1. IDENTIFICATION

Product identifier
Product Name  PC AVIATION FORM-A-GASKET #3 SEALANT  118 ML

Other means of identification
Product Code  58931
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
6875 Parkland Blvd.
Solon, OH  44139  USA
May Also Be Distributed by:
ITW Permatex Canada
35 Brownridge Road, Unit 1
Halton Hills, ON Canada  L7G 0C6
Telephone: (800) 924-6994

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>Hazard Category</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin sensitization</td>
<td>Category 1</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 2</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Label elements

Emergency Overview

Danger

May cause an allergic skin reaction
Suspected of causing cancer
Highly flammable liquid and vapor
Appearance Brown Physical state Liquid Odor Alcohol

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
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
Specific treatment (see supplemental first aid instructions on this label)
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
Wash contaminated clothing before reuse
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep cool

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

Hazards not otherwise classified (HNOC)
Not applicable

Other Information
- Not applicable

Unknown acute toxicity 18.78955 % 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>ROSIN</td>
<td>8050-09-7</td>
<td>10 - 30</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>MAGNESIUM SILICATE</td>
<td>14807-96-6</td>
<td>10 - 30</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>ETHANOL</td>
<td>64-17-5</td>
<td>10 - 30</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>2-PROPANOL</td>
<td>67-63-0</td>
<td>1 - 5</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>METHANOL</td>
<td>67-56-1</td>
<td>0.1 - 1</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>METHYL ISOBUTYL KETONE</td>
<td>108-10-1</td>
<td>0.1 - 1</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. If eye irritation persists: Get medical advice/attention.

Skin contact
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: 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
Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

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
Highly flammable. Vapors may travel to source of ignition and flash back.

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
Remove all sources of ignition. Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions

Environmental precautions
Do not flush into surface water or sanitary sewer system. 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 Eliminate all ignition sources if safe to do so. 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 in a well-ventilated place. Keep cool.

Incompatible materials Strong oxidizing agents

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></td>
<td></td>
<td><em>(vacated) TWA: 0.1 mg/m³</em></td>
<td><em>(vacated) TWA: 0.1 mg/m³</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Formaldehyde)</em></td>
<td><em>(Formaldehyde)</em></td>
</tr>
<tr>
<td>MAGNESIUM SILICATE</td>
<td>TWA: 2 mg/m³ particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction</td>
<td>*(vacated) TWA: 2 mg/m³ respirable dust containing no Asbestos TWA: 20mppcf if 1% Quartz or more, use Quartz limit</td>
<td>*(vacated) TWA: 2 mg/m³ respirable dust containing no Asbestos and &lt;1% Quartz respirable dust</td>
</tr>
<tr>
<td>14807-96-6</td>
<td></td>
<td><em>(vacated) TWA: 1000 ppm TWA: 1900 mg/m³</em></td>
<td><em>(vacated) TWA: 1000 ppm TWA: 1900 mg/m³</em></td>
</tr>
<tr>
<td>ETHANOL</td>
<td>STEL: 1000 ppm</td>
<td><em>(vacated) TWA: 1000 ppm TWA: 1900 mg/m³</em></td>
<td><em>(vacated) TWA: 1000 ppm TWA: 1900 mg/m³</em></td>
</tr>
<tr>
<td>64-17-5</td>
<td></td>
<td><em>(vacated) STEL: 500 ppm TWA: 1225 mg/m³</em></td>
<td><em>(vacated) STEL: 500 ppm TWA: 1225 mg/m³</em></td>
</tr>
<tr>
<td>2-PROPANOL</td>
<td>STEL: 400 ppm TWA: 200 ppm</td>
<td><em>(vacated) TWA: 400 ppm TWA: 980 mg/m³</em></td>
<td><em>(vacated) TWA: 400 ppm TWA: 980 mg/m³</em></td>
</tr>
<tr>
<td>67-63-0</td>
<td></td>
<td><em>(vacated) STEL: 250 ppm TWA: 1225 mg/m³</em></td>
<td><em>(vacated) STEL: 250 ppm TWA: 1225 mg/m³</em></td>
</tr>
<tr>
<td>METHANOL</td>
<td>STEL: 250 ppm TWA: 200 ppm S*</td>
<td><em>(vacated) TWA: 200 ppm TWA: 260 mg/m³</em></td>
<td><em>(vacated) TWA: 200 ppm TWA: 260 mg/m³</em></td>
</tr>
<tr>
<td>67-56-1</td>
<td></td>
<td><em>(vacated) STEL: 325 mg/m³ TWA: 325 mg/m³</em></td>
<td><em>(vacated) STEL: 325 mg/m³ TWA: 325 mg/m³</em></td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>STEL: 75 ppm TWA: 20 ppm</td>
<td><em>(vacated) TWA: 100 ppm TWA: 410 mg/m³</em></td>
<td><em>(vacated) TWA: 100 ppm TWA: 410 mg/m³</em></td>
</tr>
<tr>
<td>108-10-1</td>
<td></td>
<td><em>(vacated) TWA: 50 ppm TWA: 205 mg/m³</em></td>
<td><em>(vacated) TWA: 50 ppm TWA: 205 mg/m³</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(vacated) STEL: 75 ppm TWA: 300 mg/m³</em></td>
<td><em>(vacated) STEL: 75 ppm TWA: 300 mg/m³</em></td>
</tr>
<tr>
<td>NIOSH IDLH Immediately Dangerous to Life or Health</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 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

