

Permabond®

Engineering Adhesives

SAFETY DATA SHEET

Permabond UV683

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name Permabond UV683

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

Identified uses Adhesive.

1.3. Details of the supplier of the safety data sheet

Supplier Permabond Engineering Adhesives Ltd.
Wessex Way
Colden Common
Winchester
Hampshire. SO21 1WP
United Kingdom
Tel: +44 (0)1962 711 661
Fax: +44 (0)1962 711 662
info.europe@permabond.com

1.4. Emergency telephone number

UK +44 (0)1962 711 661 USA 0800 640 7599 Asia +86 (0)21 5773 4913

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Xi;R36/37/38. R43. N;R51/53.

2.2. Label elements

Contains 1,1,1-TRIMETHYLOLPROPANE TRI(3-MERCAPTOPROPIONATE)
HEXAMETHYLENE DIACRYLATE

Labelling



Irritant



Dangerous for the environment

Risk Phrases

R36/37/38
R43
R51/53

Irritating to eyes, respiratory system and skin.
May cause sensitisation by skin contact.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases

S24/25
S26
S37

Avoid contact with skin and eyes.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable gloves.

2.3. Other hazards

None under normal conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

| | | |
|---|---|---------------|
| 1,1,1-TRIMETHYLOLPROPANE TRI(3-MERCAPTOPROPIONATE) | | 5-10% |
| CAS-No.: 33007-83-9 | EC No.: 251-336-1 | |
| Classification (EC 1272/2008) Acute Tox. 4 - H302 Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 | Classification (67/548/EEC) Xn;R22. N;R50/53. R43. | |
| DIPHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINE OXIDE | | 1-5% |
| CAS-No.: 75980-60-8 | EC No.: 278-355-8 | |
| Classification (EC 1272/2008) Repr. 2 - H361f Aquatic Chronic 2 - H411 | Classification (67/548/EEC) Repr. Cat. 3;R62. N;R51/53. | |
| HEXAMETHYLENE DIACRYLATE | | 10-30% |
| CAS-No.: 13048-33-4 | EC No.: 235-921-9 | |
| Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 | Classification (67/548/EEC) R43 Xi;R36/38 | |
| ISOBORNYL ACRYLATE | | 10-30% |
| CAS-No.: 5888-33-5 | EC No.: 227-561-6 | |
| Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 Aquatic Chronic 2 - H411 | Classification (67/548/EEC) Xi;R36/37/38. N;R51/53. | |
| TETRAHYDROFURFURYL ACRYLATE | | 10-30% |
| CAS-No.: 2399-48-6 | EC No.: 219-268-7 | |
| Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 | Classification (67/548/EEC) Xi;R36/38. | |

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| | | |
|--|---|---------------|
| TRIS(2-HYDROXYETHYL)ISOCYANURATE TRIACRYLATE | | 5-10% |
| CAS-No.: 40220-08-4 | EC No.: 254-843-6 | |
| Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 | Classification (67/548/EEC) Xi;R36/38. | |
| URETHANE ACRYLATE OLIGOMER | | 30-60% |
| CAS-No.: 73297-29-7 | EC No.: | |
| Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 | Classification (67/548/EEC) Xi;R36/38. | |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air. Get medical attention if any discomfort continues.

Ingestion

Rinse mouth thoroughly. Drink plenty of water. Do not induce vomiting. Get medical attention if any discomfort continues.

Skin contact

Remove contaminated clothing. Wash the skin immediately with soap and water. If symptoms develop, obtain medical attention

Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Get medical attention if any discomfort continues.

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

Skin contact

Skin irritation. Mild dermatitis, allergic skin rash.

Eye contact

Irritating and may cause redness and pain.

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

No specific first aid measures noted. Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Burning produces irritating, toxic and obnoxious fumes. Carbon monoxide, carbon dioxide, and unknown hydrocarbons.

5.3. Advice for firefighters

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Do not allow to enter drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Absorb with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal.

6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Do not eat, drink or smoke when using the product.

7.2. Conditions for safe storage, including any incompatibilities

Store in closed original container at temperatures between 5°C and 25°C. Protect against direct sunlight. Never return unused material to storage receptacle.

7.3. Specific end use(s)

Adhesive.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.2. Exposure controls

Protective equipment



Engineering measures

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

Respiratory equipment

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

Hand protection

Nitrile rubber or Viton™ gloves are recommended. Cotton or other absorbent gloves should not be worn. Gloves should conform to EN 374.

Eye protection

Use approved safety goggles or face shield. Personal eye protection should conform to EN 166

Other Protection

Employee must wear appropriate protective clothing and equipment to prevent any possibility of skin contact with this substance.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Permabond UV683

| | |
|-------------------|--|
| Appearance | Liquid |
| Colour | Colourless. |
| Odour | Acrylic |
| Solubility | Insoluble in water Soluble in: Organic solvents. |

Initial boiling point and boiling range (°C)

Not applicable.

Melting point (°C)

Not available.

Relative density 1.09

Vapour density (air=1)

Not available.

Vapour pressure

Not available.

Evaporation rate

Not available.

pH-Value, Conc. Solution

Not relevant

Viscosity ~1000 mPa.s

Odour Threshold, Lower

Not available.

Flash point (°C) >100°C

Auto Ignition Temperature (°C)

Not available.

Flammability Limit - Lower(%)

Not available.

Flammability Limit - Upper(%)

Not available.

Oxidising properties

Not available.

9.2. Other information

Not relevant

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reaction with: Strong oxidising agents. Light.

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

No specific reactivity hazards associated with this product.

10.4. Conditions to avoid

Protect against direct sunlight.

10.5. Incompatible materials

Materials To Avoid

Strong reducing agents. Strong oxidising substances.

10.6. Hazardous decomposition products

Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Permabond UV683

Toxicological information

The toxicological properties of this product have not been fully evaluated. Use of good industrial hygiene practices is required. Avoid direct contact with skin or eyes. Do not ingest or inhale.

Respiratory or skin sensitisation:

May cause sensitisation by skin contact.

Aspiration hazard:

None under normal conditions.

Inhalation

May cause irritation to the respiratory system.

Skin contact

Irritating to skin.

Eye contact

Irritating to eyes.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

12.1. Toxicity

No data available.

12.2. Persistence and degradability

Degradability

The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:

No data available.

12.5. Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Waste disposal should be in accordance with existing Community, National and local regulations Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

Waste Class

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

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

3082

14.2. UN proper shipping name

Environmentally hazardous substance, liquid, n.o.s. (contains Isobornyl Acrylate)

14.3. Transport hazard class(es)

9

Transport Labels



14.4. Packing group

III

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant



14.6. Special precautions for user

Not applicable.

EMS F-A, S-F

Hazard No. (ADR) 90

Tunnel Restriction Code (E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

EU Legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

| | |
|----------------------------------|--|
| Revision Date | 11/04/2013 |
| Revision | 1 |
| Risk Phrases In Full | |
| R22 | Harmful if swallowed. |
| R36/38 | Irritating to eyes and skin. |
| R36/37/38 | Irritating to eyes, respiratory system and skin. |
| R43 | May cause sensitisation by skin contact. |
| R62 | Possible risk of impaired fertility. |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| Hazard Statements In Full | |
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| H361f | Suspected of damaging fertility. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |