

# SAFETY DATA SHEET

Revision: 1.3 Date: 07.01.2016



ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),  
1272/2008 (CLP) & 2015/830

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## 1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier**  
Product Name PC-6C – PL-2  
Chemical Name Mixture  
CAS No. Mixture  
EINECS No. Mixture  
REACH Registration No. None assigned.
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Identified Use(s) Photostress® measurements.  
Uses Advised Against None known.
- 1.3 Details of the supplier of the safety data sheet**  
Company Identification VISHAY MEASUREMENTS GROUP, INC.  
Post Office Box 27777  
Raleigh, NC 27611  
USA  
Telephone 919-365-3800  
Fax 919-365-3945  
E-Mail (competent person) mm.us@vishaypg.com
- 1.4 Emergency telephone number** 1-800-424-9300  
CHEMTREC

## 2. SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture**
- 2.1.1 GHS Classification** Skin Irrit. 2; H315  
Skin Sens. 1; H317  
Eye Irrit. 2; H319  
Aquatic Chronic 2; H411
- 2.2 Label elements**  
Product Name GHS Classification  
PC-6C
- Hazard Pictogram(s)  
- Signal Word(s) Warning
- Contains: Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) and P-tert-butylphenyl 1-(2,3-epoxy)propyl ether)
- Hazard Statement(s) H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H319: Causes serious eye irritation.  
H411: Toxic to aquatic life with long lasting effects.
- Precautionary Statement(s) P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352: IF ON SKIN: Wash with plenty of water.  
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313: If eye irritation persists: Get medical advice/attention.

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P273: Avoid release to the environment.

## Additional Information

None.

## 2.3 Other hazards

None.

## 3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

GHS Classification

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Reaction product: bisphenol-A- (epichlorhydrin) epoxy resin (number average molecular weight $\leq$ 700)	< 100	25068-38-6	500-033-5	None assigned.	Skin Irrit. 2; H315 (SCL: $\geq$ 5%) Eye Irrit. 2; H319 (SCL: $\geq$ 5%) Skin Sens. 1; H317 Aquatic Chronic 2; H411
P-Tert-butylphenyl 1-(2,3- epoxy)propyl ether)	1 - 10	3101-60-8	221-453-2	None assigned.	Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 2; H411

H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H411: Toxic to aquatic life with long lasting effects. SCL: Specific Concentration Limit.

## 4. SECTION 4: FIRST AID MEASURES



### 4.1 Description of first aid measures

Inhalation  
Skin Contact

IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
IF ON SKIN: Remove contaminated clothing and wash all affected areas with plenty of water. Contaminated clothing should be thoroughly cleaned. If skin irritation or rash occurs: Get medical advice/attention.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if eye irritation develops or persists.

Ingestion

Rinse mouth. Do not induce vomiting. Do not give anything by mouth to an unconscious person. If symptoms develop, obtain medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## 5. SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Suitable Extinguishing media

As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical, foam or waterspray. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Unsuitable extinguishing media

Do not use water jet. Direct water jet may spread the fire.

### 5.2 Special hazards arising from the substance or mixture

May decompose in a fire giving off toxic fumes. Carbon monoxide, carbon dioxide and phenolic compounds. Heating of containers may cause pressure rise, with risk of bursting.

### 5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained

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breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.



## 6. SECTION 6: ACCIDENTAL RELEASE MEASURES

- |  |   |
|--|---|
| <b>6.1 Personal precautions, protective equipment and emergency procedures</b> | Ensure adequate ventilation. Stop leak if safe to do so. Use personal protective equipment as required. See Section: 8. Avoid breathing vapours.  |
| <b>6.2 Environmental precautions</b>   | Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.   |
| <b>6.3 Methods and material for containment and cleaning up</b>                | Absorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Ventilate the area and wash spill site after material pick-up is complete. Dispose of this material and its container as hazardous waste. |
| <b>6.4 Reference to other sections</b>   | See Section: 8, 13  |

