SAFETY DATA SHEET

Revision Date 08-Apr-2019

1. IDENTIFICATION

Product identifier
Product Name HIGH PERFORMANCE THREAD SEALANT 50ML

Other means of identification
Product Code 56521

Recommended use of the chemical and restrictions on use
Recommended Use Sealant
Uses advised against No information available

Details of the supplier of the safety data sheet
Manufacturer Address
ITW Permatex
6875 Parkland Blvd.
Solon, Ohio 44139 USA
Telephone: 1-87-Permatex
(866) 732-9502

May Also Be Distributed by:
ITW Permatex Canada
101-2360 Bristol Circle
Oakville, ON Canada L6H 6M5
Telephone: (800) 924-6994

May Also Be Distributed by:
Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
E-mail address: mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Skin corrosion/irritation</th>
<th>Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 2</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Label elements

Emergency Overview

Signal word Warning

Causes skin irritation
Causes serious eye irritation
Suspected of causing cancer
May cause damage to organs through prolonged or repeated exposure
Appearance: White
Physical state: Liquid
Odor: Mild

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>1 - 5</td>
</tr>
<tr>
<td>DIMETHYLBENZYL HYDROPEROXIDE</td>
<td>80-15-9</td>
<td>1 - 5</td>
</tr>
<tr>
<td>CUMENE</td>
<td>98-82-8</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of first aid measures

General advice
Get medical advice/attention if you feel unwell.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact
IF ON SKIN:. Wash skin with soap and water. If skin irritation persists, call a physician. Take off contaminated clothing and wash before reuse.

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

Ingestion
IF SWALLOWED:. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider
Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed
Symptoms
See section 2 for more information.

Indication of any immediate medical attention and special treatment needed
Note to physicians
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable extinguishing media
None

Specific hazards arising from the chemical
None in particular.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions

Environmental precautions
See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE
Precautions for safe handling

Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials
Strong oxidizing agents, Amines

8. EXPOSURE CONTROLS/PERSOAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 15 mg/m³ total dust</td>
<td>IDLH: 5000 mg/m³ total dust</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>(vacated) TWA: 10 mg/m³ total dust</td>
<td>TWA: 2.4 mg/m³ CIB 63 fine</td>
<td></td>
</tr>
<tr>
<td>CUMENE</td>
<td>TWA: 50 ppm</td>
<td>TWA: 245 mg/m³ total dust</td>
<td>TWA: 0.3 mg/m³ CIB 63 ultrafine,</td>
</tr>
<tr>
<td>98-82-8</td>
<td></td>
<td>(vacated) TWA: 50 ppm</td>
<td>including engineered nanoscale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 245 mg/m³ (vacated)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 50 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S*</td>
<td></td>
</tr>
</tbody>
</table>

NIOSH IDLH  Immediately Dangerous to Life or Health

Other Information
Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls
Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection
Tight sealing safety goggles.

Skin and body protection
Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection
Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Melting point / freezing point: No information available
Boiling point / boiling range: > 150 °C / > 302 °F
Flash point: > 95 °C / > 203 °F Tag Closed Cup
Evaporation rate: No information available
Flammability (solid, gas): No information available
Flammability Limit in Air:
  Upper flammability limit: No information available
  Lower flammability limit: No information available
Vapor pressure: No information available
Vapor density: >1 Air = 1
Relative density: 1.05-1.15
Water solubility: Insoluble
Solubility(ies): No information available
Partition coefficient: No information available
Autoignition temperature: No information available
Decomposition temperature: No information available
Kinematic viscosity: No information available
Dynamic viscosity: No information available
Explosive properties: No information available
Oxidizing properties: No information available
Other Information:
Softening point: No information available
Molecular weight: No information available
VOC Content (%): <3%
Density: No information available
Bulk density: No information available
SADT (self-accelerating decomposition temperature): No information available

10. STABILITY AND REACTIVITY

Reactivity:
No information available

Chemical stability:
Stable under normal conditions

Possibility of Hazardous Reactions:
None under normal processing.

Conditions to avoid:
Excessive heat.

