

MSDS
Material Safety Data Sheet
PERMABOND® HM-161



READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

Issue Date 02/17/09

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER..... 82-9886
PRODUCT NAME..... PERMABOND (R) HM 161
CAS NUMBER OF PRODUCT..... Unassigned
SYNONYM NAME (S)..... None.

PERMABOND LLC
14 Robinson Street
Pottstown, PA 19464

EMERGENCY PHONES:

MEDICAL - 1-866-827-6282
TRANSPORT - (CHEMTREC) - 1-800-424-9300

MSDS REQUESTS: HELP LINE: 1-800-640-7599

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL FAMILY..... Anaerobic Adhesive/Sealant

COMPONENT	CAS NUMBER	CONCENTRATION RANGES (%)
Ethoxylated bisphenol A dimethacrylate	41637-38-1	>1
2-Hydroxyethyl methacrylate	868-77-9	>1
Cumene Hydroperoxide	80-15-9	>1
Methacrylic acid	79-41-4	>1

3. HAZARDS IDENTIFICATION

EYE IRRITANT. HARMFUL IF SWALLOWED.

EYE..... Irritating, and may injure eye tissue if not removed promptly.
SKIN CONTACT..... Frequent or prolonged contact may irritate and cause dermatitis. May cause skin sensitization, a partial or whole-body dermatitic rash experienced after exposure, however minimal.

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3. HAZARDS IDENTIFICATION (Continued)

INHALATION..... Based on its low volatility, product is not considered to be a respiratory hazard under normal conditions of use. Irritating and/or toxic vapors may be released at elevated temperatures.

INGESTION..... Ingestion effects have not been evaluated but are assumed to cause nausea and vomiting.

4. FIRST-AID MEASURES

EYE..... Immediately flush eyes with large amounts of water for at least 15 minutes, lifting upper and lower lids. Get prompt 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..... First aid is not normally required. 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..... Not determined

FLASH POINT..... 230 F (Setaflash Closed Tester)

EXTINGUISHING MEDIA..... CO2; 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

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5. FIREFIGHTING MEASURES (Continued)

FIRE & EXPLOSION HAZARDS.....	water spray Polymerization may take place at elevated temperatures.
UPPER EXPLOSION LIMIT (%).....	Not Applicable
LOWER EXPLOSION LIMIT (%).....	Not Applicable
NFPA 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.....	Room temp.
SPECIAL SENSITIVITY.....	Avoid excessive heat.
HANDLING/STORAGE.....	Store out of direct sunlight in a dry area. Maximum storage temperature is 100F.
VENTILATION REQUIREMENTS.....	General

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	EXPOSURE LIMITS
Ethoxylated bisphenol A dimethacrylate	for Toluene: 50 ppm (skin) (ACGIH-TWA) 200 ppm (OSHA-PEL)
2-Hydroxyethyl methacrylate	3 ppm (Manufacturer)
Cumene Hydroperoxide	for CUMENE: 50 ppm (skin) (ACGIH-TWA) 50 ppm (skin) (OSHA-PEL)
Methacrylic acid	20 ppm (ACGIH-TWA) 20 ppm (OSHA-PEL) 20 ppm (Manufacturer)
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.
CHANGE/REMOVAL OF CLOTHING.....	Remove clothing and launder before reuse if contaminated with product.
WASH REQUIREMENTS.....	Wash hands with soap and water if contact with product occurs or before eating, drinking, smoking, 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
APPEARANCE/ODOR.....	Green liquid; mild, pleasant odor
ODOR THRESHOLD.....	Not available.
PH AS IS.....	N/A (Not applicable)

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9. PHYSICAL AND CHEMICAL PROPERTIES (Continued)

pH IN (1%) SOLUTION.....	N/A
BOILING POINT.....	Polymerizes before BP attained
MELTING/FREEZING POINT.....	N/A
SOLUBILITY IN WATER.....	Insoluble
PARTITION COEFFICIENT (n-octanol/water).....	Not Applicable
SPECIFIC GRAVITY (WATER=1).....	1.070
BULK DENSITY.....	9.2 LBS/GAL
EVAPORATION RATE.....	Not Applicable
VAPOR PRESSURE (mmHg).....	0.01 (77 F)
VAPOR DENSITY (air = 1).....	1.01
VOLATILES.....	Less than 1%
VOLATILE ORGANIC COMPOUNDS.....	0.09 LBS/GAL (10 g/l)
AUTOIGNITION.....	Not determined
FLASH POINT.....	230 F (Setaflash Closed Tester)
OXIDIZING PROPERTIES.....	Not Applicable

10. STABILITY AND REACTIVITY

STABILITY.....	Stable
MATERIALS TO AVOID.....	Metals and their salts, PERMA-LOK (R) Anaerobic Surface Conditioners.
NFPA REACTIVITY HAZARD CLASS.....	2 = Moderate
HAZARDOUS DECOMPOSITION PRODUCTS...	Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.
HAZARDOUS POLYMERIZATION CONDITIONS.....	Note! PERMA-LOK(R) 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

CHRONIC (LONG TERM) EFFECTS OF EXPOSURE

ROUTE OF ENTRY.....	Skin contact; Eye contact; Ingestion
EFFECTS OF CHRONIC EXPOSURE.....	In certain individuals,

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11. TOXICOLOGICAL INFORMATION (Continued)

	sensitization may occur causing dermatitis with even minimal contact. Due to skin absorption with excessive contact, product may produce nervous system effects, i.e; ataxia
TARGET ORGANS.....	Skin; Eyes
CARCINOGEN.....	No.

