



HEALTH AND SAFETY
AUTHORITY



2016

Code of Practice

for the Chemical Agents Regulations



Our Vision:
healthy, safe and
productive lives

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Foreword

The Health and Safety Authority, with the consent of Richard Bruton TD, Minister for Jobs, Enterprise and Innovation, and following public consultation, publishes this Code of Practice entitled "2016 Code of Practice for the Chemical Agents Regulations" in accordance with section 60 of the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005).

This Code of Practice provides practical guidance as to the observance of Regulations 4(1)(e), 4(5)(d), 6(1)(c), (d) and (e) and 9(1)(b) of the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001, in relation to occupational exposure limit values (OELVs) for a number of chemical agents as listed in Schedule 1 to the Code, having regard to the provisions of the Safety, Health and Welfare at Work Act 2005.

This Code of Practice comes into operation on the 1st of April 2016 and from that date it replaces the "2011 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001)" which was issued in accordance with the Safety, Health and Welfare at Work Act 2005.

Schedule 1 to this Code of Practice stipulates the OELVs which are currently legally binding under the Chemical Agents Regulations.

Schedule 2 to this Code of Practice provides a list of substances which are under review by the Health and Safety Authority.

Schedule 3 contains a Chemical Abstracts Service (CAS) Number Index of all substances included in this Code of Practice.

Substances which have been assigned an indicative occupational exposure limit value (IOELV) under Commission Directives 2000/39/EC, 2006/15/EC and 2009/161/EU (the first, second and third IOELV Directives) are indicated in the notes column in Schedule 1 to the Code of Practice.

Notice of the publication of this Code of Practice, and the withdrawal of the 2011 Code of Practice, was published in the Iris Oifigiúil on Friday the 11th March 2016.

As regards the use of Codes of Practice in criminal proceedings, section 61 of the 2005 Act provides as follows -

"61.—(1) Where in proceedings for an offence under this Act relating to an alleged contravention of any requirement or prohibition imposed by or under a relevant statutory provision being a provision for which a code of practice had been published or approved by the Authority under section 60 at the time of the alleged contravention, subsection (2) shall have effect with respect to that code of practice in relation to those proceedings.

- (2) (a) Where a code of practice referred to in subsection (1) appears to the court to give practical guidance as to the observance of the requirement or prohibition alleged to have been contravened, the code of practice shall be admissible in evidence.
 - (b) Where it is proved that any act or omission of the defendant alleged to constitute the contravention—
 - (i) is a failure to observe a code of practice referred to in subsection (1), or
 - (ii) is a compliance with that code of practice,then such failure or compliance is admissible in evidence.
- (3) A document bearing the seal of the Authority and purporting to be a code of practice or part of a code of practice published or approved of by the Authority under this section shall be admissible as evidence in any proceedings under this Act."



Periodic revision of the Code of Practice

A revision of the OELVs listed in Schedule 1, to reflect current knowledge concerning the health hazards of the listed chemical agents, will be undertaken by the Health and Safety Authority periodically, through public consultation. Schedule 2 to this Code of Practice provides a list of chemical agents which are under review by various international groups. This Schedule therefore serves to highlight the possibility of a change occurring to these substances, including, for example, the introduction of an OELV or a change to an existing OELV, when appropriate.

As the Code of Practice is updated periodically, specific attention should be paid to those substances listed in Schedule 2, as they are candidates for revision when the Code of Practice is next updated. Comments concerning any of the limit values proposed may be made in writing to the Chemicals and Prevention Division of the Health and Safety Authority at Hebron House, Hebron Road, Kilkenny or its headquarters, Metropolitan Building, James Joyce Street, Dublin 1, Locall: 1890 289 389 or e-mail wcu@hsa.ie.

Marie Dalton
Secretary to the Board



1. Introduction

Occupational exposure limit values (**OELVs**) provide a basis for ensuring that exposure to airborne contaminants in the workplace is controlled in such a way as to prevent adverse health effects. Existing information has been used to establish limit values for exposures which, for the majority of chemicals listed, even when repeated regularly throughout a working lifetime, are not expected to result in adverse effects on the health of exposed workers. Exceptions to this may be (1) certain risk groups such as employees known to be sensitised or (2) certain chemicals listed in the Code of Practice as carcinogenic, mutagenic or as chemicals causing respiratory sensitisation, where identification of a safe level of exposure is extremely difficult.

An OELV for a given chemical represents the maximum exposure to the chemical in workplace air, which is considered consistent with this objective. In practice, exposure levels should be maintained well below the OELV and should always be as low as reasonably achievable. This is particularly important for carcinogens, mutagens and substances causing sensitisation (occupational asthma or allergic contact dermatitis). **Schedule 1** to this Code of Practice stipulates the OELVs for around 700 substances. Within this Schedule, carcinogens are identified by the notation "**Carc.1A/1B**", mutagens by "**Muta.1A/1B**", reproductive toxins by "**Repr.1A/1B**", and sensitizers as "**Sens.**".

"Occupational Exposure Limit Value", as defined in the Definitions/Glossary, is the term used in this Code of Practice to describe an exposure standard for a chemical in workplace air, with reference to either an **8 hour reference period** or a **15 minute reference period**. The exposure limit values are based on time-weighted average (**TWA**) concentrations of airborne substances. These terms are also defined

in the Definitions/Glossary. Terms used by other regulatory bodies throughout the world to describe exposure standards include Threshold Limit Value (**TLV**), Occupational Exposure Standard (**OES**), Workplace Exposure Limit (**WEL**) and Short Term Exposure Limit (**STEL**). These terms may appear in Safety Data Sheets or other information on chemicals.

It should be noted that exposure to **radioactive material is excluded** from the scope of this Code of Practice.

This Code of Practice, in conjunction with the Chemical Agents Regulations, transposes the provisions of Commission Directive 2000/39/EC¹ establishing a first list of IOELVs in implementation of Council Directive 98/24/EC² on the protection of the health and safety of workers from the risks related to chemical agents at work, and the provisions of Commission Directive 2006/15/EC³ establishing a second list of IOELVs in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC⁴ and 2000/39/EC. The provisions of Commission Directive 2009/161/EU⁵ establishing a third list of IOELVs in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC are also transposed in the same fashion.

There is no direct link between the health hazard categories identified in the legislation on the classification, packaging and labelling of dangerous substances and mixtures and the OELVs in this Code of Practice. In general, however, chemicals classified as very toxic, toxic, harmful, carcinogenic, mutagenic, or as respiratory sensitizers, are more likely to have an OELV assigned to them than chemicals which are not classified as hazardous for health, particularly if they have been classified as hazardous by inhalation or in contact with skin. Within **Schedule 1**, five groups of substances are identified as having the potential to cause particular and significant reactions following

¹ OJ No. L 142, 16.06.2000, p. 47

² OJ No. L 131, 05.05.1998, p. 11

³ OJ No. L 38, 09.02.2006, p. 36

⁴ OJ No. L 177, 05.07.1991, p. 22

⁵ OJ No. L 338, 19.12.2009, p. 87



exposure. These groups may be identified by certain notations, as follows:

- Substances, which have the capacity to penetrate the skin and be absorbed into the body, are likely to have the skin (**Sk**) notation.
- Chemicals classified as carcinogenic (**Carc.1A/1B**) and mutagenic (**Muta.1A/1B**) chemicals, sensitizers (**Sens.**) and chemicals which are toxic for reproduction (**Repr.1A/1B**) are specifically identified as such in the notes column of **Schedule 1**, because of the particularly serious nature of these effects.

For these substances, in particular, where an OELV exists, exposure must be maintained well below that OELV, and should always be as low as reasonably achievable. In some cases no OELV is assigned to such substances because of the difficulty in identifying a safe level of exposure, and for these substances exposure levels should also be as low as reasonably achievable.

Classification, packaging and labelling legislation is a hazard-based system and the particular hazards of a chemical are identified by standardised test procedures. These hazards must be clearly identified on the labels of containers and in the associated Safety Data Sheet along with advice on protective measures to be taken. If exposure to a hazardous chemical is prevented or minimised, e.g. by maintaining the exposure level below the OELV, then the risk to health will also be prevented or minimised. OELVs are thus an important part of chemical risk assessments.

While this Code of Practice is based on the requirements of the Chemical Agents Regulations and Directive 98/24/EC, it is also worth noting other relevant chemicals legislation such as the EU REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) Regulation (EC) No.

1907/2006⁶ and the EU Classification, Labelling and Packaging (CLP) Regulation (EC) No. 1272/2008⁷ and their related amendments. REACH is based on the principle that industry shall ensure that chemicals placed on the European market do not adversely affect human health and the environment. One requirement is that industry complete hazard assessments and put adequate controls in place. The hazard assessments comprise of the following steps:

- evaluation of non-human and human information,
- classification and labelling, and
- the calculation of derived no-effect levels (DNELs).

Where the quantity of the material manufactured or imported is greater than 10 tonnes per annum, the manufacturers and importers are required to calculate DNELs as part of the Chemical Safety Assessment (CSA) for chemical(s) used. The DNELs will be published in the manufacturer's Chemical Safety Report and included in an extended Safety Data Sheet. REACH specifies that it may be necessary to identify different DNELs for each relevant human exposure scenario and possibly for certain vulnerable sub-populations and for different routes of exposure and different exposure durations.

An occupational exposure limit value (IOELV, BOELV or OELV) can be used as a DNEL in limited cases where the scientific background for setting the exposure limit can be evaluated and the potential exposure route and duration are similar. If, however, the registrant of a substance has obtained new scientific information then the registrant should develop a DNEL and not apply the exposure limit. For further information see the European Chemical Agency (ECHA) guidance on hazard assessment at www.echa.europa.eu.

⁶OJ No. L 396, 30.12.2006, p. 1

⁷OJ No. L 353, 31.12.2008, p. 1



2. Definitions/Glossary

Asphx. - Gaseous chemical substances which may not produce significant physiological effects in the exposed employee, but when present in high concentrations will act as simple asphyxiants.

BLV – Biological Limit Value, as defined in the Chemical Agents Regulations, means the limit of the concentration in the appropriate biological medium of the relevant agent, its metabolite or an indicator of effect.

BOELV - Binding Occupational Exposure Limit Values are transposed from the relevant EU Directives through a range of national legislation comprising the Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 (S.I. No. 386 of 2006), the Chemical Agents Regulations and the Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 and 2015. BOELVs take account of socio-economic and technical feasibility factors as well as the factors considered when establishing IOELVs. For any chemical for which a BOELV is established at EU level, Member States must establish a corresponding BOELV, which can be stricter but cannot exceed the Community limit value.

Carc.1A - Substances known to have carcinogenic potential for humans; classification is largely based on human evidence to which the EU Classification, Labelling and Packaging Regulation (EC) No. 1272/2008 applies and are designated as Category 1A carcinogens in the Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 and 2015.

Carc.1B - Substances presumed to have carcinogenic potential for humans; classification is largely based on animal evidence to which the EU Classification, Labelling and Packaging Regulation (EC) No. 1272/2008 applies and are designated as Category 1B carcinogens in the Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 and 2015.

Chemical Abstracts Service (CAS) Number - A CAS Registry Number, also referred to as CASRN or CAS Number, is a unique numerical identifier assigned by Chemical Abstracts Service to every chemical substance described in the open scientific literature, including organic and inorganic compounds, minerals, isotopes, alloys and non-structurable materials.

Chemical Agent as defined in the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001), means any chemical element or compound, on its own or admixed, as it occurs in the natural state or as produced, used or released, including release as waste, by any work activity, whether or not produced intentionally and whether or not placed on the market.

Chemical Agents Regulations means the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001) and the Safety, Health and Welfare at Work (Chemical Agents) (Amendment) Regulations 2015 (S.I. No. 623 of 2015).

DNEL - The Derived No-Effect Level is defined as the level of exposure above which humans should not be exposed (EU REACH Regulation (EC) No. 1907/2006).

8 hour reference period relates to the procedure whereby the occupational exposures in any 24 hour period are treated as equivalent to a single uniform exposure for 8 hours (the 8 hour time-weighted average (TWA) exposure). The TWA may be expressed mathematically by:

$$(C_1 T_1 + C_2 T_2 + \dots + C_n T_n) / 8,$$

where $C_1 \dots C_n$ are the occupational exposures and $T_1 \dots T_n$ are the associated exposure times in hours in any 24 hour period.

EC No. - The European Community number, or EC number, also known as EC No., EINECS No. and EC#, is a unique seven-digit identifier that is assigned to



chemical substances for regulatory purposes within the European Union by the regulatory authorities.

Fibre – A respirable fibre is defined as having a length of $>5\mu\text{m}$, with a length: width ratio of $\geq 3:1$, as determined by the membrane filter method, using phase-contrast illumination.

15 minute reference period means the short term exposure reference period and is the sampling period used for assessing compliance with the associated short term exposure limit (STEL).

Hazardous chemical agent has the meaning given to it by the Chemical Agents Regulations.

Inhalable Fraction (I) – The Inhalable Fraction note is used for those materials that are hazardous when deposited anywhere in the respiratory tract. (See respirable fraction (R) below).

Inhalable Fraction and Vapour (IFV) - The Inhalable Fraction and Vapour note is used when a material exerts sufficient vapour pressure such that it may be present in both particle and vapour phases.

IOELV – Indicative Occupational Exposure Limit Values are health based limits set under the Chemical Agents Directive 98/24/EC. The European Commission is advised on limits by its Scientific Committee on Occupational Exposure Limits (SCOEL). SCOEL evaluates the scientific information available on hazardous substances and makes recommendations for the establishment of an IOELV. IOELVs are listed in Directives, which Member States are obliged to implement by introducing national limits for the substances.

MAK - Maximum Allowable Concentration (German standard).

Muta.1A - Substances which are known to induce heritable mutations in the germ cells of humans; classification is based on positive evidence from human studies to which the EU Classification,

Labelling and Packaging Regulation (EC) No. 1272/2008 applies and are designated as Category 1A mutagens in the Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 and 2015.

Muta.1B - Substances which should be regarded as if they induce heritable mutations in the germ cells of humans; classification is based on evidence from mutagenicity tests in mammals or humans to which the EU Classification, Labelling and Packaging Regulation (EC) No. 1272/2008 applies and are designated as Category 1B mutagens in the Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 and 2015.

Occupational Exposure Limit Value (OELV) is defined in the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001), as meaning, unless otherwise specified, the limit of the time-weighted average of the concentration of a chemical agent in the air within the breathing zone of a worker in relation to a specified reference period, as approved by the Authority. Further, it is the maximum permissible concentration of a chemical agent in the air at the workplace to which workers may be exposed, in relation to an 8 hour or a 15 minute reference period, as set out in this Code. The concentration of the chemical agent in the air is expressed as parts per million (ppm), milligrams per cubic metre (mg/m^3), fibre(s) per milliliter (fibre(s)/ml) or fibre(s) per cubic centimeter (fibre(s)/ cm^3) as appropriate.

OES – Occupational Exposure Standard is a generic term which includes all occupational exposure limit values such as OELV, WEL, TLV etc.

Repr.1A – Substances which are known human reproductive toxicants, largely based on evidence from human studies, to which the EU Classification, Labelling and Packaging Regulation (EC) No. 1272/2008 applies.

Repr.1B – Substances which are presumed human reproductive toxicants, largely based on data from



animal studies, to which the EU Classification, Labelling and Packaging Regulation (EC) No. 1272/2008 applies.

Respirable Fraction (R) - Particles of inhalable aerosols that are inhaled and are not captured in the upper airways (nasopharyngeal and tracheobronchial regions) but penetrate to the pulmonary region containing the respiratory bronchioles, alveolar ducts and alveolar sacs are considered to comprise of the respirable fraction of the aerosol.

Sens. - In the workplace respiratory or dermal exposures to sensitising agents may occur. Sensitizers may evoke respiratory or dermal reactions, e.g. asthma, rhinitis and allergic contact dermatitis. The notation does not distinguish between respiratory or dermal sensitisation. Chemical agents that are sensitizers present special problems in the workplace. Should an employee become sensitised, subsequent exposure may cause intense responses, even at low exposure concentrations well below the OELV. Exposure should be eliminated or significantly reduced through control measures such as engineering and process controls and use of personal protective equipment (PPE). The absence of a "Sens." note does not signify that the chemical agent lacks the ability to produce a sensitisation but may reflect the lack of, or inconclusiveness of, scientific evidence.

Sk - Substances which have the capacity to penetrate intact skin when they come in contact with it and be absorbed into the body.

STEL - Short Term Exposure Limit, defined as the concentration to which workers can be exposed for short periods of time, usually 15 minutes, 4 times per day, without suffering adverse effects and are set to help prevent effects such as eye irritation which may occur following exposure for a few minutes. (*Note: Where no specific short term exposure limit is listed, a figure three times the long-term exposure limit value should be used*) (U.S.A., American Conference of Governmental Industrial Hygienists (ACGIH) and European Union (EU)).

TLV - Threshold Limit Value, defined as the time-weighted average concentration of airborne substances to which nearly all workers may be repeatedly exposed, without adverse effect. (U.S.A., American Conference of Governmental Industrial Hygienists (ACGIH) and European Union (EU)).

TWA - Time-Weighted Average, defined as the time-weighted average concentration for a conventional 8 hour day/ 40 hour week. (U.S.A., American Conference of Governmental Industrial Hygienists (ACGIH) and European Union (EU)).

WEL - Workplace Exposure Limit set under the UK Control of Substances Hazardous to Health Regulations 2002 are concentrations of hazardous substances in the air, averaged over a specified period of time referred to as a time-weighted average (TWA). Two time periods are used: long term (8 hours) and short term (15 minutes). (EH40 Workplace Exposure Limits, Health and Safety Executive, UK).

3. Calculations

3.1 CONVERSION OF UNITS OF CONCENTRATION (ppm and mg/m³)

Concentrations of substances in workplace air can sometimes be expressed in different units. For dusts, fumes and aerosols the units are normally mg/m³ (except for fibres for which fibres/millilitre or fibres/cm³ is used). However, gases and vapours tend to be expressed in parts per million of volume (ppm) although the two different units are in common use (mg/m³ and ppm) and the OELV will have a different value depending on which unit is chosen.

It is possible to convert from ppm to mg/m³ and vice versa, but the conversion factor differs from substance to substance and depends on its molecular weight. A formula to allow exact conversions from mg/m³ to ppm takes the form:

$$\text{ppm} = \frac{\text{mg/m}^3 \times \text{Molar Volume}}{\text{Molecular Weight}}$$

The Molar Volume varies with temperature, but at 25°C (the temperature usually used for OELVs) the formula becomes:

$$\text{ppm} = \frac{\text{mg/m}^3 \times 24.45}{\text{Molecular Weight}}$$

By way of example, 10 mg/m³ of hydrogen sulphide (molecular weight 34) at 25°C is equivalent to

$$\frac{10 \times 24.45}{34} = 7.2 \text{ ppm}$$

Such conversions are usually rounded off to two significant figures for values below 100 and to three significant figures for values above 100.

3.2 CALCULATIONS FOR MIXTURES

When two or more hazardous substances, which act upon the same target organ, are present, their combined effect, rather than that of either individually, should be taken into account. In the absence of information to the contrary, the effects of the different hazards should be considered as **additive**. That is, if the sum of the following fractions:

$$C_1/\text{OELV}_1 + C_2/\text{OELV}_2 + C_3/\text{OELV}_3 + \dots + C_n/\text{OELV}_n$$

exceeds 1.0, then the OELV of the mixture should be considered as being exceeded. C₁ indicates the observed atmospheric concentration of substance 1 over 8 hours, and OELV₁, its corresponding OELV; C₂ indicates the observed atmospheric concentration of substance 2 over 8 hours, and OELV₂, its corresponding OELV etc. to the nth term.

