

Permabond[®]

Engineering Adhesives

SAFETY DATA SHEET Permabond TA437

1. Identification

Product identifier

Product name Permabond TA437

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

Emergency telephone number

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



chemical-concepts.com

800.220.1966

410 Pike Road • Huntingdon Valley, PA 19006

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

Label elements

Pictogram



Signal word

Danger

Hazard statements

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

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Precautionary statements	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.
	P310 Immediately call a poison center/ doctor.
	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.
	P362+P364 Take off contaminated clothing and wash it before reuse.
	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Contains 2-HYDROXYETHYL METHACRYLATE, N,N-m-PHENYLENEDIMALEIMIDE

Other hazards

This product contains N,N-(m-phenylene)dimalaideimide which, in powder form, is classified as very toxic by inhalation. When present in solution, as in this case, such exposure can be excluded under normal working conditions and so this product is not labelled as such. However, if during use, there is a possibility that an aerosol mist may be formed then appropriate measures must be taken to exclude exposure by inhalation.

3. Composition/information on ingredients

Mixtures

2-PHENOXYETHYL METHACRYLATE CAS number: 10595-06-9	10-30%
Classification Skin Irrit. 2 - H315 Eye Irrit. 2A - H319	
2-HYDROXYETHYL METHACRYLATE CAS number: 868-77-9	10-30%
Classification Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1 - H317	
N,N-m-PHENYLENEDIMALEIMIDE CAS number: 3006-93-7	10-30%
Classification Acute Tox. 2 - H330 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Not relevant.	

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CUMENE HYDROPEROXIDE	<1%
CAS number: 80-15-9	
Classification 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

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. Get medical attention.
Eye contact	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

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 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

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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 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

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

Appearance Viscous liquid.

Color Orange.

Odor Acrylic

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Odor threshold	Not available.
pH	Not relevant.
Melting point	Not available.
Initial boiling point and range	Not applicable.
Flash point	>93°C (199.94°F)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.1
Solubility(ies)	Slightly soluble in water. Miscible with the following materials: acetone
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	≈120000 mPa s @ 23°C Thixotropic
Oxidizing properties	Not available.
Other information	Not relevant.
Volatile organic compound	<2 %, 20 grams/liter (Estimated)

10. Stability and reactivity

Reactivity	The following materials may react with the product: Strong oxidizing agents.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	There are no known reactivity hazards associated with this product. Polymerization may occur at elevated temperature or in the presence of incompatible materials
Conditions to avoid	Avoid the absence of air, and metal contamination.
Materials to avoid	Metals and their salts. Free radical initiators. Strong alkalis. Strong reducing agents.
Hazardous decomposition products	Thermal decomposition could produce carbon monoxide, carbon dioxide, and unidentified organic compounds.

11. Toxicological information

Information on toxicological effects

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

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Skin corrosion/irritation	Irritating to skin.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Risk of serious damage to eyes.
<u>Respiratory sensitization</u>	
Respiratory sensitization	Based on available data the classification criteria are not met.
<u>Skin sensitization</u>	
Skin sensitization	May cause sensitisation by skin contact.
<u>Germ cell mutagenicity</u>	
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.
<u>Carcinogenicity</u>	
Carcinogenicity	No component of this product present at levels great than or equal to 0.1% is identified as a known carcinogen.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	
Aspiration hazard	Based on available data the classification criteria are not met.
Inhalation	Unlikely to be hazardous by inhalation because of the low vapor pressure of the product at ambient temperature. However, if during use, there is a possibility that an aerosol mist may be formed then appropriate measures must be taken to exclude exposure by inhalation.
Ingestion	No harmful effects expected from quantities likely to be ingested by accident.
Skin Contact	Causes skin irritation.
Eye contact	May cause serious eye damage.
Acute and chronic health hazards	May cause sensitisation by skin contact. Causes skin irritation Causes eye irritation.
Route of exposure	Skin and/or eye contact Inhalation
Target Organs	Skin Eyes Respiratory tract
<u>Toxicological information on ingredients.</u>	

2-HYDROXYETHYL METHACRYLATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0

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Species	Rat
ATE oral (mg/kg)	5,000.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	5,000.0
Species	Rabbit
ATE dermal (mg/kg)	5,000.0
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	No information available.
<u>Skin corrosion/irritation</u>	
Animal data	Erythema/eschar score: Very slight erythema - barely perceptible (1). Not irritating.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Moderately irritating.
<u>Respiratory sensitization</u>	
Respiratory sensitization	No information available.
<u>Skin sensitization</u>	
Skin sensitization	Guinea pig maximization test (GPMT) - Guinea pig: Sensitizing.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Conclusive data but not sufficient for classification.
Genotoxicity - in vivo	Chromosome aberration: Negative.
<u>Carcinogenicity</u>	
Carcinogenicity	No specific test data are available.
<u>Reproductive toxicity</u>	
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
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	No specific test data are available.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	No specific test data are available.
<u>Aspiration hazard</u>	
Aspiration hazard	Not applicable.
<u>N,N-m-PHENYLENEDIMALEIMIDE</u>	
<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	2,025.0

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Species	Rat
ATE oral (mg/kg)	2,025.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l)	0.055
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Species	Rat
ATE inhalation (dusts/mists mg/l)	0.055

CUMENE HYDROPEROXIDE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)	328.0
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Species	Rat
ATE oral (mg/kg)	328.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg)	1,200.0
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Species	Rat
ATE dermal (mg/kg)	1,200.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l)	1.37
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Species	Rat
ATE inhalation (dusts/mists mg/l)	0.5

Skin corrosion/irritation

Animal data	Highly irritating.
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Serious eye damage/irritation

Serious eye damage/irritation	Irritating to eyes.
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Skin sensitization

Skin sensitization	Not sensitizing.
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Germ cell mutagenicity

Genotoxicity - in vitro	Positive.
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Genotoxicity - in vivo	This substance has no evidence of mutagenic properties.
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Carcinogenicity

Carcinogenicity	CMR: No
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Reproductive toxicity

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Reproductive toxicity - fertility No specific test data are available.

Reproductive toxicity - development Developmental toxicity: - NOAEL: ≥ 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 The product is not expected to be hazardous to the environment.

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.

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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

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

None above reporting limits

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

Classification abbreviations and acronyms Eye Dam. = Serious eye damage
Skin Irrit. = Skin irritation
Skin Sens. = Skin sensitisation

Revision date 1/31/2018

Revision 2

Permabond TA437

Supersedes date 5/5/2015

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.
- H330 Fatal if inhaled.
- 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.