



SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: PERMATEX® Aviation FORM-A-GASKET® #3 Sealant - 16 fl. oz. bottle

Product Code: 80017

Stock No.: 80017

Manufacturer Name: Permatex, Inc.

Address: 10 Columbus Blvd.
Hartford, CT 06106
USA

General Phone Number: 1-87-Permatex, (877) 376-2839

Emergency Phone Number: 800-255-3924

CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300

Canutec: In Canada, call CANUTEC: (613) 996-6666 (call collect)

MSDS Creation Date: September 25, 2010

MSDS Revision Date: September 28, 2010

MSDS Format: According to ANSI Z400.1-2004

HMIS	
Health Hazard	2
Fire Hazard	3
Reactivity	1
Personal Protection	X

* **Chronic Health Effects**

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Isopropanol	67-63-0	1 - 10 by weight
Rosin	8050-09-7	20 - 30 by weight
Vegetable oil	68187-84-8	30 - 40 by weight
Ethanol	64-17-5	10 - 20 by weight
Talc, Magnesium silicate hydrate	14807-96-6	10 - 20 by weight
Methanol	67-56-1	0.1 - 1.0 by weight

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview: CAUTION! Flammable. Irritant.

Route of Exposure: Eyes. Skin. Inhalation. Ingestion.

Potential Health Effects:

Eye: Can cause moderate irritation, burning sensation, tearing, redness, and swelling.

Skin: May cause irritation. Prolonged or repeated contact can result in defatting and drying of the skin, which may result in skin irritation and dermatitis (rash).

Inhalation:	May cause irritation.
Ingestion:	Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.
Signs/Symptoms:	Overexposure can cause headaches, dizziness, nausea, and vomiting.
Target Organs:	Eyes. Skin. Respiratory system. Digestive system. Central nervous system.
Aggravation of Pre-Existing Conditions:	Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

SECTION 4 - FIRST AID MEASURES

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
Skin Contact:	Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion:	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point:	60°F (15.5°C)
Flash Point Method:	Tag Closed Cup
Auto Ignition Temperature:	Not determined.
Lower Flammable/Explosive Limit:	2.3%
Upper Flammable/Explosive Limit:	12.7%
Fire Fighting Instructions:	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.
Extinguishing Media:	Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.
Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Unusual Fire Hazards:	Closed containers may rupture or explode when exposed to extreme heat.
Hazardous Combustion Byproducts:	Oxides of carbon, Fluoride compounds

NFPA Ratings:

NFPA Health:

NFPA Flammability:

NFPA Reactivity:

NFPA Other:

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways.
Spill Cleanup Measures:	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue. Flammable, eliminate ignition sources. Vapors can form an ignitable mixture with air. . Vapors can flow along surfaces to distant ignition sources and flash back. Ventilate area. Use proper personal protective equipment as listed in section 8.
Methods for containment:	Eliminate all sources of ignition. Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Residues may be cleaned up with isopropyl alcohol..
Methods for cleanup:	Eliminate all sources of ignition. Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Residues may be cleaned up with isopropyl alcohol..
Other Precautions:	Pump or shovel to storage/salvage vessels.

SECTION 7 - HANDLING and STORAGE

Handling:	Use with adequate ventilation. Avoid breathing vapor, aerosol or mist. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not reuse containers without proper cleaning or reconditioning.
Storage:	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.
Special Handling Procedures:	Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product. Hazardous liquid or vapor residue may remain in emptied container. Do not reuse, heat, burn, pressurize, cut, weld, braze, solder, drill, grind, expose to sparks, flame, or ignition sources of empty containers without proper commercial cleaning or reconditioning.
Hygiene Practices:	Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
Eye/Face Protection:	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

Skin Protection Description:	Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.
Respiratory Protection:	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

EXPOSURE GUIDELINES

Isopropanol :

Guideline ACGIH:	200 ppm TLV-STEL: 400 ppm TLV-TWA: 200 ppm
Guideline OSHA:	400 ppm PEL-TWA: 400 ppm

