S Permatex

SAFETY DATA SHEET

Revision Date 26-Jan-2015 Version 1

1. IDENTIFICATION

Product identifier

Product Name 3H AVIATION FORM-A-GASKET #3 SEALANT .25PT

Other means of identification

Product Code 80019 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

<u>Manufacturer Address</u> <u>Distributor</u>

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

Telephone: (800) 924-6994

Company Phone Number 1-87-Permatex

(877) 376-2839

24 Hour Emergency Phone Number Chem-Tel: 800-255-3924

International Emergency: 00+1+ 813-248-0585

Contract Number: MIS0003453

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

| Acute toxicity - Oral | Category 3 |
|-----------------------|-------------|
| Skin sensitization | Category 1 |
| Carcinogenicity | Category 1A |
| Flammable liquids | Category 2 |

Label elements

Emergency Overview

Danger

Toxic if swallowed

May cause an allergic skin reaction

May cause cancer

Highly flammable liquid and vapor



Appearance Dark brown

Physical state Liquid

Odor Alcohol

Precautionary Statements - Prevention

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Avoid breathing dust/fume/gas/mist/vapors/spray

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

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 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 skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Rinse mouth

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

Harmful to aquatic life with long lasting effects

Unknown acute toxicity

54.89515% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

| Chemical Name | CAS No | Weight-% | Trade Secret |
|---------------|------------|----------|--------------|
| VEGETABLE OIL | 68187-84-8 | 15 - 40 | * |
| ROSIN | 8050-09-7 | 10 - 30 | * |
| TALC | 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 | * |

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

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

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

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.

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 precautionsDo 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 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 |
|------------------------|---|--|------------------------------|
| ROSIN | - | (vacated) TWA: 0.1 mg/m ³ | TWA: 0.1 mg/m³ Formaldehyde |
| 8050-09-7 | | Formaldehyde | |
| TALC | TWA: 2 mg/m³ particulate matter | (vacated) TWA: 2 mg/m³ respirable | IDLH: 1000 mg/m ³ |
| 14807-96-6 | containing no asbestos and <1% | dust <1% Crystalline silica, | TWA: 2 mg/m³ containing no |
| | crystalline silica, respirable fraction | containing no Asbestos | Asbestos and <1% Quartz |
| | | TWA: 20 mppcf if 1% Quartz or | respirable dust |
| | | more, use Quartz limit | |
| ETHANOL | STEL: 1000 ppm | TWA: 1000 ppm | IDLH: 3300 ppm |
| 64-17-5 | | TWA: 1900 mg/m ³ | TWA: 1000 ppm |
| | | (vacated) TWA: 1000 ppm | TWA: 1900 mg/m ³ |
| | | (vacated) TWA: 1900 mg/m ³ | |
| 2-PROPANOL | STEL: 400 ppm | TWA: 400 ppm | IDLH: 2000 ppm |
| 67-63-0 | TWA: 200 ppm | TWA: 980 mg/m ³ | TWA: 400 ppm |
| | | (vacated) TWA: 400 ppm | TWA: 980 mg/m ³ |
| | | (vacated) TWA: 980 mg/m ³ | STEL: 500 ppm |
| | | (vacated) STEL: 500 ppm | STEL: 1225 mg/m ³ |
| | | (vacated) STEL: 1225 mg/m ³ | |
| METHYL ISOBUTYL KETONE | STEL: 75 ppm | TWA: 100 ppm | IDLH: 500 ppm |
| 108-10-1 | TWA: 20 ppm | TWA: 410 mg/m ³ | TWA: 50 ppm |
| | | (vacated) TWA: 50 ppm | TWA: 205 mg/m ³ |
| | | (vacated) TWA: 205 mg/m³ | STEL: 75 ppm |
| | | (vacated) STEL: 75 ppm | STEL: 300 mg/m ³ |
| | | (vacated) 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).

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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 protectionUse 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 stateLiquidAppearanceDark brownOdorAlcohol

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%
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 No information available **Autoignition temperature** No information available **Decomposition temperature** No information available Kinematic viscosity **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
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 Toxic if swallowed.

