

Safety Data Sheet

PERMABOND TA4590

Revision Number: 2

Issue date: 05/05/15

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: PERMABOND TA4590
Product Type: Acrylic adhesive

Telephone: 732-868-1372 or 800-640-7599
Website: www.permabond.com

Company: PERMABOND LLC
14 Robinson Street
Pottstown, PA 19464
USA

Emergency Telephone:

Medical: Poison Control Center 866-827-6282 (toll free)
or 303-389-1109
Transport: CHEMTREC 800-424-9300

2. HAZARDS IDENTIFICATION

WARNING: CAUSES SERIOUS EYE IRRITATION
CAUSES SKIN IRRITATION
MAY CAUSE AN ALLERGIC SKIN REACTION
MAY CAUSE RESPIRATORY IRRITATION

HAZARD CLASS	HAZARD CATEGORY
EYE IRRITATION	2
SKIN IRRITATION	2
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY- SINGLE EXPOSURE- RESPIRATORY SYSTEM	3

PICTOGRAM(S)



Precautionary Statements

Prevention: Avoid breathing vapors, mist or spray. Wash thoroughly after handling. Use in a well-ventilated area. Wear protective gloves and eye protection. Contaminated clothing should be laundered separately.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with plenty of water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Rinse with plenty of soap and water.
If feeling unwell call a poison control center or a physician. If eye irritation occurs: Get medical attention. If skin irritation occurs: Get medical attention.

Storage: Store in a well-ventilated cool place.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disposal: Dispose of according to Federal, State/Provincial and local governmental regulations.

Existing conditions aggravated by exposure: Skin, eye and respiratory disorders.

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	CONCENTRATION (%)*
Methacrylate Ester	7534-94-3	10 – 30
Maleic acid	110-16-7	1 – 5
Hydroxyalkyl methacrylate	686-77-9	30 – 60
Silica, Amorphous, Fumed, Crystal-free	1129645-52-5	1 – 5

*Exact concentration is a trade secret. Concentration ranges are provided to assist user in determining appropriate protection.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms persist, get medical attention.
Skin contact:	Immediately wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.
Eye contact:	Immediately flush with large amounts of water for at least 15 minutes. Get medical attention.
Ingestion:	Do not induce vomiting. Keep individual calm and get medical attention. Never give anything by mouth to an unconscious person.
Symptoms:	See section 11

5. FIRE-FIGHTING MEASURES

Extinguishing media:	Foam, water spray or fog, dry chemical or carbon dioxide.
Special fire fighting procedures:	Wear self-contained breathing apparatus and protective clothing. In case of fire keep container cool with water spray.
Unusual fire or explosion hazards:	Uncontrolled polymerization may occur at high temperature resulting in explosions or rupturing containers.
Hazardous combustion products:	Toxic and/or irritating organic vapors may be generated. Oxides of carbon. Oxides of sulfur and oxides of nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection equipment recommended in section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Prevent product from entering drains or waterways.
Clean-up methods:	Evacuate area. Dyke spill to prevent from entering water ways. Ventilate area. Wear protective equipment to clean up. Soak up spill using absorbent material such as sand, silica gel, acid binder, universal binder or saw dust. Scrape up as much material as possible and store in partially filled container until disposal. Refer to section 8 (Exposure Controls/ Personal Protection) before clean up.

7. HANDLING AND STORAGE

Handling:	Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container tightly closed.
Storage:	Store in a cool well ventilated area away from heat, sparks, flames, or other sources of ignition. For safe storage store between 0°C (32 °F) and 30°C (86°F) For shelf life information contact Permabond customer service at (800)714-0170

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employees should complete an assessment of all workplaces to determine the need for and selection of proper exposure controls and protective equipment before each task is started.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Methacrylate Ester	None	None	None	None
Maleic acid	None	None	None	None
Hydroxyalkyl methacrylate	None	None	None	3 ppm Ceiling
Silica, Amorphous, Fumed, Crystal-free	10 mg/m3 TWA inhalable dust. 3 mg/m3 TWA Respirable fraction.	20 MPPCF TWA 0.8mg/m3 TWA	None	None