## 7. SECTION 7: HANDLING AND STORAGE

- |  |  |
|--|--|
| <b>7.1 Precautions for safe handling</b>   | Avoid contact with skin, eyes or clothing. Do not breathe vapour. Ensure adequate ventilation. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. |
| <b>7.2 Conditions for safe storage, including any incompatibilities</b><br>Storage temperature<br>Storage life<br>Incompatible materials | Keep away from heat, sources of ignition and direct sunlight.<br><br>Ambient. 2 - 43 °C<br>Use within 24 months.<br>Keep away from: Acids, strong bases, Amines and mercaptans. The following may occur: Hazardous Polymerization.                         |
| <b>7.3 Specific end use(s)</b>   | Photostress® measurements.   |

## 8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- |   |  |
|---|--|
| <b>8.1 Control parameters</b>   |  |
| <b>8.1.1 Occupational Exposure Limits</b>   | Not established.   |
| <b>8.1.2 Biological limit value</b>   | Not established.   |
| <b>8.1.3 PNECs and DNELs</b>  | Not established.   |
| <b>8.2 Exposure controls</b>  |  |
| <b>8.2.1 Appropriate engineering controls</b>   | Ensure adequate ventilation or use appropriate containment.  |
| <b>8.2.2 Individual protection measures, such as personal protective equipment (PPE)</b>                    | General hygiene measures for the handling of chemicals are applicable. Avoid contact with skin, eyes or clothing. Do not breathe vapour. Wash hands before breaks and after work. Keep work clothes separately. Contaminated clothing should be thoroughly cleaned. Contaminated leather articles should be discarded (e.g. shoes). Do not eat, drink or smoke at the work place.  |
| Eye/ face protection<br> | Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).  |
| Skin protection<br>      | Hand protection: Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. The gloves type used must be chosen based on the work activity and duration as well as concentration/quantity of material being handled. Recommended: Neoprene.<br><br>Body protection: Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact. |
| Respiratory protection  | In case of inadequate ventilation wear respiratory protection. Open system(s): Wear suitable respiratory protective equipment.   |

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Thermal hazards

Not applicable.

## 8.2.3 Environmental Exposure Controls

Avoid release to the environment.

## 9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Clear liquid
Odour	Faint Odour
Odour threshold	Not available.
pH	Not established.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable - Liquid.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.16 (H <sub>2</sub> O = 1)
Solubility(ies)	Insoluble in water.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

### 9.2 Other information

Volatile Organic Compound Content (%): 0

## 10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	Keep away from: Acids, strong bases, Amines and mercaptans. The following may occur: Hazardous Polymerization. Contact with aliphatic amines will cause irreversible polymerization with considerable heat build-up.
10.4 Conditions to avoid	Keep away from heat, sources of ignition and direct sunlight.
10.5 Incompatible materials	Keep away from: Acids, strong bases, Amines and mercaptans.
10.6 Hazardous decomposition product(s)	May decompose in a fire giving off toxic fumes. Carbon monoxide, Carbon dioxide and phenolic compounds.

## 11. SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects (Substances in preparations / mixtures)

#### Acute toxicity

Ingestion

Based upon the available data, the classification criteria are not met.  
Acute Toxicity Estimate Mixture Calculation: Estimated LC<sub>50</sub> > 2000 mg/kg bw/day.

Inhalation

Based upon the available data, the classification criteria are not met.  
Acute Toxicity Estimate Mixture Calculation: Estimated LC<sub>50</sub> > 20.0 mg/l.

Skin Contact

Based upon the available data, the classification criteria are not met.  
Acute Toxicity Estimate Mixture Calculation: Estimated LC<sub>50</sub> > 2000 mg/kg bw/day.

#### Skin corrosion/irritation

Skin Irrit. 2: Causes skin irritation.

