

a)

**TABLE D-2 – PERMISSIBLE NOISE EXPOSURES**

Duration per day, hours:	Sound level dbA slow response
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ or less	115

When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. Exposure to different levels for various periods of time shall be computed according to the formula set forth

(ii)

$$F_e = \frac{T_1}{L_1} + \frac{T_2}{L_2} + \dots + \frac{T_n}{L_n}$$

Where:

$F_e$  = the equivalent noise exposure factor.

$T$  = the period of noise exposure at any essentially constant level

$L$  = the duration of the permissible noise exposure at the constant level (from Table D-2)

If the value of  $F_e$  exceeds unity (1) the exposure exceeds permissible levels.

A sample computation showing an application of the formula is as follows. An employee is exposed at these levels for these periods:

110-dbA-¼ hour.

100-dbA-½ hour.

90 dbA 1½ hour.

$$F_e = \frac{1/4}{1/2} + \frac{1/2}{2} + \frac{1 1/2}{8}$$

$$F_e = 0.500 + 0.25 + 0.188$$

$$F_e = 0.938$$

Since the value of  $F_e$  does not exceed unity, the exposure is within permissible limits.



THRESHOLD LIMIT VALUES OF AIRBORNE CONTAMINANTS FOR CONSTRUCTION				
Substance	CAS No. <sup>d</sup>	ppm <sup>a</sup>	mg/m <sup>3b</sup>	Skin Designation
Abate; see Temephos.				
Acetaldehyde	75-07-0	200	360	
Acetic acid.	64-19-7	10	25	
Acetic anhydride	108-24-7	5	20	
Acetone	67-64-1	1000	2400	
Acetonitrile	75-05-8	40	70	
2-Acetylaminofluorene; see 1926.1114	53-96-3			
Acetylene	74-86-2	E		
Acetylene dichloride; see 1, 2-Dichloroethylene				
Acetylene tetrabromide	79-27-6	1	14	
Acrolein	107-02-8	0.1	0.25	
Acrylamide	79-06-1		0.3	X
Acrylonitrile; see 1926.1145	107-13-1			
Aldrin	309-00-2		0.25	X
Allyl alcohol	107-18-6	2	5	X
Allyl chloride	107-05-1	1	3	
Allyl glycidyl ether (AGE)	106-92-3	(C)10	(C)45	
Allyl propyl disulfide	2179-59-1	2	12	
alpha-Alumina	1344-28-1			
Total dust				
Respirable fraction				
Alundum; see alpha-Alumina				
4-Aminodiphenyl; see 1926.1111	92-67-1			
2-Aminoethanol; see Ethanolamine				
2-Aminopyridine	504-29-0	0.5	2	
Ammonia	7664-41-7	50	35	
Ammonium sulfamate	7773-06-0			
Total dust			15	
Respirable fraction			5	
n-Amyl acetate	628-63-7	100	525	
sec-Amyl acetate	626-38-0	125	650	
Aniline and homologs	62-53-3	5	19	X
Anisidine (o-, p-isomers)	29191-52-4		0.5	X
Antimony and compounds (as Sb)	7440-36-0		0.5	
ANTU (alpha Naphthylthiourea)	86-88-4		0.3	
Argon	7440-37-1	E		
Arsenic, inorganic compounds (as As); see 1926.1118	7440-38-2			
Arsenic, organic compounds (as As)	7440-38-2		0.5	

