

MSDS
Material Safety Data Sheet
PERMABOND® 910

Permabond®
Engineering Adhesives

READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

Issue Date 02/17/09

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 | CAS NUMBER | CONCENTRATION (%) |
|------------------------|------------------------|------------|-------------------|
| COMPONENT | | | |
| Methyl-2-cyanoacrylate | | 137-05-3 | 60 - 100 |

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 | Will cause eye irritation. On contact, will bond eyelids together. |
| SKIN CONTACT | 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 working with this material. |
| SKIN CONTACT | 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 | Not available |
| FLASH POINT | 167 °F (Setaflash Closed Tester) |
| EXTINGUISHING MEDIA | CO2; Dry Chemical; Foam |
| SPECIAL FIREFIGHTING PROCEDURES | Fire fighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. |
| FIRE & EXPLOSION HAZARDS | 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. |
| LOWER EXPLOSION LIMIT (%) | Not applicable |
| UPPER EXPLOSION LIMIT (%) | Not applicable |
| FLAMMABILITY HAZARD CLASS | 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 °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 | Local. | |
| EYE PROTECTION REQUIREMENTS | Wear safety glasses with side shields. | |
| 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 | Not normally required. | |
| 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

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|---|----------------------------------|
| PURE SUBSTANCE OR MIXTURE | Mixture |
| PHYSICAL FORM | Liquid |
| COLOR | Colorless |
| ODOR | Pungent |
| ODOR THRESHOLD | Not available |
| PH AS IS | Not applicable |
| pH IN (1%) SOLUTION | Not applicable |
| OXIDIZING PROPERTIES | Not applicable |
| BOILING POINT | 118 °F |
| MELTING/FREEZING POINT | Not available |
| SOLUBILITY IN WATER | Insoluble |
| PARTITION COEFFICIENT (n-octanol/water) | Not applicable |
| VISCOSITY | 100 cPs |
| SPECIFIC GRAVITY (WATER=1) | 1.1 |
| BULK DENSITY | 9.16 lb/gal |
| EVAPORATION RATE | Not applicable |
| VAPOR PRESSURE (mmHg) | 0.3 mm Hg |
| VAPOR DENSITY (air = 1) | >1 |
| VOLATILES | Nil |
| VOLATILE ORGANIC COMPOUNDS | Nil |
| AUTOIGNITION | Not available |
| FLASH POINT | 167 °F (Setaflash Closed Tester) |

10. STABILITY AND REACTIVITY

| | |
|-------------------------------------|---|
| STABILITY | Stable |
| MATERIALS TO AVOID | Moisture |
| REACTIVITY HAZARD CLASS | 2 = Reactive material. |
| HAZARDOUS DECOMPOSITION PRODUCTS | Decomposes upon heating to release toxic fumes of nitrogen oxides, carbon monoxide and carbon dioxide. |
| HAZARDOUS POLYMERIZATION CONDITIONS | 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 | | |
| TARGET ORGANS | Skin; Eyes; Respiratory system | |
| CARCINOGEN | No. | |
| COMPONENT | ORAL TOXICITY | NOTES ON ORAL TOXICITY |
| Methyl-2-cyanoacrylate | Oral LD50: Rat > 1.6 - 3.2 g/kg | 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 | NOTES ON DERMAL TOXICITY |
|------------------------|------------------------------------|---|
| Methyl-2-cyanoacrylate | Dermal LD50: Guinea Pig > 10 ml/kg | Irritating to the skin. On contact, immediate bonding of the skin will occur. |

| COMPONENT | INHALATION TOXICITY | NOTES ON INHALATION TOXICITY |
|------------------------|---------------------------------------|---|
| Methyl-2-cyanoacrylate | Inhalation LC50 (6.00hr): Rat 101 ppm | Vapor, if generated, can cause irritation of the eyes, nose and respiratory tract. Avoid breathing vapors or mists. |

| COMPONENT | NOTES ON EYE IRRITATION |
|------------------------|---|
| Methyl-2-cyanoacrylate | 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 | Unknown. |
| AQUATIC TOXICITY | 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 ounce (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.

