

## Preliminary Material Safety Data Sheet

### PERMABOND UV681

Revision Number: 0

Issue date: 11/05/10

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product name:** PERMABOND UV681

Telephone: 732-868-1372

**Product type:** Light Curing Adhesive

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

Emergency telephone:  
Medical: 866-827-6282  
Transport: 1-800-640-7599  
Website: www.permabond.com

#### 2. HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

##### HMIS:

**Physical state:** Liquid

**HEALTH:** 2

**Color:** Clear

**FLAMMABILITY:** 1

**Odor:** Mild acrylic odor

**PHYSICAL HAZARD:** 1

**Personal Protection:** See Section 8

**WARNING:** CAUSES EYE AND SKIN IRRITATION  
MAY CAUSE ALLERGIC SKIN REACTION  
MAY CAUSE RESPIRATORY TRACT IRRITATION  
MAY BE HARMFUL IF SWALLOWED

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

##### Potential Health Effects

**Inhalation:**

May cause respiratory tract irritation.

**Skin contact:**

May cause allergic skin reaction. May cause skin irritation.

**Eye contact:**

Contact with eyes will cause irritation.

**Ingestion:**

May be harmful if swallowed. May cause gastrointestinal tract irritation if swallowed.

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

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**See Section 11 for additional toxicological information.**

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	CONCENTRATION (%)
Hexane-1,6-diol diacrylate	13048-33-4	1 – 10
Diphenyl (2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	1 – 5
Acrylic Ester	5888-33-5	1 – 25
Tetrahydrofurfural Acrylate	2399-48-6	1 – 5
2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]	33007-83-9	1 – 20

### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms develop.
<b>Eye contact:</b>	Flush with plenty of water, preferably, lukewarm water for at least 15 minutes, holding eyelids open all the time. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting. Keep individual calm and get medical attention. Never give anything by mouth to an unconscious person.

### 5. FIRE-FIGHTING MEASURES

<b>Flash point:</b>	>93.3°C (199.94°F) Tagliabue closed cup
<b>Auto ignition temperature:</b>	Not available
<b>Flammable/Explosive limits-lower %:</b>	Not available
<b>Flammable/Explosive limits-upper %:</b>	Not available
<b>Extinguishing media:</b>	Foam, dry chemical or carbon dioxide.
<b>Special fire fighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing
<b>Unusual fire or explosion hazards:</b>	Not expected. Uncontrolled polymerization may occur at high temperatures
<b>Hazardous combustion products:</b>	Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Irritating organic vapors.

## 6. ACCIDENTAL RELEASE MEASURES

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

**Environmental precautions:** Prevent product from entering drains or open waters.

**Clean-up methods:** Remove all ignition sources. Ensure adequate ventilation. Soak up with inert absorbent material. Store in a partly filled, closed container until disposal.

## 7. HANDLING AND STORAGE

**Handling:** Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep away from heat, spark and flame. Use only with adequate ventilation.

**Storage:** Store away from heat, sparks, flames, or other sources of ignition. For safe storage, store between 5°C and 25°C (41°F and 77°F) in unopened container.

**Incompatible products:** Refer to Section 10.

## 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
Hexane-1,6-diol diacrylate	None	None	0.11 ppm (1 – 3 g/m <sup>3</sup> )	None
Diphenyl (2,4,6-trimethylbenzoyl)phosphine oxide	None	None	None	None
Acrylic Ester	None	None	None	None
Tetrahydrofurfural Acrylate	None	None	None	None
2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]	None	None	None	None

**Engineering controls:** No specific ventilation requirements noted, but forced ventilation may still be necessary if concentrations exceed established exposure limits.

**Respiratory protection:** Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

**Skin protection:** Use impermeable gloves and protective clothing as necessary to prevent skin contact. Neoprene gloves. Butyl rubber gloves. Natural rubber gloves.

**Eye/face protection:** Safety goggles or safety glasses with side shields.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state:</b>	Liquid
<b>Color:</b>	Clear
<b>Odor:</b>	Mild acrylic odor
<b>Odor Threshold:</b>	Not available
<b>Vapor pressure:</b>	Not Available
<b>pH:</b>	Not applicable
<b>Boiling point/range:</b>	Not Available
<b>Melting point/range:</b>	Not available
<b>Specific gravity:</b>	1.1
<b>Vapor density:</b>	Not available
<b>Flash Point:</b>	>93.3 °C (199.9°F)
<b>Flammable/Explosive Limits (lower)</b>	Not available
<b>Flammable/Explosive Limits (upper)</b>	Not Available
<b>Evaporation rate:</b>	Not available
<b>Solubility in water:</b>	Slight
<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>VOC content:</b>	Not available

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable.
<b>Hazardous polymerization:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Irritating organic vapors.
<b>Incompatibility:</b>	Strong oxidizing agents, reducing agents. Acids. Bases. Peroxides. Amines. Free radical polymerizing catalysts.
<b>Conditions to avoid:</b>	Light, heat, flames, sparks and other sources of ignition. Keep away from incompatible materials

**11. TOXICOLOGICAL INFORMATION**

Carcinogen Status

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Hexane-1,6-diol diacrylate	No	No	No
Diphenyl (2,4,6-trimethylbenzoyl)phosphine oxide	No	No	No
Acrylic Ester	No	No	No
Tetrahydrofurfurul Acrylate	No	No	No
2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]	No	No	No

Hazardous components	Health Effects/Target Organs
Hexane-1,6-diol diacrylate	Allergen, irritant
Diphenyl (2,4,6-trimethylbenzoyl)phosphine oxide	Allergen, Irritant
Acrylic Ester	Allergen, irritant
Tetrahydrofurfurul Acrylate	Allergen, irritant
2-Ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diyl bis[3-mercaptopropionate]	No data available

**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 and local governmental regulations.  
**EPA hazardous waste number:** Not Available.

**14. TRANSPORT INFORMATION**

The shipment information in this section is for non-bulk packaging. Shipping classification might be different for bulk packaging.

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

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

**International Air Transportation (ICAO/IATA):**

**Proper shipping name:** Not regulated  
**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

### United States Regulatory Information

<b>TSCA 8 (b) Inventory Status:</b>	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
<b>TSCA 12 (b) Export Notification:</b>	None above the reporting limits.
<b>CERCLA/SARA Section 302 EHS:</b>	None above the reporting limits.
<b>CERCLA/SARA Section 311/312:</b>	Immediate Health Hazard, Delayed Health Hazard
<b>CERCLA/SARA 313:</b>	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). None.
<b>California Proposition 65:</b>	This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

### Canada Regulatory Information

<b>CEPA DSL/NDSL Status:</b>	All components are listed on or are exempt from listing on the Domestic Substances List.
<b>WHMIS hazard class:</b>	Not available

## 16. OTHER INFORMATION

This material safety data sheet contains changes from the previous on in sections: New Material Safety Data Sheet.

**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.