio ethene) | 81142-02-1 | 0.15 | 0.4 | 3 | 15 | mg/m3 | Not found in databases. |
| 3255 | **Vinyl acetate** | **108-05-4** | 6.7 | **6.7** | **180** | **610** | ppm | **Interim AEGL-1, -2, -3. ERPG-1, -2, -3** All Ts changed. |
| 3256 | Vinyl acetate-vinyl chloride copolymer; (Acetic acid, vinyl ester, polymer with chloroethylene) | 9003-22-9 | 35 | 100 | 500 | 500 | mg/m3 | |
| 3257 | Vinyl acrylic resin; (Vinyl acetate, polymer with n-butyl acrylate) | 25067-01-0 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3258 | Vinyl bromide | 593-60-2 | 5 | 15 | 40 | 50 | ppm | |
| 3259 | **Vinyl chloride** | **75-01-4** | 1 | **250** | **1200** | ***4800*** | ppm | **Interim AEGL-1, -2, -3.** See LEL Formattinng Note. |
| 3260 | Vinyl ethyl ether; (Ethoxy ethene) | 109-92-2 | 15 | 50 | 350 | ***1500*** | ppm | See LEL Formattinng Note. |
| 3261 | Vinyl fluoride | 75-02-5 | 1 | 75 | 500 | ***75000*** | ppm | See LEL Formattinng Note. |
| 3262 | Vinyl terminated dimethylsiloxane-diphenylsiloxane copolymer | 68951-96-2 | 75 | 250 | 500 | 500 | mg/m3 | TSCA listed, no toxicity data found, HHR = 0 in MSDS. |
| 3263 | **Vinyl trichlorosilane** | **75-94-5** | 0.2 | **0.60** | **7.3** | **33** | ppm | **New interim AEGL-1, -2, -3. ERPG-1, -2, -3.** All Ts changed. |
| 3264 | Vinyl-2-pyrrolidinone, 1- | 88-12-0 | 0.05 | 5 | 40 | 75 | ppm | |
| 3265 | Vinylbenzylchloride; (4-Vinylbenzyl chloride) | 1592-20-7 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA listed, no toxicity data found, MSDS HHR = 3. |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
Bold green italics: 10% LEL ≤ PAC < 50% LEL; bold underlined pink italics: 50% LEL ≤ PAC < 100% LEL; bold double underlined red italcs: PAC ≥ LEL.

# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3266 | Vinylcyclohexene, 4-; (Cyclohexenylethylene) | 100-40-3 | 0.1 | 0.3 | ***3500*** | ***3500*** | ppm | Added. See LEL Formattinng Note. |
| 3267 | Vinylformamide, N- | 13162-05-5 | 5 | 15 | 100 | 500 | mg/m3 | TSCA lisyed. MSDS pchem and toxicity information used.. |
| 3268 | **Vinylidene chloride; (1,1-dichloroethylene)** | **75-35-4** | 5 | 75 | **500** | **1000** | ppm | **ERPG-2, -3.** |
| 3269 | Vinylidene fluoride; (1,1-Difluoroethene) | 75-38-7 | 500 | 500 | 500 | ***12500*** | ppm | See LEL Formattinng Note. |
| 3270 | Vinylmagnesium bromide | 1826-67-1 | 1.5 | 5 | 35 | 150 | mg/m3 | TSCA listed, no toxicity data found. MSDS HHR - 3. |
| 3271 | Vinylpyrrolidone/vinyl acetate copolymer | 25086-89-9 | 100 | 250 | 250 | 250 | mg/m3 | Rat oral LD50 > 650 mg/kg |
| 3272 | Virginia refrigeration oil 150 and 300; (Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic) | 64742-52-5 | 15 | 40 | 300 | 500 | mg/m3 | Rat oral LD50 > 5 g/kg |
| 3273 | Warfarin | 81-81-2 | 0.1 | 0.3 | 20 | 100 | mg/m3 | T-3 changed. |
| 3274 | Warfarin sodium | 129-06-6 | 1.5 | 5 | 9 | 9 | mg/m3 | |
| 3275 | Xenon | 7440-63-3 | 65000 | 65000 | 230000 | 400000 | ppm | Simple asphyxiant. |
| 3276 | Xylene, m- | 108-38-3 | 100 | 150 | 200 | 900 | ppm | |
| 3277 | Xylene, o- | 95-47-6 | 100 | 150 | 200 | ***900*** | ppm | See LEL Formattinng Note. |
| 3278 | Xylene, p- | 106-42-3 | 100 | 150 | 200 | 900 | ppm | |
| 3279 | **Xylenes** | **1330-20-7** | 100 | **130** | ***920*** | ***2500*** | ppm | **Interim AEGL-1, -2, -3.** See LEL Formattinng Note. |
| 3280 | Xylenol orange tetrasodium salt | 3618-43-7 | 10 | 30 | 50 | 250 | mg/m3 | |

Chemicals with AEGLs: large, bolded font. ERPGs (but no AEGLs): bolded font.
