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WORKPLACE EXPOSURE STANDARDS FOR AIRBORNE CONTAMINANTS

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December 2026

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1. INTRODUCTION

This document contains a list of workplace exposure standards for airborne contaminants (exposure standards) and how to meet your duties under the Work Health and Safety (WHS) Act and the WHS Regulations.

In providing guidance, the word 'should' is used in this document to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

This document also includes references to sections of the WHS Act and Regulations which set out the legal requirements. These references are not exhaustive. The words 'must', 'requires' or 'mandatory' indicate a legal requirement exists and must be complied with for you to comply with your duties under the WHS Act and Regulations.

1.1 Who has health and safety duties in relation to exposure standards?

There are more specific requirements to manage risks under the WHS Regulations, including those associated with exposure standards and asbestos.

Who	Duties	Provisions
A person who conducts a business or undertaking	• ensure, so far as is reasonably practicable, workers and other people are not exposed to health and safety risks arising from the business or undertaking. • eliminate health and safety risks so far as is reasonably practicable, and if this is not reasonably practicable, minimise those risks so far as is reasonably practicable.	WHS Act s 19
	• manage risks under the WHS Regulations, including those associated with using, handling and storing hazardous chemicals safely, airborne contaminants and asbestos.	WHS Regulations r 48
	• ensure that no person at the workplace is exposed to a substance or mixture in an airborne concentration that exceeds the exposure standard for the substance or mixture.	WHS Regulations r 49
	• ensure that air monitoring is carried out to determine the airborne concentration of a substance or mixture at the workplace to which an exposure standard applies if: o the person is not certain on reasonable grounds whether or not the airborne concentration of the substance or mixture at the workplace exceeds the relevant exposure standard, or	WHS Regulations r 50

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Who	Duties	Provisions
	o monitoring is necessary to determine whether there is a risk to health. • ensure that the results of air monitoring carried out above are: o recorded, and kept for 30 years after the date the record is made, and o readily accessible to persons at the workplace who may be exposed to the substance or mixture.	
	• ensure that: o exposure of a person at the workplace to airborne asbestos is eliminated so far as is reasonably practicable, and o if it not reasonably practicable to eliminate exposure to airborne asbestos—exposure is minimised so far as is reasonably practicable. • ensure that the exposure standard for asbestos is not exceeded at the workplace. Note: This is not required in an area that is enclosed to prevent the release of respirable asbestos fibres and negative pressure is used in accordance with Regulation 477.	WHS Regulations r 420

1.2 Further guidance

Exposure standards do not identify the dividing line between a healthy and unhealthy work environment. Natural biological variation and the range of individual susceptibilities mean a small number of people may experience adverse health effects below the exposure standard. Sections 17 and 19 of the WHS Act together require that exposure to substances in the workplace is kept as low as is reasonably practicable.

For further information about the application of exposure standards, see *Guidance on the interpretation of workplace exposure standards for airborne contaminants*[1].

[1] Available on the Safe Work Australia website at www.safeworkaustralia.gov.au

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2. INTERPRETATION OF EXPOSURE STANDARDS

2.1 The meaning of key terms

Airborne contaminant means a contaminant in the form of a fume, mist, gas, vapour or dust, and includes microorganisms. An airborne contaminant of this type is a potentially harmful substance that is either not naturally in the air or is present in an unnaturally high concentration and to which workers may be exposed in their working environment.

Breathing zone means a hemisphere of 300 mm radius extending in front of a person's face and measured from the midpoint of an imaginary line joining the ears.

Exposure standard means an exposure standard in the *Workplace exposure standard for airborne contaminants* in Appendix A. An exposure standard listed in Appendix A represents the airborne concentration of a particular substance or mixture that must not be exceeded. The exposure standard can be of three forms:

a) eight hour time weighted average,
b) peak limitation, and
c) short term exposure limit.

Peak limitation means a maximum or peak airborne concentration of a substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.

Short term exposure limit (STEL) means the time weighted average maximum airborne concentration of a substance calculated over a 15 minute period.

Eight hour time weighted average (TWA) means the maximum average airborne concentration of a substance when calculated over an eight hour working day, for a five day working week.

2.2 Adjustment of exposure standards

To comply with the general duties under the WHS Act and specific duties in the WHS Regulations, the following issues should be taken into account when interpreting exposure standards.

Adjustment of eight hour time weighted average exposure standards
Where workers have a working day longer than eight hours or work more than 40 hours a week, the person conducting the business or undertaking must determine whether the TWA exposure standard needs to be adjusted to compensate for the greater exposure during the longer work shift, and decreased recovery time between shifts.

Peak limitation or short term exposure limit exposure standards must not be adjusted. TWA exposure standards must not be adjusted (increased) for shorter work shifts.

2.3 Other factors affecting risk

Not all chemical substances behave the same and therefore some present higher risks to workers than others. Factors that increase risks to workers must be considered when managing risks in the workplace to comply with duties under the WHS Act and Regulations to ensure, so far as is reasonably practicable, the health and safety of workers.

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Known factors that can increase risks to workers include:

Skin absorption
Some substances easily penetrate intact skin and are absorbed into the body. Skin absorption may be a significant source of exposure. These substances are given the notation ‘Sk’ in column (5) of Appendix A.

Sensitisation
Some substances are known to cause sensitisation and create greater risks to sensitised workers. These substances are given the notation ’Sen' in column (5) of Appendix A. Sensitised workers may also react to levels of the substance below the exposure standard and should not be exposed further to the substance.

Mixtures of substances
The combined effect of exposure to multiple substances, either simultaneously or sequentially, which increase risk to health and safety must be considered. These are shown in Table 1.

Table 1 Factors to consider when exposed to multiple substances

Combined effect of two or more chemicals	Description
Independent effects	Where toxicological evidence clearly indicates that two or more contaminants have totally distinct mechanisms of effect on the body, each substance may be separately evaluated against the relevant exposure standard.
Additive effects	Where the combined effect of exposure to two or more contaminants that have the same target organ or the same mechanism of action give a total effect on the body that equals the sum of effects from the individual substances.
Synergism	Where both chemicals individually have an effect and where the total effect is greater than an additive effect.
Potentiation	Where a chemical enhances the effect of another chemical, or a biochemical or physiological effect, for example exposure to ototoxins can damage hearing or balance functions of the inner ear.

2.4 Exposure standards and using excursion limits

Time weighted average (TWA)
During periods of daily exposure to an airborne contaminant, exposure above this value is permitted for short periods, if they are compensated for by equivalent exposures below the exposure standard during the working day. If there is a STEL and a TWA exposure standard, the STEL must also be observed.

Short term exposure limit (STEL)
The STEL is a 15 minute time weighted average exposure limit which must not be exceeded at any time during an eight hour working day, even if the exposure during the full day is less than the TWA exposure standard. Exposures at the STEL must not be longer than 15 minutes and must not

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be repeated more than four times per day. There must be at least 60 minutes between successive exposures at the STEL.

Peak limitation

Peak or peak limitation exposure standards are set for some substances, exposure to which can induce acute effects after relatively brief exposure to high concentrations. Excursions above the peak limitation exposure standard are not permitted at any time because to do so would expose a person above the exposure standard for that substance.

Although it is recognised there are analytical limitations to the measurement of some substances, to comply with 'peak limitation' exposure standards, exposure must be determined over the shortest analytically practicable period of time. However, this period must not exceed 15 minutes.

2.5 Monitoring exposure

Under Section 19 of the WHS Act, a person conducting a business or undertaking must ensure, so far as is reasonably practicable, that the conditions at the workplace are monitored for the purpose of preventing illness or injury of workers. The WHS Regulations also require a person conducting a business or undertaking to carry out monitoring for airborne contaminants in certain situations (Regulation 50).

Where monitoring of airborne contaminants is done to estimate a person's exposure, the monitoring must be carried out in the breathing zone of the person.

Regulation 49 of the WHS Regulations requires a PCBU ensure that no person at the workplace is exposed to a substance or mixture in an airborne concentration that exceeds the exposure standard for the substance or mixture. The protection provided by respiratory protective equipment (RPE) worn by a person can be taken into account when determining compliance with regulation 49, provided all reasonably practicable higher order controls in the hierarchy of controls have been implemented, and that the RPE is worn correctly.

2.6 Keeping exposure as low as reasonably practicable

Section 17 of the WHS Act requires risks to health and safety be eliminated so far as is reasonably practicable. If it is not reasonably practicable to eliminate risk, it must be minimised.

To comply with this duty under the WHS Act, you must ensure that exposure to any hazardous chemical, or any substance with an exposure standard, is kept as low as reasonably practicable.

The information contained in this document and the accompanying *Guidance on the Interpretation of Workplace Exposure Standard for Airborne Contaminants* should allow you to meet this duty.

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3. LIST OF EXPOSURE STANDARDS

The list of exposure standards is shown at Appendix A. Information relating to the list is included in this section.

The list of exposure standards at Appendix A is updated from time to time. However, changes to that list do not automatically take effect in all jurisdictions. When changes to exposure standards take effect in a jurisdiction depends on how the exposure standards are implemented in the jurisdiction. Further information on when changes to exposure standards take effect in each jurisdiction is available on the Safe Work Australia website.

3.1 Column headings and abbreviations

Column	Item	
(1)	**Chemical name** The description of the airborne contaminant.	
(2)	**CAS No.** Chemical Abstracts Service Registry Number.	
(3)	**TWA** Eight hour time weighted average. Where the words 'peak limitation' appear in this column, the value is the peak limitation exposure standard.	**ppm** Parts of vapour or gas per million parts of contaminated air by volume. **mg/m³** Milligrams of substance per cubic metre of air. Refer to Section 3.3 for more information on the units for exposure standards. When an entry is in this column only, the value is exact; when listed with a ppm value, it is approximate. **f/mL** Fibres per millilitre of air as determined by the membrane filter method[2].
(4)	**STEL** Short term exposure limit.	**ppm and mg/m³** (see above)

[2] National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition* [NOHSC:3003(2005)].

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(5)	**Advisory carcinogen category**	**Category 1A (Carc. 1A)** Known to have carcinogenic potential for humans. **Category 1B (Carc. 1B)** Presumed to have carcinogenic potential for humans. **Category 2 (Carc. 2)** Suspected human carcinogen.
(6)	**Other advisory information** This column 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. **Sen** Respiratory and/or Skin Sensitiser.
	Notes	See section 3.2 for the meaning of some notes.

3.2 Notes

(a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.

(b) Fibres longer than 5 μm, 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 for 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 the two substances marked with this footnote (benomyl and sodium azide), the exposure standards are established as gravimetric (mg/m^3) values and converted into volumetric values.

(e) Containing no asbestos and < 1% crystalline silica.

