

SAFETY DATA SHEET

Cold Melt® Hardener

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

1.1. Product identifier

Trade name

Cold Melt® Hardener

Product no.

CMPROT15HV1.0

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

Relevant identified uses of the substance or mixture

Polyurethane coating

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 10	Roller application or brushing

Uses advised against

Sectors of use	Description
LCS "C"	Consumer uses: Private households (= general public = consumers)

Process category	Description
PROC 7	Industrial spraying
PROC 11	Non 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

27/03/2023

SDS Version

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

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.
STOT RE 2; H373, May cause damage to organs through prolonged or repeated exposure.
Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

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 damage to organs through prolonged or repeated exposure. (H373)

Precautionary statements

General

-

Prevention

Obtain special instructions before use. (P201)
Do not handle until all safety precautions have been read and understood. (P202)
Do not breathe vapour/mist. (P260)
Wash hands thoroughly after handling. (P264)
Use only outdoors or in a well-ventilated area. (P271)
Contaminated work clothing should not be allowed out of the workplace. (P272)
Wear eye protection/protective gloves/protective clothing. (P280)
[In case of inadequate ventilation] wear respiratory protection. (P284)

Response

Get medical advice/attention if you feel unwell. (P314)
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 IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
IF exposed or concerned: Get medical advice/attention. (P308+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)
Store locked up. (P405)

Disposal

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

Hazardous substances

Methylenediphenyl diisocyanate

Additional labelling

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.
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 warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.
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
Methylenediphenyl diisocyanate	CAS No.: 26447-40-5 EC No.: 247-714-0 UK-REACH: Index No.: 615-005-00-9	60-80%	EUH066 EUH204 EUH401 Skin Irrit. 2, H315 (SCL: 5.00 %) Skin Sens. 1, H317 Eye Irrit. 2, H319 (SCL: 5.00 %) Acute Tox. 4, H332 Resp. Sens. 1, H334 (SCL: 0.10 %) STOT SE 3, H335 (SCL: 5.00 %) Carc. 2, H351 STOT RE 2, H373	

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.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

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

Upon irritation of the eye: Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. 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

Not applicable.

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. Anyone with a medical history of chronic respiratory disease, asthmatic or bronchial attacks, indicators of allergic responses, recurrent eczema or sensitisation conditions of the skin should not handle or work with isocyanates.

Anyone who develops chronic respiratory distress when working with isocyanates should be removed from exposure and examined by a physician. Further exposure must be avoided if a sensitivity to isocyanates or polyisocyanates has developed.

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

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:

Nitrogen oxides (NO_x)

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: None

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

Avoid inhalation of vapours from spilled material.

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

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

Avoid direct contact with the product.

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.

Recommended storage material

Keep only in original packaging.

Storage temperature

DO NOT store in pits basements or areas where vapours may be trapped

Dry, cool and well ventilated

Do not breathe vapours or spray mist.

Ensure good ventilation and/or extraction at the workplace

Prevent formation of aerosols

Room temperature 15 to 25°C

Store away from incompatibles

Incompatible materials

Alcohol

Amines

Strong acids

Strong alkalines
Water

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

No substances are listed in the national list of substances with an occupational exposure limit.

DNEL

diphenylmethane-4,4'-diisocyanate

Duration:	Route of exposure:	DNEL:
Long term – Local effects - Workers	Inhalation	50 µg/m ³
Short term – Local effects - Workers	Inhalation	100 µg/m ³

PNEC

diphenylmethane-4,4'-diisocyanate

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		3.7 µg/L
Freshwater sediment		11.7 mg/kg
Intermittent release (freshwater)		37 µg/L
Marine water		370 ng/L
Marine water sediment		1.17 mg/kg
Soil		2.33 mg/kg

8.2. Exposure controls

Control is unnecessary if the product is used as intended.

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.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

Do not recirculate outlet air that contain the substances.

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
In case of inadequate ventilation	Suitable respiratory protection advice for the correct personal selection can be obtained from EN529:2005			



Skin protection

Work situation	Recommended	Type/Category	Standards	
Wear long sleeve jackets and long trousers, do not allow clothing wet with chemical to stay in contact with skin.	Dedicated work clothing should be worn. Wear a protective suit in the event of prolonged periods of work with the product.	-	-	
Contaminated workwear MUST NOT leave site or be washed in household laundry	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			

Hand protection

Work situation	Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Isocyanate vapour may be absorbed into skin cream and this increases hazard.	Consider the following when selecting work gloves, material, compatibility, degradation, failure time, permeability. The gloves resistance to chemicals should be checked prior to use, wear time depends on duration and type of use.				
	Protect hands with Cat III work gloves (see standard EN374, UKCA marked to show it conforms to applicable standards). Gloves should be changed regularly to avoid permeation problems. Recommendation is protective index 6, breakthrough time >480 minutes.				

Eye protection

Work situation	Type	Standards	
Ensure goggles are a suitably tight fit	Safety Goggles	EN166:2001	
	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

Yellowish

Odour / Odour threshold

Earthy, musty

pH

No data available

Density (g/cm³)

No data available

Relative density

No data available

Kinematic viscosity

No data available

Particle characteristics

No data available

Phase changes**Melting point/Freezing point (°C)**

No data available

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

Does not apply to liquids.

Boiling point (°C)

No data available

Vapour pressure

No data available

Relative vapour density

Testing not relevant or not possible due to the nature of the product.

Decomposition temperature (°C)

No data available

Data on fire and explosion hazards**Flash point (°C)**

No data available

Flammability (°C)

No data available

Auto-ignition temperature (°C)

No data available

Lower and upper explosion limit (% v/v)

No data available

Solubility**Solubility in water**

No data available

n-octanol/water coefficient

No data available

Solubility in fat (g/L)

No data available

9.2. Other information**Evaporation rate (n-butylacetate = 100)**

No data available

Oxidizing properties

No data available

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

None known.

10.5. Incompatible materials

- Alcohol
- Amines
- Strong acids
- Strong alkalines
- Water

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

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.

Asthma like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with a sudden onset of persistent asthma like symptoms within minutes or hours of a documented exposure to the irritant.

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

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

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.

11.2. Information on other hazards

Long term effects

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.

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

Not applicable.

Other information

diphenylmethane-4,4'-diisocyanate has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

No data available.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

Not applicable.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

Waste treatment methods

Product is covered by the regulations on hazardous waste.

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

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.

EWC code

08 05 01* Waste isocyanates

Specific labelling

Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

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	Item not subject to ADR/RID/IMDG /IATA Regulations.	-		-	No	See below for additional information.
IMDG	Item not subject to ADR/RID/IMDG /IATA Regulations.	-		-	No	See below for additional information.
IATA	Item not subject to ADR/RID/IMDG /IATA Regulations.	-		-	No	See below for additional information.

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR, IATA and IMDG.

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

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

Not applicable.

UK-REACH, Annex XVII

diphenylmethane-4,4'-diisocyanate is subject to restrictions, UK-REACH annex XVII (entry 56 ; 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.

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

H314, 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.

H373, May cause damage to organs through prolonged or repeated exposure.

The full text of identified uses as mentioned in section 1

SU 19 = Building and construction work

PROC 10 = Roller application or brushing

PC 1 = Adhesives, Sealants

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

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

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 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 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