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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3281 | Xylidine | 1300-73-8 | 5 | 5 | 5 | 50 | ppm | |
| 3282 | Xylidine, 2,6- | 87-62-7 | 6 | 20 | 125 | 350 | mg/m3 | |
| 3283 | Xylidine, o-; (2,3-Xylidine) | 87-59-2 | 0.5 | 10 | 10 | 50 | ppm | |
| 3284 | Xylylene dichloride | 28347-13-9 | 0.4 | 1.25 | 2 | 75 | mg/m3 | |
| 3285 | Yeast extract | 8013-01-2 | 15 | 50 | 400 | 500 | mg/m3 | |
| 3286 | Ytterbium fluoride | 13760-80-0 | 10.1 | 10.1 | 10.1 | 10.1 | mg/m3 | |
| 3287 | Ytterbium oxide | 1314-37-0 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3288 | Yttrium | 7440-65-5 | 1 | 3 | 5 | 500 | mg/m3 | T-3 changed. |
| 3289 | Yttrium chloride, hexahydrate | 10025-94-2 | 3.41 | 10.2 | 500 | 500 | mg/m3 | T-2 changed. |
| 3290 | Yttrium oxide | 11130-29-3 | 1.18 | 3.54 | 150 | 500 | mg/m3 | "Y" changed to "N" for mild irritant, T-2 changed. |
| 3291 | Yttrium trioxide | 1314-36-9 | 1.27 | 3.81 | 40 | 500 | mg/m3 | |
| 3292 | Zeolites, CaA | 68989-20-8 | 7.5 | 25 | 150 | 500 | mg/m3 | MSDS HHR = 2. Molecular xieve information deleted. |
| 3293 | Zeolites, KA | 68989-21-9 | 10 | 30 | 50 | 250 | mg/m3 | MSDS CASRN = 308080-99-1, no useful data found. Molecular xieve information deleted. |
| 3294 | Zeolites, NaA | 68989-22-0 | 6 | 15 | 125 | 500 | mg/m3 | Molecular xieve information deleted. |
| 3295 | Zeolites, NaX | 68989-23-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. Molecular xieve information deleted. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3296 | Zinc | 7440-66-6 | 10 | 30 | 50 | 200 | mg/m3 | |
| 3297 | Zinc acetate | 557-34-6 | 0.3 | 0.75 | 6 | 500 | mg/m3 | |
| 3298 | Zinc acetate dihydrate | 5970-45-6 | 25 | 75 | 350 | 350 | mg/m3 | |
| 3299 | Zinc bromide | 7699-45-8 | 10 | 30 | 50 | 200 | mg/m3 | |
| 3300 | Zinc carbonate | 3486-35-9 | 5 | 15 | 100 | 500 | mg/m3 | |
| 3301 | Zinc carbonate hydroxide | 5263-02-5 | 10 | 30 | 50 | 250 | mg/m3 | Not found in databases |
| 3302 | Zinc chloride | 7646-85-7 | 1 | 2 | 50 | 50 | mg/m3 | All Ts changed. |
| 3303 | Zinc cyanide | 557-21-1 | 22.6 | 22.6 | 22.6 | 113 | mg/m3 | |
| 3304 | Zinc fluoride | 7783-49-5 | 6.8 | 6.8 | 20 | 100 | mg/m3 | |
| 3305 | Zinc hydroxide | 20427-58-1 | 0.6 | 0.6 | 1.5 | 60 | mg/m3 | **SAR** |
| 3306 | Zinc nitrate | 7779-88-6 | 10 | 10 | 10 | 10 | mg/m3 | |
| 3307 | Zinc nitrate hexahydrate | 10196-18-6 | 5 | 15 | 100 | 500 | mg/m3 | |
| 3308 | Zinc nitrite | 10102-02-0 | 0.035 | 0.075 | 0.6 | 60 | mg/m3 | **SAR** |
| 3309 | Zinc oxide | 1314-13-2 | 2 | 10 | 15 | 500 | mg/m3 | PEL-TWA suppressed. T-0, T-1 changed. |
