SAFETY DATA SHEET
Permabond A905 Surface Conditioner - Aerosol

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

1.1. Product identifier

Product name Permabond A905 Surface Conditioner - Aerosol

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

Identified uses Activator. Cleaning agent.

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 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

Physical hazards Aerosol 1 - H222, H229

Health hazards Skin Irrit. 2 - H315 STOT SE 3 - H336

Environmental hazards Aquatic Chronic 2 - H411

Classification (67/548/EEC or 1999/45/EC) Xi;R38. F+;R12. N;R51/53. R67.

2.2. Label elements

Pictogram

Signal word Danger

Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurised container: may burst if heated
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Permabond A905 Surface Conditioner - Aerosol

Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P280 Wear protective gloves, eye and face protection. 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	P235+P410 Keep cool. Protect from sunlight. P261 Avoid breathing vapour/spray. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P312 Call a POISON CENTER/doctor if you feel unwell. 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. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P501 Dispose of contents/container in accordance with existing Community, National and local regulations.

2.3. Other hazards

Contents under pressure. Avoid exposing aerosol containers to high temperatures or direct sunlight.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLICS **30-60%**

CAS number: — EC number: 927-510-4

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Xn;R65. Xi;R38. F;R11. N;R51/53. R67.

trans-DICHLOROETHYLENE **1-5%**

CAS number: 156-60-5 EC number: 205-860-2

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225 Acute Tox. 4 - H332 Aquatic Chronic 3 - H412	F;R11 Xn;R20 R52/53

Permabond A905 Surface Conditioner - Aerosol

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	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Xn;R22. N;R50/53.

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 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 if any discomfort continues.

Skin contact 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 10 minutes. Get medical attention promptly if symptoms occur after washing.

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

Inhalation Vapours may cause drowsiness and dizziness.

Skin contact Causes skin irritation.

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

Notes for the doctor Treat symptomatically. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Foam, carbon dioxide or dry powder.

5.2. Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up. Oxides of carbon. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m3.

5.3. Advice for firefighters

Protective actions during firefighting Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapours. Avoid breathing fire gases or vapours.

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 Eliminate all sources of ignition. Warn everybody of potential hazards and evacuate if necessary. Provide adequate ventilation.

Permabond A905 Surface Conditioner - Aerosol

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 During application and drying, solvent vapours will be emitted. Use only in well-ventilated areas. Keep away from heat, sparks and open flame.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

7.3. Specific end use(s)

Specific end use(s) Activator.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Protective equipment

Appropriate engineering controls Provide adequate ventilation. Avoid inhalation of vapours.

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 Nitrile rubber or Viton™ gloves are recommended. Cotton or other absorbent gloves should not be worn. Gloves should conform to EN 374. 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.

Other skin and body protection Uniforms, coveralls, or a lab coat should be worn

Hygiene measures Do not smoke in work area. Wash hands 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 Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Liquid.

Permabond A905 Surface Conditioner - Aerosol

Colour	Green.
Odour	Characteristic.
Odour threshold	Not determined.
Melting point	Not determined.
Initial boiling point and range	102°C
Flash point	-26°C
Evaporation rate	5.45
Vapour pressure	187 mm Hg
Vapour density	>1
Relative density	0.7
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	~0.7 mPa s @ 23°C
Explosive properties	Not available.
Oxidising properties	Not applicable.

9.2. Other information

Other information	None.
Volatile organic compound	This product contains a maximum VOC content of ~700 g/litre.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions There are no known conditions that are likely to result in a hazardous situation.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.

SECTION 11: Toxicological information

Permabond A905 Surface Conditioner - Aerosol

11.1. Information on toxicological effects

Toxicological effects The toxicological properties of this product have not been fully evaluated. Do not ingest or inhale. Avoid direct contact with skin or eyes.

Acute toxicity - inhalation

Aspiration hazard

Aspiration hazard Not applicable.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system. Vapours may cause headache, fatigue, dizziness and nausea.

Skin contact Irritating to skin. Product has a defatting effect on skin. Repeated exposure may cause skin dryness or cracking.

Eye contact Vapour or spray in the eyes may cause irritation and smarting.

Toxicological information on ingredients.

