

Chemical Safety Information

February 2020

Carcinogens, (Mutagens and Substances Toxic to Reproduction) in Groups/Categories 1 and 2

Occupational Health and Safety Service
HSD021C (rev 4)



**UNIVERSITY OF
CAMBRIDGE**

Steel Welding HSE Update February 2019

There is new scientific evidence from the International Agency for Research on Cancer that exposure to mild steel welding fume can cause lung cancer and possibly kidney cancer in humans. The Workplace Health Expert Committee has endorsed the reclassification of mild steel welding fume as a human carcinogen.

Consequences:

With immediate effect, there is a strengthening of HSE's enforcement expectation for all welding fume, including mild steel welding; because general ventilation does NOT achieve the necessary control.

Outcome:

Control of the cancer risk will require suitable engineering controls for all welding activities indoors e.g. Local Exhaust Ventilation (LEV). Extraction will also control exposure to manganese, which is present in mild steel welding fume, which can cause neurological effects similar to Parkinson's disease.

Where LEV alone does not adequately control exposure, it should be supplemented by adequate and suitable respiratory protective equipment (RPE) to protect against the residual fume.

Appropriate RPE should be provided for welding outdoors. You should ensure welders are suitably instructed and trained in the use of these controls.

Regardless of duration, HSE will no longer accept any welding undertaken without any suitable exposure control measures in place, as there is no known level of safe exposure.

Table of Carcinogens, (Mutagens and Reproductive Toxins), in Groups or Categories 1 and 2A.

Notes to the Table

This list of carcinogens, mutagens and substances toxic to reproduction (aka reproductive toxins) has been compiled from a number of sources, including:

- IARC lists; group 1, carcinogenic to humans where the entry is 'Cat 1', or group 2A, probably carcinogenic to humans, where the entry is a tick (✓)
- The carcinogen lists in EH40, 2005 and as amended, which is published by the HSE.
- The Control of Substances Hazardous to Health Regulations, 2002 and as amended.
- The European Regulation on Classification, Labelling and Packaging of Substances and Mixtures Regulations (CLP); see Table 3.1.

Where the link between the substance and the health effect is **known** (including CLP category 1A), the table entry is '**Cat. 1**'.

Where the link between the substance and the health effect is **presumed** (including CLP category 1B), the table entry is a tick (✓).

Where one information source lists a substance as known, and another as presumed, the higher risk classification (cat 1) is listed here.

The CLP regulations replaced the CHIP Regs and the old 'R' and 'S' phrases with 'Hazard Statements' and 'Precautionary Statements' respectively. However the old CHIP and new CLP annotations do not always tally (see Safety Office website for listings).

Of particular interest are substances with the following CLP Regulation Hazard Statements:

H340	: May cause genetic defects	(Cat 1A and 1B)	- Signal Word : Danger
H350	: May cause cancer	(Cat 1A and 1B)	- Signal Word : Danger
H360	: May damage fertility or the unborn child	(Cat 1A and 1B)	- Signal Word : Danger
H362	: May cause harm to breast fed children	(no categories)	- Signal Word : None nor a hazard symbol !

Where the CLP Regulations (single source) classify a substance as H362 the table entry below is 'H362' (in the Reproductive Toxin column).

Also of note are the following CLP hazard statements:

H341	: Suspected of causing genetic effects	(Cat 2)	- Signal Word : Warning
H351	: Suspected of causing cancer	(Cat 2)	- Signal Word : Warning
H361	: Suspected of damaging fertility or the unborn child	(Cat 2)	- Signal Word : Warning

These substances may not be listed below, (e.g. Ethidium Bromide H341), but as further evidence emerges they may be reclassified to a higher risk category.

The listings should not be assumed to be exhaustive. Therefore the latest information should always be consulted, either via an up to date Safety Data Sheets (SDS) from the suppliers or via reputable websites.

Also be aware that not all hazardous substances that could be encountered at work will be classified in this way. In particular those that arise within the workplace; such as mixtures, moulds, welding fume, exhaust emissions, intermediates in synthesis, etc will need to be assessed by yourselves.

Notes on naming of compounds and placing within the alphabetical listing

Compounds appear in alphabetical order. In deciding the order, certain items are ignored, but others are not:

Items ignored when considering the alphabet	Items included when considering the alphabet
Numbers and	Bis
Greek letters, Capital letters (apart from an initial capital letter)	Di
N-	Tri
o- (meaning ortho-)	Tetra
m- (meaning meta-)	Cyclo
p- (meaning para-)	Iso
sec- (meaning secondary)	
tert- (meaning tertiary)	

Thus the compound

N-(7-fluoro-3,4-dihydro-3-oxo-4-prop-2-ynyl-2H-1,4-benzoxazin-6-yl)cyclohex-1-ene-1,2-dicarboxamide is stripped of its numbers and capital letters and becomes: Fluorodihydrooxopropynylbenzoxazinylcyclohexenedicarboxamide, for the purpose of placing it in alphabetical order.

Further examples:

o-Aminoazotoluene is found in 'A' and not o-.

N,N-Bis(2-chloroethyl)-2-naphthylamine is found in 'B' and not 'N'.

Wherever possible synonyms for compounds have been included.

*** NB: The carcinogen listing was updated from IARC and CLP Regulations (2015) entries. The Mutagens and Reproductive Toxins listings were updated from the CLP Regulations (2015) listings, as ever remember.....**

ALWAYS consult the most up to date Safety Data Sheets

Note: Some suppliers may also use a higher category than IARC or CLP, for example Sigma list Trypan Blue as H350, whereas IARC list it as 2B and other suppliers list it as H351, where there is 'disagreement' - always assume the higher risk category when selecting control measures.

Where a substance is classified as H340, H350 and/or H360, but it is ALSO classified as H341, H351 or H361 in an SDS, i.e. H350 and H361/H341, it would be sensible to 'err on the side of safety' and assume the higher category also applies, i.e. H360/340, when selecting control measures.

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
A				
AAT (<i>alternative names</i> 4-o-tolylazo-o-toluidine, 4-amino-2',3-dimethylazobenzene, fast garnet GBC base, o-aminoazotoluene)	97-56-3	✓		
Acetaldehyde associated with the consumption of alcoholic beverages	75-07-0	Cat. 1		
Acid mists, strong inorganic		Cat. 1		
Acrylamide (<i>alternative name</i> prop-2-enamide)	79-06-1	✓	✓	
Acrylonitrile	107-13-1	✓		
Adriamycin	23214-92-8	✓		
Aflatoxins	1402-68-2	Cat. 1		
Alcoholic beverages		Cat. 1		
Alkanes, C ₁ – C ₅ , petroleum gas		✓		
5-Allyl-1, 3-benzodioxole (<i>alternative name</i> safrole)	94-59-7	✓		
Allyl trichloride (<i>alternative names</i> , glycerol trichlorohydrin, 1,2,3-trichloropropane)	96-18-4	✓		
4-Aminoazobenzene (<i>alternative name</i> 4-phenylazoaniline)	60-09-3	✓		
o-Aminoazotoluene (<i>alternative names</i> 4-o-tolylazo-o-toluidine, 4-amino-2',3-dimethylazobenzene, fast garnet GBC base, AAT)	97-56-3	✓		
4-Aminobiphenyl (<i>alternative names</i> 4-aminodiphenyl, biphenyl-4-ylamine, xenylamine) and its salts	92-67-1	Cat. 1		
4-Amino-2',3-dimethylazobenzene (<i>alternative names</i> 4-o-tolylazo-o-toluidine, fast garnet GBC base, AAT, o-aminoazotoluene)	97-56-3	✓		
2-(2-Aminoethylamino)ethanol; (AEEA)	111-41-1	✓		
3-Amino-9-ethyl carbazole; 9-ethylcarbazol-3-ylamine	132-32-1	✓		
Aminoethylene (<i>alternative names</i> , ethylenimine azirane, aziridine, dimethyleneimine, ethyleneimine)	151-56-4	✓	✓	
4-Amino-3-fluorophenol	399-95-1	✓		
2-Amino-3-methylimidazo [4,5-f] quinoline (IQ)	76180-96-6	✓		
2-Aminonaphthalene (<i>alternative names</i> β-naphthylamine, 2-naphthylamine)	91-59-8	Cat. 1		
2-Aminonaphthalene, salts of (<i>alternative names</i> β-naphthylamine, 2-naphthylamine)		Cat. 1		
2-Aminotoluene (<i>alternative name</i> o-toluidine)	95-53-4	✓		
p-Aminophenyl ether (4,4'-oxydianiline and its salts)	101-80-4	✓	✓	

