



## SAFETY DATA SHEET

### Permabond TA440A

#### 1. Identification

##### Product identifier

**Product name** Permabond TA440A

##### Recommended use of the chemical and restrictions on use

**Application** Adhesive.

##### Details of the supplier of the safety data sheet

**Supplier** Permabond LLC  
14 Robinson Street  
Pottstown, PA 19464  
USA  
Telephone: 732-868-1372 or 800-640-7599  
Website: www.permabond.com

##### Emergency telephone number

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

#### 2. Hazard(s) identification

##### Classification of the substance or mixture

**OSHA Regulatory Status** 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).

**Physical hazards** Not Classified

**Health hazards** Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1 - H317 Repr. 1B - H360Df

##### Label elements

##### Pictogram



**Signal word** Danger

**Hazard statements** H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H360Df May damage the unborn child. Suspected of damaging fertility.

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### Precautionary statements

P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P260 Do not breathe vapor/ spray.  
 P261 Avoid breathing vapor/ spray.  
 P264 Wash contaminated skin thoroughly after handling.  
 P272 Contaminated work clothing must not be allowed out of the workplace.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P302+P352 If on skin: Wash with plenty of water.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308+P313 If exposed or concerned: Get medical advice/ attention.  
 P314 Get medical advice/ attention if you feel unwell.  
 P332+P313 If skin irritation occurs: Get medical advice/ attention.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P337+P313 If eye irritation persists: Get medical advice/ attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P405 Store locked up.  
 Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

### Contains

TETRAHYDROFURFURYL METHACRYLATE, 2-HYDROXYETHYL METHACRYLATE

### 3. Composition/information on ingredients

#### Mixtures

<b>2-PHENOXYETHYL METHACRYLATE</b> CAS number: 10595-06-9	<b>10-30%</b>
<b>Classification</b> Skin Irrit. 2 - H315 Eye Irrit. 2A - H319	
<b>TETRAHYDROFURFURYL METHACRYLATE</b> CAS number: 2455-24-5	<b>5-10%</b>
<b>Classification</b> Repr. 1B - H360Df	
<b>2-HYDROXYETHYL METHACRYLATE</b> CAS number: 868-77-9	<b>5-10%</b>
<b>Classification</b> Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1 - H317	

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<b>CUMENE HYDROPEROXIDE</b>	<b>&lt;1%</b>
CAS number: 80-15-9	
<b>Classification</b> Org. Perox. E - H242 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT RE 2 - H373 Not relevant.	

The full text for all hazard statements is displayed in Section 16.

**Composition comments**      Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 4. First-aid measures

#### Description of first aid measures

<b>Inhalation</b>	Move the exposed person to fresh air. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting. Get medical attention if any discomfort continues.
<b>Skin Contact</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water. If symptoms develop, obtain medical attention
<b>Eye contact</b>	Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues.

#### Most important symptoms and effects, both acute and delayed

<b>Inhalation</b>	May cause respiratory system irritation.
<b>Skin contact</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye irritation.

#### Indication of immediate medical attention and special treatment needed

**Notes for the doctor**      No specific recommendations. Treat symptomatically.

### 5. Fire-fighting measures

#### Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with foam, carbon dioxide, dry powder or water fog.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

#### Special hazards arising from the substance or mixture

**Hazardous combustion products**      Burning produces irritating, toxic and obnoxious fumes. Carbon monoxide, carbon dioxide, and unknown hydrocarbons.

#### Advice for firefighters

**Protective actions during firefighting**      Use water to keep fire exposed containers cool and disperse vapors.

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**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet.

#### Environmental precautions

**Environmental precautions** Avoid the spillage or runoff entering drains, sewers or watercourses.

#### Methods and material for containment and cleaning up

**Methods for cleaning up** Absorb spillage with sand or other inert absorbent. Transfer to suitable, labelled containers for disposal.

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see section 13.

### 7. Handling and storage

#### Precautions for safe handling

**Usage precautions** Avoid contact with skin, eyes and clothing. Do not breathe vapour/spray. Wash hands thoroughly after handling. Keep container tightly sealed when not in use.

#### Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place.

