

SAFETY DATA SHEET

Proteus Pro-Cold®

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name

Proteus Pro-Cold®

▼ Product no.

PCMONO15LGV2.0

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture

Polyurethane coating

Restricted to professional users.

Use descriptors (UK REACH)

Sectors of use	Description
SU 19	Building and construction work
LCS "IS"	Industrial uses: Uses of substances as such or in preparations at industrial sites
LCS "PW"	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Product category **Description**

PC 9a Coatings and Paints, Fillers, Putties, Thinners

Process category **Description**

PROC 10 Roller application or brushing

Environmental release category **Description**

ERC 5 Industrial use resulting in inclusion into or onto a matrix

EuPCS

PC-CON-5 / Construction chemicals

Uses advised against

Consumer uses: Private households (= general public = consumers)

Non industrial spraying

Industrial spraying

1.3. Details of the supplier of the safety data sheet

Company and address

Proteus Waterproofing Ltd

21a Sirdar Road, Brook Road Industrial Estate

SS6 7XF Rayleigh, Essex

England

+44 (0) 1268 777871 Office Mon-Fri 08:30-17:00 outside of these hours call emergency numbers

www.proteuswaterproofing.co.uk

E-mail

enquiries@proteuswaterproofing.co.uk

Revision

21/11/2023

SDS Version

2.0

Date of previous version

21/11/2023 (1.0)

1.4. Emergency telephone number

In emergency call NCEC +44 (0) 1865 407 333

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flam. Liq. 3; H226, Flammable liquid and vapour.
 Skin Irrit. 2; H315, Causes skin irritation.
 Skin Sens. 1; H317, May cause an allergic skin reaction.
 Eye Irrit. 2; H319, Causes serious eye irritation.
 Aquatic Chronic 3; H412, Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram(s)



Signal word

Warning

Hazard statement(s)

Flammable liquid and vapour. (H226)
 Causes skin irritation. (H315)
 May cause an allergic skin reaction. (H317)
 Causes serious eye irritation. (H319)
 Harmful to aquatic life with long lasting effects. (H412)

Precautionary statement(s)

General

-

Prevention

Do not handle until all safety precautions have been read and understood. (P202)
 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)
 Keep container tightly closed. (P233)
 Ground and bond container and receiving equipment. (P240)
 Use explosion-proof [electrical/lighting/ventilating] equipment. (P241)
 Use non-sparking tools. (P242)
 Take action to prevent static discharges. (P243)
 Avoid breathing mist/vapour. (P261)
 Wash hands thoroughly after handling. (P264)
 Do not eat, drink or smoke when using this product. (P270)
 Contaminated work clothing should not be allowed out of the workplace. (P272)
 Avoid release to the environment. (P273)
 Wear eye protection/protective gloves/protective clothing. (P280)

Response

IF ON SKIN: Wash with plenty of water and soap. (P302+P352)
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. (P303+P361+P353)
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
 If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)
 If eye irritation persists: Get medical advice/attention. (P337+P313)
 Take off contaminated clothing and wash it before reuse. (P362+P364)
 In case of fire: Use water mist/carbon dioxide/alcohol-resistant foam to extinguish. (P370+P378)

Storage

Store in a well-ventilated place. Keep cool. (P403+P235)

Disposal

Dispose of contents/container in accordance with local regulation (P501)

▼ Hazardous substances

Aromatic polyisocyanic prepolymer
 Xylene (mixture of isomers)
 HYDROCARBONS, C9, AROMATICS

Additional labelling

EUH204, Contains isocyanates. May produce an allergic reaction.
 EUH205, Contains epoxy constituents. May produce an allergic reaction.