Example - Mixtures/Additive Effect

Workplace air contains 400 ppm of acetone (OELV, 500 ppm), 150 ppm of methyl isopropyl ketone (OELV, 200 ppm) and 100 ppm of methyl ethyl ketone (OELV, 200 ppm).

$$\begin{aligned} & C_1/\text{OELV}_1 + C_2/\text{OELV}_2 + C_3/\text{OELV}_3 \\ &= 400/500 + 150/200 + 100/200 \\ &= 0.8 + 0.75 + 0.5 \\ &= 2.05 \end{aligned}$$

As the sum exceeds 1.0, the combined OELV based on an additive effect is well exceeded.



Exceptions to the above rule may be made when there is good reason to believe that the principal effects of the different harmful substances are not in fact additive but **independent**, as when purely local effects on different organs of the body are produced by the various components of the mixture. In such cases the OELV for the mixture is exceeded only when at least one member of the series (C₁/OELV₁ or C₂/OELV₂ etc.) itself has a value exceeding unity.

Synergistic effects, when substances combine to give a greater effect than expected from simple linear addition, may occur with some combinations of atmospheric contaminants; such cases at present must be determined individually. For example, carbon tetrachloride and alcohol together are more toxic to the liver than expected from the sum of the two individual toxic effects.



4. Further Information

1. "Guidelines to the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001", Health and Safety Authority.
2. "Short Guide to the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001", Health and Safety Authority.
3. "Risk Assessment of Chemical Hazards", Health and Safety Authority.
4. "Threshold Limit Values for Chemical Substances and Physical Agents", American Conference of Governmental Industrial Hygienists (ACGIH).
5. "EH40 Workplace Exposure Limits", Health and Safety Executive, UK.
6. "Patty's Industrial Hygiene and Toxicology", Volumes I-III.
7. The Environmental Protection Agency (EPA) - Office of Radiological Protection.

SCHEDULE 1

List of Chemical Agents and Occupational Exposure Limit Values (OELVs)

Chemical Agents in bold type are new or changed values as proposed in Schedule 3 of the 2011 Code of Practice

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Acetaldehyde	200-836-8	75-07-0	25	45	25	45	-
Acetic acid	200-580-7	64-19-7	10	25	15	37	IOELV
Acetic anhydride	203-564-8	108-24-7	1	2.5	3	10	-
Acetone	200-662-2	67-64-1	500	1210	-	-	IOELV
Acetonitrile	200-835-2	75-05-8	40	70	-	-	Sk, IOELV
Acetophenone	202-708-7	98-86-2	10	49	-	-	-
Acetylene	200-816-9	74-86-2	-	-	-	-	Asphx.
Acetylene Dichloride	208-750-2	540-59-0	200	790	-	-	-
Acetylene Tetrabromide, see 1,1,2,2-Tetrabromoethane							
o-Acetylsalicylic acid, (Aspirin)	200-064-1	50-78-2	-	5	-	-	-
Acrolein	203-453-4	107-02-8	0.1	0.25	0.3	0.8	-
Acrylaldehyde, See Acrolein							
Acrylamide	201-173-7	79-06-1	-	0.03	-	-	Sk, Carc.1B, Muta.1B, Sens.
Acrylic acid	201-177-9	79-10-7	2	6	-	-	-
Acrylonitrile	203-466-5	107-13-1	2	4.5	-	-	Sk, Carc.1B, Sens.
Adipic acid	204-673-3	124-04-9	-	5	-	-	-
Aldrin (ISO)	206-215-8	309-00-2	-	0.05 (IFV)	-	0.75	Sk
Aliphatic hydrocarbon gases							
Alkanes (C1-C4)							
Butane	203-448-7	106-97-8	1000				-
Ethane	200-814-8	74-84-0	1000				Asphx.
Methane	200-812-7	74-82-8	1000				Asphx.
Propane	200-827-9	74-98-6	1000				Asphx.
Allyl alcohol	203-470-7	107-18-6	2	4.8	5	12.1	Sk, IOELV
Allyl bromide	203-446-6	106-95-6	0.1		-	-	
Allyl chloride	203-457-6	107-05-1	1	3	2	6	Sk
Allyl 2,3-epoxypropyl ether	203-442-4	106-92-3	5	22	-	-	Sens.
Allyl glycidyl ether (AGE), see Allyl 2,3-epoxypropyl ether							
Allyl propyl disulphide	218-550-7	2179-59-1	0.5	-	-	-	-
Aluminium alkyl compounds	-	-	-	2	-	-	-
Aluminium metal	231-072-3	7429-90-5	-		-	-	-
			-	1 (R)	-	-	-
			-	-	-	-	-
Aluminium oxides; total inhalable dust respirable dust	215-691-6	1344-28-1	-	10	-	-	-
			-	4	-	-	-
Aluminium salts, soluble	-	-	-	2	-	-	-
Aminodimethylbenzene, see Xyldine							
4-Aminodiphenyl	202-177-1	92-67-1	-	-	-	-	Sk, Carc.1A
2-Aminoethanol	205-483-3	141-43-5	1	2.5	3	7.6	Sk, IOELV
2-Aminopyridine	207-988-4	504-29-0	0.5	2	2	8	-
3-Amino-1,2,4 Triazole, (Amitrole)	200-521-5	61-82-5	-	0.2	-	-	-
Ammonia, anhydrous	231-635-3	7664-41-7	20	14	50	36	IOELV
Ammonium chloride, fume	235-186-4	12125-02-9	-	10	-	20	-
Ammonium Perfluoroctanoate	223-320-4	3825-26-1	-	0.01	-	-	Sk

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Ammonium sulphamate	231-871-7	7773-06-0	-	10	-	20	-
n-Amyl acetate, see Pentyl acetate							
Sec-Amyl acetate, see 1-Methyl butyl acetate							
Tert-Amyl acetate	211-047-3	625-16-1	50	270	100	540	IOELV
Aniline	200-539-3	62-53-3	1	3.8	-	-	Sk, Sens.
o-Anisidine	201-963-1	90-04-0	0.1	0.5	-	-	Sk, Carc.1B
p-Anisidine	203-254-2	104-94-9	0.1	0.5	-	-	Sk
Antimony & compounds (as Sb)	231-146-5	7440-36-0	-	0.5	-	-	-
Araldite PT 810, see Triglycidyl isocyanurate, (TGIC)							
Argon	231-147-0	7440-37-1	-	-	-	-	Aspx.
Arsenic & compounds except arsine (as As)	231-148-6	7440-38-2	-	0.01	-	-	Carc.1A
Arsine	232-066-3	7784-42-1	0.005	0.02	-	-	-
Asbestos,(all types of asbestos fibre, as listed in Directive 2003/18/EC and implemented by S.I. No. 386 of 2006)							
Crocidolite		2001-28-4		0.1 fibres/cm³ of air			
Amosite		12172-73-5		0.1 fibres/cm³ of air			
Chrysotile		12001-29-5		0.1 fibres/cm³ of air			
Actinolite		77536-66-4		0.1 fibres/cm³ of air			
Anthophyllite		77536-67-5		0.1 fibres/cm³ of air			
Tremolite		77536-68-6		0.1 fibres/cm³ of air			
Asphalt (Bitumen), petroleum fumes, (inhalable fraction)	232-490-9	8052-42-4	-	0.5	-	10	-
Aspirin, see o-Acetylsalicylic acid							
Atrazine (ISO)	217-617-8	1912-24-9	-	10	-	-	Sens.
Azinphos-methyl (ISO), see Guthion							
Aziridine, see Ethylenimine							
Azodicarbonamide (C, C'-azodi (formamide))	204-650-8	123-77-3	-	1	-	3	Sens.
Barium compounds, (soluble compounds as Ba)	231-149-1	7440-39-3	-	0.5	-	-	IOELV
Barium sulphate, respirable dust	231-784-4	7727-43-7	-	2	-	-	-
Benomyl (ISO)	241-775-7	17804-35-2	-	10	-	15	Muta.1B, Repr.1B, Sens.
Benz[α]anthracene	200-280-6	56-55-3	-	-	-	-	Carc.1B
Benzene	200-753-7	71-43-2	1	3	-	-	BOELV, Sk, Carc.1A, Muta.1B
Benzenethiol	203-635-3	108-98-5	0.5	2	-	-	Sk
Benzene-1,2,4-tricarboxylic acid 1, 2-anhydride, see Trimellitic anhydride							
Benzidene	202-199-1	92-87-5	-	-	-	-	Sk, Carc.1A
Benzo[β]fluoranthene	205-911-9	205-99-2	-	-	-	-	Carc.1B
Benzo[a]pyrene	200-028-5	50-32-8	-	-	-	-	Carc.1B, Muta.1B, Repr.1B, Sens.
p-Benzoquinone, see Quinone							
Benzoyl peroxide, see Dibenzoyl peroxide							
Benzyl butyl phthalate, see Butyl benzyl phthalate							
Benzyl chloride	202-853-6	100-44-7	1		1.5		Carc.1B
Beryllium and beryllium compounds (as Be)	231-150-7	7440-41-7	-	0.0002	-	-	Carc.1B, Sens., Sk



Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
γ-BHC (ISO), see γ-Hexachlorocyclohexane							
Biphenyl	202-163-5	92-52-4	0.2	1.5	-	-	-
BCME, see bis(Chloromethyl) ether							
2,2-Bis(p-chlorophenyl)-1,1, 1-trichloroethane, see 1,1, 1-Trichlorobis (chlorophenyl)ethane							
Bis(2,3-epoxypropyl)ether, see Diglycidyl ether (DGE)							
Bis(2-ethylhexyl) Phthalate, see Di-sec-octyl-phthalate							
2,2Bis(p-methoxyphenyl) -1,1, 1-trichloroethane, see Methoxychlor(ISO)							
Bisphenol A (4,4'-isopropylidenediphenol) (Inhalable dust)	201-245-8	80-05-7		10	-	-	IOELV, Sens.
Bismuth telluride	215-135-2	1304-82-1	-	10	-	-	-
Bismuth telluride, selenium-doped	-	-	-	5	-	-	-
Borates, (tetra) sodium anhydrous	215-540-4	1330-43-4	-	1	-	-	Repr.1B
decahydrate	-	1303-96-4	-	5	-	-	Repr.1B
pentahydrate	-	12179-04-3	-	1	-	-	Repr.1B
Bornan-2-one	200-945-0	76-22-2	2	12	3	18	-
Boron oxide	215-125-8	1303-86-2	-	10	-	20	Repr.1B
Boron tribromide	233-657-9	10294-33-4	-	-	1	10	-
Boron trifluoride	231-569-5	7637-07-2	-	-	1	3	-
Bromacil (ISO)	206-245-1	314-40-9	1	10	-	-	-
Bromine	231-778-1	7726-95-6	0.1	0.7	0.3	2	IOELV
Bromine pentafluoride	232-157-8	7789-30-2	0.1	0.7	-	-	-
Bromochloromethane	200-826-3	74-97-5	200	1050	-	-	-
Bromoethane, see Ethyl bromide							
Bromoethylene, see Vinyl bromide							
Bromoform, see Tribromomethane							
Bromomethane	200-813-2	74-83-9	5	20	15	60	Sk
Bromotrifluoromethane, see Trifluorobromomethane							
Buta-1,3-diene	203-450-8	106-99-0	1	2.2	-	-	Carc.1A, Muta.1B
Butane (see aliphatic hydrocarbon gases)							
Butanethiol	203-705-3	109-79-5	0.5	1.8	-	-	-
Butan-1-ol	200-751-6	71-36-3	20	-			
Butan-2-ol	201-158-5	78-92-2	100	300	150	450	-
tert-Butanol - see 2-Methylpropan-2-ol							
Butan-2-one, see Methyl ethyl ketone (MEK)							
trans But-2-enal	204-647-1	123-73-9	2	6	6	18	-
2-Butoxyethanol (EGBE)	203-905-0	111-76-2	20	98	50	246	Sk, IOELV
2-(2-Butoxyethoxy)ethanol	203-961-6	112-34-5	10	67.5	15	101.2	IOELV
2-Butoxyethyl acetate (EGBEA)	203-933-3	112-07-2	20	133	50	333	Sk, IOELV
Butyl acetate	204-658-1	123-86-4	150	710	200	950	-
sec-Butyl acetate	203-300-1	105-46-4	200	950	250	1190	-
tert-Butyl acetate	208-760-7	540-88-5	200	950	250	1190	-
Butyl acrylate	205-480-7	141-32-2	2	11	10	53	IOELV, Sens.
n-Butyl alcohol, see Butan-1-ol							
sec-Butyl alcohol, see Butan-2-ol							

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
tert-Butyl alcohol, see 2-Methyl propan-2-ol							
n-Butylamine	203-699-2	109-73-9	-	-	5	15	Sk
Butylated hydroxytoluene (BHT) see 2,6-Ditertiary-butyl-para-cresol							
Butyl benzyl phthalate	201-622-7	85-68-7	-	5	-	-	Repr.1B
n-Butyl chloroformate	209-750-5	592-34-7	1	5.6	-	-	-
tert-Butyl chromate		1189-85-1	-	0.1	-	0.1	-
Butyl-2,3-epoxypropyl ether(BGE)	219-376-4	2426-08-6	3		-	-	Sens., Sk
Butyl glycidyl ether, see Butyl-2,3-epoxypropylether							
Butyl lactate	205-316-4	138-22-7	5	25	-	-	-
n-Butyl mercaptan, see Butanethiol							
Tert-Butyl-methyl ether	216-653-1	1634-04-4	50	183.5	100	367	IOELV
2-sec- Butylphenol	201-933-8	89-72-5	5	30	-	-	Sk
p-tert Butyltoluene	202-675-9	98-51-1	1	6.1	-	-	-
Cadmium	231-152-8	7440-43-9	-	0.025	-	-	Carc.1B
Cadmium compounds, except cadmium oxide fume and cadmium sulphide pigments (as Cd)		7440-43-9	-	0.01 0.002 (R)	-	-	Carc.1B
Cadmium oxide fume (as Cd)	215-146-2	1306-19-0	-	0.025	-	0.05	Carc.1B
Cadmium sulphide and cadmium sulphide pigments, respirable dust (as Cd)	215-147-8	1306-23-6	-	0.03	-	-	Carc.1B
Caesium hydroxide	244-344-1	21351-79-1	-	2	-	-	
Calcium carbonate total inhalable dust respirable dust	215-279-6	1317-65-3	-	10 4	-	-	-
Calcium chromate (as Cr)	237-366-8	13765-19-0	-	0.001	-	-	Carc.1B
Calcium cyanamide	205-861-8	156-62-7	-	0.5	-	1	-
Calcium hydroxide	215-137-3	1305-62-0	-	5	-	-	IOELV
Calcium oxide	215-138-9	1305-78-8	-	2	-	-	-
Calcium silicate Synthetic non fibrous	215-710-8	1344-95-2	-	0.5 (R)			
Calcium sulphate	231-900-3	7778-18-9	-	10	-	-	-
Camphor, synthetic, see Bornan-2-one							
ε-Caprolactam	203-313-2	105-60-2	-	10	-	40	IOELV
Captafol (ISO)	219-363-3	2425-06-1	-	0.1	-	-	Sk, Carc.1B, Sens.
Captan (ISO)	205-087-0	133-06-2	-	5	-	15	Sens.
Carbaryl (ISO)	200-555-0	63-25-2	-	0.5 (IFV)	-	-	-
Carbofuran (ISO)	216-353-0	1563-66-2	-	0.1	-	-	-
Carbon black	215-609-9	1333-86-4	-	3 (I)	-	-	-
Carbon dioxide	204-696-9	124-38-9	5000	9000	15000	27000	IOELV
Carbon disulphide	200-843-6	75-15-0	5	15	-	-	Sk, IOELV
Carbon monoxide	211-128-3	630-08-0	20	23	100	115	Repr.1A
Carbon tetrabromide	209-189-6	558-13-4	0.1	1.4	0.3	4	-
Carbon tetrachloride	200-262-8	56-23-5	2	12.6	-	-	Sk
Carbonyl chloride, see Phosgene							
Carbonyl fluoride	206-534-2	353-50-4	2	5.4	5	13	-
Catechol	204-427-5	120-80-9	5	20	-	-	Sk
Cellulose total inhalable dust respirable dust	232-674-9	9004-34-6	-	10 4	-	20	-
Cement(Portland) (See Portland cement)	266-043-4	65997-15-1					
Chlordane (ISO)	200-349-0	57-74-9	-	0.5	-	-	Sk



Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Chlorinated biphenyls (42% chlorine) (54% chlorine)	215-648-1	1336-36-3 53469-21-9 11097-69-1	- - -	0.1 0.1 0.1	- - -	- - -	Sk
Chlorine	231-959-5	7782-50-5	-	-	0.5	1.5	IOELV
Chlorine dioxide	233-162-8	10049-04-4	0.1	0.3	0.3	0.9	-
Chlorine trifluoride	232-230-4	7790-91-2	-	-	0.1	0.4	-
Chloroacetaldehyde	203-472-8	107-20-0	-	-	1	3	-
Chloroacetone	201-161-1	78-95-5	1	3.8	1	3.8	Sk
2-Chloroacetophenone	208-531-1	532-27-4	0.05	0.3	-	-	-
Chloroacetyl chloride	201-171-6	79-04-9	0.05	0.2	-	-	-
Chlorobenzene (as monochlorobenzene)	203-628-5	108-90-7	5	23	15	70	IOELV
o-Chlorobenzylidene malonitrile	220-278-9	2698-41-1	0.05	0.39	0.05	0.39	Sk
Chlorobromomethane, see Bromochloromethane							
2-Chlorobuta-1,3-diene, see β-Chloroprene							
Chlorodifluoromethane, see Difluorochloromethane							
Chloroethane, see Ethyl chloride							
2-Chloroethanol, see Ethylene chlorohydrin							
Chloroethylene, see Vinyl chloride							
Chloroform	200-663-8	67-66-3	2	9.8	-	-	Sk, IOELV
Chloromethane	200-817-4	74-87-3	50	105	100	210	-
Bis(Chloromethyl) ether	208-832-8	542-88-1	0.001	0.005			Carc.1A
Chloromethyl methyl ether	203-480-1	107-30-2	-	-	-	-	Carc.1A
1-Chloro-4-nitrobenzene	202-809-6	100-00-5	-	1	-	2	Sk
1-Chloro-1-nitropropane	209-990-0	600-25-9	2	10	-	-	-
Chloropentafluoroethane	200-938-2	76-15-3	1000	6320	-	-	-
Chloropicrin	200-930-9	76-06-2	0.1	0.7	-	-	-
β-Chloroprene	204-818-0	126-99-8	10	36	-	-	Carc.1B, Sk
3-Chloropropene, see Allyl chloride							
α-Chlorostyrene	218-026-8	2039-87-4	50	283	75	425	-
Chlorosulphonic acid	232-234-6	7790-94-5	-	1	-	-	-
α-Chlorotoluene, see Benzyl chloride							
2-Chlorotoluene	202-424-3	95-49-8	50	250	-	-	-
2-Chloro-6-(trichloromethyl) pyridine, see Nitrapyrin							
Chlorpyrifos (ISO)	220-864-4	2921-88-2	-	0.1 (IFV)	-		Sk
Chromium metal	231-157-5	7440-47-3	-	2	-	-	IOELV
Chromium (II) compounds (as Cr)	-	-	-	2	-	-	IOELV
Chromium (III) compounds (as Cr)	-	-	-	2	-	-	IOELV
Chromium (VI) compounds (as Cr)	-	-	-				Carc. 1B
Water Soluble Insoluble				0.05 0.01			
Chromyl Chloride	239-056-8	14977-61-8	0.025	0.16	-	-	Carc.1B, Muta.1B, Sens.
Coal dust, respirable dust Anthracite Bituminous	-	-	-	0.4 (R) 0.9 (R)	-	-	-
Coal tar pitch volatiles, (as cyclohexane solubles)	266-028-2	65996-93-2	-	0.2	-	-	Carc.1B
Cobalt & cobalt compounds (as Co)	231-158-0	7440-48-4	-	0.1	-	-	Sens.
Copper (as Cu) Fume Dusts and mists (as Cu)		231-159-6	7440-50-8	-	0.2 1	- 2	-

