

***** SAFETY DATA SHEET *******1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

PRODUCT NAME	Permabond MH052
RECOMMENDED USE	Anaerobic Adhesive /Sealer
SUPPLIER	Permabond Engineering Adhesives Ltd Wessex House Upper Market Street Eastleigh Hampshire SO50 9FD Telephone: +44 (0)23 8061 1400 Fax: +44 (0)23 8061 1700 E-mail: help.europe@permabondllc.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	EC NUMBER	CONCENTRATION %	EC SYMBOL RISK PHRASES
Methacrylate esters		<5	Xi, R36/37/38
Hydroxyethylmethacrylate	212-782-2	0.1 - 2	Xi, R36/38, R43
Hydroxypropylmethacrylate	248-666-3	0.1 - 1	Xi, R36, R43
Cumene hydroperoxide	201-254-7	1	O, T, N, R7, R21/22, R23, R34, R48/20/22, R51/53

For full text of risk phrases, please refer to Section 16.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	IRRITANT SENSITIZER
EYE	May cause eye irritation
SKIN CONTACT	Irritating to the skin. Repeated and/or prolonged contact may cause skin sensitisation.
INHALATION	Vapour may be irritating to the respiratory tract.
INGESTION	No hazard in normal industrial use.
PHYSICO-CHEMICAL	No unusual hazards are expected.
ENVIRONMENTAL	Unknown.

4. FIRST-AID MEASURES

EYE	Immediate medical attention is not required. Irrigate with eyewash solution or clean water until pain is relieved. If symptoms develop, obtain medical attention.
SKIN CONTACT	Wash skin with soap and water. If symptoms develop, obtain medical attention.
INHALATION	Remove patient from exposure. If symptoms develop, obtain medical attention.
INGESTION	Treat symptomatically and supportively.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA	CO ₂ ; Dry Chemical; Foam; Water Fog
SPECIAL FIREFIGHTING PROCEDURES	Fire fighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.
FIRE & EXPLOSION HAZARDS	Combustion may release noxious or toxic vapours. See below.
HAZARDOUS COMBUSTION PRODUCTS	Carbon monoxide, carbon dioxide, unknown hydrocarbons.
LOWER EXPLOSION LIMIT (%)	Not applicable
UPPER EXPLOSION LIMIT (%)	Not applicable
AUTOFLAMMABILITY	Not available
FLASH POINT	> 100 °C

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES	Adsorb spillages onto sand, earth or any suitable adsorbent material. Scrape up and place in suitably labelled container for disposal.
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For safety and environmental precautions, please review entire Safety Data Sheet for necessary information.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE	Ambient.
HANDLING/STORAGE	Store in cool, dry place. Avoid the absence of air, and metal contamination.
SENSITIVE TO STATIC ELECTRICITY	No
SENSITIVITY TO MECHANICAL IMPACT	No
SPECIFIC USES	This product is not recommended for use in joints which will be in contact with steam.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE CONTROLS

VENTILATION REQUIREMENTS	General.
EYE PROTECTION REQUIREMENTS	Safety glasses, goggles or face shield to protect against splashing. Personal eye protection should conform to EN 166.
GLOVE REQUIREMENTS	Employee must wear appropriate protective gloves to prevent contact with this substance. Nitrile rubber or Viton™ gloves are recommended. Cotton or other absorbent gloves should not be worn. Gloves should conform to EN 374.
CLOTHING REQUIREMENTS	Employee must wear appropriate protective clothing and equipment to prevent any possibility of skin contact with this substance.
WASH REQUIREMENTS	Wash before eating, drinking, or using toilet facilities.
RESPIRATORY REQUIREMENTS	None required under normal handling conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