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Ammonium dichromate	7789-09-05	✓	✓	✓
Ammoniumpentadeca-fluorooctanoate	3825-26-1			✓ + H362
Ammonium perfluorooctane sulfonate; ammonium heptadecafluorooctanesulfonate	29081-56-9			✓ + H362
Analgesic mixtures containing phenacetin	62-44-2	Cat. 1		
Androgenic (anabolic) steroids		✓		
o-Anisidine (<i>alternative name</i> 2-Methoxyaniline)	90-04-0	✓		
Anthracene oil, including extracts		✓		
Aristolochic acid (naturally occurring mixtures of)		Cat. 1		
Aromatic hydrocarbons, mixed, derived from petroleum production		✓	✓	
Arsenic	7440-38-2	Cat. 1		
Arsenic acid and its salts	7778-3904	Cat. 1		
Arsenic pentoxide (<i>alternative name</i> diarsenic pentaoxide)	1303-28-2	Cat. 1		
Arsenic trioxide	1327-53-3	Cat. 1		
Asbestos (all types)	1332-21-4	Cat. 1		
Auramine manufacture		Cat. 1		
Azacitidine	320-67-2	✓		
Azafenidin (ISO); 2-(2,4-dichloro-5-prop-2-ynyloxyphenyl)-5,6,7,8-tetrahydro- 1,2,4-triazolo[4,3-a]pyridin- 3(2H)-one	68049-83-2			✓
Azathioprine	446-86-6	Cat. 1		
Azirane (<i>alternative names</i> aminoethylene, aziridine, dimethyleneimine ethylenimine, ethyleneimine)	151-56-4	✓	✓	
Aziridine (<i>alternative names</i> aminoethylene, azirane, dimethyleneimine, ethylenimine, ethyleneimine)	151-56-4	✓	✓	
Azobenzene	103-33-3	✓		
B				
Basic Violet 3 with ≥ 0,1 % of Michler's ketone		✓		
BCME (<i>alternative name</i> bis(chloromethyl) ether, oxybis(chloromethane))	542-88-1	Cat. 1		
BCNU (<i>alternative name</i> bischloroethyl nitrosourea)	154-93-8	✓		
Benomyl (ISO); methyl 1-(butylcarbamoyl)benzimidazol-2-ylcarbamate	17804-35-2		✓	✓
Benzal chloride	95-87-3	✓		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Benzene	71-43-2	Cat. 1		✓
Benzene carbonyl chloride (<i>alternative name</i> benzoyl chloride)	98-88-4	✓		
1,2-Benzenedicarboxylic acid, dipentylester,	84777-06-0			✓
1,2-benzenedicarboxylic acid; -branched and linear alkylesters	68515-42-4			✓
Benzidine (<i>alternative names</i> 4,4'-diaminobiphenyl, 1,1'-biphenyl-4,4'-diamine, biphenyl-4,4'-ylenediamine)	92-87-5	Cat. 1		
Benzidine salts		Cat. 1		
Benzidine based azo dyes (<i>alternative names</i> 4,4'-diarylazobiphenyl dyes)		Cat. 1		
Benzo-(e) acephenanthylene (<i>alternative name</i> benzo (b)-fluoranthene)	205-99-2	✓		
Benzo-(a)-anthracene	56-55-3	✓		
Benzo (d,e,f) chrysene (<i>alternative name</i> benzo (a) pyrene)	50-32-8	✓	✓	✓
Benzo-(b)-fluoranthene (<i>alternative name</i> benzo (e) acephenanthylene)	205-99-2	✓		
Benzo-(j)-fluoranthene	205-82-3	✓		
Benzo-(k)-fluoranthene	207-08-9	✓		
Benzo-(a)-pyrene (<i>alternative name</i> benzo (d,e,f) chrysene)	50-32-8	Cat. 1	✓	✓
Benzo-(e)-pyrene	192-97-2	✓		
Benzole, forerunnings/residuesl		✓	✓	
Benzotrichloride (<i>alternative name</i> α,α,α -trichlorotoluene)	98-07-7	✓		
Benzoyl chloride (<i>alternative name</i> benzene carbonyl chloride)	98-88-4	✓		
Benzyl butyl phthalate	85-68-7			✓
Benzyl chloride (<i>alternative name</i> α chlorotoluene)	100-44-7	✓		
Beryllium	7440-41-7	✓		
Beryllium compounds (except aluminium beryllium silicates)		✓		
Beryllium oxide	1304-56-9	✓		
Betel quid		Cat. 1		
Binapacryl (ISO) (<i>alternative name</i> 2-sec-butyl-4,6-dinitrophenyl-3-methylcrotonate	485-31-4			✓
Biomass fuel (primarily wood), indoor emmissions from household combustion of		✓		
2,2'-Bioxirane (<i>alternative name</i> 1,2:3,4 Diepoxybutane)	1464-53-5	✓	✓	
1,1'-Biphenyl-4,4'-diamine (<i>alternative names</i> benzidine, 4,4'-diaminobiphenyl, biphenyl-4,4'-ylenediamine)	92-87-5	Cat. 1		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Biphenyl-4-ylamine (<i>alternative names</i> 4-aminodiphenyl, 4-aminobiphenyl, xenylamine) and its salts	92-67-1	Cat. 1		
Biphenyl-4,4'-ylenediamine (<i>alternative names</i> benzidine, 4,4'-diaminobiphenyl, 1,1'-biphenyl-4,4'-diamine)	92-87-5	Cat. 1		
N,N-Bis(2-chloroethyl)-2-naphthylamine (<i>alternative name</i> Chlornaphazine)	494-03-1	Cat. 1		
Bis(chloromethyl) ether (<i>alternative names</i> BCME, oxybis (chloromethane))	542-88-1	Cat. 1		
Bischloroethyl nitrosourea (BCNU)	154-93-8	✓		
Bis (2-ethylhexyl) phthalate (<i>alternative names</i> DEHP, di-(2-ethylhexyl) phthalate)	117-81-7			✓
Bis(4-fluorophenyl)-(methyl)-(1H-1,2,4-triazol-1-ylmethyl)-silane (<i>alternative name</i> flusilazole (ISO))	85509-19-9			✓
2,2-Bis(4-hydroxyphenyl)-4-methylpentane (<i>alternative name</i> 4,4'-isobutylethylidenediphenol)	6807-17-6			✓
Bis(2-methoxyethyl) ether	111-96-6			✓
Bis (2-methoxyethyl)phthalate	117-82-8			✓
Bitumen and bitumen emissions		✓		
Boric Acid	10043-35-3			✓
Boric Acid, disodium salt	1330-43-4			✓
Boric oxide; diboran trioxide	1303- 6-3			✓
Bromoethene (<i>alternative names</i> bromoethylene, vinyl bromide)	593-60-2	✓		
Bromoethylene (<i>alternative names</i> vinyl bromide, bromoethene)	593-60-2	✓		
Bromopropane				Cat. 1
Busulphan (<i>alternative names</i> 1,4-butanediol dimethylsulfonate, myleran)	55-98-1	Cat. 1		
Buta-1,3-diene	106-99-0	Cat. 1	✓	
1,4-Butanediol dimethylsulfonate (<i>alternative names</i> busulphan; myleran)	55-98-1	Cat. 1		
Butane[1], isobutane[2], containing >=0.1% butadiene	106-97-8	Cat. 1	✓	
4-tert-Butylbenzoic acid	98-73-7			✓
O-isobutyl-N-ethoxy carbonylthiocarbamate	103122-66-3	✓	✓	
6-sec-butyl-2,4-dinitrophenol (<i>alternative name</i> Dinoseb),	88-85-7			✓
6-sec-butyl-2,4-dinitrophenol (<i>alternative name</i> Dinoseb), salts and esters of				✓
2-sec-butyl-4,6-dinitrophenyl-3-methylcrotonate (ISO) (<i>alternative name</i> Binapacryl)	485-31-4			✓
2-tert-butyl-4,6-dinitrophenol (<i>alternative name</i> Dinoterb)	1420-07-1			✓
2-tert-butyl-4,6-dinitrophenol (<i>alternative name</i> Dinoterb) salts and esters of				✓

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Isobutyl nitrite	542-56-3	✓		
Butyl(RS)-2-[4-(5-trifluoromethyl-2-pyridyloxy) phenoxy] propionate (<i>alternative name</i> Fluazifop-butyl (ISO))	69806-50-4			✓
2-butyryl-3-hydroxy-5-thiocyclohexan-3-yl-cyclohex-2-en-1-one	94723-86-1			✓
C				
Cadmium	7440-43-9	Cat. 1		
Cadmium chloride	10108-64-2	Cat. 1	✓	✓
Cadmium fluoride	7790-79-6	Cat. 1	✓	✓
Cadmium oxide	1306-19-0	Cat. 1		
Cadmium sulphate	10124-36-4	Cat. 1		
Cadmium sulphide	1306-23-6	✓		
Calcium chromate	13765-19-0	Cat. 1		
Captafol (ISO) (<i>alternative name</i> 1,2,3,6-tetrahydro-N-(1,1,2,2,-tetrachloroethylthio)phthalimide	2425-06-1	✓		
Carbadox (INN) (<i>alternative names</i> methyl 3-(quinoxalin-2-methylene) carbazate 1,4-dioxide, 2-(methoxycarbonylhydrazonomethyl)quinoxaline 1,4-dioxide)	6804-07-5	✓		
Carbendazim (ISO); methyl benzimidazol-2-ylcarbamate	10605-21-7		✓	✓
Carbon electrode manufacture		✓		
Carbon monoxide GAS	630-08-0			Cat. 1
CCNU (<i>alternative names</i> 1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea, semustine)	13010-47-4	✓		
Cellosolve (<i>alternative names</i> ethylene glycol monoethyl ether, 2-ethoxyethanol, oxitol)	110-80-5			✓
Choral (Trichloroethanal)	75-87-6	✓		
Chloral Hydrate (2,2,2-Trichloroethane-1,1-diol)	302-17-0	✓		
Chlorambucil	305-03-3	Cat. 1		
Chloramphenicol	56-75-7	✓		
Chlornaphazine (<i>alternative name</i> N,N-Bis(2-chloroethyl)-2-naphthylamine)	494-03-1	Cat. 1		
p-Chloroaniline (<i>alternative name</i> 4-chloroaniline)	106-47-8	✓		
4-Chloroaniline (<i>alternative name</i> p-chloroaniline)	106-47-8	✓		
2-Chloroallyl diethyldithiocarbamate (<i>alternative name</i> sulfallate ISO)	95-06-7	✓		
Chloro-N,N-dimethylformiminium chloride	3724-43-4			✓