(f) *[this note is not currently in use]*

(g) Some compounds in these groups are classified as carcinogenic or as sensitisers. Check individual classification details on the safety data sheet for information on classification.

(h) Man-Made Mineral Fibres (MMVF) with random orientation, alkaline oxide and alkali earth oxide ($Na_2O+K_2O+CaO+$ MgO+BaO) content less or equal to 18% by weight.

(i) As described in *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, *Volume 81, Man-Made Vitreous Fibres*, pp. 45-54, 2002, IARCPress, Lyon, France[3].

[3] This monograph is available from: http://monographs.iarc.fr/ENG/Monographs/vol81/index.php.

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(j) Where almost all the airborne material is fibrous MMVF, an inhalable dust exposure standard of 2 mg/m^3 (8 hour TWA) must also be applied to minimise mechanical irritation from largely non-respirable fibre. This inhalable standard is not to take precedence over the respirable fibre standard, where applicable. For those applications where MMVF is combined with other material such that the proportion of respirable fibres is extremely low or is difficult to measure because of the larger portion of non-fibrous MMVF material, it is appropriate to apply the exposure standard for nuisance dusts of 10 mg/m^3, measured as inhalable dust (8 hour TWA).

(k) MMVF with random orientation, alkaline oxide and alkali earth oxide ($Na_2O+K_2O+CaO+MgO+BaO$) content greater than 18% by weight.

(l) Any MMVF which have not been tested according to the test protocol *Methods for the Determination of the Hazardous Properties for Human Health of Man Made Mineral Fibres,* April 1999[4] and Note Q in EC Regulation No. 1272/2008 page 353/335 (CLP regulations) ***or*** fibres which have been tested and failed to comply with these tests.

(m) Any MMVF which have been tested according to the test protocol *Methods for the Determination of the Hazardous Properties for Human Health of Man Made Mineral Fibres April 1999* and Note Q in EC Regulation No. 1272/2008 page 353/335 and found to comply with these tests.

(n) Any MMVF that meet the requirements of Note Q in EC Regulation No. 1272/2008 page 353/335 are exempted from mandatory classification in the European Union as a carcinogen under the Globally Harmonized System for Classification and Labelling of Chemicals (GHS). Note IARC has classified mineral wools (glass wool, rock wool (stone wool), slag wool and continuous glass filament) as IARC Category 3: not classifiable as to carcinogenicity in humans.

(o) Any MMVF that meet the requirements of Note R in Regulation EC No. 1272/2008 page 353/335 are exempted from mandatory classification as a carcinogen under the GHS in the European Union.

3.3 Units for exposure standards

The airborne concentrations of gases, vapours and particulate contaminants are expressed gravimetrically as milligrams of substance per cubic metre of air, (mg/m^3). For gases and vapours the concentration is also indicated in parts per million (ppm) by volume. Note: There are some exceptions. Where both gravimetric and volumetric values are given, the volumetric (ppm) value is exact and should be used as it is not affected by changes in temperature and pressure.

Because the gravimetric units of mg/m^3 are affected by temperature and pressure variations, all exposure standards are expressed relative to standard conditions of 25ºC and 1 atmosphere pressure (101.3 kPa).

The following conversion formula can be used to convert from ppm to mg/m^3.

$$Concentration\ in\ mg/m^3 = \frac{Molecular\ weight\ \times concentration\ in\ ppm}{24.4}$$

where 24.4 is the molar volume of a gas in litres at 25°C and 101.3 kPa

[4] Source: http://tsar.jrc.ec.europa.eu/documents/Testing-Methods/mmmfweb.pdf.

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TWA values for gravimetric (mg/m^3) exposure standards are for the inhalable fraction unless noted as respirable dust.

3.4 Advisory carcinogen and sensitisation classifications

Chemical substances which have workplace exposure standards under the WHS regulations and are also classified as known, presumed or suspected carcinogens or are known respiratory or skin sensitisers according to the criteria of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) are identified in the list of exposure standards in Appendix A.

The carcinogen and sensitisation classifications in Appendix A are taken from the European Union's Annex VI to Regulation (EC) No 1272/2008[5]. Annex VI includes lists of GHS classification information for certain substances or groups of substances. These classifications are legally binding within the European Union.

Classifications are provided in this document for information only so a person conducting a business or undertaking and workers can take action to minimise exposure. Under the WHS regulations, it is the classification criteria which must be complied with and it is the duty of the manufacturer or importer of a hazardous chemical to ensure it is correctly classified against those criteria. Classifications may become out-dated and incorrect where new information about a substance's hazards becomes available. The absence of notation in these columns does not guarantee that the chemical does not pose a carcinogenicity or sensitisation hazard. Additional hazard classes and categories not listed in this document may also apply.

The three categories of carcinogens under the GHS are described below.

(a) **Carcinogenicity Category 1A** – Known to have carcinogenic potential for humans.
The classification of a chemical into this category is based largely on human evidence from studies that have established a causal relationship between human exposure and the development of cancer.

(b) **Carcinogenicity Category 1B** – Presumed to have a carcinogenic potential for humans.
The classification of a substance into this category is based largely on animal evidence where there is sufficient evidence to demonstrate carcinogenicity in animals or where there is limited evidence of carcinogenicity in humans and animals.

(c) **Carcinogenicity Category 2** – Suspected human carcinogen.
The classification of a chemical into this category is on the basis of evidence from human and animal studies, where the evidence is not sufficiently convincing to place the chemical into Category 1 or from limited evidence of carcinogenicity in human or animal studies.

There are two categories of sensitiser in the GHS as below:

(a) **Respiratory Sensitiser** – A substance that leads to hypersensitivity of the airways after being inhaled.

(b) **Skin Sensitiser** – A substance that leads to an allergic response after skin contact.

[5] Source: http://esis.jrc.ec.europa.eu/index.php?PGM=cla.

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APPENDIX A – LIST OF EXPOSURE STANDARDS

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m³)**	**STEL (ppm)**	**STEL (mg/m³)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Acetaldehyde		75-07-0	20	36	50	91	Carc. 2	-	
Acetic acid		64-19-7	10	25	15	37	-	-	
Acetic anhydride		108-24-7	5 Peak limitation	21 Peak limitation	-	-	-	-	
Acetone		67-64-1	500	1185	1000	2375	-	-	
Acetonitrile		75-05-8	40	67	60	101	-	Sk	
Acetylsalicylic acid	Aspirin	50-78-2	-	5	-	-	-	-	
Acrolein	Acrylaldehyde	107-02-8	0.1	0.23	0.3	0.69	-	-	
Acrylamide		79-06-1	-	0.03	-	-	Carc. 1B	Sk:Sen	
Acrylic acid		79-10-7	2	5.9	-	-	-	Sk	
Acrylonitrile	Vinyl cyanide	107-13-1	2	4.3	-	-	Carc. 1B	Sk:Sen	
Aldrin		309-00-2	-	0.25	-	-	Carc. 2	Sk	
Allyl alcohol		107-18-6	2	4.8	4	9.5	-	Sk	
Allyl chloride	3-Chloro-1-propene	107-05-1	1	3	2	6	Carc. 2	-	
Allyl glycidyl ether (AGE)	AGE Allyl 2,3-epoxypropyl ether	106-92-3	5	23	10	47	Carc. 2	Sk:Sen	
Allyl propyl disulfide		2179-59-1	2	12	3	18	-	-	
alpha-Alumina (Al_2O_3)		1344-28-1	See Aluminium oxide						
Aluminium (metal dust)		7429-90-5	-	10	-	-	-	-	
Aluminium (welding fumes) (as Al)		7429-90-5	-	1	-	-	-	-	
Aluminium oxide		1344-28-1	-	10	-	-	-	-	(a)
Aluminium, alkyls (NOC) (as Al)		7429-90-5	-	2	-	-	-	-	
Aluminium, pyro powders (as Al)		7429-90-5	-	5	-	-	-	-	
Aluminium, soluble salts (as Al)		7429-90-5	-	2	-	-	-	-	
2-Aminopyridine	2-Pyridylamine	504-29-0	0.5	2	-	-	-	-	
Amitrole	3-Amino-1,2,4-triazole	61-82-5	-	0.2	-	-	-	-	
Ammonia		7664-41-7	25	17	35	24	-	-	

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(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Ammonium chloride (fume)		12125-02-9	-	10	-	20	-	-	
Ammonium perfluorooctanoate		3825-26-1	-	0.1	-	-	-	-	
Ammonium persulfate	Ammonium persulphate	7727-54-0	-	0.01 Peak Limitation	-	-	-	Sen	
Ammonium sulphamate	Ammate	7773-06-0	-	10	-	-	-	-	
Amosite		12172-73-5	0.1 f/mL	-	-	-	Carc. 1A	-	See Asbestos (b)
n-Amyl acetate	Pentyl acetate	628-63-7	50	270	100	541	-	-	
sec-Amyl acetate	1-Methylbutyl acetate	626-38-0	50	270	100	541	-	-	
Aniline & homologues		62-53-3	2	7.6	-	-	Carc. 2	Sk:Sen	
Anisidine (o-, p- isomers)	Methoxyaniline	29191-52-4	0.1	0.5	-	-	Carc. 1B	Sk	
Antimony & compounds (as Sb)		7440-36-0	-	0.5	-	-	-	-	
Antimony trioxide, handling and use (as Sb)		1309-64-4	-	0.5	-	-	Carc. 2	-	
ANTU	1-Naphthylthiourea	86-88-4	-	0.3	-	-	Carc. 2	-	
Arsenic & soluble compounds (as As)			-	0.05	-	-	See Notes	-	(g)
Arsine		7784-42-1	0.05	0.16	-	-	-	-	
Asbestos		1332-21-4							(b)
Amosite		12172-73-5	0.1 f/mL	-	-	-	Carc. 1A	-	(b)
Chrysotile		12001-29-5	0.1 f/mL	-	-	-	Carc. 1A	-	(b)
Crocidolite		12001-28-4	0.1 f/mL	-	-	-	Carc. 1A	-	(b)
Other forms of asbestos			0.1 f/mL	-	-	-	Carc. 1A	-	(b)
Any mixture of these, or where the composition is unknown			0.1 f/mL	-	-	-	Carc. 1A	-	(b)
Atrazine		1912-24-9	-	5	-	-	-	Sen	
Azinphos-methyl	Guthion	86-50-0	-	0.2	-	-	-	Sk:Sen	
Barium sulphate		7727-43-7	-	10	-	-	-	-	(a)
Barium, soluble compounds (as Ba)			-	0.5	-	-	-	-	