| 3310 | Zinc perchlorate | 13637-61-1 | 10 | 30 | 50 | 250 | mg/m3 | TSCA listed, no toxicity or pchem data found. |
| 3311 | Zinc phenolsulfonate; (Zinc p-hydroxybenzenesulfonate) | 127-82-2 | 0.6 | 2 | 15 | 500 | mg/m3 | T-2 changed. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3312 | Zinc phosphate (3:2) | 7779-90-0 | 2 | 6 | 50 | 250 | mg/m3 | SAX, RTECS, TSCA all have H3 in MF, but this would give MW = 392.13 |
| 3313 | **Zinc phosphide** | **1314-84-7** | 0.05 | 0.15 | **1.0** | **1.8** | ppm | **Interim AEGL-2, -3.** All Ts changed. |
| 3314 | Zinc stearate | 557-05-1 | 15 | 30 | 50 | 150 | mg/m3 | |
| 3315 | Zinc sulfate | 7733-02-0 | 0.15 | 0.5 | 3.5 | 500 | mg/m3 | |
| 3316 | Zinc sulfate heptahydrate (1:1:7) | 7446-20-0 | 100 | 200 | 200 | 200 | mg/m3 | |
| 3317 | Zirconium boride | 12045-64-6 | 6.19 | 12.4 | 61.9 | 61.9 | mg/m3 | T-2, T-3 changed. |
| 3318 | Zirconium carbide | 12070-14-3 | 6.32 | 12.6 | 12.6 | 63.2 | mg/m3 | No toxicity data found. T-3 changed. |
| 3319 | Zirconium chloride | 10026-11-6 | 12.8 | 25.5 | 25.5 | 128 | mg/m3 | T-3 changed. |
| 3320 | Zirconium chloride oxide octahydrate | 13520-92-8 | 17.7 | 35.3 | 35.3 | 177 | mg/m3 | T-3 changed. |
| 3321 | Zirconium compounds (as Zr) | 7440-67-7 | 5 | 10 | 10 | 50 | mg/m3 | T-3 changed. |
| 3322 | Zirconium fluoride | 7783-64-4 | 9.17 | 18.3 | 18.3 | 91.7 | mg/m3 | T-3 changed. |
| 3323 | Zirconium hydride | 7704-99-6 | 5.11 | 10.2 | 51.1 | 51.1 | mg/m3 | T-2, T-3 changed. |
| 3324 | Zirconium hydroxide | 14475-63-9 | 8.73 | 17.5 | 17.5 | 87.3 | mg/m3 | T-3 changed. |
| 3325 | Zirconium nitrate | 13746-89-9 | 18.6 | 37.2 | 37.2 | 186 | mg/m3 | T-3 changed. |
| 3326 | Zirconium nitride | 25658-42-8 | 5.77 | 11.5 | 11.5 | 57.7 | mg/m3 | TSCA, HC&P listed, no toxicity data. T-3 changed. |
| 3327 | Zirconium nitrite | z-0088 | 7.52 | 15 | 15 | 75.2 | mg/m3 | T-3 changed. |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3328 | Zirconium oxide | 1314-23-4 | 6.75 | 13.5 | 13.5 | 67.5 | mg/m3 | T-3 changed. |
| 3329 | Zirconium oxynitrate hydrate | 14985-18-3 | 13.7 | 27.4 | 27.4 | 137 | mg/m3 | T-3 changed. |
| 3330 | Zirconium phosphide | 12037-80-8 | 8.4 | 16.8 | 16.8 | 84 | mg/m3 | HC&P listed. TSCA CASRN = 12037-72-8, MW, MF differ. T-3 changed. |
| 3331 | Zirconium potassium fluoride; (Potassium fluorozirconate) | 16923-95-8 | 37.3 | 149 | 150 | 500 | mg/m3 | T-3 changed. |
| 3332 | Zirconium silane | z-0089 | 8.08 | 16.2 | 16.2 | 80.8 | mg/m3 | T-3 changed. |
| 3333 | Zirconium silicate; (Zirconium silicon oxide; Zircon)) | 10101-52-7 | 10.3 | 20.5 | 51.3 | 103 | mg/m3 | HC&P has "zirconium orthosilicate", MW = 183.308, MF = Zr SiO4. T-3 changed. |
