ADOPTED NATIONAL EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT [NOHSC:1003(1995)]

1. BASIS FOR EXPOSURE STANDARDS

1.1 Substances listed in this document have exposure standards based on health effects for most workers. However, there are a number of instances where other considerations, such as, economic, social or technological implications, or sampling and analytical limitations, have also been taken into account, especially for those substances with the notation 'A*' in the Reference column of the list of adopted national exposure standards. No standard should be applied without reference to the related documentation.

1.2 Documentation for the majority of substances can be found in the American Conference of Governmental Industrial Hygienists' (ACGIH) documentation of the threshold limit values and biological exposure indices.[1,2] An 'H' in the Reference column of the adopted national exposure standards indicates that the reader should refer to the ACGIH documentation for further information. Entries carrying the notation 'A' in the final column of the list of adopted national exposure standards, have been reviewed in detail by the Exposure Standards Expert Working Group and documentation supporting the adopted national values is available in National Commission's *Documentation of the Exposure Standards*[3] [NOHSC:10003(1995)].

1.3 Partial documentation is provided where the major part of the adopted exposure standard is supported by the documentation of the ACGIH but the adopted national standard differs from that recommended by the ACGIH in one or more details.

1.4 The notation 'R' in the final column of the list of exposure standards indicates those substances which require further review by the Exposure Standards Expert Working Group (see Appendix 3 of the National Commission's *Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment*[4] [NOHSC:3008(1995)]). In most cases the ACGIH documentation[1,2] should be consulted for these substances.

1.5 The notation 'Ch' in the Reference column of the list of adopted exposure standards indicates those substances for which the Exposure Standards Expert Working Group has proposed additions/changes to the existing standards.

1.6 Proposed changes or additions to the National Commission's *Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment* [NOHSC:1003(1995)] have been published separately.[5]

1.7 The list of synonyms, which appears as Appendix 4 of the National Commission's *Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment*[4] [NOHSC:3008(1995)], should be consulted if the required substances cannot be identified in the list of adopted national exposure standards.

2. INTERPRETATION

2.1 In this national standard:

'**Exposure standard**' means an airborne concentration of a particular substance in the worker's breathing zone, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers. The exposure standard can be of three forms; time-weighted average (TWA), peak limitation, or short term exposure limit (STEL).

'**Exposure standard - peak**' means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.

'**Exposure standard - short term exposure limit (STEL)**' means a 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.

'**Exposure standard - time-weighted average (TWA)**' means the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

'**Practicable**' means 'practicable' in Victoria, Queensland, Western Australia and the Northern Territory, 'reasonably practicable' in New South Wales, South Australia, the Australian Capital Territory and Commonwealth jurisdiction and 'a reasonable precaution' in Tasmania.

3. COLUMN HEADINGS, ABBREVIATIONS AND FOOTNOTES USED IN THE LIST OF ADOPTED NATIONAL EXPOSURE STANDARDS

3.1 Chapter, section and appendix numbers refer to the National Commission's *Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment*[4] [NOHSC:3008(1995)].

COLUMN HEADINGS AND ABBREVIATIONS

(1) Substance

The description of the atmospheric contaminant
(see Section 19.2-3)

(2) CAS #

Chemical Abstracts Service Registry Number
(see Section 19.4-19.6)

(3) TWA

Exposure standard - time weighted average
(see Chapters 5 and 6)

ppm

Parts of vapour or gas per million parts of contaminated air by volume
(see Section 19.7)

mg/m^3

Milligrams of substance per cubic metre of air at 25°C and one atmosphere pressure. When entry is in this column only, the value is exact: when listed with a ppm value, it is approximate.
(see Section 19.7-8).

f/mL

Fibres per millilitre of air as determined by the membrane filter method[6,7]

P

Prohibition recommended
(see Chapter 3)

(4) STEL

Exposure standard - short term exposure limit. Where the words 'peak limitation' appear in this column the exposure standard - peak should be applied to the value listed in Column 3.
(see Chapter 6)

ppm and mg/m^3

(see above)

(5) Carcinogen Category	**1** Established human carcinogen (see Chapter 13) **2** Probable human carcinogen (see Chapter 13) **3** Substances suspected of having carcinogenic potential (see Chapter 13)
(6) Notices Indicates whether the contaminant can be absorbed through the skin and/or is a sensitiser.	**Sk** Absorption through the skin may be a significant source of exposure (see Chapter 11) **Sen** Sensitiser (see Chapter 12)
(7) Reference (Ref) Indicates the source of documentation, whether the standard is under review or whether a change to the standard has been proposed.[7]	**A** National Commission documentation[3] available for these values **A*** National Commission documentation[3] available for these values, see 'Basis for Exposure Standards' earlier in this document **Ch** Change to exposure standard has been proposed, see the National Commission's *Proposed National Exposure Standards for Atmospheric Contaminants in the Occupational Environment*[5]

(7) Reference (Ref)/continued	
	H
	ACGIH[1,2] is the documentation source
	R
	Substance reqiring review (see Appendix 3)

FOOTNOTES

(a) This value is for inspirable dust containing no asbestos and < 1% crystalline silica (see Chapter 14)

(b) Fibres longer than 5µm, width less than 3 µm and with an aspect ratio of not less than 3:1, as measured by the membrane filter method, at 400-650X magnification phase contrast illumination.

(c) Lint free dust as measured by the vertical elutriator õ cotton dust sampler described in the *Transactions of the National Conference on Cotton Dust and Health 1970*, North Carolina University Press, Chapel Hill, pp. 33-43, 1971.

(d) For a few substances, usually the more potent probable and established human carcinogens, it is not currently possible to assign an appropriate exposure standard. For these substances, exposure should be controlled to the lowest practicable level.

(e) The Exposure Standards Expert Working Group has recommended guidelines to control short term excursions above the TWA. The guidelines have been developed based on the toxicokinetic properties of carbon monoxide. A guidance table for the control of short term excursions above the TWA is available at page 23 of the National Commission documentation[3] for carbon monoxide.

(f) For the three substances marked with this footnote (Benomyl, Caprolactam vapour, and Sodium azide), the exposure standards are established as gravimetric (mg/m^3) values and converted into volumetric values (see Section 19.9).

(g) Containing no asbestos and < 1% crystalline silica (see Chapter 14).

(h) Documentation for the substances with this footnote can be found in the 5th Edition of the ACGIH documentation of the threshold limit values and biological exposure indices.[1] For all other substances with 'H' in Column 7 the documentation can be found in the 6th Edition of the ACGIH documentation of the threshold limit values and biological exposure indices.[2]

EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
Acetaldehyde (h)	[75-07-0]	100	180	150	270	-	-	H;R
Acetic acid	[64-19-7]	10	25	15	37	-	-	H
Acetic anhydride	[108-24-7]	5	21	Peak limitation		-	-	H
Acetone	[67-64-1]	500	1,185	1,000	2,375	-	-	A
Acetonitrile	[75-05-8]	40	67	60	101	-	Sk	H
Acetylene	[74-86-2]	Asphyxiant		(see Chapter 10)		-	-	-
Acetylsalicylic acid	[50-78-2]	-	5	-	-	-	-	H
Acrolein	[107-02-8]	0.1	0.23	0.3	0.69	-	-	H
Acrylamide	[79-06-1]	-	0.03	-	-	2	Sk	H
Acrylic acid	[79-10-7]	2	5.9	-	-	-	Sk	H
Acrylonitrile	[107-13-1]	2	4.3	-	-	2	Sk	H
Aldrin	[309-00-2]	-	0.25	-	-	3	Sk	A
Allyl alcohol	[107-18-6]	2	4.8	4	9.5	-	Sk	H
Allyl chloride	[107-05-1]	1	3	2	6	-	-	H
Allyl glycidyl ether (AGE)	[106-92-3]	5	23	10	47	-	Sk;Sen	H
Allyl propyl disulfide	[2179-59-1]	2	12	3	18	-	-	H
a-Alumina (Al_2O_3)	[1344-28-1]		(see Aluminium oxide)					
Aluminium (metal dust)	[7429-90-5]	-	10	-	-	-	-	H
Aluminium (welding fumes) (as Al)	[7429-90-5]	-	5	-	-	-	-	H
Aluminium oxide (a)	[1344-28-1]	-	10	(see Chapter 14)		-	-	H
Aluminium, alkyls (NOC+) (as Al)	[7429-90-5]	-	2	-	-	-	-	H
Aluminium, pyro powders (as Al)	[7429-90-5]	-	5	-	-	-	-	H
Aluminium, soluble salts (as Al)	[7429-90-5]	-	2	-	-	-	-	H
4-Aminodiphenyl	[92-67-1]	(P)	-	-	-	1	Sk	H

An explanation of the column headings, abbreviations used and footnotes precedes this list. The referenced chapters are in the National Commission's *Guidance Note on the Interpretation of Exposure Standards for Atmospheric Contaminants in the Occupational Environment* [NOHSC:3008(1995)].

EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
2-Aminopyridine	[504-29-0]	0.5	2	-	-	-	-	H
Amitrole	[61-82-5]	-	0.2	-	-	3	-	A
Ammonia	[7664-41-7]	25	17	35	24	-	-	H
Ammonium chloride (fume)	[12125-02-9]	-	10	-	20	-	-	H
Ammonium perfluorooctanoate (h)	[3825-26-1]	-	0.1	-	-	-	-	H
Ammonium sulphamate	[7773-06-0]	-	10	-	-	-	-	H
Amosite	[12172-73-5]		(see Asbestos)					
n-Amyl acetate	[628-63-7]	100	532	-	-	-	-	H
sec-Amyl acetate	[626-38-0]	125	665	-	-	-	-	H
Aniline & homologues	[62-53-3]	2	7.6	-	-	-	Sk	H
Anisidine(o-, p- isomers)	[29191-52-4]	0.1	0.5	-	-	-	Sk	H
Antimony & compounds (as Sb)	[7440-36-0]	-	0.5	-	-	-	-	H
Antimony trioxide, handling and use (as Sb)	[1309-64-4]	-	0.5	-	-	-	-	H
Antimony trioxide, production (d)	[1309-64-4]	-	-	-	-	2	-	H
ANTU	[86-88-4]	-	0.3	-	-	-	-	H
Argon	[7440-37-1]	Asphyxiant (see Chapter 10)		-	-	-	-	
Arsenic & soluble compounds (as As)	[7440-38-2]	-	0.05	-	-	1	-	A
Arsenic trioxide production (as As) (d)	[1327-53-3]	-	-	-	-	1	-	H
Arsine	[7784-42-1]	0.05	0.16	-	-	-	-	H
Asbestos (b)	[1332-21-4]			(see Chapter 14)				
Amosite (b)	[12172-73-5]	0.1 f/mL (P)		-	-	1	-	A*
Chrysotile (b)	[12001-29-5]	1 f/mL		-	-	1	-	A