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(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Benomyl	Benlate	17804-35-2	0.84	10	-	-	-	Sen	(d)
Benzene		71-43-2	1	3.2	-	-	Carc. 1A	-	
Benzoyl peroxide	Dibenzoyl peroxide	94-36-0	-	5	-	-	-	Sen	
Benzyl chloride	alpha-Chlorotoluene	100-44-7	1	5.2	-	-	-	-	
Beryllium & compounds			-	0.002	-	-	See Notes		(g)
Biphenyl	Diphenyl Phenylbenzene	92-52-4	0.2	1.3	-	-	-	-	
Bismuth telluride	Dibismuth tritelluride	1304-82-1	-	10	-	-	-	-	
Bismuth telluride, Se-doped		1304-82-1	-	5	-	-	-	-	
Bitumen fumes	Asphalt (petroleum)	8052-42-4	-	5	-	-	-	-	
Borates, tetra, sodium salts (anhydrous)	Disodium tetraborate anhydrous	1330-43-4	-	1	-	-	-	-	
Borates, tetra, sodium salts (decahydrate)	Disodium tetraborate decahydrate Borax	1303-96-4	-	5	-	-	-	-	
Borates, tetra, sodium salts (pentahydrate)	Disodium tetraborate pentahydrate	12179-04-3	-	1	-	-	-	-	
Boron oxide	Diboron trioxide	1303-86-2	-	10	-	-	-	-	
Boron tribromide		10294-33-4	1 Peak limitation	10 Peak limitation	-	-	-	-	
Boron trifluoride		7637-07-2	1 Peak limitation	2.8 Peak limitation	-	-	-	-	
Bromacil		314-40-9	1	11	-	-	-	-	
Bromine		7726-95-6	0.1	0.66	0.3	2	-	-	
Bromine pentafluoride		7789-30-2	0.1	0.72	-	-	-	-	
Bromoform	Tribromomethane	75-25-2	0.5	5.2	-	-	-	Sk	
1,3-Butadiene		106-99-0	10	22	-	-	Carc. 1A	-	
Butane		106-97-8	800	1900	-	-	-	-	
2-Butoxyethanol	Butyl cellosolve Butyl glycol Ethylene glycol monobutyl ether Glycol monobutyl ether	111-76-2	20	96.9	50	242	-	Sk	
2-Butoxyethyl acetate		112-07-2	20	133	50	333	-	Sk	
n-Butyl acetate		123-86-4	150	713	200	950	-	-	