Incompatible materials:
Strong oxidizing agents, Amines

Hazardous Decomposition Products:
Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Inhalation: May cause irritation of respiratory tract.
Eye contact: Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact: May cause skin irritation and/or dermatitis.
Ingestion: Ingestion may cause irritation to mucous membranes.
**Chemical Name** | **Oral LD50** | **Dermal LD50** | **Inhalation LC50**
---|---|---|---
TITANIUM DIOXIDE 13463-67-7 | > 10000 mg/kg (Rat) | - | -
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9 | = 382 mg/kg (Rat) | = 0.126 mL/kg (Rabbit) | = 220 ppm (Rat) 4 h
CUMENE 98-82-8 | = 1400 mg/kg (Rat) | = 12300 µL/kg (Rabbit) | > 3577 ppm (Rat) 6 h = 39000 mg/m³ (Rat) 4 h

**Information on toxicological effects**

**Symptoms**
No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization**
No information available.

**Germ cell mutagenicity**
No information available.

**Carcinogenicity**
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE 13463-67-7</td>
<td>-</td>
<td>Group 2B</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>CUMENE 98-82-8</td>
<td>-</td>
<td>Group 2B</td>
<td>Reasonably Anticipated</td>
<td>X</td>
</tr>
</tbody>
</table>

**NTP (National Toxicology Program)**
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**
X - Present

**Target Organ Effects**
Respiratory system.

The following values are calculated based on chapter 3.1 of the GHS document.

- ATEmix (oral) 20874 mg/kg
- ATEmix (dermal) 60109 mg/kg
- ATEmix (inhalation-dust/mist) 27.4 mg/l

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**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**
0.383 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**
No information available.

**Bioaccumulation**
No information available.

**Mobility**
No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUMENE 98-82-8</td>
<td>3.7</td>
</tr>
</tbody>
</table>

**Other adverse effects**
No information available

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**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**
Disposal should be in accordance with applicable regional, national and local laws and
This product contains one or more substances that are listed with the State of California as a hazardous waste.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMETHYLBENZYL HYDROPEROXIDE 80-15-9</td>
<td>Toxic  Ignitable</td>
</tr>
<tr>
<td>CUMENE 98-82-8</td>
<td>Toxic  Ignitable</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
Proper shipping name: Not regulated

IATA
Proper shipping name: Not regulated

IMDG
Proper shipping name: Not regulated

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Not determined</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>IECSC</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Not determined</td>
</tr>
<tr>
<td>AICS</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMETHYLBENZYL HYDROPEROXIDE - 80-15-9</td>
<td>1.0</td>
</tr>
<tr>
<td>SACCHARIN - 81-07-2</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

Acute health hazard: Yes
HIGH PERFORMANCE THREAD SEALANT
50ML

Chronic Health Hazard: No
Fire hazard: No
Sudden release of pressure hazard: No
Reactive Hazard: No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMETHYLBENZYL HYDROPEROXIDE 80-15-9</td>
<td>10 lb</td>
<td>-</td>
<td>RQ 10 lb final RQ RQ 4.54 kg final RQ</td>
</tr>
<tr>
<td>CUMENE 98-82-8</td>
<td>5000 lb</td>
<td>-</td>
<td>RQ 5000 lb final RQ RQ 2270 kg final RQ</td>
</tr>
</tbody>
</table>

US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE - 13463-67-7</td>
<td>*Carcinogen (airborne, unbound particles of respirable size)</td>
</tr>
<tr>
<td>CUMENE - 98-82-8</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

* The asterisked chemical(s) listed are not subject to Proposition 65 because they are not airborne in the finished product

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE 13463-67-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>DIMETHYLBENZYL HYDROPEROXIDE 80-15-9</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>SACCHARIN 81-07-2</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>PROPYLENE GLYCOL 57-55-6</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>CUMENE 98-82-8</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information

EPA Pesticide Registration Number: Not applicable

WHMIS Hazard Class
D2B - Toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td></td>
<td>0</td>
<td>B</td>
</tr>
</tbody>
</table>

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date: 08-Apr-2019

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

End of Safety Data Sheet