

TEXAS AIR CONTROL BOARD
AUSTIN MEMORANDUM TEXAS

TO: Interested parties
FROM: Effects Evaluation staff
DATE: June 22, 1992 (Replace the August 1, 1991 List)
SUBJECT: List of Effects Screening Levels (ESLs)

Attached is the latest update of the list of ESLs currently used by the TACB Effects Evaluation staff in its evaluation of the impacts of various air contaminants. These screening levels are based on data concerning health effects, odor nuisance potential, vegetation effects, or corrosion effects. The ESLs on the list are based on health effects unless followed by "(o)", "(v)", or "(c)" (for odor nuisance, vegetation damage, or corrosion of materials, respectively). If the ESL of an air contaminant is based on odor threshold and is less than the annual average ESL based on health (denoted by an asterisk in the annual average column), it is not necessary to evaluate the annual average impacts of such chemical.

Remember that these screening levels are just "tools" the Health Effects Section uses to evaluate the impacts of air pollutant emissions. They are not ambient air standards. If predicted or measured airborne levels of a certain chemical do not exceed its screening level, we do not expect any adverse health or welfare effects. If ambient levels of air contaminants exceed the screening levels this does not necessarily mean there is a problem. It is just an indication that further review will be required.

This list incorporates some effects screening levels which have been derived by the Effects Evaluation staff. These are compounds for which there are no currently published occupational exposure standards or guidelines and are followed by a "D". Please note that some compounds' ESL have been changed or newly derived since the August 1, 1991 ESLs List. These compounds and the relative ESLs are printed in **boldface**. The 30-minute ESLs also can be used for the 1-hour ESLs. The 24-hour average ESLs can be obtained by multiplying a ratio of 0.4 to the relative 30-minute ESLs. If you cannot find a listing for a particular chemical, this does not mean that no health effects evaluation is required. Also note that these screening levels are subject to change without notice. To find out if a screening level has been established for a chemical or to be sure of the most current screening level, please check with the Effects Evaluation staff. Before you call us, please check synonyms & Chemical Abstract Service Registry numbers (CAS No.) to make sure the chemical you are interested in is not listed.

cc: Manuel Agiurre, JAW, MW, LCS, NG, LCH, RJT, JSL, File, Board.

FOOTNOTES

- * 30-minute or 1-hour average ESL less than annual average ESL
- ** Disaster potential chemical
- D Health ESLs derived by Effects Evaluation staff
- E ESLs based on Effects Evaluation staff's justification
- M Health ESLs based on the 1989 Maximum Concentration Values in the Workplace (MAKs) from the Deutsche Forschungsgemeinschaft (DFG), Federal Republic of Germany
- N Health ESLs based on the 1989 Recommended Exposure Limits (RELs) from the U.S. National Institute for Occupational Safety and Health (NIOSH)
- O Health ESLs based on the 1989 amended Permissible Exposure Limits (PELs) from the U.S. Occupational Safety and Health Administration (OSHA)
- T Health ESLs based on the 1991-92 Chemical Substances Threshold Limit Values (TLVs) from the American Conference of Governmental Industrial Hygienists (ACGIH)
- (PM) denotes particulate matter form, the respirable fraction of PM consists of those particles with particle sizes that are equal to or below the median cut point of 4.0 μm .
- (c) denotes that annual ESL is set to protect against corrosion damage
- (o) denotes that 30-minute or 1-hour ESL is based on odor threshold
- (v) denotes that 30-minute or 1-hour ESL is based on effects on vegetation

EFFECTS SCREENING LEVELS FOR VARIOUS CHEMICALS
(June 22, 1992)

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
AA				
75-07-0	acetaldehyde	90 (50)	*	(o)
60-35-5	acetamide	320 (132)	32 (13)	D
64-19-7	acetic acid	250 (100)	25 (10)	N,T,O
108-24-7	acetic anhydride	200 (50)	20 (5)	T,O
21287-97-3	acetoacetoxyethyl methacrylate	2000 (230)	200 (23)	D
67-64-1	acetone	5900 (2500)	590 (250)	N
75-86-5	acetone cyanohydrin	40 (10)	4 (1)	N
75-05-8	acetonitrile	340 (200)	34 (20)	N
74-86-2	acetylene	26620 (25000)	2660 (2500)	N
540-59-0	acetylene dichloride (1,2-dichloroethylene)	7930 (2000)	790(200)	N,T,O,M
79-27-6	acetylene tetrabromide	140 (10)	14 (1)	T,O
50-78-2	acetylsalicylic acid (aspirin)	50 (PM)	5	N,T,O
260-94-6	acridine (dibenzo[b,e]pyridine) [also see coal tar pitch volatiles]	0.5	.05	E
107-02-8	acrolein**	2.3 (1)	.23 (.1)	T
79-06-1	acrylamide	.3	.03	N,T,O
79-10-7	acrylic acid	60 (20)	6 (2)	N,T
141-32-2	acrylic acid, n-butyl ester	550 (100)	55 (10)	M
140-88-5	acrylic acid, ethyl ester	200 (50)	20 (5)	M
96-33-3	acrylic acid, methyl ester	180 (50)	18 (5)	M
107-13-1	acrylonitrile	43 (20)	4 (2)	T,O
281-23-2	adamantane (sym-tricyclodecane)	3850 (692)	385 (69)	D
107-13-1	adiponitrile	180 (40)	18 (4)	N
309-00-2	Aldrin	2.5 (PM)	.25	N,T,O,M
68239-06-5	aliphatic diisocyanate (see dimeryl diisocyanate)	.25	.025	D
-----	alkanes not otherwise specified	1000 ppb	100 pbb	D
-----	alkyl phenol, C-12	860	86	D
-----	alkyl phenol, C-20	1150	115	D
-----	alkyl phenol ethoxylate (see nonylphenyl ethoxylate)	1000	100	D
107-18-6	allyl alcohol	48 (20)	5 (2)	N,T,O,M
107-11-9	allylamine	12 (5)	1 (.5)	D
107-05-1	allyl chloride**	30 (10)	3 (1)	N,T,O
106-92-3	allyl glycidyl ether (AGE)	225 (50)	23 (5)	N,T,O
2179-59-1	allyl propyl disulfide	120 (20)	12 (2)	N,T,O,M
7539-12-0	allyl succinic anhydride	6 (1)	.6 (.1)	D

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
1344-28-1	alumina	see aluminum oxide		
7429-90-5	aluminum, metal and oxide	50	5	N, O
	pyro powders, welding fumes	50	5	N, T, O
	alkyls and soluble salts	20	2	N, T, O
-----	amino-3-aminomethyl-3,3,5-trimethylcyclohexane	375 (50)	38 (5)	D
141-43-5	aminoethanol (ethanolamine)	75 (30)	7.5 (3)	N, T, O, M
111-41-1	aminoethylethanolamine (hydroxyethyl ethylenediamine)	640 (150)	64 (15)	D
123-00-2	aminopropyl morpholine, 4-	1650 (280)	165 (28)	D
504-29-0	aminopyridine, 2-	20 (5)	2 (.5)	N, T, O, M
462-08-8	aminopyridine, 3-	15 (3.8)	1.5 (.38)	D
504-24-5	aminopyridine, 4-	2.5 (.7)	.25 (.07)	D
61-82-5	amino-1,2,4-triazole, 3- (Amitrole)	2	.2	N, T, O, M
7664-41-7	ammonia**	170 (250)	17 (25)	N, T
12125-02-9	ammonium chloride fume	100	10	N, T, O
3825-26-1	ammonium perfluorooctanate	1	.1	T
7773-06-0	ammonium sulfamate (Ammate)	50 (resp)	5	N, O
7783-20-2	ammonium sulfate	50 (PM)	5	D
628-63-7	amyl acetate, n-	27 (5) (o)	*	
628-38-0	amyl acetate, sec-	11 (2) (o)	*	
110-53-2	amyl bromide	250 (40)	25 (4)	D
109-67-1	amylene, 1- (1-pentene)	90 (30)	*	
110-66-7	amyl mercaptan	0.1 (.02)	*	(o)
628-80-8	amyl methyl ether, n-	670 (160) (o)	270 (65)	D
994-05-8	amyl methyl ether, tert- (TAME)	670 (160) (o)	270 (65)	D
80-46-6	amylphenol, p-tert-, vapor	700 (100)	70 (10)	D
		35 (PM)	3.5	D
872-10-6	amyl sulfide	.2 (.3)	*	(o)
62-53-3	aniline	76 (20)	7.6 (2)	N, T, O
29191-52-4	anisidine, o-, p- isomers	5 (1)	.5 (.1)	N, T, O, M
20-12-7	anthracene	0.5	0.05	E
7440-36-0	antimony, as Sb	5 (PM)	.5	N, T, O, M
1309-64-4	antimony trioxide	5 (PM)	.5	T
86-88-4	ANTU (α -naphthylthiourea)	3	.3	N, T, O, M
7440-37-1	argon	simple asphyxiant		
64742-95-6	Aromatic 100 (see trimethyl benzene)	1230 (250)	123 (25)	D
64742-94-5	Aromatic 150	2560 (455)	256 (46)	D
64742-94-5	Aromatic 200	4200 (620)	420 (62)	D
7440-38-2	arsenic and compounds	5 (organic)	.5	O, E
		.1 (inorg)	.01	O, E
7784-42-1	arsine	1.6 (.5)	.16 (.05)	T, O

