

DATE PREPARED: 8-10-92

PRODUCT NAME: **PERMA PATCH**
 DESCRIPTION: For chemicals, coatings and related materials in compliance with OSHA 29 CFR 1910.1200

MANUFACTURER

NAME: PIONEER RESEARCH CORP.
 3443 N. Central Avenue, Suite 1200
 Phoenix, AZ 85012

EMERGENCY TELEPHONE: 1-800-255-3924

SECTION I. PRODUCT

NUMBER: RE-0197	H M I S Hazard Codes	
NAME: Resin 197	Health:	2 Moderate
CLASS: Epoxy Resin	Flammability:	1 Slight
	Reactivity:	0 Minimal
	Personal Protective Equipment:	H

SECTION II. HAZARDOUS INGREDIENTS

Ingredient Material Description	Percent by weight	C.A.S. Registry No.	LEL	Vapor Pressure mm Hg @ 20 C
Liquid Epoxy Resin	90-100	*800920-5202	N/A	0.99

SECTION III. PHYSICAL DATA

Boiling Range:	N/A to N/A deg F	Freezing Point:	N/A deg F
Vapor Pressure:	N/A mm @ 20 deg C	Vapor Density:	
Specific Gravity:	1.1	H2O Solubility:	Negligible (0.1%)
Evaporation Rate: (relative to n-butyl acetate)	Slower	% Volatile by Volume	N/A %
Appearance and Odor:	Clear Liquid, Slight Odor.		

SECTION IV. FIRE AND EXPLOSION HAZARD DATA

Flash point: 450. deg F (Method Used) Pensky-Martens	Explosive Limits:	LEL N/A	UEL (%V in air) N/A
Flammability Classification:	OSHA: Combustible Liquid - Class IIIB DOT: Not regulated		
Extinguishing Media:	Water, Fog, Foam, Carbon Dioxide (CO2), Dry Chemical		
Special Fire Fighting Procedures:	Use water fog to cool containers. Wear protective clothing. Fight fire from a safe distance. Close all valves to the area. Shut off all power to the area. Emergency lights must be turned on. Self-contained breathing apparatus to be used. Under fire conditions irritating and/or toxic gases may be present.		
Unusual Fire and Explosion Hazards:	None.		

SECTION V. TOXICOLOGICAL INFORMATION

Ingredient Material Description	OSHA PEL	ACGIH		LD50 (mg/kg)		LC50 (ppm) (rat) INHAL
		TLV (twa) mg/m3	ppm	(rat) ORAL	(rbt) DERMAL	
Liquid Epoxy Resin	N/A	N/A	N/A	11400.	20001.	N/A

SECTION VI. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUES: See Section V

EFFECTS OF OVEREXPOSURE:
 Vapors may irritate the eyes and respiratory tract.
 Contact irritating to eyes and moderately irritating to skin.
 May cause skin sensitization and other allergic responses.
 May aggravate an existing dermatitis.

EMERGENCY AND FIRST AID PROCEDURES:
 Move to fresh air. Apply artificial respiration, if necessary.
 Wash skin with soap and water or waterless hand cleaners.
 Remove contaminated clothing.
 Drink large quantities of water immediately.
 Flush eyes with water for 15 minutes, get medical attention.
 If swallowed, induce vomiting. Contact physician immediately.
 If breathing is difficult, oxygen may be given.

SECTION VII. REACTIVITY DATA

Stability:	Stable
Stability Conditions To Avoid:	None.
Incompatibility (Materials To Avoid Contact With):	Strong oxidizing agents. Mineral Acids.
Hazardous Decomposition Products:	Oxides of carbon. Aldehydes. Toxic monomer fumes and/or short chain hydrocarbons.
Hazardous Polymerization:	Will not occur.
Polymerization Conditions To Avoid:	None.

SECTION VIII. SPILL OR LEAK PROCEDURES

Steps For Material Spillage:	Absorb with sand and dispose of in an approved manner. Dike area with sand to contain spilled liquid. Prevent spillage from entering underground water systems. Ventilate area. Flush area with water but do NOT flush to sewer. Remaining material may be emulsified with soap and water and absorbed. Scoop up contaminated soil and place in dry drums. If transportation spill, call 1-800-255-3924 Large spills may be pumped into closed, but not sealed containers.
Waste Disposal Methods:	Empty decontaminated containers should be crushed to prevent reuse. Dispose of in accordance with Local Regulations.

SECTION IX. SPECIAL PROTECTION INFORMATION

Respiratory Protection:	NESA/NIOSH approved respirator is highly recommended. Self-contained breathing apparatus in concentrations above PEL/TLV. Avoid breathing possible fumes, mists, and vapors which can cause severe respiratory damage. Always work in areas with adequate ventilation to allow dissipation of chemical fumes, and where applicable, solvent fumes.
Ventilation:	Provide adequate cross air circulation.
Protective Gloves:	Gloves resistant to chemical penetration. Rubber, or Neoprene Gloves.
Eye Protection:	Splashproof safety, Chemical Worker or Chemical Splash Goggles.
Other Protective Equipment:	Eyewash Station. Emergency Shower. Use of Barrier Cream Recommended. Chemical Apron, Rubber Foot Covering, Clean Long Sleeve & Leg Clothing.

SECTION X. SPECIAL PRECAUTIONS

Handling and Storage Precautions:	Store in a Cool Dry Place. Keep Away From Open Flames. Store in tightly closed containers. Store away from food and beverages. Wash thoroughly after handling. Wash before eating, drinking, smoking or using toilet.
Other Precautions:	Check all containers for leaks. Avoid prolonged breathing or contact with skin. Proprietary Ingredient - may be made available as provided in 29 CFR 1910.1200 (I). All our proprietary materials are on file with New Jersey Dept. of Health and the EIN number is provided.

REPORTABLE UNDER SARA TITLE III

Chemical:	Epichlorhydrin	Sections:	313 302 304
Percent:	3 ppm		TPQ (#) RQ (#)
CAS:	106-89-8		Y 1000 1000