#### Specific end uses(s)

**Specific end use(s)** Adhesive.

### 8. Exposure Controls/personal protection

**Ingredient comments** WEL = Workplace Exposure Limits

#### Exposure controls

**Appropriate engineering controls** Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

**Eye/face protection** Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for slashing or spraying exists.

**Hand protection** Nitrile rubber or Viton™ gloves are recommended. Cotton or other absorbent gloves should not be worn.

**Other skin and body protection** Employee must wear appropriate protective clothing and equipment to prevent any possibility of skin contact with this substance.

**Hygiene measures** Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated.

**Respiratory protection** Respiratory protection may be required if excessive airborne contamination occurs. Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

**Appearance** Liquid.

**Color** Amber.

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<b>Odor</b>	Mild.
<b>Odor threshold</b>	No information available.
<b>pH</b>	Not relevant.
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	Not relevant.
<b>Flash point</b>	>100°C
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	1.1
<b>Solubility(ies)</b>	Insoluble in water. Soluble in the following materials: Organic solvents.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not applicable.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	≈8500 mPa s @ 23°C
<b>Explosive properties</b>	Not relevant.
<b>Oxidizing properties</b>	Not applicable.
<b>Other information</b>	Not relevant.
<b>Volatile organic compound</b>	<2 %, 20 grams/liter (Estimated)

### 10. Stability and reactivity

<b>Reactivity</b>	The following materials may react with the product: Strong oxidizing agents. Acids.
<b>Stability</b>	Stable at normal ambient temperatures. Polymerizes when heated.
<b>Possibility of hazardous reactions</b>	Reactions with the following materials may generate heat: Amines.
<b>Conditions to avoid</b>	Do not store near heat sources or expose to high temperatures.
<b>Materials to avoid</b>	Amines. Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.

### 11. Toxicological information

#### Information on toxicological effects

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**Toxicological effects** The toxicological properties of this product have not been fully evaluated. Use of good industrial hygiene practices is required. Avoid direct contact with skin or eyes. Do not ingest or inhale.

### Skin corrosion/irritation

**Skin corrosion/irritation** Irritating to skin.

### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye irritation.

### Skin sensitization

**Skin sensitization** Based on available data the classification criteria are not met.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

**Genotoxicity - in vivo** Based on available data the classification criteria are not met.

### Carcinogenicity

**Carcinogenicity** No component of this product present at levels great than or equal to 0.1% is identified as a known carcinogen.

### Reproductive toxicity

**Reproductive toxicity - fertility** Contains a substance/a group of substances which may damage fertility. Contains a substance/a group of substances which may damage the unborn child.

### Specific target organ toxicity - single exposure

**STOT - single exposure** Based on available data the classification criteria are not met.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Based on available data the classification criteria are not met.

### Aspiration hazard

**Aspiration hazard** Based on available data the classification criteria are not met.

**Inhalation** May cause respiratory system irritation.

**Ingestion** No harmful effects expected from quantities likely to be ingested by accident.

**Skin Contact** Irritating to skin.

**Eye contact** Causes serious eye irritation.

**Acute and chronic health hazards** Irritating to eyes. Irritating to skin.

**Route of exposure** Skin and/or eye contact

**Target Organs** Eyes Skin

### Toxicological information on ingredients.

#### TETRAHYDROFURFURYL METHACRYLATE

##### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub>)** 4,000.0  
mg/kg)

**Species** Rat

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ATE oral (mg/kg) 4,000.0

### Reproductive toxicity

Reproductive toxicity - fertility Suspected of damaging fertility.

### Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 300 mg/kg, Oral, Rat

## 2-HYDROXYETHYL METHACRYLATE

### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 5,000.0

Species Rat

ATE oral (mg/kg) 5,000.0

### Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub> mg/kg) 5,000.0

Species Rabbit

ATE dermal (mg/kg) 5,000.0

### Acute toxicity - inhalation

Notes (inhalation LC<sub>50</sub>) No information available.

### Skin corrosion/irritation

Animal data Erythema/eschar score: Very slight erythema - barely perceptible (1). Not irritating.

### Serious eye damage/irritation

Serious eye damage/irritation Moderately irritating.

### Respiratory sensitization

Respiratory sensitization No information available.

### Skin sensitization

Skin sensitization Guinea pig maximization test (GPMT) - Guinea pig: Sensitizing.

