



SAFETY DATA SHEET

Permabond 947

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name Permabond 947

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

Emergency telephone CHEMTREC UK: +(44)-870-8200418 CHEMTREC US: 800-424-9300 (CCN: 829878)

National emergency telephone number CHEMTREC Ireland: +(353)-19014670
CHEMTREC Australia: +(61)-290372994
CHEMTREC New Zealand: +(64)-98010034

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

2.2. Label elements

Hazard statements NC Not Classified

Supplemental label information EUH202 Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

2.3. Other hazards

None under normal conditions. This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Composition comments None of the ingredients are required to be listed.

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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.
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

Notes for the doctor	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.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Specific hazards	Cloths used to wipe up spills may cause rapid polymerization that could generate sufficient heat to ignite the cloth.
Hazardous combustion products	Decomposes upon heating to release toxic fumes of nitrogen oxides, carbon monoxide, carbon dioxide, and hydrogen cyanide.

5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours.
Special protective equipment for firefighters	Use air-supplied respirator, gloves and protective goggles.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

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Methods for 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

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

Usage precautions 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

Storage precautions Store in tightly-closed, original container in a dry and cool place. Keep containers upright.

7.3. Specific end use(s)

Specific end use(s) Adhesive.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Ingredient comments No exposure limits known for ingredient(s).

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

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.

Eye/face protection

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

Hand protection

It is recommended that chemical-resistant, impervious gloves are worn. Gloves should conform to EN 374. For exposure up to 4 hours, wear gloves made of the following material: Nitrile rubber. Thickness: ≥ 0.4 mm The selected gloves should have a breakthrough time of at least 0.5 hours. For exposure up to 8 hours, wear gloves made of the following material: Nitrile rubber. Thickness: ≥ 0.4 mm The selected gloves should have a breakthrough time of at least 8 hours. The breakthrough time for any glove material may be different for different glove manufacturers. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.

Other skin and body protection

Uniforms, coveralls, or a lab coat should be worn

Hygiene measures

When using do not eat, drink or smoke. Wash 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. Use of good industrial hygiene practices is required.

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Respiratory protection	Ensure adequate ventilation of the working area. If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Organic vapour filter. Type A. (EN14387)
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SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Odourless.
pH	Not applicable.
Melting point	Not applicable.
Initial boiling point and range	>100°C
Flash point	> 100°C
Evaporation rate	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	~0.3 mbar @ 25°C
Vapour density	Not applicable.
Relative density	1.1
Bulk density	Not applicable.
Solubility(ies)	Hardens in contact with water. Insoluble in water. Miscible with the following materials: Organic solvents.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	≈1200 mPa s @ 23°C
Oxidising properties	Not applicable.

9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of 2.3 %. According to EC Directive 2004/42/EC
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The product reacts with water and will generate heat.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Reactions with the following materials may generate heat: Water Alcohols. Alkalis. Amines.
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10.4. Conditions to avoid

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

Hazardous decomposition products Heating may generate the following products: Toxic gases/vapours/fumes of: Carbon dioxide (CO₂). Carbon monoxide (CO). Nitrous gases (NO_x). Hydrogen cyanide (HCN).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects 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 Considered to be a low inhalation hazard at normal workplace temperatures. May cause discomfort.

Ingestion On contact, immediate bonding of mouth could occur.

Skin contact On contact, immediate bonding of the skin will occur. Prolonged skin contact may cause temporary irritation.

Eye contact Prolonged and frequent contact may cause redness and irritation. 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 aquatic toxicity

Acute toxicity - aquatic invertebrates Not available.

Acute toxicity - aquatic plants Not available.

Acute toxicity - terrestrial Not available.

12.2. Persistence and degradability

Persistence and 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.

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12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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.

Disposal 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

Road transport notes Not classified.

Rail transport notes Not classified.

Sea transport notes Not classified.

Air transport notes Applies only to inner containers > 500ml.

14.1. UN number

UN No. (ADR/RID) Not applicable

UN No. (IMDG) Not applicable

UN No. (ICAO) 3334

UN No. (ADN) Not applicable

14.2. UN proper shipping name

Proper shipping name (ADR/RID) Not applicable

Proper shipping name (IMDG) Not applicable

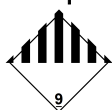
Proper shipping name (ICAO) AVIATION REGULATED LIQUID, N.O.S. (contains 2-methoxyethyl 2-cyanoacrylate)

Proper shipping name (ADN) Not applicable

14.3. Transport hazard class(es)

ICAO class/division 9

Transport labels



14.4. Packing group

ICAO packing group III

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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 MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

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

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 (as amended). COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
Guidance	Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG228. Approved Classification and Labelling Guide (Sixth edition) L131. Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date	24/05/2018
Revision	7
Supersedes date	27/10/2017

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.