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Crocidolite (b)	[12001-28-4]	0.1 f/mL (P)		-	-	1	-	A*
Other forms (b)	[-]	0.1 f/mL		-	-	1	-	A*
Any mixture of these, or where the composition is unknown (b)	[-]	0.1 f/mL		-	-	1	-	A*
Atrazine	[1912-24-9]	-	5	-	-	-	-	H;R
Azinphos-methyl	[86-50-0]	-	0.2	-	-	-	Sk	H
Barium sulphate (a)	[7727-43-7]	-	10 (see Chapter 14)	-	-	-	H	
Barium, soluble compounds (as Ba)	[7440-39-3]	-	0.5	-	-	-	-	H
Benomyl (f)	[17804-35-2]	0.84	10	-	-	-	-	H
Benzene	[71-43-2]	5	16	-	-	1	-	A;R
Benzidine	[92-87-5]	-(P)	-	-	-	1	Sk	H
Benzo(a)pyrene (d)	[50-32-8]	-	-	-	-	2	-	H
Benzoyl peroxide	[94-36-0]	-	5	-	-	-	-	H
Benzyl chloride	[100-44-7]	1	5.2	-	-	-	-	H
Beryllium & compounds	[7440-41-7]	-	0.002	-	-	2	-	H
Biphenyl	[92-52-4]	0.2	1.3	-	-	-	-	H
Bismuth telluride	[1304-82-1]	-	10	-	-	-	-	H
Bismuth telluride, Se-doped	[1304-82-1]	-	5	-	-	-	-	H
Bitumen fumes	[8052-42-4]	-	5	-	-	-	-	H
Borates, tetra, sodium salts (anhydrous)	[1303-96-4]	-	1	-	-	-	-	H
Borates, tetra, sodium salts (decahydrate)	[1303-96-4]	-	5	-	-	-	-	H
Borates, tetra, sodium salts (pentahydrate)	[1303-96-4]	-	1	-	-	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
Boron oxide	[1303-86-2]	-	10	-	-	-	-	H
Boron tribromide	[10294-33-4]	1	10	Peak limitation		-	-	H
Boron trifluoride	[7637-07-2]	1	2.8	Peak limitation		-	-	H
Bromacil	[314-40-9]	1	11	-	-	-	-	H
Bromine	[7726-95-6]	0.1	0.66	0.3	2	-	-	H
Bromine pentafluoride	[7789-30-2]	0.1	0.72	-	-	-	-	H
Bromoform	[75-25-2]	0.5	5.2	-	-	-	Sk	H
1,3-Butadiene (h)	[106-99-0]	10	22	-	-	2	-	H
Butane	[106-97-8]	800	1,900	-	-	-	-	H
2-Butoxyethanol	[111-76-2]	25	121	-	-	-	Sk	H;R
n-Butyl acetate	[123-86-4]	150	713	200	950	-	-	H
sec-Butyl acetate	[105-46-4]	200	950	-	-	-	-	H
tert-Butyl acetate	[540-88-5]	200	950	-	-	-	-	H
Butyl acrylate	[141-32-2]	10	55	-	-	-	Sen	A
n-Butyl alcohol	[71-36-3]	50	152	Peak limitation		-	Sk	H
sec-Butyl alcohol	[78-92-2]	100	303	-	-	-	-	H
tert-Butyl alcohol	[75-65-0]	100	303	150	455	-	-	H
Butylamine	[109-73-9]	5	15	Peak limitation		-	Sk	H
tert-Butyl chromate (as CrO_3)	[1189-85-1]	-	0.1	Peak limitation		-	Sk	H
n-Butyl glycidyl ether (BGE)	[2426-08-6]	25	133	-	-	-	Sen	H
n Butyl lactate	[138-22-7]	5	30	-	-	-	-	H
Butyl mercaptan	[109-79-5]	0.5	1.8	-	-	-	-	H
o-sec-Butylphenol	[89-72-5]	5	31	-	-	-	Sk	H
p-tert-Butyltoluene (h)	[98-51-1]	10	61	20	121	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
Cadmium and compounds (as Cd)	[7440-43-9]	-	0.01	-	-	2	-	A
Caesium hydroxide	[21351-79-1]	-	2	-	-	-	-	H
Calcium carbonate (a)	[1317-65-3]	-	10	(see Chapter 14)		-	-	H
Calcium cyanamide	[156-62-7]	-	0.5	-	-	-	-	H
Calcium hydroxide	[1305-62-0]	-	5	-	-	-	-	H
Calcium oxide	[1305-78-8]	-	2	-	-	-	-	H
Calcium silicate (a)	[1344-95-2]	-	10	(see Chapter 14)		-	-	H
Calcium sulphate (a)	[7778-18-9]	-	10	(see Chapter 14)		-	-	H
Camphor, synthetic	[76-22-2]	2	12	3	19	-	-	H
Caprolactam (dust)	[105-60-2]	-	1	-	3	-	-	H
Caprolactam (vapour) (f)	[105-60-2]	4.3	20	8.6	40	-	-	H
Captafol	[2425-06-1]	-	0.1	-	-	-	Sk	H
Captan	[133-06-2]	-	0.5	-	-	2	Sk;Sen	A
Carbaryl	[63-25-2]	-	5	-	-	-	-	H;R
Carbofuran	[1563-66-2]	-	0.1	-	-	-	-	H
Carbon black	[1333-86-4]	-	3	-	-	-	-	A
Carbon dioxide	[124-38-9]	5,000	9,000	30,000	54,000	-	-	H
Carbon dioxide in coal mines	[124-38-9]	12,500	22,500	30,000	54,000	-	-	A*
Carbon disulphide	[75-15-0]	10	31	-	-	-	Sk	H;R
Carbon monoxide (e)	[630-08-0]	30	34	(see footnote (e))		-	-	A
Carbon tetrabromide	[558-13-4]	0.1	1.4	0.3	4.1	-	-	H
Carbon tetrachloride	[56-23-5]	5	31	-	-	2	Sk	H;Ch
Carbonyl fluoride	[353-50-4]	2	5.4	5	13	-	-	H
Catechol	[120-80-9]	5	23	-	-	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
Cellulose (paper fibre) (a)	[9004-34-6]	-	10	(see Chapter 14)		-	-	A
Ceramic fibres	[-]	-	0.5 f/ml	(see Chapter 14, Synthetic mineral fibres)				
Chlordane	[57-74-9]	-	0.5	-	-	3	Sk	A
Chlorinated camphene	[8001-35-2]	-	0.5	-	1	-	Sk	H
Chlorinated diphenyl oxide	[31242-93-0]	-	0.5	-	-	-	-	H
Chlorine	[7782-50-5]	1	3	Peak limitation		-	-	A
Chlorine dioxide	[10049-04-4]	0.1	0.28	0.3	0.83	-	-	H
Chlorine trifluoride	[7790-91-2]	0.1	0.38	Peak limitation		-	-	H
Chloroacetaldehyde	[107-20-0]	1	3.2	Peak limitation		-	-	H
Chloroacetone	[78-95-5]	1	3.8	Peak limitation		-	Sk	H
a-Chloroacetophenone	[532-27-4]	0.05	0.32	-	-	-	-	H
Chloroacetyl chloride	[79-04-9]	0.05	0.23	0.15	0.69	-	Sk	H
Chlorobenzene	[108-90-7]	10	46	-	-	-	-	H
o-Chlorobenzylidene malononitrile	[2698-41-1]	0.05	0.39	Peak limitation		-	Sk	H
Chlorobromomethane	[74-97-5]	200	1,060	-	-	-	-	H
Chlorodifluoromethane	[75-45-6]	1,000	3,540	-	-	-	-	H
Chloroform	[67-66-3]	10	49	-	-	3	-	H
Chloromethyl methyl ether (d)	[107-30-2]	-	-	-	-	2	-	H
bis(Chloromethyl) ether	[542-88-1]	.001(P)	0.005	-	-	1	-	A*
1-Chloro-1-nitropropane	[600-25-9]	2	10	-	-	-	-	H
Chloropentafluoroethane	[76-15-3]	1,000	6,320	-	-	-	-	H
Chloropicrin	[76-06-2]	0.1	0.67	-	-	-	-	H
β-Chloroprene	[126-99-8]	10	36	-	-	-	Sk	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
2-Chloropropionic acid	[598-78-7]	0.1	0.44	-	-	-	Sk	H
o-Chlorostyrene	[2039-87-4]	50	283	75	425	-	-	H
o-Chlorotoluene	[95-49-8]	50	259	-	-	-	-	H
Chlorpyrifos	[2921-88-2]	-	0.2	-	-	-	Sk	H
Chromium (metal)	[7440-47-3]	-	0.5	-	-	-	-	H
Chromium (II) compounds (as Cr)	[-]	-	0.5	-	-	-	-	H
Chromium (III) compounds (as Cr)	[-]	-	0.5	-	-	-	-	H
Chromium (VI) compounds (as Cr), certain water insoluble (h)	[-]	-	0.05	-	-	1	Sen	H;R
Chromium (VI) compounds (as Cr), water soluble	[-]	-	0.05	-	-	-	Sen	H;R
Chrysene (d)	[218-01-9]	-	-	-	-	3	-	H
Chrysotile	[12001-29-5]	(see Asbestos)						
Clopidol	[2971-90-6]	-	10	-	-	-	-	H
Coal dust (containing < 5% quartz)	[-]	-	3 (respirable dust)	-	-	-		A
Coal tar pitch volatiles (as benzene solubles)	[65996-93-2]	-	0.2	-	-	1	-	H
Cobalt, metal dust & fume (as Co) (h)	[7440-48-4]	-	0.05	-	-	-	Sen	H
Cobalt carbonyl (as Co)	[10210-68-1]	-	0.1	-	-	-	Sen	H
Cobalt hydrocarbonyl (as Co)	[16842-03-8]	-	0.1	-	-	-	Sen	H
Copper,dusts & mists (as Cu)	[7440-50-8]	-	1	-	-	-	-	H
Copper (fume)	[7440-50-8]	-	0.2	-	-	-	-	H
Cotton dust, raw (c)	[-]	-	0.2	-	-	-	-	H
Cresol, all isomers	[1319-77-3]	5	22	-	-	-	Sk	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Cristobalite	[14464-46-1]	(see Silica - Crystalline)						
Crocidolite	[12001-28-4]	(see Asbestos)						
Crotonaldehyde	[4170-30-3]	2	5.7	-	-	-	-	H
Crufomate	[299-86-5]	-	5	-	-	-	-	H
Cumene	[98-82-8]	50	246	-	-	-	Sk	H
Cyanamide	[420-04-2]	-	2	-	-	-	-	H
Cyanides (as CN)	[151-50-8]	-	5	-	-	-	Sk	H
Cyanogen	[460-19-5]	10	21	-	-	-	-	H
Cyanogen chloride	[506-77-4]	0.3	0.75	Peak limitation		-	-	H
Cyclohexane	[110-82-7]	300	1,030	-	-	-	-	H
Cyclohexanol	[108-93-0]	50	206	-	-	-	Sk	H
Cyclohexanone	[108-94-1]	25	100	-	-	-	Sk	H
Cyclohexene	[110-83-8]	300	1,010	-	-	-	-	H
Cyclohexylamine	[108-91-8]	10	41	-	-	-	-	H
Cyclonite	[121-82-4]	-	1.5	-	-	-	Sk	H
Cyclopentadiene	[542-92-7]	75	203	-	-	-	-	H
Cyclopentane	[287-92-3]	600	1,720	-	-	-	-	H
Cyhexatin	[13121-70-5]	-	5	-	-	-	-	H
2,4-D	[94-75-7]	-	10	-	-	-	-	H
DDT (Dichlorodiphenyl-trichloroethane)	[50-29-3]	-	1	-	-	-	-	A
Decaborane	[17702-41-9]	0.05	0.25	0.15	0.75	-	Sk	H
Demeton	[8065-48-3]	0.01	0.11	-	-	-	Sk	H
Diacetone alcohol	[123-42-2]	50	238	-	-	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Diatomaceous earth (uncalcined)	[61790-53-2]			(see Silica - Amorphous)				
Diazinon	[333-41-5]	-	0.1	-	-	-	Sk	H
Diazomethane	[334-88-3]	0.2	0.34	-	-	3	-	A
Diborane	[19287-45-7]	0.1	0.11	-	-	-	-	H
2-N-Dibutylaminoethanol (h)	[102-81-8]	2	14	-	-	-	Sk	H
Dibutyl phenyl phosphate	[2528-78-7]	0.3	3.5	-	-	-	Sk	H
Dibutyl phosphate	[107-66-4]	1	8.6	2	17	-	-	H
Dibutyl phthalate	[84-74-2]	-	5	-	-	-	-	H
Dichloroacetylene	[7572-29-4]	0.1	0.39	Peak limitation		3	-	A
o-Dichlorobenzene	[95-50-1]	50	301	Peak limitation		-	-	H
p-Dichlorobenzene (h)	[106-46-7]	75	451	110	661	-	-	H
3,3'-Dichlorobenzidine (d)	[91-94-1]	-	-	-	-	2	Sk	H
Dichlorodifluoromethane	[75-71-8]	1,000	4,950	-	-	-	-	H
1,3-Dichloro-5,5-dimethyl hydantoin	[118-52-5]	-	0.2	-	0.4	-	-	H
1,1-Dichloroethane (h)	[75-34-3]	200	810	250	1,010	-	-	H
Dichloroethyl ether	[111-44-4]	5	29	10	58	-	Sk	H
1,2-Dichloroethylene	[540-59-0]	200	793	-	-	-	-	H
Dichlorofluoromethane	[75-43-4]	10	42	-	-	-	-	H
1,1-Dichloro-1-nitroethane	[594-72-9]	2	12	-	-	-	-	H
Dichloropropene	[542-75-6]	1	4.5	-	-	3	Sk	A
2,2-Dichloropropionic acid	[75-99-0]	1	5.8	-	-	-	-	H
Dichlorotetrafluoroethane	[76-14-2]	1,000	6,990	-	-	-	-	H
Dichlorvos (DDVP)	[62-73-7]	0.1	0.9	-	-	-	Sk	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
Dicrotophos	[141-66-2]	-	0.25	-	-	-	Sk	H
Dicyclopentadiene	[77-73-6]	5	27	-	-	-	-	H
Dicyclopentadienyl iron	[102-54-5]	-	10	-	-	-	-	H
Dieldrin	[60-57-1]	-	0.25	-	-	-	Sk	H
Diethanolamine (h)	[111-42-2]	3	13	-	-	-	-	H
Diethylamine (h)	[109-89-7]	10	30	25	75	-	-	H
2-Diethylaminoethanol (h)	[100-37-8]	10	48	-	-	-	Sk	H
Diethylene triamine	[111-40-0]	1	4.2	-	-	-	Sk	H
Diethyl ketone	[96-22-0]	200	705	-	-	-	-	H
Diethyl phthalate	[84-66-2]	-	5	-	-	-	-	H
Difluorodibromomethane	[75-61-6]	100	858	-	-	-	-	H
Diglycidyl ether (DGE)	[2238-07-5]	0.1	0.53	-	-	-	-	H
Diisobutyl ketone	[108-83-8]	25	145	-	-	-	-	H
Diisopropylamine	[108-18-9]	5	21	-	-	-	Sk	H
Dimethyl acetamide	[127-19-5]	10	36	-	-	-	Sk	H
Dimethylamine (h)	[124-40-3]	10	18	-	-	-	-	H
N,N-Dimethylaniline	[121-69-7]	5	25	10	50	-	Sk	H
Dimethyl carbamoyl chloride (d)	[79-44-7]	-	-	-	-	2	-	H
Dimethylformamide	[68-12-2]	10	30	-	-	-	Sk	H
1,1-Dimethylhydrazine	[57-14-7]	0.01	0.025	-	-	2	Sk	A
Dimethylphthalate	[131-11-3]	-	5	-	-	-	-	H
Dimethyl sulphate	[77-78-1]	0.1	0.52	-	-	2	Sk	H
Dinitolmide	[148-01-6]	-	5	-	-	-	-	H
m-Dinitrobenzene	[99-65-0]	0.15	1	-	-	-	Sk	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
o-Dinitrobenzene	[528-29-0]	0.15	1	-	-	-	Sk	H
p-Dinitrobenzene	[100-25-4]	0.15	1	-	-	-	Sk	H
Dinitro-o-cresol	[534-52-1]	-	0.2	-	-	-	Sk	H
Dinitrotoluene (h)	[25321-14-6]	-	1.5	-	-	-	Sk	H
Dioxane	[123-91-1]	25	90	-	-	-	Sk	H
Dioxathion	[78-34-2]	-	0.2	-	-	-	Sk	H
Diphenylamine	[122-39-4]	-	10	-	-	-	-	H
Dipropylene glycol, methyl ether	[34590-94-8]	100	606	150	909	-	Sk	H
Dipropyl ketone	[123-19-3]	50	233	-	-	-	-	H
Diquat	[85-00-7]	-	0.5	-	-	-	-	H
Di-sec-octyl phthalate	[117-81-7]	-	5	-	10	-	-	H
Disulfiram	[97-77-8]	-	2	-	-	-	-	H
Disulfoton	[298-04-4]	-	0.1	-	-	-	-	H
2,6-Di-tert-butyl-p-cresol	[128-37-0]	-	10	-	-	-	-	H
Diuron	[330-54-1]	-	10	-	-	-	-	H
Divinyl benzene	[1321-74-0]	10	53	-	-	-	-	H
Emery (dust) (a)	[1302-74-5]	-	10	(see Chapter 14)		-	-	H
Endosulfan	[115-29-7]	-	0.1	-	-	-	Sk	H
Endrin	[72-20-8]	-	0.1	-	-	-	Sk	H
Enflurane	[13838-16-9]	0.5	3.8	-	-	-	-	A*
Epichlorohydrin	[106-89-8]	2	7.6	-	-	2	Sk	A;R
EPN (h)	[2104-64-5]	-	0.5	-	-	-	Sk	H
Ethane	[74-84-0]	Asphyxiant	(see Chapter 10)		-	-	-	