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Chlorodimethyl ether, (<i>alternative name</i> chloromethyl methyl ether)	107-30-2	Cat. 1		
1-Chloro-2,3-epoxypropane (<i>alternative name</i> epichlorohydrin)	106-89-8	✓		
11-Chloro-2,3-epoxypropane	51594-55-9	✓		
Chloroethene (<i>alternative names</i> vinyl chloride, chloroethylene)	75-01-4	Cat. 1		
Chloroethylene (<i>alternative names</i> vinyl chloride, chloroethene)	75-01-4	Cat. 1		
1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (<i>alternative name</i> CCNU)	13010-47-4	✓		
(2-Chloroethyl)(3-hydroxypropyl)ammonium chloride	40722-80-3	✓	✓	
6-(2-Chloroethyl)-6-(2-methoxyethoxy)-2,5,7,10-tetraoxa-6-silaundecane (<i>alternative name</i> etacelasil)	37894-46-5			✓
1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea (<i>alternative names</i> methyl CCNU, Semustine)	13909-09-6	Cat. 1		
Tris(2-chloroethyl)phosphate	115-96-8			✓
2-chloro-6-fluoro-phenol	2040-90-6		✓	
Chlorinated paraffins, C 14-17	85535-85-9			H362
Chloromethyl methyl ether, (<i>alternative name</i> chlorodimethyl ether)	107-30-2	Cat. 1		
(2RS,3RS)-3-(2-Chlorophenyl)-2-(4-fluorophenyl)-[(1H-1,2,4-triazol-1-yl)-methyl]oxirane	106325-08-0			✓
Chloroprene (2-chlorobuta-1,3-diene)	126-99-8	✓		
α Chlorotoluene (<i>alternative name</i> benzyl chloride)	100-44-7	✓		
4-Chloro-o-toluidine	95-69-2	✓		
Chlorozotocin	54749-90-5	✓		
Chromic chromate (<i>alternative name</i> chromium III chromate, dichromium tris(chromate))	24613-89-6	Cat. 1		
Chromic oxychloride (<i>alternative name</i> chromyl chloride)	14977-61-8	Cat. 1	✓	
Chromium VI compounds		Cat. 1		
Chromium III chromate (<i>alternative name</i> chromic chromate, dichromium tris (chromate))	24613-89-6	Cat. 1		
Chromium trioxide	1333-82-0	Cat. 1	✓	
Chromyl chloride (<i>alternative name</i> chromic oxychloride)	14977-61-8	Cat. 1	✓	
Chrysene	218-01-9	✓		
C.I. Basic red 9 (<i>alternative name</i> 4,4'-(4-iminocyclohexa-2,5-dienyllidenemethylene)dianiline hydrochloride)	560-61-9	✓		
Ciclosporin	59865-13-3	Cat. 1		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
C.I. Direct black 38 (<i>alternative name</i> disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo]][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate)	1937-37-7	✓		
C.I. Direct blue 6 (<i>alternative name</i> tetrasodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis[5-amino-4-hydroxynaphthalene-2,7-disulphonate)	2602-46-2	✓		
C.I. Direct brown 95 (<i>alternative name</i> disodium {5-[(4'-((2,6-hydroxy-5-sulphophenyl)azo)phenyl)azo(1'-biphenyl)-4-yl]azo}□alicylate(4-))cuprate (2-))	16071-86-6	✓		
C.I. Direct red 28 (<i>alternative name</i> disodium 3,3'-[[1,1' biphenyl] -4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate)	573-58-0	✓		
C.I. Disperse blue 1 (<i>alternative name</i> 1,4,5,8-tetraaminoanthraquinone)	2475-45-8	✓		
C.I. Pigment Red 104 (<i>alternative name</i> lead chromate molybdate sulphate red)	12656-85-8			Cat. 1
C.I. Pigment yellow 34 (<i>alternative name</i> lead sulphochromate yellow)	1344-37-2			Cat. 1
Cisplatin	15663-27-1	✓		
Clarified oils (petroleum)		✓		
Clonorchis sinensis, infection with		✓		
Coal, indoor emissions from household combustion		Cat. 1		
Coal liquids		✓		
Coal soots, coal tar, pitch, and coal tar fumes, extract residue		Cat. 1	✓	
Coal-tar distillation; Distillates (coal tar), benzole fraction;		Cat. 1		
Cobalt carbonate	513-79-1	✓		✓
Cobalt diacetate	71-48-7	✓		✓
Cobalt dichloride	7646-79-9	✓		✓
Cobalt dinitrate	10141-05-6	✓		✓
Cobalt lithium nickel oxide		Cat. 1		
Cobalt metal with tungsten Carbide		✓		
Cobalt sulphate	10124-43-3	✓		✓
Coke (coal tar), pitches		Cat. 1		
Coke production		Cat. 1		
Colchicine	64-86-8		✓	
Creosotes (from coal tars), creosote oil	8001-58-9	✓		
Cyclic 3-(1,2-ethanediylacetale)- estra-5(10),9(11)-diene-3,17- dione	5571-36-8			✓
Cycloheximide	66-81-9			✓

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Cyclophosphamide	6055-19-2	Cat. 1		
Cyclosporine	79217-60-0	Cat. 1		
D				
DBP (<i>alternative name</i> dibutyl phthalate)	84-74-2			✓
DEHP (<i>alternative names</i> bis (2-ethylhexyl) phthalate, di-(2-ethylhexyl) phthalate)	117-81-7			✓
N,N'-diacetylbenzidine	613-35-4	✓		
2,4-Diaminoanisole; 4-methoxy- <i>m</i> -phenylenediamine	615-05-4	✓		
2,4-diaminoanisole sulphate	39156-41-7	✓		
4,4'-Diaminobiphenyl, (<i>alternative names</i> benzidine 1,1'-biphenyl-4,4'-diamine, biphenyl-4,4'-ylenediamine)	92-87-5	Cat. 1		
4,4'-Diaminodiphenylmethane (<i>alternative name</i> 4,4'-methylene dianiline)	101-77-9	✓		
1,3 Diamino 4-methyl benzene (<i>alternative names</i> toluene-2,4-diammonium sulphate, 4-methyl- <i>m</i> -phenylenediamine sulphate)	65321-67-7	✓		
Diaminotoluene	25376-45-8	✓		
Diaminobenzidine; biphenyl-3,3', 4,4'-tetrayltetraamine	91-95-2	✓		
o-Dianisidine (<i>alternative name</i> 3,3'-dimethoxybenzidine)	119-90-4	✓		
o-Dianisidine salts (<i>alternative name</i> 3,3'-dimethoxybenzidine)		✓		
o-Dianisidine-based azodyes		✓		
Diarsenic pentaoxide (<i>alternative name</i> arsenic pentoxide)	1303-28-2	Cat. 1		
Diarsenic trioxide	1327-53-3	Cat. 1		
4,4'-Diarylazobiphenyl dyes (<i>alternative names</i> benzidine based azo dyes)		✓		
Diazinon		✓		
Diazomethane	334-88-3	✓		
Dibenz[a,i]acridine	224-42-0	✓		
Dibenz[a,h] anthracene	53-70-3	✓		
Dibenzo[a,l]pyrene	191-30-0	✓		
1,2-Dibromo-3-chloropropane	96-12-8	✓	✓	Cat. 1
1,2-Dibromoethane (<i>alternative name</i> ethylene dibromide)	106-93-4	✓		
2,3-Dibromo-1-propanol	96-13-9	✓		
Dibutyl phthalate (<i>alternative name</i> DBP)	84-74-2			✓