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	<b>Serious eye damage/irritation</b>	Eye Irrit. 2: Causes serious eye irritation.
	<b>Respiratory or skin sensitization</b>	Skin Sens. 1: May cause an allergic skin reaction.
	<b>Germ cell mutagenicity</b>	Based upon the available data, the classification criteria are not met.
	<b>Carcinogenicity</b>	Based upon the available data, the classification criteria are not met.
	<b>Reproductive toxicity</b>	Based upon the available data, the classification criteria are not met.
	<b>STOT - single exposure</b>	Based upon the available data, the classification criteria are not met.
	<b>STOT - repeated exposure</b>	Based upon the available data, the classification criteria are not met.
	<b>Aspiration hazard</b>	Based upon the available data, the classification criteria are not met.
11.2	<b>Other information</b>	
	NTP Report on Carcinogens	Not listed
	IARC Monographs	Not listed

## 12. SECTION 12: ECOLOGICAL INFORMATION

12.1	<b>Toxicity</b>	Aquatic Chronic 2: Toxic to aquatic life with long lasting effects. Estimated Mixture LC50 > 1 ≤ 10 mg/l (Fish)
12.2	<b>Persistence and degradability</b>	Part of the components are poorly biodegradable.
12.3	<b>Bioaccumulative potential</b>	The product has low potential for bioaccumulation.
12.4	<b>Mobility in soil</b>	The product is predicted to have low mobility in soil (Insoluble in water).
12.5	<b>Results of PBT and vPvB assessment</b>	Not classified as PBT or vPvB.
12.6	<b>Other adverse effects</b>	None known.

## 13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1	<b>Waste treatment methods</b>	Dispose of this material and its container as hazardous waste. Send after pre-treatment to a appropriate hazardous waste incinerator facility according to legislation.
13.2	<b>Additional Information</b>	Dispose of contents in accordance with local, state or national legislation. Containers of this material may be hazardous when empty since they retain product residue.

## 14. SECTION 14: TRANSPORT INFORMATION

		<b>ADR/RID / IMDG / IATA</b>
14.1	<b>UN number</b>	UN 3082
14.2	<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) and P-tert-butylphenyl 1-(2,3-epoxy)propyl ether)
14.3	<b>Transport hazard class(es)</b>	9
14.4	<b>Packing group</b>	III
14.5	<b>Environmental hazards</b>	Classified as a Marine Pollutant/ Environmentally hazardous substance
14.6	<b>Special precautions for user</b>	See Section: 2
14.7	<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
14.8	<b>Additional Information</b>	None.

## 15. SECTION 15: REGULATORY INFORMATION

15.1	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
15.1.1	<b>National regulations</b>	
	OSHA Occupational Safety and Health Standards	None
15.1.2	<b>European regulations</b>	
	Substance(s) of Very High Concern (SVHCs)	None
	Wassergefährdungsklasse (Germany)	Water hazard class: 2
15.2	<b>Chemical Safety Assessment</b>	Not available.

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## 16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

**References:** Existing Safety Data Sheet (SDS), Harmonised Classification(s) for Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq$  700) (CAS# 25068-38-6) and Existing ECHA registration(s) for Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq$  700) (CAS# 25068-38-6) and P-Tert-butylphenyl 1-(2,3-epoxy)propyl ether)(CAS# 3101-60-8).

GHS Classification of the substance or mixture	Classification Procedure
Skin Irrit. 2; H315	Threshold Calculation
Skin Sens. 1; H317	Threshold Calculation
Eye Irrit. 2; H19	Threshold Calculation
Aquatic Chronic 2; H411	Summation Calculation

### LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
DNEL	Derived No Effect Level
PNEC	Predicted No Effect Concentration
PBT	PBT: Persistent, Bioaccumulative and Toxic
vPvB	very Persistent and very Bioaccumulative
NTP	National Toxicology Program
IARC	International Agency for Research on Cancer
OSHA	The Occupational Safety & Health Administration
NIOSH	National Institute for Occupational Safety and Health

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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### Annex to the extended Safety Data Sheet (eSDS)

No information available.

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