### Germ cell mutagenicity

Genotoxicity - in vitro Conclusive data but not sufficient for classification.

Genotoxicity - in vivo Chromosome aberration: Negative.

### Carcinogenicity

Carcinogenicity No specific test data are available.

### Reproductive toxicity

Reproductive toxicity - fertility Screening - NOAEL  $\geq$  1000 mg/kg/day, Oral, Rat F1

Reproductive toxicity - development Developmental toxicity: - NOAEL:  $\geq$  1000 mg/kg/day, Oral, Rat

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### Specific target organ toxicity - single exposure

**STOT - single exposure** No specific test data are available.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** No specific test data are available.

### Aspiration hazard

**Aspiration hazard** Not applicable.

## CUMENE HYDROPEROXIDE

### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 328.0

**Species** Rat

**ATE oral (mg/kg)** 328.0

### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 1,200.0

**Species** Rat

**ATE dermal (mg/kg)** 1,200.0

### Acute toxicity - inhalation

**Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)** 1.37

**Species** Rat

**ATE inhalation (dusts/mists mg/l)** 0.5

### Skin corrosion/irritation

**Animal data** Highly irritating.

### Serious eye damage/irritation

**Serious eye damage/irritation** Irritating to eyes.

### Skin sensitization

**Skin sensitization** Not sensitizing.

### Germ cell mutagenicity

**Genotoxicity - in vitro** Positive.

**Genotoxicity - in vivo** This substance has no evidence of mutagenic properties.

### Carcinogenicity

**Carcinogenicity** CMR: No

### Reproductive toxicity

**Reproductive toxicity - fertility** No specific test data are available.



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**Reproductive toxicity - development**      Developmental toxicity: - NOAEL:  $\geq 100$  mg/kg/day, Oral, Rat

**Specific target organ toxicity - single exposure**

**STOT - single exposure**      No specific test data are available.

**Specific target organ toxicity - repeated exposure**

**STOT - repeated exposure**      Toxic: danger of serious damage to health by prolonged exposure through inhalation.

**Aspiration hazard**

**Aspiration hazard**      No specific test data are available.

### 12. Ecological Information

**Ecotoxicity**      There are no data on the ecotoxicity of this product.

**Bioaccumulative potential**

**Partition coefficient**      Not available.

**Other adverse effects**

**Other adverse effects**      None known.

### 13. Disposal considerations

**Waste treatment methods**

**General information**      Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.

**Disposal methods**      Dispose of according to Federal, State and local governmental regulations.

### 14. Transport information

**General**      The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

**UN Number**

Not applicable.

**UN No. (DOT)**      Not applicable.

**UN proper shipping name**

Not applicable.

**Proper shipping name (DOT)**      Not applicable.

**Transport hazard class(es)**

No transport warning sign required.

**DOT transport labels**

No transport warning sign required.

**Packing group**

Not applicable.

**DOT packing group**      Not applicable.

**Environmental hazards**

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### Environmentally Hazardous Substance

No.

### Special precautions for user

Not applicable.

### DOT TIH Zone

Not applicable.

Transport in bulk according to  
Annex II of MARPOL 73/78  
and the IBC Code

Not applicable.

## 15. Regulatory information

### US Federal Regulations

#### SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None above reporting levels

#### CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

*CUMENE HYDROPEROXIDE*

#### SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None above reporting limits

#### SARA 313 Emission Reporting

*2-PHENOXYETHYL METHACRYLATE*

*CUMENE HYDROPEROXIDE*

#### SARA (311/312) Hazard Categories

Acute  
Chronic

### US State Regulations

#### California Proposition 65 Carcinogens and Reproductive Toxins

This product contains a chemical known to the state of California to cause cancer.

### Inventories

#### Canada - DSL/NDSL

All the ingredients are listed or exempt.

#### US - TSCA

All the ingredients are listed or exempt.

#### US - TSCA 12(b) Export Notification

None above reporting limits

## 16. Other information

Revision date 1/31/2018

Revision 2

Supersedes date 5/5/2015

## PermaBond TA440A

### Hazard statements in full

H242 Heating may cause a fire.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H335 May cause respiratory irritation.  
H360Df May damage the unborn child. Suspected of damaging fertility.  
H373 May cause damage to organs through prolonged or repeated exposure.