



**SAFETY DATA SHEET**  
**Permabond 2010**

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

**1.1. Product identifier**

Product name Permabond 2010

**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.

**2.2. Label elements**

Labelling



Irritant

Risk Phrases

R36/37/38

Irritating to eyes, respiratory system and skin.

Safety Phrases

S23

Do not breathe vapour/spray.

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.

P3

Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of reach of children.

**2.3. Other hazards**

None under normal conditions.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2. Mixtures**

ETHYL 2-CYANOACRYLATE		60-100%
CAS-No.: 7085-85-0	EC No.: 230-391-5	
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335	Classification (67/548/EEC) Xi;R36/37/38	

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**

On contact, immediate bonding of mouth could occur. Do not induce vomiting. Get medical attention.

**Skin contact**

On contact, immediate bonding of the skin will occur. No attempt should be made to remove material from skin or to remove contaminated clothing, as the bonded skin can be easily torn. Wash skin thoroughly with soap and water for several minutes.

**Eye contact**

Immediately flush with plenty of water or eyewash solution for up to 10 minutes. If adhesive bonds eyelids, flush with water and seek medical assistance. Do not attempt to force bonded skin apart. Cured adhesive will not bond well to surface of eye, but corneal damage from abrasion may result.

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

**Inhalation.**

Irritation of nose, throat and airway.

**Ingestion**

On contact, immediate bonding of mouth could occur.

**Skin contact**

Prolonged skin contact may cause redness and irritation.

**Eye contact**

Irritating and may cause redness and pain.

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

SKIN BONDING. Prise the skin apart slowly working from the edge of the bonded area. This can be eased by using warm soapy water.

EYE BONDING. DO NOT force eyelids apart. Apply a pad soaked in warm water and allow the eye to separate itself.

**SECTION 5: FIREFIGHTING MEASURES**

**5.1. Extinguishing media**

**Extinguishing media**

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

**5.2. Special hazards arising from the substance or mixture**

**Hazardous combustion products**

Decomposes upon heating to release toxic fumes of nitrogen oxides, carbon monoxide, carbon dioxide, and hydrogen cyanide.

**Unusual Fire & Explosion Hazards**

Cloths used to wipe up spills may cause rapid polymerization that could generate sufficient heat to ignite the cloth.

**5.3. Advice for firefighters**

**Special Fire Fighting Procedures**

Avoid breathing fire vapours.

**Protective equipment for fire-fighters**

Use air-supplied respirator during fire fighting.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1. Personal precautions, protective equipment and emergency procedures**

For personal protection, see section 8. Provide adequate ventilation.

**6.2. Environmental precautions**

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Do not allow to enter drains, sewers or watercourses.

## 6.3. Methods and material for containment and cleaning up

Small spills: wipe up with cloth. Immediately soak cloth with water to polymerize the adhesive. Caution! Cloth containing adhesive may undergo autoignition if not soaked with water. Large spills: flood area with water. When cured, remove film with a scraper.

## 6.4. Reference to other sections

Collect and dispose of spillage as indicated in section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Ensure adequate ventilation of the working area. Avoid contact with skin and eyes. Always replace cap after use.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry and cool place. Keep upright.

### 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
ETHYL 2-CYANOACRYLATE	WEL			0,3 ppm	1,5 mg/m <sup>3</sup>	

WEL = Workplace Exposure Limit.

### 8.2. Exposure controls

#### Protective equipment



#### Engineering measures

Normal (mechanical) room ventilation should be adequate for small volumes. For higher volume activities, or if needed for worker comfort, local mechanical exhaust should be provided.

#### Respiratory equipment

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

#### 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

Uniforms, coveralls, or a lab coat should be worn

#### Hygiene measures

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

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Appearance	Opaque Viscous liquid.
Colour	Colourless.
Odour	Pungent.
Solubility	Hardens in contact with water. Insoluble in water Miscible with: Acetone
Initial boiling point and boiling range	>100°C
Melting point (°C)	Not applicable.
Relative density	1.05

**Bulk Density**

Not applicable.