Arsine	7784-42-1	0.05	0.2	
Asbestos; see 1926.58				
Azinphos-methyl	86-50-0		0.2	X
Barium, soluble compounds (as Ba)	7440-39-3		0.5	
Benzene <sup>b</sup> ; see 1926.1128	71-43-2			
Benzidine; see 1926.1110	92-87-5			
p-Benzoquinone; see Quinone				
Benzo <sup>a</sup> pyrene; see Coaltarpitch volatiles				
Benzoyl peroxide	94-36-0		5	
Benzyl chloride	100-44-7	1	5	
Beryllium and beryllium compounds (as Be)	7440-41-7		0.002	
Biphenyl; see Diphenyl				
Bisphenol A; see Diglycidyl ether				
Boron oxide	1303-86-2			
Total dust			15	
Boron tribromide	10294-33-4	1	10	
Boron trifluoride	7/2/7637	(C)1	(C)3	
Bromine	7726-95-6	0.1	0.7	
Bromine pentafluoride	7789-30-2	0.1	0.7	
Bromoform	75-25-2	0.5	5	X
*Butadiene (1, 3-Butadiene); See 29 CFR 1910.1051; 29 CFR 1910.19	106-99-0	1 ppm/5 ppm STEL		
Butanethiol; see Butyl mercaptan				
2-Butanone (Methyl ethyl ketone)	78-93-3	200	590	
2-Butoxyethanol	111-76-2	50	240	X
n-Butyl-acetate	123-86-4	150	710	
sec-Butyl acetate	105-46-4	200	950	
tert-Butyl-acetate	540-88-5	200	950	
n-Butyl alcohol	71-36-3	100	300	
sec-Butyl alcohol	78-92-2	150	450	
tert-Butyl alcohol	75-65-0	100	300	
Butylamine	109-73-9	(C)5	(C)15	X
tert-Butyl chromate (as CrO <sub>3</sub> )	1189-85-1		(C)0.1	X
n-Butyl glycidyl ether (BGE)	8/6/2426	50	270	
Butyl mercaptan	109-79-5	0.5	1.5	
p-tert-Butyltoluene	98-51-1	10	60	
Cadmium (as Cd); see 1910.1027	7440-43-9			
Calcium Carbonate	1317-65-3			
Total dust				
Respirable fraction				
Calcium oxide	1305-78-8		5	
Calcium sulfate	7778-18-9			
Total dust			15	
Respirable fraction			5	

Camphor, synthetic	76-22-2		2	
Carbaryl (Sevin)	63-25-2		5	
Carbon black	1333-86-4		3.5	
Carbon dioxide	124-38-9	5000	9000	
Carbon disulfide	75-15-0	20	60	X
Carbon monoxide	630-08-0	50	55	
Carbon tetrachloride	56-23-5	10	65	X
Cellulose	9004-34-6			
Total dust				
Respirable fraction				
Chlordane	57-74-9		0.5	X
Chlorinated camphene	8001-35-2		0.5	X
Chlorinated diphenyl oxide	55720-99-5		0.5	
Chlorine	7782-50-5	1	3	
Chlorine dioxide	10049-04-4	0.1	0.3	
Chlorine trifluoride	7790-91-2	(C)0.1	(C)0.4	
Chloroacetaldehyde	107-20-0	(C)1	(C)3	
a-Chloroacetophenone (Phenacyl chloride)	532-27-4	0.05	0.3	
Chlorobenzene	108-90-7	75	350	
o-Chlorobenzylidene malononitrile	2698-41-1	0.05	0.4	
Chlorobromomethane	74-97-5	200	1050	
2-Chloro-1, 3-butadiene; See beta-Chloroprene				
Chlorodiphenyl (42 percent Chlorine) (PCB)	53469-21-9		1	X
Chlorodiphenyl (54 percent Chlorine) (PCB)	11097-69-1		0.5	X
1-Chloro-2, 3-epoxypropane; See Epichlorohydrin				
2-Chloroethanol; See Ethylene chlorohydrin				
Chloroethylene; See Vinylchloride				
Chloroform (Trichloromethane)	67-66-3	(C)50	(C)240	
bis (Chloromethyl) ether; see 1926.1108	542-88-1			
Chloromethyl methyl ether; see 1926.1106	107-30-2			
1-Chloro-1-nitropropane	600-25-9	20	100	
Chloropicrin	76-06-2	0.1	0.7	
beta-Chloroprene	126-99-8	25	90	X
Chromic acid and chromates (as CrO <sub>3</sub> )	Varies with compound		0.1	
Chromium (II) compounds (as Cr)	7440-47-3		0.5	
Chromium (III) compounds (as Cr)	7440-47-3		0.5	
Chromium metal and insol. salts (as Cr)	7440-47-3		1	

