

Permabond®

Engineering Adhesives

SAFETY DATA SHEET

Permabond MS359 Grey

1. Identification

Product identifier

Product name Permabond MS359 Grey

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 Sens. 1 - H317

Label elements

Pictogram



Signal word Warning

Hazard statements H317 May cause an allergic skin reaction.

Precautionary statements P261 Avoid breathing vapor/ spray.
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.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Permabond MS359 Grey

Contains N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE, BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL)SEBACATE

3. Composition/information on ingredients

Mixtures

TRIMETHOXYVINYL SILANE	1-5%
CAS number: 2768-02-7	
Classification	
Flam. Liq. 3 - H226	
Acute Tox. 4 - H332	
N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE	<1%
CAS number: 1760-24-3	
Classification	
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	
BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDYL)SEBACATE	<1%
CAS number: 41556-26-7	
Classification	
Skin Sens. 1 - H317	
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. Get medical attention.

Skin Contact Wash skin thoroughly with soap and water. If symptoms develop, obtain medical attention

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed

Skin contact May cause allergic skin reaction.

Eye contact May cause eye irritation.

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 Foam, carbon dioxide or dry powder.

PermaBond MS359 Grey

Unsuitable extinguishing media Water.

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.

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 Avoid discharge into drains.

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.

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 and eyes. Avoid inhalation of vapors and spray/mists. Wash hands thoroughly after handling. Keep container tightly sealed when not in use.

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.

Specific end uses(s)

Usage description Adhesive. Sealant.

8. Exposure Controls/personal protection

Ingredient comments WEL = Workplace Exposure Limits

Exposure controls

Appropriate engineering controls No specific ventilation requirements. Use positive down draft exhaust ventilation if general ventilation is insufficient to maintain vapor concentrations below established exposure limits.

Eye/face protection Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for slashing or spraying exists.

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.

Respiratory protection Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

9. Physical and Chemical Properties

PermaBond MS359 Grey

Information on basic physical and chemical properties

Appearance	Paste.
Color	Grey.
Odor	Characteristic.
Odor threshold	Not available.
pH	Not relevant.
Melting point	Not available.
Initial boiling point and range	Not applicable.
Flash point	>100°C
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.
Relative density	1.5
Solubility(ies)	Slightly soluble in water. Miscible with the following materials: acetone
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not determined. Thixotropic
Oxidizing properties	Not available.
Other information	Not relevant.

10. Stability and reactivity

Reactivity	The following materials may react with the product: Strong oxidizing agents. Strong reducing agents. Strong acids. Amines. Peroxides.
Stability	Stable at normal ambient temperatures.
Possibility of hazardous reactions	There are no known reactivity hazards associated with this product.
Conditions to avoid	Avoid heat, flames and other sources of ignition.
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.
------------------------------	--

PermaBond MS359 Grey

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitization

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

Skin sensitization

Skin sensitization Sensitizing.

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 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.

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 May cause irritation.

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

Skin Contact May cause sensitisation by skin contact.

Eye contact May cause eye irritation.

Toxicological information on ingredients.

TRIMETHOXYVINYL SILANE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 7,120.0

Species Rat

ATE oral (mg/kg) 7,120.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 3,460.0

PermaBond MS359 Grey

Species	Rabbit
ATE dermal (mg/kg)	3,460.0
<u>Acute toxicity - inhalation</u>	
ATE inhalation (gases ppm)	4,500.0
ATE inhalation (vapours mg/l)	11.0
ATE inhalation (dusts/mists mg/l)	1.5

12. Ecological Information

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

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

Not applicable.

UN No. (DOT) Not applicable.

UN proper shipping name

Not applicable.

Proper shipping name (DOT) Not applicable.

Transport hazard class(es)

No transport warning sign required.

DOT transport labels

No transport warning sign required.

Packing group

Not applicable.

DOT packing group Not applicable.

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

Not applicable.

PermaBond MS359 Grey

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

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

This product contains a chemical known to the state of California to cause cancer.

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 Skin Sens. = Skin sensitisation

Revision date 1/31/2018

Revision 3

Supersedes date 12/6/2013

Hazard statements in full H226 Flammable liquid and vapor.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.

Permabond MS359 Grey

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.