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
17068-78-9	asbestos (fibers/cc)	.001	.0001	N
	($\mu\text{g}/\text{m}^3$)	.03	.003	
8052-42-4	asphalt, vapors	350 (135)	35 (13.5)	D
	particulate fraction	50	5	T
1912-24-9	Atrazine	50	5	N, T, O
86-50-0	Azinphos-methyl	2	.2	N, T, O, M

BB

7440-39-3	barium & compounds, as Ba	5	.5	N, T, O, M
7727-43-7	barium sulfate (PM)	50 (resp)	5	N, O
68359-37-5	Baythroid	50 (PM)	5	D
	(cyfluthrin, also see pyrethrum)			
-----	Beech wood dust	10	1	N, T
17804-35-2	Benomyl (PM)	50 (resp)	5	O
98-87-3	benzal chloride	20 (3)	2 (.3)	D
71-43-2	benzene	30 (10)	3 (1)	O
95-14-7	benzene azimide (benzotriazole)	100 (20)	10 (2)	D
8032-32-4	benzine	3500 (875)	350 (88)	N
	(light petroleum distillate; VM&P naphtha)			
205-99-2	benzo[b]fluoranthene	.5	.05	E
	(see coal tar pitch volatiles)			
100-47-0	benzonitrile	505 (120)	51 (12)	D
50-32-8	benzo[a]pyrene	.03 (PM)	.003	D
95-14-7	benzotriazole (benzene azimide)	100 (20)	10 (2)	D
98-88-4	benzoyl chloride	60 (10)	6 (1)	D
94-36-0	benzoyl peroxide	50	5	N, T, O, M
140-11-4	benzyl acetate	600 (100)	60 (10)	D
100-51-6	benzyl alcohol	500 (110)	50 (11)	D
100-44-7	benzyl chloride	50 (10)	5 (1)	T, O
98-87-3	benzyl dichloride	20 (3)	2 (.3)	D
	(benzal chloride)			
7440-41-7	beryllium and compounds	see TACB Reg III		
121-46-0	bicycloheptadiene	2000	200	D
82657-04-3	Bifenthrin	25	2.5	D
92-52-4	biphenyl	2.3 (o)	1.3	T
111-44-4	bis(chloroethyl) ether	290 (50)	29 (5)	N, T, O, M
	(dichloroethyl ether)			
542-88-1	bis(chloromethyl) ether	.05 (,01)	.005 (.001)	D
1304-82-1	bismuth telluride	100 (PM)	10	N, T
	resp. fraction	50	5	N
	selenium-doped	50	5	N, T, O
80-05-7	bisphenol A	800 (vapor)	80	D
		40 (PM)	4	D

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb) 30-minute or 1-hour	annual	
68475-96-0	Black Grit (Boiler Slag)	50 (PM)	5	D
	<u>borates, tetra, sodium salts:</u>			
1330-43-4	anhydrous	10	1	N,T
11130-12-4	pentahydrate	10	1	N,T
1303-96-4	decahydrate	50	5	N,T
10043-35-3	boric acid	10	1	D
1303-86-2	boron oxide	50 (resp)	5	N,O
10294-33-4	boron tribromide	100 (10)	10 (1)	N,T,O
7637-07-2	boron trifluoride	see TACB Reg III		
99-30-9	Botran 75W (2,6-dichloro-4-nitroaniline)	100	10	D
314-40-9	Bromacil	100 (10)	10 (1)	N,T,O
7726-95-6	bromine**	6.6 (1)	.66(.1)	N,T,O
7789-30-2	bromine pentafluoride	see TACB Reg III		
109-70-6	bromo-3-chloropropane, 1-	.5 (.075)	.05 (.0075)	D
74-97-5	bromochloromethane (chlorobromomethane)	1680 (o) (320)	1060 (200)	T
74-96-4	bromoethane	8900 (2000)	890 (200)	M
75-25-2	bromoform	52 (5)	5 (.5)	N,T,O
106-99-0	butadiene, 1,3-	110 (50)	11 (5)	E
106-97-8	butane	19000 (8000)	1900 (800)	N,T,O
109-79-5	butanethiol (butyl mercaptan)	1.8 (.5) (o)	1.8 (.5)	N,T,O
78-93-3	butanone (methyl ethyl ketone)	3900 (o) (1320)	590 (200)	T,M
111-76-2	butoxyethanol (ethylene glycol monobutyl ether)	1210 (250)	121 (25)	N,T,O
123-86-4	butyl acetate, n-	1850 (391) (o)	710 (150)	N,T,O
105-46-4	butyl acetate, sec-	9500 (2000)	950 (200)	NTOM
540-88-5	butyl acetate, tert-	19 (4)	*	o-OSHA
141-32-2	butyl acrylate	183 (35) (o)	52 (10)	NTOM
71-36-3	butyl alcohol, n-	1220 (407) (o)	150 (50)	N,T,O
78-92-2	butyl alcohol, sec-	3000 (1000)	300 (100)	NTOM
75-65-0	butyl alcohol, tert-	3000 (1000)	300 (100)	NTOM
109-73-9	butylamine, n-	150 (50)	15 (5)	N,T,O,M
13952-84-6	butylamine, sec-	150 (50)	15 (5)	M
75-64-9	butylamine, tert-	12 (4)	1.2 (.4)	D
85-68-7	butyl benzyl phthalate (BBP)	50 (PM)	5	D
128-37-0	butylated hydroxytoluene (BHT)	100	10	N,T,O
109-69-3	butyl chloride, n-	3335(886) (o)	440 (117)	D
1189-85-1	butyl chromate, tert- (as CrO ₃)	.1	.01	E
584-03-2	butylene glycol, 1,2-	2100 (570)	210 (57)	D
107-88-0	butylene glycol, 1,3-	4400 (1195)	440 (120)	D
110-63-4	butylene glycol, 1,4-	500 (136)	50 (14)	D

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)	annual	
		30-minute or 1-hour		
513-85-9	butylene glycol, 2,3-	1400 (380)	140 (38)	D
106-88-7	butylene oxide	206 (70) (o)	50 (17)	D
2426-08-6	butyl glycidyl ether (BGE)	266 (50)	27 (5)	N
7397-62-8	butyl glycolate	270 (50)	27 (5)	D
75-91-2	butyl hydroperoxide, tert-	35 (10)	3.5 (1)	D
111-36-4	butyl isocyanate	9 (2.2)	.9 (.22)	D
138-22-7	butyl lactate	300 (50)	30 (5)	N, T, O
109-79-5	butyl mercaptan, n-	1.8 (.5)	1.8 (.5)	(o)
97-88-1	butyl methacrylate	6970 (1200)	697 (120)	D
614-45-9	butyl peroxybenzoate, tert-	15 (2)	1.5 (.2)	D
99-71-8	butylphenol, p-sec-	130 (21)	13 (2.1)	D
89-72-5	butylphenol, o-sec-	310 (50)	31 (5)	N, T, O
98-54-4	butylphenol, p-tert-	5 (.8)	.5 (.08)	M
98-51-1	butyltoluene, p-tert-	610 (100)	61 (10)	N, T, O, M
-----	butyltoluene diamine, tert-	70 (10)	7 (1)	D
98-19-1	butyl-m-xylene, tert- (see Aromatics 150)	3300 (500)	330 (50)	D
123-72-8	butyraldehyde	14 (5) (o)	*	
616-45-5	butyrolactam, gamma- (2-pyrrolidone)	70	7	D
96-48-0	butyrolactone, gamma-	2800 (800)	280 (80)	D
109-74-0	butyronitrile	220 (80)	22 (8)	N

CC

7440-43-9	cadmium & compounds, as Cd	.1	.01	N, E
7778-44-1	calcium arsenate (as As)	.1	.01	O, E
1317-65-3	calcium carbonate (marble)	100 (total)	10	N, T
		50 (resp)	5	N, O
13765-19-0	calcium chromate (as Cr)	.1	.01	E
156-62-7	calcium cyanamide	5	.5	N, T, O
1305-62-0	calcium hydroxide	50	5	N, T, O
1305-78-8	calcium oxide	20	2	N, T
1344-95-2	calcium silicate, synthetic	100	10	T
7778-18-9	calcium sulfate (gypsum)	100 (total)	10	N, T
		50 (resp)	5	N, O
5794-03-6	camphene (see camphor)			
76-22-2	camphor, synthetic	20	2	N, O
105-60-2	caprolactam dust	10	1	N, T, O
105-60-2	caprolactam vapor	10 (2.2)	1 (.22)	N
2425-06-1	Captafol	1	.1	N, T, O
133-06-2	Captan	50	5	N, T, O
63-25-2	Carbaryl	50	5	N, T, O, M
1563-66-2	Carbofuran	1	.1	N, T, O

