

READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING PRODUCT!

Issue Date 02/17/09

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

PRODUCT NAME PERMABOND ® 105

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 (%)

Ethyl cyanoacrylate 7085-85-0 60 - 100

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING.

ON CONTACT, WILL BOND EYELIDS TOGETHER EYE IRRITANT. SKIN IRRITANT.

HARMFUL IF SWALLOWED. 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 or aerosol, if generated, can cause irritation of the eyes, nose and 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

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.

FLAMMABILITY HAZARD CLASS 2 = Moderate.

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 = $35 - 45 \infty F$ = $2 - 7 \infty C$

HANDLING/STORAGE Keep away from heat, sources of ignition and direct

sunlight. Keep material refrigerated at the storage

temperature referenced above.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMITS

Ethyl cyanoacrylate ACGIH-TWA: 0.2 ppm OSHA-PEL: 2 ppm OSHA-STEL: 4 ppm

VENTILATION REQUIREMENTS Local.

EYE PROTECTION REQUIREMENTS Safety glasses, goggles or face shield to protect against splashing. GLOVE REQUIREMENTS Wear polyethylene gloves. Do not wear rubber or cloth gloves.

CLOTHING REQUIREMENTS No special clothing required for low volume activity.

CHANGE/REMOVAL OF CLOTHING Remove contaminated clothing and launder before reuse. Discard shoes,

belts, wallets, and any other contaminated leather items.

WASH REQUIREMENTS Wash before eating, drinking, or using toilet facilities.

RESPIRATOR REQUIREMENTS Avoid prolonged or repeated breathing of vapor or mists. If exposure

may or does exceed occupational exposure limits, use a NIOSH

approved respirator to prevent overexposure.



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9. PHYSICAL AND CHEMICAL PROPERTIES

PURE SUBSTANCE OR MIXTURE Mixture PHYSICAL FORM Liquid Colorless **COLOR ODOR** Pungent PH AS IS Not applicable pH IN (1%) SOLUTION Not applicable Not applicable **OXIDIZING PROPERTIES BOILING POINT** 1403 ∞F MELTING/FREEZING POINT Not available SOLUBILITY IN WATER Insoluble VISCOSITY 50 cPs SPECIFIC GRAVITY (WATER=1) 1.05 **BULK DENSITY** 8.75 lb/gal VAPOR PRESSURE (mmHg) 0.3 VAPOR DENSITY (air = 1) >1 **VOLATILES** Nil VOLATILE ORGANIC COMPOUNDS Nil

FLASH POINT 167 ∞F (Setaflash Closed Tester)

10. STABILITY AND REACTIVITY

STABILITY Stable

REACTIVITY HAZARD CLASS 2 = Reactive material.

HAZARDOUS DECOMPOSITION PRODUCTS Decomposes upon heating to release toxic fumes of nitrogen

oxides, carbon monoxide and carbon dioxide.

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

Ethyl cyanoacrylate Oral LD50: Rat 180 mg/kg Ingestion may cause irritation of the gastrointestinal

tract. On contact, immediate bonding of mouth could

occur.

COMPONENT DERMAL TOXICITY NOTES ON DERMAL TOXICITY

Ethyl cyanoacrylate Dermal LD50: Rabbit 220 Irritating to the skin. On contact, immediate bonding of

ml/kg the skin will occur.

COMPONENT INHALATION TOXICITY NOTES ON INHALATION TOXICITY

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

nose and respiratory tract. Avoid breathing vapors or

mists.

MSDS Material Safety Data Sheet PERMABOND[®] 105



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11. TOXICOLOGICAL INFORMATION - CONT'D

COMPONENT NOTES ON EYE IRRITATION

On contact, will bond eyelids together. Vapors are Ethyl cyanoacrylate

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.

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.



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14. TRANSPORTATION INFORMATION - CONT'D

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.