2.3. Other hazards

Additional warnings

According to REACH Regulation (EC) No 1907/2006, as retained and amended SI 2019/758 and SI 2020/1577

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.
This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. ▼ Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Aromatic polyisocyanic prepolymer	CAS No.: 37273-56-6 EC No.: 609-378-7 UK-REACH: Index No.:	15-25%	EUH204 Skin Sens. 1, H317 Eye Irrit. 2, H319	
propylene carbonate	CAS No.: 108-32-7 EC No.: 203-572-1 UK-REACH: Index No.: 607-194-00-1	5-10%	Eye Irrit. 2, H319	
Xylene (mixture of isomers)	CAS No.: 1330-20-7 EC No.: 215-535-7 UK-REACH: Index No.: 601-022-00-9	5-10%	EUH066 Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 4, H332 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 3, H412	[1]
Reaction products of phosphoryl trichloride and 2-methyloxirane	CAS No.: 1244733-77-4 EC No.: 807-935-0 UK-REACH: Index No.:	3-5%	Acute Tox. 4, H302 (ATE: 632.00 mg/kg) Aquatic Chronic 3, H412	
HYDROCARBONS, C9, AROMATICS	CAS No.: 128601-23-0 EC No.: 918-668-5 UK-REACH: Index No.:	1-3%	EUH066 Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335 STOT SE 3, H336 Aquatic Chronic 2, H411	
N,N-dibenzyliden polyoxypropylene diamine (polymer)	CAS No.: 136855-71-5 EC No.: 679-523-7 UK-REACH: Index No.:	1-3%	Skin Irrit. 2, H315	
Isobutyl acetate	CAS No.: 110-19-0 EC No.: 203-745-1 UK-REACH: Index No.: 607-026-00-7	<1%	EUH066 Flam. Liq. 2, H225 STOT SE 3, H336	
N-butyl acetate	CAS No.: 123-86-4 EC No.: 204-658-1 UK-REACH: Index No.: 607-025-00-1	<1%	EUH066 Flam. Liq. 3, H226 STOT SE 3, H336	
phosphoric acid	CAS No.: 7664-38-2 EC No.: 231-633-2 UK-REACH: Index No.: 015-011-00-6	<0.05%	Met. Corr. 1, H290 Skin Corr. 1B, H314 (SCL: 25.00 %) Skin Irrit. 2, H315 (SCL: 10.10 %) Eye Dam. 1, H318 (SCL: 25.00 %) Eye Irrit. 2, H319 (SCL: 10.10 %)	
Dibutylbis(dodecylthio)stannane	CAS No.: 1185-81-5 EC No.: 214-688-7 UK-REACH: Index No.:	<0.05%	Acute Tox. 4, H312 (ATE: 1000.00 mg/kg) Skin Irrit. 2, H315 Skin Sens. 1, H317 Repr. 1B, H360Fd	[4]

			STOT RE 1, H372 Aquatic Chronic 1, H410 (M=1)	
m-tolylidene diisocyanate	CAS No.: 26471-62-5 EC No.: 247-722-4 UK-REACH: Index No.: 615-006-00-4	<0.05%	EUH204 EUH401 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Acute Tox. 2, H330 (ATE: 0.501 mg/L) Resp. Sens. 1, H334 (SCL: 0.10 %) STOT SE 3, H335 Carc. 2, H351 Aquatic Chronic 3, H412	[3]
Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)	CAS No.: 933999-84-9 EC No.: 618-939-5 UK-REACH: Index No.:	<0.05%	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Chronic 3, H412	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit.

[3] According to UK REACH, Annex XVII, the substance is subject to restrictions.

[4] Substance is listed in Annex I of the Prior Informed Consent Regulation (PIC, Regulation (EU) 649/2012).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No action shall be taken involving any personal risk or without suitable training, evacuate immediate area of personnel not dealing with the emergency, keep them upwind and prevent further access, remove ignition sources and if inside building, ventilate area as well as possible.

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet.

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

IF ON SKIN: Wash with plenty of water and soap.

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

4.2. Most important symptoms and effects, both acute and delayed

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

4.3. Indication of any immediate medical attention and special treatment needed

If eye irritation persists: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Flammable liquid and vapour.

In use may form flammable/explosive vapour-air mixture.

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced.

