

Permabond®

Engineering Adhesives

SAFETY DATA SHEET

Permabond MT3809B

1. Identification

Product identifier

Product name Permabond MT3809B

Recommended use of the chemical and restrictions on use

Application Two-component, epoxy-based adhesive.

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 Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317

Label elements

Hazard symbols



Signal word Danger

Hazard statements H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

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Precautionary statements	<p>P260 Do not breathe vapor/ spray.</p> <p>P261 Avoid breathing vapor/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P272 Contaminated work clothing must not be allowed out of the workplace.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P312 If swallowed: Call a poison center/ doctor if you feel unwell.</p> <p>P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.</p> <p>P302+P352 If on skin: Wash with plenty of water.</p> <p>P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.</p> <p>P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a poison center/ doctor.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P405 Store locked up.</p> <p>Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.</p>
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Contains	TRIS-2,4,6-(DIMETHYLAMINOMETHYL)PHENOL, POLYOXYPROPYLENEDIAMINE, 1,4-DIAZABICYCLOOCTANE, PENTAMETHYL PIPERIDYL SEBACATE
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Other hazards

None under normal conditions.

3. Composition/information on ingredients

Mixtures

TRIS-2,4,6-(DIMETHYLAMINOMETHYL)PHENOL	30-60%
CAS number: 90-72-2	
Classification	
Acute Tox. 4 - H302	
Skin Irrit. 2 - H315	
Eye Irrit. 2A - H319	
POLYOXYPROPYLENEDIAMINE	10-30%
CAS number: 9046-10-0	
Classification	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
Not relevant.	

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1,4-DIAZABICYCLOOCTANE	1-5%
CAS number: 280-57-9	
Classification	
Flam. Sol. 1 - H228	
Acute Tox. 4 - H302	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	
PENTAMETHYL PIPERIDYL SEBACATE	1-5%
CAS number: 1065336-91-5	
Classification	
Skin Sens. 1 - H317	
Not relevant.	
Isomers of 2-(2H-BENZO..., isomers of 2-(2H-BENZO..., Mixture EC NO 401-680-5	1-5%
CAS number: 125304-04-3	
Classification	
Not relevant.	

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.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
Skin Contact	Remove contaminated clothing. Wash skin thoroughly with soap and water. If symptoms develop, obtain medical attention
Eye contact	Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Remove any contact lenses and open eyelids wide apart. Get medical attention.

Most important symptoms and effects, both acute and delayed

Ingestion	Harmful if swallowed.
Skin contact	Chemical burns. Mild dermatitis, allergic skin rash.
Eye contact	May cause serious eye damage.

Indication of immediate medical attention and special treatment needed

Notes for the doctor No specific recommendations. Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

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

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Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Hazardous combustion products Burning produces irritating, toxic and obnoxious fumes. Nitrous gases (NOx). Carbon monoxide, carbon dioxide, and unknown hydrocarbons.

Advice for firefighters

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

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.

Environmental precautions

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

Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal.

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid contact with skin, eyes and clothing. Do not breathe gas, fume, vapours or spray. Wash hands thoroughly after handling. Use only in well-ventilated areas. Keep container tightly sealed when not in use.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Specific end uses(s)

Specific end use(s) Adhesive. Sealant.

8. Exposure controls/Personal protection

Exposure controls

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.

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. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin.

Respiratory protection No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs.

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9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Viscous liquid.
Color	Black.
Odor	Amine.
Odor threshold	Not determined.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	>100°C
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not available.
Vapor pressure	Not determined.
Vapor density	Not determined.
Relative density	1.1
Solubility(ies)	Slightly soluble in water. Soluble in the following materials: Organic solvents.
Partition coefficient	Not available.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	≈7000 mPa s @ 23°C Thixotropic
Explosive properties	Not determined.
Oxidizing properties	Not applicable.
Other information	Not relevant.
Volatile organic compound	<2 %, 20 grams/liter (Estimated)

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures.
Possibility of hazardous reactions	Reactions with the following materials may generate heat: Epoxy Resin
Conditions to avoid	Avoid excessive heat for prolonged periods of time.
Materials to avoid	Avoid contact with the following materials: Acids. Oxidizing agents.

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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.

Skin corrosion/irritation

Skin corrosion/irritation Causes burns.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization May cause sensitisation by skin contact.

Germ cell mutagenicity

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.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Reproductive toxicity

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

Reproductive toxicity - development 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

Unlikely to be hazardous by inhalation because of the low vapor pressure of the product at ambient temperature. Gas or vapor in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.

Ingestion

Causes burns. May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.

Skin Contact

This product is strongly irritating. Prolonged contact may cause burns.

Eye contact

Causes serious eye damage.

Acute and chronic health hazards

This product is strongly irritating. Causes burns. May cause chemical eye burns.