Chrysene; see Coal tar pitch volatiles				
Coal tar pitch volatiles (benzene soluble fraction), anthracene, BaP, phenanthrene, acridine, chrysene, pyrene	65996-93-2		0.2	
Cobalt metal, dust, and fume (as Co)	7440-48-4		0.1	
Coke oven emissions; see 1926.1129			0.15	
Copper	7440-50-8			
Fume (as Cu)			0.1	
Dusts and mists (as Cu)			1	
Corundum; see Emery				
Cottondust (raw)			1	
Cragherbicide (Sesone)	136-78-7			
Total dust				
Respirable fraction				
Cresol, all isomers	1319-77-3	5	22	X
Crotonaldehyde	123-73-9	2	6	
	4170-30-3			
Cumene	98-82-8	50	245	X
Cyanides (as CN)	Varies with Compound		5	X
Cyanogen	460-19-5	10		
Cyclohexane	110-82-7	300	1050	
Cyclohexanol	108-93-0	50	200	
Cyclohexanone	108-94-1	50	200	
Cyclohexene	110-83-8	300	1015	
Cyclonite	121-82-4		1.5	X
Cyclopentadiene	542-92-7	75	200	
DDT, see Dichlorodiphenyltrichloroethane				
DDVP, see Dichlorvos				
2, 4-D (Dichlorophenoxyacetic acid)	94-75-7		10	
Decaborane	17702-41-9	0.05	0.3	X
Demeton (Systox)	8065-48-3		0.1	X
Diacetone alcohol (4-Hydroxy-4-methyl-2-pentanone)	123-42-2	50	240	
1, 2-Diaminoethane; see Ethylenediamine				
Diazomethane	334-88-3	0.2	0.4	
Diborane	19287-45-7	0.1	0.1	
1, 2-Dibromo-3-chloropropane (DBCP); see 1926.1144	96-12-8			
1, 2-Dibromoethane; see Ethylene dibromide				
Dibutyl phosphate	107-66-4	1	5	
Dibutyl phthalate	84-74-2		5	
Dichloroacetylene	7572-29-4	(C)0.1	(C)0.4	
o-Dichlorobenzene	95-50-1	(C)50	(C)300	

p-Dichlorobenzene	106-46-7	75	450	
3, 3'-Dichlorobenzidine; see 1926.1107	91-94-1			
Dichlorodifluoromethane	75-71-8	1000	4950	
1, 3-Dichloro-5, 5-dimethyl hydantoin	118-52-5		0.2	
Dichlorodiphenyltrichloroethane (DDT)	50-29-3		1	X
1, 1-Dichloroethane	75-34-3	100	400	
1, 2-Dichloroethane; see Ethylene dichloride				
1, 2-Dichloroethylene	540-59-0	200	790	
Dichloroethyl ether	111-44-4	(C)15	(C)90	X
Dichloromethane; see Methylene chloride				
Dichloromonofluoromethane	75-43-4	1000	4200	
1, 1-Dichloro-1-nitroethane	594-72-9	(C)10	(C)60	
1, 2-Dichloropropane; see Propylene dichloride				
Dichlorotetrafluoroethane	76-14-2	1000	7000	
Dichlorvos (DDVP)	62-73-7		1	X
Dieldrin	60-57-1		0.25	X
Diethylamine	109-89-7	25	75	
2-Diethylaminoethanol	100-37-8	10	50	X
Diethylene triamine	111-40-0	(C)10	(C)42	X
Diethyl ether; see Ethyl ether				
Difluorodibromomethane	75-61-6	100	860	
Diglycidyl ether (DGE)	7/5/2238	(C)0.5	(C)2.8	
Dihydroxybenzene; see Hydroquinone				
Diisobutyl ketone	108-83-8	50	290	
Diisopropylamine	108-18-9	5	20	X
4-Dimethylaminoazobenzene; see 1926.1115	60-11-7			
Dimethoxymethane; see Methylal				
Dimethyl acetamide	127-19-5	10	35	X
Dimethylamine	124-40-3	10	18	
Dimethylaminobenzene; see Xylidine				
Dimethylaniline (N, N-Dimethylaniline)	121-69-7	5	25	X
Dimethylbenzene; see Xylene				
Dimethyl-1, 2-dibromo-2, 2-dichloroethyl phosphate	300-76-5		3	
Dimethylformamide	68-12-2	10	30	X
2, 6-Dimethyl-4-heptanone; see Diisobutyl ketone				
1, 1-Dimethylhydrazine	57-14-7	0.5	1	X
Dimethylphthalate	131-11-3		5	
Dimethyl sulfate	77-78-1	1	5	X
Dinitrobenzene				
(all isomers)			1	X