Engineering controls:	Use local ventilation to maintain worker exposure below established exposure limits.
Respiratory protection:	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
Skin protection:	Use chemical resistant/ impermeable gloves (nitrile) gloves and protective clothing to prevent skin contact.
Eye/face protection:	Safety goggles or safety glasses with side shields or face shield if splashing or spraying is expected. Safety showers and eye wash stations should be available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Blue
Odor:	Mild acrylic odor
Odor threshold:	Not Available
pH:	Not applicable
Vapor pressure:	<10 mm Hg at 24°C (75°F)
Boiling point/range:	>149°C (300°F)
Melting point/range:	Not available
Specific gravity:	1.1 at 23.9°C (75°F)
Vapor density:	Not available
Flash point:	>93°C (199.94°F)
Flammable/Explosive limits – Lower:	Not available
Flammable/Explosive limits – upper:	Not available
Autoignition Temperature:	Not available
Evaporation rate:	Not available
Solubility in water:	Slight
Partition coefficient (n-octanol/water):	Not available
Decomposition temperature:	Not available
VOC content:	<2 %, 20 grams/liter when mixed for use (Estimated)

10. STABILITY AND REACTIVITY

Stability:	Stable when stored under the recommended storage conditions
Hazardous reactions:	None under normal processing conditions. In the presence incompatible materials or high temperature polymerization may occur.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Irritating organic vapors.
Incompatible materials:	Strong oxidizing agent. Strong reducing agents. Acids. Bases. Free radical polymerizing catalysts. Oxygen scavengers.
Conditions to avoid:	Contact with incompatible materials which may cause polymerization. Heat, sparks, flames and other sources of ignition.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation:	Inhalation of vapor or mist may cause respiratory tract irritation.
Skin contact:	Causes skin irritation. May cause skin allergic reaction.
Eye contact:	Causes eye irritation.
Ingestion:	May cause gastrointestinal tract irritation if swallowed.
Existing conditions aggravated by exposure:	Skin, eye and respiratory disorders.

Hazardous components	LD50	LC50	Immediate and delayed Health Effects
Methacrylate Ester	LD50 – Oral (RAT) >2,000 mg/Kg	None	Allergen, Irritant
Melaic acid	LD50 – Oral (RAT) – 708 mg/Kg LD50 – Dermal (RAT) > 5,000 mg/Kg	LC50 – Inhalation (RAT, 1h) – 720 mg/m3	Corrosive, Irritant, Allergen
Hydroxyalkyl methacrylate	LD50 – Oral (RAT) 5,050 mg/Kg	None	Irritant, Allergen
Silica, Amorphous, Fumed, Crystal-free	None	None	Nuisance dust

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Methacrylate Ester	No	No	No
Melaic acid	No	No	No
Hydroxyalkyl methacrylate	No	No	No
Silica, Amorphous, Fumed, Crystal-free	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not Available

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State/Provincial and local governmental regulations. Refer to section 8 (Exposure Controls/Personal Protection) before handling.

14. TRANSPORT INFORMATION

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

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None
Exceptions: None

International Air Transportation (ICAO/IATA):

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None
Exceptions: None

Water Transportation (IMO/IMDG):

Proper shipping name:	Not regulated
Hazard class or division:	None
Identification number:	None
Packing group:	None
	None

Marine pollutant:

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification:	None above the reporting limits.
CERCLA/SARA Section 302 EHS:	None above the reporting limits.
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health, Fire, Reactive
CERCLA/SARA 313:	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).
CERCLA Reportable quantity:	
California Proposition 65:	No chemical listed on the California Proposition 65 are known to be present.

Canada Regulatory Information

CEPA DSL/NDSL Status:	All components are listed on or are exempt from listing on the Domestic Substances List.
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16. OTHER INFORMATION

This safety data sheets contains changes from the previous one: New format

Issue date: 05/05/15

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.