MSDS

Material Safety Data Sheet

PERMABOND[®] 910



READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

PRODUCT NAME

PERMABOND ® 910

adhesive

MANUFACTURER

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

SYNONYMS

SUPER GLUE

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL FAMILY

Cyanoacrylate Adhesive

COMPONENT

CAS NUMBER

CONCENTRATION (%) 60 - 100

Methyl-2-cyanoacrylate

137-05-3

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING.

ON CONTACT, WILL BOND EYELIDS TOGETHER

EYE IRRITANT. SKIN IRRITANT. ON CONTACT WILL BOND SKIN

Colorless Liquid Pungent odor

EYE

SKIN CONTACT

Will cause eye irritation. On contact, will bond eyelids together. Repeated or prolonged skin contact may result in moderate irritation. On contact,

immediate bonding of the skin will occur.

INHALATION

Vapor may be irritant to the respiratory tract. Vapor may be irritant to the

respiratory tract.

INGESTION

On contact, immediate bonding of mouth could occur.

4. FIRST-AID MEASURES

EYE

Flush with large amounts of water while holding eyelids open. Get medical attention immediately. Cured adhesive will not bond well to surface of eye, but corneal damage from abrasion may result. Do not wear contact lenses when

SKIN CONTACT

working with this material. No attempt should be made to remove material from skin or to remove contaminated clothing, as the bonded skin can be easily torn. Wash with large volumes of soap and water while flexing bonded skin parts. This procedure will slowly release bonded areas. DO NOT mechanically remove cured adhesive or

attempt to pull skin apart.

INHALATION

Remove to fresh air. If breathing is difficult, give oxygen. If breathing has

stopped, give artificial respiration. Get medical attention.

INGESTION

Immediate bonding of mouth will occur. Get medical attention.

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5. FIREFIGHTING MEASURES

AUTOIGNITION

FLASH POINT

EXTINGUISHING MEDIA

SPECIAL FIREFIGHTING PROCEDURES

FIRE & EXPLOSION HAZARDS

LOWER EXPLOSION LIMIT (%) UPPER EXPLOSION LIMIT (%) FLAMMABILITY HAZARD CLASS Not available

167 ∞F (Setaflash Closed Tester) CO2; Dry Chemical; Foam

Fire fighters should be equipped with self-contained

breathing apparatus to protect against potentially toxic and irritating fumes.

Cloths used to wipe up spills may cause rapid

polymerization that could generate sufficient heat to ignite the cloth. Combustion will evolve toxic and irritant vapors.

Not applicable Not applicable 1 = Slight.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES

SMALL SPILLS: wipe up with cloth. Immediately soak cloth with water to polymerize the adhesive. Caution! Cloth containing adhesive may undergo autoignition if not soaked with water. LARGE SPILLS: flood area with water. When cured, remove film with a scraper. Wear NIOSH approved respirator for organic vapors if needed, and protective clothing.

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

7. HANDLING AND STORAGE

STORAGE TEMPERATURE

 $= 35 - 45 \infty F$ 2 - 7 ∞C

HANDLING/STORAGE

Keep away from heat, sources of ignition and direct sunlight. Keep material refrigerated at the storage

temperature referenced above.

OTHER PRECAUTIONS

Store in tightly closed containers to prevent moisture contamination. Do not seal if contamination is suspected. Avoid skin and eye contact. Do not breath

vapors.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT

EXPOSURE LIMITS

Methyl-2-cyanoacrylate

ACGIH-TWA: 0.2 ppm

OSHA-PEL: 2 ppm OSHA-STEL: 4 ppm

VENTILATION REQUIREMENTS

EYE PROTECTION REQUIREMENTS

GLOVE REQUIREMENTS

Local.

Wear safety glasses with side shields.

Employee must wear appropriate protective gloves to prevent contact

with this substance.

CLOTHING REQUIREMENTS

CHANGE/REMOVAL OF CLOTHING

WASH REQUIREMENTS

RESPIRATOR REQUIREMENTS

No special clothing required for low volume activity.

Not normally required.

Wash before eating, drinking, or using toilet facilities.