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(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
sec-Butyl acetate		105-46-4	200	950	-	-	-	-	
tert-Butyl acetate		540-88-5	200	950	-	-	-	-	
n-Butyl acrylate	Acrylic acid, n-butyl ester n-Butyl 2-propenoate	141-32-2	1	5	5	26	-	Sen	
n-Butyl alcohol	n-Butanol	71-36-3	50 Peak limitation	152 Peak limitation	-	-	-	Sk	
sec-Butyl alcohol	sec-Butanol Butan-2-ol	78-92-2	100	303	-	-	-	-	
tert-Butyl alcohol	tert-Butanol 2-Methylpropan-2-ol	75-65-0	100	303	150	455	-	-	
tert-Butyl chromate (as CrO_3)		1189-85-1	-	0.1 Peak limitation	-	-	-	Sk	
n-Butyl glycidyl ether (BGE)	1-Butoxy-2,3-epoxypropane Butyl-2,3-epoxypropyl ether BGE	2426-08-6	25	133	-	-	Carc. 2	Sen	
n-Butyl lactate		138-22-7	5	30	-	-	-	-	
Butyl mercaptan	Butanethiol	109-79-5	0.5	1.8	-	-	-	-	
Butylamine		109-73-9	5 Peak limitation	15 Peak limitation	-	-	-	Sk	
o-sec-Butylphenol		89-72-5	5	31	-	-	-	Sk	
p-tert-Butyltoluene		98-51-1	10	61	20	121	-	-	
Cadmium and compounds (as Cd)			-	0.01	-	-	See Notes	-	(g)
Caesium hydroxide	Cesium hydroxide	21351-79-1	-	2	-	-	-	-	
Calcium carbonate	Limestone Marble Whiting	471-34-1	-	10	-	-	-	-	(a)
Calcium cyanamide	Calcium carbimide	156-62-7	-	0.5	-	-	-	-	
Calcium hydroxide		1305-62-0	-	5	-	-	-	-	
Calcium oxide		1305-78-8	-	2	-	-	-	-	
Calcium silicate		1344-95-2	-	10	-	-	-	-	(a)
Calcium sulphate	Gypsum Plaster of Paris	7778-18-9	-	10	-	-	-	-	(a)
Camphor, synthetic	Bornan-2-one	76-22-2	2	12	3	19	-	-	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
e-Caprolactam (dust and vapour)	1,6-Hexanelactam Hexahydro-2H-azepin-2-one	105-60-2	-	10	-	20	-	-	
Caprolactam (dust)		105-60-2	-	1	-	3	-	-	
Captafol	Difolatan	2425-06-1	-	0.1	-	-	Carc. 1B	Sk:Sen	
Captan		133-06-2	-	0.5	-	-	Carc. 2	Sk:Sen	
Carbaryl	Sevin	63-25-2	-	5	-	-	Carc. 2	-	
Carbofuran	Furadan	1563-66-2	-	0.1	-	-	-	-	
Carbon black		1333-86-4	-	3	-	-	-	-	
Carbon dioxide		124-38-9	5000	9000	30000	54000	-	-	
Carbon dioxide in coal mines		124-38-9	12500	22500	30000	54000	-	-	
Carbon disulphide		75-15-0	10	31	-	-	-	Sk	
Carbon monoxide		630-08-0	30	34	-	-		-	
Carbon tetrabromide	Tetrabromomethane	558-13-4	0.1	1.4	0.3	4.1	-	-	
Carbon tetrachloride	Tetrachloromethane	56-23-5	0.1	0.63	-	-	Carc. 2	Sk	
Carbonyl fluoride		353-50-4	2	5.4	5	13	-	-	
Catechol	Pyrocatechol o-Dihydroxybenzene	120-80-9	5	23	-	-	-	-	
Cellulose (paper fibre)		9004-34-6	-	10	-	-	-	-	(a)
Chlordane		57-74-9	-	0.5	-	-	Carc. 2	Sk	
Chlorinated camphene	Camphechlor	8001-35-2	-	0.5	-	1	Carc. 2	Sk	
Chlorinated diphenyl oxide		31242-93-0	-	0.5	-	-	-	-	
Chlorine		7782-50-5	1 Peak limitation	3 Peak limitation	-	-	-	-	
Chlorine dioxide		10049-04-4	0.1	0.28	0.3	0.83	-	-	
Chlorine trifluoride		7790-91-2	0.1 Peak limitation	0.38 Peak limitation	-	-	-	-	
1-Chloro-1-nitropropane		600-25-9	2	10	-	-	-	-	
Chloroacetaldehyde		107-20-0	1 Peak limitation	3.2 Peak limitation	-	-	Carc. 2	-	
Chloroacetone		78-95-5	1 Peak limitation	3.8 Peak limitation	-	-	-	Sk	
alpha-Chloroacetophenone	Phenacyl chloride	532-27-4	0.05	0.32	-	-	-	-	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Chloroacetyl chloride	Chloroacetic acid chloride	79-04-9	0.05	0.23	0.15	0.69	-	Sk	
Chlorobenzene		108-90-7	10	46	-	-	-	-	
o-Chlorobenzylidene malononitrile		2698-41-1	0.05 Peak limitation	0.39 Peak limitation	-	-	-	Sk	
Chlorobromomethane	Bromochloromethane	74-97-5	200	1060	-	-	-	-	
Chlorodifluoromethane	Difluorochloromethane Fluorocarbon 22 (Freon 22)	75-45-6	1000	3540	-	-	-	-	
Chloroform	Trichloromethane	67-66-3	2	10	-	-	Carc. 2	Sk	
bis(Chloromethyl) ether		542-88-1	0.001	0.005	-	-	Carc. 1A	-	
Chloropentafluoroethane	Fluorocarbon 115 (Freon 115)	76-15-3	1000	6320	-	-	-	-	
Chloropicrin	Trichloronitromethane	76-06-2	0.1	0.67	-	-	-	-	
beta-Chloroprene	2-Chloro-1,3-butadiene	126-99-8	10	36	-	-	Carc. 1B	Sk	
2-Chloropropionic acid		598-78-7	0.1	0.44	-	-	-	Sk	
o-Chlorostyrene		2039-87-4	50	283	75	425	-	-	
Chlorosulphonic acid		7790-94-5	0.209	1	-	-	-	-	
o-Chlorotoluene		95-49-8	50	259	-	-	-	-	
Chlorpyrifos	Dursban	2921-88-2	-	0.2	-	-	-	Sk	
Chromium (II) compounds (as Cr)			-	0.5	-	-	-	-	
Chromium (III) compounds (as Cr)			-	0.5	-	-	-	-	
Chromium (metal)		7440-47-3	-	0.5	-	-	-	-	
Chromium (VI) compounds (as Cr), certain water insoluble			-	0.05	-	-	Carc. 1A	Sen	
Chromium (VI) compounds (as Cr), water soluble			-	0.05	-	-	-	Sen	
Chrysotile		12001-29-5	0.1 f/mL	-	-	-	Carc. 1A	-	See Asbestos (b)
Clopidol	Coyden	2971-90-6	-	10	-	-	-	-	
Coal dust (containing < 5% quartz) (respirable dust)			-	1.5	-	-	-	-	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Coal tar pitch volatiles (as benzene solubles)		65996-93-2	-	0.2	-	-	Carc. 1B	-	
Cobalt carbonyl (as Co)		10210-68-1	-	0.1	-	-	-	Sen	
Cobalt hydrocarbonyl (as Co)		16842-03-8	-	0.1	-	-	-	Sen	
Cobalt, metal dust & fume (as Co)		7440-48-4	-	0.05	-	-	-	Sen	
Copper (fume)		7440-50-8	-	0.2	-	-	-	-	
Copper, dusts & mists (as Cu)		7440-50-8	-	1	-	-	-	-	
Cotton dust, raw			-	0.2	-	-	-	-	(c)
Cresol, all isomers		1319-77-3	5	22	-	-	-	Sk	
Cristobalite (respirable dust)		14464-46-1	-	0.05	-	-	Carc. 1A	-	See Silica – Crystalline
Crocidolite		12001-28-4	0.1 f/mL	-	-	-	Carc. 1A	-	See Asbestos (b)
Crotonaldehyde	trans-But-2-enal	4170-30-3	2	5.7	-	-		-	
Crufomate		299-86-5	-	5	-	-	-	-	
Cumene	Isopropyl benzene	98-82-8	25	125	75	375	-	Sk	
Cyanamide		420-04-2	-	2	-	-	-	Sen	
Cyanides (as CN)		151-50-8	-	5	-	-	-	Sk	
Cyanogen	Oxalonitrile	460-19-5	10	21	-	-	-	-	
Cyanogen chloride		506-77-4	0.3 Peak limitation	0.75 Peak limitation	-	-	-	-	
Cyclohexane		110-82-7	100	350	300	1050	-	-	
Cyclohexanol		108-93-0	50	206	-	-	-	Sk	
Cyclohexanone	Anone	108-94-1	25	100	-	-	-	Sk	
Cyclohexene		110-83-8	300	1010	-	-	-	-	
Cyclohexylamine	Aminocyclohexane	108-91-8	10	41	-	-		-	
Cyclonite	RDX Hexahydro-1,3,5-trinitro-1,3,5-triazine	121-82-4	-	1.5	-	-	-	Sk	
Cyclopentadiene		542-92-7	75	203	-	-	-	-	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Cyclopentane		287-92-3	600	1720	-	-	-	-	
Cyhexatin	Plictran Tricyclohexyltin hydroxide	13121-70-5	-	5	-	-	-	-	
2,4-D	2,4-Dichlorophenoxyacetic acid	94-75-7	-	10	-	-	-	Sen	
DDT (Dichlorodiphenyl-trichloroethane)	p,p-Dichlorodiphenyl trichloroethane 2,2-bis(p-Chlorophenyl)-1,1,1 trichloroethane 1,1,1-Trichlorobis (chlorophenyl) ethane	50-29-3	-	1	-	-	Carc. 2	-	
Decaborane		17702-41-9	0.05	0.25	0.15	0.75	-	Sk	
Demeton	Systox	8065-48-3	0.01	0.11	-	-	-	Sk	
Diacetone alcohol	4-Hydroxy-4-methyl-2-pentanone	123-42-2	50	238	-	-	-	-	
Diatomaceous earth (uncalcined)		61790-53-2	-	10	-	-	-	-	See Silica – Amorphous (a)
Diazinon		333-41-5	-	0.1	-	-	-	Sk	
Diazomethane		334-88-3	0.2	0.34	-	-	Carc. 1B	-	
Diborane		19287-45-7	0.1	0.11	-	-	-	-	
Dibutyl phenyl phosphate		2528-36-1	0.3	3.5	-	-	-	Sk	
Dibutyl phosphate	Dibutyl hydrogen phosphate	107-66-4	1	8.6	2	17	-	-	
Dibutyl phthalate		84-74-2	-	5	-	-	Repr. 1B	-	
2-N-Dibutylaminoethanol	N,N-Di-n-butylaminoethanol	102-81-8	2	14	-	-	-	Sk	
1,1-Dichloro-1-nitroethane		594-72-9	2	12	-	-	-	-	
1,3-Dichloro-5,5-dimethyl hydantoin		118-52-5	-	0.2	-	0.4	-	-	
Dichloroacetylene		7572-29-4	0.1 Peak limitation	0.39 Peak limitation	-	-	Carc. 2	-	
o-Dichlorobenzene		95-50-1	25	150	50	301	-	-	
p-Dichlorobenzene		106-46-7	25	150	50	300	Carc. 2	-	
Dichlorodifluoromethane	Difluorochloromethane Fluorocarbon 12 (Freon 12)	75-71-8	1000	4950	-	-	-	-	
1,1-Dichloroethane	Ethylidene chloride	75-34-3	100	412	-	-	-	Sk	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Dichloroethyl ether	bis-(2-Chloroethyl)-ether	111-44-4	5	29	10	58	Carc. 2	Sk	
1,2-Dichloroethylene	Acetylene dichloride	540-59-0	200	793	-	-	-	-	
Dichlorofluoromethane	Fluorocarbon 21 (Freon 21) Fluorodichloromethane	75-43-4	10	42	-	-	-	-	
Dichloropropene	gamma-Chloroallyl chloride	542-75-6	1	4.5	-	-		Sk:Sen	
2,2-Dichloropropionic acid	Dalapon	75-99-0	1	5.8	-	-	-	-	
Dichlorotetrafluoroethane	Cryofluorane Fluorocarbon 114 (Freon 114) R-114 Tetrafluoro dichloroethane	76-14-2	1000	6990	-	-	-	-	
Dichlorvos (DDVP)	DDVP	62-73-7	0.1	0.9	-	-	-	Sk:Sen	
Dicrotophos	Bidrin	141-66-2	-	0.25	-	-	-	Sk	
Dicyclopentadiene		77-73-6	5	27	-	-	-	-	
Dicyclopentadienyl iron	Ferrocene	102-54-5	-	10	-	-	-	-	
Dieldrin		60-57-1	-	0.25	-	-	Carc. 2	Sk	
Diethanolamine	2,2'-Iminodiethanol	111-42-2	3	13	-	-	-	-	
Diethyl ketone	3-Pentanone	96-22-0	200	705	-	-	-	-	
Diethyl phthalate		84-66-2	-	5	-	-	-	-	
Diethylamine		109-89-7	10	30	25	75	-	-	
2-Diethylaminoethanol		100-37-8	10	48	-	-	-	Sk	
Diethylene triamine	2,2'-Diaminodiethylamine 1,4,7-Tri-(aza)-heptane	111-40-0	1	4.2	-	-	-	Sk:Sen	
Difluorodibromomethane	Dibromodifluoromethane	75-61-6	100	858	-	-	-	-	
Diglycidyl ether (DGE)	DGE bis(2,3-Epoxy propyl) ether	2238-07-5	0.1	0.53	-	-	-	-	
Diisobutyl ketone	2,6-Dimethyl-4-heptanone	108-83-8	25	145	-	-	-	-	
Diisopropylamine		108-18-9	5	21	-	-	-	Sk	
Dimethyl acetamide		127-19-5	10	36	-	-		Sk	
Dimethyl ether		115-10-6	400	760	500	950	-	-	
Dimethyl sulphate		77-78-1	0.1	0.52	-	-	Carc. 1B	Sk:Sen	
Dimethylamine		124-40-3	2	3.8	6	11	-	-	
Dimethylaminoethanol		108-01-0	2	7.4	6	22	-		
N,N-Dimethylaniline		121-69-7	5	25	10	50	Carc. 2	Sk	
N,N-Dimethylethylamine	N,N-Dimethylethanamine	598-56-1	10	30	15	45	-	-	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Dimethylformamide		68-12-2	10	30	-	-		Sk	
1,1-Dimethylhydrazine		57-14-7	0.01	0.025	-	-	Carc. 1B	Sk	
Dimethylphthalate		131-11-3	-	5	-	-	-	-	
Dinitolmide	3,5-Dinitro-o-toluamide Zoalene	148-01-6	-	5	-	-	-	-	
m-Dinitrobenzene		99-65-0	0.15	1	-	-	-	Sk	
o-Dinitrobenzene		528-29-0	0.15	1	-	-	-	Sk	
p-Dinitrobenzene		100-25-4	0.15	1	-	-	-	Sk	
Dinitro-o-cresol	DNOC 2-Methyl-4,6-dinitrophenol	534-52-1	-	0.2	-	-		Sk:Sen	
Dinitrotoluene		25321-14-6	-	1.5	-	-	Carc. 1B	Sk	
1,4-Dioxane	Diethylene dioxide	123-91-1	10	36	-	-	Carc. 2	Sk	
Dioxathion	Delnav	78-34-2	-	0.2	-	-	-	Sk	
Diphenylamine		122-39-4	-	10	-	-	-	-	
Dipropyl ketone	4-Heptanone	123-19-3	50	233	-	-	-	-	
Diquat	Diquat dibromide (ISO)	85-00-7	-	0.5	-	-	-	Sen	
Di-sec-octyl phthalate	DOP Di (2-ethylhexyl) phthalate bis(2-Ethylhexyl) phthalate	117-81-7	-	5	-	10	-	-	
Disulfiram	Tetraethyl thiuram disulphide	97-77-8	-	2	-	-	-	Sen	
Disulfoton	Disyston	298-04-4	-	0.1	-	-	-	-	
2,6-Di-tert-butyl-p-cresol		128-37-0	-	10	-	-	-	-	
Diuron		330-54-1	-	10	-	-	Carc. 2	-	
Divinyl benzene		1321-74-0	10	53	-	-	-	-	
Emery (dust)		1302-74-5	-	10	-	-	-	-	(a)
Endosulfan	Thiodan	115-29-7	-	0.1	-	-	-	Sk	
Endrin		72-20-8	-	0.1	-	-	-	Sk	
Enflurane	2-Chloro-1,1,2-trifluoroethyl difluoromethyl ether	13838-16-9	0.5	3.8	-	-	-	-	
Epichlorohydrin	1-Chloro-2,3-epoxy-propane	106-89-8	2	7.6	-	-	Carc. 1B	Sk:Sen	
EPN	O-Ethyl-O-(4-nitrophenyl) phenylthiophosphonate	2104-64-5	-	0.5	-	-	-	Sk	
Ethanolamine	2-Aminoethanol	141-43-5	3	7.5	6	15	-	-	
Ethion	Nialate	563-12-2	-	0.4	-	-	-	Sk	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m³)**	**STEL (ppm)**	**STEL (mg/m³)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
2-Ethoxyethanol	Ethyl glycol Ethylene glycol, monoethyl ether Glycol, monoethyl ether Cellosolve	110-80-5	5	18	-	-	-	Sk	
2-Ethoxyethyl acetate	Cellosolve acetate Glycol, monoethyl ether acetate Ethylene glycol, monoethyl ether acetate Ethyl glycol acetate	111-15-9	5	27	-	-	-	Sk	
Ethyl acetate	Acetic acid ethyl ester Acetic ester	141-78-6	200	720	400	1440	-	-	
Ethyl acrylate	Acrylic acid,ethyl ester	140-88-5	5 Peak limitation	20 Peak limitation	-	-	-	Sen	
Ethyl alcohol	Ethanol	64-17-5	1000	1880	-	-	-	-	
Ethyl benzene		100-41-4	100	434	125	543	-	-	
Ethyl bromide	Bromoethane	74-96-4	5	22	-	-	Carc. 2	Sk	
Ethyl butyl ketone	3-Heptanone	106-35-4	50	234	-	-	-	-	
Ethyl chloride	Chloroethane	75-00-3	1000	2640	-	-	Carc. 2	-	
Ethyl ether	Diethyl ether	60-29-7	400	1210	500	1520	-	-	
Ethyl formate	Formic acid, ethyl ester	109-94-4	100	303	-	-	-	-	
Ethyl mercaptan	Ethanethiol	75-08-1	0.5	1.3	-	-	-	-	
Ethyl silicate	Tetraethyl orthosilicate	78-10-4	10	85	-	-	-	-	
Ethylamine		75-04-7	2	3.8	6	11	-	-	
Ethylene chlorohydrin	2-Chloroethanol	107-07-3	1 Peak limitation	3.3 Peak limitation	-	-	-	Sk	
Ethylene dichloride	1,2-Dichloroethane	107-06-2	10	40	-	-	Carc. 1B	-	
Ethylene glycol (particulate)	Ethane-1,2-diol	107-21-1	-	10	-	-	-	Sk	
Ethylene glycol (vapour)	Ethane-1,2-diol	107-21-1	20	52	40	104	-	Sk	
Ethylene glycol dinitrate	Ethylene dinitrate Glycol dinitrate Nitroglycol EGDN	628-96-6	0.05	0.31	-	-	-	Sk	
Ethylene oxide	Oxirane	75-21-8	1	1.8	-	-	Carc. 1B	-	
Ethylenediamine	1,2-Diaminoethane	107-15-3	10	25	-	-	-	Sen	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Ethylenimine	Aziridine	151-56-4	0.5	0.88	-	-	Carc. 1B	Sk	
Ethylidene norbornene		16219-75-3	5 Peak limitation	25 Peak limitation	-	-	-	-	
N-Ethylmorpholine		100-74-3	5	24	-	-	-	Sk	
Fenamiphos	Nemacur	22224-92-6	-	0.1	-	-	-	Sk	
Fensulfothion	Dasanit	115-90-2	-	0.1	-	-	-	-	
Fenthion	Baytex Lebaycid	55-38-9	-	0.2	-	-	-	Sk	
Ferbam		14484-64-1	-	10	-	-	-	-	
Ferrovanadium dust		12604-58-9	-	1	-	3	-	-	
Fluorides (as F)			-	2.5	-	-	-	-	
Fluorine		7782-41-4	1	1.6	2	3.1	-	-	
Fonofos	Dyfonate	944-22-9	-	0.1	-	-	-	Sk	
Formaldehyde		50-00-0	1	1.2	2	2.5	Carc. 2	Sen	
Formamide		75-12-7	10	18	-	-	-	Sk	
Formic acid		64-18-6	5	9.4	10	19	-	-	
Fumed silica (respirable dust)		7631-86-9	-	2	-	-	-	-	See Silica – Amorphous
Furfural	2-Furaldehyde	98-01-1	2	7.9	-	-	-	Sk	
Furfuryl alcohol		98-00-0	10	40	15	60	Carc. 2	Sk	
Germanium tetrahydride	Germane	7782-65-2	0.2	0.63	-	-	-	-	
Glutaraldehyde	1,5-Pentanedial	111-30-8	0.1 Peak limitation	0.41 Peak limitation	-	-	-	Sen	
Glycerin mist		56-81-5	-	10	-	-	-	-	(a)
Glycidol	2,3-Epoxy-1-propanol	556-52-5	25	76	-	-	Carc. 1B	-	
Grain dust (oats,wheat, barley)			-	4	-	-	-	-	
Graphite (all forms except fibres) (respirable dust) (natural & synthetic)		7782-42-5	-	3	-	-	-	-	(e)
Hafnium		7440-58-6	-	0.5	-	-	-	-	
Halothane	1,1,1-Trifluoro-2-chloro-2-bromoethane	151-67-7	0.5	4.1	-	-	-	-	
Heptachlor		76-44-8	-	0.5	-	-	Carc. 2	Sk	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Heptane (n-Heptane)		142-82-5	400	1640	500	2050	-	-	
Hexachlorobutadiene		87-68-3	0.02	0.21	-	-	-	Sk	
Hexachlorocyclopentadiene		77-47-4	0.01	0.11	-	-	-	-	
Hexachloroethane		67-72-1	1	9.7	-	-	-	-	
Hexachloronaphthalene		1335-87-1	-	0.2	-	-	-	Sk	
Hexafluoroacetone		684-16-2	0.1	0.68	-	-	-	Sk	
Hexamethylene diisocyanate	HDI	822-06-0	See Isocyanates, all				-	Sen	
Hexane (n-Hexane)		110-54-3	20	72	-	-	-	-	
Hexane, other isomers			500	1760	1000	3500	-	-	
sec-Hexyl acetate	1,3-Dimethyl butyl acetate	108-84-9	50	295	-	-	-	-	
Hexylene glycol	2-Methylpentane-2,4-diol	107-41-5	25 Peak limitation	121 Peak limitation	-	-	-	-	
Hydrazine	Diamine	302-01-2	0.01	0.013	-	-	-	Sk:Sen	
Hydrogen bromide		10035-10-6	3 Peak limitation	9.9 Peak limitation	-	-	-	-	
Hydrogen chloride	Hydrochloric acid	7647-01-0	5 Peak limitation	7.5 Peak limitation	-	-	-	-	
Hydrogen cyanide	Hydrocyanic acid	74-90-8	10 Peak limitation	11 Peak limitation	-	-	-	Sk	
Hydrogen fluoride (as F)		7664-39-3	3 Peak limitation	2.6 Peak limitation	-	-	-	-	
Hydrogen peroxide		7722-84-1	1	1.4	-	-	-	-	
Hydrogen selenide (as Se)		7783-07-5	0.05	0.16	-	-	-	-	
Hydrogen sulphide		7783-06-4	10	14	15	21	-	-	
Hydrogenated terphenyls		37275-59-5	0.5	4.9	-	-	-	-	
Hydroquinone	p-Dihydroxybenzene	123-31-9	-	2	-	-	Carc. 2	-	
2-Hydroxypropyl acrylate		999-61-1	0.5	2.8	-	-	-	Sk:Sen	
Indene		95-13-6	10	48	-	-	-	-	
Indium & compounds (as In)			-	0.1	-	-	-	-	
Iodine		7553-56-2	0.1 Peak limitation	1 Peak limitation	-	-	-	-	
Iodoform		75-47-8	0.6	10	-	-	-	-	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m³)**	**STEL (ppm)**	**STEL (mg/m³)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Iron oxide fume (Fe_2O_3) (as Fe)		1309-37-1	-	5	-	-	-	-	
Iron pentacarbonyl (as Fe)		13463-40-6	0.1	0.23	0.2	0.45	-	-	
Iron salts, soluble (as Fe)			-	1	-	-	-	-	
Isoamyl acetate	Isopentyl acetate	123-92-2	50	270	100	541	-	-	
Isoamyl alcohol	3-Methylbutan-1-ol	123-51-3	100	361	125	452	-	-	
Isobutyl acetate		110-19-0	150	713			-	-	
Isobutyl alcohol	2-Methylpropan-1-ol iso-Butanol	78-83-1	50	152	-	-	-	-	
Isocyanates, all (as-NCO)			-	0.02	-	0.07	See individual entries	Sen	
Isooctyl alcohol		26952-21-6	50	266	-	-	-	Sk	
Isophorone	3,5,5-Trimethylcyclohex-2-enone	78-59-1	5 Peak limitation	28 Peak limitation	-	-	Carc. 2	-	
Isophorone diisocyanate		4098-71-9	See Isocyanates, all				-	Sen	
Isopropoxyethanol		109-59-1	25	106	-	-	-	-	
Isopropyl acetate		108-21-4	250	1040	310	1290	-	-	
Isopropyl alcohol	Propan-2-ol	67-63-0	400	983	500	1230	-	-	
Isopropyl ether	Diisopropyl ether	108-20-3	250	1040	310	1300	-	-	
Isopropyl glycidyl ether (IGE)	IGE 2,3-Epoxypropyl isopropyl ether	4016-14-2	50	238	75	356	-	-	
Isopropylamine	2-Aminopropane	75-31-0	5	12	10	24	-	-	
N-Isopropylaniline		768-52-5	2	11	-	-	-	Sk	
Kaolin		1332-58-7	-	10	-	-	-	-	(a)
Ketene		463-51-4	0.5	0.86	1.5	2.6	-	-	
Lead arsenate (as $Pb_3(AsO_4)_2$)		3687-31-8	-	0.15	-	-	-	-	
Lead chromate (as Cr)		7758-97-6	-	0.05	-	-	Carc. 1B	-	
Lead, inorganic dusts & fumes (as Pb)		7439-92-1	-	0.05	-	-	-	-	

