



## SAFETY DATA SHEET

### Permabond TA435

#### 1. Identification

##### Product identifier

**Product name** Permabond TA435

##### 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 Dam. 1 - H318 Skin Sens. 1 - H317 STOT SE 3 - H335

##### Label elements

##### Pictogram



##### Signal word

Danger

##### Hazard statements

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.

## Permabond TA435

### Precautionary statements

P261 Avoid breathing vapor/ spray.  
 P264 Wash contaminated skin thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 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.  
 P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a poison center/ doctor.  
 P312 Call a poison center/ doctor 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.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P405 Store locked up.  
 Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

### Contains

3,3,5-TRIMETHYLCYCLOHEXYL METHACRYLATE, METHACRYLIC ACID, TERT-BUTYL HYDROPEROXIDE

### Other hazards

None under normal conditions.

### 3. Composition/information on ingredients

#### Mixtures

<b>3,3,5-TRIMETHYLCYCLOHEXYL METHACRYLATE</b> CAS number: 7779-31-9	60-100%
<b>Classification</b> Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 STOT SE 3 - H335	
<b>METHACRYLIC ACID</b> CAS number: 79-41-4	1-5%
<b>Classification</b> Acute Tox. 4 - H302 Acute Tox. 3 - H311 Acute Tox. 4 - H332 Skin Corr. 1A - H314 Eye Dam. 1 - H318 STOT SE 3 - H335	

## Permabond TA435

<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.	
<b>TERT-BUTYL HYDROPEROXIDE</b>	<b>&lt;1%</b>
CAS number: 75-91-2	
<b>Classification</b> Flam. Liq. 3 - H226 Org. Perox. C - H242 Acute Tox. 4 - H302 Acute Tox. 3 - H311 Acute Tox. 2 - H330 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Muta. 2 - H341 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. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. If breathing stops, provide artificial respiration. Get medical attention.
<b>Ingestion</b>	Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Skin Contact</b>	Wash skin thoroughly with soap and water. Take off contaminated clothing and wash it before reuse. Get medical attention.
<b>Eye contact</b>	Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention.

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

<b>Inhalation</b>	May cause respiratory irritation.
<b>Ingestion</b>	May cause irritation.

## Permabond TA435

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

**Eye contact** Causes serious eye damage.

### 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.

**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

### Control parameters

### Occupational exposure limits

#### METHACRYLIC ACID

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 70 mg/m<sup>3</sup>

ACGIH = American Conference of Governmental Industrial Hygienists.

### Exposure controls

## Permabond TA435

<b>Appropriate engineering controls</b>	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.
<b>Eye/face protection</b>	Use safety goggles and face shield in case of splash risk.
<b>Hand protection</b>	Nitrile rubber or Viton™ gloves are recommended. Cotton or other absorbent gloves should not be worn.
<b>Other skin and body protection</b>	Employee must wear appropriate protective clothing and equipment to prevent any possibility of skin contact with this substance.
<b>Hygiene measures</b>	Wash at the end of each work shift and before eating, smoking and using the toilet.
<b>Respiratory protection</b>	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>Appearance</b>	Liquid.
<b>Color</b>	Transparent. Amber.
<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>Relative density</b>	1.0
<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 available.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	≈87000 mPa s @ 23°C Thixotropic
<b>Oxidizing properties</b>	Not available.
<b>Other information</b>	Not relevant.
<b>Volatile organic compound</b>	<2 %, 20 grams/liter (Estimated)

## Permabond TA435

### 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.
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#### Skin corrosion/irritation

<b>Skin corrosion/irritation</b>	Irritating to skin.
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#### Serious eye damage/irritation

<b>Serious eye damage/irritation</b>	Risk of serious damage to eyes.
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#### Respiratory sensitization

<b>Respiratory sensitization</b>	Based on available data the classification criteria are not met.
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#### Skin sensitization

<b>Skin sensitization</b>	May cause sensitisation by skin contact.
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#### Germ cell mutagenicity

<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
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<b>Genotoxicity - in vivo</b>	Based on available data the classification criteria are not met.
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#### Carcinogenicity

<b>Carcinogenicity</b>	No component of this product present at levels great than or equal to 0.1% is identified as a known carcinogen.
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#### Reproductive toxicity

<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
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<b>Reproductive toxicity - development</b>	Based on available data the classification criteria are not met.
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#### Specific target organ toxicity - single exposure

<b>STOT - single exposure</b>	STOT SE 3 - H335 May cause respiratory irritation.
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#### Specific target organ toxicity - repeated exposure