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------------------------|--|-------------------------|------------------------|
| ROSIN 8050-09-7 | = 3 mg/kg (Rat) = 7600 mg/kg (Rat) | > 2500 mg/kg(Rabbit) | = 1.5 mg/L (Rat)4 h |
| ETHANOL 64-17-5 | = 7060 mg/kg (Rat) | - | = 124.7 mg/L (Rat) 4 h |
| 2-PROPANOL 67-63-0 | = 1870 mg/kg (Rat) | = 4059 mg/kg (Rabbit) | = 72600 mg/m³(Rat)4 h |
| METHYL ISOBUTYL KETONE 108-10-1 | = 2080 mg/kg (Rat) | = 3000 mg/kg (Rabbit) | = 8.2 mg/L (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

SensitizationNo information available.Germ cell mutagenicityNo information available.

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

| Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a careinogen. | | | |
|---------------------------------------|--|----------|-------|------|
| Chemical Name | ACGIH | IARC | NTP | OSHA |
| TALC 14807-96-6 | - | Group 3 | - | - |
| ETHANOL 64-17-5 | A3 | Group 1 | Known | X |
| 2-PROPANOL 67-63-0 | - | Group 1 | • | X |
| METHYL ISOBUTYL KETONE 108-10-1 | A3 | Group 2B | - | X |

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

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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.

Numerical measures of toxicity - Product Information

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

ATEmix (oral) 6 mg/kg ATEmix (dermal) 3537 mg/kg ATEmix (inhalation-dust/mist) 23.6 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

37.08865% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|------------------------------------|--|---|--|
| ROSIN 8050-09-7 | 400: 72 h Desmodesmus subspicatus mg/L EC50 | - | 3.8 - 5.4: 48 h Daphnia magna mg/L EC50 |
| TALC 14807-96-6 | - | 100: 96 h Brachydanio rerio g/L LC50 semi-static | - |
| ETHANOL 64-17-5 | - | 12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through | 9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static 10800: 24 h Daphnia magna mg/L EC50 |
| 2-PROPANOL 67-63-0 | 1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50 | 11130: 96 h Pimephales promelas mg/L LC50 static 9640: 96 h Pimephales promelas mg/L LC50 flow-through 1400000: 96 h Lepomis macrochirus µg/L LC50 | 13299: 48 h Daphnia magna mg/L EC50 |
| METHYL ISOBUTYL KETONE 108-10-1 | 400: 96 h Pseudokirchneriella subcapitata mg/L EC50 | 496 - 514: 96 h Pimephales promelas mg/L LC50 flow-through | 170: 48 h Daphnia magna mg/L EC50 |

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

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

Other adverse effects

No information available

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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

| Chemical Name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|-----------------|------|---------------------------|------------------------|------------------------|
| METHYL ISOBUTYL | - | Included in waste stream: | - | U161 |
| KETONE | | F039 | | |
| 108-10-1 | | | | |

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 | Toxic |
| 64-17-5 | Ignitable |
| 2-PROPANOL | Toxic |
| 67-63-0 | Ignitable |

14. TRANSPORT INFORMATION

DOT

UN/ID no 1866

Proper shipping name: Resin, solution, Limited Quantity (LQ)

Hazard Class 3
Packing Group II
Emergency Response Guide 127

Number

<u>IATA</u>

UN/ID no ID 8000

Proper shipping name: Consumer commodity

Hazard Class 9 ERG Code 9L

<u>IMDG</u>

UN/ID no 1866

Proper shipping name: 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 Does not comply
IECSC Complies
KECL Complies

KECLCompliesPICCSCompliesAICSComplies

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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)

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|------------------------|--------------------------|----------------|--------------------------|
| METHYL ISOBUTYL KETONE | 5000 lb | - | RQ 5000 lb final RQ |
| 108-10-1 | | | 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 | |

U.S. State Right-to-Know Regulations

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

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U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

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 26-Jan-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