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Cotton dust (raw or waste cotton)	-	-	-	2.5	-	-	-
Cresols, all isomers	215-293-2	1319-77-3	5	22	-	-	Sk, IOELV
Cristobalite, respirable dust, (see Silica, Crystalline)	238-455-4	14464-46-1		0.1	-	-	-
Crotonaldehyde	224-030-0	4170-30-0			0.3		Sk
Crufomate	206-083-1	299-86-5	-	5	-	-	-
Cryofluorane, see 1, 2-Dichlorotetrafluoroethane							
Cumene, see Isopropylbenzene							
Cyanamide	206-992-3	420-04-2	0.58	1	-	-	Sk, IOELV, Sens.
Cyanides, except hydrogen cyanide, cyanogen and cyanogen chloride, (as -CN)		57-12-5	-	5	-	-	Sk
Cyanogen	207-306-5	460-19-5	10	20	-	-	-
Cyanogen chloride	208-052-8	506-77-4	-	-	0.3	0.6	-
Cyclohexane	203-806-2	110-82-7	200	700	-	-	IOELV
Cyclohexanol	203-630-6	108-93-0	50	200	-	-	-
Cyclohexanone	203-631-1	108-94-1	10	40.8	20	81.6	Sk, IOELV
Cyclohexene	203-807-8	110-83-8	300	1015	-	-	-
Cyclohexylamine	203-629-0	108-91-8	10	40	-	-	
Cyclonite, see Hexahydro-1,3, 5-trinitro-1,3,5 triazine							
Cyclopentadiene	208-835-4	542-92-7	75	203	-	-	-
Cyclopentane	206-016-6	287-92-3	600	1720	-	-	-
Cyhexatin (ISO), see Tricyclohexyltin hydroxide							
2,4-D (ISO), see 2,4-Dichloro- phenoxyacetic acid							
DDM, see 4-4'							
Diaminodiphenylmethane							
DDT, see 1,1,1-Trichlorobis (chlorophenyl) ethane							
DDVP, see Dichlorvos (ISO)							
Decaborane	241-711-8	17702-41-9	0.05	0.25	0.15	0.75	Sk
Demeton		8065-48-3	0.01	0.05 (IFV)			Sk
2,4-DES, see 2-(2,4-Dichlorophenoxy) ethyl hydrogen sulphate							
Derris, commercial, see Rotenone							
Diacetone alcohol	204-626-7	123-42-2	50	240	-	-	-
Dialkyl 79 phthalate	-	-	-	5	-	-	-
Diallyl phthalate	205-016-3	131-17-9	-	5	-	-	-
2,2-Diaminoethylamine, see Diethylene triamine							
4,4-Diaminodiphenyl- methane (DADPM)	202-974-4	101-77-9	0.01	0.08	-	-	Sk Carc.1B, Sens
1,2-Diaminoethane, see Ethylenediamine							
Diammonium peroxodisulphate (measured as[S ₂ O ₈ ²⁻]) See Persulphate salts							
Diatomaceous earth, natural, respirable dust	272-489-0	68855-54-9	-	1.2	-	-	-
Diazinon (ISO)	206-373-8	333-41-5	-	0.01 (IFV)	-		Sk
Diazomethane	206-382-7	334-88-3	0.2	0.4	-	-	Carc.1B
Dibenzoyl peroxide	202-327-6	94-36-0	-	5	-	-	Sens.

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Dibismuth tritelluride, see Bismuth telluride							
Dibismuth tritelluride, selenium doped, see Bismuth telluride selenium doped							
Diborane	242-940-6	19287-45-7	0.1	0.1	-	-	-
Diboron trioxide, see Boron oxide							
Dibrom, see 1,2 Dibromo-2, 2 dichloro ethyl dimethyl phosphate (Naled)							
1,2 Dibromo-2,2 dichloro ethyl dimethyl phosphate	206-098-3	300-76-5	-	0.1 (IFV)	-	6	-
Dibromodifluoromethane, see Difluorodibromomethane							
1,2 Dibromoethane, see Ethylene dibromide							
2-N-Dibutylaminoethanol	203-057-1	102-81-8	0.5	3.5	-	-	Sk
Dibutyl hydrogen phosphate	203-509-8	107-66-4		5 (IFV)	2	10	-
Dibutyl phenyl phosphate	219-772-7	2528-36-1	0.3	3.5	-	-	Sk
Di-n-butyl phosphate, see Dibutyl hydrogen phosphate							
Dibutyl phthalate	201-557-4	84-74-2	-	5	-	10	Repr.1B
6,6'-di-tert-butyl-4,4'-thio-di-m-cresol	202-525-2	96-69-5	-	1 (I)	-	-	-
Dichloroacetylene		7572-29-4	-	-	0.1	0.4	-
1,2 Dichlorobenzene	202-425-9	95-50-1	20	122	50	306	Sk, IOELV
1,4-Dichlorobenzene	203-400-5	106-46-7	20	122	50	306	IOELV
3,3-Dichlorobenzidine	202-109-0	91-94-1	-	-	-	-	Carc.1B, Sens.
1,4-Dichloro-2-butene	212-121-8	764-41-0	0.005	0.025	-	-	Sk, Carc.1B
Dichlorodifluoromethane	200-893-9	75-71-8	1000	4950	-	-	-
1,3-Dichloro-5,5-dimethyl-hydantoin	204-258-7	118-52-5	-	0.2	-	0.4	-
Dichlorodiphenyltrichloroethane, see 1,1,1'-Trichlorobis (chlorophenyl) ethane							
1,1-Dichloroethane	200-863-5	75-34-3	100	412	-	-	Sk, IOELV
1,2-Dichloroethane	203-458-1	107-06-2	5	20	10	40	Carc.1B
1,1-Dichloroethylene	200-864-0	75-35-4	5	20	-	-	-
1,2-Dichloroethylene (cis:trans isomers 60:40), see Acetylene dichloride							
Dichloroethyl ether	203-870-1	111-44-4	5	29	10	58	Sk
Dichlorofluoromethane	200-869-8	75-43-4	10	40	-	-	-
Dichlormethane	200-838-9	75-09-2	50	174	-	-	-
2,2'-Dichloro-4, 4' methylene-dianiline (MbOCA), see 4,4'Methylene bis-(2-chloroaniline)							
1,1-Dichloro-1-nitroethane	209-854-0	594-72-9	2	12	-	-	-
2,4-Dichlorophenoxyacetic acid [2,4-D (ISO)]	202-361-1	94-75-7	-	10	-	20	Sk, Sens.
2-(2,4-dichlorophenoxy)ethyl hydrogen sulphate and sodium 2-(2,4dichlorophenoxy) ethyl sulphate	205-259-5	149-26-8	-	10	-	20	-
1,3-Dichloropropene, cis and trans isomers	208-826-5	542-75-6	1	5	-	-	Sk, Sens.
Dichloropropionic acid	200-923-0	75-99-0	1	5.8	-	-	-
1,2-Dichlorotetrafluoroethane	200-937-7	76-14-2	1000	7000	-	-	-
Dichlorvos (ISO)	200-547-7	62-73-7	0.1	1	0.3	3	Sk, Sens.
Dicrotophos	205-494-3	141-66-2	-	0.05 (IFV)	-	-	Sk
Dicyclohexyl phthalate	201-545-9	84-61-7	-	5	-	-	-
Dicyclopentadiene	201-052-9	77-73-6	5	30	-	-	-

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Dicyclopentadienyl iron, see Ferrocene							
Dieldrin (ISO)	200-484-5	60-57-1	-	0.25	-	-	Sk
Diesel exhaust (particulate) (<0.1µm)	-	-	-	0.15	-	-	-
Diesel fuel/kerosene	-	-	-	100	-	-	Sk
Diethanolamine	203-868-0	111-42-2	0.2	1 (IFV)	-	-	-
Diethylamine	203-716-3	109-89-7	5	15	10	30	IOELV
2-Diethylaminoethanol	202-845-2	100-37-8	10	50	-	-	Sk
Diethylene glycol	203-872-2	111-46-6	23	100	-	-	-
Diethylene triamine	203-865-4	111-40-0	1	4	-	-	Sk
Diethyl ether, see Ether							
Di-(2-ethylhexyl) phthalate, see Di-sec-octyl-phthalate							
Diethyl ketone, see Pentan-3-one							
Diethyl phthalate	201-550-6		-	5	-	10	-
Diethyl sulphate	200-589-6	64-67-5	0.05	-	-	-	Carc.1B, Mut.1B
Difluorochloromethane	200-871-9	75-45-6	1000	3600	-	-	IOELV
Difluorodibromomethane	200-885-5	75-61-6	100	860	-	-	-
Difluorodichloromethane, see Dichlorodifluoromethane							
Diglycidyl ether (DGE)	218-802-6	2238-07-5	0.01	0.05	-	-	-
Dihydrogen selenide (as Se)	231-978-9	7783-07-5	0.02	0.07	0.05	0.17	IOELV
m-Dihydroxybenzene, see Resorcinol							
o-Dihydroxybenzene, see Catechol							
p-Dihydroxybenzene, see Hydroquinone							
1,2-Dihydroxyethane, see 1,2-Ethane diol							
Diisobutyl ketone	203-620-1	108-83-8	25	150	-	-	-
Diisobutyl phthalate	201-553-2	84-69-5	-	5	-	-	Repr.1B
Diisodecyl phthalate	247-977-1	26761-40-0	-	5	-	-	-
Diisononyl phthalate	249-079-5	28553-12-0	-	5	-	-	-
Diisooctyl phthalate	248-523-5	27554-26-3	-	5	-	-	Repr.1B
Diisopropylamine	203-558-5	108-18-9	5	20	-	-	Sk
Diisopropyl ether, see Isopropyl ether							
Di-linear 79 phthalate	-	-	-	5	-	-	-
Dimethoxymethane, see Methylal							
N,N'-Dimethylacetamide	204-826-4	127-19-5	10	36	20	72	Repr.1B, Sk, IOELV
Dimethylamine	204-697-4	124-40-3	2	3.8	5	9.4	IOELV
N,N-Dimethylaniline	204-493-5	121-69-7	5	25	10	50	Sk
1,3-Dimethylbutyl acetate	203-621-7	108-84-9	50	300	-	-	-
Dimethyl carbamoyl chloride	201-208-6	79-44-7	0.005	0.2	-	-	Carc.1B
Dimethyl disulphide	210-871-0	624-92-0	0.5	1.9	-	-	-
Dimethyl ether	204-065-8	115-10-6	1000	1920	-	-	IOELV
N,N-Dimethylethylamine	209-940-8	598-56-1	10	30	15	45	-
Dimethylformamide	200-679-5	68-12-2	5	15	10	30	Sk, Repr.1B, IOELV
2,6-Dimethylheptan-4-one, see Di-isobutyl ketone							
N,N-Dimethylhydrazine	200-316-0	57-14-7	0.01	0.02	-	-	Carc.1B
Dimethyl phthalate	205-011-6	131-11-3	-	5	-	10	-
Dimethyl sulphate	201-058-1	77-78-1	0.1	0.5	0.1	0.5	Sk, Carc.1B, Sens.
Dimethyl sulphide	200-846-2	75-18-3	20	-	-	-	-
Dimethylethoxysilane	238-921-7	14857-34-2	0.5	-	1.5	-	-
Dinitolmide	205-706-4	148-01-6	-	5	-	-	-
Dinitrobenzene, all isomers	246-673-6	25154-54-5	0.15	1	0.5	3	Sk
Dinitro-o-cresol	208-601-1	534-52-1	-	0.2	-	-	Sk, Sens.
Dinitrotoluene	246-836-1	25321-14-6	-	0.2	-	-	Carc.1B, Sk
Dinonyl phthalate	201-560-0	84-76-4	-	5	-	-	-



Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
1,4-Dioxane, tech. Grade	204-661-8	123-91-1	20	73	-	-	Sk, IOELV
Dioxathion (ISO)	201-107-7	78-34-2	-	0.1 (IFV)	-	-	Sk
1,3-Dioxolane	211-463-5	646-06-0	20	-	-	-	-
Diphenyl, see Biphenyl							
Diphenylamine	204-539-4	122-39-4	-	10	-	20	-
Diphenyl ether (vapour)	202-981-2	101-84-8	1	7	-	-	-
Diphosphorus pentoxide	215-236-1	1314-56-3	-	1	-	-	IOELV
Diphosphorus pentasulphide, see Phosphorus pentasulphide							
Dipotassium peroxodisulphate (measured as [S ₂ O ₈]); see Persulphate salts, potassium							
Dipropylene glycol methyl ether, see (2-Methoxymethyl ethoxy)-1-propanol							
Dipropyl ketone	204-608-9	123-19-3	50	233	-	-	-
Diquat dibromide(ISO)	201-579-4	85-00-7	-	0.5 (I) 0.1 (R)	-		Sens.
Di-sec-octyl phthalate	204-211-0	117-81-7	-	5	-	10	Repr 1B
Disodium disulphite	231-673-0	7681-57-4	-	5	-	-	-
Disodium peroxodisulphate (measured as S2O ₈); see Persulphate salts, sodium							
Disodium tetraborate, anhydrous, decahydrate & pentahydrate, see Borates (tetra) sodium							
Disulfoton (ISO)	206-054-3	298-04-4	-	0.05 (IFV)	-		Sk
Disulphur dichloride, see Sulphur monochloride							
Disulphur decafluoride	227-204-4	5714-22-7	0.025	0.25	0.01	0.75	-
2,6-Ditertiary-butyl-para-cresol	204-881-4	128-37-0	-	10	-	-	-
Diuron (ISO)	206-354-4	330-54-1	-	10	-	-	-
Divanadium pentaoxide (as V), total inhalable fraction	215-239-8	1314-62-1	-	0.05	-	-	-
Divinylbenzene	203-595-7	108-57-6	10	50	-	-	-
DMDT, see Methoxychlor (ISO)							
Dodecyl mercaptan	203-984-1	112-55-0	0.1	-	-	-	Sens.
Dusts non-specific total inhalable respirable	-	-	-	10	-	-	-
			-	4	-	-	-
Emery total inhalable dust respirable dust	-	1302-74-5	-	10	-	-	-
			-	4	-	-	-
Endosulfan (ISO)	204-079-4	115-29-7	-	0.1	-	0.3	Sk
Endrin (ISO)	200-775-7	72-20-8	-	0.1	-	-	Sk
Enflurane	237-553-4	13838-16-9	50	380	-	-	-
Epichlorohydrin	203-439-8	106-89-8	0.5	2	-	-	Sk, Carc.1B, Sens.
1,2 Epoxy-4-epoxyethylcyclohexane, see Vinylcyclohexene dioxide							
2,3-Epoxypropyl isopropyl ether, see Isopropyl glycidyl ether							
Ethane (see aliphatic hydrocarbon gases)							
Ethane-1,2-diol, particulate vapour	203-473-3	107-21-1	- 20	10 52	- 40	- 104	Sk, IOELV

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Ethanethiol	200-837-3	75-08-1	0.5	1	2	3	-
Ethanol	200-578-6	64-17-5			1000	-	-
Ethanolamine, see 2-Amino ethanol							
Ether	200-467-2	60-29-7	100	308	200	616	IOELV
2-Ethoxyethanol	203-804-1	110-80-5	2	8	-	-	Sk, Repr1B, IOELV
2-Ethoxyethyl acetate	203-839-2	111-15-9	2	11	-	-	Sk, Repr1B, IOELV
Ethyl acetate	205-500-4	141-78-6	200	-	400	-	-
Ethyl acrylate	205-438-8	140-88-5	5	20	10	41	Sk, IOELV, Sens.
Ethyl alcohol, see Ethanol							
Ethylamine	200-834-7	75-04-7	5	9.4	-	-	IOELV
Ethyl amyl ketone, see 5-Methylheptan-3-one							
Ethylbenzene	202-849-4	100-41-4	100	442	200	884	Sk, IOELV
Ethyl bromide	200-825-8	74-96-4	5	22	-	-	Sk
Ethyl butyl ketone, see Heptan-3-one							
Ethyl chloride	200-830-5	75-00-3	100	268	-	-	IOELV
Ethyl chloroformate	208-778-5	541-41-3	1	4.4	-	-	-
Ethyl cyanoacrylate	230-391-5	7085-85-0	0.2	-	-	-	-
Ethylene	200-815-3	74-85-1	-200	-	-	-	Asphx.
Ethylene chlorohydrin	203-459-7	107-07-3	-	-	1	3	Sk
Ethylenediamine	203-468-6	107-15-3	10	25	-	-	Sens.
Ethylene dibromide	203-444-5	106-93-4	0.5	4	-	-	Sk, Carc.1B
Ethylene dichloride, see 1, 2-Dichloroethane							
Ethylene dinitrate, see Ethylene glycol dinitrate							
Ethylene glycol, particulate & vapour, see Ethane-1,2-diol							
Ethylene glycol dinitrate	211-063-0	628-96-6	0.05	0.3			Sk
Ethylene glycol monobutyl ether, see 2-Butoxyethanol							
Ethylene glycol monoethyl ether, see 2-Ethoxyethanol							
Ethylene glycol monomethyl ether acetate, see 2-Methoxyethyl acetate							
Ethylene glycol monomethyl ether, see 2-Methoxyethanol							
Ethylenimine	205-793-9	151-56-4	0.05	0.1	-	-	Sk, Carc.1B, Muta.1B
Ethylene oxide	200-849-9	75-21-8	5	10	-	-	Carc.1B, Muta.1B
Ethyl ether, see Ether							
Ethyl formate	203-721-0	109-94-4	100	300	150	450	-
Ethyl hexanoic acid	205-743-6	149-57-5	-	5	-	-	-
2-Ethylhexyl chloroformate	246-278-9	24468-13-1	1	7.9	-	-	-
Ethylidene dichloride, see 1, 1-Dichloroethane							
Ethyl mercaptan, see Ethanethiol							
4-Ethylmorpholine	202-885-0	100-74-3	5	23	20	95	Sk
Ethyl silicate	201-083-8	78-10-4	10	85	-	-	-
Fenchlorphos (ISO), see Ronnel							
Ferbam (ISO)	238-484-2	14484-64-1	-	5	-	-	-
Ferrocene (Dicyclopentadienyl iron)	203-039-3	102-54-5	-	10	-	20	-
Ferrovanadium Dust	-	12604-58-9	-	1	-	3	-
Flour dust	-	-	-	1	-	-	Sens.
Fluoride (as F)	-	16984-48-8	-	2.5	-	-	-
Fluorides, inorganic	-	-	-	2.5	-	-	IOELV