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
Ethanolamine	[141-43-5]	3	7.5	6	15	-	-	H
Ethion	[563-12-2]	-	0.4	-	-	-	Sk	H
2-Ethoxyethanol	[110-80-5]	5	18	-	-	-	Sk	H
2-Ethoxyethyl acetate	[111-15-9]	5	27	-	-	-	Sk	H
Ethyl acetate	[141-78-6]	400	1,440	-	-	-	-	H;Ch
Ethyl acrylate	[140-88-5]	5	20	Peak limitation		-	Sen	A
Ethyl alcohol	[64-17-5]	1,000	1,880	-	-	-	-	H
Ethylamine (h)	[75-04-7]	10	18	-	-	-	-	H
Ethyl amyl ketone	[541-85-5]	25	131	-	-	-	-	H
Ethyl benzene	[100-41-4]	100	434	125	543	-	-	H;R
Ethyl bromide	[74-96-4]	5	22	-	-	3	Sk	A
Ethyl butyl ketone	[106-35-4]	50	234	-	-	-	-	H
Ethyl chloride	[75-00-3]	1,000	2,640	-	-	-	-	H
Ethylene	[74-85-1]	Asphyxiant (see Chapter 10)				-	-	-
Ethylene chlorohydrin	[107-07-3]	1	3.3	Peak limitation		-	Sk	H
Ethylenediamine	[107-15-3]	10	25	-	-	-	Sen	H
Ethylene dibromide (d)	[106-93-4]	-	-	-	-	2	Sk	H
Ethylene dichloride	[107-06-2]	10	40	-	-	-	-	H;R
Ethylene glycol (vapour)	[107-21-1]	-	60	-	120	-	-	A
Ethylene glycol dinitrate	[628-96-6]	0.05	0.31	-	-	-	Sk	H
Ethylene oxide	[75-21-8]	1	1.8	-	-	2	-	H
Ethylenimine	[151-56-4]	0.5	0.88	-	-	3	Sk	A
Ethyl ether	[60-29-7]	400	1,210	500	1,520	-	-	H
Ethyl formate	[109-94-4]	100	303	-	-	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
Ethylidene norbornene	[16219-75-3]	5	25	Peak limitation		-	-	H
Ethyl mercaptan	[75-08-1]	0.5	1.3	-	-	-	-	H
N-Ethylmorpholine	[100-74-3]	5	24	-	-	-	Sk	H
Ethyl silicate	[78-10-4]	10	85	-	-	-	-	H
Fenamiphos	[22224-92-6]	-	0.1	-	-	-	Sk	H
Fensulfothion	[115-90-2]	-	0.1	-	-	-	-	H
Fenthion	[55-38-9]	-	0.2	-	-	-	Sk	H
Ferbam	[14484-64-1]	-	10	-	-	-	-	H
Ferrovanadium dust	[12604-58-9]	-	1	-	3	-	-	H
Fluorides (as F)	[-]	-	2.5	-	-	-	-	H
Fluorine	[7782-41-4]	1	1.6	2	3.1	-	-	H;R
Fonofos	[944-22-9]	-	0.1	-	-	-	Sk	H
Formaldehyde (h)	[50-00-0]	1	1.2	2	2.5	2	Sen	H;R
Formamide	[75-12-7]	10	18	-	-	-	Sk	H
Formic acid	[64-18-6]	5	9.4	10	19	-	-	H
Fumed silica	[7631-86-9]	(see Silica - Amorphous)						
Furfural	[98-01-1]	2	7.9	-	-	-	Sk	H
Furfuryl alcohol	[98-00-0]	10	40	15	60	-	Sk	H
Germanium tetrahydride	[7782-65-2]	0.2	0.63	-	-	-	-	H
Glasswool	[-]		0.5 f/ml	(see Synthetic mineral fibres)				
Glutaraldehyde	[111-30-8]	0.2	0.82	Peak limitation		-	Sen	H;Ch
Glycerin mist (a)	[56-81-5]	-	10	(see Chapter 14)		-	-	H
Glycidol	[556-52-5]	25	76	-	-	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
Grain dust (oats, wheat, barley)	[-]	-	4	-	-	-	-	H
Graphite (all forms except fibres) (respirable dust)(g)	[7782-42-5] (natural & synthetic)	-	3	(see Chapter 14)		-	-	A
Hafnium	[7440-58-6]	-	0.5	-	-	-	-	H
Halothane	[151-67-7]	0.5	4.1	-	-	-	-	A*
Helium	[7440-59-7]	Asphyxiant	(see Chapter 10)			-	-	-
Heptachlor (h)	[76-44-8]	-	0.5	-	-	-	Sk	H;R
Heptane (n-Heptane)	[142-82-5]	400	1,640	500	2,050	-	-	H
Hexachlorobutadiene	[87-68-3]	0.02	0.21	-	-	3	Sk	H
Hexachlorocyclopentadiene	[77-47-4]	0.01	0.11	-	-	-	-	H
Hexachloroethane	[67-72-1]	1	9.7	-	-	3	-	A
Hexachloronaphthalene	[1335-87-1]	-	0.2	-	-	-	Sk	H
Hexafluoroacetone	[684-16-2]	0.1	0.68	-	-	-	Sk	H
Hexamethyl phosphoramide (d)	[680-31-9]	-	-	-	-	2	Sk	H
Hexamethylene diisocyanate	[822-06-0]	(see Isocyanates, all)						
Hexane (n-Hexane)	[110-54-3]	50	176	-	-	-	-	H
Hexane, other isomers	[-]	500	1,760	1,000	3,500	-	-	H
sec-Hexyl acetate	[108-84-9]	50	295	-	-	-	-	H
Hexylene glycol	[107-41-5]	25	121	Peak limitation		-	-	H
Hydrazine	[302-01-2]	0.01	0.013	-	-	2	Sk;Sen	A
Hydrogen	[1333-74-0]	Asphyxiant	(see Chapter 10)			-	-	-
Hydrogenated terphenyls	[37275-59-5]	0.5	4.9	-	-	-	-	H
Hydrogen bromide	[10035-10-6]	3	9.9	Peak limitation		-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Hydrogen chloride	[7647-01-0]	5	7.5	Peak limitation		-	-	H
Hydrogen cyanide (h)	[74-90-8]	10	11	Peak limitation		-	Sk	H
Hydrogen fluoride (as F)	[7664-39-3]	3	2.6	Peak limitation		-	-	H
Hydrogen peroxide	[7722-84-1]	1	1.4	-	-	-	-	H
Hydrogen selenide (as Se)	[7783-07-5]	0.05	0.16	-	-	-	-	H
Hydrogen sulphide	[7783-06-4]	10	14	15	21	-	-	H
Hydroquinone	[123-31-9]	-	2	-	-	-	-	H
2-Hydroxypropyl acrylate	[999-61-1]	0.5	2.8	-	-	-	Sk	H
Indene	[95-13-6]	10	48	-	-	-	-	H
Indium & compounds (as In)	[7440-74-6]	-	0.1	-	-	-	-	H
Iodine	[7553-56-2]	0.1	1	Peak limitation		-	-	H
Iodoform	[75-47-8]	0.6	10	-	-	-	-	H
Iron oxide fume (Fe_2O_3) (as Fe)	[1309-37-1]	-	5	(see Chapter 17)		-	-	H
Iron pentacarbonyl (as Fe)	[13463-40-6]	0.1	0.23	0.2	0.45	-	-	H
Iron salts, soluble (as Fe)	[-]	-	1	-	-	-	-	H
Isoamyl acetate	[123-92-2]	100	532	-	-	-	-	H
Isoamyl alcohol	[123-51-3]	100	361	125	452	-	-	H
Isobutyl acetate	[110-19-0]	150	713			-	-	H
Isobutyl alcohol	[78-83-1]	50	152	-	-	-	-	H
Isocyanates, all (as-NCO)	[-]	-	0.02	-	0.07	-	Sen	A
Isooctyl alcohol	[26952-21-6]	50	266	-	-	-	Sk	H
Isophorone	[78-59-1]	5	28	Peak limitation		-	-	H
Isophorone diisocyanate	[4098-71-9]	(see Isocyanates, all)						