(ortho)	528-29-0			
(meta)	99-65-0			
(para)	100-25-4			
Dinitro-o-cresol	534-52-1		0.2	X
Dinitrotoluene	25321-14-6		1.5	X
Dioxane (Diethylene dioxide)	123-91-1	100	360	X
Diphenyl (Biphenyl)	92-52-4	0.2	1	
Diphenylamine	122-39-4		10	
Diphenylmethane diisocyanate; see Methylene bisphenyl isocyanate				
Dipropylene glycol methyl ether	34590-94-8	100	600	X
Di-sec octyl phthalate (Di-2-ethylhexyl) phthalate)	117-81-7		5	
Emery	12415-34-8			
Total dust				
Respirable fraction				
Endosulfan	115-29-7		0.1	X
Endrin	72-20-8		0.1	X
Epichlorohydrin	106-89-8	5	19	X
EPN	2104-64-5		0.5	X
1, 2-Epoxypropane; see Propylene oxide				
2, 3-Epoxy-1-propanol; see Glycidol				
Ethane	74-84-0	E		
Ethanethiol; see Ethyl mercaptan				
Ethanolamine	141-43-5	3	6	
2-Ethoxyethanol (Cellosolve)	110-80-5	200	740	X
2-Ethoxyethyl acetate (Cellosolve acetate)	111-15-9	100	540	X
Ethyl acetate	141-78-6	400	1400	
Ethyl acrylate	140-88-5	25	100	X
Ethyl alcohol (Ethanol)	64-17-5	1000	1900	
Ethylamine	75-04-7	10	18	
Ethyl amyl ketone (5-Methyl-3-heptanone)	541-85-5	25	130	
Ethyl benzene	100-41-4	100	435	
Ethyl bromide	74-96-4	200	890	
Ethyl butylketone (3-Heptanone)	106-35-4	50	230	
Ethyl chloride	75-00-3	1000	2600	
Ethyl ether	60-29-7	400	1200	
Ethyl formate	109-94-4	100	300	
Ethyl mercaptan	75-08-1	0.5	1	
Ethyl silicate	78-10-4	100	850	
Ethylene	74-85-1	E		
Ethylene chlorohydrin	107-07-3	5	16	X
Ethylenediamine	107-15-3	10	25	

Ethylene dibromide	106-93-4	(C)25	(C)190	X
Ethylene dichloride (1, 2-Dichloroethane)	107-06-2	50	200	
Ethylene glycol dinitrate	628-96-6	(C)0.2	(C)1	X
Ethylene glycol methyl acetate; see Methyl cellosolve acetate				
Ethyleneimine; see 1926.1112	151-56-4			
Ethylene oxide; see 1926.1147	75-21-8			
Ethyldene chloride; see 1, 1-Dichlorethane				
N-Ethylmorpholine	100-74-3	20	94	X
Ferbam	14484-64-1			
Total dust			15	
Ferrovanadium dust	12604-58-9		1	
Fibrous Glass				
Total dust				
Respirable fraction				
Fluorides (as F)	Varies with compound		2.5	
Fluorine	7782-41-4	0.1	0.2	
Fluorotrichloromethane (Trichlorofluoromethane)	75-69-4	1000	5600	
Formaldehyde; see 1926.1148	50-00-0			
Formic acid	64-18-6	5	9	
Furfural	98-01-1	5	20	X
Furfuryl alcohol	98-00-0	50	200	
Gasoline	8006-61-9		A(3)	
Glycerin (mist)	56-81-5			
Total dust				
Respirable fraction				
Glycidol	556-52-5	50	150	
Glycol monoethyl ether; see 2-Ethoxyethanol				
Graphite, natural				
respirable dust	7782-42-5	2	2	2
Graphite, synthetic				
Total dust				
Respirable fraction				
Guthion; see Azinphos methyl				
Gypsum	13397-24-5			
Total dust				
Respirable fraction				
Hafnium	7440-58-6		0.5	
Helium	7440-59-7	E		
Heptachlor	76-44-8		0.5	X

