



# MATERIAL SAFETY DATA SHEET



## SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: PC-6

April 14, 2010

Vishay Measurements Group, Inc.  
Post Office Box 27777  
Raleigh, NC 27611

919-365-3800

CHEMTREC 1-800-424-9300 (U.S.)  
703-527-3887 (Outside U.S.)

NOTE: CHEMTREC numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

## SECTION 2: HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

CAS NUMBER	CHEMICAL IDENTITY	%
25068-38-6	Bisphenol A Diglycidyl Ether Polymer	>75
3101-60-8	P-Tertbutylphenyl Glycidyl Ether	0.8-8.3
7429-90-5	Aluminum	16.0
57-11-4	Stearic Acid	<0.7
7440-21-3	Silicon	<0.2
7439-89-6	Iron	<0.2
106-89-8	Epichlorohydrin	2-3 ppm

NOTE: CAS # 25068-38-6 is an epoxy resin produced by the condensation reaction of epichlorohydrin and bisphenol A. The epichlorohydrin is consumed in the process and the residual levels are controlled to 2-3 ppm maximum.

<b>SECTION 3: HEALTH HAZARD DATA</b>
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**Routes of Entry:**

**Inhalation:** Yes    **Skin:** Yes    **Ingestion:** Yes

**Health Hazards (Acute and Chronic):** Overexposure to this material can cause sensitization and allergic skin reaction.

<b>Carcinogenicity:</b>	NTP:	See Note
	IARC Monographs:	See Note
	OSHA Regulated:	NA

NOTE: International Agency for Research on Cancer (IARC) has classified epichlorohydrin as a possible human carcinogen (IARC GROUP 2A) based on the following conclusions: Human Evidence - Inadequate; Animal Evidence - Sufficient. Epichlorohydrin has also been classified by National Toxicology Program (NTP) as an anticipated carcinogen (NTP GROUP 2B) based on sufficient evidence of carcinogenicity from studies in experimental animals.

**Signs and Symptoms of Exposure:**

**INHALATION:** Heating can generate vapors that could cause headaches, nausea, dizziness, and respiratory irritation if inhaled.

**EYE CONTACT:** May cause eye injury which may persist for several days.

**SKIN CONTACT:** May cause moderate skin injury (reddening and swelling). Sensitizer--may cause allergic skin reaction which can be severe in certain individuals.

**INGESTION:** Product is slightly toxic.

**Conditions Generally Aggravated by Exposure:** Pre-existing eye, skin, and respiratory disorders may be aggravated by exposure to this product. Pre-existing skin or respiratory allergies may increase the chance of developing increased allergy symptoms from exposure to this product.

<b>SECTION 4: EMERGENCY AND FIRST AID PROCEDURES</b>
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**INHALATION:** Remove victim to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

**EYE CONTACT:** Immediately flush eyes with plenty of water for at least fifteen minutes while holding eyelids open. Get medical attention if irritation persists.

**SKIN CONTACT:** Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with plenty of water. Follow by washing with soap and water. If irritation occurs, get medical attention.

**INGESTION:** If swallowed, give at least 3-4 glasses of water but do NOT induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention.

<b>SECTION 5: FIRE AND EXPLOSION HAZARD DATA</b>
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**Flash Point (Method Used):** 390°F (199°C) Closed Cup

**Flammable limits:** LEL: NA UEL: NA

**Extinguishing Media:** Use carbon dioxide or dry chemical for small fires; aqueous foam or water for large fires.

**Special Firefighting Procedures:** Remove all ignition sources. Wear self-contained breathing apparatus and complete personal protective equipment when entering confined areas where potential for exposure to vapors or products of combustion exists. Decomposition and combustion products may be toxic.

**Unusual Fire and Explosion Hazards:** Closed containers may rupture when exposed to extreme heat.

<b>SECTION 6: ACCIDENTAL RELEASE MEASURES</b>
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**Steps to be taken if material is released or spilled:** Absorb with inert material and collect for disposal. Flush area with water. Prevent washings from entering waterways.

<b>SECTION 7: EXPOSURE CONTROLS -- PERSONAL PROTECTION</b>
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**Respiratory Protection:** Avoid prolonged or repeated breathing of vapors or mists. Wear a properly fitted NIOSH approved respirator whenever exposure to vapor/mist is likely unless levels are below applicable limits.

**Ventilation:**

**Local Exhaust:** As needed to control employee exposure.

**Mechanical:** Not recommended as only means of controlling employee exposure.

**Special:** NA

**Other:** NA

**Protective Gloves:** Neoprene gloves recommended.

**Eye Protection:** Chemical splash goggles recommended.

**Other Protective Clothing or Equipment:** For operations where skin contact can occur, coveralls, apron, and rubber foot covering are recommended.

**Work / Hygienic Practices:** Avoid contact with skin. Wash thoroughly after use. Wash thoroughly after use. Remove and thoroughly launder contaminated clothing before re-use. Discard contaminated shoes.