**Vapour density (air=1)**

Not applicable.

**Vapour pressure** ~0.6 mbar

**Evaporation rate**

Not available.

**pH-Value, Conc. Solution**

Not applicable.

**Viscosity** ~23000 mPa.s

Thixotropic

**Decomposition temperature (°C)**

Not available.

**Flash point** 83°C

**Auto Ignition Temperature (°C)**

Not available.

**Partition Coefficient (N-Octanol/Water)**

Not applicable.

**Oxidising properties**

Not applicable.

**9.2. Other information**

Not relevant

**SECTION 10: STABILITY AND REACTIVITY**

**10.1. Reactivity**

The product reacts with water and will generate heat.

**10.2. Chemical stability**

Stable under normal temperature conditions and recommended use.

**10.3. Possibility of hazardous reactions**

Exothermic reaction with: Water Alcohol Alkalis. Amines.

**10.4. Conditions to avoid**

Do not add water directly to the product. It may cause a violent reaction.

**10.5. Incompatible materials**

**Materials To Avoid**

Water. Amines. Alkalis. Alcohols.

**10.6. Hazardous decomposition products**

High temperatures generate: Toxic gases/vapours/fumes of: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO). Nitrous gases (NO<sub>x</sub>). Hydrogen cyanide (HCN).

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1. Information on toxicological effects**

**Toxicological information**

Under EU legislation the cyanoacrylates do not require classification as sensitisers and the rapid polymerisation caused on contact with moisture makes this unlikely. However the American Conference of Governmental Industrial Hygienists (ACGIH) has reported some limited evidence of skin and respiratory sensitisation. May cause allergic reactions in susceptible people.

**Inhalation**

Irritating to respiratory system.

**Ingestion**

On contact, immediate bonding of mouth could occur.

**Skin contact**

Irritating to skin. On contact, immediate bonding of the skin will occur.

**Eye contact**

Irritating to eyes. On contact, will bond eyelids together. Vapours are lachrymatory.

**SECTION 12: ECOLOGICAL INFORMATION**

**Ecotoxicity**

No negative effects on the aquatic environment are known.

**12.1. Toxicity**

**Acute Fish Toxicity**

No information available.

**Acute Toxicity - Aquatic Invertebrates**

Not available.

**Acute Toxicity - Aquatic Plants**

Not available.

**Acute Toxicity - Terrestrial**

Not available.

**12.2. Persistence and degradability**

**Degradability**

No data available.

**Biological Oxygen Demand**

Not known.

**Chemical Oxygen Demand**

Not known.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential**

No data available on bioaccumulation.

**Partition coefficient**

Not applicable.

**12.4. Mobility in soil**

**Mobility:**

The product hardens to a solid immobile substance.

**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**

<b>Road Transport Notes</b>	Not Classified
<b>Rail Transport Notes</b>	Not classified.
<b>Sea Transport Notes</b>	Not classified.
<b>Air Transport Notes</b>	Applies only to inner containers > 2 litres.

**14.1. UN number**

# Permabond 2010

UN No. (ICAO) 3334

## 14.2. UN proper shipping name

Proper Shipping Name Aviation regulated liquid, n.o.s. (contains ethyl cyanoacrylate)

## 14.3. Transport hazard class(es)

ICAO Class/Division 9

Transport Labels



## 14.4. Packing group

ICAO Packing group III

## 14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

## 14.6. Special precautions for user

None under normal conditions.

## 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

#### **Uk Regulatory References**

Health and Safety at Work Act 1974. The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

#### **Environmental Listing**

Rivers (Prevention of Pollution) Act 1961. Control of Pollution (Special Waste Regulations) Act 1980. Control of Pollution Act 1974.

#### **Statutory Instruments**

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.

#### **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. Introduction to Local Exhaust Ventilation HS(G)37. 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 18/06/2012

Revision 1

#### **Risk Phrases In Full**

R36/37/38 Irritating to eyes, respiratory system and skin.

#### **Hazard Statements In Full**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

