



SAFETY DATA SHEET

Revision Date 27-Apr-2020

Version 6

1. IDENTIFICATION

Product identifier

Product Name 3D AVIATION FORM-A-GASKET #3 SEALANT 1PT

Other means of identification

Product Code 80017

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

24-hour emergency phone number

Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

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)

| | |
|-------------------|-------------|
| Carcinogenicity | Category 1A |
| Flammable liquids | Category 2 |

Label elements

Emergency Overview

Signal word

Danger

May cause 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
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ ventilating/ lighting/ equipment
Use non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
In case of fire: Use CO2, dry chemical, or foam to extinguish.

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

May be harmful if swallowed. Toxic to aquatic life with long lasting effects.

Unknown acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

| Chemical Name | CAS No | Weight-% |
|------------------------|------------|----------|
| MAGNESIUM SILICATE | 14807-96-6 | 10 - 30 |
| ETHANOL | 64-17-5 | 10 - 30 |
| 2-PROPANOL | 67-63-0 | 1 - 5 |
| METHYL ISOBUTYL KETONE | 108-10-1 | 0.1 - 1 |

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 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

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

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 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 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. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Incompatible materials Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|------------------------------------|--|---|--|
| MAGNESIUM SILICATE 14807-96-6 | TWA: 2 mg/m ³ particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter | (vacated) TWA: 2 mg/m ³ respirable dust <1% Crystalline silica, containing no Asbestos TWA: 20 mppcf if 1% Quartz or more;use Quartz limit | IDLH: 1000 mg/m ³ TWA: 2 mg/m ³ containing no Asbestos and <1% Quartz respirable dust |
| ETHANOL 64-17-5 | STEL: 1000 ppm | TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³ | IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³ |
| 2-PROPANOL 67-63-0 | STEL: 400 ppm TWA: 200 ppm | TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³ | IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³ |
| METHYL ISOBUTYL KETONE 108-10-1 | STEL: 75 ppm TWA: 20 ppm | TWA: 100 ppm TWA: 410 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 205 mg/m ³ (vacated) STEL: 75 ppm (vacated) STEL: 300 mg/m ³ | IDLH: 500 ppm TWA: 50 ppm TWA: 205 mg/m ³ STEL: 75 ppm STEL: 300 mg/m ³ |

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

9.1. Information on basic physical and chemical properties

| | |
|-----------------------|--------------------------|
| Physical state | Liquid |
| Appearance | Brown |
| Odor | Alcohol |
| Odor threshold | No information available |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|--------------------------------|--------------------------|-------------------------|
| 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(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 (%) | 19.4216 |
| 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

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.

Component Information

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------------------------|----------------------|-------------------------|---------------------------------------|
| ETHANOL 64-17-5 | = 7060 mg/kg (Rat) | - | = 124.7 mg/L (Rat) 4 h |
| 2-PROPANOL 67-63-0 | 5050 mg/kg | 12800 mg/kg | = 72600 mg/m ³ (Rat) 4 h |
| METHYL ISOBUTYL KETONE 108-10-1 | = 2080 mg/kg (Rat) | = 3000 mg/kg (Rabbit) | 2000 - 4000 ppm (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.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|---------------------------------------|-------|----------|-------|------|
| MAGNESIUM SILICATE 14807-96-6 | - | Group 3 | - | X |
| ETHANOL 64-17-5 | A3 | Group 1 | Known | X |
| METHYL ISOBUTYL KETONE 108-10-1 | A3 | Group 2B | - | X |

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. Contains a known or suspected reproductive toxin.

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) 3552 mg/kg
ATEmix (dermal) 26660 mg/kg
ATEmix (inhalation-dust/mist) 47 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

0.00025 % 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.

| Chemical Name | Partition coefficient |
|------------------------------------|-----------------------|
| ETHANOL 64-17-5 | -0.32 |
| 2-PROPANOL 67-63-0 | 0.05 |
| METHYL ISOBUTYL KETONE 108-10-1 | 1.19 |

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, U154 U161

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste Status |
|-----------------------|-----------------------------------|
| ETHANOL 64-17-5 | Toxic Ignitable |
| 2-PROPANOL 67-63-0 | Toxic Ignitable |

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 Not determined

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 |
| METHYL ISOBUTYL KETONE - 108-10-1 | 0.1 |

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)

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---------------|--------------------------|----------------|--------------------------|
|---------------|--------------------------|----------------|--------------------------|

| | | | |
|------------------------------------|---------|---|--|
| METHYL ISOBUTYL KETONE 108-10-1 | 5000 lb | - | RQ 5000 lb final RQ RQ 2270 kg final RQ |
|------------------------------------|---------|---|--|

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical Name | California Proposition 65 |
|------------------------------------|-----------------------------|
| ETHANOL 64-17-5 | Carcinogen Developmental |
| METHANOL 67-56-1 | Developmental |
| METHYL ISOBUTYL KETONE 108-10-1 | Carcinogen Developmental |

- 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

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|------------------------------------|------------|---------------|--------------|
| MAGNESIUM SILICATE 14807-96-6 | X | X | X |
| ETHANOL 64-17-5 | X | X | X |
| WATER 7732-18-5 | - | - | X |
| 2-PROPANOL 67-63-0 | X | X | X |
| METHANOL 67-56-1 | X | X | X |
| METHYL ISOBUTYL KETONE 108-10-1 | X | X | X |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

B2 - Flammable liquid, D2B - Toxic materials, D2A - Very 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 27-Apr-2020

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End of Safety Data Sheet