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
1333-86-4	carbon black,	35	3.5	N,T,O
	in presence of PAHs	1	.1	N
124-38-9	carbon dioxide	90000 (50000)	9000 (5000)	N,O,M
75-15-0	carbon disulfide**	30 (10)	3 (1)	N
630-08-0	carbon monoxide	must meet NAAQS		
558-13-4	carbon tetrabromide	14 (1)	1.4 (.1)	N,T,O
56-23-5	carbon tetrachloride	126 (20)	13 (2)	N,O
75-44-5	carbonyl chloride** (phosgene)	4 (1)	.4 (.1)	N,T,O,M
353-50-4	carbonyl fluoride	54 (20)	5 (2)	N,T,O
463-58-1	carbonyl sulfide	8 (3)	.8 (.3)	D
120-80-9	catechol	230 (50)	23 (5)	N,T,O
9004-34-6	cellulose	100 (total)	10	N,T
		50 (resp)	5	N,O
21351-79-1	cesium hydroxide	20	2	N,T,O
2917-26-2	cetylmercaptan	53 (5)	5 (.5)	N
57-74-9	Chlordane	5	.5	N,T,O,M
143-50-0	chlordecone (Kepone)	.01	.001	N
8001-35-2	chlorinated camphene (Toxaphene)	5	.5	T,O,M
31242-93-0	chlorinated diphenyl oxide	5	.5	N,T,O,M
7782-50-5	chlorine**	15 (5)	1.5 (.5)	N,T,O,M
10049-04-4	chlorine dioxide	2.8 (1)	.3 (.1)	N,T,O,M
7790-91-2	chlorine trifluoride	see TACB Reg III		
107-20-0	chloroacetaldehyde	32 (10)	3 (1)	N,T,O,M
78-95-5	chloroacetone	38 (10)	4 (1)	T
532-27-4	chloroacetophenone	3.2 (.5)	.3 (.05)	N,T,O
79-04-9	chloroacetyl chloride	2.3 (.5)	.23 (.05)	N,T,O
108-42-9	chloroaniline, m-	31 (6)	3.1 (.6)	D
106-47-8	chloroaniline, p-	53 (10)	5.3 (1)	D
95-51-2	chloroaniline, o-	53 (10)	5.3 (1)	D
108-90-7	chlorobenzene	460 (100)	46 (10)	T
104-83-6	chlorobenzyl chloride	26 (4)	2.6 (.4)	D
2698-41-1	chlorobenzylidene malono- nitrile, o-	4 (.5)	.4 (.05)	N,T,O
74-97-5	chlorobromomethane	10600(2000)	1060 (200)	T
1126-99-8	chloro-1,3-butadiene, 2- (β -chloroprene)	36 (10)	3.6 (1)	N
59-50-7	chlorocresol	20 (o)	*	
75-68-3	chlorodifluoroethane (Freon 142B)	61700 (18750)	6170 (1875)	D
74-45-6	chlorodifluoromethane (Freon 22)	18000 (5000)	1800 (500)	M
53469-21-9	chlorodiphenyl, 42% Cl ₂ (PCBs)	.1	.01	E
11097-69-1	chlorodiphenyl, 54% Cl ₂ (PCBs)	.1	.01	E

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
106-89-8	chloro-2,3-epoxypropane (epichlorohydrin)	3.8 (1)	.38 (.1)	T
75-00-3	chloroethane	500(190)	50(19)	E
107-07-3	chloroethanol, 2- (ethylene chlorohydrin)	33 (10)	3.3 (1)	N,T,O,M
75-01-4	chloroethylene (vinyl chloride)	130 (50)	13 (5)	T
67-66-3	chloroform	100 (20)	10 (2)	O
-----	chloroglycerin	50 (11)	5 (1)	D
542-88-1	chloromethyl ether, bis-	.047 (.01)	.0047 (.001)	T
107-30-2	chloromethyl methyl ether	.5	.05	D
600-25-9	chloronitropropane	100 (20)	10 (2)	N,T,O
76-15-3	chloropentafluoroethane	63200 (10000)	6320 (1000)	N,T,O
95-57-8	chlorophenol, o-	2(.36)(o)	*	
108-43-0	chlorophenol, m-	19(3.6)(o)	*	
106-47-9	chlorophenol, p-	300(57)	30(5.7)	D
76-06-2	chloropicrin	7 (1)	.7 (.1)	N,T,O,M
126-99-8	β -chloroprene	36 (10)	3.6 (1)	N
598-78-7	chloropropionic acid	4.4 (1)	0.44 (.1)	T
2039-87-4	chlorostyrene, o-	2850 (500)	285 (50)	N,T,O
1897-45-6	Chlorothalonil	15	1.5	D
95-49-8	chlorotoluene, o-	235 (o)	*	
-----	chlorotrifluoromethylphenoxy- toluene	300	30	D
1929-82-4	2-chloro-6-(trichloromethyl)- pyridine (Nitrapyrin)	50 (resp)	5	O
2921-88-2	Chlorpyrifos (Dursban)	2	.2	N,T,O
7738-94-5	chromic acid (H_2CrO_4) & chromate (CrO_4^{2-})	.1	.01	E
7440-47-3	chromium (VI) compounds, as Cr	.1	.01	E
7440-47-3	chromium (II) & (III) cpds, chromium metal, as Cr	1	.1	E
1333-82-0	chromium trioxide (CrO_3), as Cr	.1	.01	E
14977-61-8	chromyl chloride	.1	.01	E
218-01-9	chrysene	.5	.05	M
2971-90-6	Clopidol	100 (PM) 50 (resp)	10 5	N,T
-----	coal dust, respirable (<5% silica)	20	2	T,O
	(>5% silica)(see quartz)	1	.1	T,O
8007-45-2	coal tar [also 65996-89-6]	1	.1	N
65996-92-1	coal tar distillate	3500 (875)	350 (88)	N
8030-30-6	coal tar naphtha (petroleum distillates, naphtha)	3500 (875)	350 (88)	N
8001-58-9	coal tar oil (creosote)	1	.1	N

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
65996-93-2	coal tar pitch volatiles (assume the fraction of benzo[a]pyrene not exceed 10% of total PPAH)	.5	.05	E
7440-48-4	cobalt, metal dust & fume	.5	.05	N,T,O
10210-68-1	cobalt carbonyl	1	.1	N,T,O
16842-03-8	cobalt hydrocarbonyl	1	.1	N,T,O
-----	coke oven emissions	1.5	.15	O
7440-50-8	copper fume	1	.1	N,O,M
7440-50-8	copper dusts & mists	10	1	N,T,O,M
-----	cotton dust, raw	2	.2	Ø
8001-58-9	creosote (coal tar oil)	1	.1	N
1319-77-3	cresol (cresylic acid), mixed isomers	5(1.1)(o)	10(2.3)	N
	[also any isomers: 108-39-4; 95-48-4; 106-44-5]			
4170-30-3	crotonaldehyde	60 (20)	6 (2)	N,T,O
299-86-5	Cruformate	50	5	N,T,O
98-82-8	cumene	500(100)(o)	245 (50)	
80-15-9	cumene hydroperoxide	25 (4.4)	2.5 (.44)	D
420-04-2	cyanamide	20	2	N,T,O
143-33-9	cyanide, potassium	50	5	T,O,M
151-50-8	cyanide, sodium	50	5	T,O,M
460-19-5	cyanogen	210 (100)	21 (10)	N,T,O,M
506-68-3	cyanogen bromide	2.5 (.6)	.25 (.06)	D
506-77-4	cyanogen chloride	.6 (.3)	.06 (.03)	N
204-62-2	cyclododecane	5150 (750)	515 (75)	D
1724-39-6	cyclododecanol	9800 (1300)	980 (130)	D
830-13-7	cyclododecanone	1600 (150)	160 (15)	D
291-64-5	cycloheptane	3400 (850)	340 (85)	D
110-82-7	cyclohexane	1435 (o)	340	
108-93-0	cyclohexanol	613 (153)(o)	200 (50)	
108-94-1	cyclohexanone	481 (120)(o)	100 (25)	
110-83-8	cyclohexene	600 (178)(o)	*	
108-91-8	cyclohexylamine	80 (20)	8 (2)	E
3173-53-3	cyclohexyl isocyanate	20 (4)	2 (.4)	D
1569-69-3	cyclohexylmercaptan	24 (5)	2.4 (.5)	N
121-82-4	cyclonite	15	1.5	N,T,O
29965-97-7	cyclooctadiene	2000 (470)	200 (47)	D
292-64-8	cyclooctane	3500 (750)	350 (75)	D
542-92-7	cyclopentadiene	2030 (750)	203 (75)	N,T,O,M
287-92-3	cyclopentane	3400 (1190)	340 (119)	D
120-92-3	cyclopentanone	1700 (500)	170 (50)	D
68359-37-5	cyfluthrin (Baythroid)	50(PM)	5	D
13121-70-5	Cyhexatin	50	5	N,T,O
99-87-6	cymene, p- (p-methyl cumene)	2745 (500)	275 (50)	D
66841-24-5	Cypermethrin (see pyrethrum)	50	5	D

