



SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: PERMATEX® #101 ULTRA COPPER® Maximum Temperature Gasket Maker - 3 oz. tube, carded
Product Code: 81878
Stock No.: 81878
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 28, 2010
MSDS Revision Date: September 28, 2010
MSDS Format: According to ANSI Z400.1-2004

HMIS	
Health Hazard	1
Fire Hazard	1
Reactivity	0
Personal Protection	X

* Chronic Health Effects

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Iron oxide	1309-37-1	< 3 by weight
Ethyl methyl ketoxime	96-29-7	0.5 - 2.0 by weight
2-Butanone, O,O',O''-(ethenylsilylidyne)trioxime	2224-33-1	< 7 by weight
Mica	12001-26-2	< 3 by weight
Silane, dichlorodimethyl-, reaction products with silica	68611-44-9	< 10 by weight
Dimethyl siloxane, hydroxy-terminated	70131-67-8	50 - 70 by weight
Polydimethylsiloxane	63148-62-9	20 - 40 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.
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.
Hazardous Combustion Byproducts:	Oxides of carbon, Oxides of nitrogen, Methyl ethyl ketone, possibly methyl ethyl ketoxime, Silica fume, Formaldehyde

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. 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.
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.
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. Do not store in reactive metal containers. Keep away from acids, oxidizers.
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

Iron oxide :

Guideline ACGIH:	5 mg/m ³ TLV-TWA: 5 mg/m ³ Respirable fraction (R)
Guideline OSHA:	10 mg/m ³ PEL-TWA: 10 mg/m ³

Mica :

Guideline ACGIH:	3 mg/m ³
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	TLV-TWA: 3 mg/m ³ Respirable fraction (R)
Guideline OSHA:	3 mg/m ³
	TLV-TWA: 3 mg/m ³ Respirable fraction (R)
Notes :	Only established PEL and TLV values for the ingredients are listed.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	Paste.
Color:	Copper
Odor:	Mild chemical.
Boiling Point:	Not determined.
Melting Point:	Not determined.
Specific Gravity:	1.05
Solubility:	Polymerized
Vapor Density:	Not determined.
Vapor Pressure:	< 5 mmHg
Evaporation Rate:	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:	<4%
Percent Solids by Weight	Not determined.

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. Protect against moisture.
Incompatible Materials:	Oxidizing agents. Strong acids and alkalis.
Special Decomposition Products:	When heated to temperatures above 300 degrees F. in the presence of air, this product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard and a known skin and respiratory sensitizer. Safe handling conditions may be maintained by keeping vapor concentrations below the OSHA permissible limit for formaldehyde

SECTION 11 - TOXICOLOGICAL INFORMATION

Iron oxide:

RTECS Number: NO7400000

Ethyl methyl ketoxime :

RTECS Number: EL9275000

Eye: Eye - Rabbit Standard Draize test.: 100 uL

Skin: Administration onto the skin - Rat LD: >2 gm/kg [Details of toxic effects not reported other than lethal dose value]
Administration onto the skin - Rabbit LD50: 200 uL/kg [Details of toxic effects not reported other than lethal dose value]

Ingestion: Oral - Rat LD50: 930 mg/kg [Details of toxic effects not reported other than lethal dose value]
Oral - Mouse LD50: 1 gm/kg [Details of toxic effects not reported other than lethal dose value]

Mica :

RTECS Number: VV8760000

Dimethyl siloxane, hydroxy-terminated :

RTECS Number: VW3168750

Skin: Administration onto the skin - Rabbit LD50 : >16 mL/kg [Kidney, Ureter, Bladder - Other changes Nutritional and Gross Metabolic - Other changes]

Inhalation: Inhalation - Rat LC50 : >8750 mg/m³/7H [Lungs, Thorax, or Respiration - Other changes]

Ingestion: Oral - Rat LD50 : >15400 mg/kg [Sense Organs and Special Senses (Eye) - Ptosis Behavioral - Somnolence (general depressed activity) Kidney, Ureter, Bladder - Urine volume increased]

Polydimethylsiloxane :

RTECS Number: JT6485000

Eye: Eye - Rabbit Standard Draize test.: 100 uL/24H [mild]

Skin: Administration onto the skin - Rabbit LD : >10200 mg/kg [Details of toxic effects not reported other than lethal dose value]
Administration onto the skin - Rabbit Standard Draize test.: 500 uL/24H [mild]

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: Non regulated.

SECTION 15 - REGULATORY INFORMATION

Iron oxide :

TSCA Inventory Status: Listed

Massachusetts: Listed

Pennsylvania: Listed

Canada DSL: Listed

Ethyl methyl ketoxime :

TSCA Inventory Status: Listed

Canada DSL: Listed

2-Butanone, O,O',O''-(ethenylsilylidyne)trioxime :

TSCA Inventory Status: Listed

Canada DSL: Listed

Mica :

Massachusetts: Listed

Pennsylvania: Listed

Canada DSL: Listed

Silane, dichlorodimethyl-, reaction products with silica :

TSCA Inventory Status: Listed

Canada DSL: Listed

Dimethyl siloxane, hydroxy-terminated :

TSCA Inventory Status: Listed

Canada DSL: Listed

Polydimethylsiloxane :

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: 1

HMIS Fire Hazard: 1

HMIS Reactivity: 0

HMIS Personal Protection: X

MSDS Creation Date: September 28, 2010

MSDS Revision Date: September 28, 2010

MSDS Author: Actio Corporation

Disclaimer: This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment.

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