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Isopropoxyethanol	[109-59-1]	25	106	-	-	-	-	H
Isopropyl acetate	[108-21-4]	250	1040	310	1,290	-	-	H
Isopropyl alcohol	[67-63-0]	400	983	500	1,230	-	-	H;R
Isopropylamine	[75-31-0]	5	12	10	24	-	-	H
N-Isopropylaniline	[768-52-5]	2	11	-	-	-	Sk	H
Isopropyl ether	[108-20-3]	250	1,040	310	1,300	-	-	H
Isopropyl glycidyl ether (IGE)	[4016-14-2]	50	238	75	356	-	-	H
Kaolin (a)	[1322-58-7]	-	10 (see Chapter 14)			-	-	H
Ketene	[463-51-4]	0.5	0.86	1.5	2.6	-	-	H
Lead, inorganic dusts & fumes (as Pb)	[7439-92-1]	-	0.15	-	-	-	-	H;R
Lead arsenate (as $Pb_3(AsO_4)_2$)	[3687-31-8]	-	0.15	-	-	-	-	H
Lead chromate (as Cr) (h)	[7758-97-6]	-	0.05	-	-	2	-	H
Lindane	[58-89-9]	-	0.5	-	-	-	Sk	H
Lithium hydride	[7580-67-8]	-	0.025	-	-	-	-	H
LPG (liquified petroleum gas)	[68476-85-7]	1,000	1,800	-	-	-	-	H
Magnesite (a)	[546-93-0]	-	10 (see Chapter 14)			-	-	H
Magnesium oxide (fume)	[1309-48-4]	-	10	-	-	-	-	H
Malathion	[121-75-5]	-	10	-	-	-	Sk	H
Maleic anhydride	[108-31-6]	0.25	1	-	-	-	Sen	H
Man-made mineral fibres	[-]		0.5 f/ml (see Synthetic mineral fibres)					
Manganese, dust & compounds (as Mn)	[7439-96-5]	-	1	-	-	-	-	A
Manganese, fume (as Mn)	[7439-96-5]	-	1	-	3	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Manganese cyclopenta-dienyl tricarbonyl (as Mn)	[12079-65-1]	-	0.1	-	-	-	Sk	H
Mercury, elemental vapour (as Hg)	[7439-97-7]	-	0.05	-	-	-	-	A
Mercury, alkyl compounds (as Hg)	[7439-97-6]	-	0.01	-	0.03	-	Sk	H
Mercury, aryl & inorganic compounds (as Hg)	[7439-97-6]	-	0.1	-	-	-	Sk	H;R
Mesityl oxide	[141-79-7]	15	60	25	100	-	-	H
Methacrylic acid	[79-41-4]	20	70	-	-	-	-	H
Methane	[74-82-8]	Asphyxiant	(see Chapter 10)		-	-	-	
Methomyl	[16752-77-5]	-	2.5	-	-	-	-	H
Methoxychlor	[72-43-5]	-	10	-	-	-	-	H
2-Methoxyethanol	[109-86-4]	5	16	-	-	-	Sk	H
2-Methoxyethyl acetate	[110-49-6]	5	24	-	-	-	Sk	H
4-Methoxyphenol	[150-76-5]	-	5	-	-	-	-	H
Methyl acetate	[79-20-9]	200	606	250	757	-	-	H
Methyl acetylene	[79-99-7]	1,000	1,640	-	-	-	-	H
Methyl acetylene-propadiene mixture (MAPP)	[-]	1,000	1,640	1,250	2,050	-	-	H
Methyl acrylate	[96-33-3]	10	35	-	-	-	Sk;Sen	A
Methylacrylonitrile	[126-98-7]	1	2.7	-	-	-	Sk	H
Methylal	[109-87-5]	1,000	3,110	-	-	-	-	H
Methyl alcohol	[67-56-1]	200	262	250	328	-	Sk	H
Methylamine (h)	[74-89-5]	10	13	-	-	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Methyl n-amyl ketone	[110-43-0]	50	233	-	-	-	-	H
N-Methyl aniline	[100-61-8]	0.5	2.2	-	-	-	Sk	H
Methyl bromide	[74-83-9]	5	19	-	-	-	Sk	H
Methyl n-butyl ketone	[591-78-6]	5	20	-	-	-	-	H;R
Methyl chloride	[74-87-3]	50	103	100	207	-	-	H
Methyl 2-cyanoacrylate	[137-05-3]	2	9.1	4	18	-	-	H
Methylcyclohexane	[108-87-2]	400	1,610	-	-	-	-	H
Methylcyclohexanol	[25639-42-3]	50	234	-	-	-	-	H
o-Methylcyclohexanone	[583-60-8]	50	229	75	344	-	Sk	H
Methylcyclopentadienyl manganese tricarbonyl (as Mn)	[12108-13-3]	-	0.2	-	-	-	Sk	H
Methyl demeton	[8022-00-2]	-	0.5	-	-	-	Sk	H
4,4'-Methylene bis(2-chloroaniline) (h)	[101-14-4]	0.02	0.22	-	-	2	Sk	H;R
Methylene bis(4-cyclo-hexylisocyanate)	[5124-30-1]	(see Isocyanates, all)						
Methylene bisphenyl isocyanate (MDI)	[101-68-8]	(see Isocyanates, all)						
Methylene chloride	[75-09-2]	50	174	-	-	3	-	H;R
4,4'-Methylene dianiline	[101-77-9]	0.1	0.81	-	-	2	Sk	H
Methyl ethyl ketone (MEK)	[78-93-3]	150	445	300	890	-	-	A
Methyl ethyl ketone peroxide	[1338-23-4]	0.2	1.5	Peak limitation		-	-	H
Methyl formate	[107-31-3]	100	246	150	368	-	-	H
Methyl hydrazine	[60-34-4]	0.2	0.38	Peak limitation		3	Sk	H;R
Methyl iodide	[74-88-4]	2	12	-	-	3	Sk	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Methyl isoamyl ketone	[110-12-3]	50	234	-	-	-	-	H
Methyl isobutyl carbinol	[108-11-2]	25	104	40	167	-	Sk	H
Methyl isobutyl ketone	[108-10-1]	50	205	75	307	-	-	H;R
Methyl isocyanate	[624-83-9]	(see Isocyanates, all)						
Methyl isopropyl ketone	[563-80-4]	200	705	-	-	-	-	H
Methyl mercaptan	[74-93-1]	0.5	0.98	-	-	-	-	H
Methyl methacrylate	[80-62-6]	100	410	-	-	-	Sk;Sen	A
Methyl parathion	[298-00-0]	-	0.2	-	-	-	Sk	H
Methyl propyl ketone	[107-87-9]	200	705	250	881	-	-	H
Methyl silicate	[681-84-5]	1	6	-	-	-	-	H
?-Methyl styrene	[98-83-9]	50	242	100	483	-	-	H
Metribuzin	[21087-64-9]	-	5	-	-	-	-	H
Mevinphos	[7786-34-7]	0.01	0.092	0.03	0.27	-	Sk	H
Mica	[12001-26-2]	-	2.5 (inspirable)		-	-	-	A*;R
Mineral turpentine	[-]	-	480	(see Chapter 16)		-	-	R
Molybdenum, insoluble compounds (as Mo)	[7439-98-7]	-	10	-	-	-	-	H
Molybdenum, soluble compounds (as Mo)	[7439-98-7]	-	5	-	-	-	-	H
Monocrotophos	[6923-22-4]	-	0.25	-	-	-	-	H
Morpholine	[110-91-8]	20	71	-	-	-	Sk	H
Naled	[300-76-5]	-	3	-	-	-	Sk	H
Naphthalene	[91-20-3]	10	52	15	79	-	-	H
2-Naphthylamine	[91-59-8]	-(P)	-	-	-	1	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Neon	[7440-01-9]	Asphyxiant	(see Chapter 10)		-	-	-	
Nickel, metal	[7440-02-0]	-	1	-	-	-	Sen	H;R
Nickel, soluble compounds (as Ni)	[7440-02-0]	-	0.1	-	-	-	Sen	H;R
Nickel carbonyl (as Ni)	[13463-39-3]	0.05	0.12	-	-	-	-	H;R
Nickel sulphide roasting (fume & dust) (as Ni)	[-]	-	1	-	-	1	Sen	H;R
Nicotine	[54-11-5]	-	0.5	-	-	-	Sk	H
Nitrapyrin	[1929-82-4]	-	10	-	20	-	-	H
Nitric acid	[7697-37-2]	2	5.2	4	10	-	-	H
Nitric oxide	[10102-43-9]	25	31	-	-	-	-	H
p-Nitroaniline	[100-01-6]	-	3	-	-	-	Sk	H
Nitrobenzene	[98-95-3]	1	5	-	-	-	Sk	H
p-Nitrochlorobenzene	[100-00-5]	0.1	0.64	-	-	-	Sk	H
4-Nitrodiphenyl	[92-93-3]	-(P)	-	-	-	1	-	H
Nitroethane	[79-24-3]	100	307	-	-	-	-	H
Nitrogen	[7727-37-9]	Asphyxiant	(see Chapter 10)			-	-	-
Nitrogen dioxide	[10102-44-0]	3	5.6	5	9.4	-	-	H;R
Nitrogen trifluoride	[7783-54-2]	10	29	-	-	-	-	H
Nitroglycerin (NG)	[55-63-0]	0.05	0.46	-	-	-	Sk	H
Nitromethane	[75-52-5]	20	50	-	-	-	-	H
1-Nitropropane	[108-03-2]	25	91	-	-	-	-	H
2-Nitropropane	[79-46-9]	10	36	-	-	2	-	H
N-Nitrosodimethylamine (d)	[62-75-9]	-	-	-	-	2	Sk	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Nitrotoluene	[88-72-2; 99-08-1; 99-99-0]	2	11	-	-	-	Sk	H
Nitrous oxide	[10024-97-2]	25	45	-	-	-	-	A*
Nonane	[111-84-2]	200	1,050	-	-	-	-	H
Octachloronaphthalene	[2234-13-1]	-	0.1	-	0.3	-	Sk	H
Octane	[111-65-9]	300	1,400	375	1,750	-	-	H
Oil mist, refined mineral	[8012-95-1]	-	5	-	-	-	-	A
Osmium tetroxide (as Os)	[20816-12-0]	0.0002	0.0016	0.0006	0.0047	-	-	H
Oxalic acid	[144-62-7]	-	1	-	2	-	-	H
Oxygen difluoride	[7783-41-7]	0.05	0.11	Peak limitation		-	-	H
Ozone	[10028-15-6]	0.1	0.2	Peak limitation		-	-	H
Paraffin wax (fume)	[8002-74-2]	-	2	-	-	-	-	H
Paraquat (respirable sizes)	[4685-14-7]	-	0.1	-	-	-	-	H;R
Parathion	[56-38-2]	-	0.1	-	-	-	Sk	H
PCBs (42% Chlorine)	[53469-21-9]	-	1	-	2	2	Sk	A;R
PCBs (54% Chlorine)	[11097-69-1]	-	0.5	-	1	2	Sk	A;R
Pentaborane	[19624-22-7]	0.005	0.013	0.015	0.039	-	-	H
Pentachloronaphthalene	[1321-64-8]	-	0.5	-	-	-	-	H
Pentachloronitrobenzene	[82-68-8]	-	0.5	-	-	-	-	H
Pentachlorophenol	[87-86-5]	-	0.5	-	-	-	Sk	H
Pentaerythritol (a)	[115-77-5]	-	10	(see Chapter 14)		-	-	H
Pentane	[109-66-0]	600	1,770	750	2,210	-	-	H
Perchloroethylene	[127-18-4]	50	340	150	1,020	3	-	A