TOXICOLOGY INFORMATION

RAW MATERIAL NAME.....	Ethoxylated bisphenol A dimethacrylate
NOTES ON ORAL TOXICITY.....	Low order of toxicity.
NOTES ON DERMAL TOXICITY.....	Frequent or prolonged skin contact may irritate the skin and cause skin sensitization. May be absorbed through the skin.
NOTES ON INHALATION TOXICITY.....	Vapors and/or aerosols may cause irritation.
NOTES ON EYE IRRITATION.....	Irritating, but does not injure eye tissue.
RAW MATERIAL NAME.....	2-Hydroxyethyl methacrylate
ORAL LD50, SPECIES TESTED.....	>5.0 g/kg Rat
NOTES ON ORAL TOXICITY.....	Low order of toxicity.
DERMAL LD50, SPECIES TESTED.....	>5.0 g/kg Rabbit
NOTES ON DERMAL TOXICITY.....	Frequent or prolonged contact may irritate the skin. May cause skin sensitization, a partial or whole-body dermatitic rash experienced after exposure, however minimal. May be absorbed through the skin.
NOTES ON INHALATION TOXICITY.....	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.
NOTES ON EYE IRRITATION.....	Severely irritating. If not removed promptly, will injure eye tissue, which may result in permanent damage.
OTHER NOTES ON TOXICITY.....	Sensitizer.

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11. TOXICOLOGICAL INFORMATION (Continued)

RAW MATERIAL NAME.....	Cumene Hydroperoxide
ORAL LD50, SPECIES TESTED.....	800.0 mg/kg Rat; 382.0 mg/kg Rat
NOTES ON ORAL TOXICITY.....	Corrosive to mouth, esophagus and stomach.
NOTES ON DERMAL TOXICITY.....	Corrosive, causes permanent skin damage.
INHALATION LC50, SPECIES TESTED....	700.0 ppm 6.00 hours Rat
NOTES ON INHALATION TOXICITY.....	Inhalation of dust or vapor may cause severe irritation to the nasal passages and/or the respiratory system. May cause breathing disorders and/or lung damage. Avoid breathing vapors or mists.
NOTES ON EYE IRRITATION.....	Corrosive. Will cause burns and permanent tissue damage.
AQUATIC TOXICITY, SPECIES TESTED...	7.000 mg/l Daphnia Magna; 7.400 mg/l Green Algae
RAW MATERIAL NAME.....	Methacrylic acid
ORAL LD50, SPECIES TESTED.....	1.0 g/kg Rat
NOTES ON ORAL TOXICITY.....	Corrosive to mouth, esophagus and stomach.
DERMAL LD50, SPECIES TESTED.....	500.0 mg/kg Rabbit; <2.0 g/kg Rabbit
NOTES ON DERMAL TOXICITY.....	Corrosive, causes permanent skin damage. May cause skin sensitization, a partial or whole-body dermatitic rash experienced after exposure, however minimal. May be absorbed through the skin.
NOTES ON INHALATION TOXICITY.....	Irritating to eyes and respiratory tract. May cause allergic respiratory reaction. Irritating and/or toxic vapors may be released at elevated temperatures.
NOTES ON EYE IRRITATION.....	Corrosive. Will cause burns and permanent tissue damage.
AQUATIC TOXICITY, SPECIES TESTED...	85.000 mg/l 96.00 hours Rainbow trout
OTHER NOTES ON TOXICITY.....	Sensitizer.

12. ECOLOGICAL INFORMATION

Not available.

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13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS - Waste disposal should be in accordance with existing federal, state and local environmental regulations.

EMPTY CONTAINER WARNINGS - Empty containers may contain product residue; follow MSDS and label warnings even after they have been emptied.

14. TRANSPORTATION INFORMATION

US 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

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15. REGULATORY INFORMATION

TSCA - All components are on the TSCA inventory.

SARA/TITLE III, THIS PRODUCT CONTAINS (OR IS) A TOXIC CHEMICAL FOR ROUTINE ANNUAL CHEMICAL RELEASE REPORTING UNDER SECTION 313:

CUMENE HYDROPEROXIDE CAS# 80-15-9 3%

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.

16. OTHER INFORMATION

MSDS DATE 02/17/09

This MSDS contains change from the previous one in section 1; Update on Manufacturer Address

FOR INFORMATION CONTACT: Permabond LLC
HELP Line: 1-800-640-7599

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.