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Fluorine	231-954-8	7782-41-4	1	1.58	2	3.16	IOELV
Fluorodichloromethane, see Dichlorofluoromethane							
Fluorotrichloromethane, see Trichlorofluoromethane							
Formaldehyde	200-001-8	50-00-0	0.2		0.4		Carc.1B, Sens.
Formamide	200-842-0	75-12-7	10	18			Repr.1B
Formic acid	200-579-1	64-18-6	5	9	-	-	IOELV
2-Furaldehyde (Furfural)	202-627-7	98-01-1	2	8	5	20	Sk
Furfuryl alcohol	202-626-1	98-00-0	10	40	15	60	Sk
Germane	231-961-6	7782-65-2	0.2	0.6	0.6	1.8	-
Germanium tetrahydride, see Germane							
Glutaraldehyde	203-856-5	111-30-8	-	-	0.05	0.2	Sens.
Glycerol, mist	200-289-5	56-81-5	-	10	-	-	-
Glycerol trinitrate	200-240-8	55-63-0	0.05	0.5			Sk
Glycidol	209-128-3	556-52-5	2	6	-	-	Carc.1B, Repr.1B
Glycol mono ethyl ether, see 2-ethoxyethanol							
Grain dust	-	-	-	10	-	-	Sens.
Graphite total inhalable dust respirable dust	231-153-3	7440-44-0	-	10	-	-	-
-	-	-	-	4	-	-	-
Guthion	201-676-1	86-50-0	-	0.2	-	0.6	Sk, Sens.
Gypsum total inhalable dust respirable dust		10101-41-4	-	10	-	-	-
-	-	-	-	4	-	-	-
Halothane	205-796-5	151-67-7	10	80	-	-	-
γ-HCH (ISO), see γ Hexachlorocyclohexane							
Helium	231-168-5	7440-59-7	-	-	-		Asphx.
Hafnium	231-166-4	7440-58-6	-	0.5	-	1.5	-
Heptachlor (ISO)	200-962-3	76-44-8	-	0.05	-		Sk
Heptachlor epoxide	213-831-0	1024-57-3		0.05			
n-Heptane	205-563-8	142-82-5	500	2085	-	-	IOELV
Heptan-2-one	203-767-1	110-43-0	50	238	100	475	Sk, IOELV
Heptan-3-one	203-388-1	106-35-4	20	95	-	-	IOELV
Hexachlorobutadiene	201-765-5	87-68-3	0.02	0.21	-	-	Sk
γ-Hexachlorocyclohexane	210-168-9	608-73-1	-	0.5	-	1.5	Sk
Hexachlorocyclopentadiene	201-029-3	77-47-4	0.01	0.1	-	-	-
Hexachloroethane vapour	200-666-4	67-72-1	1	10	-	-	-
Hexachloronaphthalene	215-641-3	1335-87-1	-	0.2	-	-	Sk
Hexafluoroacetone	211-676-3	684-16-2	0.1	0.68	-	-	Sk
Hexahydrophthalic anhydride	201-604-9	85-42-7	-	-	-	0.005	Sens.
All isomers (Inhalable)	236-086-3 238-009-9	13149-00-3 14166-21-3					
Hexahydro-1,3,5-trinitro-1,3,5-triazine	204-500-1	121-82-4	0.5		-		Sk
Hexamethylene diisocyanate (as -NCO)	212-485-8	822-06-0	0.005		-		Sens.
Hexane, all isomers except n-hexane	-	-	500	1800	1000	3600	-
n-Hexane	203-777-6	110-54-3	20	72	-	-	IOELV, Sk
1,6 Hexanediamine	204-679-6	124-09-4	0.5	2.3	-	-	-
1,6 Hexanolactam, dust & vapour: See ε-Caprolactam)							
Hexan-2-one	209-731-1	591-78-6	5	10	-	-	Sk
Hexone, see Methyl isobutyl ketone							
Hexylene glycol	203-489-0	107-41-5			25	125	-
Hydrazine	206-114-9	302-01-2	0.01	0.01	-	-	Sk, Carc.1B, Sens.
Hydrazoic acid (as vapour)	231-965-8	7782-79-8	-	-	0.1	-	-

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Hydrogen	215-605-7	1333-74-0	-	-	-	-	Asphx.
Hydrogenated terphenyls	262-967-7	61788-32-7	0.5	4.9	-	-	-
Hydrogen bromide	233-113-0	10035-10-6	-	-	2	6.6	IOELV
Hydrogen chloride	231-595-7	7647-01-0	5	8	10	15	IOELV
Hydrogen cyanide	200-821-6	74-90-8	-	-	10	10	Sk
Hydrogen fluoride (as F)	231-634-8	7664-39-3	1.8	1.5	3	2.5	Sk, IOELV
Hydrogen peroxide	231-765-0	7722-84-1	1	1.5	2	3	-
Hydrogen selenide (as Se), see dihydrogen selenide							
Hydrogen sulphide	231-977-3	7783-06-4	5	7	10	14	IOELV
Hydroquinone	204-617-8	123-31-9		0.5		-	Sens.
4-Hydroxy-4-methyl-pentan-2-one, see Diacetone alcohol							
2-Hydroxypropyl acrylate	213-663-8	999-61-1	0.5	3	-	-	Sk, Sens.
2,2'-Iminodiethanol, see Diethanol amine							
2,2'-Iminodi (ethylamine), see Diethylene triamine							
Indene	202-393-6	95-13-6	5	24			-
Indium & Compounds (as In)	231-180-0	7440-74-6	-	0.1	-	0.3	-
INN, see 1,2-Dichlorotetrafluoroethane							
Iodine	231-442-4	7553-56-2	-	-	0.1	1	-
Iodoform	200-874-5	75-47-8	0.6	10	1	20	-
Iodomethane, see methyl iodide							
Iron oxide, fume (as Fe)	215-168-2	1309-37-1	-	5	-	10	-
Iron pentacarbonyl, see Pentacarbonyl iron (as Fe)							
Iron salts (as Fe)	-	-	-	1	-	2	-
Isoamyl acetate, see isopentyl acetate							
Isoamyl alcohol	204-633-5	123-51-3	100	360	125	450	-
Isoamyl methyl ketone	203-737-8	110-12-3	20	95	-	-	IOELV
Isobutyl acetate	203-745-1	110-19-0	150	700	-	-	-
Isobutyl alcohol	201-148-0	78-83-1	50	150	75	225	-
Isobutyl methyl ketone, see methyl isobutyl ketone							
Isocyanates, All, (as -NCO) except Methyl isocyanate (CAS No. 624-83-9) and Toluene (2,4 or 2,6 diisocyanate (CAS No. 584-84-9, 91-08-7)	-	-	-	0.02	-	0.07	Sens.
Isoflurane	247-897-7	26675-46-7	50	380	-	-	-
Isoctyl alcohol (mixed isomers)	248-133-5	26952-21-6	50	270	-	-	-
Isopentyl acetate	204-662-3	123-92-2	50	260	100	520	IOELV
Isophorone, see 3,5,5-trimethyl cyclohex-2-enone							
Isophorone diisocyanate (IPDI) (as -NCO)	223-861-6	4098-71-9	0.005		-		Sens.
Isopropanoylethanol	203-685-6	109-59-1	25	106	-	-	Sk
Isopropyl acetate	203-561-1	108-21-4	100	-	200	-	-
Isopropyl alcohol	200-661-7	67-63-0	200	-	400	-	Sk
Isopropylamine	200-860-9	75-31-0	5	12	10	24	-
n-Isopropylaniline	212-196-7	768-52-5	2	11	-	-	Sk
Isopropyl benzene	202-704-5	98-82-8	20	100	50	250	Sk, IOELV
Isopropyl chloroformate	203-563-2	108-23-6	1	5	-	-	-
Isopropyl ether	203-560-6	108-20-3	250	1050	310	1320	-
Isopropyl glycidyl ether (IGE)	223-672-9	4016-14-2	50	240	75	360	-
Kaolin,respirable dust		1332-58-7	-	2	-	-	-
Kerosene see Diesel fuel							

Substance			Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes		
			EC No.	CAS No.	ppm	mg/m³			
Ketene	207-336-9	463-51-4			0.5	0.9	1.5	3	-
Lead (CAS No.:7439-92-1) and its compounds (except tetraethyl lead); [see Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No.619 of 2001)]	-	-			-	0.15	-	-	Repr.1A, BOELV
Limestone, see Calcium carbonate									
Lindane, see γ hexachlorocyclohexane									
Liquefied petroleum gas (LPG)	270-704-2	68476-85-7	1000	1800	1250	2250			-
Lithium hydride	231-484-3	7580-67-8	-	0.025	-	-	-		IOELV
Lithium hydroxide	215-183-4	1310-65-2	-	-	-	-	1		-
Magnesium oxide respirable dust fume total inhalable dust	215-171-9	1309-48-4	-	4	-	-	-		-
			-	5	-	-	10		-
			-	10	-	-	-		-
Malathion (ISO)	204-497-7	121-75-5	-	1 (IFV)	-	-	-		Sk, Sens.
Maleic anhydride	203-571-6	108-31-6	0.01 (IFV)	-	-	-	-		Sens.
Manganese, fume (as Mn)	231-105-1	7439-96-5	-	0.2 (I) 0.02 (R)	-	-	3		
Manganese and compounds (as Mn)	231-105-1	7439-96-5	-	0.2	-	-	-		-
Manganese cyclopentadienyl tricarbonyl	235-142-4	12079-65-1	-	0.1	-	-	0.3		Sk
Manganese tetraoxide, see Trimanganese tetraoxide									
Machine made mineral fibre (excluding refractory ceramic fibres) (MMMF)	-	-	1 fibres per milli litre of air	5	-	-	-		-
Marble, see Calcium carbonate									
MbOCA, See 4,4'Methylenebis (2-chloroaniline)									
MDA, see 4-4' - methylenedianiline									
MDI, see 4-4' - methylene-diphenyl diisocyanate									
Mequinol, see 4-methoxyphenol									
Mercaptoacetic acid	200-677-4	68-11-1	1	5	-	-	-		-
Mercury alkyls (as Hg)	-	-	-	0.01	-	-	0.03		Sk
Mercury & divalent inorganic mercury compounds	-	7439-97-6	-	0.02	-	-	-		IOELV Repr.1B
Mesitylene (also 1,3,5 trimethylbenzene)	203-604-4	108-67-8	20	100	-	-	-		IOELV
Mesityl oxide	205-502-5	141-79-7	15	60	25	100			-
Methacrylic acid	201-204-4	79-41-4	20	70	40	140			-
Methacrylonitrile	204-817-5	126-98-7	1	2.8	-	-			Sk
Methane (see aliphatic hydrocarbon gases)									
Methanethiol	200-822-1	74-93-1	0.5	1	-	-	-		-
Methanol	200-659-6	67-56-1	200	260	-	-	-		Sk, IOELV
Methomyl (ISO)	240-815-0	16752-77-5	-	2.5	-	-	-		Sk
Methoxychlor (ISO)	200-779-9	72-43-5	-	10	-	-	-		-
2-Methoxyethanol	203-713-7	109-86-4	1		-	-	-		Sk, Repr.1B, IOELV
2-(2-Methoxyethoxy)ethanol	203-906-6	111-77-3	10	50.1	-	-	-		Sk, IOELV
2-Methoxyethyl acetate	203-772-9	110-49-6	1		-	-	-		Sk, Repr.1B, IOELV
2-Methoxy-1-methylethylacetate	203-603-9	108-65-6	50	275	100	550			Sk, IOELV
(2-Methoxymethylethoxy)-l-propanol	252-104-2	34590-94-8	50	308	-	-	-		Sk, IOELV
4-Methoxyphenol	205-769-8	150-76-5	-	5	-	-	-		-
1-Methoxypropan-2-ol, see Propylene glycol monomethyl ether									
Methyl acetate	201-185-2	79-20-9	200	610	250	760			-

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m ³	ppm	mg/m ³	
Methyl acetylene	200-828-4	74-99-7	1000	1610	-	-	-
Methyl acrylate	202-500-6	96-33-3	5	18	10	36	Sk, IOELV, Sens.
Methylacrylonitrile, see methacrylonitrile							
Methylal	203-714-2	109-87-5	1000	3100	-	-	
Methyl alcohol, see Methanol							
Methylamine	200-820-0	74-89-5	5	6	15	19	-
Methyl-n-amyl-ketone, see Heptan-2-one							
N-Methylaniline	202-870-9	100-61-8	0.5	2	-	-	Sk
Methyl bromide, See Bromomethane							
3-Methylbutan-1-ol, see Isoamyl alcohol							
1-Methyl butyl acetate	210-946-8	626-38-0	50	270	100	540	IOELV
Methyl chloride, See Chloromethane							
Methyl chloroform, see 1,1,1-trichloroethane							
Methyl 2-cyanoacrylate	205-275-2	137-05-3	0.2	1	-	-	-
Methylcyclohexane	203-624-3	108-87-2	400	1600			-
Methylcyclohexanol	247-152-6	25639-42-3	50	235	-	-	-
2-Methylcyclohexanone	209-513-6	583-60-8	50	230	75	345	Sk
Methylcyclopentadienyl manganese, tricarbonyl (as Mn), see Tricarbonyl (methylcyclopentadienyl) manganese							
2-Methyl-4, 6-dinitrophenol, see Dinitro-o-cresol							
4,4'Methylenebis-(2-chloroaniline)	202-918-9	101-14-4	-	0.005	-	-	Sk Carc.1B
Methylene chloride, see Dichloromethane							
4,4'-Methylene-diphenyl diisocyanate (as —NCO)	202-966-0	101-68-8	-	0.02	-	0.07	Sens.
4,4'-Methylenedianiline, see 4,4' Diaminodiphenyl-methane (DADPM)							
Methyl ethyl ketone (MEK)	201-159-0	78-93-3	200	600	300	900	Sk, IOELV
Methyl ethyl ketone peroxides (MEKP)	215-661-2	1338-23-4	-	-	0.2	1.5	-
Methyl ethyl ketoxime	202-496-6	96-29-7	3	10	10	33	Sens.
Methyl formate	203-481-7	107-31-3	100	250	150	375	Sk
5-Methylheptan-3-one	208-793-7	541-85-5	10	53	20	107	IOELV
5-Methylhexan-2-one, see Isoamyl methyl ketone							
Methylhydrazine	200-471-4	60-34-4	0.01	0.02	-	-	Sk, Carc.1B
Methyl iodide	200-819-5	74-88-4	2	11	-	-	Sk
Methyl isoamyl ketone, see Isoamyl methyl ketone							
Methyl isobutyl carbinol	203-551-7	108-11-2	25	100	40	160	Sk
Methyl isobutyl ketone (MIBK)	203-550-1	108-10-1	20	83	50	208	Sk, IOELV
Methyl isocyanate (as -NCO)	210-866-3	624-83-9	-	-	0.02		Sens., IOELV
Methyl isopropyl ketone	209-264-3	563-80-4	20	70.5	-	-	-
Methyl mercaptan, see Methanethiol							
Methyl methacrylate	201-297-1	80-62-6	50	-	100	-	IOELV, Sens.
Methyl parathion, see Parathion-methyl (ISO)							
2-Methylpentane-2,4-diol, see Hexylene glycol							
4-Methylpentan-2-ol, see Methyl isobutyl carbinol							
4-Methylpentan-2-one, see Methyl isobutyl ketone							



Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
4-Methylpent-3-en-2-one, see Mesityl oxide							
4-Methyl-m-phenylene diisocyanate (as -NCO)	-	-	-	0.02	-	0.07	Sens.
2-Methylpropan-1-ol, see Iso-butyl alcohol							
2-Methylpropan-2-ol	200-889-7	75-65-0	100	300	150	450	-
Methyl propyl ketone, see Pentan-2-one							
1-Methyl-2-pyrrolidone	212-828-1	872-50-4	10	40	20	80	Sk, IOELV
Methyl silicate	211-656-4	681-84-5	1	6	-	-	-
α-Methylstyrene, see 2-Phenylpropene							
Methylstyrene, all isomers	246-562-2	25013-15-4	50	242	10	483	-
N-Methyl-N, 2,4,6-tetranitro-aniline, see Tetryl							
Methyl vinyl ketone	201-160-0	78-94-4	0.2	-	-	-	Sk, Sens.
Metribuzin	244-209-7	21087-64-9		5	-	-	-
Mevinphos (ISO)	232-095-1	7786-34-7	0.01	0.1	-	-	Sk
Mica total inhalable dust respirable dust	-	12001-26-2					
			-	10	-	-	-
			-	0.8	-	-	-
Mineral oil Pure, Highly & Severely Refined (Inhalable)	-	-	-	5	-	-	-
			-	-	-	-	-
Mineral wool	-	-	2 fibres per millilitre of air	5	-	-	-
Molybdenum compounds (as Mo), soluble compounds insoluble compounds	231-107-2	7439-98-7	-	0.5 (R) 10 (I) 3 (R)	-		
Monochloroacetic acid	201-178-4	79-11-8	0.5 (IFV)	2	-	-	Sk
Monocrotaphos	230-042-7	6923-22-4	-	0.25	-	-	Sk
Morpholine	203-815-1	110-91-8	10	36	20	72	Sk, IOELV
Naled (ISO), see 1,2 dibromo-2, 2 dichloro ethyl dimethyl phosphate							
Naphtha (rubber solvent)	232-443-2	8030-30-6			-	-	Carc.1B
Naphthalene	202-049-5	91-20-3	10	50	15	75	IOELV
β-Naphthylamine	202-080-4	91-59-8	-	-	-	-	Carc.1A
1,5-Naphthylene diisocyanate (as -NCO)	221-641-4	3173-72-6	-		-		Sens.
Neon	231-110-9	7440-01-9	-	-	-	-	Asphx.
Nickel	231-111-4	7440-02-0	-	0.5	-	-	Sens.
Nickel carbonyl	236-669-2	13463-39-3	0.05	0.12	-	-	Repr.1B
Nickel, inorganic compounds (as Ni) soluble compounds insoluble compounds	-	-	-	0.1	-	-	-
			-	0.5	-	-	-
Nickel, organic compounds (as Ni)	-	-	-	1	-	3	-
Nicotine	200-193-3	54-11-5	-	0.5	-	-	Sk, IOELV
Nitrapyrin	217-682-2	1929-82-4	-	10	-	20	-
Nitric acid	231-714-2	7697-37-2	-	-	1	2.6	IOELV
Nitric oxide	233-271-0	10102-43-9	25	30	35	45	IOELV
4-Nitroaniline	202-810-1	100-01-6	-	3	-	-	Sk
Nitrobenzene	202-716-0	98-95-3	0.2	1	-	-	Sk, IOELV
4-Nitrodiphenyl	202-204-7	92-93-3	-	-	-	-	Sk, Carc.1B
Nitroethane	201-188-9	79-24-3	100	310	-	-	-
Nitrogen	231-783-9	7727-37-9	-	-	-	-	Asphx.
Nitrogen dioxide	233-272-6	10102-44-0	3	5	5	9	-

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Nitrogen monoxide, See nitric oxide							
Nitrogen trifluoride	232-007-1	7783-54-2	10	30	-	-	-
Nitroglycerine, see Glycerol trinitrate							
Nitromethane	200-876-6	75-52-5	20	50			-
1-Nitropropane	203-544-9	108-03-2	25	90	-	-	-
2-Nitropropane	201-209-1	79-46-9	5	18	-	-	Carc.1B
2-Nitrotoluene	201-853-3	88-72-2	2	11			Carc.1B Muta.1B
3-Nitrotoluene	202-728-6	99-08-1	2	11			
4-Nitrotoluene	202-808-0	99-99-0					
Nitrous oxide	233-032-0	10024-97-2	50	90	-	-	-
Nonane, all isomers	203-913-4	111-84-2	200	1050	-	-	-
Octachloronaphthalene	218-778-7	2234-13-1	-	0.1	-	0.3	Sk
n-Octane	203-892-1	111-65-9	300	1450	-	-	-
Orthophosphoric acid	231-633-2	7664-38-2	-	1	-	2	IOELV
Osmium tetroxide (as Os)	244-058-7	20816-12-0	.0002	0.002	0.0006	0.006	-
Oxalic acid	205-634-3	144-62-7	-	1	-	-	IOELV
Oxalonitrile, see Cyanogen							
2,2'-Oxydiethanol, see Diethylene glycol							
Oxygen difluoride	231-996-7	7783-41-7	0.05	0.11	0.05	0.11	-
Ozone	233-069-2	10028-15-6					
Heavy work		0.05	-	-	-	-	-
Moderate work		0.08	-	-	-	-	-
Light work		0.10	-	-	-	-	-
Heavy, moderate or light workloads (≤ 2 hrs)		0.20	-	-	-	-	-
Paracetamol, total inhalable dust	203-157-5	103-90-2	-	10	-	-	-
Paraffin wax, fume	232-315-6	8002-74-2	-	2	-	6	-
Paraquat dichloride (ISO) respirable dust	217-615-7	1910-42-5	-	0.08	-	-	-
Parathion (ISO)	200-271-7	56-38-2	-	0.1	-	-	Sk
Parathion-methyl (ISO)	206-050-1	298-00-0	-	0.02 (IFV)	-		Sk
Pentaborane	243-194-4	19624-22-7	0.005	0.01	0.015	0.039	-
Pentachloronaphthalene	215-320-8	1321-64-8	-	0.5	-	-	Sk
Pentachloronitrobenzene	201-435-0	82-68-8	-	0.5	-	-	Sens.
Pentacarbonyl iron (as Fe)	236-670-8	13463-40-6	0.01	0.08	-	-	-
Pentachlorophenol	201-778-6	87-86-5	-	0.5	-	-	Sk
Pentaerythritol	204-104-9	115-77-5					
total inhalable dust		-	10	-	20	-	-
respirable dust		-	4	-	-	-	-
n-Pentane	203-692-4	109-66-0	1000	3000	-	-	IOELV
iso-Pentane	201-142-8	78-78-4					
neo-Pentane	207-343-7	463-82-1					
2,4-Pentanedione	204-634-0	123-54-6	25		-	-	
Pantan-2-one	203-528-1	107-87-9	200	700	250	875	-
Pantan-3-one	202-490-3	96-22-0	200	700	250	875	-
Pentyl acetate	211-047-3	628-63-7	50	270	100	540	IOELV
3-Pentylacetate	211-047-3	620-11-1	50	270	100	540	IOELV
Perchloroethylene, see Tetrachloroethylene							
Perchloromethyl mercaptan	209-840-4	594-42-3	0.1	0.76	-	-	-
Perchloryl fluoride	231-526-0	7616-94-6	3	14	6	28	-
Perfluoroisobutylene		382-21-8	0.01	0.082	0.01	0.082	-
Persulphate salts, inorganic;							
Ammonium persulphate	231-786-5	7727-54-0		0.1			Sens.
Potassium persulphate	231-781-8	7727-21-1		0.1			Sens.
Sodium persulphate	231-892-1	7775-27-1		0.1			Sens.