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Perchloromethyl mercaptan	[594-42-3]	0.1	0.76	-	-	-	-	H
Perchloryl fluoride	[7616-94-6]	3	13	6	25	-	-	H
Perfluoroisobutylene	[382-21-8]	-	-	-	-	-	-	Ch
Perlite dust (a)	[93763-70-3]	-	10	(see Chapter 14)		-	-	H
Petrol (gasoline)	[-]	-	900	(see Chapter 16)		-	-	R
Phenol	[108-95-2]	1	4	-	-	-	Sk	A
Phenothiazine	[92-84-2]	-	5	-	-	-	Sk	H
n-Phenyl-beta-naphthylamine (d)	[135-88-6]	-	-	-	-	2	-	H
m-Phenylenediamine	[108-45-2]	-	0.1	-	-	-	Sk;Sen	A
o-Phenylenediamine	[95-54-5]	-	0.1	-	-	3	Sen	A
p-Phenylenediamine	[106-50-3]	-	0.1	-	-	-	Sen	H
Phenyl ether (vapour)	[101-84-8]	1	7	2	14	-	-	H
Phenyl glycidyl ether (PGE)	[122-60-1]	1	6.1	-	-	-	Sen	H
Phenylhydrazine	[100-63-0]	0.1	0.44	-	-	2	Sk;Sen	A
Phenyl mercaptan	[108-98-5]	0.5	2.3	-	-	-	-	H
Phenylphosphine	[638-21-1]	0.05	0.23	Peak limitation		-	-	H
Phorate	[298-02-2]	-	0.05	-	0.2	-	Sk	H
Phosgene	[75-44-5]	0.1	0.4	-	-	-	-	H
Phosphine	[7803-51-2]	0.3	0.42	1	1.4	-	-	H;R
Phosphoric acid	[7664-38-2]	-	1	-	3	-	-	H
Phosphorus (yellow)	[7723-14-0]	-	0.1	-	-	-	-	H
Phosphorus oxychloride	[10025-87-3]	0.1	0.63	-	-	-	-	H
Phosphorus pentachloride	[10026-13-8]	0.1	0.85	-	-	-	-	H
Phosphorus pentasulphide	[1314-80-3]	-	1	-	3	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Phosphorus trichloride	[7719-12-2]	0.2	1.1	0.5	2.8	-	-	H
Phthalic anhydride	[85-44-9]	1	6.1	-	-	-	Sen	H
m-Phthalodinitrile	[626-17-5]	-	5	-	-	-	-	H
Picloram	[1918-02-1]	-	10	-	-	-	-	H
Picric acid	[88-89-1]	-	0.1	-	-	-	-	H
Pindone	[83-26-1]	-	0.1	-	-	-	-	H
Piperazine dihydrochloride	[142-64-3]	-	5	-	-	-	-	H
Platinum, metal	[7440-06-4]	-	1	-	-	-	-	H
Platinum, soluble salts (as Pt)	[7440-06-4]	-	0.002	-	-	-	Sen	H
Portland cement (a)	[65997-15-1]	-	10 (see Chapter 14)			-	-	H
Potassium hydroxide	[1310-58-3]	-	2	Peak limitation		-	-	H
Precipitated silica	[112926-00-8]	(see Silica - Amorphous)						
Propane	[74-98-6]	Asphyxiant	(see Chapter 10)			-	-	-
Propane sultone (d)	[1120-71-4]	-	-	-	-	2	-	H
Propargyl alcohol	[107-19-7]	1	2.3	-	-	-	Sk	H
?-Propiolactone	[57-57-8]	0.5	1.5	-	-	2	-	H
Propionic acid	[79-09-4]	10	30	-	-	-	-	H
Propoxur	[114-26-1]	-	0.5	-	-	-	-	H
n-Propyl acetate	[109-60-4]	200	835	250	1,040	-	-	H
Propyl alcohol	[71-23-8]	200	492	250	614	-	Sk	H
Propylene	[115-07-1]	Asphyxiant	(see Chapter 10)			-	-	-
Propylene dichloride	[78-87-5]	75	347	110	508	-	-	H
Propylene glycol dinitrate	[6423-43-4]	0.05	0.34	-	-	-	Sk	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
Propylene glycol monomethyl ether	[107-98-2]	100	369	150	553	-	-	H;R
Propylene imine	[75-55-8]	2	4.7	-	-	2	Sk	H
Propylene oxide	[75-56-9]	20	48	-	-	2	-	A;R
n-Propyl nitrate	[627-13-4]	25	107	40	172	-	-	H
Pyrethrum	[8003-34-7]	-	5	-	-	-	Sen	H
Pyridine	[110-86-1]	5	16	-	-	-	-	H
Quartz	[14808-60-7]	(see Silica - Crystalline)						
Quinone	[106-51-4]	0.1	0.44	-	-	-	-	H
Resorcinol	[108-46-3]	10	45	20	90	-	-	H
Rhodium, metal	[7440-16-6]	-	1	-	-	-	-	H
Rhodium, insoluble compounds (as Rh)	[7440-16-6]	-	1	-	-	-	-	H
Rhodium, soluble compounds (as Rh)	[7440-16-6]	-	0.01	-	-	-	-	H
Rockwool	[-]		0.5 f/ml	(see Synthetic mineral fibres)				
Ronnel	[299-84-3]	-	10	-	-	-	-	H
Rosin core solder pyrolysis products (as formaldehyde)	[-]	-	0.1	-	-	-	-	H
Rotenone (commercial)	[83-79-4]	-	5	-	-	-	-	H
Rouge dust (a)	[-]	-	10	(see Chapter 14)		-	-	H
Selenium compounds (as Se) excluding hydrogen selenide	[7782-49-2]	-	0.2	-	-	-	-	H
Selenium hexafluoride (as Se)	[7783-79-1]	0.05	0.16	-	-	-	-	H
Sesone	[136-78-7]	-	10	-	-	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m³*	*(4)* *STEL* *ppm*	*mg/m³*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Silica - Amorphous			(see Chapter 14)					
Diatomaceous earth (uncalcined) (a)	[61790-53-2]	-	10	-	-	-	-	H
Fume (thermally generated) (respirable dust) (g)	[-]	-	2	(see Chapter 14)		-	-	A
Fumed silica (respirable dust)	[7631-86-9]	-	2	(see Chapter 14)		-	-	A
Precipitated silica (a)	[112926-00-8]	-	10	-	-	-	-	H
Silica gel (a)	[112926-00-8]	-	10	-	-	-	-	H
Silica - Crystalline			(see Chapter 14)					
Cristobalite	[14464-46-1]	No interim value (under review - see Chapter 14)						
Quartz	[14808-60-7]	No interim value (under review - see Chapter 14)						
Silica, fused	[60676-86-0]	No interim value (under review - see Chapter 14)						
Tridymite	[15468-32-3]	No interim value (under review - see Chapter 14)						
Tripoli	[1317-95-9]	No interim value (under review - see Chapter 14)						
Silica gel	[112926-00-8]	(see Silica - Amorphous)						
Silica, fused	[60676-86-0]	(see Silica - Crystalline)						
Silicon (a)	[7440-21-3]	-	10	(see Chapter 14)		-	-	H
Silicon carbide (a)	[409-21-2]	-	10	(see Chapter 14)		-	-	H
Silicon tetrahydride	[7803-62-5]	5	6.6	-	-	-	-	H
Silver, metal	[7440-22-4]	-	0.1	-	-	-	-	H
Silver, soluble compounds (as Ag)	[7440-22-4]	-	0.01	-	-	-	-	H
Soapstone (a)	[-]	-	6	-	-	-	-	H
(respirable dust)		-	3	-	-	-	-	H
Sodium azide (f)	[26628-22-8]	0.11	0.3	Peak limitation		-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Sodium bisulphite	[7631-90-5]	-	5	-	-	-	-	H
Sodium fluoroacetate	[62-74-8]	-	0.05	-	0.15	-	Sk	H
Sodium hydroxide	[1310-73-2]	-	2	Peak limitation		-	-	H
Sodium metabisulphite	[7681-57-4]	-	5	-	-	-	-	H
Starch (a)	[9005-25-8]	-	10	(see Chapter 14)		-	-	H
Stearates (a) (d)	[-]	-	10	(see Chapter 14)		-	-	H
Stibine	[7803-52-3]	0.1	0.51	-	-	-	-	H
Strychnine	[57-24-9]	-	0.15	-	-	-	-	H
Styrene, monomer	[100-42-5]	50	213	100	426	-	-	H
Subtilisins (Proteolytic enzymes as 100% pure crystalline enzyme)	[1395-21-7]	-	0.00006	Peak limitation		-	Sen	H
Sucrose (a)	[57-50-1]	-	10	(see Chapter 14)		-	-	H
Sulfotep	[3689-24-5]	-	0.2	-	-	-	Sk	H
Sulphur dioxide	[7446-09-5]	2	5.2	5	13	-	-	H
Sulphur hexafluoride	[2551-62-4]	1,000	5,970	-	-	-	-	H
Sulphuric acid	[7664-93-9]	-	1	-	3	-	-	H
Sulphur monochloride	[10025-67-9]	1	5.5	Peak limitation		-	-	H
Sulphur pentafluoride	[5714-22-7]	0.01	0.1	Peak limitation		-	-	H
Sulphur tetrafluoride	[7783-60-0]	0.1	0.44	Peak limitation		-	-	H
Sulphuryl fluoride	[2699-79-8]	5	21	10	42	-	-	H
Sulprofos	[35400-43-2]	-	1	-	-	-	-	H
Superfine glassfibre	[-]		0.5 f/ml	(see Synthetic mineral fibres)				
Synthetic mineral fibres (SMF)	[-]		0.5 f/ml	(see Chapter 14)				A