<b>STOT - repeated exposure</b>	Based on available data the classification criteria are not met.
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#### Aspiration hazard

<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.
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## Permabond TA435

<b>Inhalation</b>	May cause respiratory system irritation.
<b>Ingestion</b>	No harmful effects expected from quantities likely to be ingested by accident.
<b>Skin Contact</b>	Causes skin irritation.
<b>Eye contact</b>	May cause serious eye damage.
<b>Acute and chronic health hazards</b>	May cause sensitisation by skin contact. Causes skin irritation Causes eye irritation. May cause respiratory system irritation.
<b>Route of exposure</b>	Skin and/or eye contact Inhalation
<b>Target Organs</b>	Skin Eyes Respiratory tract

### Toxicological information on ingredients.

#### METHACRYLIC ACID

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 1,320.0

Species Rat

ATE oral (mg/kg) 500.0

##### Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub> mg/kg) 1,000.0

Species Rabbit

ATE dermal (mg/kg) 1,000.0

##### Acute toxicity - inhalation

Acute toxicity inhalation (LC<sub>50</sub> vapours mg/l) 7.1

Species Rat

ATE inhalation (vapours mg/l) 11.0

##### Skin corrosion/irritation

Animal data Dose: Method: OECD 404, 3 minutes, Rabbit Corrosive.

##### Serious eye damage/irritation

Serious eye damage/irritation Method: OECD 405, Rabbit Corrosive.

##### Respiratory sensitization

Respiratory sensitization Guinea pig: Not sensitizing. Method: various test systems

##### Skin sensitization

Skin sensitization Guinea pig maximization test (GPMT) - Guinea pig: Not sensitizing.

##### Germ cell mutagenicity

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

## Permabond TA435

### Carcinogenicity

Carcinogenicity CMR: no

### Reproductive toxicity

Reproductive toxicity - fertility No evidence of reproductive toxicity in animal studies.

Reproductive toxicity - development Non-teratogenic, not embryotoxic

### Specific target organ toxicity - single exposure

Target organs Respiratory tract Irritating.

### Specific target organ toxicity - repeated exposure

Target organs No specific target organs known.

### Aspiration hazard

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

## 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



## Permabond TA435

<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>	
<b>Reproductive toxicity - fertility</b>	No specific test data are available.
<b>Reproductive toxicity - development</b>	Developmental toxicity: - NOAEL: $\geq 100$ mg/kg/day, Oral, Rat
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	No specific test data are available.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Toxic: danger of serious damage to health by prolonged exposure through inhalation.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	No specific test data are available.

### TERT-BUTYL HYDROPEROXIDE

<b><u>Acute toxicity - oral</u></b>	
<b>Acute toxicity oral (LD<sub>50</sub> mg/kg)</b>	560.0
<b>Species</b>	Rat
<b>ATE oral (mg/kg)</b>	560.0
<b><u>Acute toxicity - dermal</u></b>	
<b>Acute toxicity dermal (LD<sub>50</sub> mg/kg)</b>	440.0
<b>Species</b>	Rabbit
<b>ATE dermal (mg/kg)</b>	440.0
<b><u>Acute toxicity - inhalation</u></b>	
<b>Acute toxicity inhalation (LC<sub>50</sub> gases ppmV)</b>	1.85
<b>Species</b>	Rat
<b>ATE inhalation (gases ppm)</b>	100.0
<b><u>Skin corrosion/irritation</u></b>	
<b>Animal data</b>	Corrosive to skin.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Corrosive
<b><u>Skin sensitization</u></b>	

**Permabond TA435**

**Skin sensitization** Sensitizing.

**Reproductive toxicity**

**Reproductive toxicity - fertility** - NOAEL 21 mg/kg/day, Oral, Rat P

**Inhalation** Irritating to respiratory system.

**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**

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**

**Environmentally Hazardous Substance**  
No.

**Special precautions for user**

Not applicable.

**DOT reportable quantity** Not applicable.

## Permabond TA435

**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)**

None above reporting limits

##### **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 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

**Classification abbreviations and acronyms**

Eye Dam. = Serious eye damage
Skin Irrit. = Skin irritation
Skin Sens. = Skin sensitisation
STOT SE = Specific target organ toxicity-single exposure

**Revision date** 1/31/2018

**Revision** 2

**Supersedes date** 5/5/2015

## Permabond TA435

**Hazard statements in full**

H226 Flammable liquid and vapor.  
H242 Heating may cause a fire.  
H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
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.  
H330 Fatal if inhaled.  
H331 Toxic if inhaled.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H341 Suspected of causing genetic defects.  
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.