

COSSH ASSESSMENTS FOR COMMON SOLVENTS

All solvents should only be handled in a fume hood whilst wearing lab specs, a lab coat, and gloves.

Solvent	Risks	R-phrases	Safety Precautions	S-Phrases	Disposal of 'small' amounts	Dealing with 'small' spills
Acetone	Highly flammable (flash point -20°C). Eye Irritant. Repeated exposure may cause skin dryness/cracking. Vapour may cause dizziness.	R : 11-36-66-67	Store in well ventilated area. Keep away from sources of ignition. Do not breath vapour. Take precautions against static discharges	S : 9-16-23-33	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.
Acetonitrile	Highly flammable (flash point +2°C), Toxic	R : 11-23/24/25	Keep away from sources of ignition. Immediately remove contaminated clothing. In case of accident, or if you feel unwell, seek medical advice (show label)	S : 16-27-45	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.
Benzene	Cat.1 Carcinogen Dept. Risk Assessment Required <u>before</u> use	R:45-11-48/23/24/25	Keep locked away. Obtain special instructions from supervisor before using. Keep container tightly closed in a well ventilated area. Keep away from sources of ignition. In case of contact with eyes, rinse with plenty of water and seek medical advice. If swallowed, seek medical advice	S:53-1-45	Contact the Area Safety Officer or University Safety Office	Soak up with tissues and leave in fume cupboard to evaporate. Contact Safety Officer
Butan-1-ol (<i>n</i>-Butanol)	Harmful Flammable (flash point +35°C), Irritant Risk of severe damage to eyes Vapour may cause dizziness	R: 10-20/21/22-37/38-41-67	Keep container tightly closed in a well ventilated area. Keep away from sources of ignition. In case of contact with eyes, rinse with plenty of water and seek medical advice. If swallowed, seek medical advice	S : 7-9-13-16-26-37/39-46	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.
Chloroform	Harmful Limited evidence of carcinogenic effect Danger of serious damage to health by prolonged exposure through inhalation & swallowing Skin irritant	R : 22-38-40-48/20/22	Do not breathe vapour. Avoid contact with eyes and skin.	S : 36/37	Chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.
Dichloromethane (DCM)	Harmful Limited evidence of carcinogenic effect	R : 20/22-40	Do not breathe vapour. Avoid contact with eyes and skin.	S : 23-24/25-36/37	Chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.
Diethyl ether (Et₂O)	Extremely flammable (flash point -40°C)	R : 12-19-	Store in well ventilated area.	S : 9-16-29-	Non-chlorinated	Soak up with tissues