Heptane (n-Heptane)	142-82-5	500	2000	
Hexachloroethane	67-72-1	1	10	X
Hexachloronaphthalene	1335-87-1		0.2	X
n-Hexane	110-54-3	500	1800	
2-Hexanone (Methyl n-butyl ketone)	591-78-6	100	410	
Hexone (Methylisobutyl ketone)	108-10-1	100	410	
sec-Hexyl acetate	108-84-9	50	300	
Hydrazine	302-01-2	1	1.3	X
Hydrogen	1333-74-0	E		
Hydrogen bromide	10035-10-6	3	10	
Hydrogen chloride	7647-01-0	(C)5	(C)7	
Hydrogen cyanide	74-90-8	10	11	X
Hydrogen fluoride (as F)	7664-39-3	3	2	
Hydrogen peroxide	7722-84-1	1	1.4	
Hydrogen selenide (as Se)	7/5/7783	0.05	0.2	
Hydrogen sulfide	6/4/7783	10	15	
Hydroquinone	123-31-9		2	
Indene	95-13-6	10	45	
Indium and compounds (as in)	7440-74-6		0.1	
Iodine	7553-56-2	(C)0.1	(C)1	
Iron oxide fume	1309-37-1		10	
Iron salts (soluble) (as Fe)	Varies with compound		1	
Isomyl acetate	123-92-2	100	525	
Isomyl alcohol (primary and secondary)	123-51-3	100	360	
Isobutyl acetate	110-19-0	150	700	
Isobutyl alcohol	78-83-1	100	300	
Isophorone	78-59-1	25	140	
Isopropyl acetate	108-21-4	250	950	
Isopropyl alcohol	67-63-0	400	980	
Isopropylamine	75-31-0	5	12	
Isopropyl ether	108-20-3	500	2100	
Isopropyl glycidyl ether(IGE)	4016-14-2	50	240	
Kaolin	1332-58-7			
Total dust				
Respirable fraction				
Ketene	463-51-4	0.5	0.9	
Lead inorganic (as Pb); see 1926.62	7439-92-1			
Limestone	1317-65-3			
Total dust				
Respirable fraction				
Lindane	58-89-9		0.5	X
Lithium hydride	7580-67-8		0.025	
L.P.G. (Liquified petroleum gas)	68476-85-7	1000	1800	

Magnesite	546-93-0			
Total dust				
Respirable fraction				
Magnesium oxide fume	1309-48-4			
Total Particulate			15	
Malathion	121-75-5			
Total dust			15	X
Maleic anhydride	108-31-6	0.25		
Manganese compounds (as Mn)	7439-96-5		(C)5	
Manganese fume (as Mn)	7439-96-5		(C)5	
Marble	1317-65-3			
Total dust				
Respirable fraction				
Mercury (aryl and inorganic) (as Hg)	7439-97-6		0.1	X
Mercury (organo) alkyl compounds (as Hg)	7439-97-6		0.01	X
Mercury (vapor) (as Hg)	7439-97-6		0.1	X
Mesityl oxide	141-79-7	25	100	
Methane	74-82-8	E		
Methanethiol; see Methyl mercaptan				
Methoxychlor	72-43-5			
Total dust			15	
2-Methoxyethanol; (Methyl cellosolve)	109-86-4	25	80	X
2-Methoxyethyl acetate (Methyl cellosolve acetate)	110-49-6	25	120	X
Methyl acetate	79-20-9	200	610	
Methyl acetylene (Propyne)	74-99-7	1000	1650	
Methyl acetylene propadiene mixture (MAPP)		1000	1800	
Methyl acrylate	96-33-3	10	35	X
Methylal (Dimethoxy-methane)	109-87-5	1000	3100	
Methyl alcohol	67-56-1	200	260	
Methylamine	74-89-5	10	12	
Methyl amyl alcohol; see Methyl Isobutyl carbinol				
Methyl n-amyl ketone	110-43-0	100	465	
Methyl bromide	74-83-9	(C)20	(C)80	X
Methyl butyl ketone; see 2-Hexanone				
Methyl cellosolve; see 2-Methoxyethanol				
Methyl cellosolve acetate; see 2-Methoxyethyl acetate				
Methyl chloride	74-87-3	100	210	
Methyl chloroform (1, 1, 1-Trichloroethane)	71-55-6	350	1900	
Methylcyclohexane	108-87-2	500	2000	

