SAFETY DATA SHEET

Pro-Bond Foaming Can 750ml

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

1.1. Product identifier

Trade name

Pro-Bond Foaming Can 750ml

Product no.

ACBOFO01V1

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

Relevant identified uses of the substance or mixture

Adhesive
Restricted to professional and industrial use.

Use descriptors (UK REACH)

Sectors of use	**Description**
SU 19	Building and construction work
Product category	**Description**
PC 1	Adhesives, Sealants
Process category	**Description**
PROC 7	Industrial spraying
Environmental release category	**Description**
ERC 5	Industrial use resulting in inclusion into or onto a matrix

EuPCS

PC-CON / Construction products

Uses advised against

Consumer uses: Private households (= general public = consumers)
Roller application or brushing
Non industrial spraying
Industrial use resulting in inclusion into or onto a matrix

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

10/02/2026

SDS Version

1.0

1.4. Emergency telephone number

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

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24 hour service)
General public:
England - Dial 111 to reach NHS 111 (24 hour service)
Scotland - Dial 111 to reach NHS 24 (24 hour service)
Wales - Dial 111 or 0845 4647 to reach NHS Direct (24 hour service)
See section 4 “First aid measures”.

SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.1. Classification of the substance or mixture

Aerosol 1; H222, H229, Extremely flammable aerosol. Pressurised container: May burst if heated.
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.
Acute Tox. 4; H332, Harmful if inhaled.
Resp. Sens. 1; H334, May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT SE 3; H335, May cause respiratory irritation.
Carc. 2; H351, Suspected of causing cancer.
Lact. ; H362, May cause harm to breast-fed children.
STOT RE 2; H373, May cause damage to organs through prolonged or repeated exposure.
Aquatic Chronic 4; H413, May cause long lasting harmful effects to aquatic life.

2.2. Label elements

Hazard pictogram(s)

Signal word

Danger

Hazard statement(s)

Extremely flammable aerosol. Pressurised container: May burst if heated. (H222, H229)
Causes skin irritation. (H315)
May cause an allergic skin reaction. (H317)
Causes serious eye irritation. (H319)
Harmful if inhaled. (H332)
May cause allergy or asthma symptoms or breathing difficulties if inhaled. (H334)
May cause respiratory irritation. (H335)
Suspected of causing cancer. (H351)
May cause harm to breast-fed children. (H362)
May cause damage to organs through prolonged or repeated exposure. (H373)
May cause long lasting harmful effects to aquatic life. (H413)

Precautionary statement(s)

General

Not applicable.

Prevention

Obtain special instructions before use. (P201)
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)
Do not spray on an open flame or other ignition source. (P211)
Do not pierce or burn, even after use. (P251)
Do not breathe vapour/mist. (P260)
Avoid contact during pregnancy and while nursing. (P263)
Wash hands thoroughly after handling. (P264)
Do not eat, drink or smoke when using this product. (P270)
Use only outdoors or in a well-ventilated area. (P271)

Contaminated work clothing should not be allowed out of the workplace. (P272)
Avoid release to the environment. (P273)
Wear protective gloves/protective clothing/eye protection/face protection. (P280)
[In case of inadequate ventilation] wear respiratory protection. (P284)

Response

Get medical advice/attention if you feel unwell. (P314)
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 ON SKIN: Wash with plenty of water and soap. (P302+P352)
IF INHALED: Remove person to fresh air and keep comfortable for breathing. (P304+P340)
IF exposed or concerned: Get medical advice/attention. (P308+P313)
If skin irritation occurs: Get medical advice/attention. (P332+P313)
If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)
If eye irritation persists: Get medical advice/attention. (P337+P313)
If experiencing respiratory symptoms: Call a POISON CENTER/doctor (P342+P311)
Take off contaminated clothing and wash it before reuse. (P362+P364)

Storage

Store in a well-ventilated place. Keep container tightly closed. (P403+P233)
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F. (P410+P412)
Store locked up. (P405)

Disposal

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

Hazardous substances

Polymeric diphenylmethane diisocyanate
tris(2- chloroisopropyl)phosphate
C14-17 alkanes, chlorinated-, chlorinated paraffin 52, 58%

Additional labelling

EUH044, Risk of explosion if heated under confinement.
EUH204, Contains isocyanates. May produce an allergic reaction.
As from 24 August 2023 adequate training is required before industrial or professional use.

2.3. Other hazards

Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact with this product.
Additional Information - The classification of the preparation with the assignment of the phrase H413 taking into account the content of chlorinated alkanes C14–C17 was made on the basis of the study 'FEICA Fact Sheet on the classification and labelling of onecomponent moisture curing polyurethane foams containing medium-chained chlorinated paraffins (MCCP)

Additional warnings

In the event of leaks, high concentrations of gases can quickly form. They can be toxic, asphyxiating, or explosive.
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) 2023/707.

