

# California Accidental Release Prevention Program

The following Toxic Endpoint (TE) Table should be used for all toxic substances listed in Section 2770.5, Table 1 and Table 3, of the California Accidental Release Prevention (CalARP) program. Where USEPA provided a TE for the Federal Accidental Release Prevention (ARP) Program, that TE is listed in the Table below. All other TEs were provided by the Office of Environmental Health Hazard Assessment (OEHHA), using preexisting toxicity values.

## Table of Toxic Endpoints

[to be used as described in Section 2750.2 of the CalARP program regulations]

Chemical Name	CAS Number	Toxic Endpoint (TE)		Basis for TE
		TE in (gm/m <sup>3</sup> or mg/l)	TE in (ppm) <sup>1</sup>	
Acetone Cyanohydrin	75-86-5	0.012	3	USEPA LOC <sup>2</sup>
Acetone Thiosemicarbazide	1752-30-3	0.1		USEPA LOC <sup>2</sup>
Acrolein [2-Propenal]	107-02-8	0.0011	0.5	USEPA ARP Program <sup>3</sup>
Acrylamide	79-06-1	0.11		USEPA LOC <sup>2</sup>
Acrylonitrile [2- Propenenitrile]	107-13-1	0.076	35	USEPA ARP Program <sup>3</sup>
Acrylyl Chloride [2-Propenoyl Chloride]	814-68-6	0.00090	0.2	USEPA ARP Program <sup>3</sup>
Aldicarb	116-06-3	0.0003		USEPA LOC <sup>2</sup>
Aldrin	309-00-2	0.002		IDLH95/10 <sup>2</sup>
Allyl Alcohol [2-Propen-1-ol]	107-18-6	0.036	15	USEPA ARP Program <sup>3</sup>
Allylamine [2-Propen-1-amine]	107-11-9	0.0032	1	USEPA ARP Program <sup>3</sup>
Aluminum Phosphide	20859-73-8	0.02		USEPA LOC <sup>2</sup>
Aminopterin	54-62-6	0.025		USEPA LOC <sup>2</sup>
Amiton Oxalate	3734-97-2	0.003		USEPA LOC <sup>2</sup>
Ammonia (anhydrous) or (aqueous), or Ammonium Hydroxide	7664-41-7	0.14	200	USEPA ARP Program <sup>3</sup>
Aniline	62-53-3	0.038	10	USEPA LOC <sup>2</sup>
Antimycin A	1397-94-0	0.0018		USEPA LOC <sup>2</sup>
ANTU	86-88-4	0.01		USEPA LOC <sup>2</sup>
Arsenic Pentoxide	1303-28-2	0.0005 as As		IDLH95/10 <sup>2</sup>
Arsenous Oxide	1327-53-3	0.0005 as As		IDLH95/10 <sup>2</sup>
Arsenous Trichloride	7784-34-1	0.010	1	USEPA ARP Program <sup>3</sup>
Arsine	7784-42-1	0.0019	0.6	USEPA ARP Program <sup>3</sup>
Azinophos-Ethyl	2642-71-9	0.0039		USEPA LOC <sup>2</sup>
Azinophos-Methyl	86-50-0	0.001		IDLH95/10 <sup>2</sup>
Benzene, 1-(Chloromethyl)-4-Nitro-	100-14-1	0.028		USEPA LOC <sup>2</sup>
Benzeneearsonic Acid	98-05-5	0.00027		USEPA LOC <sup>2</sup>
Benzimidazole, 4,5-Dichloro-2-(Trifluoromethyl)-	3615-21-2	0.013		USEPA LOC <sup>2</sup>
Benzotrichloride	98-07-7	0.0007	0.1	USEPA LOC <sup>2</sup>
Bicyclo[2.2.1] Heptane-2-Carbonitrile, 5-Chloro- 6-(((Methylamino Carbonyl)Oxy)Imino)-, (1s-(1-alpha, 2-beta, 4-alpha, 5-alpha, 6E))-	15271-41-7	0.019		USEPA LOC <sup>2</sup>
Bis(Chloromethyl) Ketone	534-07-6	0.00027		USEPA LOC <sup>2</sup>
Bitoscanate	4044-65-9	0.02		USEPA LOC <sup>2</sup>
Boron Trichloride [Borane, Trichloro-]	10294-34-5	0.010	2	USEPA ARP Program <sup>3</sup>
Boron Trifluoride [Borane, Trifluoro-]	7637-07-2	0.028	10	USEPA ARP Program <sup>3</sup>
Boron Trifluoride compound w/ Methyl Ether (1:1) [Boron, Trifluoro [oxybis[methane]]]-,T-4-	353-42-4	0.023	5	USEPA ARP Program <sup>3</sup>
Bromadiolone	28772-56-7	0.001		USEPA LOC <sup>2</sup>