Methylcyclohexanol	25639-42-3	100	470	
o-Methylcyclohexanone	583-60-8	100	460	X
*Methylenechloride; see 1910.1052				
Methyl ethyl ketone (MEK); see 2-Butanone				
Methyl formate	107-31-3	100	250	
Methyl hydrazine (Monomethyl hydrazine)	60-34-4	(C)0.2	(C)0.35	X
Methyl iodide	74-88-4	5	28	X
Methyl isoamyl ketone	110-12-3	100	475	
Methyl isobutyl carbinol	108-11-2	25	100	X
Methyl isobutyl ketone; see Hexone				
Methyl isocyanate	624-83-9	0.02	0.05	X
Methyl mercaptan	74-93-1	0.5	1	
Methyl methacrylate	80-62-6	100	410	
Methyl propylketone; see 2-Pentanone				
Methyl silicate	681-84-5	(C)5	(C)30	
alpha-Methyl styrene	98-83-9	(C)100	(C)480	
Methylene bisphenyl isocyanate (MDI)	101-68-8	(C)0.02	(C)0.2	
Methyl enedianiline (MDA)	101-77-9			
Mica; see Silicates				
Molybdenum (as Mo)	7439-98-7			
Soluble compounds			5	
Insoluble Compounds				
Total dust			15	
Monomethyl aniline	100-61-8	2	9	X
Monomethyl hydrazine; see Methyl hydrazine				
Morpholine	110-91-8	20	70	X
Naphtha (Coal tar)	8030-30-6	100	400	
Naphthalene	91-20-3	10	50	
alpha-Naphthylamine; see 1926.1104	134-32-7			
beta-Naphthylamine; see 1926.1109	91-59-8			
Neon	1/9/7440	E		
Nickel carbonyl (as Ni)	13463-39-3	0.001	0.007	
Nickel, metal and insoluble compounds (as Ni)	7440-02-0		1	
Nickel, soluble compounds (as Ni)	7440-02-0		1	
Nicotine	54-11-5		0.5	X
Nitric acid	7697-37-2	2	5	
Nitric oxide	10102-43-9	25	30	
p-Nitroaniline	100-01-6	1	6	X
Nitrobenzene	98-95-3	1	5	X
p-Nitrochlorobenzene	100-00-5		1	X
4-Nitrodiphenyl; see 1926.1103	92-93-3			

Nitroethane	79-24-3	100	310	
Nitrogen	7727-37-9	E		
Nitrogen dioxide	10102-44-0	(C)5	(C)9	
Nitrogen trifluoride	7783-54-2	10	29	
Nitroglycerin	55-63-0	(C)0.2	(C)2	X
Nitromethane	75-52-5	100	250	
1-Nitropropane	108-03-2	25	90	
2-Nitropropane	79-46-9	25	90	
N-Nitrosodimethylamine; see 1926.1116	62-79-9			
Nitrotoluene (all isomers)		5	30	X
o-isomer	88-72-2			
m-isomer	99-08-1			
p-isomer	99-99-0			
Nitrotrichloromethane; see Chloropicrin				
Nitrous oxide	10024-97-2	E		
Octachloronaphthalene	2234-13-1		0.1	X
Octane	111-65-9	400	1900	
Oil mist, mineral	8012-95-1		5	
Osmium tetroxide (as Os)	20816-12-0		0.002	
Oxalic acid	144-62-7		1	
Oxygen difluoride	7783-41-7	0.05	0.1	
Ozone	10028-15-6	0.1	0.2	
Paraquat, respirable dust	4685-14-7 1910-42-5 2074-50-2		0.5	X
Parathion	56-38-2		0.1	X
Particulates not otherwise regulated				
Total dust organic and inorganic			15	
PCB; see Chlorodiphenyl (42% and 54% chlorine)				
Pentaborane	19624-22-7	0.005	0.01	
Pentachloronaphthalene	1321-64-8		0.5	X
Pentachlorophenol	87-86-5		0.5	X
Pentaerythritol	115-77-5			
Total dust				
Respirable fraction				
Pentane	109-66-0	500	1500	
2-Pentanone (Methyl propyl ketone)	107-87-9	200	700	
Perchloroethylene (Tetrachloroethylene)	127-18-4	100	670	
Perchloromethyl mercaptan	594-42-3	0.1	0.8	
Perchloryl fluoride	7616-94-6	3	13.5	
Petroleum distillates (Naphtha) (Rubber Solvent)			A(3)	
Phenol	108-95-2	5	19	X