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Phenacyl chloride, see 2-Chloroacetophenone							
Phenol	203-632-7	108-95-2	2	8	4	16	Sk, IOELV
p-Phenylenediamine	203-404-7	106-50-3	-	0.1	-	-	Sk
Phenyl-2,3-epoxypropyl ether	204-557-2	122-60-1	0.1	0.6	-	-	Carc.1B
Phenylethylene, see Styrene							
Phenyl glycidyl ether, see Phenyl-2,3-epoxypropyl ether							
Phenylhydrazine	202-873-5	100-63-0	0.1	0.44	-	-	Carc.1B, Sk
Phenyl mercaptan, see Benzenethiol							
2-Phenylpropene	202-705-0	98-83-9	50	246	100	492	IOELV
Phorate (ISO)	206-052-2	298-02-2	-	0.05	-	0.2	Sk
Phosdrin, see Mevinphos (ISO)							
Phosgene	200-870-3	75-44-5	0.02	0.08	0.1	0.4	IOELV
Phosphine	232-260-8	7803-51-2	0.1	0.14	0.2	0.28	IOELV
Phosphoric acid, see Orthophosphoric acid							
Phosphorus, yellow	231-768-7	7723-14-0	-	0.1	-	0.3	-
Phosphorus, pentachloride	233-060-3	10026-13-8	-	1	-	-	IOELV
Phosphorus pentasulphide	215-242-4	1314-80-3	-	1	-	-	IOELV
Phosphorus trichloride	231-749-3	7719-12-2	0.2	1.5	0.5	3	-
Phosphoryl trichloride	233-046-7	10025-87-3	0.2	1.2	0.6	3.6	-
Phthalic anhydride	201-607-5	85-44-9	-	4	-	12	Sens.
Picloram (ISO)	217-636-1	1918-02-1	-	10	-	20	-
Picric acid	201-865-9	88-89-1	-	0.1	-	0.3	Sk, IOELV
Piperazine	203-808-3	110-85-0	-	0.1	-	0.3	Sens., IOELV
Piperidine	203-813-0	110-89-4	1	3.5	-	-	Sk
Plaster of Paris total inhalable dust respirable dust	-	26499-65-0	-	10	-	-	-
			-	4	-	-	-
Platinum metal	231-116-1	7440-06-4	-	1	-	-	IOELV
Platinum salts, soluble (as Pt)	231-116-1	7440-06-4	-	0.002	-	-	-
Polychlorinated biphenyls (PCBs), see Chlorinated biphenyls							
Polyvinyl chloride (PVC) total inhalable dust respirable dust	-	9002-86-2	-	10 1(R)	-	-	-
Portland Cement	266-043-4	65997-15-1	-	1(R)	-	-	-
			-	-	-	-	-
Potassium hydroxide	215-181-3	1310-58-3	-	-	-	2	-
Propane (see aliphatic hydrocarbon gases)							
Propane-1,2-diol total (vapour and particulates) particulates	200-338-0	57-55-6	150 -	470 10	-	-	-
1,3-Propane sultone	214-317-9	1120-71-4	-	-	-	-	Carc.1B
n-Propanol	200-746-9	71-23-8	100	-	-	-	Sk
Propan-1-ol see n-Propanol							
Propan-2-ol, see Isopropyl alcohol							
Propargyl alcohol, see Prop-2-yn-1-ol							
Propiolactone	200-340-1	57-57-8	0.5	1.5	-	-	Carc.1B
Propionic acid	201-176-3	79-09-4	10	31	20	62	IOELV
Propouxur (ISO)	204-043-8	114-26-1	-	0.5	-	2	-
n-Propyl acetate	203-686-1	109-60-4	200	840	250	1050	-
n-Propyl alcohol, see n-Propanol							
Propylene	204-062-1	115-07-1	500	-	-	-	Asphx.

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Propylene dinitrate (PGDN)	229-180-0	6423-43-4	0.05	0.3	-	-	Sk
Propylene dichloride	201-152-2	78-87-5	10	46	-	-	-
Propylene glycol, see propane-1,2-diol							
Propylene glycol dinitrate, see propylene dinitrate							
Propylene glycol monomethyl ether	203-539-1	107-98-2	100	375	150	568	IOELV
Propyleneimine	200-878-7	75-55-8	0.2	-	0.4	-	Carc.1B
Propylene oxide	200-879-2	75-56-9	5	12	-	-	Carc.1B, Muta.1B
n-Propyl nitrate	210-985-0	627-13-4	25	107	40	172	-
2-Propyn-1-ol	203-471-2	107-19-7	1	2	3	6	Sk
Pulverised fuel ash	-	-					
total inhalable dust				-	10	-	-
respirable				-	4	-	-
Pyrethrins (ISO)	232-319-8	8003-34-7	-	1	-	-	IOELV
Pyrethrum, see pyrethrins							
Pyridine	203-809-9	110-86-1	5	15	10	30	IOELV
2-Pyridylamine, see 2-Amino pyridine							
Pyrocatechol, see Catechol							
Quartz, respirable dust, (see Silica, crystalline)	238-878-4	14808-60-7	-	0.1	-	-	
Quinone	203-405-2	106-51-4	0.1	0.4	-	-	-
RDX, see hexahydro-1,3,5-trinitro-1,3,5-triazine							
Refractory Ceramic Fibres (RCFs)	-	-	-	5mg/m³ (1 fibre/ml)	-	-	Carc.1B
Resorcinol	203-585-2	108-46-3	10	45	-	-	Sk, IOELV
Rhodium (as Rh), metal fume and dust soluble salts	231-125-0	7440-16-6			0.1	-	0.3
					0.001	-	0.003
Ronnel	206-082-6	299-84-3	-	5	-	-	-
Rosin core solder pyrolysis products (as airborne total resin acid)	-	-	-	0.05	-	0.15	Sens.
Rotenone (ISO)	201-501-9	83-79-4	-	5	-	10	-
Rouge	215-168-2	1309-37-1			10	-	-
total inhalable dust				-	4	-	-
respirable dust							
Rubber fume process dust	-	-			0.6	-	-
					6	-	-
Rubber solvent (naphtha), see Naphtha (rubber solvent)							
Selenium and compounds, except hydrogen selenide(as Se)	231-957-4	7782-49-2	-	0.1	-	-	-
Selenium hexafluoride		7783-79-1	0.05	0.16	-	-	-
Sesone, see Sodium 2-(2,4-dichlorphenoxy) ethyl sulphate							
Silane	232-263-4	7803-62-5	0.5	0.7	1	1.5	-
Silica, amorphous	-	-			6	-	-
total inhalable dust					2.4	-	-
respirable dust							
Silica, crystalline, respirable dust, (See Cristobalite, Quartz, Tridymite, Tripoli)	-	-		0.1	-	-	
Silica, fused respirable dust		60676-86-0		0.08	-	-	
Silicon Si	231-130-8	7440-21-3			10	-	-
total inhalable dust					4	-	-
respirable dust							



Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Silicon carbide total inhalable dust respirable dust	206-991-8	409-21-2	-	10	-	-	
			-	4	-	-	
Silicon tetrahydride, see Silane							
Silver (metallic)	231-131-3	7440-22-4	-	0.1	-	-	IOELV
Silver (soluble compounds as Ag)	-	-	-	0.01	-	-	IOELV
Sodium azide (as NaN ₃)	247-852-1	26628-22-8	-	0.1	-	0.3	Sk, IOELV
Sodium bisulfite	231-548-0	7631-90-5	-	5	-	-	-
Sodium 2-(2,4-dichlorophenoxy)ethyl sulphate	205-259-5	136-78-7	-	10	-	20	-
Sodium fluoroacetate	200-548-2	62-74-8	-	0.05	-	-	Sk
Sodium hydrogensulphite, see Sodium bisulfite							
Sodium hydroxide	215-185-5	1310-73-2	-		-	2	-
Sodium metabisulphite, see Disodium disulphite							
Starch total inhalable dust respirable dust	232-679-6	9005-25-8	-	10	-	-	-
			-	4	-	-	-
Stearates (except lead stearate)	-	-	-	10	-	-	-
Stibine	7803-52-3	0.1	0.5	-	-	-	-
Stoddard solvent	232-489-3	8052-41-3	100	573	-	-	Carc.1B Muta.1B
Strontium chromate	232-142-6	7789-06-2	-	0.0005	-	-	Carc.1B
Strychnine	200-319-7	57-24-9	-	0.15	-	-	-
Styrene	202-851-5	100-42-5	20	85	40	170	-
Subtilisins (proteolytic enzymes as 100% pure crystalline enzyme)	232-752-2	9014-01-1	-	0.00006	-	0.00006	Sens.
Sucrose	200-334-9	57-50-1	-	10	-	20	-
Sulphotep (TEDP)(ISO), see O,O,O,O'-Tetraethyl dithiopyrophosphate(ISO)							
Sulphur dioxide	231-195-2	7446-09-5	0.5	1.3	1	2.6	-
Sulphur hexafluoride	219-854-2	2551-62-4	1000	6000	1250	7500	-
Sulphuric acid	231-639-5	7664-93-9	-	0.05	-	-	IOELV
Sulphur monochloride	233-036-2	10025-67-9	-	-	1	6	-
Sulphur pentafluoride, see Disulphur decafluoride							
Sulphur tetrafluoride	232-013-4	7783-60-0	0.1	0.4	0.3	1	-
Sulphuryl difluoride	220-281-5	2699-79-8	5	20	10	40	-
Sulprofus	252-545-0	35400-43-2	-	0.1 (IFV)	-	-	-
2,4,5-T (ISO)2,4,5-Trichloro-phenoxyacetic acid)	202-273-3	93-76-5	-	10	-	20	-
TDI, see Toluene diisocyanate							
TEDP(ISO), see O,O,O,O'-Tetraethyl dithiopyrophosphate							
TEPP (ISO), see O,O,O,O'-Tetraethyl pyrophosphate							
TNT, see 2,4,6-trinitrotoluene							
Talc total inhalable dust respirable dust	238-877-9	14807-96-6	-	10	-	-	
			-	0.8	-	-	
Tantalum	231-135-5	7440-25-7	-	5	-	10	-
Tellurium & compounds, except hydrogen telluride, (as Te)	236-813-4	13494-80-9	-	0.1	-	-	-
Temephos	222-191-1	3383-96-8	-	1	-	-	-
Terephthalic acid	202-830-0	100-21-0	-	10	-	-	-
Terphenyls, all isomers	247-477-3	26140-60-3	-	-	0.5	5	-
1,1,2,2-Tetrabromoethane	201-191-5	79-27-6	0.1 (IFV)		-	-	Sk

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Tetrabromomethane, see Carbon tetrabromide							
Tetracarbonylnickel(as Ni),see nickel carbonyl							
1,1,2-Tetrachloro-2,2-difluoroethane	200-934-0	76-11-9	100	834	100	834	-
1,1,2,2-Tetrachloro-1,2-difluoroethane	200-935-6	76-12-0	50	417			-
1,1,2,2, Tetrachloroethane	201-197-8	79-34-5	1	6.9	-	-	Sk
Tetrachloroethylene	204-825-9	127-18-4	25	170	100	678	-
Tetrachloromethane, see carbon tetrachloride							
Tetrachloronaphthalenes, all isomers	215-642-9	1335-88-2	-	2	-	-	-
O,O,O'- Tetraethyl dithio-pyrophosphate(ISO)	222-995-2	3689-24-5	-	0.1	-	-	Sk, IOELV
O,O,O'-Tetraethyl pyrophosphate(ISO)	203-495-3	107-49-3	0.0008	0.01			Sk
Tetraethyl lead	201-075-4	78-00-2	-	0.10	-	-	Sk,
Tetraethyl orthosilicate, see Ethyl silicate							
Tetrafluorodichloroethane, see 1,2-Dichlorotetrafluoro-ethane							
Tetrahydrofuran	203-726-8	109-99-9	50	150	100	300	Sk, IOELV
Tetramethyl lead	200-897-0	75-74-1	-	0.15	-	-	Sk Repr.1A
Tetramethyl orthosilicate, see Methyl silicate							
Tetramethyl succinonitrile		3333-52-6	0.5	3	-	-	Sk
Tetranitromethane	208-094-7	509-14-8	0.005	0.040	-	-	-
Tetrasodium pyrophosphate	231-767-1	7722-88-5	-	5	-	-	-
Tetryl	207-531-9	479-45-8	-	1.5	-	3	Sk
Thallium and compounds (as Tl)	231-138-1	7440-28-0	-	0.1	-		Sk
4,4'-Thiobis (6-tert- butyl-m-cresol), see 6,6'-di-tert-butyl-4,4'-thio-di-m-cresol							
Thioglycollic acid, see Mercapto acetic acid							
Thionyl chloride	231-748-8	7719-09-7	-	-	0.2	1.0	-
Thiram (ISO)	205-286-2	137-26-8	-	0.05 (IFV)	-		
Tin, as Sn Metal Oxide & inorganic compounds, except tin hydride Organic compounds	231-141-8	7440-31-5	-	2 2 0.1	-	0.2	IOELV
Titanium dioxide total inhalable dust respirable dust	236-675-5	13463-67-7	- -	10 4	-	-	-
o-Tolidine	204-358-0	119-93-7	-	-	-	-	Sk Carc.1B
Toluene	203-625-9	108-88-3	50	192	100	384	Sk, IOELV
Toluene-2,4- or 2,6- diisocyanate (as -NCO)	209-544-5	584-84-9 91-08-7	0.001 (IFV)		0.003 (IFV)		Sens.
p-Toluenesulphonyl chloride	202-684-8	98-59-9	-	-	-	5	-
o-Toluidine	202-429-0	95-53-4	0.2	0.9	-	-	Sk Carc.1B
m-Toluidine	203-583-1	108-44-1	0.2	0.9	-	-	Sk
p-Toluidine	203-403-1	106-49-0	0.2	0.9	-	-	Sk
1,4,7-Tri-(aza)-heptane, see Diethylene triamine							
Tribromomethane	200-854-6	75-25-2	0.5	5	-	-	Sk
Tributyl phosphate, all isomers	204-800-2	126-73-8	0.2		-		-
Tricarbonyl (etacyclopenta- dienyl) manganese (as Mn), see Manganese cyclopentadienyl tricarbonyl							

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
Tricarbonyl (methylcyclopentadienyl) manganese (as Mn),	235-166-5	12108-13-3	-	0.2	-	-	Sk
Trichloroacetic acid	200-927-2	76-03-9	1	5	-	-	-
1,2,4-Trichlorobenzene	204-428-0	120-82-1	2	15.1	5	37.8	Sk, IOELV
1,1,1-Trichlorobis (chlorophenyl) ethane	200-024-3	50-29-3	-	1	-	-	-
1,1,1-Trichloroethane	200-756-3	71-55-6	100	555	200	1110	IOELV
1,1,2-Trichloroethane	201-166-9	79-00-5	10	45	-	-	Sk
Trichloroethylene	201-167-4	79-01-6	10		25		Sk, Carc.1B
Trichlorofluoromethane	200-892-3	75-69-4			1000	5619	-
Trichloromethane, see Chloroform							
Trichloronaphthalene	215-321-3	1321-65-9	-	5	-	-	Sk
Trichloronitromethane, see Chloropicrin							
2,4,5-Trichlorophenoxyacetic acid ((2,4,5-T)(ISO))	202-273-3	93-76-5	-	10	-	-	-
1,2,3-Trichloropropane	202-486-1	96-18-4	10	60			Carc.1B Repr.1B
1,1,2-Trichlorotri-fluoroethane	200-936-1	76-13-1	1000	7600	1250	9500	-
Tri-o-cresyl phosphate, see Tri-o-tolyl phosphate							
Tricyclohexyltin hydroxide	236-049-1	13121-70-5	-	5	-	10	-
Tridymite, respirable dust (see Silica, Crystalline)	239-487-1	15468-32-3	-	0.1	-	-	
Triethanolamine	203-049-8	102-71-6	-	5	-	-	
Triethylamine	204-469-4	121-44-8	2	8.4	3	12.6	Sk, IOELV
Trifluorobromomethane	200-887-6	75-63-8	1000	6100	-	-	-
Triglycidyl isocyanurate, TGIC	219-514-3	2451-62-9	-	0.05	-	-	Muta.1B
Trimanganese tetraoxide	215-266-5	1317-35-7	-	0.5	-	-	-
Trimellitic anhydride	209-008-0	552-30-7	-	0.0005	-	0.002	Sens.
Trimethylamine	200-875-0	75-50-3	5				-
1,2,3 – Trimethylbenzene	208-394-8	526-73-8	20	100	-	-	Sk, IOELV
1,2,4 – Trimethylbenzene	202-436-9	95-63-6	20	100	-	-	IOELV
Trimethylbenzenes, all isomers or mixtures	247-099-9	25551-13-7	20	100	-	-	Sk, IOELV
3,5,5-Trimethylcyclohex-2-enone	201-126-0	78-59-1	-	-	5	25	-
Trimethyl phosphite	204-471-5	121-45-9	2	10	-	-	-
2,4,6-Trinitrophenol, see Picric acid							
2,4,6-Trinitrotoluene	204-289-6	118-96-7	-	0.1	-	-	Sk
Triorthocresyl phosphate, see Tri-o-tolyl phosphate,							
Triphenyl phosphate	204-112-2	115-86-6	-	3	-	6	-
Tripoli, respirable dust (see Silica, Crystalline)		1317-95-9	-	0.1	-	-	-
Tri-o-tolyl phosphate	201-103-5	78-30-8	-	0.1	-	0.3	-
Tungsten (as W), Metal and insoluble compounds	231-143-9	7440-33-7	-	5	-	10	-
Soluble compounds			-	1	-	3	-
Turpentine	232-350-7	8006-64-2	20	112	150	840	Sens.
Uranium compounds, natural, soluble, (as U)	231-170-6	7440-61-1	-	0.2	-	0.6	-
n-Valeraldehyde	203-784-4	110-62-3	50	176	-	-	Sens.
Vanadium pentoxide, see Divanadium pentoxyde							
Vinyl acetate	203-545-4	108-05-4	5	18	10	35	IOELV
Vinyl benzene, see styrene							
Vinyl bromide	209-800-6	593-60-2	0.5	2.2	-	-	Carc.1B
Vinyl chloride(VCM)	200-831-0	75-01-4	3	7.77	-	-	Carc.1A, BOELV

Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
			ppm	mg/m³	ppm	mg/m³	
4-Vinylcyclohexene	202-848-9	100-40-3	0.1	0.4	-	-	-
4-Vinylcyclohexene dioxide	203-437-7	106-87-6	0.1	0.6	-	-	-
Vinyl fluoride	200-832-6	75-02-5	1	-	-	-	
Vinylidene chloride, see 1,1-Dichloroethylene							
Vinylidene fluoride	200-867-7	75-38-7	500	-	-	-	Carc.1A Muta.1B
N-Vinyl -2-pyrrolidone	201-800-4	88-12-0	0.05	-	-	-	
Vinyl toluene, all isomers, see Methylstyrene							
VM and P Naptha	232-453-7	8032-32-4			-	-	Carc.1B Muta.1B
Warfarin (ISO)	201-377-6	81-81-2	-	0.1	-	0.3	Repr1A
White spirit, see Stoddard solvent							
Wood dust, (soft wood)	-	-	-	5	-	-	Sens.
Wood dust, (hard wood)	-	-	-	5	-	-	Sens., BOELV
Xylene, mixed isomers	215-535-7	1330-20-7	50	221	100	442	Sk, IOELV
Xylene, o-isomer	202-422-2	95-47-6	50	221	100	442	Sk, IOELV
Xylene m-isomer	203-576-3	108-38-3	50	221	100	442	Sk, IOELV
Xylene p-isomer	203-396-5	106-42-3	50	221	100	442	Sk, IOELV
Xyldidine, all isomers	215-091-4	1300-73-8	0.5 (IFV)	2.5			Sk
Yttrium	231-174-8	7440-65-5	-	1	-	3	-
Zinc chloride, fume	231-592-0	7646-85-7	-	1	-	2	-
Zinc chromates	236-878-9	13530-65-9	-	0.01	-	-	Carc.1A
Zinc distearate total inhalable dust respirable dust	209-151-9	557-05-1					
			-	10	-	20	-
			-	4	-	-	-
Zinc oxide, fume	215-222-5	1314-13-2	-	2 (R)	-	10	-
Zirconium compounds (as Zr)	231-176-9	7440-67-7	-	5	-	10	-

SCHEDULE 2

List of chemical agents for which it is the intention of the Health and Safety Authority to introduce an Occupational Exposure Limit Value (OELV) or to change the existing OELV in the next Code of Practice

Chemical Agents typed in bold face are proposed new entrants

Comments may be made in writing to the Chemicals and Prevention Division of the Health and Safety Authority at Hebron House, Hebron Road, Kilkenny or its headquarters, Metropolitan Building, James Joyce Street, Dublin 1, Local: 1890 289 389 or e-mail wcu@hsa.ie concerning any of the limits referred to in this Schedule.

Substance	EC No.	CAS No.	2014-OELV (8-hour reference period except where STEL indicated)	New CoP-OELV (8 hour reference period except where STEL indicated)
Acetaldehyde	200-836-8	75-07-0	25 ppm; 45 mg/m ³ (25 ppm; 45 mg/m ³ – STEL)	25 ppm; 45 mg/m ³ – STEL only
Acetone cyanohydrin as CN	200-909-4	75-86-5	-	5mg/m³ (STEL)
Acrolein	203-453-4	107-02-8	0.1 ppm (8hr) 0.3 ppm (STEL)	0.1 ppm (STEL only)
Adiponitrile	203-896-3	111-69-3	-	2 ppm
Alachlor		15972-60-8	-	1 mg/m³ (IFV)
Aldrin	206-215-8	309-00-2	0.05 mg/m ³ (IFV) (8hr) 0.75mg/m ³ (IFV)(STEL)	STEL to be deleted
Alkanes (C1 – C4)				
Ethane	220-814-8	74-84-0	1000	OELV not recommended for simple asphyxiant because limiting factor is available O ₂
Methane	200-812-7	74-82-8	1000	
Propane	200-827-9	74-98-6	1000	
2-Aminopyridine	207-988-4	504-29-0	0.5 ppm (8hr) 2 ppm (STEL)	STEL to be deleted
Ammonium sulphamidate	231-871-7	7773-06-0	10 mg/m ³ (8hr), 20 mg/m ³ (STEL)	STEL to be deleted
Antimony hydride		7803-52-3	-	0.1 ppm
Asphalt (Bitumen), petroleum fumes, (inhalable fraction)	232-490-9	8052-42-4	0.5 mg/m ³ (8hr) 10 mg/m ³ (STEL)	STEL to be deleted
Atrazine	217-617-8	1912-24-9	10 mg/m ³	2 mg/m ³
Azinphos-methyl (ISO), Guthion	201-676-1	86-50-0	0.2 mg/m ³ (8hr), 0.6 mg/m ³ (STEL)	STEL to be deleted
Barium sulphate	231-784-4	7727-43-7	2 mg/m ³	5 mg/m ³
Benomyl (ISO)	241-775-7	17804-35-2	10 mg/m ³ (8hr), 15 mg/m ³ (STEL)	STEL to be deleted
Benzenthiol	203-635-3	108-98-5	0.5 ppm	OELV to be withdrawn
Benzoyl Chloride	202-710-8	98-88-4	-	STEL 0.5 ppm
Benzoyl peroxide		94-36-02	-	5 mg/m³
Benzyl acetate	205-37-99-7	140-11-4	-	10 ppm
Benzyl chloride	202-853-6	100-44-7	1 ppm (8hr), 1.5 ppm (STEL)	STEL to be deleted
Borates, (tetra) sodium anhydrous decahydrate pentahydrate	215-540-4	1330-43-4 1303-96-4 12179-04-3	1 mg/m ³ 5 mg/m ³ 1 mg/m ³	Borate compounds inorganic (1303-96-4; 1330-43-4; 10043-35-3; 12179-04-3) 2 mg/m ³
Boron oxide	215-125-8	1303-86-2	10 mg/m ³ (8hr), 20 mg/m ³ (STEL)	STEL to be deleted
1-Bromopropane (n-Propyl bromide)	203-445-0	106-94-5	-	0.1 ppm
Butane, all isomers	203-448-7 200-857-2	106-97-8 75-28-5	1000 ppm (8 hr)	1000 (STEL)
Butenes, all isomers incl. Isobutene (115-11-7)		106-98-9 107-01-7 115-11-7 590-18-4 624-64-6 25167-67-3	-	250 ppm
sec-Butyl acetate	203-300-1	105-46-4	200 ppm (8hr); 250 ppm (STEL)	STEL to be deleted
tert-Butyl acetate	208-760-7	540-88-5	200 ppm (8hr); 250 ppm (STEL)	STEL to be deleted
tert-Butyl chromate		1189-85-1	0.1 mg/m ³ (8hr); 0.1 mg/m ³ (STEL)	STEL only
Tert-Butyl-methyl ether	216-653-1	1634-04-4	50 ppm (8hr), 100 ppm (STEL)	STEL to be deleted

Substance	EC No.	CAS No.	2014-OELV (8-hour reference period except where STEL indicated)	New CoP-OELV (8 hour reference period except where STEL indicated)
Cadmium compounds, except cadmium oxide fume and cadmium sulphide pigments (as Cd)		7440-43-9	0.01 mg/m ³ 0.002 (R) mg/m ³	Cadmium and compounds, as Cd.
Cadmium oxide fume (as Cd)	215-146-2	1306-19-0	0.025 mg/m ³	Included above – delete
Cadmium sulphide and cadmium sulphide pigments, respirable dust (as Cd)	215-147-8	1306-23-6	0.03 mg/m ³	Included above – delete
Calcium silicate	215-710-8	1344-95-2	Total inhalable dust 10 mg/m ³ respirable dust 4 mg/m ³	Non-fibrous particles 1 mg/m ³ Fibrous particles 1f/cc
Captan (ISO)	205-087-0	133-06-2	5 mg/m ³ (8 hr); 15 mg/m ³ (STEL)	STEL to be deleted
Carbon monoxide	211-128-3	630-08-0	20 ppm (8hr); 100 ppm (STEL)	STEL to be deleted
Carbonyl sulphide	207-340-0	463-58-1	-	5 ppm
Cellulose total inhalable dust respirable dust	232-674-9	9004-34-6	10 mg/m ³ (8hr) 20 mg/m ³ (STEL) 4 mg/m ³ (R)	Cellulose - 10 mg/m ³ No respirable fraction
Cement(Portland) total inhalable dust respirable dust	266-043-4	65997-15-1	10 mg/m ³ 4 mg/m ³ (R)	- 1 mg/m³ (R) 0.5 mg/m³
Chlorinated camphene	232-283-3	8001-35-2	-	
Chlorinated biphenyls (42% chlorine) (54% chlorine)	215-648-1	1336-36-3 53469-21-9 11097-69-1	0.1 mg/m ³ 0.1 mg/m ³ 0.1 mg/m ³	1 mg/m ³ 0.5 mg/m ³
o-Chlorinated diphenyl oxide		31242-93-0	-	0.5 mg/m³
Chloroacetone	201-161-1	78-95-5	-	1 ppm (STEL)
o-Chlorobenzylidene malonitrile	220-278-9	2698-41-1	0.05 ppm (8hr) 0.05 ppm (STEL)	0.05 ppm (STEL)
1-Chloro-2-propanol	204-819-6	127-00-4	-	1 ppm
2-Chloro-1-propanol		78-89-7		
2-Chloropropionic acid	209-952-3	598-78-7	-	0.1 ppm
Chromite ore processing			-	0.05 mg/m³
Citral	226-394-6	5392-40-5	-	5 ppm (IFV)
Clopidol	221-008-2	2971-90-6	-	3mg/m³
Cobalt & cobalt compounds (as Co)	231-158-0	7440-48-4	0.1 mg/m ³	0.02 mg/m ³
Cobalt carbonyl as Co	233-514-0	10210-68-1	-	0.1 mg/m³
Copper (as Cu) Fume Dusts and mists (as Cu)	231-159-6	7440-50-8	0.2 mg/m ³ (8hr) 1 mg/m ³ (8hr), 2 mg/m ³ (STEL)	STEL to be deleted
Coumaphos		56-72-4	-	0.05 mg/m³ (IFV)
Cyanogen	207-306-5	460-19-5	10 ppm (8 hr)	10 ppm STEL
Cyanogen bromide	208-051-2	506-68-3	-	0.3 ppm STEL
Dementon -S-methyl (Methyl demeton)	213-052-6	919-86-8	-	0.05 mg/m³ (IFV)
Diacetyl (Butanedione)	207-069-8	431-03-8	-	0.01 ppm (8hr) 0.02 ppm (STEL)
Dichloroacetic acid	201-207-0	79-43-6	-	0.5 ppm



Substance	EC No.	CAS No.	2014-OELV (8-hour reference period except where STEL indicated)	New CoP-OELV (8 hour reference period except where STEL indicated)
2,4-Dichlorophenoxyacetic acid [2,4-D [ISO]]	202-361-1	94-75-7	10 mg/m ³ (8hr), 20 mg/m ³ (STEL)	STEL to be deleted
Dieldrin (ISO)	200-484-5	60-57-1	0.25 mg/m ³	0.1 mg/m ³
Diesel exhaust (particulate) (<0.1 µm)			0.15 mg/m ³	To be deleted
2-Diethylaminoethanol	202-845-2	100-37-8	10 ppm (8hr) 50 ppm (STEL)	2 ppm STEL to be deleted
N,N-Diethylhydroxylamine	223-055-4	3710-84-7	-	2 ppm
2,6-Di tertiary-butyl-para- cresol	204-881-4	128-37-0	10 mg/m ³	2 mg/m ³
Bis-(2-Dimethylaminoethyl) ether		3033-62-3	-	0.05 ppm (8hr) 0.15 ppm STEL
Dimethyl sulphide	200-846-2	75-18-3	20 ppm	10 ppm
Dinitolmide	205-706-4	148-01-6	5 mg/m ³	1 mg/m ³
Disulfiram	202-607-8	97-77-8	-	2 mg/m³
Disulphur decafluoride	227-204-4	5714-22-7	0.025 ppm (8hr) 0.01 ppm (STEL)	0.01 ppm (STEL only)
EPN (O-ethyl O-4-nitrophenyl phenylphosphonothioate)	218-276-8	2104-64-5	-	0.1 mg/m³
Ethanethiol (ethyl mercaptan)	200-837-3	75-08-1	0.5 ppm (8hr) 2 ppm (STEL)	STEL to be deleted
Ethion	209-242-3	563-12-2	-	0.05 mg/m³ (IFV)
Ethylene oxide	200-849-9	75-21-8	5 ppm (8hr) 10 ppm (STEL)	1 ppm STEL to be deleted
Ethyl formate	203-721-0	109-94-4	100 ppm (8hr) 150 ppm (STEL)	100 ppm (STEL only)
5-ethylidene-8,9,10-trinorborn-2-ene (Ethylidene norbornene)	240-347-7	16219-75-3	-	2 ppm (8 hr) 4 ppm (STEL)
Ethyl isocyanate	203-717-9	109-90-0	-	0.02 ppm (8hr) 0.06 ppm (STEL)
Ethyl tert-butyl ether (see 2-ethoxy-2-methylpropane)	211-309-7	637-92-3	-	25 ppm
2-ethoxy-2-methylpropane	211-309-7	637-92-3	-	25 ppm
Fenamiphos (ISO) (Ethyl-4-methylthio-m-tolyl isopropyl phosphoramidate)	244-848-1	22224-92-6	-	0.05 mg/m³
Fensulfothion (ISO) (O,O-Diethyl O-4-methylsulfinylphenyl phosphorothioate)	204-114-3	115-90-2	-	0.01 mg/m³
Fenthion (ISO) (O,O-Dimethyl-O-(4-methylthion-m-tolyl) phosphorothioate)	200-231-9	55-38-9	-	0.05 mg/m³
Ferrocene (Dicyclopentadienyl iron)	203-039-3	102-54-5	10 mg/m ³ (8hr) 20 mg/m ³ (STEL)	STEL to be deleted
Fonofos (ISO) (O-Ethyl phenyl ethylphosphonodithioate)	213-408-0	944-22-9	-	0.1 mg/m³ (IFV)
Refractory Ceramic Fibres (RCFs)			5mg/m ³ (1 fibre/ml)	0.2 fibre/ml
Glycerol mist (Glycerine)	200-289-5	56-81-5	10 mg/m ³	OELV to be withdrawn
Glyoxal		107-22-2	-	0.1 mg/m³ (IFV)
Grain dust	-	-	10 mg/m ³	4 mg/m ³
Graphite total inhalable dust respirable dust	231-153-3	7440-44-0	10 mg/m ³ 4 mg/m ³	Graphite (all forms except fibres) (231-955-3; 7782-42-5) 2 mg/m ³ (R)
Hafnium	231-166-4	7440-58-6	0.5 mg/m ³ (8hr) 1.5 mg/m ³ (STEL)	STEL to be deleted
Halothane	205-796-5	151-67-7	10 ppm	50 ppm
Hexafluoropropene (Hexafluoropropylene)	204-127-4	116-15-4	-	0.1 ppm
1-Hexene	209-753-1	592-41-6	-	50 ppm

Substance	EC No.	CAS No.	2014-OELV (8-hour reference period except where STEL indicated)	New CoP-OELV (8 hour reference period except where STEL indicated)
Hydrogen cyanide	200-821-6	74-90-8	10 ppm (STEL)	Hydrogen Cyanide and cyanide salts (all STEL values): Hydrogen Cyanide: 4.7 ppm Calcium, Potassium and Sodium Cyanides: 5 mg/m ³
Iodine	231-442-4	7553-56-2	0.1 ppm (STEL)	Iodine and Iodides Iodine: 0.01 ppm (IFV) (8hr), 0.1 ppm (STEL); Iodides: 0.01 mg/m ³ (IFV)
Isobutyl nitrite	208-819-7	542-56-3	-	1 ppm (STEL)
Lead chromate	231-846-0	7758-97-6	-	0.1 mg/m³ as Pb 0.012 mg/m³ as Cr
Liquefied petroleum gas (LPG)	270-704-2	68476-85-7	1000 ppm, (1250 ppm STEL)	OELV to be withdrawn
Manganese, elemental and inorganic compounds, an Mn	231-105-1	7439-96-5	0.2 mg/m ³	0.1 mg/m ³ 0.02 mg/m ³ (R)
Methomyl (ISO) 240-815-0 16752-77-5 - 2.5	40-815-0	16752-77-5	2.5 mg/m ³	0.2 mg/m ³
Methyl acetylene-propadiene mixture		59355-75-8	-	1000 ppm (8hr) 1250 ppm (STEL)
4,4'-Methylene-diphenyl diisocyanate (as —NCO)	202-966-0	101-68-8	0.02 mgm ³ (8hr) 0.07 mg/m ³ (STEL)	0.0005 ppm (8hr) STEL to be deleted
4,4'Methylenebis-(2-chloroaniline)	202-918-9	101-14-4	0.005 mg/m ³ (4.5 ppm)	0.01 ppm
1-Methylnaphthalene	201-966-8	90-12-0	-	0.5 ppm
2-Methylnaphthalene	202-078-3	91-57-6	-	
Methyl vinyl ketone	201-160-0	78-94-4	0.2 ppm (8hr)	0.2 ppm (STEL)
4,4-Diaminodiphenyl-methane (DADPM)	202-974-4	101-77-9	0.01 ppm	0.1 ppm
Methyl formate	203-481-7	107-31-3	100 ppm 250 mg/m ³ (8 hr) 150 ppm 375 mg/m ³ (STEL)	50 ppm (8 hr) 100 ppm (STEL)
2-Methylpropan-2-ol	200-889-7	75-65-0	100 ppm 300 mg/m ³	STEL to be deleted
Mica		12001-26-2	-	3 mg/m³ (R)
Monocrotophos	230-042-7	6923-22-4	0.25 mg/m ³	0.05 mg/m ³
Naphthalene	202-049-5	91-20-3	10 ppm, 50 mg/m ³ (8 hr) 15 ppm, 75 mg/m ³ (STEL)	STEL to be deleted
Natural rubber latex (as inhalable allergenic proteins	232-689-0	9006-04-6	-	0.0001 mg/m³
Nickel carbonyl	236-669-2	13463-39-3	0.05 ppm, 0.12 mg/m ³ (8 hr) 0.1 ppm, 0.24 mg/m ³ (STEL)	STEL to be deleted
Nitrogen dioxide	233-272-6	10102-44-0	3 ppm (8hr); 5 ppm (STEL)	0.2 ppm STEL to be deleted
Nitro o-toluidine	202-765-8	99-55-8	-	1 mg/m³
4,4'-oxydi(benzene-sulphonohydrazide)	201-286-1	80-51-3	-	0.1 mg/m³
Paraquat		4685-14-7	-	0.5 mg/m³ 0.1 mg/m³ (R)
Parathion (ISO)	200-271-7	56-38-2	0.1 mg/m³	0.05 mg/m³
Pentacarbonyl iron (as Fe)	236-670-8	13463-40-6	0.01	0.1 ppm (8hr) 0.2 ppm (STEL)
Pentane, all isomers	201-142-8 203-692-4 207-343-7	78-78-4 109-66-0 463-82-1	1000 ppm (8 hr) 3000 ppm (STEL)	1000 ppm (8 hr) STEL to be deleted
Peracetic Acid	201-186-8	79-21-0	-	0.4 ppm (IFV) (STEL)
Perfluorobutyl ethylene (3,3,4,4,5,5,6,6,6-nonafluorohexene)	243-053-7	19430-93-4	-	100 ppm
Petrol (Gasoline)	86290-81-5	86290-81-5	-	300 ppm (8hr) 500 ppm (STEL)
Phenothiazine	202-196-5	92-84-2	-	5 mg/m³
m-Phenylenediamine	203-584-7	108-45-2	-	0.1 mg/m³
Phenyl isocyanate	203-137-6	103-71-9	-	0.005 ppm (8hr) 0.015 ppm (STEL)
Phenylphosphine	211-325-4	638-21-1	-	0.05 ppm (STEL)