## CalARP Program Table of Toxic Endpoints

Chemical Name	CAS Number	Toxic Endpoint (TE)		Basis for TE
		TE in (gm/m <sup>3</sup> or mg/l)	TE in (ppm) <sup>1</sup>	
Bromine	7726-95-6	0.0065	1	USEPA ARP Program <sup>3</sup>
Cadmium Oxide	1306-19-0	0.004		USEPA LOC <sup>2</sup>
Cadmium Sterate	2223-93-0	0.0013		USEPA LOC <sup>2</sup>
Calcium Arsenate	7778-44-1	0.0005 as As		IDLH95/10 <sup>2</sup>
Camphchlor	8001-35-2	0.02		USEPA LOC <sup>2</sup>
Cantharidin	56-25-7	0.0043		USEPA LOC <sup>2</sup>
Carbachol Chloride	51-83-2	0.015		USEPA LOC <sup>2</sup>
Carbamic Acid, Methyl-,o-(((2,4-Dimethyl-1, 3-Dithiolan-2-yl) Methylene)Amino)-	26419-73-8	0.001		USEPA LOC <sup>2</sup>
Carbofuran	1563-66-2	0.00043		USEPA LOC <sup>2</sup>
Carbon Disulfide	75-15-0	0.16	50	USEPA ARP Program <sup>3</sup>
Chlorine	7782-50-5	0.0087	3	USEPA ARP Program <sup>3</sup>
Chlorine Dioxide [Chlorine Oxide (ClO <sub>2</sub> )]	10049-04-4	0.0028	1	USEPA ARP Program <sup>3</sup>
Chlormequat Chloride	999-81-5	0.007		USEPA LOC <sup>2</sup>
Chloroacetic Acid	79-11-8	0.0018		USEPA LOC <sup>2</sup>
Chloroform [Methane, Trichloro-]	67-66-3	0.49	100	USEPA ARP Program <sup>3</sup>
Chloromethyl Ether [Methane, Oxybis[Chloro-]]	542-88-1	0.00025	0.05	USEPA ARP Program <sup>3</sup>
Chloromethyl Methyl Ether [Methane, Chloromethoxy-]	107-30-2	0.0018	0.6	USEPA ARP Program <sup>3</sup>
Chlorophacinone	3691-35-8	0.001		USEPA LOC <sup>2</sup>
Chloroxuron	1982-47-4	0.01		USEPA LOC <sup>2</sup>
Chromic Chloride	10025-73-7	0.0005 as CrIII		TLV96 <sup>2</sup>
Cobalt Carbonyl	10210-68-1	0.00027		USEPA LOC <sup>2</sup>
Cobalt, ((2,2'-(1,2-Ethanediy)bis (Nitrilomethylidyne)) Bis(6-Fluorophenolato))(2-)-N,N',O,O')-	62207-76-5	0.003		USEPA LOC <sup>2</sup>
Colchicine	64-86-8	0.0009		USEPA LOC <sup>2</sup>
Coumaphos	56-72-4	0.003		USEPA LOC <sup>2</sup>
Coumatetralyl	5836-29-3	0.0165		USEPA LOC <sup>2</sup>
Cresol, o-	95-48-7	0.11		USEPA LOC <sup>2</sup>
Crimidine	535-89-7	0.0012		USEPA LOC <sup>2</sup>
Crotonaldehyde [2-Butenal]	4170-30-3	0.029	10	USEPA ARP Program <sup>3</sup>
Crotonaldehyde, (E)- [2-Butenal, (E)-]	123-73-9	0.029	10	USEPA ARP Program <sup>3</sup>
Cyanogen Bromide	506-68-3	0.0025 as CN		IDLH95/10 <sup>2</sup>
Cyanogen Chloride	506-77-4	0.030	12	USEPA ARP Program <sup>3</sup>
Cyanogen Iodide	506-78-5	0.0025 as CN		IDLH95/10 <sup>2</sup>
Cyanuric Fluoride	675-14-9	0.00017	0.03	USEPA LOC <sup>2</sup>
Cycloheximide	66-81-9	0.002		USEPA LOC <sup>2</sup>
Cyclohexylamine [Cyclohexanamine]	108-91-8	0.16	39	USEPA ARP Program <sup>3</sup>
Decaborane (14)	17702-41-9	0.002		IDLH95/10 <sup>2</sup>
Dialifor	10311-84-9	0.005		USEPA LOC <sup>2</sup>
Diborane	19287-45-7	0.0011	1	USEPA ARP Program <sup>3</sup>
Diepoxybutane	1464-53-5	0.0035	1	USEPA LOC <sup>2</sup>
Digitoxin	71-63-6	0.00018		USEPA LOC <sup>2</sup>
Digoxin	20830-75-5	0.0002		USEPA LOC <sup>2</sup>
Dimethoate	60-51-5	0.03		USEPA LOC <sup>2</sup>
Dimethyldichlorosilane [Silane, dichlorodimethyl-]	75-78-5	0.026	5	USEPA ARP Program <sup>3</sup>