These are:

Halogenated compounds

Carbon oxides (CO / CO₂)

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

Hazchem Code: ●3Y

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training, evacuate immediate area of personnel not dealing with the emergency, keep them upwind and prevent further access, remove ignition sources and if inside building, ventilate area as well as possible.

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ground and bond container and receiving equipment.

Use explosion-proof [electrical/lighting/ventilating] equipment.

Use non-sparking tools.

Take action to prevent static discharges.

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.

Avoid contact during pregnancy and while nursing.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Take action to prevent static discharges.

Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

For optimum performance, store at temperature between 10°C and 35°C.

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Xylene (mixture of isomers)

Long term exposure limit (8 hours) (ppm): 50

Long term exposure limit (8 hours) (mg/m³): 220

Short term exposure limit (15 minutes) (ppm): 100

Short term exposure limit (15 minutes) (mg/m³): 441

Annotations:

BMVG = Biological Monitoring Guidance Value exists

Sk = Can be absorbed through the skin and lead to systemic toxicity.

Isobutyl acetate

Long term exposure limit (8 hours) (ppm): 150

Long term exposure limit (8 hours) (mg/m³): 724

Short term exposure limit (15 minutes) (ppm): 187

Short term exposure limit (15 minutes) (mg/m³): 903

N-butyl acetate

Long term exposure limit (8 hours) (ppm): 150

Long term exposure limit (8 hours) (mg/m³): 724

Short term exposure limit (15 minutes) (ppm): 200

Short term exposure limit (15 minutes) (mg/m³): 966

m-tolylidene diisocyanate

Short term exposure limit (15 minutes) (mg/m³): 501

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020).

▼ DNEL

HYDROCARBONS, C9, AROMATICS

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	12.5 mg/kg bw/day
Long term – Systemic effects - Workers	Inhalation	151 mg/m ³

Isobutyl acetate

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	10 mg/kg bw/day
Short term – Systemic effects - Workers	Dermal	10 mg/kg bw/day
Long term – Local effects - Workers	Inhalation	300 mg/m ³
Long term – Systemic effects - Workers	Inhalation	300 mg/m ³
Short term – Local effects - Workers	Inhalation	600 mg/m ³
Short term – Systemic effects - Workers	Inhalation	600 mg/m ³

m-tolylidene diisocyanate

Duration:	Route of exposure:	DNEL:
Long term – Local effects - Workers	Inhalation	35 µg/m ³
Long term – Systemic effects - Workers	Inhalation	35 µg/m ³
Short term – Local effects - Workers	Inhalation	140 µg/m ³

According to REACH Regulation (EC) No 1907/2006, as retained and amended SI 2019/758 and SI 2020/1577

Short term – Systemic effects - Workers	Inhalation	140 µg/m ³
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N-butyl acetate

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	7 mg/kg bw/day
Short term – Systemic effects - Workers	Dermal	11 mg/kg bw/day
Long term – Local effects - Workers	Inhalation	300 mg/m ³
Long term – Systemic effects - Workers	Inhalation	48 mg/m ³
Short term – Local effects - Workers	Inhalation	600 mg/m ³
Short term – Systemic effects - Workers	Inhalation	600 mg/m ³

propylene carbonate

Duration:	Route of exposure:	DNEL:
Long term – Local effects - Workers	Dermal	10 mg/cm ²
Long term – Systemic effects - Workers	Dermal	20 mg/kg bw/day
Long term – Local effects - Workers	Inhalation	20 mg/m ³
Long term – Systemic effects - Workers	Inhalation	70.53 mg/m ³

Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)

Duration:	Route of exposure:	DNEL:
Long term – Local effects - Workers	Dermal	22.6 µg/cm ²
Long term – Systemic effects - Workers	Dermal	6 mg/kg bw/day
Short term – Local effects - Workers	Dermal	22.6 µg/cm ²
Long term – Local effects - Workers	Inhalation	440 µg/m ³
Long term – Systemic effects - Workers	Inhalation	10.57 mg/m ³
Short term – Systemic effects - Workers	Inhalation	10.57 mg/m ³