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Route of exposure Skin and/or eye contact

Toxicological information on ingredients.

TRIS-2,4,6-(DIMETHYLAMINOMETHYL)PHENOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,169.0

Species Rat

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Skin corrosion/irritation Method: OECD 404, Rabbit Corrosive

Serious eye damage/irritation

Serious eye damage/irritation Rabbit Causes serious eye irritation.

Skin sensitization

Skin sensitization Guinea pig maximization test (GPMT) - Guinea pig: Mild dermatitis, allergic skin rash.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative.

Genotoxicity - in vivo No information available.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility Screening - NOAEL 15 mg/kg/day, Oral, Rat F1

Reproductive toxicity - development Developmental toxicity: - NOAEL: >150 mg/kg/day, Oral, Rat

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

POLYOXYPROPYLENEDIAMINE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,885.3

Species Rat

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Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,979.7 mg/kg)

Species Rabbit

Skin corrosion/irritation

Animal data Corrosive.

Serious eye damage/irritation

Serious eye damage/irritation Corrosive

Germ cell mutagenicity

Genotoxicity - in vitro Negative.

Genotoxicity - in vivo Negative.

Reproductive toxicity

Reproductive toxicity - development Developmental toxicity: - NOAEL: 30 mg/kg, Dermal, 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.

Ingestion May cause burns in mucous membranes, throat, esophagus and stomach.

Skin Contact Causes severe burns.

Eye contact Causes serious eye damage.

1,4-DIAZABICYCLOOCTANE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 700.0 mg/kg)

Species Rat

Acute toxicity - dermal

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

Species Rabbit

Reproductive toxicity

Reproductive toxicity - fertility Screening - NOAEL 100 mg/kg/day, Oral, Rat P

PENTAMETHYL PIPERIDYL SEBACATE

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Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 3,230.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 3,170.0

Species Rat

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Skin corrosion/irritation Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Not irritating.

Skin sensitization

Skin sensitization Guinea pig maximization test (GPMT) - Guinea pig: Sensitizing.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative.

Genotoxicity - in vivo Chromosome aberration: Negative.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility One-generation study - NOAEL 30 mg/kg/day, Oral, Rat F1

Reproductive toxicity - development No data available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard Not available.

Isomers of 2-(2H-BENZO..., isomers of 2-(2H-BENZO..., Mixture EC NO 401-680-5

Acute toxicity - oral

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

Species Rat

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Acute toxicity - dermal

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

Species Rat

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Skin corrosion/irritation Method: OECD 404, Rabbit Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Method: OECD 405, Rabbit Not irritating.

Skin sensitization

Skin sensitization Guinea pig maximization test (GPMT) - Guinea pig: Not sensitizing.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative.

Genotoxicity - in vivo Negative.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility - NOEL 1000 mg/kg/day, Oral, Rat P, F1

Reproductive toxicity - development Maternal toxicity: - NOEL: 1000 mg/kg/day, Oral, Rat Fetotoxicity: - NOEL: 1000 mg/kg/day, Oral, Rat

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

12. Ecological information

Toxicity There are no data on the ecotoxicity of this product.

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.

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Disposal methods Dispose of according to Federal, State/Provincial and local regulations. Refer to section 8 before handling.

14. Transport information

UN Number

UN No. (IMDG) 2735
 UN No. (ICAO) 2735
 UN No. (DOT) UN2735

UN proper shipping name

Proper shipping name (International) Polyamines, liquid, corrosive, n.o.s., (contains 2,4,6-Tris(dimethylaminomethyl)phenol)

Proper shipping name (IMDG) POLYAMINES, LIQUID, CORROSIVE, N.O.S (contains 2,4,6-Tris(dimethylaminomethyl)phenol)

Proper shipping name (ICAO) POLYAMINES, LIQUID, CORROSIVE, N.O.S (contains 2,4,6-Tris(dimethylaminomethyl)phenol)

Proper shipping name (DOT) POLYAMINES, LIQUID, CORROSIVE, N.O.S. (contains 2,4,6-Tris(dimethylaminomethyl)phenol)

Transport hazard class(es)

DOT hazard class 8
 DOT hazard label 8
 IMDG Class 8
 ICAO class/division 8

Transport labels



DOT transport labels



Packing group

IMDG packing group III
 ICAO packing group III
 DOT packing group III

Environmental hazards

Environmentally Hazardous Substance
 No.

15. Regulatory information

US Federal Regulations

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SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None above reporting limits.

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

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 Dam. = Serious eye damage Skin Corr. = Skin corrosion Skin Sens. = Skin sensitisation
Revision date	1/13/2022
Revision	3
Supersedes date	1/31/2018
Hazard statements in full	H228 Flammable solid. H302 Harmful if swallowed. 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.