SUPERSEDED

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Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Lindane	gamma-BHC (ISO) Gammexane gamma-HCH gamma-Hexachlorocyclohexane	58-89-9	0.008	0.1	-	-	-	Sk	
Lithium hydride		7580-67-8	-	0.025	-	-	-	-	
LPG (liquified petroleum gas)		68476-85-7	1000	1800	-	-	Carc. 1B	-	
Magnesite		546-93-0	-	10	-	-	-	-	(a)
Magnesium oxide (fume)		1309-48-4	-	10	-	-	-	-	
Malathion	Maldison	121-75-5	-	10	-	-	-	Sk:Sen	
Maleic anhydride		108-31-6	0.25	1	-	-	-	Sen	
Manganese cyclopenta-dienyl tricarbonyl (as Mn)	Tricarbonyl (eta cyclopentadienyl) manganese	12079-65-1	-	0.1	-	-	-	Sk	
Manganese, dust & compounds (as Mn)			-	1	-	-	-	-	
Manganese, fume (as Mn)	Manganese tetroxide	7439-96-5	-	1	-	3	-	-	
Man-Made Vitreous (Silicate) Fibres (MMVF)	Synthetic mineral fibres (SMF)								
Refractory Ceramic Fibres (RCF),[(h)] Special Purpose Glass Fibres[(i)] and High Biopersistence MMVF[(l)]			-	0.5 f/mL (respirable) and 2 mg/m^3 (inhalable dust)[(j)]	-	-	Carc. 1B[(o)]	-	(h) (i) (j) (l) (o)
[Glass wool, rock (stone) wool, slag wool and continuous glass filament][(i)(k)] and Low Biopersistence MMVF[(m)]			-	2 mg/m^3 (inhalable dust)[(j)]	-	-	Carc. 2[(i)(k)] or exempt[(m)(n)(o)]	-	(i) (j) (k) (m) (n) (o)

