



SAFETY DATA SHEET

Permabond A905 - Liquid

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

1.1. Product identifier

Product name Permabond A905 - Liquid

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

Identified uses Primer.

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 Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304

Environmental hazards Aquatic Chronic 2 - H411

Human health In high concentrations, vapours and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. Irritating to eyes. Repeated exposure may cause skin dryness or cracking.

Environmental Toxic to aquatic life with long lasting effects.

Physicochemical The product is highly flammable, and explosive vapours/air mixtures may be formed even at normal room temperatures.

2.2. Label elements

Permabond A905 - Liquid

Pictogram



Signal word

Danger

Hazard statements

H225 Highly flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H336 May cause drowsiness or dizziness.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P261 Avoid breathing vapour/ spray.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 P331 Do NOT induce vomiting.
 P302+P352a IF ON SKIN: Wash with plenty of soap and water
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Contains

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLICS

Supplementary precautionary statements

P243 Take action to prevent static discharges.
 P264 Wash contaminated skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P273 Avoid release to the environment.
 P280 Wear protective gloves, eye and face protection.
 P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/container in accordance with existing Community, National and local regulations.

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

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLICS		60-100%
CAS number: —	EC number: 927-510-4	REACH registration number: 01-2119475515-33-XXXX
Classification Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411		

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trans-DICHLOROETHYLENE		5-10%
CAS number: 156-60-5	EC number: 205-860-2	
Classification Flam. Liq. 2 - H225 Acute Tox. 4 - H332 Aquatic Chronic 3 - H412		
COPPER NAPHTHENATE		<1%
CAS number: 1338-02-9	EC number: 215-657-0	
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		
2-ETHYLHEXANOIC ACID, COPPER SALT		<1%
CAS number: 22221-10-9	EC number: 244-846-0	
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification Acute Tox. 4 - H302 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		

The full text for all hazard statements is displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Drink a few glasses of water or milk. Do not induce vomiting. Get medical attention.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. 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

General information	Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Inhalation	Vapours may cause drowsiness and dizziness.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.

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

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Notes for the doctor Avoid vomiting and stomach flushing because of the risk of aspiration.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable 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

Specific hazards The product is flammable. Heating may generate flammable vapours. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

Hazardous combustion products Burning produces irritating, toxic and obnoxious fumes. Carbon monoxide, carbon dioxide, and unknown hydrocarbons.

5.3. Advice for firefighters

Protective actions during firefighting Containers close to fire should be removed or cooled with water.

Special protective equipment for firefighters Wear self contained breathing apparatus and protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Remove or isolate all sources of ignition. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb in vermiculite, dry sand or earth and place into containers. Transfer to suitable, labelled containers for disposal.

6.4. Reference to other sections

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

Usage precautions Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. During application and drying, solvent vapours will be emitted. Use in a well ventilated area. Avoid contact with skin and eyes. Do not ingest or inhale.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from sources of ignition - No smoking.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s) Primer.

SECTION 8: Exposure Controls/personal protection

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8.1. Control parameters

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLICS

DNEL

Workers - Dermal; Long term systemic effects: 300 mg/kg
Workers - Inhalation; Long term systemic effects: 2085 mg/m³

NAPHTHENIC ACIDS (CAS: 1338-24-5)

DNEL

Workers - Inhalation; Long term systemic effects: 7.76 mg/m³
Workers - Dermal; Long term systemic effects: 3.33 mg/kg/day
Workers - Dermal; Long term local effects: 1.81 mg/cm²

PNEC

- STP; 0.13 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

The following protection should be worn: Chemical splash 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

Use engineering controls to reduce air contamination to permissible exposure level. Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Provide eyewash station and safety shower. Uniforms, coveralls, or a lab coat should be worn

Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. Use of good industrial hygiene practices is required.

Respiratory protection

Ensure adequate ventilation of the working area. Respiratory protection may be required if excessive airborne contamination occurs. 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.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Green.