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
39515-41-8	Danitol (Fenpropathrin) (see Pyrethrum)	50 (PM)	5	D
94-75-7	2,4-D (Dichlorophenoxy- acetic acid)	100	10	N,T,O,M
50-29-3	DDT (Dichlorodiphenyl- trichloroethane)	1	.1	N
75-99-0	Dalapon (2,2-dichloropropionic acid)	58 (10)	5.8 (1)	N,T,O,M
17702-41-9	decaborane	2.5 (.5)	.25 (.05)	N,T,O
143-10-2	decyl mercaptan	36 (5)	3.6 (.5)	N
8022-00-2	demethon-methyl	50 (5)	5 (.5)	M
8065-48-3	Demeton	1 (.1)	.1 (.01)	N,T,O
123-42-2	diacetone alcohol	1328 (279)	238 (50)	(o)
56-18-8	diaminodipropylamine, 3,3'- (dipropylene triamine)	60 (11)	6 (1)	D
107-15-3	diaminoethane, 1,2- (ethylenediamine)	250 (100)	25 (10)	N,T,O,M
61790-53-2	diatomaceous earth (silica-amorphous)	60	6	N
333-41-5	Diazinon	1	.1	N,T,O
334-88-3	diazomethane	3.4 (2)	.34 (.2)	N,T,O
260-94-6	dibenzo[b,e]pyridine (acridine) [also see coal tar pitch volatiles]	.5	.05	E
19287-45-7	diborane	1.1 (1)	.11 (.1)	N,T,O,M
300-76-5	dibrom	30 (PM)	3	M
96-12-8	dibromochloropropane (DBCP)	.1 (.01)	.01 (.001)	O
106-93-4	dibromoethane, 1,2- (ethylene dibromide)	3.8 (.5)	.38 (.05)	N
102-81-8	dibutylaminoethanol	140 (20)	14 (2)	N,T,O
105-76-0	dibutyl maleate (DBM)	2600 (280)	260 (28)	D
2528-36-1	dibutyl phenyl phosphate	35 (3)	3.5 (.3)	T
107-66-4	dibutyl phosphate	86 (10)	8.6 (1)	T
84-74-2	dibutyl phthalate	50 (PM)	5	N,T,O
7572-29-4	dichloroacetylene	3.9 (1)	.39 (.1)	N,T,O
95-82-9	dichloroaniline, 2,5-	210 (32)	21 (3.2)	D
95-76-1	dichloroaniline, 3,4-	80 (12)	8 (1.2)	D
541-73-1	dichlorobenzene, m-	2500 (415)	250 (42)	D
95-50-1	dichlorobenzene, o-	1500 (250)	150 (25)	T
106-46-7	dichlorobenzene, p-	600 (100)	60 (10)	T
28577-62-0	dichlorobutadiene	165	17	D
760-23-6	dichloro-1-butene, 3,4-	135 (26)	14 (2.6)	D
7415-31-8	dichloro-2-butene, 1,3- [also 926-57-8]	56 (11)	5.6 (1.1)	D

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
764-41-0	dichloro-2-butene, 1,4-	6 (1.2)	.6 (.12)	D
75-71-8	dichlorodifluoromethane (Freon 12)	49500 (10000)	4950 (1000)	N,T,O,M
118-52-5	dichlorodimethylhydantoin	2	.2	N,T,O
75-34-3	dichloroethane, 1,1-	4000 (1000)	400 (100)	NTOM
107-06-2	dichloroethane, 1,2- (ethylene dichloride)	40 (10)	4 (1)	N,O
75-35-4	dichloroethylene, 1,1- (vinylidene chloride)	40 (10)	4 (1)	O
540-59-0	dichloroethylene, 1,2-	7930 (2000)	790 (200)	NTOM
111-44-4	dichloroethyl ether	290 (50)	29 (5)	N,T,O,M
75-43-4	dichlorofluoromethane (Freon 21)	420 (100)	42 (10)	N,T,O,M
96-23-1	dichlorohydrin	130 (25)	13 (2.5)	D
542-88-1	dichloromethyl ether [bis(chloromethyl) ether]	.05	.005	D
75-09-2	dichloromethane (methylene chloride)	260 (75)	26 (7.5)	E
676-97-1	dichloromethyl phosphine oxide	3	.3	D
99-30-9	dichloro-4-nitroaniline, 2,6- (Botran 75W)	100	10	D
-----	dichloronitrobenzene, all isomers	9	.9	D
594-72-9	dichloro-1-nitroethane, 1,1-	120 (20)	12 (2)	N,T,O
120-83-2	dichlorophenol, 2,4-	525	53	D
87-65-0	dichlorophenol, 2,6-	20	*	(o)
78-87-5	dichloropropane, 1,2- (propylene dichloride)	1150(o) (250)	350 (75)	T,O,M
542-75-6	dichloropropene, 1,3-	45 (10)	4.5 (1)	N,T,O
709-98-8	dichloropropionanilide (Propanil)	15 (PM)	1.5	D
75-99-0	dichloropropionic acid, 2,2- (Dalapon)	58 (10)	5.8 (1)	N,T,O,M
76-14-2	dichlorotetrafluoroethane (Freon 114)	69900 (10000)	6990 (1000)	N,T,O,M
62-73-7	Dichlorvos (DDVP)	9 (1)	.9 (.1)	N,T,O,M
141-66-2	Dicrotophos	2.5	.25	N,T,O
5124-30-1	dicyclohexylmethane-4,4'- diisocyanate	.55	.055	D
77-73-6	dicyclopentadiene	31 (6)	27 (5)	(o)
102-54-5	dicyclopentadienyl iron	50 (resp)	5	N,O
60-57-1	Dieldrin	2.5	.25	N,T,O,M
68334-30-5	diesel fuel combustion products	90 (vapor) 10 (PM)	9 1	D D
111-42-2	diethanolamine	130 (30)	13 (3)	N,T,O

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
109-89-7	diethylamine	179 (60) (o)	30 (10)	
100-37-8	diethylaminoethanol	55 (11) (o)	48 (10)	
25340-17-4	diethyl benzene	2500 (455)	250 (46)	D
111-90-0	diethylene glycol monoethyl ether (ethyl Carbitol)	1500 (208)	150 (21)	D
111-40-0	diethylene triamine	42 (10)	4.2 (1)	N,T,O
3710-84-7	diethylhydroxylamine	400	40	D
60-29-7	diethyl ether (ethyl ether)	930 (300) (o)	*	
117-81-7	di(2-ethylhexyl)phthalate (di-sec-octyl phthalate)	50	5	N,T,O
96-22-0	diethyl ketone	7050 (2000)	705 (200)	N,T,O
2524-04-1	diethyl phosphorochloro- dithioate (ethyl PCT)	70	7	D
84-66-2	diethyl phthalate	50	5	N,T,O
64-67-5	diethyl sulfate	25	2.5	D
105-55-5	diethylthiourea	50 (PM)	5	D
75-61-6	difluorodibromomethane (Freon 12B2)	8580 (1000)	858 (100)	N,T,O,M
2238-07-5	diglycidyl ether (DGE)**	5.3 (1)	0.53 (.1)	N,T,O
929-06-6	diglycolamine	380	38	D
123-31-9	dihydroxybenzene (hydroquinone)	20	2	T,O,M
110-96-3	diisobutylamine	125	13	D
108-82-7	diisobutylcarbinol (2,6-dimethyl-4-heptanol)	188 (o)	100 (D)	
108-83-8	diisobutyl ketone	639 (110)	145 (25)	(o)
84-69-5	diisobutyl phthalate (see dibutyl phthalate)	50 (PM)	5	D
110-97-4	diisopropanolamine (DIPA)	460	46	D
108-18-9	diisopropylamine	210 (50)	21 (5)	N,T,O
68239-06-5	dimeryl diisocyanate	.25	.025	D
110-71-4	dimethoxyethane, 1,2- (ethylene glycol dimethyl ether, EGDME)	220 (60)	22 (6)	D
109-87-5	dimethoxymethane (methylal)	31100 (10000)	3110 (1000)	N,T,O,M
127-19-5	dimethyl acetamide	360 (100)	36 (10)	N,T,O,M
124-40-3	dimethylamine	92 (50)	9.2 (5)	T
1300-73-8	dimethylaminobenzene (xylidine)	25 (5)	2.5 (.5)	N
108-01-0	dimethylaminoethanol (deanol)	55 (o)	50	D
1704-62-7	dimethylaminoethoxyethanol	130 (24)	13 (2.4)	D
121-69-7	dimethylaniline, N,N-	64 (32) (o)	10 (5)	N
1330-20-7	dimethylbenzene (xylene)	3700 (850) (o)	435 (100)	N,T,O
75-83-2	dimethyl butane (see hexane isomers)	3500 (1000)	350 (100)	N
-----	dimethylcyclohexylamine, N,N-	100	10	D