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Dibutyltin dichloride; (DBTC)	683-18-1			✓
Dibutyltin hydrogen borate	75113-37-0			✓
3,3'-Dichlorobenzidine (<i>alternative name</i> 3,3'dichlorobiphenyl-4,4'-ylenediamine)	91-94-1	✓		
3,3'-Dichlorobenzidine salts (<i>alternative name</i> 3,3'dichlorobiphenyl-4,4'-ylenediamine)		✓		
3,3' Dichlorobiphenyl-4,4'-ylenediamine (<i>alternative name</i> 3,3'-dichlorobenzidine and its salts)	91-94-1	✓		
1,4-Dichlorobut-2-ene	764-41-0	✓		
β,β'-Dichlorodiethyl sulphide (<i>alternative name</i> Mustard gas)	505-60-2	Cat. 1		
1,2-Dichloroethane (<i>alternative name</i> ethylene dichloride)	107-06-2	✓		
Dichloromethane (Methylene chloride, methylene dichloride, Solmethine, Narkotil, Di-clo)	75-09-2	✓		
2,2'-Dichloro-4,4'-methylenedianiline (<i>alternative names</i> MbOCA, 4,4'-methylene bis(2-chloroaniline), MOCA), and its salts	101-14-4	✓		
2,4-Dichlorophenyl 4-nitrophenyl ether (<i>alternative name</i> Nitrofen (ISO))	1836-75-5	✓		✓
N-3,5-dichlorophenyl-5-vinyl-1,3-oxazolidine-2,4-dione (<i>alternative name</i> Vinclozolin (ISO))	50471-44-8			✓
3,3'-Dichlorophenyl-4,4'-ylenediamine, dihydrochloride salts of	612-83-9	✓		
3,3'-Dichlorophenyl-4,4'-ylenediamine, sulphate salts of	64969-34-2	✓		
1,2-Dichloropropane (Propylene dichloride)	78-87-5	Cat. 1		
1,3-Dichloro-2-propanol	96-23-1	✓		
Dichromium tris(chromate) (<i>alternative name</i> chromium III chromate, chromic chromate)	24613-89-6	Cat. 1		
1,2:3,4 Diepoxybutane (<i>alternative name</i> 2,2'-bioxirane)	1464-53-5	✓	✓	
Diesel engine exhaust		Cat. 1		
Diethanolamine perfluorooctane sulfonate	70225-14-8			✓ + H362
Di-(2-ethylhexyl) phthalate (<i>alternative names</i> DEHP, bis (2-ethylhexyl) phthalate)	117-81-7			✓
1,2-Diethoxyethane	629-14-1			✓
Diethyl stilboestrol	56-53-1	Cat. 1		
Diethyl sulphate	64-67-5	✓	✓	
Diethyl phthalate	84-75-3			✓
N-[6,9-dihydro-9-[[2-hydroxy-1- (hydroxymethyl)ethoxy]methyl]- 6-oxo-1H-purin-2-yl]acetamide	84245-12-5	✓	✓	✓
Diisobutyl phthalate	84-69-5			✓
3,3'-Dimethoxybenzidine (<i>alternative name</i> o-dianisidine) and its salts	119-90-4	✓		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
N,N-Dimethylacetamide	127-19-5			✓
4,4'-bis(dimethylamino)benzophenone; Michler's ketone	202-027-5	✓		
1-3-[1-[4-[2-(Dimethylamino)ethoxy]phenyl]-2-phenylbut-1-enyl]phenol	82413-20-5			✓
N,N-(Dimethylamino)thioacetamide hydrochloride	27366-72-9			✓
3,3'-Dimethylbenzidine (<i>alternative name</i> o-toluidine)	119-93-7	✓		
3,3'-Dimethylbenzidine, salts of (<i>alternative name</i> o-tolidine)		✓		
Dimethylcarbamoyl chloride	79-44-7	✓		
Dimethyleneimine (<i>alternative names</i> aminoethylene, azirane, aziridine, ethylenimine, ethyleneimine)	151-56-4	✓	✓	
Dimethyl formamide (<i>alternative names</i> N,N-dimethyl formamide, DMF)	68-12-2			✓
N,N-Dimethyl formamide (<i>alternative names</i> dimethyl formamide, DMF)	68-12-2			✓
1,1 Dimethyl hydrazine (<i>alternative name</i> N,N-dimethylhydrazine)	57-14-7	✓		
1,2-Dimethylhydrazine	540-73-8	✓		
N,N-Dimethylhydrazine (<i>alternative name</i> 1,1 dimethyl hydrazine)	57-14-7	✓		
Dimethylnitrosamine (<i>alternative name</i> N-nitroso dimethylamine)	62-75-9	✓		
1,2-Dimethoxyethane; ethylene glycol dimethyl ether; EGDME	110-71-4			✓
Dimethylsulphamoyl chloride	13360-57-1	✓		
Dimethyl sulphate	77-78-1	✓		
2,6-Dimethyl-4-tridecylmorpholine (<i>alternative name</i> Tridemorph (ISO))	24602-86-6			✓
Dinickel trioxide	1314-06-3	Cat. 1		
2,3-Dinitrotoluene	602-01-7	✓		
2,4-Dinitrotoluene	121-14-2	✓		
2,5-Dinitrotoluene	619-15-8	✓		
2,6-Dinitrotoluene	606-20-2	✓		
3,4-Dinitrotoluene	610-39-9	✓		
3,5-Dinitrotoluene	618-85-9	✓		
Dinocap	39300-45-3			✓
Dinoseb (<i>alternative name</i> 6-sec-butyl-2,4-dinitrophenol)	88-85-7			✓
Dinoseb (<i>alternative name</i> 6-sec-butyl-2,4-dinitrophenol), salts and esters of				✓
Dinoterb (<i>alternative name</i> 2-tert-butyl-4,6-dinitrophenol)	1420-07-1			✓
Dinoterb (<i>alternative name</i> 2-tert-butyl-4,6-dinitrophenol) salts and esters of				✓