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
Ceramic fibres	[-]	-	0.5 f/ml	(see Chapter 14)				A
Glasswool (including superfine glassfibre)	[-]	-	0.5 f/ml	(see Chapter 14)				A
Rockwool	[-]	-	0.5 f/ml	(see Chapter 14)				A
2,4,5-T	[93-76-5]	-	10	-	-	-	-	H
Talc, (containing no asbestos fibres)	[14807-96-6]	-	2.5	-	-	-	-	A*;R
Tantalum, metal & oxide dusts	[7440-25-7]	-	5	-	-	-	-	H
Tellurium & compounds (as Te)	[13494-80-9]	-	0.1	-	-	-	-	H
Tellurium hexafluoride (as Te)	[7783-80-4]	0.02	0.1	-	-	-	-	H
Temephos	[3383-96-8]	-	10	-	-	-	-	H
TEPP	[107-49-3]	0.004	0.047	-	-	-	Sk	H
Terphenyls	[26140-60-3]	0.5	4.7	Peak limitation		-	-	H
1,1,2,2-Tetrabromoethane	[79-27-6]	1	14	-	-	-	-	H
1,1,1,2-Tetrachloro-2,2-difluoroethane	[76-11-9]	500	4,170	-	-	-	-	H
1,1,2,2-Tetrachloro-1,2-difluoroethane	[76-12-0]	500	4,170	-	-	-	-	H
1,1,2,2-Tetrachloroethane	[79-34-5]	1	6.9	-	-	-	Sk	H
Tetrachloronaphthalene	[1335-88-2]	-	2	-	-	-	-	H
Tetraethyl lead (as Pb)	[78-00-2]	-	0.1	-	-	-	Sk	H
Tetrahydrofuran	[109-99-9]	100	295	-	-	-	Sk	A
Tetramethyl lead (as Pb)	[75-74-1]	-	0.15	-	-	-	Sk	H
Tetramethyl succinonitrile	[3333-52-6]	0.5	2.8	-	-	-	Sk	H
Tetranitromethane (h)	[509-14-8]	1	8	-	-	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Tetrasodium pyrophosphate	[7722-88-5]	-	5	-	-	-	-	H
Tetryl	[479-45-8]	-	1.5	-	-	-	Sen	H
Thallium, soluble compounds (as Tl)	[7440-28-0]	-	0.1	-	-	-	Sk	H
4,4'-Thiobis (6-tert-butyl-m-cresol)	[96-69-5]	-	10	-	-	-	-	H
Thioglycolic acid	[68-11-1]	1	3.8	-	-	-	Sk	H
Thionyl chloride	[7719-09-7]	1	4.9	Peak limitation		-	-	H
Thiram	[137-26-8]	-	1	-	-	-	-	H
Tin, metal	[7440-31-5]	-	2	-	-	-	-	H
Tin, organic compounds (as Sn)	[7440-31-5]	-	0.1	-	0.2	-	Sk	H
Tin, oxide & inorganic compounds, except SnH_4 (as Sn)	[7440-31-5]	-	2	-	-	-	-	H
Titanium dioxide (a)	[13463-67-7]	-	10	(see Chapter 14)		-	-	H
o-Tolidine (d)	[119-93-7]	-	-	-	-	2	Sk	H
Toluene (h)	[108-88-3]	100	377	150	565	-	-	H;R
Toluene-2,4-diisocyanate (TDI)	[584-84-9]	(see Isocyanates, all)						
m-Toluidine	[108-44-1]	2	8.8	-	-	-	Sk	H
o-Toluidine	[95-53-4]	2	8.8	-	-	2	Sk	H
p-Toluidine	[106-49-0]	2	8.8	-	-	2	Sk	H
Tributyl phosphate	[126-73-8]	0.2	2.2	-	-	-	-	H
Trichloroacetic acid	[76-03-9]	1	6.7	-	-	-	-	H
1,2,4-Trichlorobenzene	[120-82-1]	5	37	Peak limitation		-	-	H
1,1,1-Trichloroethane	[71-55-6]	125	680	-	-	-	-	A

