

Permabond®

Engineering Adhesives

SAFETY DATA SHEET Permabond TA4522B

1. Identification

Product identifier

Product name Permabond TA4522B

Recommended use of the chemical and restrictions on use

Application Adhesive. Sealant.

Details of the supplier of the safety data sheet

Supplier Permabond LLC
14 Robinson Street
Pottstown, PA 19464
USA
Telephone: 732-868-1372 or 800-640-7599
Website: www.permabond.com

Emergency telephone number

Emergency telephone Medical: Poison Control Center 866-827-6282 (toll free) or 303-389-1109 Transport: CHEMTREC 800-424-9300

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1 - H317

Label elements

Hazard symbols



Signal word Warning

Hazard statements H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.

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Precautionary statements	P261 Avoid breathing vapor/ spray.
	P264 Wash contaminated skin thoroughly after handling.
	P272 Contaminated work clothing must not be allowed out of the workplace.
	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
	P302+P352 If on skin: Wash with plenty of water.
	P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P321 Specific treatment (see medical advice on this label).
	P332+P313 If skin irritation occurs: Get medical advice/ attention.
	P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
	P337+P313 If eye irritation persists: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.	
P501 Dispose of contents/ container in accordance with national regulations.	

Contains HYDROXYPROPYL METHACRYLATE

Other hazards

None under normal conditions.

3. Composition/information on ingredients

Mixtures

HYDROXYPROPYL METHACRYLATE CAS number: 27813-02-1	60-100%
Classification Eye Irrit. 2A - H319 Skin Sens. 1 - H317	
2-PROPENOIC ACID,2-METHYL-, 2-HYDROXYETHYL ESTER, PHOSPHATE CAS number: 52628-03-2 REACH registration exemption – < 1 tonne	1-5%
Classification Skin Corr. 1B - H314 Eye Dam. 1 - H318	
PHOSPHORIC ACID CAS number: 7664-38-2	<1%
Classification Skin Corr. 1B - H314 Eye Dam. 1 - H318	

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

Composition comments Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. First-aid measures

Description of first aid measures

Inhalation Move the exposed person to fresh air. Get medical attention if any discomfort continues.

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Ingestion	Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
Skin Contact	Wash skin thoroughly with soap and water. Take off contaminated clothing and wash it before reuse. Get medical attention.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

Most important symptoms and effects, both acute and delayed

Inhalation	May cause respiratory irritation.
Ingestion	May cause irritation.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations. Treat symptomatically.
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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Water spray, foam, dry powder or carbon dioxide.
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Special hazards arising from the substance or mixture

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

Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet.
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Environmental precautions

Environmental precautions	Avoid discharge into drains.
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Methods and material for containment and cleaning up

Methods for cleaning up	Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely.
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Reference to other sections	For personal protection, see Section 8. For waste disposal, see section 13.
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7. Handling and storage

Precautions for safe handling

Usage precautions	Avoid contact with skin, eyes and clothing. Use only in well-ventilated areas. Keep container tightly sealed when not in use. Wash hands thoroughly after handling.
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Conditions for safe storage, including any incompatibilities

Storage precautions	Store in closed original container at temperatures between 44°F and 77°F. Never return unused material to storage receptacle.
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Specific end uses(s)

Usage description Adhesive. Sealant.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

PHOSPHORIC ACID

Long-term exposure limit (8-hour TWA): OSHA 1 mg/m³

Long-term exposure limit (8-hour TWA): ACGIH 1 mg/m³

Short-term exposure limit (15-minute): ACGIH 3 mg/m³

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

Exposure controls

Appropriate engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Use safety goggles and face shield in case of splash risk.
Hand protection	Nitrile rubber or Viton™ gloves are recommended. Cotton or other absorbent gloves should not be worn.
Other skin and body protection	Employee must wear appropriate protective clothing and equipment to prevent any possibility of skin contact with this substance.
Hygiene measures	Wash at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs. Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Blue-green.
Odor	Acrylic
Odor threshold	Not available.
pH	Not relevant.
Melting point	Not available.
Initial boiling point and range	Not applicable.
Flash point	>93°C (199.94°F)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.