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1,1-Dimethylhydrazine [Dimethylhydrazine] [Hydrazine,1,1-dimethyl-]	57-14-7	0.012	5	USEPA ARP Program <sup>3</sup>
Dimethyl-p-Phenylenediamine	99-98-9	0.00013		USEPA LOC <sup>2</sup>
Dimethyl Sulfate	77-78-1	0.004	0.7	IDLH95/10 <sup>2</sup>
Dimetilan	644-64-4	0.025		USEPA LOC <sup>2</sup>
Dinitrocresol	534-52-1	0.0005		USEPA LOC <sup>2</sup>
Dinoseb	88-85-7	0.0045		USEPA LOC <sup>2</sup>
Dinoterb	1420-07-1	0.025		USEPA LOC <sup>2</sup>
Diphacinone	82-66-6	0.0009		USEPA LOC <sup>2</sup>
Disulfoton	298-04-4	0.002	0.2	USEPA LOC <sup>2</sup>
Dithiazanine Iodide	514-73-8	0.02		USEPA LOC <sup>2</sup>
Dithiobiuret	541-53-7	0.005		USEPA LOC <sup>2</sup>
Emetine, Dihydrochloride	316-42-7	0.00001		USEPA LOC <sup>2</sup>
Endosulfan	115-29-7	0.0008		USEPA LOC <sup>2</sup>
Endothion	2778-04-3	0.017		USEPA LOC <sup>2</sup>
Endrin	72-20-8	0.0002		IDLH95/10 <sup>2</sup>
Epichlorohydrin [(Chloromethyl)Oxirane]	106-89-8	0.076	20	USEPA ARP Program <sup>3</sup>
EPN	2104-64-5	0.0005		IDLH95/10 <sup>2</sup>
Ergocalciferol	50-14-6	0.04		USEPA LOC <sup>2</sup>
Ergotamine Tartrate	379-79-3	0.01		USEPA LOC <sup>2</sup>
Ethylenediamine [1,2-Ethanediamine]	107-15-3	0.49	200	USEPA ARP Program <sup>3</sup>
Ethylene Fluorohydrin	371-62-0	0.00007	0.03	USEPA LOC <sup>2</sup>
Ethyleneimine [Aziridine]	151-56-4	0.018	10	USEPA ARP Program <sup>3</sup>
Ethylene Oxide [Oxirane]	75-21-8	0.090	50	USEPA ARP Program <sup>3</sup>
Fenamiphos	22224-92-6	0.0009		USEPA LOC <sup>2</sup>
Fluometil	4301-50-2	0.006		USEPA LOC <sup>2</sup>
Fluorine	7782-41-4	0.0039	2.5	USEPA ARP Program <sup>3</sup>
Fluoroacetamide	640-19-7	0.0058		USEPA LOC <sup>2</sup>
Fluoroacetic Acid	144-49-0	0.00047		USEPA LOC <sup>2</sup>
Fluoroacetyl Chloride	359-06-8	0.01	2.5	USEPA LOC <sup>2</sup>
Fluorouracil	51-21-8	0.019		USEPA LOC <sup>2</sup>
Formaldehyde	50-00-0	0.012	10	USEPA ARP Program <sup>3</sup>
Formetanate Hydrochloride	23422-53-9	0.018		USEPA LOC <sup>2</sup>
Formparanate	17702-57-7	0.0072		USEPA LOC <sup>2</sup>
Fuberidazole	3878-19-1	0.0033		USEPA LOC <sup>2</sup>
Furan	110-00-9	0.0012	0.4	USEPA ARP Program <sup>3</sup>
Gallium Trichloride	13450-90-3	0.032		USEPA LOC <sup>2</sup>
Hydrazine	302-01-2	0.011	8	USEPA ARP Program <sup>3</sup>
Hydrochloric Acid or Hydrogen Chloride	7647-01-0	0.030	20	USEPA ARP Program <sup>3</sup>
Hydrocyanic Acid	74-90-8	0.011	10	USEPA ARP Program <sup>3</sup>
Hydrofluoric Acid or Hydrogen Fluoride	7664-39-3	0.016	20	USEPA ARP Program <sup>3</sup>
Hydrogen Selenide	7783-07-5	0.00066	0.2	USEPA ARP Program <sup>3</sup>
Hydrogen Sulfide	7783-06-4	0.042	30	USEPA ARP Program <sup>3</sup>
Hydroquinone	123-31-9	0.005		IDLH95/10 <sup>2</sup>
Iron, Pentacarbonyl- [Iron carbonyl (Fe(CO) <sub>5</sub> ), (TB-5-11)-]	13463-40-6	0.00044	0.05	USEPA ARP Program <sup>3</sup>
Isobenzan	297-78-9	0.001		USEPA LOC <sup>2</sup>
Isobutyronitrile [Propanenitrile, 2-Methyl-]	78-82-0	0.14	50	USEPA ARP Program <sup>3</sup>

