



SAFETY DATA SHEET
Permabond UV6231

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

1.1. Product identifier

Product name Permabond UV6231

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. R52/53.

2.2. Label elements

Contains 2-HYDROXYETHYL METHACRYLATE
MALEIC ACID

Labelling



Irritant

Risk Phrases

R36/37/38 Irritating to eyes, respiratory system and skin.
R43 May cause sensitisation by skin contact.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases

S24/25 Avoid contact with skin and eyes.
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 UV6231

2-HYDROXYETHYL METHACRYLATE		5-10%
CAS-No.: 868-77-9	EC No.: 212-782-2	
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317	Classification (67/548/EEC) R43 Xi;R36/38	
ACRYLIC ACID		0.1-1%
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	
BICYCLO[2.2.1]HEPTANE,2,2-DIMETHYL-3-METHYLENE		0.1-1%
CAS-No.: 79-92-5	EC No.: 201-234-8	
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) Xi;R36. F;R11. N;R50/53.	
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.	
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.	
MALEIC ACID		1-5%
CAS-No.: 110-16-7	EC No.: 203-742-5	

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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
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METHACRYLIC ACID

1-5%

CAS-No.: 79-41-4

EC No.: 201-204-4

Classification (EC 1272/2008)
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Skin Corr. 1A - H314
STOT SE 3 - H335

Classification (67/548/EEC)
C;R35
Xn;R21/22

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

Permabond UV6231

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. Never return unused material to storage receptacle.

7.3. Specific end use(s)

Adhesive.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
METHACRYLIC ACID	WEL	20 ppm	72 mg/m ³	40 ppm	143 mg/m ³	

WEL = Workplace Exposure Limit.

Ingredient Comments

No exposure limits noted for ingredient(s).

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

Appearance	Liquid
Colour	Colourless.
Odour	Acrylic
Solubility	Slightly soluble in water.
Initial boiling point and boiling range	Not applicable.
Melting point (°C)	Not available.
Relative density	1.1
Vapour density (air=1)	Not available.

Vapour pressure

Not available.

Evaporation rate

Not available.

pH-Value, Conc. Solution

Not relevant

Viscosity ~6500 mPa.s

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

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

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**

Harmful to aquatic organisms, 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. The product has poor water-solubility.

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**General**

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not Classified

Transport Labels

No transport warning sign required.

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

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	17/07/2012
Revision	1
Risk Phrases In Full	
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.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R11	Highly flammable
R36/38	Irritating to eyes and skin.
R36/37/38	Irritating to eyes, respiratory system and skin.
R36	Irritating to eyes.
R37	Irritating to respiratory system.
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.
R50	Very toxic to aquatic organisms.

Hazard Statements In Full

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
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.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
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.
H412	Harmful to aquatic life with long lasting effects.