Reaction products of phosphoryl trichloride and 2-methyloxirane

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	2.91 mg/kg bw/day
Long term – Systemic effects - Workers	Inhalation	8.2 mg/m ³
Short term – Systemic effects - Workers	Inhalation	22.6 mg/m ³

Xylene (mixture of isomers)

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	212 mg/kg bw/day
Long term – Local effects - Workers	Inhalation	221 mg/m ³
Long term – Systemic effects - Workers	Inhalation	221 mg/m ³
Short term – Local effects - Workers	Inhalation	442 mg/m ³
Short term – Systemic effects - Workers	Inhalation	442 mg/m ³

PNEC

Isobutyl acetate

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		170 µg/L
Freshwater sediment		877 µg/kg
Intermittent release (freshwater)		340 µg/L
Marine water		17 µg/L
Marine water sediment		87.7 µg/kg
Sewage treatment plant		200 mg/L
Soil		75.5 µg/kg

m-tolylidene diisocyanate

According to REACH Regulation (EC) No 1907/2006, as retained and amended SI 2019/758 and SI 2020/1577

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		12.5 µg/L
Intermittent release (freshwater)		125 µg/L
Marine water		1.25 µg/L
Sewage treatment plant		1 mg/L
Soil		1 mg/kg
N-butyl acetate		
Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		180 µg/L
Freshwater sediment		981 µg/kg
Intermittent release (freshwater)		360 µg/L
Marine water		18 µg/L
Marine water sediment		98.1 µg/kg
Sewage treatment plant		35.6 mg/L
Soil		90.3 µg/kg
propylene carbonate		
Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		900 µg/L
Intermittent release (freshwater)		9 mg/L
Intermittent release (marine water)		900 µg/L
Marine water		90 µg/L
Sewage treatment plant		7.4 g/L
Soil		810 µg/kg
Reaction products of hexane-1,6-diol with 2-(chloromethyl)oxirane (1:2)		
Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		11.5 µg/L
Freshwater sediment		283 µg/kg
Intermittent release (freshwater)		115 µg/L
Marine water		1.15 µg/L
Marine water sediment		28.3 µg/kg
Sewage treatment plant		1 mg/L
Soil		223 µg/kg
Reaction products of phosphoryl trichloride and 2-methyloxirane		
Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		320 µg/L
Freshwater sediment		11.5 mg/kg
Intermittent release (freshwater)		510 µg/L
Marine water		32 µg/L
Marine water sediment		1.15 mg/kg
Predators		11.6 mg/kg
Sewage treatment plant		19.1 mg/L
Soil		340 µg/kg
Xylene (mixture of isomers)		
Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		44-327 µg/L

According to REACH Regulation (EC) No 1907/2006, as retained and amended SI 2019/758 and SI 2020/1577

Freshwater sediment	2.52-12.46 mg/kg
Intermittent release (freshwater)	10-327 µg/L
Intermittent release (marine water)	1 µg/L
Marine water	4.4-327 µg/L
Marine water sediment	252-12460 µg/kg
Sewage treatment plant	1.6-6.58 mg/L
Soil	852-2310 µg/kg

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

Work situation	Type	Class	Colour	Standards
Ensure adequate ventilation, use suitable respiratory protection in enclosed or poorly ventilated areas.	Suitable respiratory protection advice for the correct personal selection can be obtained from EN529:2005			



In areas of low or poor ventilation, increase LEV by mechanical means.



Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used.

Skin protection


Work situation	Recommended	Type/Category	Standards
Remove contaminated clothing and protective equipment before entering eating areas.	Wear long sleeve jackets and long trousers, do not allow clothing wet with chemical to stay in contact with skin.		



Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.