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLICS

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	5,840.0
Species	Rat
ATE oral (mg/kg)	5,840.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	2,800.0
Species	Rat
ATE dermal (mg/kg)	2,800.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	23.3
Species	Rat
ATE inhalation (vapours mg/l)	23.3

trans-DICHLOROETHYLENE

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	2,000.1
Species	Rat
ATE oral (mg/kg)	2,000.1

Acute toxicity - dermal

Permabond A905 Surface Conditioner - Aerosol

Acute toxicity dermal (LD_{50} mg/kg)	5,000.0
Species	Rabbit
ATE dermal (mg/kg)	5,000.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} gases ppmV)	24,000.0
Species	Rat
ATE inhalation (gases ppm)	4,500.0

HYDROCARBONS, C10-C13, n-ALKANES, ISOALKANES,CYCLICS , <2% AROMATICS

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	5,000.0
Species	Rat
ATE oral (mg/kg)	5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	3,160.0
Species	Rabbit
ATE dermal (mg/kg)	3,160.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	4.95
Species	Rat

Reproductive toxicity

Reproductive toxicity - fertility	- NOAEC >= 400 ppm, Inhalation, Rat P
Reproductive toxicity - development	Developmental toxicity: - NOAEC: >= 300 ppm, Inhalation, Rat

SECTION 12: Ecological Information

Ecotoxicity Toxic to aquatic life with long lasting effects. Avoid release to the environment.

12.1. Toxicity

Toxicity No data available.

Ecological information on ingredients.

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLICS

Permabond A905 Surface Conditioner - Aerosol

Acute toxicity - fish	LL_{50}, 96 hours: > 13.4 mg/l, Onchorhynchus 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 toxicity - fish early life stage	NOELR, 28 days: 1.534 mg/l, Onchorhynchus mykiss (Rainbow trout)
Chronic toxicity - aquatic invertebrates	NOELR, 21 days: 1 mg/l, Daphnia magna

trans-DICHLOROETHYLENE

Acute toxicity - aquatic invertebrates	NOEC, 48 hours: 110 mg/l, Daphnia magna LC_{50}, 48 hours: 220 - 290 mg/l, Daphnia magna

HYDROCARBONS, C10-C13, n-ALKANES, ISOALKANES,CYCLICS , <2% AROMATICS

Acute toxicity - fish	LL_{50}, 96 hours: > 1000 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	NOELR, 96 hours: 32 mg/l, Chaetogammarus marinus
Acute toxicity - aquatic plants	NOELR, 72 hours: 1000 mg/l, Pseudokirchneriella subcapitata
Chronic toxicity - fish early life stage	NOELR, 28 days: 0.101 mg/l, Onchorhynchus mykiss (Rainbow trout)
Chronic toxicity - aquatic invertebrates	NOELR, 21 days: 0.176 mg/l, Daphnia magna

2-ETHYLHEXANOIC ACID, COPPER SALT

Acute aquatic toxicity

$LE(C)_{50}$	$0.1 < L(E)C50 \leq 1$
M factor (Acute)	1

Chronic aquatic toxicity

M factor (Chronic)	1

12.2. Persistence and degradability

Persistence and degradability No data available.

Ecological information on ingredients.

HYDROCARBONS, C10-C13, n-ALKANES, ISOALKANES,CYCLICS , <2% AROMATICS

Biodegradation	Water - 80%: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Permabond A905 Surface Conditioner - Aerosol

Partition coefficient Not determined.

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.

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

Disposal methods Empty containers must not be punctured or incinerated because of the risk of an explosion.

Waste class 16 05 04 gases in pressure containers (including halons) containing dangerous substances.

SECTION 14: Transport information

14.1. UN number

1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AEROSOLS, FLAMMABLE

Proper shipping name (IMDG) AEROSOLS

Proper shipping name (ICAO) AEROSOLS, FLAMMABLE

Proper shipping name (ADN) AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class 2

IMDG class 2

ICAO class/division 2.1

Transport labels

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Permabond A905 Surface Conditioner - Aerosol

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-D, S-U
Tunnel restriction code	(D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not relevant.

SECTION 15: Regulatory information

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

National regulations	Petroleum (Consolidation) Act, as amended 1984 SI 1244. Highly Flammable Liquid Regulations 1972. Rivers (Prevention of Pollution) Act 1961. Control of Pollution (Special Waste) Regulations 1980 (as amended).
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. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG228. Approved Classification and Labelling Guide (Sixth edition) L131.
Water hazard classification	WGK 2

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date	10/03/2015
Revision	2
Supersedes date	09/05/2012

Permabond A905 Surface Conditioner - Aerosol

Risk phrases in full

R10 Flammable.
R11 Highly flammable.
R12 Extremely flammable.
R20 Harmful by inhalation.
R22 Harmful if swallowed.
R38 Irritating to skin.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.

Hazard statements in full

H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H229 Pressurised container: may burst if heated
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.