Rosin :

Guideline ACGIH:	Sensitizer.: Sen
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Ethanol:

Guideline ACGIH:	1000 ppm TLV-TWA: 1000 ppm
Guideline OSHA:	1000 ppm PEL-TWA: 1000 ppm

Talc, Magnesium silicate hydrate :

Guideline ACGIH:	2 mg/m ³ TLV-TWA: 1 mg/m ³ Respirable fraction (R) TLV-TWA: 2 mg/m ³ Respirable fraction (R)
Guideline OSHA:	20 mppcf PEL-TWA: 20 mppcf

Methanol:

Guideline ACGIH:	200 ppm Skin: yes TLV-STEL: 250 ppm TLV-TWA: 200 ppm
Guideline OSHA:	200 ppm PEL-TWA: 200 ppm

Notes : Only established PEL and TLV values for the ingredients are listed.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	Liquid.
Color:	Brown to black
Odor:	Alcohol-like
Boiling Point:	180 °F
Melting Point:	Not determined.
Specific Gravity:	1.12
Solubility:	slightly soluble.
Vapor Density:	2.07 (Air=1)
Vapor Pressure:	33 mm Hg @68 °F
Evaporation Rate:	7.7 (ether = 1)

pH:	Not determined.
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Flash Point:	60°F (15.5°C)
Flash Point Method:	Tag Closed Cup
Auto Ignition Temperature:	Not determined.
VOC Content:	22.2% by weight

SECTION 10 - STABILITY and REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Not reported.
Conditions to Avoid:	Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Heating resin above 300 F in the presence of air may cause slow oxidative decomposition.
Incompatible Materials:	Oxidizing agents. Strong acids and alkalis.

SECTION 11 - TOXICOLOGICAL INFORMATION

Isopropanol:

RTECS Number:	NT8050000
Eye:	Eye - Rabbit Standard Draize test.: 100 mg Eye - Rabbit Standard Draize test.: 10 mg Eye - Rabbit Standard Draize test.: 100 mg/24H
Skin:	Administration onto the skin - Rabbit : 12800 mg/kg [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rabbit : 500 mg
Inhalation:	Inhalation - Rat LC50: 16000 ppm/8H [Details of toxic effects not reported other than lethal dose value] Inhalation - Mouse LC50: 53000 mg/m3 [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes] Inhalation - Rat LC50: 72600 mg/m3 [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes]
Ingestion:	Oral - Rat LD50: 5045 mg/kg [Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity)] Oral - Mouse LD50: 3600 mg/kg [Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity)] Oral - Mouse LD50: 3600 mg/kg [Behavioral - General anesthetic] Oral - Rat LD50: 5000 mg/kg [Behavioral - General anesthetic]
Carcinogenicity:	IARC 3

Rosin:

RTECS Number:	VL0480000
Skin:	Administration onto the skin - Mouse : 66.68 mg/kg/20W (Intermittent) [Tumorigenic - Protects against induction of experimental tumors]
Inhalation:	Inhalation - Rat LC50: 110 mg/m3 [Behavioral - Somnolence (general depressed activity) Cardiac - Pulse rate Lungs, Thorax, or Respiration -

Respiratory depression] (RTECS)

Ingestion: Oral - Rat LD50: 3.0 mg/kg [Brain and Coverings - Other degenerative changes Liver - Other changes Biochemical - Metabolism (intermediary) - Other]
 Oral - Mouse LD50: 2.2 mg/kg [Behavioral - Somnolence (general depressed activity) Cardiac - Pulse rate Lungs, Thorax, or Respiration - Respiratory depression] (RTECS)

Ethanol:

RTECS Number: KQ6300000

Eye: Eye - Rabbit Standard Draize test.: 500 mg
 Eye - Rabbit Standard Draize test.: 500 mg/24H
 Eye - Rabbit Rinsed with water.: 100 mg/4S

