Material Safety Data Sheet



PERMABOND® HM 128

READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

Issue Date 10/09/06

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER PRODUCT NAME

PERMABOND ® HM 128

Manufacturer

PERMABOND LLC 20 World's Fair Drive Somerset, NJ 08873

EMERGENCY PHONES: MEDICAL – 1-866-827-6282

TRANSPORT - (CHEMTREC) - 1-800-424-9300

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

SYNONYMS None

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL FAMILY	Anaerobic Adhesive/Sealant		
COMPONENT		CAS NUMBER	CONCENTRATION (%)
Tetraethylene glycol dimethacrylat	e, 85%	109-17-1	30 - 60
2-Hydroxyethyl methacrylate		868-77-9	10 - 30
Cumene hydroperoxide		80-15-9	1 - 5
Saccharin		81-07-2	1 - 5
Methacrylic acid		79-41-4	0.1 - 1

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

rrigated.

SKIN CONTACT Repeated and/or prolonged contact may cause irritation and skin sensitisation.

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.

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.
INGESTION	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. 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.

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5. FIREFIGHTING MEASURES

AUTOIGNITION None Established

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 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.

For safety and environmental precautions, please review entire Material Safety Data Sheet for necessary information.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE $\leq 27 \infty C$

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMITS

2-Hydroxyethyl methacrylate Manufacturer: 3 ppm

Saccharin ACGIH-TWA: 10 mg/m3 OSHA-PEL: 15 mg/m3

ACGIH-TWA Respirable: 3 OSHA-PEL Respirable: 5 mg/m3

mg/m3

Methacrylic acid ACGIH-TWA: 20 ppm (Skin)

OSHA-PEL: 20 ppm

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.

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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 500 cPs
SPECIFIC GRAVITY (WATER=1) 1.07
BULK DENSITY 8.91 lb/gal
EVAPORATION RATE None Established

VAPOR PRESSURE (mmHg)

VAPOR DENSITY (air = 1)

VOLATILES

VOLATILE ORGANIC COMPOUNDS

AUTOIGNITION

0.01

1.01

<1 %

0.09 lb/gal

None Established

FLASH POINT 230 ∞F (Setaflash Closed Tester)

10. STABILITY AND REACTIVITY

STABILITY Stable

MATERIALS TO AVOID Metals and their salts, Permabond anaerobic surface conditioners

REACTIVITY HAZARD CLASS 2 = Reactive material.

HAZARDOUS DECOMPOSITION Thermal decomposition could produce carbon monoxide, carbon dioxide,

PRODUCTS and unidentified organic compounds.

HAZARDOUS POLYMERIZATION 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

ROUTE OF ENTRY Skin Contact; Eye Contact; Ingestion

CHRONIC (LONG TERM) EFFECTS OF EXPOSURE

TARGET ORGANS Skin; Eyes CARCINOGEN No.

ORAL TOXICITY

CONDITIONS

Tetraethylene glycol Low oral toxicity.

dimethacrylate, 85%

2-Hydroxyethyl Oral LD50: Rat > 5 g/kg Low oral toxicity.

methacrylate

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.

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11. TOXICOLOGICAL INFORMATION - CONT'D

READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

DERMAL TOXICITY Tetraethylene glycol dimethacrylate, 85%

2-Hydroxyethyl methacrylate

Dermal LD50: Rabbit > 5

Cumene hydroperoxide

Saccharin

INHALATION TOXICITY

Tetraethylene glycol dimethacrylate, 85%

2-Hydroxyethyl methacrylate

Cumene hydroperoxide

700 ppm

Irritating to the skin. Repeated and/or prolonged

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contact may cause skin sensitization.

Repeated or prolonged skin contact may result in moderate irritation. Repeated and/or prolonged contact may cause skin sensitization. Can be rapidly

absorbed through skin.

Corrosive, causes permanent skin damage.

Repeated and/or prolonged contact may cause skin sensitization. May cause photosensitization

evidenced by repeated occurrence of dermatitic rash

on exposure to sunlight.

May cause irritation to eyes and respiratory system. Vapors and/or aerosols which may be formed at

elevated temperatures may be irritating to eves and

respiratory tract.

Vapors and/or aerosols may cause irritation. Vapors and/or aerosols which may be formed at elevated

temperatures may be irritating to eyes and

Irritating, but does not injure eye tissue.

respiratory tract. Avoid breathing vapors or mists.

Inhalation LC50 (6.00hr): Rat 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

Saccharin Dust is irritant to the respiratory tract.

NOTES ON EYE IRRITATION

Tetraethylene glycol dimethacrylate, 85% 2-Hydroxyethyl methacrylate

Cumene hydroperoxide

Saccharin

severe burns which could lead to permanent damage

or total loss of vision.

Severe/very severe irritant.

Particulates may scratch eve surfaces and cause

Extremely severe irritant/corrosive. May cause

mechanical irritation.

12. ECOLOGICAL INFORMATION

POTENTIAL TO BIOACCUMULATE AQUATIC TOXICITY

Unknown 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 Saccharin (Manufacturing, no supplier notification) 81-07-2 2.1

[1,2-Benzisothiazol-3(2H)-one,1,1-dioxide].

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

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This MSDS contains changes from the previous one in section 14; Update on Transportation Information.

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.