

MSDS
Material Safety Data Sheet
PERMABOND MH196



READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

Issue Date 12/06/13

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

PRODUCT NAME

MANUFACTURER

PERMABOND MH196

PERMABOND LLC

14 Robinson Street
Pottstown, PA 19464

EMERGENCY PHONES:

MEDICAL – Poison Control Center 866-827-6282

Transport: CHEMTREC 800-424-9300

MSDS REQUESTS: HELP LINE: 732-868-1372 or 800-640-7599

SYNONYMS

None

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL FAMILY

Anaerobic Adhesive/Sealant

COMPONENT

CAS NUMBER

CONCENTRATION (%)

Aromatic dimethacrylate

24448-20-2

5 - 15

Aliphatic methacrylate

90551-76-1

5-10

Hydroxyalkyl methacrylate

27813-02-1

10 - 20

Urethane methacrylate resin

5888-33-5

40 - 60

Acrylic acid

79-10-7

1 - 3

Cumene hydroperoxide

80-15-9

1 - 2

Saccharin

81-07-2

1 - 2

Polyglycol dimethacrylate

25852-47-5

1 - 5

Amorphous silica

112945-52-5

3 - 5

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

EYE IRRITANT. SKIN IRRITANT.

SKIN SENSITIZER.

Red Liquid Mild, pleasant odor

EYE

Will cause eye irritation. May cause permanent damage if eye is not immediately irrigated.

SKIN CONTACT

Repeated and/or prolonged contact may cause irritation and skin sensitization.

INHALATION

Irritating and/or toxic vapors may be released at elevated temperatures. Unlikely to be hazardous by inhalation because of the low vapor pressure of the material at ambient temperature.

INGESTION

May cause nausea, vomiting and diarrhea.

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4. FIRST-AID MEASURES

EYE	Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. Obtain immediate medical attention.
SKIN CONTACT	Flush exposed areas thoroughly with soap and water until all chemical is removed. Remove contaminated clothing and launder before reuse.
INHALATION	Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for proper medical attention. Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention.
INGESTION	DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. Keep warm and quiet. Get prompt medical attention. DO NOT attempt to give anything by mouth to an unconscious person.

5. FIREFIGHTING MEASURES

AUTOIGNITION	None Established
FLASH POINT	230 °F (Setaflash Closed Tester)
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.; Cool exposed equipment with water spray.
FIRE & EXPLOSION HAZARDS	Polymerization may take place at elevated temperatures.
FLAMMABILITY HAZARD CLASS	1 = Slight.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES	Wear protective clothing. Stop leak if you can do it without risk. For small spills take up with sand or other inert absorbent material and place in a container for later disposal. Note: in bulk quantities, product absorbed on inert material may polymerize generating significant heat and pressure. Vent disposal container to prevent buildup of pressure. Can carefully solidify with anaerobic surface conditioner and dispose of as solid waste.
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For safety and environmental precautions, please review entire Material Safety Data Sheet for necessary information.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE	<= 27 °C 80 °F
HANDLING/STORAGE	Keep away from heat, sources of ignition and direct sunlight. Keep material refrigerated at the storage temperature referenced above. Do not freeze.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	EXPOSURE LIMITS	
Hydroxyalkyl methacrylate		Manufacturer: 1ppm TWA, 3ppm STEL
Cumene hydrperoxide		Manufacturer: 1ppm (6mg/m3) Skin (WEEL)
Saccharin	ACGIH-TWA: 10 mg/m3 ACGIH-TWA Respirable: 3 mg/m3	OSHA-PEL: 15 mg/m3 OSHA-PEL Respirable: 5 mg/m3
Acrylic acid	ACGIH-TWA: 2ppm TWA skin ACGIH-TWA: 5.9 mg/m3 skin	OSHA-PEL: 10 mg/m3 TWA skin OSHA-PEL: 30 mg/m3 skin
Amorphous silica	ACGIH-TWA: 10 mg/m3TWA	OSHA-PEL: 6 mg/m3 TWA
VENTILATION REQUIREMENTS	General.	
EYE PROTECTION REQUIREMENTS	Safety glasses, goggles or face shield to protect against splashing.	
GLOVE REQUIREMENTS	Employee must wear appropriate protective gloves to prevent contact with this substance.	
CLOTHING REQUIREMENTS	No special clothing required for low volume activity.	
WASH REQUIREMENTS	Wash before eating, drinking, or using toilet facilities.	
RESPIRATOR REQUIREMENTS	None required under normal handling conditions. Use NIOSH approved respirator if vapor or mist levels are irritating.	

