MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: PC-11 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	76.8
2426-08-6	N-Butyl Glycidyl Ether	5.9
3101-60-8	P-Tertbutylphenyl Glycidyl Ether	0.4-4.4
7429-90-5	Aluminum	12.5
57-11-4	Stearic Acid	0.5
7440-21-3	Silicon	0.1
7439-89-6	Iron	0.1
106-89-8	Epichlorohydrin	2-3 ppm
122-60-1	Phenyl Glycidyl Ether	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.

SECTION 3: HEALTH HAZARD DATA

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.

Carcinogenicity:	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: May cause irritation of the nose, throat, and respiratory tract. 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: Mildly irritating. May cause moderate skin injury (reddening and swelling). Prolonged or repeated liquid contact can result in skin irritation and dermatitis. May cause skin sensitization which may lead to allergic skin reaction in some individuals.

INGESTION: Product is slightly toxic. May cause central nervous system depression.

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.

SECTION 4: EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.

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

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: Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Get medical attention.

NOTE TO PHYSICIAN: If symptoms such as gag reflex, convulsions or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed endotracheal tube.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA

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: Use water spray to cool exposed containers. Closed containers may rupture when exposed to extreme heat.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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.

SECTION 7: EXPOSURE CONTROLS -- PERSONAL PROTECTION

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: Keep below TLV.
Mechanical: Keep below TLV.
Special: NA
Other: NA

Protective Gloves: Neoprene gloves recommended.

Eye Protection: Wear chemical splash goggles if there is a likelihood of contact with eyes.

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

Work / Hygienic Practices: Avoid contamination of skin. Use good industrial hygiene practices. Wash hands with soap and water before eating, drinking, or smoking. Clean contaminated clothing before reuse. Leather articles cannot be decontaminated and should be destroyed. Eyewash fountains and safety showers should be available for emergency use.

SECTION 8: HANDLING AND STORAGE

Precautions to be taken in handling and storing: Store in a cool, dry area. Keep liquid and vapor away from heat, sparks, and flame. Keep containers closed when not in use. Use with adequate ventilation.

Other Precautions: Avoid contact with eyes, skin or clothing. Avoid breathing vapor, mist or spray.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	Not known
Vapor Pressure (mmHg):	<1
Vapor Density (Air = 1):	>1
Specific Gravity (H_2O = 1):	1.13
Melting Point:	NA
Evaporation Rate (BuAc = 1):	<1
Volatile Organic Compounds:	None
Solubility in Water:	Negligible

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

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: Stable.

Conditions to Avoid: Avoid heat, flame and contact with strong oxidizing agents.

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, carbon dioxide, aldehydes and acids.

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

SECTION 11: TOXICOLOGICAL INFORMATION

Bisphenol A Diglycidyl Ether Polymer

OSHA PEL:	Not established
ACGIH TLV:	Not established
OTHER:	ORAL (RAT) LD_{50} >5000 g/kg SKIN (RABBIT) LD_{50} >6000 mg/kg INHALATION (RAT) LC_{50} >3466 mg/m^3

N-Butyl Glycidyl Ether

OSHA PEL:	25 ppm TWA
ACGIH TLV:	25 ppm TWA
OTHER:	ORAL (MOUSE) LD_{50} 1.53 mg/kg ORAL (RAT) LD_{50} 2260 mg/kg SKIN (RABBIT) LD_{50} 788 mg/kg INHALATION (RAT) LC_{50} 1030 ppm (8 Hour) INHALATION (MOUSE) LC_{50} >3500 ppm (4 Hour)

P-Tertbutylphenyl Glycidyl Ether

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

Aluminum

OSHA PEL:	5 mg/m^3 (RESPIRABLE DUST/MIST) 15 mg/m^3 (TOTAL DUST)
ACGIH TLV:	5 mg/m^3 (RESPIRABLE DUST/MIST) 10 mg/m^3 (TOTAL DUST)
OTHER:	Not established

Stearic Acid

OSHA PEL:	Not established
ACGIH TLV:	10 mg/m^3 (DUST)
OTHER:	INTRAVENOUS (MUSKRAT) LD_{50} 23 mg/kg

Silicon

OSHA PEL:	15 mg/m^3 (TOTAL DUST) 5 mg/m^3 (RESPIRABLE DUST)
ACGIH TLV:	10 mg/m^3 (TOTAL DUST)
OTHER:	ORAL (RAT) LD_{50} 3160 mg/kg

Iron

OSHA PEL:	10 mg/m^3 (RESPIRABLE DUST/MIST)
ACGIH TLV:	5 mg/m^3 (RESPIRABLE DUST/MIST)
OTHER:	Not established

Epichlorohydrin

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

SECTION 12: DISPOSAL CONSIDERATIONS

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	12.5

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.