PURE SUBSTANCE OR PREPARATION	Preparation.
PHYSICAL FORM	Paste
COLOUR	Yellow
ODOUR	Acrylic odour
pH AS IS	Not applicable
OXIDIZING PROPERTIES	Not applicable
BOILING POINT	Not applicable
MELTING/FREEZING POINT	Not applicable
SOLUBILITY IN WATER	Insoluble
PARTITION COEFFICIENT (n-octanol/water)	Not applicable
VISCOSITY	Approximately 50,000 mPa.s
RELATIVE DENSITY	1.1
EVAPORATION RATE	Not applicable
VAPOUR PRESSURE (mmHg)	Not applicable
VAPOUR DENSITY (air=1)	Not applicable
VOLATILES	None
VOLATILE ORGANIC COMPOUNDS	< 5 g/litre
AUTOFLAMMABILITY	> 380°C
FLASH POINT	> 100 °C

10. STABILITY AND REACTIVITY

STABILITY	Stable
CONDITIONS TO AVOID	Avoid the absence of air, and metal contamination.
MATERIALS TO AVOID	Metals and their salts. Reducing agents. Oxidizers. Free radical initiators
HAZARDOUS DECOMPOSITION PRODUCTS	Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.

11. TOXICOLOGICAL INFORMATION

EYE	May cause eye irritation.
SKIN	Irritating to the skin. Repeated and/or prolonged contact may cause skin sensitisation.
INHALATION	Vapour may be irritating to the respiratory tract.
INGESTION	No hazard in normal industrial use.
EFFECTS OF CHRONIC EXPOSURE	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.
TARGET ORGANS	Skin
RESPIRATORY SENSITIZATION	No
CARDIAC SENSITIZATION	No
SKIN SENSITIZATION	Sensitizer.
POSSIBLE BIRTH DEFECT HAZARD	No.
CARCINOGEN	No.

12. ECOLOGICAL INFORMATION

POTENTIAL EFFECT ON ENVIRONMENT	Unknown.
AQUATIC TOXICITY	None Established
POTENTIAL TO BIOACCUMULATE	Unknown.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS	Waste disposal should be in accordance with existing Community, National and local regulations.
EMPTY CONTAINER WARNINGS	Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.

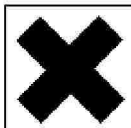
14. TRANSPORT INFORMATION (See also section 9)

IATA CLASSIFICATION	Not classified as dangerous.
IMDG CLASSIFICATION	Not classified as dangerous.
ADR/RID	Not classified as dangerous.

15. REGULATORY INFORMATION

EC INDICATION OF DANGER
EC SYMBOL

IRRITANT



RISK PHRASES

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

R43 – May cause sensitisation by skin contact

SAFETY PHRASES

S24 – Avoid contact with skin.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37/39 – Wear suitable gloves and eye/face protection

CONTAINS

Hydroxypropyl- and Hydroxyethyl- methacrylate

EINECS

All components of this product are listed in EINECS or ELINCS, or are otherwise exempt from EU notification requirements.

16. OTHER INFORMATION

REVISION

20/05/2004

REPLACES VERSION DATED

ORIGINAL DOCUMENT DATED

20/05/2004

CHANGES SINCE PREVIOUS ISSUE

New MSDS

FOR REGULATORY INFORMATION,
CONTACT:

PermaBond Engineering Adhesives Ltd

Wessex House

Upper Market Street

Eastleigh

Hampshire

SO50 9FD

Telephone: +44 (0)23 8061 1400

Fax: +44 (0)23 8061 1700

E-mail: help.europe@permabondllc.com

FULL TEXT OF RISK PHRASES FOR INGREDIENTS INDICATED IN SECTION 2:

R7 - May cause fire.

R21/22 - Harmful in contact with skin and if swallowed.

R23 - Toxic by inhalation.

R34 - Causes burns.

R36 - Irritating to eyes.

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

R36/38 – Irritating to eyes and skin

R37 - Irritating to respiratory system.

R43 – May cause sensitisation by skin contact

R48/20/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Directives 1999/45/EC and 91/155/EEC have been considered when compiling this SDS; the information is provided for health and safety assessment by an industrial user. Reference should be made to any relevant local or national health, safety, and environmental legislation. This information does not constitute indication of suitability for specific uses.