Revision: 1.0 Date: 10th May 2017

MICRO E MEASUREMENTS

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH),

1272/2008 (CLP) & 2015/830

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

1.1 Product identifier

Product Name RTC-2 Epoxy Part A
Chemical Name Bisphenol A Diglycidyl Ether

CAS No. 25085-99-8 EINECS No. 607-537-5

1.2 Relevant identified uses of the substance or mixture

and uses advised against

Identified Use(s) PC14 Metal surface treatment products, including galvanic and electroplating

products

Uses Advised Against Anything other than the above.

1.3 Details of the supplier of the safety data sheet

Company Identification VISHAY MEASUREMENTS GROUP UK LTD

Stroudley Road Basingstoke Hampshire RG24 8FW United Kingdom +44 (0) 1256 462131

 Telephone
 +44 (0) 1256 462131

 Fax
 +44 (0) 1256 471441

 E-Mail (competent person)
 mm.uk@vishaypg.com

1.4 Emergency telephone number

Emergency Phone No. (00-1) 703-527-3887 CHEMTREC (24 hours)

Languages spoken All official European languages.

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP) Skin Irrit. 2; H315

Skin Sens. 1; H317 Eye Irrit. 2; H319 Aquatic Chronic 2; H411

2.2 Label elements According to Regulation (EC) No. 1272/2008 (CLP)

Product Name RTC-2 Epoxy Part A

Hazard Pictogram(s)





Signal Word(s) Warning

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) P273: Avoid release to the environment.

 ${\tt P280: Wear \ protective \ gloves/protective \ clothing/eye \ protection/face \ protection.}$

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

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Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313: If eye irritation persists: Get medical advice/attention.

P391: Collect spillage.

2.3 Other hazards None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Not applicable

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.
Bisphenol A Diglycidyl Ether	100	25085-99-8	607-537-5	Not yet assigned in the
				supply chain

SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Self-protection of the first aider

Inhalation

Skin Contact

Eye Contact

Ingestion

4.3

4.2 Most important symptoms and effects, both acute and delayed

> Indication of any immediate medical attention and special treatment needed

Use personal protective equipment as required. Wear appropriate personal protective equipment, avoid direct contact. Ensure adequate ventilation. Avoid breathing vapours. Avoid contact with skin and eyes. Contaminated clothing should be laundered before reuse.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms occur obtain medical attention.

IF ON SKIN: Remove contaminated clothing immediately and wash affected skin with soap and water. Wash contaminated clothing before reuse. If irritation develops and persists, get medical attention.

IF IN EYES:Rinse cautiously with water for several minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Get medical attention if eye irritation develops or persists.

Unlikely route of exposure. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. If symptoms occur obtain medical attention.

Causes irritation to eyes and skin. May cause sensitization by skin contact.

Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

> Suitable Extinguishing Media Unsuitable extinguishing Media

5.2 Special hazards arising from the substance or mixture

5.3 Advice for fire-fighters Extinguish with carbon dioxide, dry chemical, foam or waterspray.

Do not use water jet.

Not flammable. May decompose in a fire giving off toxic fumes. Epoxy resins release phenolics, carbon monoxide, and water.

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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Do not breathe fumes/vapour from heated product. Stop leak if safe to do so. Use personal protective equipment as required. See Section: 8. Avoid breathing vapours. Avoid contact with skin and eyes.

6.2 **Environmental precautions** Avoid release to the environment. Do not allow to enter drains, sewers or

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watercourses.

6.3 Methods and material for containment and cleaning Contain spillar

up

Contain spillages. 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. Residual resin may be removed using steam or

hot soapy water.

6.4 Reference to other sections See Section: 8, 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure operatives are trained to minimise exposures. Ensure adequate ventilation. Do not breathe fumes/vapour from heated product. Avoid breathing vapours. In case of inadequate ventilation wear respiratory protection. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Keep only in original container. Keep container tightly closed and in a well-ventilated place. Keep away from naked flames and hot surfaces.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature Storage life

Incompatible materials

Specific end use(s)

Stable under normal conditions.

None known. See Section: 1.2.

Ambient.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

7.3

8.1.1 Occupational Exposure LimitsNot 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 operatives are trained to minimise exposures. Ensure adequate ventilation.

8.2.2 Individual protection measures, such as personal protective equipment (PPE)

General hygiene measures for the handling of chemicals are applicable. Keep good industrial hygiene. Avoid contact with skin and eyes. Do not breathe fumes/vapour from heated product. Avoid breathing vapours. Wash hands before breaks and after work. Keep work clothes separately. Do not eat, drink or smoke at the work place. IF exposed: Flush with fresh water if contact with skin or eyes.

Eye/face protection



Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).

Skin protection



Wear suitable chemical resistant protective gloves for frequent or prolonged operations tested to EN374 with an acceptable permeation test. Contaminated gloves should be carefully rinsed with water before reuse. Breakthrough time of the glove material: refer to the information provided by the gloves' producer.

Respiratory protection



Normally no personal respiratory protection is necessary. In case of inadequate ventilation wear respiratory protection.

Thermal hazards

Not applicable

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8.2.3 Environmental Exposure Controls Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance Colourless to yellowish liquid.

Odour Faint Epoxy Odour Odour threshold Not available.
pH Not established.
Melting point/freezing point Not established.
Initial boiling point and boiling range Not applicable.