<b>SECTION 8: HANDLING AND STORAGE</b>
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**Precautions to be taken in handling and storing:** Keep liquid and vapor away from heat, sparks, and flame. Keep containers closed when not in use. Use with adequate ventilation.

**Other Precautions:** Do not reuse contaminated clothing until it has been cleaned. Contaminated leather articles, including shoes, cannot be decontaminated and should be destroyed.

<b>SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES</b>
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<b>Boiling Point:</b>	NA
<b>Vapor Pressure (mmHg):</b>	NA
<b>Vapor Density (Air = 1):</b>	NA
<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	1.16
<b>Melting Point:</b>	NA
<b>Evaporation Rate (BuAc = 1):</b>	NA
<b>Volatile Organic Compounds:</b>	None
<b>Solubility in Water:</b>	Insoluble

**Appearance and Odor:** Aluminum colored, mobile liquid with mild odor.

<b>SECTION 10: STABILITY AND REACTIVITY DATA</b>
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**Stability:** Stable.

**Conditions to Avoid:** Elevated temperatures.

**Incompatibility (Materials to Avoid):** Contamination with strong acids, bases, amines, and mercaptans can cause hazardous polymerization.

**Hazardous Decomposition or By-products:** Fumes produced when heated to decomposition may include carbon monoxide and carbon dioxide.

**Hazardous Polymerization:** Will not occur under normal conditions of use and storage.

<b>SECTION 11: TOXICOLOGICAL INFORMATION</b>
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Bisphenol A Diglycidyl Ether Polymer

OSHA PEL:	Not established
ACGIH TLV:	Not established
OTHER:	ORAL (RAT) LD <sub>50</sub> >5000 mg/kg
	SKIN (RABBIT) LD <sub>50</sub> >6000 mg/kg
	INH (RAT) LC <sub>50</sub> >3466 mg/m <sup>3</sup>

PC-6 MSDS (Continued)

P-Tertbutylphenyl Glycidyl Ether

OSHA PEL: Not established  
ACGIH TLV: Not established  
OTHER: Not established

Aluminum

OSHA PEL: 5 mg/m<sup>3</sup> ( RESPIRABLE DUST/MIST) 15 mg/m<sup>3</sup> (TOTAL DUST)  
ACGIH TLV: 5 mg/m<sup>3</sup> (RESPIRABLE DUST/MIST) 10 mg/m<sup>3</sup> (TOTAL DUST)  
OTHER: Not known

Steric Acid

OSHA PEL: Not established  
ACGIH TLV: 10 mg/m<sup>3</sup> (TOTAL DUST)  
OTHER: INTRAVENOUS (MUSKRAT) LD<sub>50</sub> 23 mg/kg

Silicon

OSHA PEL: 5 mg/m<sup>3</sup> (RESPIRABLE DUST/MIST) 15 mg/m<sup>3</sup> (TOTAL DUST)  
ACGIH TLV: 10 mg/m<sup>3</sup> (TOTAL DUST)  
OTHER: ORAL (RAT) 3160 mg/kg

Iron

OSHA PEL: 10 mg/m<sup>3</sup> (RESPIRABLE DUST/MIST)  
ACGIH TLV: 5 mg/m<sup>3</sup> (RESPIRABLE DUST/MIST)  
OTHER: Not known

Epichlorohydrin

OSHA PEL: 2 ppm (SKIN)  
ACGIH TLV: 0.5 ppm (SKIN)  
Note: Potential contribution to overall exposure is possible by skin absorption.

<b>SECTION 12: DISPOSAL CONSIDERATIONS</b>
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**Waste Disposal Method:** Dispose of in accordance with all local, state, and federal environmental regulations.

**SECTION 13: TRANSPORTATION INFORMATION**

SHIPPING NAME	CLASS	PACKING GROUP	UN NUMBER
Toxic Liquid, Organic, N.O.S. (Bisphenol A Diglycidyl Ether)	6.1	III	3287

**SECTION 14: REGULATORY INFORMATION****SECTION 313 SUPPLIER NOTIFICATION:**

This product contains a toxic chemical or chemicals (as listed below) subject to the reporting requirements of Section 313 Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS NUMBER	CHEMICAL NAME	% BY WEIGHT
106-89-8	Epichlorohydrin	2-3 ppm
7429-90-5	Aluminum	16.0

**TSCA NOTIFICATION:**

All components of this product are listed in the Toxic Substance Control Act Chemical Substance Inventory (TSCA).

**SECTION 15: OTHER INFORMATION**

To the best of our knowledge, the information provided above meets the requirements of the United States Occupational Safety and Health Act and regulations established under 29 CFR 1910.1200 (g)(2)(c)(1)-(4) for a mixture of hazardous chemicals which has not been tested as a whole. The data provided on this Material Safety Data Sheet is from manufacturers of the original components. Micro-Measurements specifically disclaims any and all form of liability and/or responsibility for the application of this product.