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 PHYSICAL FORM

COLOR

ODOR **ODOR THRESHOLD**

PH AS IS

pH IN (1%) SOLUTION **OXIDIZING PROPERTIES BOILING POINT**

MELTING/FREEZING POINT SOLUBILITY IN WATER

PARTITION COEFFICIENT (n-octanol/water) VISCOSITY

SPECIFIC GRAVITY (WATER=1)

BULK DENSITY EVAPORATION RATE VAPOR PRESSURE (mmHg)

VAPOR DENSITY (air = 1) **VOLATILES**

VOLATILE ORGANIC COMPOUNDS AUTOIGNITION

FLASH POINT

Mixture

Liquid Colorless Pungent

Not available Not applicable Not applicable Not applicable

118 ∞F Not available Insoluble Not applicable

100 cPs 1.1

9.16 lb/gal Not applicable 0.3 mm Hg

>1 Nil Nil

Not available

167 ∞F (Setaflash Closed Tester)

10. STABILITY AND REACTIVITY

STABILITY

MATERIALS TO AVOID

REACTIVITY HAZARD CLASS

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION

CONDITIONS

Stable Moisture

2 = Reactive material.

Decomposes upon heating to release toxic fumes of nitrogen

oxides, carbon monoxide and carbon dioxide.

Contamination of adhesive with alkaline materials, peroxides or water can result in rapid polymerization. In large quantities, this could lead to an uncontrollable rise in temperature and a

buildup of pressure in closed containers.

11. TOXICOLOGICAL INFORMATION

ROUTE OF ENTRY

Inhalation; Skin Contact; Eye Contact; Ingestion

CHRONIC (LONG TERM) EFFECTS OF EXPOSURE

g/kg

TARGET ORGANS

Skin; Eyes; Respiratory system

CARCINOGEN **COMPONENT**

ORAL TOXICITY

NOTES ON ORAL TOXICITY

Methyl-2-cyanoacrylate

Oral LD50: Rat > 1.6 - 3.2 Ingestion may cause irritation of the gastrointestinal tract. On contact, immediate bonding of mouth

could occur.

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11. TOXICOLOGICAL INFORMATION (Cont'd)

CHRONIC (LONG TERM) EFFECTS OF EXPOSURE

COMPONENT

DERMAL TOXICITY

Methyl-2-cyanoacrylate

Dermal LD50: Guinea Pig >

10 ml/kg

NOTES ON DERMAL TOXICITY

Irritating to the skin. On contact, immediate bonding

of the skin will occur.

COMPONENT Methyl-2-cyanoacrylate INHALATION TOXICITY

Inhalation LC50 (6.00hr):

Rat 101 ppm

NOTES ON INHALATION TOXICITY

Vapor, if generated, can cause irritation of the eyes,

nose and respiratory tract. Avoid breathing vapors

or mists.

COMPONENT

Methyl-2-cyanoacrylate

NOTES ON EYE IRRITATION

On contact, will bond eyelids together. Vapors are

lachrymatory. Will cause eye irritation.

Cyanoacrylates will not bond to the eye but may

cause corneal scratching.

12. ECOLOGICAL INFORMATION

POTENTIAL TO BIOACCUMULATE AQUATIC TOXICITY

Unknown.

None Established

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

This section provided for general information only.

U.S. Department of Transportation Ground (49 CFR):

Proper shipping name: Combustible liquids, n.o.s. (Cyanoacrylate ester)

Hazard class or division: 3 Identification number: NA 1993

Packing group: None

Exceptions: (Not more than 450 Liters) Unrestricted

Marine pollutant: None

Please note that Cyanoacrylates are not restricted for domestic ground transportation in non bulk containers (The DOT defines a bulk container as a "Package" containing more than 450 liters. The "Package" is the individual bottle, tube or drum, not a carton containing many bottles.

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14. TRANSPORTATION INFORMATION (Cont'd)

International Air Transportation (ICAO/IATA):

Proper shipping name: Aviation regulated liquids, n.o.s (Cyanoacrylate ester)

Hazard class or division: 9 Identification number: UN3334

Packing group: III

Exceptions: (Not more than 500ml) Unrestricted

Please note that Cyanoacrylates are restricted for air transportation in packages containing more than 500gr. The "Package" is the individual bottle, tube or drum, not a carton containing many bottles. Permabond's 3g, 20gr, 1 ounc e(28.4 gr), 1 pound (454gr) and 500gr, are not restricted for air transportation.

Water Transportation (IMO/IMDG):

Proper shipping name: Unrestricted Hazard class or division: None Identification number: None Packing group: None Marine pollutant: None

The information provided herein may not include the impact of additional regulatory requirements (eg, for materials meeting the definition of a hazardous waste under RCRA, hazardous substances under CERCLA, and/of marine pollutants under CWA or other similar federal, state or local laws) or any associated exceptions or exemptions under regulations applicable to the transport of this material.

15. REGULATORY INFORMATION

USA

TSCA

All components are on the TSCA inventory.

SARA/TITLE III

CAS NUMBER

CONCENTRATION (%)

Contains no substances at or above the reporting

threshold under Section 313.

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.