



SAFETY DATA SHEET

Permabond A1046

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

1.1. Product identifier

Product name Permabond A1046

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

Identified uses Adhesive. Sealant.

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.

2.2. Label elements

Contains HYDROXYPROPYL METHACRYLATE
BISPHENOL A EPOXY DIACRYLATE

Labelling



Irritant

Risk Phrases

R36/37/38 Irritating to eyes, respiratory system and skin.
R43 May cause sensitisation by skin contact.

Safety Phrases

S24 Avoid contact with skin.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37 Wear suitable gloves.

2.3. Other hazards

None under normal conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

PermaBond A1046

HYDROXYPROPYL METHACRYLATE		30-60%
CAS-No.: 27813-02-1	EC No.: 248-666-3	
Classification (EC 1272/2008) Eye Irrit. 2 - H319 Skin Sens. 1 - H317	Classification (67/548/EEC) Xi;R36. R43.	
BISPHENOL A EPOXY DIACRYLATE		10-30%
CAS-No.: 55818-57-0	EC No.: 500-130-2	
Classification (EC 1272/2008) Skin Sens. 1 - H317 Aquatic Chronic 4 - H413	Classification (67/548/EEC) R43,R53.	
ACRYLIC ACID		1-5%
CAS-No.: 79-10-7	EC No.: 201-177-9	
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1A - H314 STOT SE 3 - H335 Aquatic Acute 1 - H400	Classification (67/548/EEC) R10 C;R35 Xn;R20/21/22 N;R50	
CUMENE HYDROPEROXIDE		1-5%
CAS-No.: 80-15-9	EC No.: 201-254-7	
Classification (EC 1272/2008) Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 STOT SE 3 - H335 STOT RE 2 - H373 Aquatic Chronic 2 - H411	Classification (67/548/EEC) O;R7 T;R23 C;R34 Xn;R21/22,R48/20/22 N;R51/53	
2-PHENYLACETOHYDRAZIDE		0.1-1%
CAS-No.: 114-83-0	EC No.: 204-055-3	
Classification (EC 1272/2008) Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335	Classification (67/548/EEC) Xn;R22. Xi;R36/37/38. R43.	

ETHANEDIOL		0.1-1%
CAS-No.: 107-21-1	EC No.: 203-473-3	
Classification (EC 1272/2008) Acute Tox. 4 - H302	Classification (67/548/EEC) Xn;R22	

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.

Skin contact

Wash skin with soap and water. If symptoms develop, obtain medical attention

Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. 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

Foam, carbon dioxide or dry powder.

Unsuitable extinguishing media

Water.

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

Not relevant considering the small amounts used. Avoid discharge into drains.

6.3. Methods and material for containment and cleaning up

Absorb with sand or other inert absorbent. Transfer to a container 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

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Avoid contact with skin and eyes. Avoid eating, drinking and smoking 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. Never return unused material to storage receptacle.

7.3. Specific end use(s)

This product is not recommended for use in joints which will be in contact with either pure oxygen or steam.

Usage Description

Adhesive. Sealant.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
ETHANEDIOL	WEL		10 mg/m ³		104 mg/m ³	Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through skin.

Ingredient Comments

WEL = Workplace Exposure Limits

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. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Green.
Odour	Acrylic
Solubility	Slightly soluble in water. Soluble in: Organic solvents
Initial boiling point and boiling range	
Not applicable.	
Melting point (°C)	
Not available.	
Relative density	1.07
Vapour density (air=1)	
Not available.	
Vapour pressure	
Not available.	
Evaporation rate	
Not available.	

pH-Value, Conc. Solution

Not relevant

Viscosity ~9000 mPa.s @ 25°C
Thixotropic

Solubility Value (G/100G H₂O@20°C) ~5

Decomposition temperature (°C)

Not available.

Odour Threshold, Lower

Not available.

Flash point >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.

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

Avoid the absence of air, and metal contamination.

10.5. Incompatible materials

Materials To Avoid

Metals and their salts, Reducing agents, Oxidizers, Free radical initiators.

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

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.

Skin Corrosion/Irritation:

Irritating to skin.

Serious eye damage/irritation:

Risk of serious damage to eyes.

Respiratory or skin sensitisation:

May cause sensitisation by skin contact.

Aspiration hazard:

None under normal conditions.

SECTION 12: ECOLOGICAL INFORMATION

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Ecotoxicity

The product contains a substance which is harmful 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

No data available.

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

This product does not contain any PBT or vPvB substances.

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

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

Waste Class

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

SECTION 14: TRANSPORT INFORMATION

General

The product is not classified as dangerous for carriage.

14.1. UN number

UN No. (ADR/RID/ADN)

-

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

Not applicable.

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

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

Guidance Notes

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

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date 23/02/2012

Revision 1

Risk Phrases In Full

R34	Causes burns.
R35	Causes severe burns.
R10	Flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R22	Harmful if swallowed.
R21/22	Harmful in contact with skin and if swallowed.
R48/20/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R36	Irritating to eyes.
R37	Irritating to respiratory system.
R7	May cause fire.
R53	May cause long-term adverse effects in the aquatic environment.
R43	May cause sensitisation by skin contact.
R23	Toxic by inhalation.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R50	Very toxic to aquatic organisms.

Hazard Statements In Full

H319	Causes serious eye irritation.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H226	Flammable liquid and vapour.
H332	Harmful if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H242	Heating may cause a fire.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure.
H413	May cause long lasting harmful effects to aquatic life.
H335	May cause respiratory irritation.
H331	Toxic if inhaled.
H411	Toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.