

# Permabond®

Engineering Adhesives

## SAFETY DATA SHEET

### Permabond TA452A

#### 1. Identification

##### Product identifier

Product name Permabond TA452A

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

Application Adhesive. Sealant.

##### 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



chemical-concepts.com  
**800.220.1966**  
410 Pike Road • Huntingdon Valley, PA 19006

##### 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 STOT RE 2 - H373

##### Label elements

##### Hazard symbols



Signal word Warning

Hazard statements  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H373 May cause damage to organs through prolonged or repeated exposure.

## Permabond TA452A

<b>Precautionary statements</b>	<p>P260 Do not breathe vapor/ spray.</p> <p>P261 Avoid breathing vapor/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing must not be allowed out of the workplace.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 If on skin: Wash with plenty of water.</p> <p>P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P314 Get medical advice/ attention if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
---------------------------------	---

**Contains** HYDROXYPROPYL METHACRYLATE, CUMENE HYDROPEROXIDE

**Other hazards**

None under normal conditions.

### 3. Composition/information on ingredients

**Mixtures**

<b>HYDROXYPROPYL METHACRYLATE</b>	<b>60-100%</b>
CAS number: 27813-02-1	
<b>Classification</b>	
Eye Irrit. 2A - H319	
Skin Sens. 1 - H317	
<b>POLY(OXY-1,2-ETHANEDIYL), A,A'-[(1-METHYLETHYLIDENE)DI-4,1-PHENYLENE]BIS[Ω-[(2-METHYL-1-OXO-2-PROPEN-1-YL)OXY]-</b>	<b>10-30%</b>
CAS number: 41637-38-1	
<b>Classification</b>	
Not relevant.	
<b>CUMENE HYDROPEROXIDE</b>	<b>1-5%</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.	

## Permabond TA452A

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

**Inhalation** Move the exposed person to fresh air. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. If breathing stops, provide artificial respiration. Get medical attention.

**Ingestion** Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

**Skin Contact** Wash skin thoroughly with soap and water. Take off contaminated clothing and wash it before reuse. If symptoms develop, obtain medical attention

**Eye contact** Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

**Inhalation** May cause respiratory irritation.

**Ingestion** May cause irritation.

**Skin contact** Causes skin irritation. May cause an allergic skin reaction.

**Eye contact** 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

**Suitable extinguishing media** Water spray, foam, dry powder or carbon dioxide.

#### 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

**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 discharge into drains.

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

**Methods for cleaning up** Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely.

## Permabond TA452A

**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. Use only in well-ventilated areas. Keep container tightly sealed when not in use. Wash hands thoroughly after handling.

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

**Storage precautions** Store in closed original container at temperatures between 44°F and 77°F. Never return unused material to storage receptacle.

#### Specific end uses(s)

**Usage description** Adhesive. Sealant.

### 8. Exposure controls/Personal protection

#### Exposure controls

**Appropriate engineering controls** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Observe any occupational exposure limits for the product or ingredients.

**Eye/face protection** Use safety goggles and face shield in case of splash risk.

**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.

**Respiratory protection** No specific recommendations. 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

<b>Odor</b>	Acrylic
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not relevant.
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	Not applicable.
<b>Flash point</b>	>93°C (199.94°F)
<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>Solubility(ies)</b>	Slightly soluble in water. Miscible with the following materials: acetone

## Permabond TA452A

<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.
<b>Oxidizing properties</b>	Not available.
<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.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
<b>Possibility of hazardous reactions</b>	There are no known reactivity hazards associated with this product. Polymerization may occur at elevated temperature or in the presence of incompatible materials
<b>Conditions to avoid</b>	Avoid the absence of air, and metal contamination.
<b>Materials to avoid</b>	Metals and their salts. Free radical initiators. Strong alkalis. Strong reducing 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

<b>Toxicological effects</b>	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.
<b><u>Skin corrosion/irritation</u></b>	
<b>Skin corrosion/irritation</b>	Based on available data the classification criteria are not met.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Causes serious eye irritation.
<b><u>Respiratory sensitization</u></b>	
<b>Respiratory sensitization</b>	Based on available data the classification criteria are not met.
<b><u>Skin sensitization</u></b>	
<b>Skin sensitization</b>	May cause sensitisation by skin contact.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
<b>Genotoxicity - in vivo</b>	Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	No component of this product present at levels great than or equal to 0.1% is identified as a known carcinogen.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.