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		TE in (gm/m <sup>3</sup> or mg/l)	TE in (ppm) <sup>1</sup>	
Isocyanic Acid, 3,4-Dichlorophenyl Ester	102-36-3	0.014		USEPA LOC <sup>2</sup>
Isodrin	465-73-6	0.007		USEPA LOC <sup>2</sup>
Isophorone Diisocyanate	4098-71-9	0.0012		USEPA LOC <sup>2</sup>
Isopropyl Chloroformate [Carbonochloridic Acid,1-Methylethyl Ester]	108-23-6	0.10	20	USEPA ARP Program <sup>3</sup>
Leptophos	21609-90-5	0.03		USEPA LOC <sup>2</sup>
Lewisite	541-25-3	0.0047	0.6	USEPA LOC <sup>2</sup>
Lindane	58-89-9	0.005		IDLH95/10 <sup>2</sup>
Lithium Hydride	7580-67-8	0.00005		IDLH95/10 <sup>2</sup>
Malononitrile	109-77-3	0.019		USEPA LOC <sup>2</sup>
Manganese, Tricarbonyl Methylcyclopentadienyl	12108-13-3	0.0006	0.07	USEPA LOC <sup>2</sup>
Mechlorethamine	51-75-2	0.029	4.5	USEPA LOC <sup>2</sup>
Mercuric Acetate	1600-27-7	0.000025 as Hg		TLV96 <sup>2</sup>
Mercuric Chloride	7487-94-7	0.000025 as Hg		TLV96 <sup>2</sup>
Mercuric Oxide	21908-53-2	0.000025 as Hg		TLV96 <sup>2</sup>
Methacrylonitrile [2-Propenenitrile, 2-Methyl-]	126-98-7	0.0027	1	USEPA ARP Program <sup>3</sup>
Methacryloyl Chloride	920-46-7	0.0006	0.14	USEPA LOC <sup>2</sup>
Methacryloyloxyethyl Isocyanate	30674-80-7	0.00027	0.04	USEPA LOC <sup>2</sup>
Methamidophos	10265-92-6	0.0075		USEPA LOC <sup>2</sup>
Methanesulfonyl Fluoride	558-25-8	0.014	3.5	USEPA LOC <sup>2</sup>
Methidathion	950-37-8	0.02		USEPA LOC <sup>2</sup>
Methiocarb	2032-65-7	0.015		USEPA LOC <sup>2</sup>
Methomyl	16752-77-5	0.01		USEPA LOC <sup>2</sup>
Methoxyethylmercuric Acetate	151-38-2	0.00001 as Hg-alk		TLV96 <sup>2</sup>
Methyl Bromide	74-83-9	0.1	25	IDLH95/10 <sup>2</sup>
Methyl 2-Chloroacrylate	80-63-7	0.005	1	USEPA LOC <sup>2</sup>
Methyl Chloride [Methane, chloro-]	74-87-3	0.82	400	USEPA ARP Program <sup>3</sup>
Methyl Chloroformate [Carbonochloridic Acid, Methylene Ester]	79-22-1	0.0019	0.5	USEPA ARP Program <sup>3</sup>
Methyl Hydrazine [Hydrazine, Methyl-]	60-34-4	0.0094	5	USEPA ARP Program <sup>3</sup>
Methyl Isocyanate [Methane, isocyanato-]	624-83-9	0.0012	0.5	USEPA ARP Program <sup>3</sup>
Methyl Isothiocyanate	556-61-6	0.033		USEPA LOC <sup>2</sup>
Methyl Mercaptan [Methanethiol]	74-93-1	0.049	25	USEPA ARP Program <sup>3</sup>
Methylmercuric Dicyanamide	502-39-6	0.00001 as Hg-alk		TLV96 <sup>2</sup>
Methyl Phosphonic Dichloride	676-97-1	0.0014		USEPA LOC <sup>2</sup>
Methyl Thiocyanate [Thiocyanic Acid, Methyl Ester]	556-64-9	0.085	29	USEPA ARP Program <sup>3</sup>
Methyltrichlorosilane [Silane, Trichloromethyl-]	75-79-6	0.018	3	USEPA ARP Program <sup>3</sup>
Methyl Vinyl Ketone	78-94-4	0.00007	0.02	USEPA LOC <sup>2</sup>
Metolcarb	1129-41-5	0.0048		USEPA LOC <sup>2</sup>
Mexacarbate	315-18-4	0.014		USEPA LOC <sup>2</sup>
Mitomycin C	50-07-7	0.023		USEPA LOC <sup>2</sup>
Monocrotophos	6923-22-4	0.00063		USEPA LOC <sup>2</sup>