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Odour	aromatic hydrocarbons
pH	Not applicable.
Melting point	Not known.
Initial boiling point and range	45 - 100°C
Flash point	~ -4°C
Evaporation rate	4.3
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	0.7
Solubility(ies)	Insoluble in water.
Auto-ignition temperature	Not available.
Viscosity	~ 0.7 mPa s @ 23°C

9.2. Other information

Other information	Not relevant.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The following materials may react with the product: Strong oxidising agents.
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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	There are no known reactivity hazards associated with this product.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.
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Serious eye damage/irritation

Serious eye damage/irritation	Slightly irritating.
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Aspiration hazard

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Aspiration hazard	Aspiration hazard if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Inhalation	In high concentrations, vapours may irritate throat and respiratory system and cause coughing. Vapours have a narcotic effect. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.
Ingestion	Gastrointestinal symptoms, including upset stomach.
Skin contact	Irritating to skin. Repeated exposure may cause skin dryness or cracking. May cause sensitisation by skin contact.
Eye contact	Irritating and may cause redness and pain.

Toxicological information on ingredients.

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLICS

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,840.0

Species Rat

ATE oral (mg/kg) 5,840.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,800.0

Species Rat

ATE dermal (mg/kg) 2,800.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 23.3

Species Rat

ATE inhalation (vapours mg/l) 23.3

Skin corrosion/irritation

Skin corrosion/irritation Read-across data. Method: OECD 404, Rabbit Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Read-across data. Not irritating.

Skin sensitisation

Skin sensitisation Read-across data. Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Read-across data. Negative.

Carcinogenicity

Carcinogenicity Not available.

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Reproductive toxicity

Reproductive toxicity - fertility Read-across data. Two-generation study - NOAEL 9000 ppm, Inhalation, Rat F1

Reproductive toxicity - development Read-across data. Developmental toxicity: - NOAEC: 1200 ppm, Inhalation, Rat

Specific target organ toxicity - single exposure

STOT - single exposure Not available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not available.

Aspiration hazard

Aspiration hazard Not available.

trans-DICHLOROETHYLENE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,000.1

Species Rat

ATE oral (mg/kg) 2,000.1

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 5,000.0

Species Rabbit

ATE dermal (mg/kg) 5,000.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ gases ppmV) 24,000.0

Species Rat

ATE inhalation (gases ppm) 4,500.0

COPPER NAPHTHENATE

Acute toxicity - oral

ATE oral (mg/kg) 500.0

SECTION 12: Ecological Information

Ecotoxicity Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Toxicity The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

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Ecological information on ingredients.

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLICS

Acute aquatic toxicity

Acute toxicity - fish LL₅₀, 96 hours: > 13.4 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic plants NOELR, 72 hours: 6.3 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms NOELR, 48 hours: 5.999 mg/l, Tetrahymena pyriformis

Chronic aquatic toxicity

Chronic toxicity - fish early life stage NOELR, 28 days: 1.534 mg/l, Oncorhynchus mykiss (Rainbow trout)

Chronic toxicity - aquatic invertebrates NOELR, 21 days: 1 mg/l, Daphnia magna

trans-DICHLOROETHYLENE

Acute aquatic toxicity

Acute toxicity - aquatic invertebrates NOEC, 48 hours: 110 mg/l, Daphnia magna
LC₅₀, 48 hours: 220 - 290 mg/l, Daphnia magna

COPPER NAPHTHENATE

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Chronic aquatic toxicity

M factor (Chronic) 1

2-ETHYLHEXANOIC ACID, COPPER SALT

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Chronic aquatic toxicity

M factor (Chronic) 1

12.2. Persistence and degradability

Persistence and degradability No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

Mobility The product contains organic solvents which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

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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 Absorb in vermiculite, dry sand or earth and place into containers. Dispose of waste via a licensed waste disposal contractor. Containers should be thoroughly emptied before disposal because of the risk of an explosion.

Waste class 14 06 03 other solvents and solvent mixtures

SECTION 14: Transport information

14.1. UN number

1993

14.2. UN proper shipping name

FLAMMABLE LIQUID, N.O.S. (Hydrocarbons, C7, n-Alkanes, isoalkanes, cyclics)

14.3. Transport hazard class(es)

3

Transport labels



14.4. Packing group

II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS F-E, S-E

Emergency Action Code 3YE

Hazard Identification Number 33
(ADR/RID)

Tunnel restriction code (D/E)

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

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SECTION 15: Regulatory information

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

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). EH40/2005 Workplace exposure limits.
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).
Guidance	Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (Sixth edition) L131.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date	16/01/2018
Revision	5
Supersedes date	26/07/2017
Hazard statements in full	H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H332 Harmful if inhaled. H336 May cause drowsiness or dizziness. 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.

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.