9. PHYSICAL AND CHEMICAL PROPERTIES

PURE SUBSTANCE OR MIXTURE	Mixture
PHYSICAL FORM	Liquid
COLOR	Red
ODOR	Mild, pleasant
ODOR THRESHOLD	None Established
PH AS IS	Not applicable
pH IN (1%) SOLUTION	Not applicable
OXIDIZING PROPERTIES	Not applicable
MELTING/FREEZING POINT	None Established
SOLUBILITY IN WATER	Insoluble
PARTITION COEFFICIENT (n-octanol/water)	None Established
VISCOSITY	200,000 cPs
SPECIFIC GRAVITY (WATER=1)	1.1
BULK DENSITY	8.91 lb/gal
EVAPORATION RATE	None Established
VAPOR PRESSURE (mmHg)	0.01
VAPOR DENSITY (air = 1)	1.01
VOLATILES	< 1 %
VOLATILE ORGANIC COMPOUNDS	0.09 lb/gal
AUTOIGNITION	None Established
FLASH POINT	230 °F (Setaflash Closed Tester)

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10. STABILITY AND REACTIVITY

STABILITY	Stable
MATERIALS TO AVOID	Metals and their salts, Permabond anaerobic surface conditioners
REACTIVITY HAZARD CLASS	1 = Reactive material.
HAZARDOUS DECOMPOSITION PRODUCTS	Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.
HAZARDOUS POLYMERIZATION CONDITIONS	Note! PERMABOND products are anaerobic and polymerize in the absence of air. Sunlight, excessive heat, and contamination by metals or anaerobic surface conditioner in large quantities, will also cause polymerization.

11. TOXICOLOGICAL INFORMATION

ROUTE OF ENTRY Skin Contact; Eye Contact; Ingestion

CHRONIC (LONG TERM) EFFECTS OF EXPOSURE

TARGET ORGANS Skin; Eyes
 CARCINOGEN No.

ORAL TOXICITY

Aromatic dimethacrylate		Low oral toxicity.
Aliphatic methacrylate		Low oral toxicity
Hydroxyalkyl methacrylate		Low oral toxicity
Urethane methacrylate resin		Low oral toxicity.
Polyglycol dimethacrylate		Low odor toxicity
Cumene hydroperoxide	Oral LD50: Rat 800 mg/kg	Corrosive to mouth, throat and stomach.
	Oral LD50: Rat 382 mg/kg	
Saccharin	Oral LD50: Mouse 17 g/kg	No hazard in normal industrial use.
Acrylic Acid	Oral LD50: Rat 33.5 mg/kg	
Amorphous Silica	LD50 LC50 MIXTURE: Oral LD50=5000mg/Kg	

DERMAL TOXICITY

Aromatic dimethacrylate		Irritating to the skin. Repeated and/or prolonged contact may cause skin sensitization.
Aliphatic methacrylate		Irritating to the skin. Repeated and/or prolonged contact may cause skin sensitization.
Hydroxyalkyl methacrylate		Irritating to the skin. Repeated and/or prolonged contact may cause skin sensitization.
Urethane methacrylate resin		Repeated or prolonged skin contact may result in moderate irritation.
Polyglycol dimethacrylate		Irritating to the skin. Repeated and/or prolonged contact may cause skin sensitization.
Cumene hydroperoxide	Inhalation LC50 (6.00hr):Rat 700 ppm	Corrosive, causes permanent skin damage.
Acrylic Acid	Rabbit, LD50:280 mg/Kg	Repeated and/or prolonged contact may cause skin sensitization. May cause photosensitization evidenced by repeated occurrence of dermatitic rash on exposure to sunlight.