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
300-76-5	dimethyl-1,2-dibromo-2,2-dichloroethyl phosphate (Naled)	30	3	N,T,O,M
108-01-0	dimethylethanolamine (dimethylaminoethanol)	55 (o)	50	D
115-10-6	dimethyl ether	19100 (10000)	1910 (1000)	M
598-56-1	dimethyl ethyl amine, N,N-	750 (250)	75 (25)	M
68-12-2	dimethylformamide	300 (100)	30 (10)	N,T,O
108-83-8	dimethyl-4-heptanone, 2,6- (diisobutyl ketone)	640 (o) (110)	145 (25)	N,T,O
108-82-7	dimethyl-4-heptanol, 2,6- (diisobutylcarbinol)	188 (o)	100	D
57-14-7	dimethylhydrazine, 1,1-	.25 (,1)	.025 (.01)	T
-----	dimethyl-3-hydroxythiophene, 2,4-	100	10	D
-----	dimethyl oxazolidinone	2500	250	D
131-11-3	dimethylphthalate	50 (PM)	5	N,T,O
3179-63-3	dimethyl propanolamine	750	75	D
77-78-1	dimethyl sulfate	5.2 (1)	.52 (.1)	N,T,O
75-18-3	dimethyl sulfide	3 (o)	*	
67-68-5	dimethyl sulfoxide (DMSO)	140	14	D
148-01-6	dinitolmide (3,5-dinitro-o-toulamide; zoalene)	50 (PM)	5	N,T,O
528-29-0	dinitrobenzene (all isomers) [also 99-65-0; 100-25-4]	10 (1.5)	1 (.15)	N,T,O
534-52-1	dinitro-o-cresol	2 (PM)	.2	N,T,O,M
25550-58-7	dinitrophenol	3 (PM)	.3	D
25321-14-6	dinitrotoluene	15 (PM)	1.5	N,T,O
101-67-7	dioctyldiphenylamine	100	10	D
123-91-1	dioxane, 1,4-	900 (250)	90 (25)	T,O
78-34-2	Dioxathion (Delnav)	2 (PM)	.2	N,T,O
1746-01-6	dioxins, polychlorinated-dibenzo-p- (as 2,3,7,8-tetrachlorodibenzo-p-dioxin, TCDD)	---	9.2×10^{-8}	E, NY
646-06-0	dioxolane, 1,3-	520 (172)	52 (17)	D
122-39-4	diphenylamine	100 (PM)	10	N,T,O
101-68-8	diphenylmethane-4,4'-diisocyanate (methylene bisphenyl isocyanate)	.5 (.05)	.05 (.005)	N.T
142-84-7	dipropylamine	200 (48)	20 (5)	D
34590-94-8	dipropylene glycol methyl ether	3000 (500)	300 (50)	M
56-18-8	dipropylene triamine	60 (11)	6 (1)	D
111-43-3	dipropyl ether (propyl ether)	2500 (600)	250 (60)	D
123-19-3	dipropyl ketone	2330 (500)	233 (50)	N,T,O
231-36-7	Diquat	5 (total) 1 (resp)	.5 .1	N,T,O T
85-00-7	Diquat dibromide	same as Diquat		
6385-62-2	Diquat dibromide monohydrate	same as Diquat		

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
75-04-7	ethylamine	180 (100)	18 (10)	N,T,O,M
541-85-5	ethyl amyl ketone	1310 (250)	131 (25)	N,T,O
103-69-5	ethylaniline	20	2	D
100-41-4	ethyl benzene	2000 (460) (o)	434 (100)	
-----	ethyl benzene hydroperoxide	4350	435	D
74-96-4	ethyl bromide	220 (50)	22 (5)	T
628-81-9	ethyl butyl ether	2340 (560)	234 (56)	D
106-35-4	ethyl butyl ketone	2340 (500)	234 (50)	N,T,O
75-00-3	ethyl chloride	500 (189)	50 (19)	E
541-41-3	ethyl chlorocarbonate (ethyl chloroformate)	5	.5	D
107-12-0	ethyl cyanide (propionitrile)	140 (60)	14 (6)	N
74-85-1	ethylene	1170	117	(v)
-----	ethylene bisdithiocarbamates (EBDCs, see ethylene thiourea)	50 (PM)	5	D
107-07-3	ethylene chlorohydrin	33 (10)	3.3 (1)	N,T,O,M
110-61-2	ethylene cyanide (succinonitrile)	200 (60)	20 (6)	N
107-15-3	ethylenediamine	250 (100)	25 (10)	N,T,O,M
106-93-4	ethylene dibromide	3.8 (.5)	.38 (.05)	N
107-06-2	ethylene dichloride	40 (10)	4 (1)	N,O
107-21-1	ethylene glycol	1270 (500)	127 (50)	T,O
111-55-7	ethylene glycol diacetate	555 (o)	85	D
110-71-4	ethylene glycol dimethyl ether (1,2-methoxyethane, EGDME)	220 (60)	22 (6)	D
628-96-6	ethylene glycol dinitrate	1	.1	N,O
111-76-2	ethylene glycol monobutyl ether (butyl Cellosolve)	1210 (250)	121 (25)	N,T,O
112-07-2	ethylene glycol monobutyl ether acetate	1310 (200)	131 (20)	M
110-80-5	ethylene glycol monoethyl ether (ethyl Cellosolve)	180 (50)	18 (5)	T
111-15-9	ethylene glycol monoethyl ether acetate	270 (50)	27 (5)	T
112-25-4	ethylene glycol monohexyl ether (2-hexyloxyethanol)	2100 (350)	210 (35)	D
109-59-1	ethylene glycol monoiso- propyl ether	1060 (250)	106 (25)	T,O
109-86-4	ethylene glycol monomethyl ether (methyl Cellosolve)	160 (50)	16 (5)	T,M
110-49-6	ethylene glycol monomethyl ether acetate	240 (50)	24 (5)	T,M
122-99-6	ethylene glycol monophenyl ether (phenyl Cellosolve)	170 (30)	17 (3)	D

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb) 30-minute or 1-hour	annual	
2807-30-9	ethylene glycol monopropyl ether	1500 (250)	150 (25)	D
75-21-8	ethylene oxide	18 (10)	1.8 (1)	T,O
96-45-7	ethylene thiourea (ETU)	50 (PM)	5	D
151-56-4	ethylenimine**	8.8 (5)	.88 (.5)	T
60-29-7	ethyl ether	927 (306)	*	(o)
763-69-9	ethyl-3-ethoxypropionate	400 (67)	40 (7)	D
109-94-4	ethyl formate	3030 (1000)	303 (100)	NTOM
94-96-2	2-ethyl hexanediol-1,3	500	50	D
123-05-7	ethylhexyl aldehyde	1400 (267)	140 (27)	D
75-34-3	ethylidene chloride (1,1-dichloroethane)	4000 (1000)	400 (100)	N,O,M
16219-75-3	ethylidene norbornene	70 (14) (o)	25 (5)	
97-64-3	ethyl lactate	120 (25)	12 (2.5)	D
75-08-1	ethyl mercaptan**	.8 (o)	*	
97-63-2	ethyl methacrylate	32 (7) (o)	*	
18328-90-0	ethyl-2-methylallylamine	50	5	D
100-74-3	ethylmorpholine, N-	240 (50)	24 (5)	N,T,O
645-62-5	ethyl-3-propyl acrolein (2-ethyl hexenal)	150 (29)	15 (3)	D
78-10-4	ethyl silicate	850 (100)	85 (10)	N,T,O
352-93-2	ethyl sulfide	16 (o)	*	
620-14-4	ethyltoluene, m- (1-methyl-3-ethylbenzene, see trimethyl benzene)	1250 (250)	125 (25)	D
622-96-8	ethyltoluene, p- (1-methyl-4-ethylbenzene, see trimethyl benzene)	1250 (250)	125 (25)	D
611-14-3	ethyltoluene, o- (1-methyl-2-ethylbenzene, see trimethyl benzene)	1250 (250)	125 (25)	D

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22224-92-6	Fenamiphos	1	.1	N,T,O
39515-41-8	Fenpropathrin (Danitol) (see Pyrethrum)	50 (PM)	5	D
115-90-2	Fensulfothion (Dasanit)	1	.1	N,T,O
55-38-9	Fenthion	2	.2	T,O,M
51630-58-1	Fenvalerate (see pyrethrum)	50	5	D
14484-64-1	Ferbam	50	5	O
12604-58-9	ferrovanadium dust	10	1	N,T,O,M
-----	fibrous glass dust,	50	5	N
-----	fluorides, as F	see TACB Reg III		
7782-41-4	fluorine	2 (1)	.2 (.1)	N,O,M
406-90-6	fluroxene	103 (20)	10 (2)	N
944-22-9	Fonophos	1	.1	N,T,O