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Mercury, alkyl compounds (as Hg)			-	0.01	-	0.03	-	Sk	
Mercury, aryl compounds (as Hg)			-	0.1	-	-	-	Sk	
Mercury, elemental vapour (as Hg)		7439-97-6	0.003	0.025	-	-		-	
Mercury, inorganic divalent compounds (as Hg)			0.003	0.025	-	-	-	-	
Mercury, inorganic monovalent compounds (as Hg)			-	0.1	-	-	-	Sk	
Mesityl oxide	4-Methylpent-3-en-2-one	141-79-7	15	60	25	100	-	-	
Methacrylic acid		79-41-4	20	70	-	-	-	-	
Methomyl	Lannate	16752-77-5	-	2.5	-	-	-	-	
1-Methoxy-2-propanol acetate		108-65-6	50	274	100	548	-	Sk	
Methoxychlor	2,2-bis(p-Methoxyphenyl)-1,1,1-trichloroethane DMDT	72-43-5	-	10	-	-	-	-	
2-Methoxyethanol	Methyl cellosolve Methyl gylcol Glycol monomethyl ether Ethylene glycol monomethyl ether	109-86-4	5	16	-	-	-	Sk	
2-Methoxyethyl acetate	Ethylene glycol monomethyl ether acetate Glycol monomethyl ether acetate Methyl glycol acetate Methyl cellosolve acetate	110-49-6	5	24	-	-	-	Sk	
(2-Methoxymethylethoxy) propanol	Dipropylene glycol (mono) methyl ether	34590-94-8	50	308	-	-	-	Sk	
4-Methoxyphenol	Mequinol (INN)	150-76-5	-	5	-	-	-	Sen	
Methyl 2-cyanoacrylate		137-05-3	2	9.1	4	18	-	-	
Methyl acetate		79-20-9	200	606	250	757	-	-	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Methyl acetylene	Propyne	74-99-7	1000	1640	-	-	-	-	
Methyl acetylene-propadiene mixture (MAPP)			1000	1640	1250	2050	-	-	
Methyl acrylate	Acrylic acid, methyl ester	96-33-3	10	35	-	-	-	Sk:Sen	
Methyl alcohol	Methanol	67-56-1	200	262	250	328	-	Sk	
N-Methyl aniline		100-61-8	0.5	2.2	-	-	-	Sk	
Methyl bromide	Bromomethane	74-83-9	5	19	-	-		Sk	
Methyl chloride	Chloromethane	74-87-3	50	103	100	207	Carc. 2	-	
Methyl demeton	Demeton-O-methyl plus demeton-S-methyl Metasystox	8022-00-2	-	0.5	-	-	-	Sk	
Methyl ethyl ketone (MEK)	MEK 2-Butanone	78-93-3	150	445	300	890	-	-	
Methyl ethyl ketone peroxide	MEKP	1338-23-4	0.2 Peak limitation	1.5 Peak limitation	-	-	-	-	
Methyl formate	Formic acid, methyl ester	107-31-3	100	246	150	368	-	-	
Methyl hydrazine		60-34-4	0.01	0.019	-	-	-	Sk	
Methyl iodide	Iodomethane	74-88-4	2	12	-	-	Carc. 2	Sk	
Methyl isoamyl ketone	Isoamyl methyl ketone 5-Methyl-2-hexanone	110-12-3	50	234	-	-	-	-	
Methyl isobutyl carbinol	Methyl amyl alcohol	108-11-2	25	104	40	167	-	Sk	
Methyl isobutyl ketone	MIBK 4-Methyl-2-pentanone Hexone	108-10-1	50	205	75	307	-	-	
Methyl isocyanate		624-83-9	See Isocyanates, all				-	Sen	
Methyl isopropyl ketone	3-Methyl-2-butanone	563-80-4	200	705	-	-	-	-	
Methyl mercaptan	Methanethiol	74-93-1	0.5	0.98	-	-	-	-	
Methyl methacrylate	Methacrylic acid, methyl ester	80-62-6	50	208	100	416	-	Sen	
Methyl n-amyl ketone	2-Heptanone Heptan-2-one	110-43-0	50	233	-	-	-	-	
Methyl n-butyl ketone	2-Hexanone	591-78-6	5	20	-	-	-	Sk	
Methyl parathion		298-00-0	-	0.2	-	-	-	Sk	
Methyl propyl ketone	2-Pentanone	107-87-9	200	705	250	881	-	-	
Methyl silicate	Tetramethyl orthosilicate	681-84-5	1	6	-	-	-	-	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m³)**	**STEL (ppm)**	**STEL (mg/m³)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
alpha-Methyl styrene	2-Phenylpropene	98-83-9	50	242	100	483	-	-	
1-Methyl-2-pyrrolidone		872-50-4	25	103	75	309		Sk	
Methylacrylonitrile		126-98-7	1	2.7	-	-	-	Sk:Sen	
Methylal	Dimethoxymethane	109-87-5	1000	3110	-	-	-	-	
Methylamine		74-89-5	10	13	-	-	-	-	
Methylcyclohexane		108-87-2	400	1610	-	-	-	-	
Methylcyclohexanol		25639-42-3	50	234	-	-	-	-	
o-Methylcyclohexanone		583-60-8	50	229	75	344	-	Sk	
Methylcyclopentadienyl manganese tricarbonyl (as Mn)	Tricarbonyl (methylcyclopentadienyl)-manganese	12108-13-3	-	0.2	-	-	-	Sk	
4,4'-Methylene bis(2-chloroaniline)	MOCA MBOCA 2,2'-Dichloro-4,4'-methylenedianiline	101-14-4	0.02	0.22	-	-	Carc. 1B	Sk	
Methylene bis(4-cyclo-hexylisocyanate)		5124-30-1	See Isocyanates, all				-	Sen	
Methylene bisphenyl isocyanate (MDI)	Diphenylmethane diisocyanate MDI	101-68-8	See Isocyanates, all				Carc. 2	Sen	
Methylene chloride	Dichloromethane	75-09-2	50	174	-	-	Carc. 2	Sk	
4,4'-Methylene dianiline	DADPM DDM p,p'-Diaminodiphenylmethane MDA	101-77-9	0.1	0.81	-	-	Carc. 1B	Sk:Sen	
5-Methylheptan-3-one	Ethyl amyl ketone	541-85-5	10	53	20	107	-	-	
Methyl-tert butyl ether		1634-04-4	25	92	75	275	-	-	
Metribuzin	Sencor	21087-64-9	-	5	-	-	-	-	
Mevinphos	Phosdrin	7786-34-7	0.01	0.092	0.03	0.27	-	Sk	
Mica		12001-26-2	-	2.5	-	-	-	-	
Mineral turpentine			-	480	-	-	-	-	
Molybdenum, insoluble compounds (as Mo)		7439-98-7	-	10	-	-	-	-	

SUPERSEDED

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Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Molybdenum, soluble compounds (as Mo)			-	5	-	-	-	-	
Monochloroacetic acid		79-11-8	0.3	1.2	-	-	-	Sk	
Monocrotophos	Azodrin	6923-22-4	-	0.25	-	-	-	-	
Morpholine		110-91-8	20	71	-	-	-	Sk	
Naled	Dibrom Dimethyl-1,2-dibromo-2,2-dichloroethylphosphate	300-76-5	-	3	-	-	-	Sk	
Naphthalene		91-20-3	10	52	15	79	Carc. 2	-	
Nickel carbonyl (as Ni)	Tetracarbonyl nickel	13463-39-3	0.05	0.12	-	-	Carc. 2	-	
Nickel dichloride		7718-54-9	-	0.1	-	-	Carc. 1A	-	
Nickel dinitrate		13138-45-9	-	0.1	-	-	Carc. 1A	-	
Nickel, metal		7440-02-0	-	1	-	-	Carc. 2	Sen	
Nickel, powder		7440-02-0		1			Carc. 2		
Nickel,soluble compounds (as Ni)			-	0.1	-	-	See Notes	Sen	(g)
Nickel sulphide roasting (fume & dust) (as Ni)			-	1	-	-	Carc. 1A	Sen	
Nickel salt, nitric acid		14216-75-2	-	0.1	-	-	Carc. 1A	-	
Nicotine		54-11-5	-	0.5	-	-	-	Sk	
Nitrapyrin	2-Chloro-6-(trichloromethyl) pyridine	1929-82-4	-	10	-	20	-	-	
Nitric acid		7697-37-2	2	5.2	4	10	-	-	
Nitric oxide	Nitrogen monoxide	10102-43-9	25	31	-	-	-	-	
p-Nitroaniline		100-01-6	-	3	-	-	-	Sk	
Nitrobenzene		98-95-3	1	5	-	-	Carc. 2	Sk	
p-Nitrochlorobenzene	p-Chloronitrobenzene	100-00-5	0.1	0.64	-	-	Carc. 2	Sk	
Nitroethane		79-24-3	100	307	-	-	-	-	
Nitrogen dioxide		10102-44-0	3	5.6	5	9.4	-	-	
Nitrogen trifluoride		7783-54-2	10	29	-	-	-	-	
Nitroglycerine (NG)	NG Glyceryl trinitrate	55-63-0	0.05	0.46	-	-	-	Sk	
Nitromethane		75-52-5	20	50	-	-	-	-	
1-Nitropropane		108-03-2	25	91	-	-	-	-	

SUPERSEDED

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Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
2-Nitropropane		79-46-9	10	36	-	-	Carc. 1B	-	
2-Nitrotoluene		88-72-2	2	11	-	-	Carc. 1B	Sk	
3-Nitrotoluene		99-08-1	2	11	-	-	-	Sk	
4-Nitrotoluene		99-99-0	2	11			-	Sk	
Nitrous oxide	Dinitrogen monoxide Laughing gas	10024-97-2	25	45	-	-	-	-	
Nonane		111-84-2	200	1050	-	-	-	-	
Octachloronaphthalene		2234-13-1	-	0.1	-	0.3	-	Sk	
Octane		111-65-9	300	1400	375	1750	-	-	
Oil mist, refined mineral		8012-95-1	-	5	-	-	-	-	
Osmium tetroxide (as Os)		20816-12-0	0.0002	0.0016	0.0006	0.0047	-	-	
Oxalic acid		144-62-7	-	1	-	2	-	-	
2,2'-Oxybis[ethanol]	Diethylene glycol	111-46-6	23	100	-	-	-	-	
Oxygen difluoride		7783-41-7	0.05 Peak limitation	0.11 Peak limitation	-	-	-	-	
Ozone		10028-15-6	0.1 Peak limitation	0.2 Peak limitation	-	-	-	-	
Paraffin wax (fume)		8002-74-2	-	2	-	-	-	-	
Paraquat (respirable sizes)	Paraquat dichloride (ISO)	4685-14-7	-	0.1	-	-	-	-	
Parathion		56-38-2	-	0.1	-	-	-	Sk	
PCBs (42% Chlorine)	Polychlorinated biphenyls Polychlorobiphenyls Chlorobiphenyl	53469-21-9	-	1	-	2	-	Sk	
PCBs (54% Chlorine)	Chlorobiphenyl	11097-69-1	-	0.5	-	1	-	Sk	
Pentaborane		19624-22-7	0.005	0.013	0.015	0.039	-	-	
Pentachloronaphthalene		1321-64-8	-	0.5	-	-	-	-	
Pentachloronitrobenzene	Quintozene (ISO)	82-68-8	-	0.5	-	-	-	Sen	
Pentachlorophenol		87-86-5	-	0.5	-	-	Carc. 2	Sk	
Pentaerythritol		115-77-5	-	10	-	-	-	-	(a)
Pentane		109-66-0	600	1770	750	2210	-	-	
Perchloroethylene	Tetrachloroethylene	127-18-4	50	340	150	1020	-	-	
Perchloromethyl mercaptan		594-42-3	0.1	0.76	-	-	-	-	
Perchloryl fluoride		7616-94-6	3	13	6	25	-	-	