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Saccharin		Repeated and/or prolonged contact may cause skin sensitization. May cause photosensitization evidenced by repeated occurrence of dermatitic rash on exposure to sunlight.
INHALATION TOXICITY		
Aliphatic methacrylate		May cause irritation to eyes and respiratory system. Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
Urethane methacrylate		May cause irritation to eyes and respiratory system. Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
Aromatic dimethacrylate		May cause irritation to eyes and respiratory system. Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
Polyglycol dimethacrylate		May cause irritation to eyes and respiratory system. Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
Hydroxy methacrylate		May cause irritation to eyes and respiratory system. Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
Acrylic Acid	Inhalation LC50 (4.00hr): Rat 1200ppm	Vapors and/or aerosols may cause irritation. Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract. Avoid breathing vapors or mists.
Cumene hydroperoxide	Inhalation LC50 (6.00hr): Rat 700 ppm	Inhalation of dust or vapor may cause severe irritation to the nasal passages and/or the respiratory system. Exposure to high concentrations may produce lung damage. Avoid breathing vapors or mists.
Saccharin		Dust is irritant to the respiratory tract.
Amorphous silica		Temporary discomfort

NOTES ON EYE IRRITATION

Aromatic dimethacrylate	Irritant
Aliphatic methacrylate	Irritant
Urethane methacrylate resin	Irritant
Polyglycol methacrylate	Irritant
Hydroxyalkyl methacrylate	Irritant.
Cumene hydroperoxide	Extremely severe irritant/corrosive. May cause severe burns which could lead to permanent damage or total loss of vision.
Acrylic acid	Severe irritant
Saccharin	Particulates may scratch eye surfaces and cause mechanical irritation.
Amorphous silica	Particulates may scratch eye surfaces and cause mechanical irritation.

12. ECOLOGICAL INFORMATION

POTENTIAL TO BIOACCUMULATE	Unknown.
AQUATIC TOXICITY	None Established

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13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS Disposal should be in accordance with local, state or national legislation.
EMPTY CONTAINER WARNINGS Empty containers may contain product residue; follow MSDS and label warnings even after they have been emptied.

14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION GROUND (49CFR)

Proper Shipping Name: Unrestricted
Hazard Class or Division: None
Identification Number: None
Packing Group: None

INTERNATIONAL AIR SHIPMENT TRANSPORTATION (ICAO/IATA)

Proper Shipping Name: Unrestricted
Hazard Class or Division: None
Identification Number: None
Packing Group: None

WATER TRANSPORTATION (IMO/IMDG)

Proper Shipping Name: Unrestricted
Hazard Class or Division: None
Identification Number: None
Packing Group: None
Marine Pollutant: None

15. REGULATORY INFORMATION

USA

TSCA All components are on the TSCA inventory.

SARA/TITLE III	CAS NUMBER	CONCENTRATION (%)
Cumene hydroperoxide	80-15-9	2.85
cumene	98-82-8	0.25

CALIFORNIA PROPOSITION 65

WARNING: This product contains the following chemicals that are known to the State of California to cause cancer, birth defects or other reproductive harm:

	CAS NUMBER
SACCHARIN	81-07-2

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16. OTHER INFORMATION

This MSDS was reviewed and released with new date 12/06/13

This material safety data sheets contains changes from the previous one in section1: Transport Emergency Number was changed.

ADDITIONAL INFORMATION: The information given and the recommendations made herein apply to our product(s) alone and are not combined with other product(s). Such are based on our research and on data from other reliable sources and are believed to be accurate. No guaranty of accuracy is made. It is the purchaser's responsibility before using any product to verify this data under their own operating conditions and to determine whether the product is suitable for their purposes.