## Permabond TA452A

### 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** May cause damage to organs through prolonged or repeated exposure.

### 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.

**Eye contact** Irritating to eyes.

**Acute and chronic health hazards** This product may cause skin and eye irritation.

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

### Toxicological information on ingredients.

#### HYDROXYPROPYL METHACRYLATE

##### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 2,000.1

**Species** Rat

##### Acute toxicity - dermal

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

**Species** Rabbit

##### Acute toxicity - inhalation

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

##### Skin corrosion/irritation

**Animal data** Not irritating.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Moderately irritating.

##### Respiratory sensitization

**Respiratory sensitization** There is no evidence that the material can lead to respiratory hypersensitivity.

##### Skin sensitization

**Skin sensitization** Epidemiological studies have shown evidence of skin sensitization.

##### Germ cell mutagenicity

**Genotoxicity - in vitro** Gene mutation: Negative.

**Genotoxicity - in vivo** Chromosome aberration: Negative.

##### Carcinogenicity

## PermaBond TA452A

<b>Carcinogenicity</b>	No evidence of carcinogenicity in animal studies.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Screening - NOAEL 300 mg/kg/day, Oral, Rat P
<b>Reproductive toxicity - development</b>	Developmental toxicity: - NOAEL: 1000 mg/kg/day, Oral, Rat
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Not classified as a specific target organ toxicant after a single exposure.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Not classified as a specific target organ toxicant after repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	No information available.

### CUMENE HYDROPEROXIDE

<b><u>Acute toxicity - oral</u></b>	
<b>Acute toxicity oral (LD<sub>50</sub> mg/kg)</b>	328.0
<b>Species</b>	Rat
<b><u>Acute toxicity - dermal</u></b>	
<b>Acute toxicity dermal (LD<sub>50</sub> mg/kg)</b>	1,200.0
<b>Species</b>	Rat
<b><u>Acute toxicity - inhalation</u></b>	
<b>Acute toxicity inhalation (LC<sub>50</sub> dust/mist mg/l)</b>	1.37
<b>Species</b>	Rat
<b><u>Skin corrosion/irritation</u></b>	
<b>Animal data</b>	Highly irritating.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Irritating to eyes.
<b><u>Skin sensitization</u></b>	
<b>Skin sensitization</b>	Not sensitizing.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Positive.
<b>Genotoxicity - in vivo</b>	This substance has no evidence of mutagenic properties.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	CMR: No
<b><u>Reproductive toxicity</u></b>	

## PermaBond TA452A

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

**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

**Toxicity** No data available.

**Bioaccumulative potential**

**Partition coefficient** Not available.

### 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**

**UN No. (International)** Not applicable.

**UN No. (DOT)** Not applicable.

**UN proper shipping name**

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

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

**Transport hazard class(es)**

**Transport Labels (International)** No transport warning sign required.

**DOT transport labels**

No transport warning sign required.

**Packing group**

**Packing group (International)** Not applicable.

**DOT packing group** Not applicable.



## PermaBond TA452A

### Environmental hazards

#### Environmentally Hazardous Substance

No.

#### Special precautions for user

Not applicable.

DOT reportable quantity 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)

The following ingredients are listed:

*CUMENE HYDROPEROXIDE*

*CUMENE*

##### SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None above reporting limits

##### SARA 313 Emission Reporting

None above reporting limits

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

Acute  
Chronic

#### US State Regulations

##### California Proposition 65 Carcinogens and Reproductive Toxins

This product can expose you to chemicals including those listed below, which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

*CUMENE*

#### 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

## Permabond TA452A

<b>Classification abbreviations and acronyms</b>	Eye Irrit. = Eye irritation Skin Irrit. = Skin irritation Skin Sens. = Skin sensitisation STOT SE = Specific target organ toxicity-single exposure
<b>Revision date</b>	1/21/2022
<b>Revision</b>	2
<b>Supersedes date</b>	1/20/2022
<b>Hazard statements in full</b>	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. H373 May cause damage to organs through prolonged or repeated exposure.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.