p-Phenylene diamine	106-50-3		0.1	X
Phenyl ether, vapor	101-84-8	1	7	
Phenyl ether-biphenyl mixture, vapor		1	7	
Phenylethylene; see Styrene				
Phenyl glycidyl ether (PGE)	122-60-1	10	60	
Phenylhydrazine	100-63-0	5	22	X
Phosdrin (Mevinphos)	7786-34-7		0.1	X
Phosgene (Carbonyl chloride)	75-44-5	0.1	0.4	
Phosphine	7803-51-2	0.3	0.4	
Phosphoric acid	7664-38-2		1	
Phosphorus (yellow)	7723-14-0		0.1	
Phosphorus pentachloride	10026-13-8		1	
Phosphorus pentasulfide	1314-80-3		1	
Phosphorus trichloride	12/2/7719	0.5	3	
Phthalic anhydride	85-44-9	2	12	
Picric acid	88-89-1		0.1	X
Pindone (2-Pivalyl-1, 3-indandione)	83-26-1		0.1	
Plaster of paris	26499-65-0			
Total dust				
Respirable fraction				
Platinum (as Pt)	6/4/7440			
Metal				
Soluble Salts			0.002	
Polytetrafluoroethylene				
decomposition products			A(2)	
Portland cement	65997-15-1			
Total dust			15	
Respirable fraction			5	
Propane	74-98-6	E		
Propargyl alcohol	107-19-7	1		X
beta-Propiolactone; see 1926.1113	57-57-8			
n-Propyl acetate	109-60-4	200	840	
n-Propyl alcohol	71-23-8	200	500	
n-Propyl nitrate	627-13-4	25	110	
Propylene dichloride	78-87-5	75	350	
Propylene imine	75-55-8	2	5	X
Propylene oxide	75-56-9	100	240	
Propyne; see Methyl acetylene				
Pyrethrum	8003-34-7		5	
Pyridine	110-86-1	5	15	
Quinone	106-51-4	0.1	0.4	
RDX: see Cyclonite				
Rhodium (as Rh), metal fume and insoluble compounds	7440-16-6		0.1	

Rhodium (as Rh), soluble compounds	7440-16-6		0.001	
Ronnel	299-84-3		10	
Rotenone	83-79-4		5	
Rouge				
Total dust				
Respirable fraction				
Selenium compounds (as Se)	7782-49-2		0.2	
Selenium hexafluoride (as Se)	7783-79-1	0.05	0.4	
Silica, amorphous, precipitated and gel	112926-00-8	2	2	2
Silica, amorphous, diatomaceous earth, containing less than 1 percent crystalline silica	61790-53-2	2	2	2
Silica, crystalline cristobalite, respirable dust	14464-46-1	2	2	2
Silica, crystalline quartz, respirable dust	14808-60-7	2	2	2
Silica, crystalline tripoli (as quartz), respirable dust	1317-95-9	2	2	2
Silica, crystalline tridymite, respirable dust	15468-32-3	2	2	2
Silica, fused, respirable dust	60676-86-0	2	2	2
Silicates (less than 1 percent crystalline silica)	12001-26-2	2	2	2
Mica (respirable dust)				
Soapstone, Total dust		2	2	2
Soapstone, respirable dust		2	2	2
Talc (containing asbestos); use asbestos limit; see 1926.58				
Talc (containing no asbestos), respirable dust	14807-96-6	2	2	2
Tremolite, abestiform; see 1926.58				
Silicon carbide	409-21-2			
Total dust				
Respirable fraction				
Silver, metal and soluble compounds (as Ag)	7440-22-4		0.01	
Soapstone; see Silicates				
Sodium fluoroacetate	62-74-8		0.05	X
Sodium hydroxide	1310-73-2		2	
Starch	9005-25-8			
Total dust				
Respirable fraction				
Stibine	7803-52-3	0.1	0.5	
Stoddard solvent	8052-41-3	200	1150	
Strychnine	57-24-9		0.15	
Styrene	100-42-5	(C)100	(C)420	