Flash point 252°C (Method: PMCC)

Evaporation rate Not known. Flammability (solid, gas) Not applicable. Upper/lower flammability or explosive limits Not applicable. Vapour pressure Not applicable. Vapour density Not applicable. Relative density 1.16 (H2O=1) Insoluble in water. Solubility(ies) Partition coefficient: n-octanol/water Not available. Auto-ignition temperature Not available **Decomposition Temperature** Not available Viscosity Not available. Explosive properties Not available. Oxidising properties Not oxidising.

9.2 Other information None.

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 Phenolics, Carbon monoxide and Water.

10.4 Conditions to avoid Temperature > 300°C. Decomposes at temperatures above (°C): 350.

Generation of gas during decomposition can cause pressure in closed systems.

Pressure buildup can be rapid.

10.5 Incompatible materials Alkalis (strong bases). Acids. Amines and Oxidizing agents.

10.6 Hazardous decomposition product(s) Will not occur by itself, but masses of more than 500 gramms of product plus an

aliphatic amine will cause irreversible polymerization with considerable heat

buildup.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity - Skin Contact

11.1 Information on toxicological effects

All test data taken from existing ECHA registrations for the substances

mentioned.

Acute toxicity - Ingestion Based upon the available data, the classification criteria are not met.

Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg

bw/day.

Acute toxicity - Inhalation Based upon the available data, the classification criteria are not met.

Acute Toxicity Estimate Mixture Calculation: Estimated LC50 >20.0 mg/l. Based upon the available data, the classification criteria are not met.

Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg

bw/day.

Skin corrosion/irritation Skin Irrit. 2; Causes skin irritation.

Test Result: Irritating to skin. (Jolanki R et al, 1986)

Serious eye damage/irritation Eye Irrit. 2; Causes serious eye irritation.

Test Result: Causes serious eye irritation. (EPA/OTS; Doc #878212416)

Respiratory or skin sensitization Skin Sens. 1; May cause an allergic skin reaction.

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11.2

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Test Result: Skin sensitisation has been reported in studies with guinea pigs.

(EPA/OTS; Doc #878212421)

Germ cell mutagenicity Based upon the available data, the classification criteria are not met. Carcinogenicity Based upon the available data, the classification criteria are not met. Reproductive toxicity Based upon the available data, the classification criteria are not met. STOT - single exposure Based upon the available data, the classification criteria are not met. STOT - repeated exposure Based upon the available data, the classification criteria are not met. Aspiration hazard Based upon the available data, the classification criteria are not met.

Other information None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 **Toxicity** Aquatic Chronic 2; Toxic to aquatic life with long lasting effects.

Estimated Mixture LC50 > 1 to ≤ 10 mg/l (Fish)

IMDG

12.2 Persistence and degradability Readily biodegradable.

The product has low potential for bioaccumulation. 12.3 Bioaccumulative potential 12.4 The product is predicted to have low mobility in soil.

Mobility in soil 12.5 Results of PBT and VPVB assessment

VDD/DID

Not classified as PBT or vPvB.

None known. 12.6 Other adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods Dispose of this material and its container as hazardous waste. Send after pre-

treatment to a appropriate hazardous waste incinerator facility according to

IATA/ICAO

13.2 **Additional Information** Dispose of contents in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

		ADR/RID	INIDG	IATA/ICAO
14.1	UN number	UN 3077	UN 3077	UN 3077
14.2	UN proper shipping name	ENVIRONMENTALLY	ENVIRONMENTALLY	ENVIRONMENTALLY
		HAZARDOUS SUBSTANCE,	HAZARDOUS SUBSTANCE,	HAZARDOUS SUBSTANCE,
		LIQUID, N.O.S. (BISPHENOL	LIQUID, N.O.S. (BISPHENOL	LIQUID, N.O.S. (BISPHENOL
		A DIGLYCIDYL ETHER)	A DIGLYCIDYL ETHER)	A DIGLYCIDYL ETHER)
14.3	Transport hazard class(es)	9	9	9
14.4	Packing group	III	III	III
14.5	Environmental hazards	Environmentally hazardous	Classified as a Marine	Environmentally hazardous
		substance	Pollutant.	substance
14.6	Special precautions for user	See Section: 2		
14.7	Transport in bulk according to Annex	Not applicable		
	II of MARPOL73/78 and the IBC Code			

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental

regulations/legislation specific for the substance or

mixture

15.1.1 **EU regulations**

Authorisations and/or Restrictions On Use Not restricted

15.1.2 **National regulations** None known

15.2 **Chemical Safety Assessment** A chemical safety assessment is not required under REACH.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Revision: 1.0 - Not applicable

References:

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Existing Safety Data Sheet (SDS) and the Classification and Labelling Inventory for Bisphenol A Diglycidyl Ether (CAS No. 25085-99-8)

Literature References:

"Bisphenol A Diglycidyl Ether". In TOXLINE®: Toxic Substances Control Act Test Submissions. ToxPlanet, a division of Timberlake Ventures, Inc. Cornelius, NC. 2017

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830.

LEGEND

LTEL: Long Term Exposure Limit DNEL: Derived No Effect Level PBT: PBT: Persistent, Bioaccumulative and Toxic

Hazard classification / Classification code:

Skin Irrit. 2; Skin corrosion/irritation, Category 2 Skin Sens. 1; Skin Sensitisation, Category 1 Eye Irrit 2; Eye Irritation, Category 2

Aquatic Chronic 2; Hazardous to the aquatic environment, Chronic,

Category 2

STEL: Short Term Exposure Limit PNEC: Predicted No Effect Concentration vPvB: very Persistent and very Bioaccumulative

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.

Disclaimers

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