Substance	EC No.	CAS No.	2014-OELV (8-hour reference period except where STEL indicated)	New CoP-OELV (8 hour reference period except where STEL indicated)
Phosphoryl trichloride	233-046-7	10025-87-3	0.2 ppm (8hr) 0.6 ppm (STEL)	0.1 ppm STEL to be deleted
Phthalic anhydride	201-607-5	85-44-9	4 mg/m ³	1 ppm
m-Phthalodnitrile (Benzene-1,3-dicarbonitrile)	210-933-7	626-17-5	-	5 mg/m³ (IFV)
o-Phthalonitrile (Phthalonitrile)	202-044-8	91-15-6	-	1 mg/m³ (IFV)
Pindone (ISO) (2-pivaloylindan-1,3-dione)	201-462-8	83-26-1	-	0.1 mg/m³
Propionaldehyde (Propanal)	204-623-0	123-38-6	-	20 ppm
Propylene oxide	200-879-2	75-56-9	5 ppm	2 ppm
Rotenone (ISO)	201-501-9	83-79-4	5 mg/m ³ (8hr) 10 mg/m ³ (STEL)	STEL to be deleted
Silane (Silicon tetrahydride)	232-263-4	7803-62-5	0.5 ppm (8hr) 1 ppm (STEL)	5 ppm (8hr) STEL to be deleted
Silicon carbide total inhalable dust respirable dust	206-991-8	409-21-2	10 mg/m ³ 4 mg/m ³	Silicon carbide Total inhalable dust: 10 mg/m ³ Respirable dust: 3 mg/m ³ (R) Fibrous: 0.1 f/cc
Simazine	204-535-2	122-34-9	-	0.5 mg/m³
Methyl 2-[[[[(4,6-dimethyl-2-pyrimidinyl)amino]carbonyl]amino]sulphonyl]benzoate	277-780-6	74222-97-2	-	5 mg/m³
Sulphur dioxide	231-195-2	7446-09-5	0.5 ppm (8hr) 1 ppm (STEL)	0.25 ppm (STEL only)
Tellurium hexafluoride		7783-80-4	-	0.02 ppm
Terbufos (ISO) (S-tert-Butylthiomethyl O,O-diethylphosphorodithioate)	235-963-8	13071-79-9	-	0.01 mg/m ³ (IFV)
Tetrakis (hydroxymethyl) phosphonium chloride	204-707-7	124-64-1	-	2 mg/m³
Tetrakis (hydroxymethyl) phosphonium sulphate		55566-30-8	-	2 mg/m³
Tetrafluoroethylene	204-126-9	116-14-3	-	2 ppm
Thallium, and compounds (as Tl)	231-138-1	7440-28-0	0.1 mg/m ³	0.02 mg/m ³
Tributyl phosphate	204-800-2	126-73-8	0.2 ppm	5 mg/m ³
Tricholoroacetic Acid	200-927-2	76-03-9	1 ppm (8 hr) 5 ppm (STEL)	0.5 ppm
1,2,3-Trichloropropane	200-486-1	96-18-4	10 ppm (8 hr) 60 ppm (STEL)	0.005 ppm STEL to be deleted
Tricyclohexyltin hydroxide (Cyhexatin)	236-049-1	13121-70-5	5 mg/m ³ (8hr); 10 mg/m ³ (STEL)	STEL to be deleted
Trimetacresyl phosphate	209-241-8	563-04-2	-	0.05 mg/m³ (IFV)
Triorthocresyl phosphate	201-103-5	78-30-8	-	0.02 mg/m³ (IFV)
Trimetacresyl phosphate	201-105-6	78-32-0	-	0.05 mg/m³ (IFV)
Triphenyl phosphate	204-112-2	115-86-6	3 mg/m ³ (8hr) 6 mg/m ³ (STEL)	STEL to be deleted
m-Xylene α,α'-diamine (m-Phenylenebis(methylamine))	216-032-5	1477-55-0	-	0.1 mg/m ³

SCHEDULE 3

Chemical Abstracts Service (CAS) Number Index

CAS Number	
50-00-0	Formaldehyde
50-29-3	1,1,1-Trichlorobis(chlorophenyl) ethane, [DDT], [Dichlorodiphenyl trichloroethane]; 2,2-Bis(p-chlorophenyl)-1,1,1-trichloroethane
50-32-8	Benz[a]pyrene
50-78-2	o-Acetyl salicylic acid; [Aspirin]
54-11-5	Nicotine
55-63-0	Glycerol trinitrate; [Nitroglycerine]
56-23-5	Carbon tetrachloride; [tetrachloromethane]
56-38-2	Parathion (ISO)
56-55-3	Benz[α]anthracene
56-81-5	Glycerol, mist
57-12-5	Cyanides
57-14-7	Dimethylhydrazine
57-24-9	Strychnine
57-50-1	Sucrose
57-55-6	Propan-1, 2-diol; [Propylene glycol]
57-57-8	Propiolactone
57-74-9	Chlordane (ISO)
60-29-7	Ether; [Diethyl ether]; [Ethyl ether]
60-34-4	Methylhydrazine
60-57-1	Dieldrin (ISO)
61-82-5	3-Amino-1,2,4 Triazole
62-53-3	Aniline
62-73-7	Dichlorvos (ISO); [DDVP]
62-74-8	Sodium fluoroacetate
63-25-2	Carbaryl (ISO)
64-17-5	Ethanol; [Ethyl alcohol]
64-18-6	Formic acid
64-19-7	Acetic acid
64-67-5	Diethyl sulphate
67-56-1	Methanol; [Methyl alcohol]
67-63-0	Isopropyl alcohol; [Propan-2-ol]
67-64-1	Acetone
67-66-3	Chloroform; [Trichloromethane]
67-72-1	Hexachloroethane
68-11-1	Mercaptoacetic acid; [Thioglycolic acid]
68-12-2	Dimethylformamide
71-23-8	n-Propanol; [n-Propyl alcohol]; [Propan-1-ol]
71-36-3	Butan-1-ol; [n-Butyl alcohol]
71-43-2	Benzene
71-55-6	1,1,1-Trichloroethane; [Methyl chloroform]
72-20-8	Endrin (ISO)
72-43-5	Methoxychlor (ISO); [DMDT]; [2,2 Bis(p-methoxyphenyl)-1,1,1-trichloroethane]
74-82-8	Methane
74-83-9	Bromomethane; [Methyl bromide]
74-84-0	Ethane
74-85-1	Ethylene
74-86-2	Acetylene
74-87-3	Chloromethane; [Methyl chloride]
74-88-4	Methyl iodide; [Iodomethane]
74-89-5	Methylamine
74-90-8	Hydrogen cyanide
74-93-1	Methanethiol; [Methyl mercaptan]
74-96-4	Ethyl bromide; [Bromoethane]
74-97-5	Bromochloromethane; [Chlorobromomethane]
74-98-6	Propane
74-99-7	Methyl acetylene
75-00-3	Ethyl chloride; [Chloroethane]



CAS Number	
75-01-4	Vinyl chloride(VCM); [Chloroethylene]
75-02-5	Vinyl fluoride
75-04-7	Ethylamine
75-05-8	Acetonitrile
75-07-0	Acetaldehyde
75-08-1	Ethanethiol; [Ethyl mercaptan]
75-09-2	Dichloromethane; [Methylene chloride]
75-12-7	Formamide
75-15-0	Carbon disulphide
75-18-3	Dimethyl sulphide
75-21-8	Ethylene oxide
75-25-2	Tribromomethane; [Bromoform]
75-31-0	Isopropylamine
75-34-3	1,1-Dichloroethane; [Ethylidene dichloride]
75-35-4	1,1-Dichloroethylene; [Vinylidene chloride]
75-38-7	Vinylidene fluoride
75-43-4	Dichlorofluoromethane; [Fluorodichloromethane]
75-44-5	Phosgene; [Carbonyl chloride]
75-45-6	Difluorochloromethane; [Chlorodifluoromethane]
75-47-8	Iodoform
75-50-3	Trimethylamine
75-52-5	Nitromethane
75-55-8	Propyleneimine
75-56-9	Propylene oxide
75-61-6	Difluorodibromomethane; [Dibromodifluoromethane]
75-63-8	Trifluorobromomethane; [Bromotrifluoromethane]
75-65-0	2-Methylpropan-2-ol; [tert-Butyl alcohol]
75-69-4	Trichlorofluoromethane; [Fluorotrichloromethane]
75-71-8	Dichlorodifluoromethane; [Difluorodichloromethane]
75-74-1	Tetramethyl lead
75-99-0	Dichloropropionic acid
76-03-9	Trichloroacetic acid
76-06-2	Chloropicrin; [Trichloronitromethane]
76-11-9	1,1,1,2-Tetrachloro-2,2-difluoroethane
76-12-0	1,1,2,2-Tetrachloro-1,2-difluoroethane
76-13-1	1,1,2-Trichlorotrifluoroethane
76-14-2	1,2-Dichlorotetrafluoroethane; [Tetra-fluoro-dichloro-ethane]; [Cryofluorane]; [INN]
76-15-3	Chloropentafluoroethane
76-22-2	Bornan-2-one; [Camphor]
76-44-8	Heptachlor (ISO)
77-47-4	Hexachlorocyclopentadiene
77-73-6	Dicyclopentadiene
77-78-1	Dimethyl sulphate
78-00-2	Tetraethyl lead
78-10-4	Ethyl silicate; [Tetra-ethyl-orthosilicate]
78-30-8	Tri-o-tolyl phosphate; [Triortho-cresyl phosphate]
78-34-2	Dioxathion (ISO)
78-59-1	3,5,5-Trimethylcyclohex-2-enone; [Isophorone]
78-78-4	iso-Pentane
78-83-1	Isobutyl alcohol; [2-methyl propan-1-ol]
78-87-5	Propylene dichloride
78-92-2	Butan-2-ol; [sec-Butyl alcohol]
78-93-3	Methyl ethyl ketone (MEK); [But-2-one]
78-94-4	Methyl vinyl ketone; [Butenone]
78-95-5	Chloroacetone
79-00-5	1,1,2-Trichloroethane
79-01-6	Trichloroethylene
79-04-9	Chloroacetyl chloride
79-06-1	Acrylamide
79-09-4	Propionic acid
79-10-7	Acrylic acid
79-11-8	Monochloracetic acid
79-20-9	Methyl acetate

CAS Number	
79-24-3	Nitroethane
79-27-6	1,1,2,2-Tetrabromoethane; [Acetylene tetrabromide]
79-34-5	1,1,2,2, Tetrachloroethane
79-41-4	Methacrylic acid
79-44-7	Dimethyl carbamoyl chloride
79-46-9	2-Nitropropane
80-05-7	Bisphenol A (4,4' isopropylidenediphenol)
80-62-6	Methyl methacrylate
81-81-2	Warfarin (ISO)
82-68-8	Pentachloronitrobenzene
83-79-4	Rotenone (ISO); [Derris, commercial]
84-61-7	Dicyclohexyl phthalate
84-66-2	Diethyl phthalate
84-69-5	Diisobutyl phthalate
84-74-2	Dibutyl phthalate
84-76-4	Dinonyl phthalate
85-00-7	Diquat dibromide(ISO)
85-42-7	Cyclohexane-1,2-dicarboxylic anhydride
85-44-9	Phthalic anhydride
85-68-7	Butyl benzyl phthalate; [Benzyl butyl phthalate]
86-50-0	Guthion; [Azinphos-methyl]
87-68-3	Hexachlorobutadiene
87-86-5	Pentachlorophenol
88-12-0	N-Vinyl-2-pyrrolidone
88-72-2	2-Nitrotoluene
88-89-1	Picric acid; [2,4,6-Trinitrophenol]
89-72-5	2-sec- Butylphenol
90-04-0	o-Anisidine
91-20-3	Naphthalene
91-59-8	β -Naphthylamine
91-94-1	3,3-Dichlorobenzidine
92-52-4	Biphenyl; [Diphenyl]
92-67-1	4-Aminodiphenyl
92-87-5	Benzidine
92-93-3	4-Nitrodiphenyl
93-76-5	2,4,5-Trichloro-phenoxyacetic acid; [2,4,5-T (ISO)]
94-36-0	Dibenzoyl peroxide; [Benzoyl peroxide]
94-75-7	2,4-Dichlorophenoxyacetic acid; [2,4-D (ISO)]
95-13-6	Indene
95-47-6	Xylene, o-isomer
95-49-8	2-Chlorotoluene
95-50-1	1,2 Dichlorobenzene
95-53-4	o-Toluidine
96-18-4	1,2,3-Trichloropropane
96-22-0	Pantan-3-one; [Diethyl ketone]
96-29-7	Methyl ethyl ketoxime
96-33-3	Methyl acrylate
96-69-5	6,6'-di-tert-butyl-4,4'-thio-di-m-cresol; [4,4'-Thiobis (6-tert-butyl-m-cresol)]
98-00-0	Furfuryl alcohol
98-01-1	2-Furaldehyde (Furfural)
98-51-1	p-tert Butyltoluene
98-59-9	p-Toluenesulphonyl chloride
98-82-8	Isopropyl benzene; [Cumene]
98-83-9	2-Phenylpropene; [α -Methyl styrene]
98-86-2	Acetophenone
98-95-3	Nitrobenzene
99-08-1	3-Nitrotoluene
99-99-0	4-Nitrotoluene
100-00-5	1-Chloro-4-nitrobenzene
100-01-6	4-Nitroaniline
100-21-0	Terephthalic acid
100-37-8	2-Diethylaminoethanol
100-40-3	4-Vinylcyclohexene

CAS Number	
100-41-4	Ethylbenzene
100-42-5	Styrene; [Phenyl ethylene]; [Vinyl benzene]
100-44-7	Benzyl chloride; [Chlorotoluene]
100-61-8	N-Methylaniline
100-63-0	Phenylhydrazine
100-74-3	4-Ethylmorpholine
101-14-4	MbOCA; [4,4'Methylene bis-(2-chloroaniline)]; [2,2'-Dichloro-4,4'methylene-dianiline]
101-68-8	4,4'-Methylenediphenyl diisocyanate; [MDI]
101-77-9	4,4-Diaminodiphenylmethane (DADPM); [4,4'-methylenedianiline, (MDA)]; [DDM]
101-84-8	Diphenyl ether
102-54-5	Ferrocene; [Dicyclopentadienyiron]
102-71-6	Triethanolamine
102-81-8	2-N-Dibutylaminoethanol
103-90-2	Paracetamol
104-94-9	p-Anisidine
105-46-4	sec-Butyl acetate
105-60-2	α-Caprolactam; [1,6-Hexanolactam]
106-35-4	Heptan-3-one; [Ethyl butyl ketone]
106-42-3	Xylene p-isomer
106-46-7	1,4-Dichlorobenzene
106-49-0	p-Toluidine
106-50-3	p-Phenylenediamine
106-51-4	Quinone; [p-Benzoquinone]
106-87-6	4-Vinylcyclohexene dioxide; [1,2-epoxy-4-epoxyethylcyclohexane]
106-89-8	Epichlorohydrin; [1-Chloro-2,3-epoxy propane ether]
106-92-3	Allyl 2,3-epoxypropyl ether; [Allyl glycidyl ether]; [AGE]
106-93-4	Ethylene dibromide; [1,2-Dibromoethane]
106-97-8	Butane
106-99-0	Buta-1,3-diene
107-02-8	Acrolein; [Acryaldehyde]
107-05-1	Allyl chloride
107-06-2	1,2-Dichloroethane; [Ethylenedichloride]
107-07-3	Ethylene chlorohydrin; [2-Chloroethanol]
107-13-1	Acrylonitrile
107-15-3	Ethylenediamine; [1,2-Diamionethane]
107-18-6	Allyl alcohol
107-19-7	Prop-2-yn-1-ol; [Propargyl alcohol]
107-20-0	Chloroacetaldehyde
107-21-1	Ethylene glycol ; [1,2-dihydroxybenzene]; [Ethane-1,2-diol]
107-30-2	Chloromethyl methyl ether
107-31-3	Methyl formate
107-41-5	Hexylene glycol; [2-methylpentane-2,4-diol]
107-49-3	O,O,O'-Tetraethyl pyrophosphate(ISO); [TEPP]
107-66-4	Dibutyl hydrogen phosphate; [Di-n-butyl phosphate]
107-87-9	Pentan-2-one; [Methyl propyl ketone]
107-98-2	Propylene glycol monomethyl ether; [1-Methoxy propan-2-ol]
108-03-2	1-Nitropropane
108-05-4	Vinyl acetate
108-10-1	Methyl isobutyl ketone (MIBK); [Hexone]; Isobutyl methyl ketone]; [4-methyl pentan-2-one]
108-11-2	Methyl isobutyl carbinol; [4-Methyl pentane-2-ol]
108-18-9	Diisopropylamine
108-20-3	Isopropyl ether; [Diisopropyl ether]
108-21-4	Isopropyl acetate
108-23-6	Isopropyl chloroformate
108-24-7	Acetic anhydride
108-31-6	Maleic anhydride
108-38-3	Xylene m-isomer
108-44-1	m-Toluidine
108-46-3	Resorcinol; [m-Dihydroxy benzene]
108-57-6	Divinylbenzene
108-65-6	2-Methoxy-1-methylethylacetate
108-67-8	Mesitylene; [1,3,5-trimethyl benzene]
108-83-8	Diisobutyl ketone; [2,6-Dimethyl heptan-4-one]