Information on basic physical and chemical properties

Physical state: Liquid
Appearance: Brown
Odor: Alcohol
Odor threshold: No information available

Property | Values | Remarks • Method
---|---|---
pH | No information available |  
Melting point / freezing point | No information available |  
Boiling point / boiling range | 82 °C / 180 °F |  
Flash point | 16 °C / 61 °F |  
Evaporation rate | 7.7 | Ether = 1
Flammability (solid, gas) | No information available |  
Flammability Limit in Air
  - Upper flammability limit: 12.0%
  - Lower flammability limit: 2.0%
Vapor pressure | 33 mm Hg |  
Vapor density | 2.07 | Air = 1
Relative density | 1.090-1.114 |  
Water solubility | Partially soluble |  
Solubility in other solvents | 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 (%) | 19.4% |  
Density | No information available |  
Bulk density | No information available |  

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**
Heat, flames and sparks.

**Incompatible materials**
Strong oxidizing agents

**Hazardous Decomposition Products**
Carbon oxides
Aldehydes
Carboxylic acids

### 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. May cause sensitization by skin contact.

**Ingestion**
Ingestion may cause irritation to mucous membranes.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROSIN 8050-09-7</td>
<td>7600 mg/kg (Rat) = 3000 mg/kg (Rat)</td>
<td>&gt; 2500 mg/kg (Rabbit)</td>
<td>= 1.5 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>ETHANOL 64-17-5</td>
<td>7000 mg/kg (Rat)</td>
<td>-</td>
<td>= 124.7 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>2-PROPANOL 67-63-0</td>
<td>5050 mg/kg</td>
<td>12800 mg/kg</td>
<td>= 72600 mg/m³ (Rat) 4 h</td>
</tr>
<tr>
<td>METHANOL 67-56-1</td>
<td>6200 mg/kg (Rat)</td>
<td>= 15800 mg/kg (Rabbit)</td>
<td>= 22500 ppm (Rat) 8 h = 64000 ppm (Rat) 4 h</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE 108-10-1</td>
<td>2080 mg/kg (Rat)</td>
<td>= 3000 mg/kg (Rabbit)</td>
<td>= 8.2 mg/L (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>MAGNESIUM SILICATE 14807-96-6</td>
<td>-</td>
<td>Group 3</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>ETHANOL 64-17-5</td>
<td>A3</td>
<td>-</td>
<td>Known</td>
<td>X</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE 108-10-1</td>
<td>A3</td>
<td>Group 2B</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

**ACGIH (American Conference of Governmental Industrial Hygienists)**
A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**
Group 1 - Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
Not classifiable as a human carcinogen

NTP (National Toxicology Program)
Known - Known Carcinogen

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

Chronic toxicity
May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

Target Organ Effects
Blood, Central nervous system, Central Vascular System (CVS), Eyes, Liver, Reproductive System, Respiratory system, Skin, Thyroid.

The following values are calculated based on chapter 3.1 of the GHS document:
- ATEmix (oral) 7070 mg/kg
- ATEmix (dermal) 6546 mg/kg
- ATEmix (inhalation-dust/mist) 46.4 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity
0.98305 % of the mixture consists of components(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>ETHANOL 64-17-5</td>
<td>-0.32</td>
</tr>
<tr>
<td>2-PROPANOL 67-56-1</td>
<td>0.05</td>
</tr>
<tr>
<td>METHANOL 67-50-1</td>
<td>-0.77</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE 108-10-1</td>
<td>1.19</td>
</tr>
</tbody>
</table>

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated packaging
Do not reuse container.

US EPA Waste Number
D001

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>ETHANOL</td>
<td>Toxic</td>
</tr>
</tbody>
</table>
14. TRANSPORT INFORMATION

DOT
UN/ID no 1866
Proper shipping name: (Epoxy resin), solution, Limited Quantity (LQ)
Hazard Class 3
Packing Group II
Emergency Response Guide Number 127

IATA
UN/ID no ID 8000
Proper shipping name: Consumer commodity
Hazard Class 9
ERG Code 9L

IMDG
UN/ID no 1866
Proper shipping name: (Epoxy resin), solution, Limited Quantity (LQ)
Hazard Class 3
Packing Group II
EmS-No F-E, S-E

15. REGULATORY INFORMATION

International Inventories
TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS Not determined
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

Chemical Name SARA 313 - Threshold Values %
2-PROPANOL - 67-63-0 1.0

SARA 311/312 Hazard Categories
Acute health hazard: Yes
Chronic Health Hazard: Yes
Fire hazard: Yes
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>METHANOL 67-56-1</td>
<td>5000 lb</td>
<td>-</td>
<td>RQ 5000 lb final RQ</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE 108-10-1</td>
<td>5000 lb</td>
<td>-</td>
<td>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>ETHANOL - 64-17-5</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>METHANOL - 67-56-1</td>
<td>Developmental</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE - 108-10-1</td>
<td>Carcinogen</td>
</tr>
<tr>
<td></td>
<td>Developmental</td>
</tr>
</tbody>
</table>

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>MAGNESIUM SILICATE 14807-96-6</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ETHANOL 64-17-5</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>WATER 7732-18-5</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>2-PROPANOL 67-63-0</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>METHANOL 67-56-1</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE 108-10-1</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information

WHMIS Hazard Class
B2 - Flammable liquid, D2B - Toxic materials

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

NFPA Health hazards 2 Flammability 3 Instability 0 -
HMIS Health hazards 2 Flammability 3 Physical hazards 0 Personal protection B

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

Revision Date 17-Mar-2017

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