

SAFETY DATA SHEET

Revision: 1.1 Date: 20.05.2015

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),
1272/2008 (CLP) & 453/2010

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PCH-9

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

1.1 Product identifier	
Product Name	PCH-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
1.4 Emergency Phone No.	1-800-424-9300 (U.S.) CHEMTREC

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 GHS Classification	Acute Tox. 4; Harmful if swallowed. Skin Sens. 1; May cause an allergic skin reaction. STOT RE 2; May cause damage to organs through prolonged or repeated exposure. Aquatic Chronic 2; Toxic to aquatic life with long lasting effects.
2.2 Label elements	According to GHS Classification
Product Name	PCH-9
Hazard pictogram(s)	
Signal word(s)	Warning
Hazard statement(s)	H302: Harmful if swallowed. H317: May cause an allergic skin reaction. H373: May cause damage to organs through prolonged or repeated exposure. H411: Toxic to aquatic life with long lasting effects.
Precautionary statement(s)	P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330: Rinse mouth. P302+P352: IF ON SKIN: Wash with plenty of soap and water. P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
2.3 Other hazards	None.

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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)
Aluminum	20 – 25	7429-90-5	231-072-3	Flam. Sol. 1; H228
6-methyl-2,4-bis(methylthio)phenylene-1,3-diamine	3.5 – 8	106264-79-3	403-240-8	Acute Tox. 4; H302 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Aryl Mercuric Carboxylate	0.2	27236-65-3	248-355-2	Acute Tox. 2; H300 Acute Tox. 1; H310 Acute Tox. 2; H330 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Non-classified ingredients	60 – 75	-	-	Not classified

Directive 67/548/EEC & Directive 1999/45/EC

Chemical identity of the substance	%W/W	CAS No.	EC No.	EC Classification and Risk Phrases
Aluminum	20 – 25	7429-90-5	231-072-3	F; R11: Highly flammable. F; R15: Contact with water liberates extremely flammable gases.
6-methyl-2,4-bis(methylthio)phenylene-1,3-diamine	3.5 – 8	106264-79-3	403-240-8	Xn;R22: Harmful if swallowed. R43: May cause sensitization by skin contact. N; R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Aryl Mercuric Carboxylate	0.2	27236-65-3	248-355-2	T+; R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed. R33: Danger of cumulative effects. N; R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Non-classified ingredients	60 – 75	-	-	Not classified

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

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	Ingestion	medical advice/attention. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Make victim drink water. Get medical attention.
4.2	Most important symptoms and effects, both acute and delayed	May cause skin sensitization. May be harmful if swallowed and enters airways.
4.3	Indication of any immediate medical attention and special treatment needed	May cause damage to organs through prolonged or repeated exposure. Treat symptomatically. There is no specific antidote.

5. SECTION 5: FIRE-FIGHTING MEASURES

5.1	Extinguishing media Suitable Extinguishing Media Unsuitable Extinguishing Media	Extinguish preferably with waterspray or dry chemical. Carbon dioxide None known.
5.2	Special hazards arising from the substance or mixture	May decompose in a fire giving off toxic fumes. Reacts with strong oxidizing substances.
5.3	Advice for fire-fighters	Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Contain spillages. Clean up spill with a detergent.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Shut off leaks if without risk. Avoid breathing vapours. Wear protective gloves/protective clothing/eye protection/face protection.
6.2	Environmental precautions	Do not allow to enter drains, sewers or watercourses. (Marine Pollutant)
6.3	Methods and material for containment and cleaning up	Absorb spillages onto sand, earth or any suitable adsorbent material. Contain spillages. 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. Do not breathe vapour. 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 Storage Temperature Storage Life Incompatible materials	Store in a cool/low-temperature, well-ventilated (dry) place. Keep container closed when not in use. Ambient. Stable under normal conditions. Isocyanates. Oxidizing agents. Mineral acids.
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**

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Aluminium metal:						
-total dust		-	10	-	-	NIOSH
-respirable dust	7429-90-5	-	5	-	-	NIOSH
-total dust		-	15	-	-	OSHA
-respirable dust		-	5	-	-	OSHA

8.1.2 **Biological limit value** Not established.

8.1.3 **PNECs and DNELs** Not established.

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8.2 Exposure controls	
8.2.1 Appropriate engineering controls	Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures.
8.2.2 Individual protection measures, such as personal protective equipment (PPE)	Wear protective equipment to comply with good occupational hygiene practice. 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. Rubber gloves recommended.
	
Respiratory protection	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	Aluminium Coloured liquid
Odour	Slight Odour.
Odour Threshold	Not available.
pH	Not established.
Melting Point/Freezing Point	Not established.
Initial boiling point and boiling range	Not available.
Flash point	149°C (SETA)
Evaporation rate	Not available.
Flammability (solid, gas)	Non-flammable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	< 1 (mmHg)
Vapour density	Not available.
Relative density	1.03 (H ₂ O = 1)
Solubility(ies)	Slightly soluble. (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	Volatile Organic Compound Content: <1%

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	None known.
10.4 Conditions to avoid	Keep away from heat and flame.

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10.5	Incompatible materials	Isocyanates. Oxidizing agents. Mineral acids.
10.6	Hazardous Decomposition Product(s)	May decompose in a fire giving off toxic fumes. Reacts with strong oxidizing substances.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Information on toxicological effects (Substances in preparations / mixtures)	
	Acute toxicity	
	Ingestion	Acute Tox. 4; Harmful if swallowed. ATEmix calculation: LD50=1805 mg/kg/bodyweight
	Inhalation	Not classified.
	Skin Contact	Not classified.
	Eye Contact	Not classified.
	Irritation	Not classified.
	Corrosivity	Not classified.
	Sensitisation	Skin Sens. 1; May cause an allergic skin reaction.
	Repeated dose toxicity	STOT RE 2; May cause damage to organs through prolonged or repeated exposure.
	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	Classified as a Marine Pollutant. (Aquatic Chronic 2).
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. Dispose of contents in accordance with local, state or national legislation.
13.2	Additional Information	None.

14. SECTION 14: TRANSPORT INFORMATION

		ADR/RID / IMDG / IATA
14.1	UN number	UN 3082
14.2	Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(6-methyl-2,4-bis(methylthio)phenylene-1,3-diamine)
14.3	Transport hazard class(es)	9
14.4	Packing Group	III
14.5	Environmental hazards	Marine Pollutant / Environmentally hazardous substance
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.

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15. SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture None known.

16. SECTION 16: OTHER INFORMATION

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

References: Existing Safety Data Sheet (SDS). Existing ECHA registration(s) for Aluminum (CAS# 7429-90-5), Harmonised Classification(s) for 6-methyl-2,4-bis(methylthio)phenylene-1,3-diamine (CAS# 106264-79-3) and the Classification and Labelling Inventory for Aryl Mercuric Carboxylate (CAS# 27236-65-3).

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP).	Classification Procedure
Acute Tox. 4; H302	Threshold Calculation
Skin Sens. 1; H317	Threshold Calculation
STOT RE 2; H337	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	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	Occupational Safety and Health Administration

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.