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
Polymeric diphenylmethane diisocyanate	CAS No.: 9016-87-9 EC No.: 618-498-9 UK-REACH: Index No.:	40-60%	EUH204 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Acute Tox. 4, H332	[3]

			Resp. Sens. 1, H334 STOT SE 3, H335 Carc. 2, H351 STOT RE 2, H373 (Inhalation)	
tris(2-chloroisopropyl)phosphate	CAS No.: 1244733-77-4 EC No.: 237-158-7 UK-REACH: Index No.:	15-25%	Acute Tox. 4, H302 (ATE: 632.00 mg/kg) Carc. 2, H351	
C14-17 alkanes, chlorinated-, chlorinated paraffin 52, 58%	CAS No.: 85535-85-9 EC No.: 287-477-0 UK-REACH: Index No.: 602-095-00-X	15-25%	EUH066 Lact. , H362	[5]
propane	CAS No.: 74-98-6 EC No.: 200-827-9 UK-REACH: Index No.: 601-003-00-5	10-15%	EUH044 Flam. Gas 1A, H220 Press. Gas (Comp.) , H280	
isobutane (containing ≥ 0,1 % butadiene (203-450-8));butane (containing ≥ 0,1 % butadiene (203-450-8))	CAS No.: 75-28-5 EC No.: 200-857-2 UK-REACH: Index No.: 601-004-01-8	10-15%	EUH044 Flam. Gas 1A, H220 Press. Gas (Liq.) , H280	
dimethyl ether	CAS No.: 115-10-6 EC No.: 204-065-8 UK-REACH: Index No.: 603-019-00-8	10-15%	EUH044 Flam. Gas 1A, H220 Press. Gas (Comp.) , H280	
butane	CAS No.: 106-97-8 EC No.: 203-448-7 UK-REACH: Index No.: 601-004-01-8	10-15%	EUH044 Flam. Gas 1A, H220 Press. Gas (Liq.) , H280	

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

Other information

[3] According to UK REACH, Annex XVII, the substance is subject to restrictions.
[5] Substance is included in the Candidate List of substances of very high concern (SVHC).

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 injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. 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

Personnel who work with isocyanates, isocyanate prepolymers or polyisocyanates should have a pre-placement medical examination and periodic examinations thereafter, including a pulmonary function test.
IF exposed or concerned:
Get immediate 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.
For sub-chronic and chronic exposures to isocyanates:
This material may be a potent pulmonary sensitiser which causes bronchospasm even in patients without prior airway hyperreactivity. Clinical symptoms of exposure involve mucosal irritation of respiratory and gastrointestinal tracts. Conjunctival irritation, skin inflammation (erythema, pain vesiculation) and gastrointestinal disturbances occur soon after exposure. Pulmonary symptoms include cough, burning, substernal pain and dyspnoea. Some cross-sensitivity occurs between different isocyanates.
Noncardiogenic pulmonary oedema and bronchospasm are the most serious consequences of exposure. Markedly symptomatic patients should receive oxygen, ventilatory support and an intravenous line. Treatment for asthma includes inhaled sympathomimetics (epinephrine [adrenalin], terbutaline) and steroids. Activated charcoal (1 g/kg) and a cathartic (sorbitol, magnesium citrate) may be useful for ingestion. Mydriatics, systemic analgesics and topical antibiotics (Sulamyd) may be used for corneal abrasions. There is no effective therapy for sensitised workers.
[Ellenhorn and Barceloux; Medical Toxicology]
NOTE: Isocyanates cause airway restriction in naive individuals with the degree of response dependant on the concentration and duration of exposure. They induce smooth muscle contraction which leads to bronchoconstrictive episodes. Acute changes in lung function, such as decreased FEV1, may not represent sensitivity.
[Karol & Jin, Frontiers in Molecular Toxicology, pp 56-61, 1992]
For sub-chronic and chronic exposures to isocyanates:
This material may be a potent pulmonary sensitiser which causes bronchospasm even in patients without prior airway hyperreactivity.
Clinical symptoms of exposure involve mucosal irritation of respiratory and gastrointestinal tracts.
Conjunctival irritation, skin inflammation (erythema, pain vesiculation) and gastrointestinal disturbances occur soon after exposure.
Pulmonary symptoms include cough, burning, substernal pain and dyspnoea.
Some cross-sensitivity occurs between different isocyanates.
Noncardiogenic pulmonary oedema and bronchospasm are the most serious consequences of exposure. Markedly symptomatic patients should receive oxygen, ventilatory support and an intravenous line.
Treatment for asthma includes inhaled sympathomimetics (epinephrine [adrenalin], terbutaline) and steroids.
Activated charcoal (1 g/kg) and a cathartic (sorbitol, magnesium citrate) may be useful for ingestion.
Mydriatics, systemic analgesics and topical antibiotics (Sulamyd) may be used for corneal abrasions.
There is no effective therapy for sensitised workers.
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[Karol & Jin, Frontiers in Molecular Toxicology, pp 56-61, 1992]