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
1,1,2-Trichloroethane	[79-00-5]	10	55	-	-	-	Sk	H
Trichloroethylene	[79-01-6]	50	270	200	1,080	-	-	A
Trichlorofluoromethane	[75-69-4]	1,000	5,620	Peak limitation		-	-	H
Trichloronaphthalene	[1321-65-9]	-	5	-	-	-	Sk	H
1,2,3-Trichloropropane	[96-18-4]	10	60	-	-	-	Sk	H
1,1,2-Trichloro-1,2,2-trifluoroethane	[76-13-1]	1,000	7,670	1,250	9,590	-	-	H
Tridymite	[15468-32-3]	(see Silica - Crystalline)						
Triethylamine	[121-44-8]	3	12	5	20	-	-	A
Trifluorobromomethane	[75-63-8]	1,000	6,090	-	-	-	-	H
Triglycidylisocyanurate (TGIC)	[2451-62-9]	-	-	-	-	-	-	Ch
Trimellitic anhydride	[552-30-7]	0.005	0.039	-	-	-	Sen	H
Trimethylamine (h)	[75-50-3]	10	24	15	36	-	-	H
Trimethyl benzene	[25551-13-7]	25	123	-	-	-	-	H
Trimethyl phosphite	[121-45-9]	2	10	-	-	-	-	H
2,4,6-Trinitrotoluene (TNT)	[118-96-7]	-	0.5	-	-	-	Sk	H
Triorthocresyl phosphate	[78-30-8]	-	0.1	-	-	-	Sk	H
Triphenyl amine	[603-34-9]	-	5	-	-	-	-	H
Triphenyl phosphate	[115-86-6]	-	3	-	-	-	-	H
Tripoli	[1317-95-9]	(see Silica - Crystalline)						
Tungsten, insoluble compounds (as W)	[7440-33-7]	-	5	-	10	-	-	H
Tungsten, soluble compounds (as W)	[7440-33-7]	-	1	-	3	-	-	H

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA* *ppm*	*mg/m^3*	*(4)* *STEL* *ppm*	*mg/m^3*	*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
Turpentine (wood)	[8006-64-2]	100	557	-	-	-	Sen	A;R
Uranium (natural), soluble & insoluble compounds (as H)	[7440-61-1]	-	0.2	-	0.6	-	-	H
n-Valeraldehyde	[110-62-3]	50	176	-	-	-	-	H
Vanadium (as V_2O_5), (respirable dust & fume)	[1314-62-1]	-	0.05	-	-	-	-	H
Vegetable oil mists (a) (except castor oil, cashew nut or similar irritant oils)	[-]	-	10	-	-	-	-	H
Vinyl acetate (h)	[108-05-4]	10	35	20	70	-	-	H
Vinyl bromide	[593-60-2]	5	22	-	-	2	-	H
Vinyl chloride, monomer	[75-01-4]	5	13	-	-	1	-	H;R
Vinyl cyclohexene dioxide	[106-87-6]	10	57	-	-	3	Sk	H
Vinylidene chloride	[75-35-4]	5	20	20	79	-	-	H;R
Vinyl toluene	[25013-15-4]	50	242	100	483	-	-	H
Warfarin	[81-81-2]	-	0.1	-	-	-	-	H
Welding fumes (not otherwise classified)	[-]	-	5 (see Chapter 17)			-	-	H
White spirits	[8052-41-3]	-	790 (see Chapter 16)			-	-	R
Wood dust (certain hardwoods such as beech & oak)	[-]	-	1	-	-	-	Sen	H;R
Wood dust (soft wood)	[-]	-	5	-	10	-	Sen	H;R

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EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT (continued)

(1) *SUBSTANCE*	*(2)* *[CAS #]*	*(3)* *TWA*		*(4)* *STEL*		*(5)* *CARCINOGEN CATEGORY*	*(6)* *NOTICES*	*(7)* *REF*
		ppm	*mg/m^3*	*ppm*	*mg/m^3*			
Xylene (o-, m-, p- isomers)	[1330-20-7; 95-47-6; 108-38-3; 106-42-3]	80	350	150	655	-	-	A;R
m-Xylene ?,?'-diamine	[1477-55-0]	-	0.1	Peak limitation		-	Sk	H
Xylidine	[1300-73-8]	0.5	2.5	-	-	2	Sk	H
Yttrium, metal & compounds (as Y)	[7440-65-5]	-	1	-	-	-	-	H
Zinc chloride (fume)	[7646-85-7]	-	1	-	2	-	-	H
Zinc chromate (as Cr)	[13530-65-9; 11103-86-9; 37300-23-5]	-	0.01	-	-	1	-	H
Zinc oxide (dust) (a)	[1314-13-2]	-	10	-	-	-	-	H
(fume)		-	5	-	10	-	-	H
Zirconium compounds (as Zr)	[7440-67-2]	-	5	-	10	-	-	H

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