Hand protection

According to REACH Regulation (EC) No 1907/2006, as retained and amended SI 2019/758 and SI 2020/1577

Work situation	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Wear appropriate chemical protective gloves meeting an approved standard.	Vinyl/PVC 0.65 mm Breakthrough time: > 480 min Std: EN374-3, EN388, EN511	0.65 mm	> 480	EN374-3, EN388, EN511	
Replace gloves frequently to avoid personal contamination.	Nitrile/Neoprene 0,65 mm Breakthrough time: > 480 min Std: EN374-2, EN374-3, EN388	0,65	> 480	EN374-2, EN374-3, EN388	

Protection of hands: There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Eye protection

Work situation	Type	Standards	
In windy conditions consider wearing sealed goggles or face shield.	Safety glasses with side shields.	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Gray

Odour / Odour threshold

Characteristic

pH

No data available

Density (g/cm³)

1.5

Kinematic viscosity

20.5 mm²/s (20 °C)

Dynamic viscosity

18000 mPa.s (20 °C)

Particle characteristics

Not applicable - product is a liquid

Phase changes

Melting point/Freezing point (°C)

Not applicable - product is a liquid

Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

Boiling point (°C)

287

Vapour pressure

No data available

Relative vapour density

1.5

Decomposition temperature (°C)

No data available

Data on fire and explosion hazards

Flash point (°C)

33

Flammability (°C)

The material is ignitable.

Auto-ignition temperature (°C)

No data available

Lower and upper explosion limit (% v/v)

0 - 0

Solubility

Solubility in water

Reacts with water (Developes Carbon Dioxide (CO2) in contact with water.)

n-octanol/water coefficient

No data available

Solubility in fat (g/L)

No data available

9.2. Other information

Sensitivity to shock

No

Evaporation rate (n-butylacetate = 100)

No data available

VOC (g/l)

195.00

Oxidizing properties

Not applicable

Other physical and chemical parameters

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid static electricity.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Product/substance	Reaction products of phosphoryl trichloride and 2-methyloxirane
Test method:	OECD 402
Species:	Rat, Sprague-Dawley
Route of exposure:	Dermal
Test:	LD50
Result:	>2000 mg/kgbw

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

Xylene (mixture of isomers) has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	Xylene (mixture of isomers)
Test method:	OECD 203
Species:	Fish, <i>Oncorhynchus mykiss</i>
Compartment:	Freshwater
Duration:	96 hours
Test:	LC50
Result:	9,2 mg/L

Product/substance	Xylene (mixture of isomers)
Test method:	OECD 202
Species:	Daphnia, <i>Daphnia magna</i>
Compartment:	Freshwater
Duration:	48 hours
Test:	EC50
Result:	3,2 mg/L

Product/substance	Xylene (mixture of isomers)
Test method:	OECD 201
Species:	Algae, <i>Pseudokirchneriella subcapitata</i>
Compartment:	Freshwater
Duration:	72 hours
Test:	EC50
Result:	2,6 mg/L

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

Product/substance	Xylene (mixture of isomers)
Biodegradable:	Yes
Result:	Solubility in water 100-1000 mg/L, rapidly degradable

12.3. Bioaccumulative potential

Product/substance	Xylene (mixture of isomers)
Potential bioaccumulation:	No
LogPow:	No data available.
BCF:	25,9

12.4. Mobility in soil

Xylene (mixture of isomers)
LogKoc = 2.73, Moderate mobility potential.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

According to REACH Regulation (EC) No 1907/2006, as retained and amended SI 2019/758 and SI 2020/1577

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

▼ Waste treatment methods

Product is covered by the regulations on hazardous waste. (*)

HP 3 - Flammable

HP 4 - Irritant (skin irritation and eye damage)

HP 13 - Sensitising

HP 14 - Ecotoxic

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

A hierarchy of control may exist, users should investigate disposal options, containers that have been sufficiently cleaned of product should be recycled where possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations. It is the responsibility of the waste producer to assign the appropriate code to the waste by sector and process type, for disposal within EU & GB, the relevant waste code should be identified from the European Waste Catalogue see

https://assets.publishing.service.gov.uk/media/6152d0b78fa8f5610b9c222b/Waste_classification_technical_guidance_WM3.pdf

Liquid uncured product should be disposed of as special hazardous waste (EWC Identified with * i.e. 12 34 56*).

Solid fully cured product should be disposed of as special non-hazardous waste (EWC Identified without * i.e. 12 34 56).

