

Permabond[®]

Engineering Adhesives

SAFETY DATA SHEET

Permabond TA4610A

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

1.1. Product identifier

Product name Permabond TA4610A

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 (EC 1272/2008)

Physical and Chemical Hazards Not classified.
Human health Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317; Muta. 2 - H341; STOT SE 3 - H335
Environment Not classified.

Classification (1999/45/EEC)

Muta Cat. 3; R68. Xi; R36/37/38. R43.

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

2.2. Label elements

Contains PENTAERYTHRITOL TRIS(3-AZIRIDIN-1-YLPROPIONATE)

Label In Accordance With (EC) No. 1272/2008



Signal Word

Warning

Hazard Statements

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.

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Precautionary Statements

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313	IF exposed or concerned: Get medical advice/attention.
P313	Get medical advice/attention.
P501	Dispose of contents/container in accordance with existing Community, National and local regulations.

Supplementary Precautionary Statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P272	Contaminated work clothing should not be allowed out of the workplace.
P261	Avoid breathing vapour/spray.
P264	Wash contaminated skin thoroughly after handling.
P321	Specific treatment (see medical advice on this label).
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P332+313	If skin irritation occurs: Get medical advice/attention.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P337	If eye irritation persists:
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

2.3. Other hazards

None under normal conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

2,6-DI-TERT-BUTYL-P-CRESOL	0.1-1%
CAS-No.: 128-37-0 EC No.: 204-881-4	
Classification (EC 1272/2008) Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335	Classification (67/548/EEC) Xn;R22. Xi;R36/37/38.
PENTAERYTHRITOL TRIS(3-AZIRIDIN-1-YLPROPIONATE)	1-5%
CAS-No.: 57116-45-7 EC No.: 260-568-2	
Classification (EC 1272/2008) Eye Dam. 1 - H318 Skin Sens. 1 - H317 Muta. 2 - H341 Aquatic Chronic 3 - H412	Classification (67/548/EEC) Muta. Cat. 3;R68. Xi;R41. R43,R52/53.

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TETRAHYDROFURFURYL METHACRYLATE		60-100%
CAS-No.: 2455-24-5	EC No.: 219-529-5	
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335	Classification (67/548/EEC) Xi;R36/37/38.	
TRIETHYLBORANE-1,3-DIAMINOPROPANE COMPLEX		1-5%
CAS-No.: 148861-07-8	EC No.:	
Classification (EC 1272/2008) Acute Tox. 4 - H312 Skin Corr. 1A - H314	Classification (67/548/EEC) Xn;R21. C;R35.	
TRIMETHYLENEDIAMINE		0.1-1%
CAS-No.: 109-76-2	EC No.: 203-702-7	
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Acute Tox. 3 - H311 Skin Corr. 1A - H314 Skin Sens. 1 - H317	Classification (67/548/EEC) T;R24. Xn;R22. C;R35. R10,R43.	

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

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Extinguishing media

Foam, carbon dioxide or dry powder.

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. Nitrous gases (NOx). 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

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)

Usage Description

Adhesive.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
2,6-DI-TERT-BUTYL-P-CRESOL	WEL		10 mg/m3			

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment



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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	Creamy liquid.
Colour	Yellowish
Odour	Acrylic
Solubility	Slightly soluble in water. Miscible with: Acetone
Initial boiling point and boiling range (°C)	Not applicable.
Melting point (°C)	Not available.
Relative density	1.0
Vapour density (air=1)	Not available.
Vapour pressure	Not available.
Evaporation rate	Not available.
pH-Value, Conc. Solution	Not relevant
Viscosity	~9000 mPa.s
Decomposition temperature (°C)	Not available.
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.

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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

Stable under normal temperature conditions and recommended use.

10.5. Incompatible materials

Materials To Avoid

No specific, or groups of materials are likely to react to produce a hazardous situation.

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.

Germ cell mutagenicity:

Possible risk of irreversible effects.

Aspiration hazard:

None under normal conditions.

Inhalation

Irritating to respiratory system. Unlikely to be hazardous by inhalation because of the low vapour pressure of the substance at ambient temperature.

Ingestion

No harmful effects expected in amounts likely to be ingested by accident.

Skin contact

Irritating to skin.

Eye contact

Irritating to eyes.

SECTION 12: ECOLOGICAL INFORMATION

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

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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

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).

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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).

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 28/11/2014

Revision 1

Risk Phrases In Full

R35	Causes severe burns.
R10	Flammable.
R22	Harmful if swallowed.
R21	Harmful in contact with skin.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R36/37/38	Irritating to eyes, respiratory system and skin.
R43	May cause sensitisation by skin contact.
R68	Possible risk of irreversible effects.
R41	Risk of serious damage to eyes.
R24	Toxic in contact with skin.

Hazard Statements In Full

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H412	Harmful to aquatic life with long lasting effects.