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Diphenylether; octabromo derivate	32536-52-0			✓
1,2 Diphenyl hydrazine (<i>alternative name</i> hydrazobenzene)	122-66-7	✓		
Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (<i>alternative name</i> C.I. Direct black 38)	1937-37-7	✓		
Disodium 3,3'-[[1,1' biphenyl] -4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate (<i>alternative name</i> C.I. Direct red 28)	573-58-0	✓		
Disodium {5-[(4'-((2,6-hydroxy-5-sulphophenyl)azo) phenyl)azo (1'-biphenyl)-4-yl)azo]□alicylate(4-)}cuprate (2-) (<i>alternative name</i> C.I. Direct brown 95)	16071-86-6	✓		
Disodium tetraborate, anhydrous	1330-43-4			✓
Disodium tetraborate decahydrate; borax decahydrate	1303-96-4			✓
Disodium tetraborate pentahydrate; borax pentahydrate	12179-04-3			✓
Distillates (coal tar), many types		Cat. 1		
Distillates (petroleum), most types		Cat. 1		
DMF (<i>alternative names</i> N,N-dimethyl formamide, Dimethyl formamide)	68-12-2			✓
Dodecachloropentacyclo[5.2.1.0 2,6 .0 3,9 .0 5,8]decane: Mirex	2385-85-5			H362
E				
Epichlorohydrin (<i>alternative name</i> 1-Chloro-2,3-epoxypropane)	106-89-8	✓		
Epoxiconazole (ISO); (2RS,3SR)-3-(2-chlorophenyl)- 2-(4-fluorophenyl)-[(1H-1,2,4- triazol-1-yl)methyl]oxirane	133855-98-8			✓
Epoxyethane (<i>alternative names</i> ethylene oxide, oxirane)	75-21-8	Cat. 1	✓	
(Epoxyethyl) benzene (<i>alternative names</i> styrene oxide, phenyloxirane)	96-09-3	✓		
1,2-Epoxy-3-phenoxypropane (<i>alternative names</i> 2,3-epoxypropyl phenyl ether, phenyl glycidyl ether)	122-60-1	✓		
1,2-Epoxypropane (<i>alternative names</i> propylene oxide, methyloxirane)	75-56-9	✓	✓	
2,3-Epoxypropan-1-ol (<i>alternative name</i> glycidol)	556-52-5	✓		✓
R-2,3-epoxy-1-propanol	57044-25-4	✓		✓
2,3-Epoxypropyl phenyl ether (<i>alternative names</i> phenyl glycidyl ether, 1,2-epoxy-3-phenoxypropane)	122-60-1	✓		
2,3-epoxypropyltrimethylammonium chloride ... %; glycidyl trimethylammonium chloride ... %	3033-77-0	✓		
Epstein-Barr virus		Cat. 1		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Erionite	12510-42-8	Cat. 1		
Etacelasil (<i>alternative name</i> 6-(2-Chloroethyl)-6-(2-methoxyethoxy)-2,5,7,10-tetraoxa-6-silaundecane)	37894-46-5			✓
O-hexyl-N-ethoxycarbonylthiocarbamate		✓	✓	
2-Ethoxyethanol (<i>alternative names</i> ethylene glycol monoethyl ether, cellosolve, oxitol)	110-80-5			✓
2-Ethoxyethyl acetate (<i>alternative name</i> ethyl glycol acetate)	111-15-9			✓
(4-Ethoxyphenyl)(3-(4-fluoro-3-phenoxyphenyl)propyl)dimethylsilane	105024-66-6			✓
Ethyl carbamate (<i>alternative name</i> urethane (INN))	51-79-6	✓		
Ethyl 1-(2,4-dichlorophenyl)-5- (trichloromethyl)-1 <i>H</i> -1,2,4- triazole-3-carboxylate	103112-35-2	✓		
2-Ethylhexyl 10-ethyl-4,4- dioctyl-7-oxo-8-oxa-3,5-dithia- 4-stannatetradecanoate	15571-58-1			✓
Ethylene dibromide (<i>alternative name</i> 1,2-Dibromoethane)	106-93-4	✓		
Ethylene dichloride (<i>alternative name</i> 1,2-Dichloroethane)	107-06-2	✓		
Ethylene glycol monoethyl ether (<i>alternative names</i> 2-ethoxyethanol, cellosolve, oxitol)	110-80-5			✓
Ethylene glycol monomethyl ether (<i>alternative names</i> 2-methoxyethanol, methyl cellosolve)	109-86-4			✓
Ethyleneimine (<i>alternative names</i> aminoethylene, azirane, aziridine, dimethyleneimine, ethylenimine)	151-56-4	✓	✓	
Ethylene oxide (<i>alternative names</i> oxirane, epoxyethane)	75-21-8	Cat. 1	✓	
Ethylene thiourea (<i>alternative names</i> imidazolidine-2-thione, 2-imidazoline-2-thiol)	96-45-7			✓
Ethylene trichloride (<i>alternative names</i> Trichloroethylene, Trike, Trilene)	79-01-6	✓		
Ethylenimine (<i>alternative names</i> aminoethylene, azirane, aziridine, dimethyleneimine, ethyleneimine)	151-56-4	✓	✓	
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2			✓
Ethyl glycol acetate (<i>alternative name</i> 2-Ethoxyethyl acetate)	111-15-9			✓
2-Ethylhexyl [[3,5-bis(1,1-dimethylethyl) 4-hydroxyphenyl] methyl] thio] acetate	80387-97-9			✓
N-Ethyl-N-nitrosourea	759-73-9	✓		
N-Ethyl-2-pyrrolidone; 1-ethylpyrrolidin-2-one	2687-91-4			✓
Etofenprox (ISO); 2-(4-ethoxyphenyl)-2-methylpropyl 3-phenoxybenzyl ether	80844-07-1			H362
Etoposide	33419-42-0	Cat. 1		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Etoposide in combination with cisplatin and bleomycin	33419-42-0	Cat. 1		
Extracts (petroleum), most types		✓		
Extract residues, from coal or coal tar		✓		
F				
Fast garnet GBC base (<i>alternative names</i> 4-o-tolylazo-o-toluidine, 4-amino-2',3-dimethylazobenzene, AAT, o-aminoazotoluene)	97-56-3	✓		
Fenarimol (ISO); 2,4'-dichloro- α -(pyrimidin-5-yl)benzhydryl alcohol	60168-88-9			H362
Fission products, including strontium-90		Cat. 1		
Fluazifop-butyl (ISO) (<i>alternative name</i> butyl(RS)-2-[4-(5-trifluoromethyl-2-pyridyloxy)phenoxy] propionate	69806-50-4			✓
Flufenoxuron (ISO); 1-(4-(2-chloro- α,α,α -p-trifluorotolyloxy)-2-fluorophenyl)-3- (2,6-difluorobenzoyl)urea	101463-69-8			H362
Flumioxazin (ISO) (<i>alternative name</i> N-(7-fluoro-3,4-dihydro-3-oxo-4-prop-2-ynyl-2H-1,4-benzoxazin-6-yl)cyclohex-1-ene-1,2-dicarboxamide)	103361-09-7			✓
N-(7-fluoro-3,4-dihydro-3-oxo-4-prop-2-ynyl-2H-1,4-benzoxazin-6-yl)cyclohex-1-ene-1,2-dicarboxamide (<i>alternative name</i> Flumioxazin (ISO))	103361-09-7			✓
Fluoroethene (<i>alternative names</i> vinyl fluoride, fluoroethylene)	75-02-5	✓		
Fluoroethylene (<i>alternative names</i> fluoroethene, vinyl fluoride)	75-02-5	✓		
Flusilazole (ISO) (<i>alternative name</i> bis(4-fluorophenyl)-(methyl)-(1H-1,2,4-triazol-1-ylmethyl)-silane	85509-19-9			✓
Foots Oil (petroleum)		✓		
Formaldehyde, (<i>alternative name</i> formalin)	50-00-0	Cat. 1		
Formamide	75-12-7			✓
Frying, emissions from high temperature		✓		
Fuel oil no. 6	68553-00-4	✓		
Fuel oil, heavy, high sulphur		✓		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Fuel oil, residues-straight-run gas oils, high sulphur		✓		
Fuel oil, residual		✓		
Furan	110-00-9	✓		
Furniture and cabinet making		Cat. 1		
G				
Gallium Arsenide	1303-00-0	✓		
Gamma radiation		Cat. 1		
Gas oils (petroleum), most types		✓		
Gases (petroleum) most types		✓		
Gasoline, coal solvent extraction, hydrocracked naphtha		✓		
Glufosinate ammonium (ISO); ammonium 2-amino-4- (hydroxymethylphosphinyl)butyrate	77182-82-2			✓
Glycerol trichlorohydrin (<i>alternative names</i> allyl trichloride, 1,2,3-trichloropropane)	96-18-4	✓		✓
Glycidol (<i>alternative name</i> 2,3-epoxypropan-1-ol)	556-52-5	✓		✓
Glyphosphate (Herbicide)		✓		
H				
Hardwood dusts		Cat. 1		
HCB, (<i>alternative names</i> hexachlorobenzene, perchlorobenzene)	118-74-1	✓		
Helicobacter pylori, infection with		Cat. 1		
Hepatitis B virus (chronic infection with)		Cat. 1		
Hepatitis C virus (chronic infection with)		Cat. 1		
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	35822-46-9	✓		
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	✓		
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	✓		
Herbal remedies containing plants of genus Aristolochia		Cat. 1		
Hexabromocyclododecane (1,2,5,6,9,10-hexabromocyclododecane)	25637-99-4			H362
Hexachlorobenzene, (<i>alternative names</i> HCB, perchlorobenzene)	118-74-1	✓		
1,2,3,4,7,8-Hexachlorodibenzodioxin	39227-28-6	✓		
1,2,3,6,7,8-Hexachlorodibenzodioxin	57653-85-7	✓		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
1,2,3,7,8,9-Hexachlorodibenzodioxin	19408-74-3	✓		
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	✓		
1,2,3,6,7,8-Hexachlorodibenzofuran		✓		
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	✓		
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	✓		
Hexamethylphosphoramide (<i>alternative name</i> hexamethylphosphoric triamide)	680-31-9	✓	✓	
Hexamethylphosphoric triamide (<i>alternative name</i> hexamethylphosphoramide)	680-31-9	✓	✓	
Hot mate		✓		
Human immunodeficiency virus type 1, infection with		Cat. 1		
Human papillomavirus type 16		Cat. 1		
Human papillomavirus type 18		Cat. 1		
Human papillomavirus type 31		✓		
Human papillomavirus type 33		✓		
Human papillomavirus type 68		✓		
Human T-cell lymphotropic virus type I		Cat. 1		
Hydrazine	302-01-2	✓		
Hydrazine, salts of		✓		
Hydrazine bis(3-carboxy-4-hydroxybenzene sulphonate)		✓		
Hydrazine-tri-nitromethane		✓		
Hydrazobenzene	122-66-7	✓		
Hydrocarbon oils, aromatic mixed (petroleum product)		✓		
Hydrocarbons C ₂₆₋₅₅ , aromatic rich (petroleum product)		✓		
2-[2-Hydroxy-3-(2-chlorophenyl)carbamoyl-1-naphthylazo]-7-[2-hydroxy-3-(3-methylphenyl)carbamoyl-1-naphthylazo]fluoren-9-one	151798-26-4			✓
(6-(4-Hydroxy-3-(2-methoxyphenylazo)-2-sulphonato-7-nephthylamino)-1,3,5-triazin-2,4-diyl)bis[(amino-1-methylethyl)-ammonium] formate	108225-03-2	✓		
6-Hydroxy-1-(3-isopropoxypropyl)-4-methly-2-oxo-5-[4-(phenylazo)phenylazo] –1,1-dihydro-3-pyridine carbonitrile	85136-74-9	✓		
1-4-hydroxy-3-(3-oxo-1-phenylbutyl)-2-benzopyrone	5543-58-8			Cat. 1
(S)-4-hydroxy-3-(3-oxo-1-phenylbutyl)-2-benzopyrone	5543-57-7			Cat. 1
4-Hydroxy-3-(3-oxo-1-phenylbutyl) coumarin (<i>alternative name</i> Warfarin)	81-81-2			Cat. 1

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
3-Hydroxy-1-propane sulphonic acid (<i>alternative names</i> 1,3-propanesultone, 1,2-oxathiolane 2,2-dioxide,)	1120-71-4	✓		
3-Hydroxypropionic acid lactone (<i>alternative names</i> 3-Propanolide, β-propiolactone, 1,3-propiolactone)	57-57-8	✓		
I				
2-Imidazoline-2-thiol (<i>alternative names</i> ethylene thiourea, imidazolidine-2-thione)	96-45-7			✓
Imidazolidine-2-thione (<i>alternative names</i> ethylene thiourea, 2-imidazoline-2-thiol)	96-45-7			✓
4,4'-(4-iminocyclohexa-2,5-dienylidene)methylene)dianiline hydrochloride (<i>alternative name</i> C.I. Basic Red 9)	560-61-9	✓		
Indium phosphide	22398-80-7	✓		
Insecticides (non-arsenical)		✓		
IQ (2-Amino-3-methylimidazo[4,5-f]quinoline)	76180-96-6	✓		
Iron and steel founding AND welding (occupational exposure during)		Cat. 1		
4,4'-isobutylethylidenediphenol (<i>alternative name</i> 2,2-bis(4'-hydroxyphenyl)-4-methylpentane)	6807-17-6			✓
K, L				
Kaposi's sarcoma herpes virus/human herpes virus		Cat. 1		
Ketoconazole; 1-[4-[4-[(2SR, 4RS)-2-(2,4-dichlorophenyl)-2-(imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]piperazin-1-yl]ethanone	65277-42-1			✓
Lead acetate	1335-32-6			Cat. 1
Lead alkyls				Cat. 1
Lead azide	13424-46-9			Cat. 1
Lead chromate	7758-97-6	✓		Cat. 1
Lead chromate molybdate sulphate red (<i>alternative name</i> C.I. Pigment Red 104)	12656-85-8	✓		Cat. 1
Lead compounds, not specified elsewhere		✓		Cat. 1
Lead di(acetate)	301-04-2			Cat. 1
Lead hexafluorosilicate	25808-74-6	✓		Cat. 1
Lead hydrogen arsenate	7784-40-9	Cat. 1		Cat. 1

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Lead (II) methanesulphonate	17570-76-2			Cat. 1
Lead styphnate (<i>alternative names</i> lead 2,4,6-trinitroresorcinoxide, lead 2,4,6-trinitro-m-phenylene dioxide)	15245-44-0			Cat. 1
Lead sulphochromate yellow (<i>alternative name</i> C.I. Pigment yellow 3)	1344-37-2	✓		Cat. 1
Lead 2,4,6-trinitroresorcinoxide (<i>alternative names</i> lead styphnate, lead 2,4,6-trinitro-m-phenylene dioxide)	15245-44-0			Cat. 1
Lead 2,4,6-trinitro-m-phenylene dioxide, (<i>alternative names</i> lead styphnate, lead 2,4,6-trinitroresorcinoxide)	15245-44-0			Cat. 1
Leather dust		Cat. 1		
Lindane (ISO); γ-HCH or γ-BHC; γ-1,2,3,4,5,6-hexachlorocyclohexane	58-89-9			H362
Linuron (ISO); 3-(3,4-dichlorophenyl)-1-methoxy-1-methylurea	330-55-2			✓
Lithium perfluorooctane sulfonate; lithium heptadecafluorooctanesulfonate	29457-72-5			✓ + H362
Liquefied Petroleum Gas (LPG), containing more than 0.1% buta-1,3-diene		✓		
Lubricating oils (petroleum), various		✓		

M

Magenta production		Cat. 1		
Malathion		✓		
Malaria caused by <i>P.falciparum</i> in holoendemic areas		✓		
Mate tea, hot		✓		
MbOCA (<i>alternative names</i> 2,2'-Dichloro-4,4'-methylenedianiline, 4,4'-methylene bis(2-chloroaniline), MOCA), and its salts	101-14-4	✓		
Melphalan	148-82-3	Cat. 1		
Merkel Cell Polyomavirus (MCP)		✓		
Mercury	7439-97-6			✓
Methanal, (<i>alternative names</i> formaldehyde, formalin)	50-00-0	✓		
Methoxsalen (<i>alternative name</i> 8-Methoxypsoralen) plus UV	298-81-7	Cat. 1		
Methoxyacetic acid	625-45-6			✓
2-Methoxyaniline (<i>alternative name</i> o-anisidine)	90-04-0	✓		
2-(Methoxycarbonylhydrazonomethyl)quinoxaline 1,4-dioxide (<i>alternative names</i> Carbadox (INN), methyl 3-(quinoxalin-2-methylene) carbazate 1,4-dioxide)	6804-07-5	✓		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
2-Methoxyethanol (<i>alternative names</i> ethylene glycol monomethyl ether, methyl cellosolve)	109-86-4			✓
1,2-bis(2-Methoxyethoxy)ethane; TEGDME; triethylene glycol dimethyl ether; triglyme	112-49-2			✓
2-Methoxyethyl acetate (<i>alternative names</i> methyl glycol acetate)	110-49-6			✓
7-methoxy-6-(3-morpholin-4-yl- propoxy)-3H-quinazolin-4-one; [containing ≥ 0,5 % formamide	199327-61-2			✓
2-Methoxypropanol	1589-47-5			✓
2-Methoxypropyl acetate	70657-70-4			✓
5-Methoxypsoralen	484-20-8	✓		
8-Methoxypsoralen (<i>alternative name</i> Methoxsalen) plus UV	298-81-7	Cat. 1		
6-Methoxy- <i>m</i> -toluidine; <i>p</i> -cresidine	120-71-8	✓		
N-Methylacetamide	79-16-3			✓
Methyl acrylamidoglycolate (containing ≥ 0.1% acrylamide)	77402-05-2	✓	✓	
Methyl acrylamidomethoxyacetate (containing ≥ 0.1% acrylamide)	77402-03-0	✓	✓	
2-Methylaziridine (<i>alternative name(s)</i> propyleneimine)	75-55-8	✓		
Methyl azoxy methyl acetate –(<i>alternative name</i> methyl ONN-azoxymethylacetate)	592-62-1	✓		✓
Methyl CCNU (<i>alternative names</i> 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea, Semustine)	13010-47-4	Cat. 1		
Methyl cellosolve (<i>alternative names</i> 2-methoxyethanol, ethylene glycol monomethyl ether)	109-86-4			✓
4,4'-methylene bis(2-chloroaniline) (<i>alternative names</i> 2,2'-dichloro-4,4'-methylenedianiline, MbOCA, MOCA), and its salts	101-14-4	Cat. 1		
Methylenebis(4,1-phenylenazo(1-(3-(dimethylamino)propyl)-1,2-dihydro-6- hydroxyl-4-methyl-2- oxopyridine-5,3-diyl))-1,1'- dipyridinium dichloride dihydrochloride	118658-99-4	✓		
4,4'-Methylene dianiline (<i>alternative name</i> 4,4'-diaminodiphenylmethane)	101-77-9	✓		
4,4'-Methylenedi- <i>o</i> -toluidine	838-88-0	✓		
N-Methylformamide	123-39-7			✓
Methyl glycol acetate (<i>alternative name</i> 2- methoxyethyl acetate)	110-49-6			✓
Methyl methanesulfonate	66-27-3	✓		
N-methyl-N'-nitro-N-nitrosoguanidine	70-25-7	✓		
1-Methyl-3-nitro-1-nitrosoguanidine	70-25-7	✓		
N-Methyl-N-nitrosourea	684-93-5	✓		
Methyl-ONN-azoxymethylacetate (<i>alternative name</i> methyl azoxy methyl acetate)	592-62-1	✓		✓

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Methyloxirane (<i>alternative names</i> 1,2-epoxypropane, propylene oxide)	75-56-9	✓	✓	
4-Methyl-m-phenylenediamine (<i>alternative name</i> 2-4-toluenediamine)	95-80-7	✓		
4-Methyl-m-phenylenediamine sulphate (<i>alternative names</i> toluene-2,4-diammonium sulphate, 1,3 diamino 4-methyl benzene)	65321-67-7	✓		
N-Methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone	872-50-4			✓
Methyl 3-(quinoxalin-2-methylene) carbazate 1,4-dioxide (<i>alternative names</i> Carbadox (INN), 2-(methoxycarbonylhydrazonomethyl)quinoxaline 1,4-dioxide)	6804-07-5	✓		
Mineral oils, untreated and mildly treated		Cat. 1		
MOPP and other combined chemotherapy including alkylating agents		Cat. 1		
Mustard gas (<i>alternative name</i> β,β'-dichlorodiethyl sulphide)	505-60-2	Cat. 1		
Myleran, (<i>alternative names</i> 4-butanediol dimethylsulfonate, Busulphan)	55-98-1	Cat. 1		