As a guide only, we have identified the most suitable code below for uncontaminated residual waste, it is upon the waste producer to satisfy themselves this is the most appropriate code.

EWC code

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09

Specific labelling

▼ Contaminated packing




Containers may still present a chemical hazard/danger when empty. Where possible decontaminate empty containers and recycle. If container cannot be cleaned sufficiently well to ensure that residual product does not remain in it then crush container to prevent reuse.

EWC code

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	UN1263	PAINT	Transport hazard class: 3 Label: 3 Classification code: F1 	III	No	Limited quantities: 5 L Tunnel restriction code: (D/E) See below for additional information.
IMDG	UN1263	PAINT	Transport hazard class: 3 Label: 3 Classification code: F1 	III	No	Limited quantities: 5 L EmS: F-E S-E See below for additional information.
IATA	UN1263	PAINT	Transport hazard class: 3 Label: 3 Classification code: F1 	III	No	See below for additional information.

* Packing group

** Environmental hazards

▼ Additional information

Due to its relatively high viscosity this material can be considered non-hazardous in accordance with ADR 2.2.3.1.5 when packed in receptacles of less than 450 Litres. Additionally, in accordance with section 2.3.2.5 of the IMDG code, this material is not subject to the provisions for marking, labelling, and testing of packages when packed in receptacles of no greater than 30 litres.

Hazchem Code: ●3Y

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Restrictions for application

Restricted to professional users.

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

Use of this product requires dedicated training in work with polyurethane and epoxy products.

SEVESO - Categories / dangerous substances

P5c - FLAMMABLE LIQUIDS, Qualifying quantity (lower-tier): 5.000 tonnes / (upper-tier): 50.000 tonnes

UK-REACH, Annex XVII

m-tolylidene diisocyanate is subject to restrictions, UK-REACH annex XVII (entry 74).

Additional information

Not applicable.

Sources

The Management of Health and Safety at Work Regulations 1999.

The Health and Safety at Work etc. Act 1974 Regulations 2013.

Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals as retained and amended in UK law.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

EUH066, Repeated exposure may cause skin dryness or cracking.

EUH204, Contains isocyanates. May produce an allergic reaction.

EUH401, To avoid risks to human health and the environment, comply with the instructions for use.

H225, Highly flammable liquid and vapour.

H226, Flammable liquid and vapour.

H290, May be corrosive to metals.

H302, Harmful if swallowed.

H304, May be fatal if swallowed and enters airways.

H312, Harmful in contact with skin.

H314, Causes severe skin burns and eye damage.

H315, Causes skin irritation.

H317, May cause an allergic skin reaction.

H318, Causes serious eye damage.

H319, Causes serious eye irritation.

H330, Fatal if inhaled.

H332, Harmful if inhaled.

H334, May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335, May cause respiratory irritation.
H336, May cause drowsiness or dizziness.
H351, Suspected of causing cancer.
H360Fd, May damage fertility. Suspected of damaging the unborn child.
H372, Causes damage to organs through prolonged or repeated exposure.
H373, May cause damage to organs through prolonged or repeated exposure.
H410, Very toxic to aquatic life with long lasting effects.
H411, Toxic to aquatic life with long lasting effects.
H412, Harmful to aquatic life with long lasting effects.

The full text of identified uses as mentioned in section 1

SU 19 = Building and construction work
LCS "IS" = Industrial uses: Uses of substances as such or in preparations at industrial sites
LCS "PW" = Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
PROC 10 = Roller application or brushing
PC 9a = Coatings and Paints, Fillers, Putties, Thinners
ERC 5 = Industrial use resulting in inclusion into or onto a matrix

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne (European conformity)
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EuPCS = European Product Categorisation System
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.
The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.
The classification of the mixture in regard to physical hazards has been based on experimental data.

▼ The safety data sheet is validated by
Steven D'Silva Quality Manager

Other

According to REACH Regulation (EC) No 1907/2006, as retained and amended SI 2019/758 and SI 2020/1577

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle. The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en