



SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: Permatex® Anaerobic Flange Sealant – 300 ml
Product Code: 51580
Stock No.: 51580
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: December 27, 2008
MSDS Revision Date: September 28, 2010
MSDS Format: According to ANSI Z400.1-2004

HMIS	
Health Hazard	2
Fire Hazard	1
Reactivity	0
Personal Protection	

* **Chronic Health Effects**

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Polyurethane methacrylate resin	Mixture	50 - 60 by weight
Polyethylene glycol dimethacrylate	25852-47-5	10 - 30 by weight
Acrylic acid	79-10-7	<5 by weight
Amorphous silicon dioxide	67762-90-7	<10 by weight
Cumene hydroperoxide	80-15-9	<3 by weight
Methacrylate	868-77-9	<5 by weight

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview: CAUTION! Harmful. Irritant.

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

Potential Health Effects:

Eye: Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury.

Skin: Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling. May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.

Inhalation:	Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects.
Ingestion:	Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.
Chronic Health Effects:	Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.
Signs/Symptoms:	Overexposure can cause headaches, dizziness, nausea, and vomiting.
Target Organs:	Eyes. Skin. Respiratory system. Digestive 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:	>200 °F (>93.3°C)
Flash Point Method:	Tag closed cup (TCC)
Auto Ignition Temperature:	Not determined.
Lower Flammable/Explosive Limit:	Not determined.
Upper Flammable/Explosive Limit:	Not determined.
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 (CO ₂) 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:	None known.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
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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. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue. Avoid personal contact and breathing vapors or mists. Ventilate area. Use proper personal protective equipment as listed in section 8.
Methods for containment:	Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.
Methods for cleanup:	Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.
Other Precautions:	Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.

SECTION 7 - HANDLING and STORAGE

Handling:	Use with adequate ventilation. Avoid breathing vapor, aerosol or mist.
Storage:	Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use. Store below 100 °F
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.
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

[Acrylic acid:](#)

Guideline ACGIH:	2 ppm
	Skin: yes
	TLV-TWA: 2 ppm

Notes :

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

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	Gel
Color:	Purple
Odor:	Sharp Irritating
Boiling Point:	>150°F (74.4°C)
Melting Point:	Not determined.
Specific Gravity:	1.1 @ 80 °F
Solubility:	slight
Vapor Density:	Heavier than air.
Vapor Pressure:	<5 mmHg @68°F
Evaporation Rate:	Not determined.
Evaporation Point:	Not determined.
pH:	Not determined.
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Flash Point:	>200 °F (>93.3°C)
Flash Point Method:	Tag closed cup (TCC)
Auto Ignition Temperature:	Not determined.
VOC Content:	Not determined.

SECTION 10 - STABILITY and REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Polymerization may occur under certain conditions.
Conditions to Avoid:	Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing conditions. Material can soften paint and rubber.
Incompatible Materials:	Oxidizing agents (eg peroxides, nitrates), reducing agents, acids, bases, azo-compounds, catalytic metals (eg copper, iron), halogens. Free radical initiators. Oxygen scavengers.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acrylic acid :

RTECS Number:	AS4375000
Eye:	Eye - Rabbit Standard Draize test.: 1 mg Eye - Rabbit Standard Draize test.: 250 ug/24H
Skin:	Administration onto the skin - Rabbit : 280 uL/kg [Details of toxic effects

not reported other than lethal dose value]
 Administration onto the skin - Rabbit : 640 mg/kg [Cardiac - Cardiomegaly Lungs, Thorax, or Respiration - Acute pulmonary edema Skin and Appendages - Corrosive (After topical exposure)]
 Administration onto the skin - Guinea pig : 5 pph/12W (Intermittent) [Skin and Appendages - Cutaneous sensitization, experimental (After topical exposure)]
 Administration onto the skin - Rabbit : 500 mg
 Administration onto the skin - Rabbit : 5 mg/24H
 Administration onto the skin - Mouse : 37440 mg/kg/78W (Intermittent) [Tumorigenic - carcinogenic by RTECS criteria Blood - Leukemia]
 Administration onto the skin - Mouse : 37440 mg/kg/78W (Intermittent) [Tumorigenic - equivocal Tumorigenic agent by RTECS criteria Skin and Appendages - Tumors]

Inhalation: Inhalation - Mouse LC50: 5300 mg/m³/2H [Details of toxic effects not reported other than lethal dose value]

Ingestion: Oral - Rat LD50: 33500 ug/kg [Details of toxic effects not reported other than lethal dose value]
 Oral - Mouse LD50: 2400 mg/kg [Tumorigenic - Active as anti-cancer agent]