SUPERSEDED

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Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m³)**	**STEL (ppm)**	**STEL (mg/m³)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Perfluoroisobutylene	Octafluoroisobutylene	382-21-8	0.01 Peak limitation	0.082 Peak limitation	-	-	-	-	
Perlite dust		93763-70-3	-	10	-	-	-	-	(a)
Petrol (gasoline)			-	900	-	-	-	-	
Phenol		108-95-2	1	4	-	-	-	Sk	
Phenothiazine		92-84-2	-	5	-	-	-	Sk	
Phenyl ether (vapour)	Diphenyl ether	101-84-8	1	7	2	14	-	-	
Phenyl glycidyl ether (PGE)	Phenyl-2,3-epoxypropyl ether PGE	122-60-1	1	6.1	-	-	Carc. 1B	Sen	
Phenyl mercaptan	Benzenethiol	108-98-5	0.5	2.3	-	-	-	-	
m-Phenylenediamine	1,3-Benzenediamine	108-45-2	-	0.1	-	-	-	Sk:Sen	
o-Phenylenediamine	1,2-Benzenediamine	95-54-5	-	0.1	-	-	Carc. 2	Sen	
p-Phenylenediamine	1,4-Benzenediamine	106-50-3	-	0.1	-	-	-	Sen	
Phenylhydrazine		100-63-0	0.1	0.44	-	-	Carc. 1B	Sk:Sen	
Phenylphosphine		638-21-1	0.05 Peak limitation	0.23 Peak limitation	-	-	-	-	
Phorate	Thimet	298-02-2	-	0.05	-	0.2	-	Sk	
Phosgene	Carbonyl chloride	75-44-5	0.02	0.08	0.06	0.25	-	-	
Phosphine		7803-51-2	0.3	0.42	1	1.4	-	-	
Phosphoric acid	Orthophosphoric acid	7664-38-2	-	1	-	3	-	-	
Phosphorus (yellow)		7723-14-0	-	0.1	-	-	-	-	
Phosphorus oxychloride	Phosphoryl trichloride	10025-87-3	0.1	0.63	-	-	-	-	
Phosphorus pentachloride		10026-13-8	0.1	0.85	-	-	-	-	
Phosphorus pentasulphide	Diphosphorous pentasulphide	1314-80-3	-	1	-	3	-	-	
Phosphorus trichloride		7719-12-2	0.2	1.1	0.5	2.8	-	-	
Phthalic anhydride		85-44-9	1	6.1	-	-	-	Sen	
m-Phthalodinitrile		626-17-5	-	5	-	-	-	-	
Picloram	Tordon	1918-02-1	-	10	-	-	-	-	
Picric acid	2,4,6-Trinitrophenol	88-89-1	-	0.1	-	-	-	-	
Pindone	Pival 2-Pivalyl-1,3-indandione	83-26-1	-	0.1	-	-	-	-	
Piperazine dihydrochloride		142-64-3	-	5	-	-	-	Sen	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Piperidine		110-89-4	1	3.5	-	-	-	Sk	
Platinum, metal		7440-06-4	-	1	-	-	-	-	
Platinum, soluble salts (as Pt)			-	0.002	-	-	-	Sen	
Portland cement		65997-15-1	-	10	-	-	-	-	(a)
Potassium hydroxide		1310-58-3	-	2 Peak limitation	-	-	-	-	
Potassium persulfate	Potassium persulphate	7727-21-1	-	0.01 Peak Limitation	-	-	-	Sen	
Precipitated silica		112926-00-8	-	10	-	-	-	-	See Silica - Amorphous (a)
Propane-1,2-diol total: (vapour & particulates)		57-55-6	150	474	-	-	-	-	
Propane-1,2-diol: particulates only		57-55-6	-	10	-	-	-	-	
Propargyl alcohol	Prop-2-yn-1-ol	107-19-7	1	2.3	-	-	-	Sk	
beta-Propiolactone		57-57-8	0.5	1.5	-	-	Carc. 1B	-	
Propionic acid		79-09-4	10	30	-	-	-	-	
Propoxur	PHC Baygon Arprocarb	114-26-1	-	0.5	-	-	-	-	
Propranolol		525-66-6	0.188	2	0.565	6	-	-	
n-Propyl acetate		109-60-4	200	835	250	1040	-	-	
Propyl alcohol	Propan-1-ol	71-23-8	200	492	250	614	-	Sk	
n-Propyl nitrate		627-13-4	25	107	40	172	-	-	
Propylene dichloride	1,2-Dichloropropane	78-87-5	75	347	110	508	-	-	
Propylene glycol dinitrate		6423-43-4	0.05	0.34	-	-	-	Sk	
Propylene glycol monomethyl ether	1-Methoxypropan-2-ol	107-98-2	100	369	150	553	-	-	
Propylene imine		75-55-8	2	4.7	-	-	Carc. 1B	Sk	
Propylene oxide	1,2-Epoxypropane	75-56-9	20	48	-	-	Carc. 1B	-	
Pyrethrum	Pyrethrins (ISO)	8003-34-7	-	5	-	-	-	Sen	
Pyridine		110-86-1	5	16	-	-	-	-	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Quartz (respirable dust)		14808-60-7	-	0.05	-	-	Carc. 1A	-	See Silica - Crystalline
Quinone	p-Benzoquinone	106-51-4	0.1	0.44	-	-	-	-	
Resorcinol	m-Dihydroxybenzene	108-46-3	10	45	20	90	-	-	
Rhodium, insoluble compounds (as Rh)			-	1	-	-	-	-	
Rhodium, metal		7440-16-6	-	1	-	-	-	-	
Rhodium, soluble compounds (as Rh)			-	0.01	-	-	-	-	
Ronnel	Fenchlorphos	299-84-3	-	10	-	-	-	-	
Rosin core solder pyrolysis products (as formaldehyde)			-	0.1	-	-	-	-	
Rotenone (commercial)	Derris, commercial	83-79-4	-	5	-	-	-	-	
Rouge dust			-	10	-	-	-	-	(a)
Selenium compounds (as Se) excluding hydrogen selenide			-	0.1	-	-	-	-	
Selenium hexafluoride (as Se)		7783-79-1	0.05	0.16	-	-	-	-	
Sesone	2,4-DES sodium Crag Herbicide Sodium 2,4-dichloro phenoxyethyl sulfate	136-78-7	-	10	-	-	-	-	
Silica – Amorphous							-		
Diatomaceous earth (uncalcined)		61790-53-2	-	10	-	-	-	-	(a)
Fume (thermally generated)(respirable dust)			-	2	-	-	-	-	(e)
Fumed silica (respirable dust)		7631-86-9	-	2	-	-	-	-	
Precipitated silica		112926-00-8	-	10	-	-	-	-	(a)
Silica gel		112926-00-8	-	10	-	-	-	-	(a)

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Silica – Crystalline							-		
Cristobalite (respirable dust)		14464-46-1	-	0.05	-	-	Carc. 1A	-	
Quartz (respirable dust)		14808-60-7	-	0.05	-	-	Carc. 1A	-	
Tridymite (respirable dust)		15468-32-3	-	0.05	-	-	Carc. 1A	-	
Tripoli (respirable dust)		1317-95-9	-	0.05	-	-	Carc. 1A	-	
Silica gel		112926-00-8	-	10	-	-	-	-	See Silica – Amorphous (a)
Silica, fused		60676-86-0	See Silica - Crystalline						
Silicon		7440-21-3	-	10	-	-	-	-	(a)
Silicon carbide		409-21-2	-	10	-	-	-	-	(a)
Silicon tetrahydride	Silane	7803-62-5	5	6.6	-	-	-	-	
Silver, metal		7440-22-4	-	0.1	-	-	-	-	
Silver, soluble compounds (as Ag)			-	0.01	-	-	-	-	
Soapstone			-	6	-	-	-	-	See also Soapstone (respirable dust) (a)
Soapstone (respirable dust)			-	3	-	-	-	-	See also Soapstone (a)
Sodium azide		26628-22-8	0.11 Peak limitation	0.3 Peak limitation	-	-	-	-	(d)
Sodium bisulphite	Sodium hydrogen sulphite	7631-90-5	-	5	-	-	-	-	
Sodium fluoroacetate		62-74-8	-	0.05	-	0.15	-	Sk	
Sodium hydroxide		1310-73-2	-	2 Peak limitation	-	-	-	-	
Sodium metabisulphite	Disodium disulphite	7681-57-4	-	5	-	-	-	-	
Sodium persulfate	Sodium persulphate	7775-27-1	-	0.01 Peak limitation	-	-	-	Sen	
Starch		9005-25-8	-	10	-	-	-	-	(a)
Stearates			-	10	-	-	-	-	(a)

SUPERSEDED

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Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Stibine		7803-52-3	0.1	0.51	-	-	-	-	
Strychnine		57-24-9	-	0.15	-	-	-	-	
Styrene, monomer	Phenylethylene Vinyl benzene	100-42-5	50	213	100	426	-	-	
Subtilisins (Proteolytic enzymes as 100% pure crystalline enzyme)		1395-21-7	-	0.00006 Peak limitation	-	-	-	Sen	
Sucrose		57-50-1	-	10	-	-	-	-	(a)
Sulfotep	TEDP O,O,O,O-Tetraethyl dithiopyrophosphate	3689-24-5	0.007	0.1	-	-	-	Sk	
Sulphur dioxide	Sulfur dioxide	7446-09-5	2	5.2	5	13	-	-	
Sulphur hexafluoride	Sulfur hexafluoride	2551-62-4	1000	5970	-	-	-	-	
Sulphur monochloride	Disulphur dichloride Sulfur monochloride Disulfur dichloride	10025-67-9	1 Peak limitation	5.5 Peak limitation	-	-	-	-	
Sulphur pentafluoride	Disulphur decafluoride	5714-22-7	0.01 Peak limitation	0.1 Peak limitation	-	-	-	-	
Sulphur tetrafluoride	Sulfur tetrafluoride	7783-60-0	0.1 Peak limitation	0.44 Peak limitation	-	-	-	-	
Sulphuric acid	Sulfuric acid	7664-93-9	-	1	-	3	-	-	
Sulphuryl fluoride	Sulfuryl fluoride	2699-79-8	5	21	10	42	-	-	
Sulprofos	Bolstar	35400-43-2	-	1	-	-	-	-	
Synthetic mineral fibres (SMF)	Man-Made Vitreous Fibres (MMVF)		See Man-Made Vitreous Fibres						
2,4,5-T	2,4,5-Trichlorophenoxyacetic acid	93-76-5	-	10	-	-	-	-	
Talc, (containing no asbestos fibres)		14807-96-6	-	2.5	-	-	-	-	
Tantalum, metal & oxide dusts		7440-25-7	-	5	-	-	-	-	
Tellurium & compounds (as Te)			-	0.1	-	-	-	-	