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Muscimol	2763-96-4	0.017		USEPA LOC <sup>2</sup>
Mustard Gas	505-60-2	0.001	0.15	USEPA LOC <sup>2</sup>
Nickel Carbonyl	13463-39-3	0.00067	0.1	USEPA ARP Program <sup>3</sup>
Nicotine Sulfate	65-30-5	0.009		USEPA LOC <sup>2</sup>
Nitric Acid	7697-37-2	0.026	10	USEPA ARP Program <sup>3</sup>
Nitric Oxide [Nitrogen Oxide (NO)]	10102-43-9	0.031	25	USEPA ARP Program <sup>3</sup>
Nitrobenzene	98-95-3	0.1	20	USEPA LOC <sup>2</sup>
Nitrogen Dioxide	10102-44-0	0.002	1	NAS SPEGL <sup>2</sup>
Norbormide	991-42-4	0.0038		USEPA LOC <sup>2</sup>
Oleum (Fuming Sulfuric acid)[sulfuric acid, mixture with sulfur trioxide]	8014-95-7	0.010	3	USEPA ARP Program <sup>3</sup>
Organorhodium Complex (PMN-82-147) (MIXTURE)	MIX	0.0008		USEPA LOC <sup>2</sup>
Ouabain	630-60-4	0.0083		USEPA LOC <sup>2</sup>
Oxamyl	23135-22-0	0.0017		USEPA LOC <sup>2</sup>
Ozone	10028-15-6	0.001	0.5	IDLH95/10 <sup>2</sup>
Paraquat Dichloride	1910-42-5	0.0001		IDLH95/10 <sup>2</sup>
Paraquat Methosulfate	2074-50-2	0.00015		USEPA LOC <sup>2</sup>
Parathion-Methyl	298-00-0	0.00034		USEPA LOC <sup>2</sup>
Paris Green	12002-03-8	0.022		USEPA LOC <sup>2</sup>
Pentaborane	19624-22-7	0.0003	0.1	IDLH95/10 <sup>2</sup>
Pentadecylamine	2570-26-5	0.002		USEPA LOC <sup>2</sup>
Peracetic Acid [Ethaneperoxoic Acid]	79-21-0	0.0045	1.5	USEPA ARP Program <sup>3</sup>
Perchloromethylmercaptan [Methanesulfonyl chloride, Trichloro-]	594-42-3	0.0076	1	USEPA ARP Program <sup>3</sup>
Phenol	108-95-2	0.2		AIHA ERPG-2 <sup>2</sup>
Phenol, 2,2'-Thiobis(4-Chloro-6-Methyl)-	4418-66-0	0.0013		USEPA LOC <sup>2</sup>
Phenol, 3-(1-Methylethyl)-, Methylcarbamate	64-00-6	0.016		USEPA LOC <sup>2</sup>
Phenoxarsine, 10, 10' - Oxydi-	58-36-6	0.014		USEPA LOC <sup>2</sup>
Phenyl Dichloroarsine	696-28-6	0.004	0.4	USEPA LOC <sup>2</sup>
Phenylhydrazine Hydrochloride	59-88-1	0.009		IDLH95/10 <sup>2</sup>
Phenylmercury Acetate	62-38-4	0.0001 as Hg-aryl		TLV96 <sup>2</sup>
Phenylsilatrane	2097-19-0	0.001		USEPA LOC <sup>2</sup>
Phenylthiourea	103-85-5	0.003		USEPA LOC <sup>2</sup>
Phorate	298-02-2	0.0001	0.01	USEPA LOC <sup>2</sup>
Phosacetim	4104-14-7	0.0037		USEPA LOC <sup>2</sup>
Phosfolan	947-02-4	0.009		USEPA LOC <sup>2</sup>
Phosgene [Carbonic Dichloride]	75-44-5	0.00081	0.2	USEPA ARP Program <sup>3</sup>
Phosmet	732-11-6	0.00054		USEPA LOC <sup>2</sup>
Phosphine	7803-51-2	0.0035	2.5	USEPA ARP Program <sup>3</sup>
Phosphonothioic Acid, Methyl-, S-(2-(Bis (1-Methylethyl)Amino) Ethyl) O-Ethyl Ester	50782-69-9	0.0009	0.08	USEPA LOC <sup>2</sup>
Phosphorus	7723-14-0	0.0001		TLV96 <sup>2</sup>
Phosphorus Oxychloride [Phosphoryl Chloride]	10025-87-3	0.0030	0.5	USEPA ARP Program <sup>3</sup>
Phosphorus Pentachloride	10026-13-8	0.007		IDLH95/10 <sup>2</sup>
Phosphorus Trichloride	7719-12-2	0.028	5	USEPA ARP Program <sup>3</sup>
Physostigmine	57-47-6	0.0045		USEPA LOC <sup>2</sup>