Amorphous silicon dioxide :

RTECS Number: VW3234375

Cumene hydroperoxide :

RTECS Number: MX2450000

Eye: Eye - Rabbit Standard Draize test.: 1 mg
 Eye - Rabbit Standard Draize test.: 70%

Skin: Administration onto the skin - Rat : 500 mg/kg [Behavioral - Convulsions or effect on seizure threshold Kidney/Ureter/Bladder - Hematuria]
 Administration onto the skin - Rabbit : 1200 mg/kg [Cardiac - Pulse rate increase, without fall in BP Blood - changes in erythrocyte (RBC) count Nutritional and Gross Metabolic - Body temperature decrease]
 Administration onto the skin - Mouse : 490 mg/kg [Details of toxic effects not reported other than lethal dose value]
 Administration onto the skin - Mouse : 1200 mg/kg [Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - Catalases Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - Other oxidoreductases Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - Other transferases]
 Administration onto the skin - Rat : 250 mg/kg [Vascular - Structural changes in vessels Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]
 Administration onto the skin - Mouse : 300 mg/kg [Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]
 Administration onto the skin - Mouse : 2012 mg/kg/2W (Intermittent) [Skin and Appendages - Tumors Biochemical - Metabolism (Intermediary) - Other proteins]
 Administration onto the skin - Mouse : 20.1 gm/kg/20W (Intermittent) [Skin and Appendages - Tumors Tumorigenic - Facilitates action of known carcinogen Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]
 Administration onto the skin - Mouse : 30442 ug/kg/4W (Intermittent) [Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]
 Administration onto the skin - Mouse : 100 mg/kg
 Administration onto the skin - Rabbit : 500 mg
 Administration onto the skin - Rabbit : 500 mg
 Administration onto the skin - Mouse : 18000 ug/kg/18W (Intermittent) [Tumorigenic - carcinogenic by RTECS criteria Skin and Appendages - Tumors Tumorigenic - Facilitates action of known carcinogen]

Inhalation: Inhalation - Rat LC50: 220 ppm/4H [Lungs, Thorax, or Respiration - Dyspnea]
 Inhalation - Mouse LC50: 200 ppm/4H [Lungs, Thorax, or Respiration - Dyspnea]

Ingestion: Oral - Rat LD50: 382 mg/kg [Kidney/Ureter/Bladder - Hematuria]
 Oral - Mouse LD50: 342 mg/kg [Details of toxic effects not reported other than lethal dose value]

Oral - Rat LD50: 800 mg/kg [Details of toxic effects not reported other than lethal dose value]

[Methacrylate:](#)

RTECS Number: OZ4725000

Ingestion: Oral - Rat LD50: 5050 mg/kg [Behavioral - Coma]
Oral - Mouse LD50: 3275 mg/kg [Behavioral - Coma]

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.

RCRA Number: Not determined.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name: Non regulated.

DOT UN Number: Not applicable.

DOT Hazard Class: Not applicable.

DOT Packing Group: Not applicable.

IATA Shipping Name: Non regulated.

IATA UN Number: Not applicable.

IATA Hazard Class: Not applicable.

SECTION 15 - REGULATORY INFORMATION

Section 313: The following component(s) is listed as a SARA Section 313 Toxic Chemical. SARA 313 Information ACRYLIC ACID, DIMETHYLBENZYL HYDROPEROXIDE

[Polyethylene glycol dimethacrylate:](#)

TSCA Inventory Status: Listed

Canada DSL: Listed

[Acrylic acid:](#)

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: 0023

Massachusetts:	Listed: Massachusetts Oil and Hazardous List
Pennsylvania:	Listed
Canada DSL:	Listed
<u>Amorphous silicon dioxide :</u>	
TSCA Inventory Status:	Listed
Canada DSL:	Listed
<u>Cumene hydroperoxide :</u>	
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: 0543
Massachusetts:	Listed: Massachusetts Oil and Hazardous List
Pennsylvania:	Listed
Canada DSL:	Listed
<u>Methacrylate :</u>	
TSCA Inventory Status:	Listed
Canada DSL:	Listed
Canadian Regulations:	WHMIS Hazard Class(es): D2B All components of this product are on the Canadian Domestic Substances List.

SECTION 16 - ADDITIONAL INFORMATION

HMIS Health Hazard:	2
HMIS Fire Hazard:	1
HMIS Reactivity:	0
MSDS Creation Date:	December 27, 2008
MSDS Revision Date:	September 28, 2010
MSDS Author:	Actio Corporation
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