Sucrose	57-50-1			
Total dust				
Respirable fraction				
Sulfur dioxide	9/5/7446	5	13	
Sulfur hexafluoride	2551-62-4	1000	6000	
Sulfuric acid	7664-93-9		1	
Sulfur monochloride	10025-67-9	1	6	
Sulfur pentafluoride	5714-22-7	0.025	0.25	
Sulfuryl fluoride	2699-79-8	5	20	
Systox; see Demeton				
2, 4, 5-T (2, 4, 5-tri-chlorophenoxyacetic acid)	93-76-5		10	
Talc; see Silicates				
Tantalum, metal and oxide dust	7440-25-7		5	
TEDP (Sulfotep)	3689-24-5		0.2	X
Teflon decomposition products			A2	
Tellurium and compounds (as Te)	13494-80-9		0.1	
Tellurium hexafluoride (as Te)	7783-80-4	0.02	0.2	
Temephos	3383-96-8			
Total dust				
Respirable fraction				
TEPP (Tetraethyl pyrophosphosphate)	107-49-3		0.05	X
Terphenylis	26140-60-3	(C)1	(C)9	
1, 1, 1, 2-Tetrachloro-2, 2-difluoroethane	76-11-9	500	4170	
1, 1, 2, 2-Tetrachloro-1, 2-difluoroethane	76-12-0	500	4170	
1, 1, 2, 2-Tetrachloroethane	79-34-5	5	35	X
Tetrachloroethylene; see Perchloroethylene				
Tetrachloromethane; see Carbon tetrachloride				
Tetrachloronaphthalene	1335-88-2		2	X
Tetraethyl lead (as Pb)	78-00-2		0.1	X
Tetrahydrofuran	109-99-9	200	590	
Tetramethyl lead, (as Pb)	75-74-1		0.15	X
Tetramethyl succinonitrile	3333-52-6	0.5	3	X
Tetranitromethane	509-14-8	1	8	
Tetryl (2, 4, 6-Trinitrophenylmethyl-nitramine)	479-45-8		1.5	X
Thallium, soluble compounds (as Tl)	7440-28-0		0.1	X
Thiram	137-26-8		5	
Tin, inorganic compounds (except oxides) (as Sn)	7440-31-5		2	
Tin, organic compounds (as Sn)	7440-31-5		0.1	
Tin oxide (as Sn)	21651-19-4			
Total dust				

Respirable fraction				
Titanium dioxide	13463-67-7			
Total dust				
Toluene	108-88-3	200	750	
Toluene-2, 4-diisocyanate (TDI)	584-84-9	(C)0.02	(C)0.14	
o-Toluidine	95-53-4	5	22	X
Toxaphene; see Chlorinated camphene				
Tremolite; see Silicates				
Tributyl phosphate	126-73-8		5	
1, 1, 1-Trichloroethane; see Methyl chloroform				
1, 1, 2-Trichloroethane	79-00-5	10	45	X
Trichloroethylene	79-01-6	100	535	
Trichloromethane; see Chloroform				
Trichloronaphthalene	1321-65-9		5	X
1, 2, 3-Trichloropropane	96-18-4	50	300	
1, 1, 2-Trichloro-1, 2, 2-trifluoroethane	76-13-1	1000	7600	
Triethylamine	121-44-8	25	100	
Trifluorobromomethane	75-63-8	1000	6100	
Trimethyl benzene	25551-13-7	25	120	
2, 4 6-Trinitrophenyl; see Picric acid				
2, 4, 6-Trinitrophenylmethyl nitramine; see Tetryl				
2, 4, 6-Trinitrotoluene (TNT)	118-96-7		1.5	X
Triorthocresyl phosphate	78-30-8		0.1	
Triphenyl phosphate	115-86-6		3	
Tungsten (as W)	7440-33-7			
Insoluble compounds			5	
Soluble compounds			1	
Turpentine	8006-64-2	100	560	
Uranium (as U)	7440-61-1			
Soluble compounds			0.2	
Insoluble compounds			0.2	
Vanadium	1314-62-1			
Respirable dust (as V <sub>2</sub> O <sub>5</sub> )			(C)0.5	
Fume (as V <sub>2</sub> O <sub>5</sub> )			(C)0.1	
Vegetable oil mist				
Total dust				
Respirable fraction				
Vinyl benzene; see Styrene				
Vinyl chloride; see 1926.1117	75-01-4			
Vinyl cyanide; see Acrylonitrile				
Vinyl toluene	25013-15-4	100	480	
Warfarin	81-81-2		0.1	

Xylenes (o-, m-, p-isomers)	1330-20-7	100	435	
Xylidine	1300-73-8	5	25	X
Yttrium	7440-65-5		1	
Zinc chloride fume	7646-85-7		1	
Zinc oxide fume	1314-13-2		5	
Zinc oxide	1314-13-2			
Total dust			15	
Respirable fraction			5	
Zirconium compounds (as Zr)	7440-67-7		5	