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Physostigmine, Salicylate (1:1)	57-64-7	0.0025		USEPA LOC <sup>2</sup>
Picrotoxin	124-87-8	0.015		USEPA LOC <sup>2</sup>
Piperidine	110-89-4	0.022	6	USEPA ARP Program <sup>3</sup>
Potassium Arsenite	10124-50-2	0.0005 as As		IDLH95/10 <sup>2</sup>
Potassium Cyanide	151-50-8	0.0025 as CN		IDLH95/10 <sup>2</sup>
Potassium Silver Cyanide	506-61-6	0.0025 as CN		IDLH95/10 <sup>2</sup>
Promecarb	2631-37-0	0.016		USEPA LOC <sup>2</sup>
Propargyl Bromide	106-96-7	0.00003	0.01	USEPA LOC <sup>2</sup>
Propiolactone, Beta	57-57-8	0.0015	0.5	USEPA LOC <sup>2</sup>
Propionitrile [Propanenitrile]	107-12-0	0.0037	1.6	USEPA ARP Program <sup>3</sup>
Propiophenone, 4'-Amino-	70-69-9	0.0056		USEPA LOC <sup>2</sup>
Propyl Chloroformate [Carbonochloridic Acid, Propylester]	109-61-5	0.010	2	USEPA ARP Program <sup>3</sup>
Propylene Oxide [Oxirane, Methyl-]	75-56-9	0.59	250	USEPA ARP Program <sup>3</sup>
Propyleneimine [Aziridine, 2-Methyl-]	75-55-8	0.12	50	USEPA ARP Program <sup>3</sup>
Prothoate	2275-18-5	0.0017		USEPA LOC <sup>2</sup>
Pyrene	129-00-0	0.0017		USEPA LOC <sup>2</sup>
Pyridine, 4-Amino-	504-24-5	0.02		USEPA LOC <sup>2</sup>
Pyridine, 4-Nitro-, 1-Oxide	1124-33-0	0.08		USEPA LOC <sup>2</sup>
Pyriminil	53558-25-1	0.0062		USEPA LOC <sup>2</sup>
Salcomine	14167-18-1	0.039		USEPA LOC <sup>2</sup>
Sarin	107-44-8	0.00005	0.009	USEPA LOC <sup>2</sup>
Selenious Acid	7783-00-8	0.0001 as Se		IDLH95/10 <sup>2</sup>
Semicarbazide Hydrochloride	563-41-7	0.1		USEPA LOC <sup>2</sup>
Sodium Arsenate	7631-89-2	0.0005 as As		IDLH95/10 <sup>2</sup>
Sodium Arsenite	7784-46-5	0.0005 as As		IDLH95/10 <sup>2</sup>
Sodium Azide (Na (N3))	26628-22-8	0.02		USEPA LOC <sup>2</sup>
Sodium Cacodylate	124-65-2	0.004		USEPA LOC <sup>2</sup>
Sodium Cyanide (Na (CN))	143-33-9	0.0025 as CN		IDLH95/10 <sup>2</sup>
Sodium Fluoroacetate	62-74-8	0.00025		IDLH95/10 <sup>2</sup>
Sodium Selenate	13410-01-0	0.0001 as Se		IDLH95/10 <sup>2</sup>
Sodium Selenite	10102-18-8	0.0001 as Se		IDLH95/10 <sup>2</sup>
Sodium Tellurite	10102-20-2	0.02		USEPA LOC <sup>2</sup>
Stannane, Acetoxytriphenyl-	900-95-8	0.0001 as Sn-org		TLV96 <sup>2</sup>
Strychnine	57-24-9	0.0003		USEPA LOC <sup>2</sup>
Strychnine Sulfate	60-41-3	0.005		USEPA LOC <sup>2</sup>
Sulfur Dioxide	7446-09-5	0.0078	3	USEPA ARP Program <sup>3</sup>
Sulfuric Acid	7664-93-9	0.001	0.25	NAS EEGL <sup>2</sup>
Sulfur Tetrafluoride [Sulfur Fluoride (SF4), (T-4)-]	7783-60-0	0.0092	2	USEPA ARP Program <sup>3</sup>
Sulfur Trioxide	7446-11-9	0.010	3	USEPA ARP Program <sup>3</sup>
Tabun	77-81-6	0.00015	0.02	USEPA LOC <sup>2</sup>
Tellurium Hexafluoride	7783-80-4	0.001	0.1	USEPA LOC <sup>2</sup>
Tetramethyllead [Plumbane, Tetramethyl-]	75-74-1	0.0040	0.4	USEPA ARP Program <sup>3</sup>
Tetranitromethane [Methane, Tetranitro-]	509-14-8	0.0040	0.5	USEPA ARP Program <sup>3</sup>
Thallium Sulfate	10031-59-1	0.002		USEPA LOC <sup>2</sup>
Thallos Carbonate	6533-73-9	0.002		USEPA LOC <sup>2</sup>

