PL-6/PC-9

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

1.1 Product identifier

Product Name	PL-6/PC-9
Chemical Name	Mixture
CAS No.	Mixture
EINECS No.	Mixture
REACH Registration No.	None assigned.

1.2 Recommended use of the chemical and restrictions on use

Identified Use(s)	Photostress® measurements.
Uses Advised Against	None.

1.3 Supplier's details

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
	1-800-424-9300 (U.S.)

1.4 Emergency Phone No.

703-527-3887 (Outside U.S.)
CHEMTREC

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 GHS Classification

Acute Tox. 4; Harmful by inhalation, in contact with skin and if swallowed.
Skin Irrit. 2; Causes skin irritation.
Eye Irrit. 2; Causes serious eye irritation.
STOT SE 3; May cause respiratory irritation.

2.2 Label elements

According to GHS Classification

Product Name: PL-6/PC-9

Hazard Pictogram(s)

Signal Word(s): Warning

Hazard Statement(s):
H302: Harmful if swallowed.
H312: Harmful in contact with skin.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.

Precautionary Statement(s):
P261: Avoid breathing vapours.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
P309+P311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

2.3 Other hazards EUH204: Contains isocyanates. May produce an allergic reaction.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Substances in preparations / mixtures
3.2 Mixtures

GHS Classification

Chemical identity of the substance	%W/W	CAS No.	EC No.	Hazard Statement(s)
Poly(propylene glycol), tolylene 2,4-diisocyanate terminated	>99.9	9057-91-4	-	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332 STOT SE 3; H335

4. SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact: IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. 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. If eye irritation persists: Get medical advice/attention.

Ingestion: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Make victim drink water. Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed Contains isocyanates. May produce an allergic reaction. May cause irritation to skin, eyes and respiratory system.

4.3 Indication of any immediate medical attention and special treatment needed IF SWALLOWED: Give a slurry of activated charcoal in water to drink. Treat symptomatically.

5. SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media: Extinguish with carbon dioxide, dry chemical, foam or waterspray.
Unsuitable extinguishing Media: None known.

5.2 Special hazards arising from the substance or mixture May decompose in a fire giving off toxic fumes.

5.3 Advice for fire-fighters Fire fighters should wear complete protective clothing including self-contained 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

6.1	**Personal precautions, protective equipment and emergency procedures**	Ensure adequate ventilation. Wear protective gloves/protective clothing/eye protection/face protection. Shut off leaks if without risk. Eliminate sources of ignition.
6.2	**Environmental precautions**	Do not allow to enter drains, sewers or watercourses.
6.3	**Methods and material for containment and cleaning up**	Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Dispose of this material and its container as hazardous waste.
6.4	**Reference to other sections**	See Section: 8, 13

7. SECTION 7: HANDLING AND STORAGE

7.1	**Precautions for safe handling**	Ensure adequate ventilation. Heating can generate vapors that could cause headaches, nausea, dizziness, and respiratory irritation if inhaled. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.
7.2	**Conditions for safe storage, including any incompatibilities**	Keep container tightly closed and in a well-ventilated place.
	Storage temperature	Ambient.
	Storage life	Stable under normal conditions.
	Incompatible materials	Keep away from: Oxidizing agents and Strong Acids and Alkalis.
7.3	**Specific end use(s)**	Photostress® measurements.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	**Control parameters**	
8.1.1	**Occupational Exposure Limits**	Not established.
8.1.2	**Biological limit value**	Not established.
8.1.3	**PNECs and DNELs**	Not established.
8.2	**Exposure controls**	
8.2.1	**Appropriate engineering controls**	Ensure adequate ventilation. Guarantee that the eye flushing systems and safety showers are located close to the working place.
8.2.2	**Individual protection measures, such as personal protective equipment (PPE)**	Use personal protective equipment as required. Wash contaminated clothing before reuse. Avoid contact with skin and eyes.
	Eye/face protection 	Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166). Have available eyewash bottle with clean water.
	Skin protection 	Wear impervious gloves (EN374). Breakthrough time of the glove material: refer to the information provided by the gloves' producer. The gloves type used must be chosen based on the work activity and duration as well as concentration/quantity of material being handled.
	Respiratory protection 	Normally no personal respiratory protection is necessary. In case of inadequate ventilation wear respiratory protection.
	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	Amber- Viscous liquid.
Odour	Odourless
Odour Threshold	Not available.
pH	Not established.
Melting Point/Freezing Point	Not established.
Initial boiling point and boiling range	Not established.
Flash point	160°C
Evaporation Rate	<1 (BuAc = 1)
Flammability (solid, gas)	Non-flammable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	< 110 kPa (1.10 bar)
Vapour density	Not available.
Relative density	1.05 (H2O = 1)
Solubility(ies)	Reacts slightly with water
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not oxidising.