Skin: Administration onto the skin - Rabbit : 20000 mg/kg [Details of toxic effects not reported other than lethal dose value]
 Administration onto the skin - Rabbit : 400 mg
 Administration onto the skin - Rabbit : 20 mg/24H

Inhalation: Inhalation - Rat LC50: 20000 ppm/10H [Details of toxic effects not reported other than lethal dose value]
 Inhalation - Mouse LC50: 39 gm/m³/4H [Details of toxic effects not reported other than lethal dose value]

Ingestion: Oral - Mouse LD50: 3450 mg/kg [Details of toxic effects not reported other than lethal dose value]
 Oral - Rat LD50: 7 gm/kg [Details of toxic effects not reported other than lethal dose value]
 Oral - Rat LD50: 7060 mg/kg [Lungs, Thorax, or Respiration - Other changes]

Talc, Magnesium silicate hydrate:

RTECS Number: WW2710000

Skin: Administration onto the skin - Human : 300 ug/3D (Intermittent)

Methanol:

RTECS Number: PC1400000

Eye: Eye - Rabbit Standard Draize test.: 40 mg
 Eye - Rabbit Standard Draize test.: 100 mg/24H

Skin: Administration onto the skin - : 393 mg/kg [Details of toxic effects not reported other than lethal dose value]
 Administration onto the skin - Rabbit : 15800 mg/kg [Details of toxic effects not reported other than lethal dose value]
 Administration onto the skin - : 2 mL/kg/4D (Intermittent) [Related to Chronic Data - death]
 Administration onto the skin - Rabbit : 20 mg/24H

Inhalation: Inhalation - Rat LC50: 64000 ppm/4H [Details of toxic effects not reported other than lethal dose value]

Ingestion: Oral - Rat LD50: 5600 mg/kg [Details of toxic effects not reported other than lethal dose value]
 Oral - Mouse LD50: 7300 mg/kg [Details of toxic effects not reported other than lethal dose value]

Carcinogenicity: Not listed in IARC, NTP, or OSHA

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No ecotoxicity data was found for the product.

Environmental Fate: No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name: Consumer Commodity (Not more than five liters)

DOT UN Number: 1133

DOT Hazard Class: 3

DOT Packing Group: II

DOT Exemption: ORM-D Small quantity exemption

IATA Shipping Name: Consumer Commodity (Not more than 1 liter)

IATA UN Number: ID 8000

IATA Hazard Class: Class 3

SECTION 15 - REGULATORY INFORMATION

Isopropanol :

TSCA Inventory Status: Listed

SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.

New Jersey: Listed: NJ Hazardous List; Substance Number: 1076

Massachusetts: Listed

Pennsylvania: Listed

Canada DSL: Listed

Rosin :

TSCA Inventory Status: Listed

Canada DSL: Listed

Vegetable oil :

TSCA Inventory Status: Listed

Canada DSL: Listed

Ethanol :

TSCA Inventory Status: Listed

Massachusetts: Listed: Massachusetts Oil and Hazardous List

Pennsylvania: Listed

Canada DSL: Listed

Talc, Magnesium silicate hydrate :

TSCA Inventory Status: Listed

Massachusetts:	Listed
Pennsylvania:	Listed
Canada DSL:	Listed
Methanol:	
TSCA Inventory Status:	Listed
SARA:	EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
New Jersey:	Listed: NJ Hazardous List; Substance Number: 1222
Massachusetts:	Listed: Massachusetts Oil and Hazardous List
Pennsylvania:	Listed
Canada DSL:	Listed
Canadian Regulations:	WHMIS Hazard Class(es): D2B; B2 All components of this product are on the Canadian Domestic Substances List.

SECTION 16 - ADDITIONAL INFORMATION

HMIS Health Hazard:	2
HMIS Fire Hazard:	3
HMIS Reactivity:	1
HMIS Personal Protection:	X
MSDS Creation Date:	September 25, 2010
MSDS Revision Date:	September 28, 2010
MSDS Author:	Actio Corporation
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