SAFETY DATA SHEET

Revision Date 03-Oct-2018

Version 10

1. IDENTIFICATION

Product identifier
Product Name 2BR FORM A GASKET #2 SEALANT 3OZ

Other means of identification
Product Code 80016

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
101-2360 Bristol Circle
Oakville, ON Canada L6H 6M5
Telephone: (800) 924-6994

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)

Skin sensitization Category 1
Carcinogenicity Category 2

Label elements

Emergency Overview

Signal word
Warning

May cause an allergic skin reaction
Suspected of causing cancer
80016 - 2BR FORM A GASKET #2 SEALANT 3OZ

Revision Date 03-Oct-2018

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

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

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
- Not applicable

Unknown acute toxicity 16.79 % of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance(s)</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUMARATED RESIN</td>
<td>65997-04-8</td>
<td>10 - 30</td>
</tr>
<tr>
<td>ETHANOL</td>
<td>64-17-5</td>
<td>5 - 10</td>
</tr>
<tr>
<td>2-PROPANOL</td>
<td>67-63-0</td>
<td>1 - 5</td>
</tr>
<tr>
<td>METHANOL</td>
<td>67-56-1</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE</td>
<td>108-10-1</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

### 4. 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 or rash occurs: Get medical advice/attention. 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

May cause allergic skin reaction.

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

Store in a well-ventilated place. Keep cool.
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>ETHANOL 64-17-5</td>
<td>STEL: 1000 ppm</td>
<td>TWA: 1000 ppm</td>
<td>IDLH: 3300 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 1900 mg/m³ (vacated) TWA: 1900 ppm</td>
<td>TWA: 1900 mg/m³</td>
</tr>
<tr>
<td>2-PROPANOL 67-63-0</td>
<td>STEL: 400 ppm</td>
<td>TWA: 200 ppm</td>
<td>IDLH: 2000 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 200 ppm</td>
<td>TWA: 400 ppm (vacated) TWA: 400 ppm</td>
<td>TWA: 980 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 260 mg/m³ (vacated) TWA: 260 mg/m³</td>
<td>STEL: 250 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) STEL: 325 mg/m³ (vacated) STEL: 325 mg/m³</td>
<td>STEL: 325 mg/m³</td>
</tr>
<tr>
<td>METHANOL 67-56-1</td>
<td>STEL: 250 ppm</td>
<td>TWA: 200 ppm</td>
<td>IDLH: 6000 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 200 ppm</td>
<td>TWA: 260 mg/m³ (vacated) TWA: 200 ppm</td>
<td>TWA: 200 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 260 mg/m³ (vacated) TWA: 260 mg/m³</td>
<td>STEL: 250 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) STEL: 325 mg/m³ (vacated) STEL: 325 mg/m³</td>
<td>STEL: 325 mg/m³</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE 108-10-1</td>
<td>STEL: 75 ppm</td>
<td>TWA: 100 ppm</td>
<td>IDLH: 500 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 20 ppm</td>
<td>TWA: 410 mg/m³ (vacated) TWA: 50 ppm</td>
<td>TWA: 50 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 205 mg/m³ (vacated) TWA: 205 mg/m³</td>
<td>STEL: 75 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) STEL: 75 ppm (vacated) STEL: 75 ppm</td>
<td>STEL: 300 mg/m³</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 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 Paste
Appearance Black
Odor Alcohol
Odor threshold No information available
80016 - 2BR FORM A GASKET #2 SEALANT 3OZ  
Revision Date 03-Oct-2018

<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>82 °C / 180 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>Does not apply</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>7.7</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>33 mm Hg @ 68°F</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Partially soluble</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>Softening point</td>
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<td></td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>11%</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
Stable under normal conditions

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

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. Repeated or prolonged skin contact may cause
allergic reactions with susceptible persons.

**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>ETHANOL 64-17-5</td>
<td>= 7060 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>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)**

A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans

**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, Eyes, Liver, Reproductive System, Respiratory system, Skin, Thyroid, Lungs.

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

- ATEmix (oral) 9865 mg/kg
- ATEmix (dermal) 48276 mg/kg
- ATEmix (inhalation-dust/mist) 85.1 mg/l

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**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

18.075% 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.
### 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

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 64-17-5</td>
<td>Toxic Ignitable</td>
</tr>
<tr>
<td>2-PROPANOL 67-63-0</td>
<td>Toxic Ignitable</td>
</tr>
<tr>
<td>METHANOL 67-56-1</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>Complies</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>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Not determined</td>
</tr>
<tr>
<td>IECS</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</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
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>2-PROPANOL - 67-63-0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

- Acute health hazard: Yes
- 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 RGs</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 Developmental</td>
</tr>
<tr>
<td>CRYSTALLINE SILICA - 14808-60-7</td>
<td>*Carcinogen</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE - 13463-67-7</td>
<td>*Carcinogen (airborne, unbound particles of respirable size)</td>
</tr>
<tr>
<td>METHANOL - 67-56-1</td>
<td>Developmental</td>
</tr>
<tr>
<td>CARBON BLACK - 1333-86-4</td>
<td>*Carcinogen (airborne, unbound particles of respirable size)</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE - 108-10-1</td>
<td>Carcinogen Developmental</td>
</tr>
</tbody>
</table>

* The asterisked chemical(s) listed are not subject to Proposition 65 because they are not airborne in the finished product
* Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage
* Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage

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>KAOLIN 1332-58-7</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>METHANOL - 67-63-0</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>CRYSTALLINE SILICA - 14808-60-7</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>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>D2B</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>B</td>
</tr>
</tbody>
</table>

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

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