N

Naphtha, solvent naphthas, petroleum		✓	✓	
Naphthenic oils		✓		
2-Naphthylamine (<i>alternative names</i> β-naphthylamine, 2-aminonaphthalene)	91-59-8	Cat. 1		
2-Naphthylamine, salts of (<i>alternative names</i> β-naphthylamine, 2-aminonaphthalene)	612-52-2	Cat. 1		
β-Naphthylamine (<i>alternative names</i> 2- naphthylamine, 2-aminonaphthalene)	91-59-8	Cat. 1		
β-Naphthylamine, salts of (<i>alternative names</i> 2- naphthylamine, 2-aminonaphthalene)		Cat. 1		
Natural gas condensates (petroleum)		✓		
Neutrons		Cat. 1		
Nickel carbonyl (<i>alternative names</i> nickel tetracarbonyl, tetracarbonyl nickel)	13463-39-3			✓
Nickel compounds / salts see CLP table 3.1		Cat. 1		✓
Nickel dioxide	12035-36-8	Cat. 1		
Nickel Hydroxide	11113-74-9	Cat. 1		✓
Nickel monoxide	1313-99-1	Cat. 1		
Nickel subsulphide (<i>alternative name</i> trinickel disulphide)	12035-72-2	Cat. 1		
Nickel sulphide	16812-54-7	Cat. 1		
Nickel tetracarbonyl (<i>alternative names</i> nickel carbonyl, tetracarbonyl nickel)	13463-39-3			✓
Nitrate or Nitrite ingested under conditions that cause endogenous nitrosation		✓		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
5-Nitroacenaphthene	602-87-9	✓		
2-Nitroanisole	91-23-6	✓		
Nitrobenzene	98-95-3			✓
4-Nitrobiphenyl (<i>alternative name</i> 4-nitrodiphenyl)	92-93-3	✓		
4-Nitrodiphenyl (<i>alternative name</i> 4-nitrobiphenyl)	92-93-3	✓		
6-Nitrochrysene	7496-02-8	✓		
Nitrofen (ISO), (<i>alternative name</i> 2,4-dichlorophenyl 4-nitrophenyl ether)	1836-75-5	✓		✓
Nitrogen mustard	51-75-2	✓		
2-Nitronaphthalene	581-89-5	✓		
2-Nitropropane	79-46-9	✓		
1-Nitropyrene	5522-43-0	✓		
N-nitrosodiethylamine	55-18-5	✓		
N-nitroso dimethylamine (<i>alternative name</i> dimethylnitrosamine)	62-75-9	✓		
N-Nitrosodipropylamine	621-64-7	✓		
2,2'-(Nitrosoimino) bis ethanol	1116-54-7	✓		
N-Nitrosomornicotine (NNN) and 4-(N-Nitrosomethylamino)-1-3-(3-pyridyl)-1-butanone (NNK)		Cat. 1		
2-Nitrotoluene	88-72-2	✓	✓	
Non-arsenical insecticides (occupational exposure by spraying)		✓		

O

Octachlorodibenzodioxin (OCDD)	3268-87-9	✓		
Octachlorodibenzofuran (OCDF)	39001-02-0	✓		
Oestrogen therapy, postmenopausal		Cat. 1		
Oestrogens, nonsteroidal (not necessarily all compounds in the group)		Cat. 1		
Oestrogens, steroidal (not necessarily all compounds in the group)		Cat. 1		
Opisthorchis viverrini, infection with		Cat. 1		
Oral contraceptives, combined		Cat. 1		
Oral contraceptives, sequential		Cat. 1		
1,2 Oxathiolane 2,2-dioxide (<i>alternative names</i> 1,3-propanesultone, 3 hydroxy-1-propane sulphonic acid)	1120-71-4	✓		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Oxirane (<i>alternative names</i> ethylene oxide, epoxyethane)	75-21-8	Cat. 1	✓	
Oxiranemethanol, 4-methylbenzene-sulfonate, (S)-	70987-78-9	✓		
Oxitol (<i>alternative names</i> ethylene glycol monoethyl ether, cellosolve, 2-ethoxyethanol)	110-80-5			✓
Oxybis (chloromethane) (<i>alternative names</i> BCME, bis(chloromethyl) ether)	542-88-1	Cat. 1		
P				
Painter, occupational exposure as a		Cat. 1		
Paraffin waxes, from brown coal high temp. tar		✓		
3,4,5,3',4'-Pentachlorobiphenyl (PCB-126)		Cat. 1		
1,2,3,7,8-Pentachlorodibenzodioxin	40321-76-4	✓		
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	✓		
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	Cat. 1		
n-Pentyl-isopentylphthalate; di-n-pentyl phthalate; diisopentylphthalate				✓
Perboric acid sodium salts				✓
Perchlorobenzene, (<i>alternative names</i> HCB, hexachlorobenzene)	118-74-1	✓		
Perfluorooctane sulfonic acid; heptadecafluorooctane-1- sulfonic acid	1763-23-1			✓ + H362
Perfluorooctanoic acid	335-67-1			✓ + H362
Petrolatum	8009-03-8	✓		
Petroleum; crude oil		✓		
Petroleum distillates (see CLP Regulations for details)		Cat. 1		
Petroleum gases, liquefied (various)		✓		
Petroleum refining (occupational exposure)		✓		
Phenacetin	62-44-2	Cat. 1		
Phenacetin, (analgesic mixtures containing)		Cat. 1		
Phenanthrene distillation residues		✓		
Phenols, C ₉ to C ₁₁		✓		
Phenolphthaleine	77-09-8	✓		
4-Phenylazoaniline (<i>alternative name</i> 4-aminoazobenzene)	60-09-3	✓		
Phenyl glycidyl ether (<i>alternative names</i> 2,3-epoxypropyl phenyl ether, 1,2-epoxy-3-phenoxypropane)	122-60-1	✓		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Phenylhydrazine	100-63-0	✓		
Phenylhydrazinium chloride	59-88-1	✓		
Phenylhydrazinium hydrochloride	27140-08-5	✓		
Phenylhydrazinium sulphate	52033-74-6	✓		
Phenyloxirane (<i>alternative names</i> Styrene oxide, (epoxyethyl) benzene)	96-09-3	✓		
Phosphorus-32, as phosphate		Cat. 1		
Pioglitazone (trade name: Actos)		✓		
Pitches		✓		
Plutonium-239 and its decay products as aerosols.		Cat. 1		
Polybrominated biphenyls		✓		
Polychlorinated biphenyls	1336-36-3	Cat. 1		
Potassium bromate	7758-01-2	✓		
Potassium chromate	7789-00-6	✓	✓	
Potassium dichromate	7778-50-9	✓	✓	✓
potassium 1-methyl-3-morpholinocarbonyl-4-[3-(1-methyl-3-morpholinocarbonyl-5-oxo-2-pyrazolin-4-ylidene)-1-propenyl]pyrazole-5-olate; [containing ≥ 0,5 % <i>N,N</i> -dimethylformamide	183196-57-8			✓
Potassium perfluorooctanesulfonate; potassium heptadecafluorooctane-1-sulfonate	2795-39-3			✓ + H362
Procarbazine hydrochloride	366-70-1	✓		
1,3-Propanesultone (<i>alternative names</i> 1,2 oxathiolane 2,2-dioxide, 3 hydroxy-1-propane sulphonic acid)	1120-71-4	✓		
3-Propanolide (<i>alternative names</i> 1,3 propiolactone, β-propiolactone, 3-hydroxypropionic acid lactone)	57-57-8	✓		
Prop-2-enamide (<i>alternative name</i> acrylamide)	79-06-1	✓	✓	
β Propiolactone (<i>alternative names</i> 3-Propanolide, 1,3-propiolactone, 3-hydroxypropionic acid lactone)	57-57-8	✓		
1,3 Propiolactone (<i>alternative names</i> 3-Propanolide, β-propiolactone, 3-hydroxypropionic acid lactone)	57-57-8	✓		
Propyleneimine (<i>alternative name</i> 2-methylaziridine)	75-55-8	✓		
Propylene oxide (<i>alternative names</i> 1,2-epoxypropane, methyloxirane)	75-56-9	✓	✓	
Pyridine, alkyl derivatives, crude tar bases		✓		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Q, R				
Quinoline	91-22-5	✓		
Radioiodines, short lived isotopes, including Iodine-131 from reactor incidents and weapons detonation, exposure during childhood.		Cat. 1		
Radionuclides, α -particle emitting, internally deposited		Cat. 1		
Radionuclides, β -particle emitting, internally deposited		Cat. 1		
Radium 224 and its decay products		Cat. 1		
Radium 226 and its decay products		Cat. 1		
Radium 228 and its decay products		Cat. 1		
Radon 222 and its decay products		Cat. 1		
Raffinates (petroleum)		✓		
Refractory ceramic fibres (some)		✓		
Residual oils (petroleum)		✓		
Residues (petroleum), most types		✓		
Rubber manufacturing and processing that gives rise to rubber process dust and rubber fume		✓		
S				
Safrole (<i>alternative name(s)</i> 5-Allyl-1, 3-benzodioxole)	94-59-7	✓		
Salted fish (Chinese style)		Cat. 1		
Schistosoma haematobium, infection with		Cat. 1		
Semustine (<i>alternative names</i> 1-(2-chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea, methyl CCNU)	13010-47-4	Cat. 1		
Shale oils	68308-34-9	Cat. 1		
Silica, crystalline, inhaled in the form of quartz or cristobalite from occupational sources	14808-60-7	Cat. 1		
Silicic acid, lead nickel salt	68130-19-8	✓		✓
Slack wax (petroleum)	64742-61-6	✓		
Sodium chromate	7775-11-3	✓	✓	✓
Sodium dichromate	10588-01-9	Cat. 1	✓	✓
Sodium dichromate dihydrate	7789-12-0	Cat. 1	✓	✓