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

Extremely flammable aerosol. Pressurised container. In a fire or if heated, a pressure increase will occur and the container may burst.
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)
Small quantities of water in contact with hot liquid may react violently with generation of a large volume of rapidly expanding hot sticky semi-solid foam, cooling with flooding quantities of water reduces this risk, water spray or fog may cause frothing and should be used in large quantities.
Isocyanates

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: None

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Accidental releases always pose a serious risk of fire or explosion.
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.
Avoid inhalation of vapours from spilled material.
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

Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.
Avoid direct contact with the product.

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.
Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Must be stored in a cool and well-ventilated area, away from possible sources of ignition.
Pressurized gas packs (spray cans, aerosol cans) must be stored behind a wire mesh, which allows gases to escape and holds back packs flying around.

Recommended storage material

Keep only in original packaging.
Aerosol, do not expose to heat, naked flame or dispose of in fires, risk of explosion!

Storage conditions

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

Incompatible materials

Do not store with chemicals, solvents or organic compounds.

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

dimethyl ether
Long term exposure limit (8 hours) (ppm): 400
Long term exposure limit (8 hours) (mg/m³): 766
Short term exposure limit (15 minutes) (ppm): 500
Short term exposure limit (15 minutes) (mg/m³): 958

butane
Long term exposure limit (8 hours) (ppm): 600
Long term exposure limit (8 hours) (mg/m³): 1450
Short term exposure limit (15 minutes) (ppm): 750
Short term exposure limit (15 minutes) (mg/m³): 1810
Annotations:
Carc1 = Capable of causing cancer and/or heritable genetic damage if it contains more than 0.1% of buta-1,3-diene.

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

C14-17 alkanes, chlorinated-, chlorinated paraffin 52, 58%

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	47.9 mg/kg bw/day
Long term – Systemic effects - Workers	Inhalation	6.7 mg/m³

dimethyl ether

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Inhalation	1894 mg/m³

tris(2- chloroisopropyl)phosphate

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/m³

Short term – Systemic effects - Workers	Inhalation	22.6 mg/m³

PNEC

C14-17 alkanes, chlorinated-, chlorinated paraffin 52, 58%

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		1 µg/L
Freshwater sediment		13 mg/kg
Marine water		0.2 µg/L
Marine water sediment		2.6 mg/kg
Predators		10 mg/kg
Sewage treatment plant		80 mg/L
Soil		11.9 mg/kg

dimethyl ether

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		155 µg/L
Freshwater sediment		681 µg/kg
Intermittent release (freshwater)		1.549 mg/L
Marine water		16 µg/L
Marine water sediment		69 µg/kg
Sewage treatment plant		160 mg/L
Soil		45 µg/kg

tris(2- chloroisopropyl)phosphate

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

8.2. Exposure controls

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

General recommendations

All employees working with isocyanates must be informed of the hazards from exposure to the contaminant and the precautions necessary to prevent damage to their health. They should be made aware of the need to carry out their work so that as little contamination as possible is produced, and the importance of proper use of all safeguards against exposure to themselves and their fellow workers. Adequate training, both in the proper execution of the task and in the use of all associated engineering controls, as well as any personal protective equipment is essential.

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

Contaminated leather items such as shoes, boots, belts and watch bands should be removed and destroyed.

Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance capable of causing occupational asthma.

Exposure scenarios

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restriction on use should be created for each workplace or

task.

Exposure limits

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

Appropriate technical measures

Do not recirculate outlet air that contain the substances.
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.
Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. 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, can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used.

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.	Organic vapour respirators with particulate pre-filters and powered, air purifying respirators are NOT suitable				

Respiratory protection is only required in the likelihood that relevant exposure limits may be approached or exceeded, e.g. application in enclosed spaces with restricted air exchange. Concentrations of potentially hazardous substances in air will remain low during normal outdoor application and will not pose a risk to the applicator.

Skin protection

Work situation	Recommended	Type/Category	Standards	
Remove contaminated clothing and protective equipment before entering eating areas.	Dedicated work clothing should be worn.	-	-	

Contaminated garments should be removed promptly and should not be reused until they have been decontaminated, DO NOT allow garments to be decontaminated/cleaned in household laundry.
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

Work situation	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
To avoid skin allergies such as dermatitus or eczema wear protective gloves when using this product.	Vinyl/PVC | 0.65 mm | Breakthrough time: > 480 min | Std: EN374-3, EN388, EN511	0.65 mm	> 480	EN374-3, EN388, EN511	
Isocyanate vapour may be absorbed into skin cream and this increases hazard.	Barrier cream is sufficient for this product, however wash off fully prior				

Work situation	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
	to handling products containing diisocyanate or isocyanate products.			