## CalARP Program Table of Toxic Endpoints

Chemical Name	CAS Number	Toxic Endpoint (TE)		Basis for TE
		TE in (gm/m <sup>3</sup> or mg/l)	TE in (ppm) <sup>1</sup>	
Thallos Chloride	7791-12-0	0.002		USEPA LOC <sup>2</sup>
Thallos Malonate	2757-18-8	0.002		USEPA LOC <sup>2</sup>
Thallos Sulfate	7446-18-6	0.002		USEPA LOC <sup>2</sup>
Thiocarbazide	2231-57-4	0.1		USEPA LOC <sup>2</sup>
Thiofanox	39196-18-4	0.0085		USEPA LOC <sup>2</sup>
Thiosemicarbazide	79-19-6	0.0092		USEPA LOC <sup>2</sup>
Thiourea, (2-Chlorophenyl)-	5344-82-1	0.0046		USEPA LOC <sup>2</sup>
Thiourea, (2-Methylphenyl)-	614-78-8	0.05		USEPA LOC <sup>2</sup>
Titanium Tetrachloride [Titanium Chloride (TiCl <sub>4</sub> ) (T-4)-]	7550-45-0	0.020	2.6	USEPA ARP Program <sup>3</sup>
Toluene-2,4-Diisocyanate [Benzene, 2,4-Diisocyanato-1-Methyl-]	584-84-9	0.0070	1	USEPA ARP Program <sup>3</sup>
Toluene-2,6-Diisocyanate [Benzene, 1,3-Diisocyanato-2-Methyl-]	91-08-7	0.0070	1	USEPA ARP Program <sup>3</sup>
Toluene Diisocyanate (unspecified isomer) [Benzene, 1,3-diisocyanatomethyl-]	26471-62-5	0.0070	1	USEPA ARP Program <sup>3</sup>
Triamiphos	1031-47-6	0.01		USEPA LOC <sup>2</sup>
Trichloro(Chloromethyl)Silane	1558-25-4	0.0003	0.04	USEPA LOC <sup>2</sup>
Trichloro(Dichlorophenyl)Silane	27137-85-5	0.008	0.7	USEPA LOC <sup>2</sup>
Triethoxysilane	998-30-1	0.005	0.7	USEPA LOC <sup>2</sup>
Trimethylchlorosilane [Silane, Chlorotrimethyl-]	75-77-4	0.050	11	USEPA ARP Program <sup>3</sup>
Trimethylolpropane Phosphite	824-11-3	0.0025		USEPA LOC <sup>2</sup>
Trimethyltin Chloride	1066-45-1	0.0001 as Sn-org		TLV96 <sup>2</sup>
Triphenyltin Chloride	639-58-7	0.0001 as Sn-org		TLV96 <sup>2</sup>
Tris(2-Chloroethyl)Amine	555-77-1	0.0008	0.1	USEPA LOC <sup>2</sup>
Valinomycin	2001-95-8	0.0025		USEPA LOC <sup>2</sup>
Vanadium Pentoxide	1314-62-1	0.0035 as V		IDLH95/10 <sup>2</sup>
Vinyl Acetate Monomer [Acetic Acid Ethenyl Ester]	108-05-4	0.26	75	USEPA ARP Program <sup>3</sup>
Warfarin	81-81-2	0.02		USEPA LOC <sup>2</sup>
Warfarin Sodium	129-06-6	0.009		USEPA LOC <sup>2</sup>
Xylylene Dichloride	28347-13-9	0.002		USEPA LOC <sup>2</sup>
Zinc, Dichloro(4,4-Dimethyl-5(((Methylamino) Carbonyl)Oxy) Imino) Pentanenitrile)-, (T-4)-	58270-08-9	0.009		USEPA LOC <sup>2</sup>
Zinc Phosphide	1314-84-7	0.012		USEPA LOC <sup>2</sup>