| 3334 | Zirconium sulfate tetrahydrate | 7446-31-3 | 19.5 | 39 | 39 | 195 | mg/m3 | CASRN changed from 14644-61-2 per LLNL. Both CHRIS and ChemFinder list under removed CASRN. T-3 changed. |
| 3335 | Zirconyl chloride; (Zirconium oxychloride) | 7699-43-6 | 9.76 | 19.5 | 97.6 | 97.6 | mg/m3 | |
| 3336 | Zirconyl nitrate; (Bis(nitrato-O)oxozirconium) | 13826-66-9 | 12.7 | 25.3 | 25.3 | 127 | mg/m3 | T-3 changed. |
| 3337 | Zonyl fsn fluorosurfactant | 65545-80-4 | 60 | 150 | 500 | 500 | mg/m3 | |
| 3338 | zzAcrylic latex | z-0090 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3339 | zzAlumination 301 | z-0091 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3340 | zzHydranal coulomat / AG | z-0092 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3341 | zzHydrocarbon polymer | z-0093 | 10 | 30 | 50 | 250 | mg/m3 | |

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# Table 2: Protective Action Criteria (PAC) Rev 24A
## Based on applicable 60-minute AEGLs, ERPGs, or TEELs (Chemicals listed in alphabetical order)

| No. | Chemical Name | CASRN | PACs based on 60-min. AEGLs, ERPGs, or TEELs | | | | | Comments and changes from PAC Rev 23 |
|---|---|---|---|---|---|---|---|---|
| | | | TEEL-0 | PAC-1 | PAC-2 | PAC-3 | UNITS | |
| 3342 | zzHydrocount(R), LSC cocktail | z-0094 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3343 | zzIconol(R) | z-0095 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3344 | zzMachine coolant 1 | z-0096 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3345 | zzMonophase- S | z-0097 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3346 | zzMornar | z-0098 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3347 | zzOpti-Fluor; (Alkyl benzene blend, 3% tributylphophate) | z-0099 | 7.5 | 25 | 37.5 | 250 | mg/m3 | Mixture ex MSDS used |
| 3348 | zzPaint solvent | z-0100 | 10 | 10 | 10 | 10 | mg/m3 | |
| 3349 | zzPropanol (-2) aluminum derivative | z-0101 | 2 | 6 | 10 | 50 | mg/m3 | |
| 3350 | zzScintillation cocktail, Ultima Gold XR | z-0102 | 0.15 | 0.5 | 3 | 15 | mg/m3 | Used MSDS mixture components |
| 3351 | zzSicapent | z-0103 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3352 | zzSynthetic resins | z-0104 | 10 | 30 | 50 | 250 | mg/m3 | |
| 3353 | zzTotal sequestrant reagent #5 | z-0105 | 35 | 40 | 100 | 500 | mg/m3 | Used MSDS mixture components |
| 3354 | zzTrifluoroacetyl)-N,0,0,0-tetrakis((TMS)norepinephrine, N-( | z-0106 | 0.04 | 0.125 | 0.75 | 7.5 | mg/m3 | Toxicity data for "Norepinephrine", CASRN = 51-41-2, used. |
| 3355 | zzWaste oil | z-0107 | 10 | 30 | 50 | 250 | mg/m3 | |

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