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

Type	Standards
Safety Goggles	EN166:2001

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Foam

Colour
Pale yellow

Odour / Odour threshold
None

pH
No data available

Density (g/cm^3)
No data available

Relative density
No data available

Kinematic viscosity
No data available

Particle characteristics
Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C)
No data available

Softening point/range (°C)
Does not apply to liquids.

Boiling point (°C)
No data available

Vapour pressure
No data available

Relative vapour density
1.3

Decomposition temperature (°C)
No data available

Data on fire and explosion hazards

Flash point (°C)

0

Flammability (°C)

The material is ignitable.

Auto-ignition temperature (°C)

No data available

Lower and upper explosion limit (% v/v)

1.5 - 11

Solubility

Solubility in water

Immiscible

n-octanol/water coefficient (LogKow)

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)

360

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

Risk of explosion if heated under confinement.

10.4. Conditions to avoid

Extremes of temperature
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
Shock, heat, sparks, friction, impact and light.
Static electricity
Storage in the open is not recommended.
Sunlight

10.5. Incompatible materials

Do not store with chemicals, solvents or organic compounds.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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	tris(2- chloroisopropyl)phosphate
Test method:	OECD 402
Species:	Rat
Route of exposure:	Dermal
Test:	LD50

Result: >2000 mg/kg bw

Harmful if inhaled.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Inhalation of vapours or aerosols (mists/fumes), generated by the material during the course of normal handling, may be damaging to health of the individual. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.

Skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

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

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

May cause harm to breast-fed children.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

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

Symptoms related to the physical, chemical and toxicological characteristics

Carcinogenic effects: This product contains substances considered or proven to be carcinogenic. The carcinogenic effects may be triggered subsequent to exposure through inhalation, skin contact or ingestion.
The product contains a substance / substances, which may cause harm to breast-fed children.
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.

11.2. Information on other hazards

Endocrine disrupting properties

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

Other information

None known.

SECTION 12: Ecological information

12.1. Toxicity

May cause long lasting harmful effects to aquatic life.

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

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

12.4. Mobility in soil

No data available.

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, 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 5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP 6 - Acute toxicity
HP 7 – Carcinogenic
HP 13 – Sensitising
HP 15 – Risk of explosion if heated under confinement
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 responsibilty 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. Wastes may be subject to ADR Regulations.

EWC code

08 05 01* Waste isocyanates

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 05 01* Waste isocyanates

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/ADN/RID	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	Limited quantities: 1 L Tunnel restriction code: (D) See below for additional information.

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
IMDG	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	Limited quantities: 1 L EmS: F-D S-U See below for additional information.
IATA	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	See below for additional information.

* Packing group

** Environmental hazards

Additional information

This product is within scope of the regulations of transport of dangerous goods.
ADR/ADN/RID / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.
IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.
IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.
Hazchem Code: None

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

Industrial use only.
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.

Control of Major Accident Hazards (COMAH) - Categories / dangerous substances

P3a - FLAMMABLE AEROSOLS, Qualifying quantity (lower-tier): 150 tonnes (net) / (upper-tier): 500 tonnes (net)

UK-REACH, Annex XVII

Polymeric diphenylmethane diisocyanate is subject to restrictions, UK-REACH annex XVII (entry 74).
propane is subject to UK-REACH restrictions (entry 40).
isobutane (containing ≥ 0,1 % butadiene (203-450-8));butane (containing ≥ 0,1 % butadiene (203-450-8)) is subject to UK-REACH restrictions (entry 40).
dimethyl ether is subject to UK-REACH restrictions (entry 40).
butane is subject to UK-REACH restrictions (entry 40).

REACH - Candidate List of substances of very high concern

C14-17 alkanes, chlorinated-, chlorinated paraffin 52, 58% is included in the Candidate List of substances of very high concern (SVHC).

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 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

EUH044, Risk of explosion if heated under confinement.
EUH066, Repeated exposure may cause skin dryness or cracking.
EUH204, Contains isocyanates. May produce an allergic reaction.
H220, Extremely flammable gas.
H280, Contains gas under pressure; may explode if heated.
H302, Harmful if swallowed.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H332, Harmful if inhaled.
H334, May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335, May cause respiratory irritation.
H351, Suspected of causing cancer.
H362, May cause harm to breast-fed children.
H373, May cause damage to organs through prolonged or repeated exposure. (Inhalation)

The full text of identified uses as mentioned in section 1

SU 19 = Building and construction work
PROC 7 = Industrial spraying
PC 1 = Adhesives, Sealants
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

GWP = Global warming potential
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

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a 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