CAS Number	
108-84-9	1,3-Dimethylbutyl acetate
108-87-2	Methylcyclohexane
108-88-3	Toluene
108-90-7	Chlorobenzene
108-91-8	Cyclohexylamine
108-93-0	Cyclohexanol
108-94-1	Cyclohexanone
108-95-2	Phenol
108-98-5	Benzethiol; Phenyl mercaptan]
109-59-1	Isopropoxyethanol
109-60-4	n-Propyl acetate
109-66-0	n-Pentane
109-73-9	n-Butylamine
109-79-5	Butanethiol; [n-Butyl mercaptan]
109-86-4	2-Methoxyethanol; [Ethylene glycol monoethyl ether]
109-87-5	Methylal; Dimethoxy methane]
109-89-7	Diethylamine
109-94-4	Ethyl formate
109-99-9	Tetrahydrofuran
110-12-3	Isoamyl methyl ketone; [Methyl isoamyl ketone]; [5-Methylhexan-2-one]
110-19-0	Isobutyl acetate
110-43-0	Heptan-2-one; [Methyl-n-amyl-ketone]
110-49-6	2-Methoxyethyl acetate; [Ethylene glycol monomethyl ether acetate]
110-54-3	n-Hexane
110-62-3	n-Valeraldehyde
110-80-5	2-Ethoxyethanol; [Ethylene glycol monoethyl ether]; [Glycol monoethyl ether]
110-82-7	Cyclohexane
110-83-8	Cyclohexene
110-85-0	Piperazine
110-86-1	Pyridine
110-89-4	Piperidine
110-91-8	Morpholine
111-15-9	2-Ethoxyethyl acetate; [Ethylene glycol monoethyl ether acetate]
111-30-8	Glutaraldehyde
111-40-0	Diethylene triamine; [2,2'-Iminodi(ethylamine)]; [2,2-Diaminodiethylamine]; [1,4,7-Tri-(aza)-heptane]
111-42-2	Diethanolamine; [2,2'-Iminodiethanol]
111-44-4	Dichloroethyl ether
111-46-6	Diethylene glycol; [2,2'-Oxydiethanol]
111-65-9	n-Octane
111-76-2	2-Butoxyethanol; [Ethylene glycol monobutyl ether]
111-77-3	2-(2-Methoxyethoxy)ethanol
111-84-2	Nonane
112-07-2	2-Butoxyethyl acetate
112-34-5	2-(2-Butoxyethoxy)ethanol
112-55-0	Dodecyl mercaptan
114-26-1	Propoxur (ISO)
115-07-1	Propylene
115-10-6	Dimethyl ether
115-29-7	Endosulfan (ISO)
115-77-5	Pentaerythritol
115-86-6	Triphenyl phosphate
117-81-7	Di-sec-octyl phthalate; [Di(2-ethyl hexyl) phthalate]; [Bis(2-ethyl hexyl) phthalate]
118-52-5	1,3-Dichloro-5,5-dimethyl-hydantoin
118-96-7	2,4,6-Trinitrotoluene; [TNT]
119-93-7	o-Tolidine
120-80-9	Catechol; [Pyrocatechol]
120-82-1	1,2,4-Trichlorobenzene
121-44-8	Triethylamine
121-45-9	Trimethyl phosphite
121-69-7	N,N-Dimethylaniline
121-75-5	Malathion (ISO)
121-82-4	Hexahydro-1,3,5-trinitro-1,3,5-triazine; [Cyclonite]; [RDX]



CAS Number	
122-39-4	Diphenylamine
122-60-1	Phenyl-2,3-epoxypropyl ether; [Phenyl glycidyl ether]; [PGE]
123-19-3	Dipropyl ketone
123-31-9	Hydroquinone; [Dihydroxybenzene]
123-42-2	Diacetone alcohol; [4-hydroxy-4-methyl-2-pentanone]
123-51-3	Isoamyl alcohol; [3-Methylbutan-1-ol]
123-73-9	trans But-2-enal; [Crotonaldehyde]
123-77-3	C, C'-azodi(formamide); [Azodicarbonamide]
123-86-4	Butyl acetate
123-91-1	1,4-Dioxane, tech. Grade
123-92-2	Isopentyl acetate; [Isoamyl acetate]
124-04-9	Adipic acid
124-09-4	1,6 Hexanediamine
124-38-9	Carbon dioxide
124-40-3	Dimethylamine
126-73-8	Tributyl phosphate
126-98-7	Methacrylonitrile; [Methylacrylonitrile]
126-99-8	β-Chloroprene; [2-Chloro-1,3-butadiene]
127-18-4	Tetrachloroethylene; [Perchloroethylene]
127-19-5	N,N'-Dimethylacetamide
128-37-0	2,6-Ditertiary-butyl-para- cresol
131-11-3	Dimethyl phthalate
131-17-9	Diallyl phthalate
133-06-2	Captan (ISO)
136-78-7	Sodium 2-(2,4-dichlorphenoxy) ethyl sulphate; [Sesone]
137-05-3	Methyl 2-cyanoacrylate
137-26-8	Thiram (ISO)
138-22-7	Butyl lactate
140-88-5	Ethyl acrylate
141-32-2	Butyl acrylate
141-43-5	2-Aminoethanol; [Ethanolamine]
141-66-2	Dicrotophos
141-78-6	Ethyl acetate
141-79-7	Mesityl oxide; [4-Methyl pent-3-en-2-one]
142-64-3	Piperazine dihydrochloride
142-82-5	n-Heptane
144-62-7	Oxalic acid
148-01-6	Dinitolmide
149-26-8	2-(2,4-dichlorophenoxy)ethyl hydrogensulphate); [2,4-DES]
149-57-5	Ethyl hexanoic acid
150-76-5	4-Methoxyphenol; [Mequinol]
151-56-4	Ethylenemime; [Aziridine]
151-67-7	Halothane
156-62-7	Calcium cyanamide
205-99-2	Benz[B]fluoroanthene
287-92-3	Cyclopentane
298-00-0	Parathion-methyl (ISO); [Methyl parathion]
298-02-2	Phorate (ISO)
298-04-4	Disulfoton (ISO)
299-84-3	Ronnel; [Fenchlorphos(ISO)]
299-86-5	Crufomate
300-76-5	1,2 -dibromo-2,2-dichloro ethyl dimethyl phosphate; [Naled]; [Dibrom]
302-01-2	Hydrazine
309-00-2	Aldrin (ISO)
314-40-9	Bromacil (ISO)
330-54-1	Diuron (ISO)
333-41-5	Diazinon (ISO)
334-88-3	Diazomethane
353-50-4	Carbonyl fluoride
382-21-8	Perfluorobutylene
409-21-2	Silicon Carbide
420-04-2	Cyanamide
460-19-5	Cyanogen; [Oxalonitrile]

CAS Number	
463-51-4	Ketene
463-82-1	neo-Pentane
479-45-8	Tetryl; [N-Methyl-N 2,4,6-tetranitro-aniline]
504-29-0	2-Aminopyridine; [2-Pyridylamine]
506-77-4	Cyanogen chloride
509-14-8	Tetranitromethane
526-73-8	1,2,3 - Trimethylbenzene
532-27-4	2-Chloroacetophenone; [Phenacyl chloride]
534-52-1	Dinitro-o-cresol; [2-Methyl-4,6-dinitrophenol]
540-59-0	Acetylene Dichloride; [1,2-dichloroethylene, cis:trans isomers 60:40]
540-88-5	tert-Butyl acetate
541-41-3	Ethyl chloroformate
541-85-5	5-Methylheptan-3-one; [ethylamyl ketone]
542-75-6	1,3-Dichloropropene, cis and trans isomers
542-88-1	Bis(chloromethyl)ether (BCME)
542-92-7	Cyclopentadiene
546-93-0	Magnesite
552-30-7	Trimellitic anhydride; [Benzene-1,2,4-tricarboxylic acid 1,2-anhydride]
556-52-5	Glycidol
557-05-1	Zinc distearate
558-13-4	Carbon tetrabromide; [Tetrabromomethane]
563-80-4	Methyl isopropyl ketone
583-60-8	2-Methylcyclohexanone
584-84-9	Toluene diisocyanate; [TDI]
591-78-6	Hexan-2-one
592-34-7	n-Butyl chloroformate
593-60-2	Vinyl bromide; [Bromoethylene]
594-42-3	Perchloromethyl mercaptan
594-72-9	1,1-Dichloro-1-nitroethane
598-56-1	N,N-Dimethylethylamine
600-25-9	1-Chloro-1-nitropropane
603-34-9	Triphenylamine
608-73-1	γ-Hexachlorocyclohexane; [Lindane]; [BHC]; [HCH(ISO)]
620-11-1	3-Pentylacetate
624-83-9	Methyl isocyanate
624-92-0	Dimethyl disulphide
625-16-1	Tert-Amyl acetate
626-38-0	1-Methylbutyl acetate; [sec-Amyl acetate]
627-13-4	n-Propyl nitrate
628-63-7	Pentyl acetate; [n-Amyl acetate]
628-96-6	Ethylene glycol dinitrate; [Ethylene dinitrate]
630-08-0	Carbon monoxide
646-06-0	1,3-Dioxolane
681-84-5	Methyl silicate; [Tetra-methyl ortho silicate]
684-16-2	Hexafluoroacetone
764-41-0	1,4-Dichloro-2-butene
768-52-5	n-Isopropylaniline
822-06-0	Hexamethylene diisocyanate
872-50-4	1-Methyl-2-pyrrolidone
999-61-1	2-Hydroxypropyl acrylate
1024-57-3	Heptachlor epoxide
1120-71-4	1,3-Propane sultone
1189-85-1	tert-Butyl chromate
1300-73-8	Xylidine (mixed isomers), [Amino dimethyl benzene]
1302-74-5	Emery
1303-86-2	Boron oxide; [Diboron trioxide]
1303-96-4	See Borates, tetra, sodium, decahydrous
1304-82-1	Bismuth telluride; [Dibismuth tritelluride]
1305-62-0	Calcium hydroxide
1305-78-8	Calcium oxide
1306-19-0	Cadmium oxide fume
1306-23-6	Cadmium sulphide and cadmium sulphide pigments
1309-37-1	Iron oxide; [Rouge]



CAS Number	
1309-48-4	Magnesium oxide
1310-58-3	Potassium hydroxide
1310-65-2	Lithium hydroxide
1310-73-2	Sodium hydroxide
1314-13-2	Zinc oxide, fume
1314-56-3	Diphosphorus pentoxide
1314-62-1	Vanadium pentaoxide; [Divanadium ptaoxoide]
1314-80-3	Phosphorus pentasulphide; [Diphosphorus pentasulphide]
1317-35-7	Trimanganese tetraoxide; [Manganese tetraoxide]
1317-65-3	Calcium carbonate; [Marble]; [Limestone]
1317-95-9	Tripoli, Crystalline silica
1319-77-3	Cresols, all isomers
1321-64-8	Pentachloronaphthalene
1321-65-9	Trichloronaphthalene
1330-20-7	Xylene, mixed isomers
1330-43-4	Borates, tetra, sodium, anhydrous; [Disodium tetraborate, anhydrous]
1332-21-4	Asbestos
1332-58-7	Kaolin
1333-74-0	Hydrogen
1333-86-4	Carbon black
1335-87-1	Hexachloronaphthalene
1335-88-2	Tetrachloronaphthalenes, all isomers
1338-23-4	Methyl ethyl ketone peroxides (MEKP)
1344-28-1	Aluminium oxides
1344-95-2	Calcium silicate
1563-66-2	Carbofuran (ISO)
1634-04-4	tert Butyl methyl ether
1910-42-5	Paraquat dichloride
1912-24-9	Atrazine
1918-02-1	Picloram (ISO)
1929-82-4	Nitrapyrin; [2-chloro-6-trichloromethyl pyridine]
2001-28-4	Crocidolite
2039-87-4	o-Chlorostyrene
2179-59-1	Allyl propyl disulphide
2234-13-1	Octachloronaphthalene
2238-07-5	Diglycidyl ether; [DGE]; [bis (2,3-epoxypropyl) ether]
2425-06-1	Captafol (ISO)
2426-08-6	n-Butyl glycidyl ether; [BGE]; [Butyl-2,3-epoxypropyl] ether
2451-62-9	Triglycidyl isocyanurate, [TGIC]; [Araldite PT810]
2528-36-1	Dibutyl phenyl phosphate
2551-62-4	Sulphur hexafluoride
2698-41-1	o-Chlorobenzylidene malonitrile
2699-79-8	Sulphuryl difluoride
2921-88-2	Chlorpyrifos (ISO)
3173-72-6	1,5-Naphthylene diisocyanate
3333-52-6	Tetramethyl succinonitrile
3383-96-8	Temephos
3689-24-5	O,O,O'; Tetraethyl dithio- pyrophosphate(ISO); [sulphotep]; [TEDP]
3825-26-1	Ammonia perfluoroctanoate
4016-14-2	Isopropyl glycidyl ether (IGE); [2,3-Epoxypropyl isopropyl
4098-71-9	Isophorone diisocyanate (IPDI)
5714-22-7	Disulphur decafluoride; [Sulphur pentafluoride]
6423-43-4	Propylene dinitrate (PGDN) ; [Propylene glycol dinitrate]
6923-22-4	Monocrotophos
7085-85-0	Ethyl cyanoacrylate
7429-90-5	Aluminium metal
7439-92-1	Lead
7439-96-5	Manganese
7439-97-6	Mercury
7439-98-7	Molybdenum
7440-01-9	Neon
7440-02-0	Nickel
7440-06-4	Platinum

CAS Number	
7440-16-6	Rhodium
7440-21-3	Silicon
7440-22-4	Silver
7440-25-7	Tantalum
7440-28-0	Thallium,
7440-31-5	Tin
7440-33-7	Tungsten
7440-36-0	Antimony
7440-37-1	Argon
7440-38-2	Arsenic
7440-39-3	Barium
7440-41-7	Beryllium
7440-43-9	Cadmium
7440-44-0	Graphite
7440-47-3	Chromium
7440-48-4	Cobalt
7440-50-8	Copper
7440-58-6	Hafnium
7440-59-7	Helium
7440-61-1	Uranium compounds, natural
7440-65-5	Yttrium
7440-67-7	Zirconium
7440-74-6	Indium
7446-09-5	Sulphur dioxide
7553-56-2	Iodine
7572-29-4	Dichloroacetylene
7580-67-8	Lithium hydride
7616-94-6	Perchloryl fluoride
7631-90-5	Sodium bisulfite; [Sodium hydrogen sulphite]
7637-07-2	Boron trifluoride
7646-85-7	Zinc chloride
7647-01-0	Hydrogen chloride
7664-38-2	Orthophosphoric acid; [Phosphoric acid]
7664-39-3	Hydrogen fluoride
7664-41-7	Ammonia
7664-93-9	Sulphuric acid
7681-57-4	Disodium disulphite; [Sodium Metabisulphite]
7697-37-2	Nitric acid
7719-12-2	Phosphorus trichloride
7719-09-7	Thionyl chloride
7722-84-1	Hydrogen peroxide
7722-88-5	Tetrasodium pyrophosphate
7723-14-0	Phosphorus, yellow
7726-95-6	Bromine
7727-21-1	Dipotassium peroxodisulphate; [Potassium persulphate]
7727-37-9	Nitrogen
7727-43-7	Barium sulphate
7727-54-0	Diammonium peroxodisulphate; [Ammonium persulphate]
7773-06-0	Ammonium sulphamate
7775-27-1	Disodium peroxodisulphate; [Sodium persulphate]
7778-18-9	Calcium sulphate
7782-41-4	Fluorine
7782-49-2	Selenium
7782-50-5	Chlorine
7782-65-2	Germane; [Germanium tetrahydride]
7782-79-8	Hydrazoic acid
7783-06-4	Hydrogen sulphide
7783-07-5	Dihydrogen selenide; [Hydrogen selenide]
7783-41-7	Oxygen difluoride
7783-54-2	Nitrogen trifluoride
7783-60-0	Sulphur tetrafluoride
7783-79-1	Selenium hexafluoride
7784-42-1	Arsine



CAS Number	
7786-34-7	Mevinphos (ISO); [Phosdrin]
7789-06-2	Strontium chromate
7789-30-2	Bromide pentafluoride
7790-91-2	Chlorine trifluoride
7790-94-5	Chlorosulphonic acid
7803-51-2	Phosphine
7803-52-3	Stibine
7803-62-5	Silane; [Silicon tetrahydride]
8002-74-2	Paraffin wax
8003-34-7	Pyrethrins (ISO); [Pyrethrum]
8006-64-2	Turpentine
8030-30-6	Rubber solvent; [Naphta]
8032-32-4	VM and P Naphta
8052-41-3	Stoddard solvent; [White spirit]
8052-42-4	Asphalt, petroleum fumes
8065-48-3	Demeton
9002-86-2	Polyvinyl chloride (PVC)
9004-34-6	Cellulose
9005-25-8	Starch
9014-01-1	Subtilisins (proteolytic enzymes as 100% pure)
10024-97-2	Nitrous oxide
10025-67-9	Sulphur monochloride; [Disulphur dichloride]
10025-87-3	Phosphoryl trichloride
10026-13-8	Phosphorus, pentachloride
10028-15-6	Ozone
10035-10-6	Hydrogen bromide
10049-04-4	Chlorine dioxide
10101-41-4	Gypsum
10102-43-9	Nitric oxide; [Nitrogen monoxide]
10102-44-0	Nitrogen dioxide
10294-33-4	Boron tribromide
11097-69-1	Chlorinated biphenyls (54%); [Polychlorinated biphenyls]
12001-29-5	Chrysotile, asbestos
12079-65-1	Manganese cyclopentadienyl tricarbonyl; [Tricarbonyl (etacyclopentadienyl) manganese]
12108-13-3	Tricarbonyl (methyl cyclopentadienyl) manganese; [Methyl cyclopentadienyl] manganese tricarbonyl]
12125-02-9	Ammonium chloride
12172-73-5	Amosite, asbestos
12179-04-3	Tetra sodium borate pentahydrate (See Borates)
12604-58-9	Ferrovanadium
13121-70-5	Tricyclohexyltin hydroxide; [Cyhexatin(ISO)]
13149-00-3	cis-Cyclohexane-1,2-dicarboxylic anhydride
13463-39-3	Nickel carbonyl; [Tetracarbonyl nickel]
13463-40-6	Pentacarbonyliron; [Iron pentacarbonyl]
13463-67-7	Titanium dioxide
13494-80-9	Tellurium
13530-65-9	Zinc chromate
13765-19-0	Calcium chromate
13838-16-9	Enflurane
14166-21-3	Trans-cyclohexane-1,2-dicarboxylic anhydride
14464-46-1	Cristobalite, crystalline silica
14484-64-1	Ferbam (ISO)
14807-96-6	Talc
14808-60-7	Quartz, crystalline silica
14857-34-2	Dimethylethoxysilane
14977-61-8	Chromyl Chloride
15468-32-3	Tridymite, respirable dust(Silica)
16752-77-5	Methomyl (ISO)
16984-48-8	Fluoride (as F)
17702-41-9	Decaborane
17804-35-2	Benomyl (ISO)
19287-45-7	Diborane
19624-22-7	Pentaborane

CAS Number	
20816-12-0	Osmium tetroxide (as Os)
21087-64-9	Metribuzin
21351-79-1	Caesium hydroxide
24468-13-1	2-Ethylhexyl chloroformate
25013-15-4	Methylstyrene; [Vinyl toluene]
25154-54-5	Dinitrobenzene, all isomers
25321-14-6	2,4-Dinitrotoluene
25551-13-7	Trimethylbenzenes, all isomers or mixtures
25639-42-3	Methylcyclohexanol
26140-60-3	Terphenyls, all isomers
26499-65-0	Plaster of Paris
26628-22-8	Sodium azide
26675-46-7	Isoflurane
26761-40-0	Diisodecyl phthalate
26952-21-6	Isoctyl alcohol (mixed isomers)
27554-26-3	Diisooctyl phthalate
28553-12-0	Diisononyl phthalate
34590-94-8	(2-Methoxymethylethoxy)-1-propanol; [Dipropylene glycol methyl ether]
35400-43-2	Sulprofus
53469-21-9	Chlorinated biphenyls (42%); [Polychlorinated biphenyls]
60676-86-0	Silica, fused
61788-32-7	Hydrogenated terphenyls
65996-93-2	Coal tar pitch volatiles
65997-15-1	Portland cement
68476-85-7	Liquefied petroleum gas (LPG)
68855-54-9	Diatomaceous earth, natural
77536-66-4	Actinolite asbestos
77536-67-5	Anthophyllite, asbestos
77536-68-6	Tremolite asbestos
132207-32-0	Chrysotile, asbestos





Notes



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