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Relative density	1.1 @ 23°C
Solubility(ies)	Slightly soluble in water. Miscible with the following materials: acetone
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	~4,500 cP @ 23°C
Oxidizing properties	Not available.
Other information	Not relevant.
Volatile organic compound	<2 %, 20 grams/liter (Estimated)

10. Stability and reactivity

Reactivity	The following materials may react with the product: Strong oxidizing agents.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	There are no known reactivity hazards associated with this product. Polymerization may occur at elevated temperature or in the presence of incompatible materials
Conditions to avoid	Avoid the absence of air, and metal contamination.
Materials to avoid	Metals and their salts. Free radical initiators. Strong alkalis. Strong reducing agents.
Hazardous decomposition products	Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.

11. Toxicological information

Information on toxicological effects

Toxicological effects	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.
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Irritating to skin.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Causes serious eye irritation.
<u>Respiratory sensitization</u>	
Respiratory sensitization	Based on available data the classification criteria are not met.
<u>Skin sensitization</u>	
Skin sensitization	May cause sensitisation by skin contact.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	

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Carcinogenicity No component of this product present at levels great than or equal to 0.1% is identified as a known carcinogen.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

Inhalation May cause respiratory system irritation.

Ingestion No harmful effects expected from quantities likely to be ingested by accident.

Skin Contact Causes skin irritation.

Eye contact Irritating to eyes.

Acute and chronic health hazards This product may cause skin and eye irritation. May cause skin sensitization or allergic reactions in sensitive individuals.

Route of exposure Skin and/or eye contact

Toxicological information on ingredients.

HYDROXYPROPYL METHACRYLATE

Acute toxicity - oral

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

Species Rat

Acute toxicity - dermal

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

Species Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Animal data Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Moderately irritating.

Respiratory sensitization

Respiratory sensitization There is no evidence that the material can lead to respiratory hypersensitivity.

Skin sensitization

Skin sensitization Epidemiological studies have shown evidence of skin sensitization.

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Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative.

Genotoxicity - in vivo Chromosome aberration: Negative.

Carcinogenicity

Carcinogenicity No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Reproductive toxicity - fertility Screening - NOAEL 300 mg/kg/day, Oral, Rat P

Reproductive toxicity - development Developmental toxicity: - NOAEL: 1000 mg/kg/day, Oral, Rat

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard No information available.

2-PROPENOIC ACID,2-METHYL-, 2-HYDROXYETHYL ESTER, PHOSPHATE

Acute toxicity - oral

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

Species Rat

12. Ecological information

Toxicity No data available.

Bioaccumulative potential

Partition coefficient Not available.

13. Disposal considerations

Waste treatment methods

General information Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.

Disposal methods Dispose of according to Federal, State and local governmental regulations.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN Number

UN No. (International) Not applicable.

UN No. (DOT) Not applicable.

UN proper shipping name

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Proper shipping name (International) Not applicable.

Proper shipping name (DOT) Not applicable.

Transport hazard class(es)

Transport Labels (International) No transport warning sign required.

DOT transport labels

No transport warning sign required.

Packing group

Packing group (International) Not applicable.

DOT packing group Not applicable.

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

Not applicable.

DOT reportable quantity Not applicable.

DOT TIH Zone Not applicable.

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

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None above reporting levels

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None above reporting limits

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None above reporting limits

SARA 313 Emission Reporting

None above reporting limits

SARA (311/312) Hazard Categories

Acute
Chronic

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm

Inventories

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Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None above reporting limits

16. Other information

Classification abbreviations and acronyms	Eye Irrit. = Eye irritation Skin Irrit. = Skin irritation Skin Sens. = Skin sensitisation STOT SE = Specific target organ toxicity-single exposure
Revision date	1/21/2022
Revision	1
Hazard statements in full	H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation.

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.