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
106-35-4	heptanone, 3- (ethyl butyl ketone)	2340 (500)	234 (50)	N,T,O
111-14-8	heptanoic acid	108 (o)	53	D
111-70-6	heptyl alcohol	1900 (o)	270	
1639-09-4	heptylmercaptan, n-	1 (o)	*	
118-74-1	hexachlorobenzene (HCB)	.25	.025	T
87-68-3	hexachlorobutadiene	2.1 (.2)	.21 (.02)	N,T,O
58-89-9	Hexachlorocyclohexane, gamma- (Lindane)	5	.5	N,T,O,M
77-47-4	hexachlorocyclopentadiene	1.1 (.1)	.11 (.01)	N,T,O
67-72-1	hexachloroethane	97 (10)	10 (1)	N,T,O,M
1335-87-1	hexachloronaphthalene	2	.2	N,T,O
1888-71-7	hexachloropropene	60	6	D
2917-26-2	hexadecyl mercaptan (cetylmercaptan)	53 (5)	5 (.5)	N
648-16-2	hexafluoroacetone	7 (1)	.7 (.1)	N,T,O
124-09-4	hexamethylene diamine	3.2 (o)	*	
822-06-0	hexamethylene diisocyanate(HDI)	.34 (.05)	.03 (.005)	Ψ
28182-81-2	hexylmenthylene diisocyanate polymer	50(PM)	5	D
629-11-8	hexamethylene glycol	750	75	D
111-49-9	hexamethyleneimine	100 (25)	10 (2.5)	D
100-97-0	hexamethylenetetramine	170	17	D
110-54-3	hexane, n-	1760 (500)	176(50)	N,T,O,M
-----	hexane, other isomers	3500 (1000)	350 (100)	N
124-09-4	hexanediamine, 1,6-	23 (5)	2.3 (.5)	T
591-78-6	hexanone, 2- (methyl n-butyl ketone)	40 (10)	4 (1)	N
108-10-1	hexone (methyl isobutyl ketone)	2050 (500)	205 (50)	N,T,O
108-84-9	hexyl acetate, sec-	12 (2)	*	(o)
111-25-1	hexyl bromide	135 (20)	14 (2)	D
107-41-5	hexylene glycol	1210 (250)	121 (25)	N,T,O
111-31-9	hexylmercaptan, N-	27 (5)	2.7 (.5)	N
302-01-2	hydrazine	0.13 (.1)	.013 (.01)	T
7782-79-8	hydrazoic acid	2.7 (1)	.27 (.1)	M
1333-74-0	hydrogen	simple asphyxiant		
61788-32-7	hydrogenated terphenyls	50 (5)	5 (.5)	N,T,O
10035-10-6	hydrogen bromide**	100 (30)	10 (3)	N,T,O
7647-01-0	hydrogen chloride**	75 (50)	.1 (c)	N,T,O
74-90-8	hydrogen cyanide	50 (47)	5 (4.7)	N,O
7664-39-3	hydrogen fluoride**	see TACB Reg III		
10034-85-2	hydrogen iodide	150 (30)	15 (3)	D
7722-84-1	hydrogen peroxide	14 (10)	1.4 (1)	N,T,O,M
7783-07-5	hydrogen selenide (as Se)	1.6 (.5)	.16 (.05)	NTOM
7783-06-4	hydrogen sulfide**	see TACB Reg II		

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb) 30-minute or 1-hour	annual	
126-98-7	methylacrylonitrile (methacrylonitrile)	27 (10)	2.7 (1)	N,T,O
109-87-5	methylal (dimethoxymethane; methoxymethane)	31100 (10000)	3110 (1000)	N,T,O,M
67-56-1	methyl alcohol	2620 (2000)	262 (200)	NTOM
74-89-5	methylamine	64 (50)	6.4 (5)	T
108-11-2	methyl amyl alcohol (methyl isobutyl carbinol)	292 (70) (o)	104 (25)	N,T,O,M
110-43-0	methyl n-amyl ketone	94 (o)	*	
100-61-8	methyl aniline, N-	22 (5)	2.2 (.5)	N,T,O,M
589-18-4	methylbenzyl alcohol	600 (120)	60 (12)	D
74-83-9	methyl bromide**	190 (50)	19 (5)	T,O,M
591-78-6	methyl n-butyl ketone	40 (10)	4 (1)	N
1634-04-4	methyl-tert-butyl ether (MTBE)	600(125) (o)	288(80)	D
-----	methylbutyraldehyde	1800 (510)	180 (51)	D
74-87-3	methyl chloride	1030 (500)	103 (50)	T,O,M
71-55-6	methyl chloroform (1,1,1-trichloroethane)	10800(2000)	1080 (200)	M
79-22-1	methyl chloroformate	2	.2	D
137-05-3	methyl 2-cyanoacrylate	91 (20)	9.1 (2)	N,T,O,M
108-87-2	methyl cyclohexane	16100(4000)	1610 (400)	N,T,O
25639-42-3	methyl cyclohexanol	2340 (500)	234 (50)	N,T,O,M
583-60-8	methyl cyclohexanone, o-	2290 (500)	229 (50)	N,T,O,M
12108-13-3	methyl cyclopentadienyl manganese tricarbonyl	2	.2	N,T,O
96-37-7	methylcyclopentane	2580 (750)	258 (75)	D
8022-00-2	methyl demeton	5	.5	N,T,O,M
105-59-9	methyldiethanolamine	500 (100)	50 (10)	D
101-68-8	methylene bisphenyl diisocyanate (MDI)	.5 (.05)	.05 (.005)	N,T
75-09-2	methylene chloride	260 (75)	26 (7.5)	E
101-14-4	methylene bis(2-chloro- aniline), 4,4'- (MBOCA)	2.2 (.2)	.22 (.02)	T,O
5124-30-1	methylene bis(4-cyclo- hexylisocyanate)	.54 (.05)	.054 (.005)	T
101-77-9	methylene dianiline, 4,4'	8.1 (1)	.81 (.1)	T
115-10-6	methyl ether (dimethyl ether)	19100 (10000)	1910 (1000)	M
-----	methyl ethyl benzene, all isomers (ethyltoluene, m-, p-, o-)	1250 (250)	125 (25)	N,T,O
78-93-3	methyl ethyl ketone (MEK)	3900 (1320) (o)	590 (200)	N,T,O,M
96-29-7	methyl ethyl ketone oxime	1960 (550)	196 (55)	D
1338-23-4	methyl ethyl ketone peroxide	15 (2)	1.5 (.2)	N,T
107-31-3	methyl formate	2460 (1000)	246(100)	N,T,O,M
534-22-5	methylfuran, 2-	550	55	D
540-84-1	methyl heptane (isooctane)	3500(750)	350(75)	D

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
93763-70-3	perlite	50	5	N, O
52645-53-1	Permethrin (see pyrethrum)	50 (PM)	5	D
-----	petroleum distillates (see VM&P naphtha)	3500 (875)	350 (88)	N
8030-30-6	petroleum ether (VM&P naphtha)	3500 (875)	350 (88)	N
8032-32-4	petroleum spirit (VM&P naphtha)	3500 (875)	350 (88)	N
532-27-4	phenacyl chloride (α -chloroacetophenone)	3.2 (.5)	.32 (.05)	N, T, O
85-01-8	phenanthracene (see coal tar pitch volatiles)	0.5	0.05	E
156-43-4	phenetidine, p-	150	15	D
103-73-1	phenetole (phenyl ethyl ether)			
108-95-2	phenol	154 (40) (o)	19 (5)	N, T, O, M
92-84-2	phenothiazine	50	5	N, T, O
108-45-2	phenylene diamine, m-	1	.1	T
95-54-5	phenylene diamine, o-	1	.1	T
106-50-3	phenylene diamine, p-	1	.1	T
101-84-8	phenyl ether (diphenyl oxide)	8 (1.1) (o)	7 (1)	N, T, O, M
60-12-8	phenylethyl alcohol	500 (110)	50 (11)	D
100-42-5	phenylethylene (styrene)	430 (100) (o)	85 (20)	M
122-60-1	phenyl glycidyl ether (PGE)	60 (10)	6 (1)	N, T, O, M
100-63-0	phenylhydrazine	4.4 (1)	.44 (.1)	T
108-98-5	phenyl mercaptan	4 (.8) (o)	.5 (.1)	N
638-21-1	phenylphosphine	2.3 (.5)	.23 (.05)	N, T, O
122-97-4	phenylpropyl alcohol	1100 (200)	110 (20)	D
298-02-2	Phorate	.5	.05	N, T, O
7786-34-7	Phosdrin (Mevinphos)	.92 (.1)	.092 (.01)	T
75-44-5	phosgene**	4 (1)	.4 (.1)	N, T, O, M
732-11-6	Phosmet (Prolate)	20	2	D
7803-51-2	phosphine**	4.2 (3)	.42 (.3)	N, T, O
7664-38-2	phosphoric acid	10	1	N, T, O
2929-95-5	phosphorodithioic acid esters, zinc salt	1500	150	D
13598-36-2	phosphorous acid	10	1	D
7723-14-0	phosphorus (yellow)	1	.1	N, T, O, M
10025-87-3	phosphorus oxychloride	6.3 (1)	.63 (.1)	N, T, O
10026-13-8	phosphorus pentachloride	8.5 (1)	.85 (.1)	N, T, O, M
1314-80-3	phosphorus pentasulfide	10	1	N, T, O, M
1314-56-3	phosphorus pentoxide	10	1	M
7719-12-2	phosphorus trichloride	11 (2)	1.1 (.2)	N, T, O
85-44-9	phthalic anhydride	61	6.1	N, T, O
626-17-5	phthalodinitrile, m-	50	5	N, T, O
1918-02-1	Picloram	50	5	O
109-06-8	picoline, 2-	53 (14) (o)	8 (2)	D
108-99-6	picoline, 3-	80 (20)	8 (2)	D