9.2 Other information None.

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**	Combustion or thermal decomposition will evolve toxic and irritant vapours.
10.4	**Conditions to avoid**	Keep away from heat and flame.
10.5	**Incompatible materials**	Strong oxidising agents. Strong Acids and Alkalis.
10.6	**Hazardous decomposition product(s)**	Decomposes in a fire giving off toxic fumes:Carbon monoxide, Carbon dioxide, Hydrogen cyanide, Amines and Alcohols.

11. SECTION 11: TOXICOLOGICAL INFORMATION

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

Acute toxicity

Ingestion	Acute Tox. 4
Inhalation	Acute Tox. 4
Skin Contact	Acute Tox. 4
Eye Contact	Acute Tox. 4
Irritation	Eye Irrit. 2; Skin Irrit. 2
Corrosivity	Not classified.
Sensitisation	Not classified.
Repeated dose toxicity	Not classified.
Carcinogenicity	Not classified.
Mutagenicity	Not classified.
Toxicity for reproduction	Not classified.

11.2 Other information NTP: Not Listed
IARC Monographs: Not Listed
OSHA Regulated: Not Listed

12. SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	Not classified as a Marine Pollutant.
12.2	**Persistence and degradability**	No information available.
12.3	**Bioaccumulative potential**	No information available.
12.4	**Mobility in soil**	No information available.
12.5	**Results of PBT and VPVB assessment**	Not classified as PBT or vPvB.
12.6	**Other adverse effects**	None known.

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste treatment methods**	This material and its container must be disposed of as hazardous waste. Send after pre-treatment to a appropriate hazardous waste incinerator facility according to legislation.
13.2	**Additional Information**	Dispose of contents in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

		ADR/RID / IMDG / IATA
14.1	**UN number**	UN 2206
14.2	**Proper Shipping Name**	ISOCYANATE SOLUTION, TOXIC, N.O.S (Poly(propylene glycol), tolylene 2,4-diisocyanate terminated)
14.3	**Transport hazard class(es)**	6.1
14.4	**Packing group**	III
14.5	**Environmental hazards**	Not classified as a Marine Pollutant.
14.6	**Special precautions for user**	See Section: 2
14.7	**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
14.8	**Additional Information**	None.

15. SECTION 15: REGULATORY INFORMATION

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	Not available.
15.2	**Chemical Safety Assessment**	Not available.

16. SECTION 16: OTHER INFORMATION

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

References: Existing Safety Data Sheet (SDS) and the Classification and Labelling Inventory for Poly(propylene glycol), tolylene 2,4-diisocyanate terminated (CAS# 9057-91-4).

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	**Classification Procedure**
Acute Tox. 4; H302	Threshold Calculation
Acute Tox. 4; H312	Threshold Calculation
Skin Irrit. 2; H315	Threshold Calculation
Eye Irrit. 2; H319	Threshold Calculation
Acute Tox. 4; H332	Threshold Calculation
STOT SE 3; H335	Threshold Calculation
EUH204	Regulation (EC) No. 1272/2008 (CLP)

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	vPvT: very Persistent and very Toxic
NTP	National Toxicology Program
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
OSHA	Ocupational Safety and Health Standards

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.