



# MATERIAL SAFETY DATA SHEET



## SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: VPAC

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	>90.0
3101-60-8	P-Tertbutylphenyl Glycidyl Ether	1.0-10.0
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 residual levels are controlled to 2-3 ppm maximum.

## SECTION 3: HEALTH HAZARD DATA

Routes of Entry:

Inhalation: Yes    Skin: Yes    Ingestion: Accidental

Health Hazards (Acute and Chronic): Over exposure to this material can cause sensitization and allergic skin reaction. May cause skin irritation.

VPAC MSDS (Continued)

**Carcinogenicity:** NTP: See Note  
IARC Monographs: See Note  
OSHA Regulated: Not listed

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 if mists or vapors are inhaled. Respiratory tract sensitization may be evidenced by wheezing, shortness of breath and coughing.

**EYE CONTACT:** May cause irritation.

**SKIN CONTACT:** May cause irritation. May cause skin sensitization in some individuals.

**INGESTION:** Based on similar product testing, product may be slightly toxic.

**Conditions Generally Aggravated by Exposure:** Allergy, eczema, skin conditions.

**SECTION 4: EMERGENCY AND FIRST AID PROCEDURES**

**INHALATION:** If inhaled, remove victim from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

**EYE CONTACT:** For eye contact, flush eyes with plenty of water for fifteen minutes. Get medical attention if irritation occurs.

**SKIN CONTACT:** For skin contact, wash affected areas with plenty of soap and water. Remove and clean contaminated shoes and clothing. Get medical attention if irritation occurs.

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

**SECTION 5: FIRE AND EXPLOSION HAZARD DATA**

**Flash Point (Method Used):** 390°F (199°C) Closed cup

**Flammable limits:** LEL: N/A UEL: N/A

**Extinguishing Media:** Carbon dioxide, foam, dry chemical, water spray.

VPAC MSDS (Continued)

**Special Firefighting Procedures:** Use self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Decomposition and combustion products may be toxic.

#### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Steps to be taken if material is released or spilled:** Avoid all personal contact. Take up with absorbent material. Shovel into closable containers. Flush contaminated area with water.

#### SECTION 7: EXPOSURE CONTROLS -- PERSONAL PROTECTION

**Respiratory Protection:** Organic chemical cartridge respirator if needed.

**Ventilation:**

<b>Local Exhaust:</b>	Recommended
<b>Mechanical:</b>	Recommended
<b>Special:</b>	NA
<b>Other:</b>	NA

**Protective Gloves:** Wear impervious gloves.

**Eye Protection:** Wear splashproof chemical goggles.

**Other Protective Clothing or Equipment:** Wear appropriate personal protective equipment to prevent eye or skin contact.

**Work / Hygienic Practices:** Wash thoroughly after handling.

#### SECTION 8: HANDLING AND STORAGE

**Precautions to be taken in handling and storing:** Avoid contact with eyes, skin, or clothing. Avoid breathing vapor, mist, or spray. Keep container closed when not in use. Store in a cool, dry area. Use with adequate local ventilation.

**Other Precautions:** WARNING! Sensitizer - can cause allergic skin reactions.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point:	Not known
Vapor Pressure (mmHg):	Not known
Vapor Density (Air = 1):	Not known
Specific Gravity (H <sub>2</sub> O = 1):	1.16
Melting Point:	Not known
Evaporation Rate (BuAc = 1):	Not known
Volatile Organic Compounds:	None
Solubility in Water:	Insoluble

Appearance and Odor: Clear liquid; slight odor.

**SECTION 10: STABILITY AND REACTIVITY DATA**

Stability: Stable.

Conditions to Avoid: Elevated temperatures, strong acids or bases in bulk.

Incompatibility (Materials to Avoid): Strong oxidizing agents.

Hazardous Decomposition or By-products: Carbon monoxide, carbon dioxide, aldehydes.

Hazardous Polymerization: Will not occur.

**SECTION 11: TOXICOLOGICAL INFORMATION**

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 INHALATION (RAT) LC <sub>50</sub> >3466 mg/m <sup>3</sup>

P-Tertbutylphenyl Glycidyl Ether

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

VPAC MSDS (Continued)

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	2810

**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

**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.