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
108-89-4	picoline, 4-	46 (12)	4.6 (1.2)	D
88-89-1	picric acid	.5 (o)	.1	N,T,O
83-26-1	Pindone	1	.1	N,T,O
1330-16-1,	pinene [also 127-91-3; 80-56-8]	64 (11) (o)	*	
110-85-0	piperazine	34	3.4	D
142-64-3	piperazine dihydrochloride	50	5	N,T,O
72-98-9	pivalic acid	250	25	D
3282-30-2	pivaloyl chloride	40	4	D
83-26-1	pivaloyl-1,3-indandione, 2- (pindone)	1	.1	N,T,O
10101-41-4	plaster of Paris (see calcium sulfate)	50 (resp)	5	N,T
7440-06-4	platinum, metal	10	1	N,T,O
7440-06-4	platinum, soluble salts	.02	.002	N,T,O,M
1336-36-3	polychlorinated biphenyls (PCBs, see chlorodiphenyl)	.1	.01	E
65996-93-2	polycyclic aromatic hydro- carbons, particulate (PPAH) (assume the fraction of benzo[a]pyrene not exceed 10% of total PPAH, see coal tar pitch volatiles)	.5	.05	E
9016-45-9	polyethylene (9) glycol nonyl phenyl ether, nonionic surfactant (Tergitol TP-9)	600 (24)	60 (2.4)	D
9003-39-8	poly(1-vinyl-2-pyrrolidinone)	100	10	D
9003-53-2	polystyrene	100	10	D
65997-15-1	Portland cement	50	5	N,O
1310-58-3	potassium hydroxide	20	2	N,T,O
7722-64-7	potassium permanganate	20	2	D
74-98-6	propane	18000 (10000)	1800 (1000)	N,O,M
107-19-7	propargyl alcohol	23 (10)	2.3 (1)	N,T,O
57-57-8	propiolactone, β -	15 (5)	1.5 (.5)	T
79-09-4	propionic acid	103 (34) (o)	30 (10)	N,T,O,M
107-12-0	propionitrile	140 (60)	14 (6)	N
93-55-0	propiophenone	2300	230	D
114-26-1	Propoxur (Baygon)	5	.5	N,T,O
109-60-4	propyl acetate, n-	626 (o)	*	
71-23-8	propyl alcohol, n-	4920 (2000)	492 (200)	N,T,O
540-54-5	propyl chloride	30000	3000	D
115-07-1	propylene	117000 (v)	*	
78-89-7	propylene chlorohydrin	170	17	D
78-90-0	propylene diamine	42 (o)	17	D
78-87-5	propylene dichloride	1150 (250) (o)	350 (75)	T,O,M
57-55-6	propylene glycol, vapor	4000 (1290)	400 (129)	D
		20 (PM)	2	D
6423-43-4	propylene glycol dinitrate	3 (.5)	.3 (.05)	N,T,O,M

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)	$\mu\text{g}/\text{m}^3$ (ppb)	
		30-minute or 1-hour	annual	
-----	propylene glycol mono-t-butyl ether	5400 (1000)	540 (100)	D
107-98-2	propylene glycol monomethyl ether	3600 (1000)	360 (100)	N,T,O
75-58-8	propyleneimine**	50 (20)	5 (2)	N,T,O
75-56-9	propylene oxide	250 (100)	25 (10)	E
111-43-3	propyl ether (dipropyl ether)	2500 (600)	250 (60)	D
110-74-7	propyl formate	6475 (1800)	650 (180)	D
107-03-9	propylmercaptan, n-	2.3 (.7) (o)	1.6 (.5)	N
627-13-4	propyl nitrate	1050 (250)	105 (25)	N,T,O,M
106-36-5	propyl propionate	4750 (1000)	475 (100)	D
74-99-7	propyne (methyl acetylene)	16400 (10000)	1640 (1000)	N,T,O,M
95-63-6	pseudocumene (1,2,4-trimethylbenzene)	1250 (250)	125 (25)	N,T,O
9002-86-2	PVC	50	5	M
8003-74-7	Pyrethrum (Pyrethrin)	50	5	N,T,O,M
129-00-0	pyrene (see coal tar pitch volatiles)	0.5	0.05	E
110-86-1	pyridine	69 (23) (o)	15 (5)	N,T,O,M
68391-11-7	pyridines, alkyl	150	15	D
120-80-9	pyrocatechol (catechol)	230 (50)	23 (5)	N,T,O
-----	pyronaphtha (dripolene; pyrolysis gasoline)	40(10)	4(1)	D-MSDS
123-75-1	pyrrolidine, 2-	140	14	D

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		30-minute or 1-hour	annual $\mu\text{g}/\text{m}^3$ (ppb)	
7803-62-5	silicon tetrahydride (silane)	70 (50)	7 (5)	N,T,O
7440-22-4	silver and compounds	.1	.01	N,O,M
-----	soapstone, respirable dust	30	3	N,T,O
	total dust	60	6	
26628-22-8	sodium azide	3 (1)	.3 (.1)	N,T
7631-90-5	sodium bisulfite	50	5	N,T,O
16940-66-2	sodium borohydride	1	.1	D
136-78-7	sodium, 2,4-dichloro- phenoxyethyl sulfate (Sesone)	50	5	N,O
62-74-8	sodium fluoroacetate	.5	.05	N,T,O
1310-73-2	sodium hydroxide	20	2	N,T,O,M
7681-57-4	sodium metabisulfite	50	5	N,T,O
9005-25-8	starch	50	5	N,O
-----	stearates	100	10	T
2885-00-9	stearyl mercaptan (octadecyl mercaptan)	60 (5)	6 (.5)	N
7803-52-3	stibine	5 (1)	.5 (.1)	N,T,O,M
8052-41-3	Stoddard solvent	3250 (1000)	325 (100)	N
7440-24-6	strontium and compounds	20	2	D
7789-06-2	strontium chromate, as Cr	.1	.01	E
57-24-9	Strychnine	1.5	.15	N,T,O,M
100-42-5	styrene, monomer	430* (100) (o)	85 (20)	M
		* under review		
1395-21-7	Subtilisins [also 9014-01-1]	.0006	.00006	N,T,O
108-30-5	succinic anhydride	25	2.5	D
110-61-2	succinonitrile	200 (60)	20 (6)	N
57-50-1	sucrose	50	5	N,O
-----	Sulfinol	230	23	D
75-22-4	Sulfonic N-95 (nonylphenyl ethoxylate)	1000	100	D
3689-24-5	Sulfotep (TEDP)	2	.2	N,T,O,M
7446-09-5	sulfur dioxide	must meet NAAQS & TACB Reg II		
7446-09-5	sulfur dioxide (liquid)**	must meet NAAQS & TACB Reg II		
2551-62-4	sulfur hexafluoride	see TACB Reg III		
7664-93-9	sulfuric acid	see TACB Reg II		
10025-67-9	sulfur monochloride	5.6 (1) (o)	5.5 (1)	N,T,O,M
5714-22-7	sulfur pentafluoride	see TACB Reg III		
7783-60-0	sulfur tetrafluoride	see TACB Reg III		
7791-25-5	sulfuryl chloride	36	3.6	D
2699-79-8	sulfuryl fluoride	see TACB Reg III		
35400-43-2	Sulprofos	10	1	N,T,O
-----	Surfonamine	180	18	D
8065-48-3	Systox	see Demeton		

