1. IDENTIFICATION

Product identifier
Product Name
ANAEROBIC FLANGE SEALANT  50ML

Other means of identification
Product Code
51531
Synonyms
None

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
10 Columbus Blvd.
Hartford, CT 06106 USA
ITW Permatex Canada
35 Brownridge Road, Unit 1
Halton Hills, ON Canada  L7G 0C6

Distributor
ITW Permatex Canada

Company Phone Number
1-877-Permatex
(877) 376-2839
24 Hour Emergency Phone Number
Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

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>Acute toxicity - Oral</th>
<th>Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/iritation</td>
<td>Category 1  Sub-category B</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Category 1</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Label elements

Emergency Overview

Danger
Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes severe skin burns and eye damage
May cause an allergic skin reaction
May cause damage to organs through prolonged or repeated exposure

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician
Specific treatment (see supplemental first aid instructions on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
Call a POISON CENTER or doctor/physician if you feel unwell
Wash contaminated clothing before reuse
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Do NOT induce vomiting

Precautionary Statements - Storage
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
Very toxic to aquatic life with long lasting effects.
Unknown acute toxicity
85.617 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>substance(s)</th>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></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. Immediately call a POISON CENTER or doctor/physician.

Skin contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing 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. Avoid contact with skin, eyes or clothing.

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. Do not flush into surface water or sanitary sewer system.

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
Store locked up.

Incompatible materials
Strong oxidizing agents, Amines, Reactive metals

8. EXPOSURE CONTROLS/PERSONAL 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>ACRYLIC ACID 79-10-7</td>
<td>TWA: 2 ppm S*</td>
<td>(vacated) TWA: 10 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 30 mg/m3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 2 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 6 mg/m³</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
Wear safety glasses with side shields (or goggles).

Skin and body protection
Wear protective gloves and protective clothing.

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

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>&gt; 149 °C / &gt; 300 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 93 °C / &gt; 200 °F</td>
<td>Tag Closed Cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>&lt;5 mmHg @ 25°C</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Negligible</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Other Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Softening point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>&lt;2%</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Excessive heat.

Incompatible materials
Strong oxidizing agents, Amines, Reactive metals
Hazardous Decomposition Products
Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation     Harmful by inhalation.
Eye contact    Risk of serious damage to eyes.
Skin contact   Contact causes severe skin irritation and possible burns.
Ingestion      Harmful if swallowed.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRYLIC ACID 79-10-7</td>
<td>193 mg/kg (Rat)</td>
<td>280 µL/kg (Rabbit)</td>
<td>11.1 mg/L (Rat) 1 h = 3.6 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>2-HYDROXYETHYL METHACRYLATE 868-77-9</td>
<td>5050 mg/kg (Rat)</td>
<td>&gt; 3000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>DIMETHYLBENZYL HYDROPEROXIDE 80-15-9</td>
<td>382 mg/kg (Rat)</td>
<td>0.126 mL/kg (Rabbit)</td>
<td>220 ppm (Rat) 4 h</td>
</tr>
</tbody>
</table>

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>ACRYLIC ACID 79-10-7</td>
<td>-</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen

Target Organ Effects     Eyes, Respiratory system, Skin.

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

ATEmix (oral) 786 mg/kg
ATEmix (dermal) 1674 mg/kg
ATEmix (inhalation-dust/mist) 1.6 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

85.808% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRYLIC ACID 79-10-7</td>
<td>0.17: 96 h Pseudokirchneriella subcapitata mg/L EC50 0.04: 72 h Desmodesmus subspicatus mg/L EC50</td>
<td>222: 96 h Brachydanio rerio mg/L LC50 semi-static</td>
<td>95: 48 h Daphnia magna mg/L EC50 270: 24 h Daphnia magna mg/L LC50 Static</td>
</tr>
<tr>
<td>2-HYDROXYETHYL METHACRYLATE 868-77-9</td>
<td>-</td>
<td>213 - 242: 96 h Pimephales promelas mg/L LC50 flow-through 227: 96 h Pimephales promelas mg/L LC50</td>
<td>-</td>
</tr>
<tr>
<td>DIMETHYLBENZYL HYDROPEROXIDE 80-15-9</td>
<td>-</td>
<td>3.9: 96 h Oncorhyncus mykiss mg/L LC50 static</td>
<td>7: 24 h Daphnia magna mg/L EC50</td>
</tr>
</tbody>
</table>
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>ACRYLIC ACID 79-10-7</td>
<td>0.38 - 0.46</td>
</tr>
<tr>
<td>2-HYDROXYETHYL METHACRYLATE 868-77-9</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Do not reuse container.

US EPA Waste Number
Not applicable

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>RCRA</th>
<th>RCRA - Basis for Listing</th>
<th>RCRA - D Series Wastes</th>
<th>RCRA - U Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRYLIC ACID 79-10-7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>U008</td>
</tr>
<tr>
<td>DIMETHYLBENZYL HYDROPEROXIDE 80-15-9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>U096</td>
</tr>
</tbody>
</table>

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>
</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
TSCA: Complies
DSL/NDSL: Complies
EINECS/ELINCS: Not Listed.
ENCS: Complies
IECSC  Complies  
KECL  Complies  
PICCS  Complies  
AICS  Complies  

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>ACRYLIC ACID - 79-10-7</td>
<td>1.0</td>
</tr>
<tr>
<td>DIMETHYLBENZYL HYDROPEROXIDE - 80-15-9</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories  

- Acute health hazard  
- Chronic Health Hazard  
- Fire hazard  
- Sudden release of pressure hazard  
- Reactive Hazard

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>ACRYLIC ACID - 79-10-7</td>
<td>5000 lb</td>
<td>-</td>
<td>RQ 5000 lb final RQ RQ 2270 kg final RQ</td>
</tr>
<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>
</tbody>
</table>

US State Regulations  

California Proposition 65  
This product does not contain any Proposition 65 chemicals

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>ACRYLIC ACID - 79-10-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>DIMETHYLBENZYL HYDROPEROXIDE - 80-15-9</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>SACCHARIN - 81-07-2</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>PROPYLENE GLYCOL - 57-55-6</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information
EPA Pesticide Registration Number  Not applicable

NFPA  Health hazards  2  Flammability  1  Instability  0  -
HMIS  Health hazards  2  Flammability  1  Physical hazards  0  Personal protection  B

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

Revision Date  08-Jun-2015

Disclaimer
The information provided in this Material 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