### Footnotes

<sup>1</sup> ppm = [gm/m<sup>3</sup> / molecular weight] x 24,450. Conversion to ppm is used for liquids and gases only. No ppm conversion is given for a regulated substance that is a solid. Table 1 regulated substances were converted to ppm from mg/l.

<sup>2</sup> TEs were provided by OEHHA. Each TE is based on preexisting toxicity values. The selection of each TE was based on the best available scientific information, within the United States Environmental Protection Agency (USEPA) framework. Following the USEPA methodology (1987, 1994, 1996) and the availability of recent information, the TE was chosen from the hierarchy, SPEGL>EEGL>ERPG-2>IDLH/10>TLV. In some cases, an evaluation of the available documentation suggested that a value from a guideline outside of this order was more appropriate. The definitions of specific standards are given below:

## CalARP Program Table of Toxic Endpoints

LOC: Level of Concern developed by the USEPA (1987) for emergency planning. LOCs are based primarily on IDLH levels developed by NIOSH, and in the absence of IDLHs, TLVs. As proposed by USEPA (1987), the IDLH was divided by 10.

EEGL: Emergency Exposure Guideline Level developed by the National Academy of Sciences (NAS) Committee on Toxicology (COT) (NAS, 1988).

IDLH: level considered as Immediately Dangerous to Life and Health, developed by the National Institute for Occupational Safety & Health. Because an IDLH is associated with death or the inability of the exposed individual to safely leave, USEPA (1987) divided the IDLH by 10 to obtain an LOC. Updated IDLHs are indicated as IDLH95 (NIOSH, 1995).

ERPG-2: Emergency Response Planning Guideline developed by the American Industrial Hygiene Association and represents an airborne toxin concentration below which most persons could be exposed for one hour without experiencing irreversible or other serious health effects that could interfere with the ability to take protective action (AIHA, 1996).

SPEGL: Short Term Public Emergency Guideline Level developed by the NAS-COT (1988).

PEL: Public Emergency exposure Limit (NAS, 1971).

TLV: 8 hour occupational Threshold Limit Value developed by the American Conference of Governmental Industrial Hygienists (ACGIH, 1996).

These TE values are based on the listed substance, except when indicated to be based on the elemental constituent (e.g. "as AS" means the TE is based on the element arsenic). Other exceptions: the TE for boron trichloride ( $\text{BCl}_3$ ) is based on hydrochloric acid (HCl) and the assumption of 3 moles of HCl per mole of  $\text{BCl}_3$ ; the basis for the TE for phenylhydrazine hydrochloride is the toxicity of phenylhydrazine free base (CAS 100-63-0). No values were available for the hydrochloride.

<sup>3</sup>TEs (in mg/l) were taken from USEPA's Accidental Release Prevention Program found in Title 40, Code of Federal Regulations, Part 68, Appendix A.