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb)		
		30-minute or 1-hour	annual	
93-76-5	2,4,5-T (2,4,5-trichloro- phenoxyacetic acid)	100	10	N,T,O,M
14807-96-6	talc (no asbestos), respirable	20	2	N,T,O,M
-----	talc (with asbestos)	use asbestos ESL		
7440-25-7	tantalum, metal	50	5	N,T,O,M
1314-61-0	tantalum oxide	50	5	N,T,O
3689-24-5	TEDP (Sulfotep)	2	.2	N,T,O,M
13494-80-9	tellurium & compounds	1	.1	N,T,O,M
7783-80-4	tellurium hexafluoride	see TACB Reg III		
3383-96-8	Temephos	50	5	N,O
-----	Tenneco T500-100	2700 (550)	270 (55)	D
107-49-3	TEPP (tetraethylpyrophosphate)	.5	.05	N,T,O,M
9016-45-9	Tergitol TP-9 (polyethylene glycol nonyl phenyl ether)	50 (PM)	5	D
68956-56-9	terpenes	2000	200	D
26140-60-3	terphenyls	50 (5)	5 (.5)	N,T,O
79-27-6	tetrabromoethane, 1,1,2,2-	140 (10)	14 (1)	M
634-66-2	tetrachlorobenzenes [also 95-94-3]	1000 (o)	350	D
1746-01-6	tetrachlorodibenzo-p-dioxin, 2,3,7,8- (TCDD)	---	9.2×10^{-8}	E,NY
-----	tetrachlorodibenzofuran (TCDF)	---	1×10^{-6}	D
76-11-9	tetrachloro-2,2-difluoro- ethane, 1,1,1,2- (Freon 112A)	41700 (5000)	4170 (500)	N,T,O
76-12-0	tetrachloro-1,2-difluoro- ethane, 1,1,2,2- (Freon 112)	41700 (5000)	4170 (500)	N,T,O
79-34-5	tetrachloroethane, 1,1,2,2-	70 (10)	7 (1)	N,T,O,M
127-18-4	tetrachloroethylene (perchloroethylene)	340 (50)	34 (5)	E
56-23-5	tetrachloromethane (carbon tetrachloride)	126 (20)	13 (2)	N,O
1335-88-2	tetrachloronaphthalene	20	2	N,T,O
58-90-2	tetrachlorophenol, 2,3,4,6-	20 (o)	7	D
112-57-2	tetraethylenepentamine	400	40	D
78-00-2	tetraethyl lead	.75	.075	N,O
78-10-4	tetraethylorthosilicate	8500 (1000)	850 (100)	M
107-49-3	tetraethylpyrophosphate (TEPP)	.5	.05	N,T,O,M
109-99-9	tetrahydrofuran	5900 (2000)	590 (200)	NTOM
119-64-2	tetrahydronaphthalene (tetraline)	3030 (560)	303 (56)	D
75-59-2	tetramethylammonium hydroxide	10	1	D
110-60-1	tetramethylenediamine	180	18	D
75-74-1	tetramethyl lead	.75	.075	N,O
3333-52-6	tetramethyl succinonitrile	30 (5)	3 (.5)	N,T,O,M

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb) 30-minute or 1-hour	annual	
509-14-8	tetranitromethane	80 (10)	8 (1)	N, T, O, M
26544-38-7	tetrapropenylsuccinic anhydride	40 (3.6)	4 (.36)	D
7722-88-5	tetrasodium pyrophosphate	50	5	N, T, O
479-45-8	tetryl (2,4,6-trinitrophenyl- methyl-nitramine)	1	.1	O
25265-77-4	Texanol	835 (140)	84 (14)	D
7440-28-0	thallium, soluble compounds	1	.1	N, T, O, M
96-69-5	thiobis(t-butyl-m-cresol), 4,4-	50	5	N, O
68-11-1	thioglycolic acid	1.25 (o)	*	
7719-09-7	thionyl chloride	50 (10)	5 (1)	N, T, O
62-56-6	thiourea (thiocarbamide)	50 (PM)	5	D
137-26-8	Thiram	10	1	T
7440-31-5	tin compounds:			
	organic compounds (as Sn)	1	.1	N, T, O
	metal, oxide & inorganic compounds (except SnH4)	20	2	N, T, O
13463-67-7	titanium dioxide, respirable	50	5	O
7550-45-0	titanium tetrachloride	10	1	D
119-93-7	tolidine, o-	.2	.02	N
108-88-3	toluene (toluol)	1880 (500)	188 (50)	T
95-80-7	toluene-2,4-diamine	50	5	D
584-84-9	toluene-2,4-diisocyanate (TDI)	.36 (.05)	.035 (.005)	NTO
91-08-7	toluene-2,6-diisocyanate	.7 (.1)	.07 (.01)	M
95-53-4	toluidine, all isomers [also 108-44-1; 106-49-0]	90 (20)	9 (2)	N, T, O
8001-35-2	Toxaphene	5	.5	T, O, M
126-73-8	tributyl phosphate	25 (2)	2.5 (.2)	N, T, O
102-85-2	tributyl phosphite	20 (2)	2 (.2)	D
76-03-9	trichloroacetic acid	70 (10)	7 (1)	N, T, O
120-82-1	trichlorobenzene, 1,2,4-	400 (50)	40 (5)	N, T, O, M
71-55-6	trichloroethane, 1,1,1- (methyl chloroform)	10800 (2000)	1080 (200)	M
79-00-5	trichloroethane, 1,1,2-	550 (100)	55 (10)	T, M
79-01-6	trichloroethylene	1350 (250)	135 (25)	N
75-69-4	trichlorofluoromethane (Freon 11)	28000 (o) (5000)	5600 (1000)	
67-66-3	trichloromethane (chloroform)	100 (20)	10 (2)	O
1321-65-9	trichloronaphthalene	50	5	N, T, O, M
76-06-2	trichloronitromethane (chloropicrin)	6.7 (1)	.67 (.1)	N, T, O, M
95-95-4	trichlorophenol, 2,4,5-	440	44	D
88-06-2	trichlorophenol, 2,4,6-	21 (o)	*	
96-18-4	trichloropropane, 1,2,3-	600 (100)	60 (10)	N, T, O
76-13-1	trichloro-1,2,2-trifluoro- ethane, 1,1,2- (Freon 113)	76000 (10000)	7600 (1000)	N, T, O

CAS No.	SUBSTANCE	EFFECTS SCREENING LEVEL		
		$\mu\text{g}/\text{m}^3$ (ppb) 30-minute or 1-hour	annual	
13121-70-5	tricyclohexyltin hydroxide (Cyhexatin)	50	5	N,T,O
102-71-6	triethanolamine	31 (5)	3 (.5)	T
121-44-8	triethylamine	40 (10)	4 (1)	E
-----	triethylene phosphate	500 (67)	50 (7)	D
280-57-9	triethylene diamine	370 (80)	37 (8)	D
112-24-3	triethylene tetramine	240 (40)	24 (4)	D
-----	trifluoroacetoacetyl chloride	20	2	D
75-63-8	trifluorobromomethane (Freon 13B1)	61000 (10000)	6100 (1000)	N,T,O,M
63979-83-9	tri(isobutenyl)succinic anhydride	10 (1)	1 (.1)	D
552-30-7	trimelletic anhydride	.1	.01	T
563-04-2	trimetacresyl phosphate	3	.3	D
75-98-9	trimethylacetic acid (pivalic acid)	250	25	D
75-50-3	trimethylamine	1 (.4)	*	
25551-13-7	trimethyl benzene (mixed isomers)	1250 (250)	125 (25)	N,T,O
121-43-7	trimethyl borate	13	1.3	D
109-76-2	trimethylene diamine	50	5	D
123-17-1	trimethyl-4-nonanone, 2,6,8- (isobutyl heptyl ketone)	3750 (500)	375 (50)	D
25265-77-4	trimethylpentanediol iso- butyrate (Texanol)	835	84	D
121-45-9	trimethyl phosphite	.5 (o)	*	
88-89-1	trinitrophenol (picric acid)	.5 (o)	.1	N,T,O
118-96-7	trinitrotoluene (TNT)	5	.5	N,T,O
78-30-8	triorthocresyl phosphate	1	.1	N,T,O
110-88-3	trioxane	190	19	D
78-32-0	triparacresylphosphate	3	.3	D
603-34-9	triphenylamine	50	5	N,T,O
115-86-6	triphenyl phosphate	30	3	N,T,O
101-02-0	triphenyl phosphite	25	2.5	D
102-69-2	tripropylamine	16	1.6	D
24800-44-0	tripropylene glycol	400 (vapor) 25 (PM)	40 2.5	D
27955-94-8	tris(hydroxyphenyl)ethane	60	6	D
26523-78-4	tris(nonylphenol)phosphite	30	3	D
786-19-6	Trithion	1	.1	D
7440-33-7	tungsten, insoluble cpds	50	5	N,T,O
	soluble cpds	10	1	
8006-64-2	turpentine	5560 (1000)	556 (100)	NTOM

ADDENDUM

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