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Sodium perborate; sodium peroxometaborate; sodium peroxoborate				✓
Solar radiation		Cat. 1		
Soots		Cat. 1		
Stoddard solvent	8052-41-3	✓		
Strontium chromate	7789-06-2	Cat. 1		
Styrene oxide (<i>alternative names</i> (epoxyethyl) benzene, phenyloxirane, styrene 7,8, oxide)	96-09-3	✓		
Sulfallate ISO (<i>alternative names</i> 2-chloroallyl diethyldithiocarbamate)	95-06-7	✓		
Sulfur mustard (mustard gas)	505-60-2	Cat. 1		
T				
Tail gas (petroleum)		✓		
Talc containing asbestiform fibres		Cat. 1		
Tamoxifen (however, there is conclusive evidence that this reduces the risk of contralateral breast cancer)	10540-29-1	Cat. 1		
Tar acids		✓		
Tar bases		✓		
Tar, coal most types		Cat. 1		
Tar oils, brown coal	94114-40-6	✓	✓	
Teniposide	29767-20-2	✓		
1,4,5,8-tetraamino-anthraquinone (<i>alternative name</i> CI Disperse Blue 1)	2475-45-8	✓		
Tetraboron disodium heptaoxide, hydrate;	12267-73-1			✓
Tetracarbonyl nickel (<i>alternative names</i> nickel carbonyl, nickel tetracarbonyl)	13463-39-3			✓
2,3,7,8-tetrachlorodibenzofuran (TCDF)	51207-31-9	✓		
2,3,7,8-Tetrachlorodibenzo-para-dioxin (TCDD)	1746-01-6	Cat. 1		
Tetrachloroethylene	127-18-4	✓		
α, α,α,4-tetrachlorotoluene; <i>p</i> -chlorobenzotrichloride	226-009-1	✓		
Tetrafluoroethylene	114-14-3	✓		
(+/-)Tetrahydrofurfuryl 1-2-[4-(6-chloroquinoxalin-2-yloxy)phenoxy] propionate	119738-06-6			✓
Tetrahydro-2-furylmethanol; tetrahydrofurfuryl alcohol	97-99-4			✓

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
1,2,3,6-Tetrahydro-N-(1,1,2,2,-tetrachloroethylthio) phthalimide (<i>alternative name</i> Captafol (ISO))	2425-06-1	✓		
Tetrahydrothiopyran-3-carboxaldehyde	61571-06-0	✓		
N,N,N',N'-tetramethyl-4,4'- methylendianiline	101-61-1	✓		
Tetrasodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis[5-amino-4-hydroxynaphthalene-2,7-disulphonate (<i>alternative name</i> C.I. Direct blue 6)	2602-46-2	✓		
TGIC (<i>alternative names</i> triglycidyl isocyanurate, 1,3,5,-tris(oxiranylmethyl)-2,3,5-triazine-2,4,6(1H,2H,5H)-trione)	2451-62-9		✓	
Thioacetamide	62-55-5	✓		
4,4'-thiodianiline and its salts	139-65-1	✓		
Thiotepa /	52-24-4	Cat. 1		
Thorium 232 and its decay products, administered intravenously as colloidal suspension of Th232 dioxide		Cat. 1		
Tobacco products, smokeless		Cat. 1		
Tobacco smoke		Cat. 1		
2,4-Toluenediamine (<i>alternative name</i> 4-methyl-m-phenylenedamine)	95-80-7	✓		
Toluene-2,4-diammonium sulphate (<i>alternative names</i> 4-methyl-m-phenylenediamine sulphate, 1,3 diamino 4-methyl benzene)	65321-67-7	✓		
o-Tolidine (<i>alternative name</i> 3,3'-dimethylbenzidine)	119-93-7	✓		
o-Tolidine, salts of (<i>alternative name</i> 3,3'-dimethylbenzidine)		✓		
o-Toluidine (<i>alternative name</i> 2-aminotoluene)	95-53-4	Cat. 1		
o-Toluidine, salts of		✓		
o-Toluidine based azodyes		✓		
4-o-Tolylazo-o-toluidine (<i>alternative names</i> 4-amino-2',3-dimethylazobenzene, fast garnet GBC base, AAT, o-aminoazotoluene)	97-56-3	✓		
Treosulfan	299-75-2	Cat. 1		
Trichloroethylene (<i>alternative names</i> TRIKE, Trilene, ethylene trichloride)	79-01-6	Cat. 1		
Trichloroethanal (choral)	75-87-6	✓		
2,2,2-Trichloroethane-1,1-diol (choral)	302-17-0	✓		
1,2,3-Trichloropropane (<i>alternative names</i> allyl trichloride, glycerol trichlorohydrin)	96-18-4	✓		
α,α,α-trichlorotoluene (<i>alternative name</i> benzotrichloride)	98-07-7	✓		

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Triethyl arsenate	15606-95-8	Cat. 1		
Tridemorph (ISO) (<i>alternative name</i> 2,6-dimethyl-4-tridecylmorpholine)	24602-86-6			✓
Triglycidyl isocyanurate (<i>alternative names</i> 1,3,5,-tris(oxiranylmethyl)-2,3,5-triazine-2,4,6(1H,2H,5H)-trione; TGIC)	2451-62-9	✓	✓	
Triethyl arsenate	15606-95-8	Cat. 1		
Trilead bis(orthophosphate)	7446-27-7			Cat. 1
Trilene (<i>alternative names</i> trichloroethylene, Trike, ethylene trichloride)	79-01-6	✓		
2,4,5-trimethylaniline (and hydrochloride)	21436-97-5	✓		
Trinickel disulphide (<i>alternative name</i> nickel subsulphide)	12035-72-2	Cat. 1		
Tris(2,3-dibromopropyl) phosphate	126-72-2	✓		
Trisodium-[4'-(8-acetylamino-3,6-disulphonato-2-naphthylazo)-4''-(6-benzoylamino-3-sulphonato-2-naphthylazo) biphenyl-1,3',3'',1'''-tetraolato-O,O',O'',O'''] copper (II)	164058-22-4	✓		
1,3,5,-Tris(oxiranylmethyl)-2,3- epoxypropyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	59653-74-6		✓	
1,3,5,-Tris[(2S and 2R)oxiranylmethyl]-2,3,5-triazine-2,4,6(1H,2H,5H)-trione (<i>alternative names</i> triglycidyl isocyanurate; TGIC)			✓	
Trixylyl phosphate	25155-23-1			✓

U

Ultraviolet radiation A		Cat. 1		
Ultraviolet radiation B		Cat. 1		
Ultraviolet radiation C		Cat. 1		
Urethane (INN) (<i>alternative name</i> ethyl carbamate)	51-79-6	✓		
Used engine oils		✓		

V, W

Vinclozolin (ISO) (<i>alternative name</i> N-3,5-dichlorophenyl-5-vinyl-1,3-oxazolidine-2,4-dione)	50471-44-8			✓
Vinyl bromide (<i>alternative names</i> bromoethylene, bromoethene)	593-60-2	✓		
Vinyl fluoride (<i>alternative names</i> fluoroethene, fluoroethylene)	75-02-5	✓		
Vinyl chloride (<i>alternative names</i> chloroethylene, chloroethene)	75-01-4	Cat. 1		
Warfarin (<i>alternative name</i> 4-hydroxy-3-(3-oxo-1-phenylbutyl) coumarin)	81-81-2			Cat. 1

Substance suspected or confirmed to be carcinogenic, mutagenic or toxic to reproduction	CAS No.	Carcinogen	Mutagen*	Reproductive Toxins*
Wood dust		Cat. 1		
Welding mild steel		Cat. 1		
X, Z				
Xenylamine (<i>alternative names</i> 4-aminodiphenyl, biphenyl-4-ylamine, 4-aminobiphenyl) and its salts	92-67-1	Cat. 1		
X-radiation		Cat. 1		
Zinc chromates (including zinc potassium chromate)		Cat. 1		

It may also be useful to see the US OSHA listings: http://web.ornl.gov/sci/psd/mst/rsg/pdf/OSHA_Haz_List_.pdf and the Japanese <https://www.iniosh.go.jp/icpro/jicosh-old/english/topics/mutagenicchemicals/mutagenicchemicals.html> which contain more entries.

*** NB: The carcinogen listing was updated for IARC entries in 2017, BUT the listings of Mutagens and Reproductive Toxins were NOT changed-The listings are for guidance only and have been made with the information available, however**

ALWAYS consult the most up to date Safety Data Sheets

Publication History:

Published 2005

Reviewed and updated 2009

Reviewed and updated 2013

Reviewed and updated 2017

Welding Mild Steel added 2019 (rest of list not reviewed: always check SDSs)

Reviewed 2020

HSD021C (rev 4)

© University of Cambridge
Safety Office
Greenwich House
Maddingley Road
Cambridge
CB3 0TX

Tel: 01223 333301

Fax: 01223 330256

E-mail: safety@admin.cam.ac.uk
www.safety.admin.cam.ac.uk