	Harmful if swallowed. Repeated exposure may cause skin dryness/cracking. Vapour may cause dizziness.	22-66-67	Keep away from sources of ignition. Do not breath vapour. Take precautions against static discharges	33	waste solvent bottle	and leave in fume cupboard to evaporate.
Dimethyl formamide (DMF)	Harmful Eye irritant May cause harm to unborn child Dept. Risk Assessment Required	R : 61-20/21-36	Avoid exposure. In case of accident, or if you feel unwell, seek medical advice (show label)	S : 53-45	Non-chlorinated waste solvent bottle	Soak up with tissues and dispose of via toxic stream.
Dimethyl sulphoxide (DMSO)	May promote skin absorption of other chemicals. Stench. Irritant.	R: 36/37/38	Do not breathe vapour. Avoid contact with eyes and skin.	S : 23-24/25-36	Departmental procedures for disposal	Soak up with tissues and place in plastic bag for disposal. Contact safety officer
Ethanol (EtOH)	Highly flammable (flash point +13°C). Harmful. Irritant. Limited evidence of carcinogenic effect.	R: 11-20/21/22-36/37/38-40	Keep container tightly closed. Keep away from sources of ignition. Avoid contact with eyes and skin. In case of accident, or if you feel unwell, seek medical advice (show label)	S: 7-16-24/25-36/37/39-45.	Less than 50 ml to drain. Larger volumes to non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.
Ethyl acetate (EtOAc)	Highly flammable (flash point -3°C) Irritating to eyes. Repeated exposure may cause skin dryness/cracking. Vapour may cause dizziness.	R: 11-36-66-67	Keep away from sources of ignition. Do not breath vapour In case of contact with eyes, rinse with plenty of water and seek medical advice. Take precautions against static discharge	S: 16-23-26-33	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.
Heptane	Highly flammable (flash point -4°C) Harmful by inhalation	R:11-38-50/53-65-67	Keep container tightly closed. Keep away from sources of ignition. Avoid contact with skin. In case of accident, or if you feel unwell, seek medical advice (show label)	S: 9-16-29-33-60-61-62	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate
n-Hexane	Highly flammable (flash point -22°C) Harmful by inhalation Harmful: danger of serious damage to health by prolonged exposure Possible risk of impaired fertility Dept. Risk Assessment Required	R:11-38-48/20-51/53-62-65-67	Keep away from sources of ignition. Avoid exposure. In case of accident, or if you feel unwell, seek medical advice (show label).	S: 9-16-29-33-36/37-61-62	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate
c-Hexane	Highly flammable (flash point -18°C) Harmful by inhalation	R:11-38-50/53-65-67	Keep container tightly closed. Keep away from sources of ignition. Avoid contact with skin. In case of accident, or if you feel unwell, seek medical advice (show label)	S: 9-16-33-60-61-62	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate
Methanol (MeOH)	Highly flammable (flash point +12°C), Toxic. Danger of very serious irreversible effects.	R : 11-23/24/25-39	Keep container tightly closed. Keep away from sources of ignition. Avoid contact with skin. In case of accident, or if you feel unwell, seek medical advice (show label)	S : 7-16-24-45	Less than 50 ml to drain. Larger volumes to non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.

Pentane	Extremely flammable (Flash point -49°C) Harmful if swallowed. May cause skin damage. Vapours may cause drowsiness and dizziness	R:12-51/53-65-66-67	Keep away from sources of ignition. Avoid exposure. In case of accident, or if you feel unwell, seek medical advice (show label).	S:9-16-29-33-61-62	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate
Petroleum Ether (Petrol)	Extremely flammable (Flash point -49°C) Harmful. May cause lung damage if swallowed. May cause cancer.	R : 12-20/21/22-45-65	Keep away from sources of ignition. Avoid exposure. In case of accident, or if you feel unwell, seek medical advice (show label).	S : 16-53-45	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.
Propan-2-ol (iso-Propanol)	Highly flammable (Flash point +12°C) Irritant	R : 11-36/37	Keep container tightly closed. Keep away from sources of ignition. Avoid contact with eyes and skin. In case of contact with eyes, rinse with plenty of water and seek medical advice.	S : 7-16-24/25-26	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.
Pyridine	Harmful Highly flammable (Flash point +17°C) May impair fertility in men Causes burns. Irritant	R : 11-20/21/22-34-36/38	Store in well ventilated area. In case of contact with eyes, rinse with plenty of water and seek medical advice. In case of skin contact, rinse immediately with plenty of water.	S : 26-28	Non-chlorinated waste solvent bottle.	Soak up with tissues and leave in fume cupboard to evaporate. Place tissues in plastic bag for disposal.
Tetrahydrofuran (THF)	Irritating to eyes and respiratory system Highly flammable (Flash point -17°C)	R : 11-19-36/37	Keep away from sources of ignition. Take precautions against static discharge	S : 16, 29, 33	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.
Toluene	Highly flammable (flash point +7°C) Harmful by inhalation	R: 11-20	Keep container tightly closed. Keep away from sources of ignition. Avoid contact with skin. In case of accident, or if you feel unwell, seek medical advice (show label)	S:16-25-29-33	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate
Xylene	Harmful Flammable (Flash point +25°C) Irritating to skin.	R : 10-20/21/22-38	Keep away from sources of ignition. Avoid contact with eyes.	S : 25	Non-chlorinated waste solvent bottle	Soak up with tissues and leave in fume cupboard to evaporate.