SUPERSEDED

(1)		(2)	(3)		(4)		(5)	(6)	
Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m³)**	**STEL (ppm)**	**STEL (mg/m³)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Tellurium hexafluoride (as Te)		7783-80-4	0.02	0.1	-	-	-	-	
Temephos	Abate	3383-96-8	-	10	-	-	-	-	
TEPP	Tetraethyl pyrophosphate	107-49-3	0.004	0.047	-	-	-	Sk	
Terphenyls		26140-60-3	0.5 Peak limitation	4.7 Peak limitation	-	-	-	-	
1,1,2,2-Tetrabromoethane	Acetylene tetrabromide	79-27-6	1	14	-	-	-	-	
1,1,2,2-Tetrachloro-1,2-difluoroethane		76-12-0	500	4170	-	-	-	-	
1,1,1,2-Tetrachloro-2,2-difluoroethane		76-11-9	500	4170	-	-	-	-	
1,1,2,2-Tetrachloroethane		79-34-5	1	6.9	-	-	-	Sk	
Tetrachloronaphthalene		1335-88-2	-	2	-	-	-	-	
Tetraethyl lead (as Pb)		78-00-2	-	0.1	-	-	-	Sk	
1,1,1,2-Tetrafluoroethane	HFC 134a	811-97-2	1000	4240	-	-	-	-	
Tetrahydrofuran		109-99-9	100	295	-	-	-	Sk	
Tetramethyl lead (as Pb)		75-74-1	-	0.15	-	-	-	Sk	
Tetramethyl succinonitrile		3333-52-6	0.5	2.8	-	-	-	Sk	
Tetranitromethane		509-14-8	1	8	-	-	-	-	
Tetrasodium pyrophosphate		7722-88-5	-	5	-	-	-	-	
Tetryl	2,4,6-Trinitrophenylmethylnitramine N-Methyl-N-2,4,6-tetranitroaniline	479-45-8	-	1.5	-	-	-	Sen	
Thallium, soluble compounds (as Tl)			-	0.1	-	-	-	Sk	
4,4'-Thiobis (6-tert-butyl-m-cresol)	6,6'-Di-tert-butyl-4,4'-thiodi-m-cresol	96-69-5	-	10	-	-	-	-	
Thioglycolic acid	Mercaptoacetic acid	68-11-1	1	3.8	-	-	-	Sk	
Thionyl chloride		7719-09-7	1 Peak limitation	4.9 Peak limitation	-	-	-	-	
Thiram	Tetramethyl thiuram disulphide	137-26-8	-	1	-	-	-	Sen	
Tin, metal		7440-31-5	-	2	-	-	-	-	

SUPERSEDED

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Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Tin, organic compounds (as Sn)			-	0.1	-	0.2	-	Sk: See Notes	(g)
Tin oxide & inorganic compounds, except SnH_4 (as Sn)			-	2	-	-	-	-	
Titanium dioxide		13463-67-7	-	10	-	-	-	-	(a)
Toluene		108-88-3	50	191	150	574	-	Sk	
Toluene-2,4-diisocyanate (TDI)	TDI	584-84-9	See Isocyanates, all				Carc. 2	Sen	
m-Toluidine		108-44-1	2	8.8	-	-	-	Sk	
o-Toluidine		95-53-4	2	8.8	-	-	Carc. 1B	Sk	
p-Toluidine		106-49-0	2	8.8	-	-	Carc. 2	Sk	
Tributyl phosphate		126-73-8	0.2	2.2	-	-	Carc. 2	-	
1,1,2-Trichloro-1,2,2-trifluoroethane	Fluorocarbon 113 (Freon 113)	76-13-1	1000	7670	1250	9590	-	-	
Trichloroacetic acid		76-03-9	1	6.7	-	-	-	-	
1,2,4-Trichlorobenzene		120-82-1	5 Peak limitation	37 Peak limitation	-	-	-	-	
1,1,1-Trichloroethane	Methyl chloroform	71-55-6	100	555	200	1110	-	-	
1,1,2-Trichloroethane		79-00-5	10	55	-	-	Carc. 2	Sk	
Trichloroethylene		79-01-6	10	54	40	216	Carc. 1B	Sk	
Trichlorofluoromethane	Fluorocarbon 11 (Freon 11) Fluorotrichloromethane	75-69-4	1000 Peak limitation	5620 Peak limitation	-	-	-	-	
Trichloronaphthalene		1321-65-9	-	5	-	-	-	Sk	
1,2,3-Trichloropropane		96-18-4	10	60	-	-	Carc. 1B	Sk	
Tridymite (respirable dust)		15468-32-3	-	0.05	-	-	Carc. 1A	-	See Silica - Crystalline
Triethanolamine		102-71-6	-	5	-	-	-	Sen	
Triethylamine	N,N-Diethylethanamine	121-44-8	2	8	4	17	-	-	
Trifluorobromomethane	Fluorocarbon 13B1 Bromotrifluoromethane	75-63-8	1000	6090	-	-	-	-	
Triglycidylisocyanurate (TGIC)	Araldite PT 810 TGIC	2451-62-9	-	0.08	-	-	-	Sen	
Trimellitic anhydride	Benzene-1,2,4-tricarboxylic acid-1,2-anhydride	552-30-7	0.005	0.039	-	-	-	Sen	

SUPERSEDED

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Chemical name	**Synonym**	**CAS No.**	**TWA (ppm)**	**TWA (mg/m^3)**	**STEL (ppm)**	**STEL (mg/m^3)**	**Advisory carcinogen category**	**Other advisory information**	**Notes**
Trimethyl benzene		25551-13-7	25	123	-	-	-	-	
Trimethyl phosphite		121-45-9	2	10	-	-	-	-	
Trimethylamine		75-50-3	10	24	15	36	-	-	
2,4,6-Trinitrotoluene (TNT)	TNT	118-96-7	-	0.5	-	-	-	Sk	
Triorthocresyl phosphate	Tri o-tolylphosphate	78-30-8	-	0.1	-	-	-	Sk	
Triphenyl amine		603-34-9	-	5	-	-	-	-	
Triphenyl phosphate		115-86-6	-	3	-	-	-	-	
Tripoli (respirable dust)		1317-95-9	-	0.05	-	-	Carc. 1A	-	See Silica - Crystalline
Tungsten, insoluble compounds (as W)			-	5	-	10	-	-	
Tungsten, soluble compounds (as W)			-	1	-	3	-	-	
Turpentine (wood)	Turpentine	8006-64-2	100	557	-	-	-	Sen	
Uranium (natural), soluble & insoluble compounds (as H)			-	0.2	-	0.6	-	-	
n-Valeraldehyde		110-62-3	50	176	-	-	-	-	
Vanadium (as V_2O_5), (respirable dust & fume)		1314-62-1	-	0.05	-	-		-	
Vegetable oil mists (except castor oil, cashew nut or similar irritant oils)			-	10	-	-	-	-	
Vinyl acetate		108-05-4	10	35	20	70	-	-	
Vinyl bromide	Bromoethylene	593-60-2	5	22	-	-	Carc. 1B	-	
Vinyl chloride, monomer	Chloroethylene	75-01-4	5	13	-	-	Carc. 1A	-	
Vinyl cyclohexene dioxide	1,2-Epoxy-4-(epoxy-ethyl)-cyclohexane	106-87-6	10	57	-	-	Carc. 2	Sk	
Vinyl toluene	Methyl styrene	25013-15-4	50	242	100	483	-	-	
Vinylidene chloride	1,1-Dichloroethylene	75-35-4	5	20	20	79	Carc. 2	-	
Warfarin		81-81-2	-	0.1	-	-	-	-	
Welding fumes (not otherwise classified)			-	1	-	-	-	-	
White spirits	Stoddard solvent	8052-41-3	-	790	-	-	Carc. 1B	-	

SUPERSEDED

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Wood dust (certain hardwoods such as beech & oak)			-	1	-	-	-	Sen	
Wood dust (soft wood)			-	5	-	10	-	Sen	
Xylene (o-, m-, p- isomers)			80	350	150	655	-	-	
m-Xylene-alpha,alpha'-diamine	m-Xylylendiamine 1,3-Benzenedimethanamine	1477-55-0	-	0.1 Peak limitation	-	-	-	Sk	
Xylidine	Dimethylaminobenzene Aminodimethyl benzene	1300-73-8	0.5	2.5	-	-	-	Sk	
Yttrium, metal & compounds (as Y)			-	1	-	-	-	-	
Zinc chloride (fume)		7646-85-7	-	1	-	2	-	-	
Zinc chromates (as Cr)		11103-86-9 13530-65-9 37300-23-5	-	0.01	-	-	Carc. 1A	Sen	
Zinc oxide (dust)		1314-13-2	-	10	-	-	-	-	(a)
Zinc oxide (fume)		1314-13-2	-	5	-	10	-	-	
Zirconium compounds (as Zr)			-	5	-	10	-	-	

SUPERSEDED

LIST OF AMENDMENTS TO EXPOSURE STANDARDS

Date	Page number	Amendments
21 April 2018	28	Amended TWA (mg/m^3) for Lead, inorganic dusts & fumes (as Pb) from 0.15 to 0.05
16 December 2019	various	Amended TWA (mg/m^3) for Cristobalite, Quartz, Silica – Crystalline, Tridymite and Tripoli from 0.1 to 0.05 Amended Advisory Carcinogen Category for Cristobalite, Quartz, Silica – Crystalline, Tridymite and Tripoli to Carcinogen 1A
1 October 2022	18	Amended TWA (mg/m^3) for respirable coal dust (containing < 5% quartz) (respirable dust) from 3 mg/m^3 to 1.5 mg/m^3.
18 January 2024	various	Amended the guidance related to the use of respiratory protective equipment and compliance with the WES. Amended TWA (mg/m^3) for welding fumes (not otherwise classified) from 5 mg/m^3 to 1 mg/m^3.
17 November 2025	13	Amended TWA (mg/m^3) for Aluminium (welding fumes) from 5 mg/m^3 to 1 mg/m^3
DATE 2026	All	Added Superseded to title page, added superseded watermark to document.

SUPERSEDED