

# SAFETY DATA SHEET

Revision: 3.0 Date: 13/11/2020


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

<b>1.1 Product identifier</b>	
Product Name	RTC-2 Epoxy Part B
Chemical Name	Mixture
CAS No.	Mixture
EINECS No.	Mixture
REACH Registration No.	None assigned.
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>	
Identified Use(s)	Metal surface treatment products, including galvanic and electroplating products.
Uses Advised Against	None known.
<b>1.3 Details of the supplier of the safety data sheet</b>	
Company Identification	VISHAY MEASUREMENTS GROUP UK LTD Stroudley Road Basingstoke Hampshire United Kingdom RG24 8FW
Telephone	+44 (0) 1256 462131
Fax	+44 (0) 1256 471441
E-Mail (competent person)	<a href="mailto:mm.uk@vpgsensors.com">mm.uk@vpgsensors.com</a>
<b>1.4 Emergency telephone number</b>	(00-1) 703-527-3887 CHEMTREC

## 2. SECTION 2: HAZARDS IDENTIFICATION

<b>2.1 Classification of the substance or mixture</b>	
<b>2.1.1 Regulation (EC) No. 1272/2008 (CLP)</b>	Skin Corr. 1; H314 Skin Sens. 1; H317 Eye Dam. 1; H318 Aquatic Chronic 3; H412
<b>2.2 Label elements</b>	
Product Name	Regulation (EC) No. 1272/2008 (CLP) RTC-2 Epoxy Part B
Hazard Pictogram(s)	
Signal Word(s)	Danger
Contains:	Tris-2,4,6-(Dimethylaminomethyl) and Bis(dimethylaminomethyl)phenol
Hazard Statement(s)	H314: Causes severe skin burns and eye damage. H317: May cause an allergic skin reaction. H412: Harmful to aquatic life with long lasting effects.
Precautionary Statement(s)	P260: Do not breathe vapour. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P310: Immediately call a POISON CENTER/doctor.

Supplemental information

None.

2.3 Other hazards

None.

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

3.1 Substances - Not applicable

3.2 Mixtures

Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Liquid Diethoxymethane Polysulfide Polymer	< 100	68611-50-7	614-671-8	Not yet assigned in the supply chain	Aquatic Chronic 3; H412
Tris-2,4,6-(Dimethylaminomethyl)	< 18	90-72-2	202-013-9	Not yet assigned in the supply chain	Acute Tox. 4; H302 Skin Corr. 1C; H314 Skin Sens. 1; H317 Eye Dam. 1; H318
Bis(dimethylaminomethyl)phenol	< 3	71074-89-0	275-162-0	Not yet assigned in the supply chain	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335

H302: Harmful if swallowed. H312: Harmful in contact with skin. H314: Causes severe skin burns and eye damage. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H335: May cause respiratory irritation. H412: Harmful to aquatic life with long lasting effects.

## 4. SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Self-protection of the first aider

Inhalation

No action should be taken involving personal risk. Do not breathe vapour. Wear suitable protective clothing. Wear suitable respiratory protective equipment if exposure to high levels of material are likely. Do not use mouth-to-mouth resuscitation. Contaminated clothing should be laundered before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If breathing has stopped, apply artificial respiration. Do not use mouth-to-mouth resuscitation. If breathing is laboured, oxygen should be administered by qualified personnel. Call a POISON CENTER/doctor if you feel unwell.

Skin Contact

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse. If irritation (redness, rash, blistering) develops, get medical attention.

Eye Contact

IF IN EYES: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Continue irrigation until medical attention can be obtained. Get medical attention if eye irritation develops or persists.

Ingestion

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent

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- |                                                                                       |                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>4.2 Most important symptoms and effects, both acute and delayed</b>                | aspiration into the lungs. If aspiration is suspected obtain immediate medical attention.<br>Causes severe skin burns and eye damage. May cause an allergic skin reaction.                                                                                |
| <b>4.3 Indication of any immediate medical attention and special treatment needed</b> | Treat symptomatically.<br>IF ON SKIN: Cover the affected area with a sterile dressing or clean sheeting and transport for medical care. Do not apply greases or ointments.<br>IF IN EYES: Obtain prompt consultation, preferably from an ophthalmologist. |

## 5. SECTION 5: FIREFIGHTING MEASURES

- |                                                                  |                                                                                                                                                                                                                                   |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>5.1 Extinguishing media</b><br>Suitable Extinguishing media   | As appropriate for surrounding fire. Suitable extinguishing media: alcohol resistant foam, Limestone powder, dry chemical, sand or carbon dioxide.                                                                                |
| <b>5.2 Special hazards arising from the substance or mixture</b> | Do not use water jet. Direct water jet may spread the fire.<br>May decompose in a fire giving off toxic fumes. Carbon monoxide, carbon dioxide, Nitrogen oxides and Ammonia.                                                      |
| <b>5.3 Advice for fire-fighters</b>                              | 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

- |                                                                                |                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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. Do not breathe vapour. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.      |
| <b>6.2 Environmental precautions</b>                                           | Avoid release to the environment.                                                                                                                                                                                                                                   |
| <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 (2008/98/EEC). |
| <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. Do not breathe fumes/vapour from heated product. 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 container tightly closed, in a cool, well ventilated place.<br>Recommended: Store locked up.<br>Ambient.<br>Stable under normal conditions.<br>Keep away from: Oxidizing agents, Sodium hypochlorite and calcium hydrochlorite, Organic acids and Mineral acids.                                       |
| <b>7.3 Specific end use(s)</b>                                                                                                           | Metal surface treatment products, including galvanic and electroplating products.                                                                                                                                                                                                                           |

## 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. Guarantee that the eye flushing systems and safety showers are located close to the working place. |

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

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. Do not eat, drink or smoke at the work place.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye/ face protection



Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166). Recommended: Tightly-fitting safety goggles.

Skin protection



**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, Natural rubber or Nitrile rubber. Protective index 6, corresponding > 480 minutes of permeation time according to EN 374.

**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.

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	Straw Yellow Liquid
Odour	Irritating odour
Odour threshold	Not available.
pH	Not established.
Melting point/freezing point	Not established.
Initial boiling point and boiling range	Not applicable.
Flash point	93.3°C
Evaporation rate	Not known.
Flammability (solid, gas)	Not applicable - Liquid.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	0.97 (H <sub>2</sub> O=1)
Solubility(ies)	< 20% (Water)
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

### 9.2 Other information

None.

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## 10. SECTION 10: STABILITY AND REACTIVITY

10.1	<b>Reactivity</b>	Stable under normal conditions.
10.2	<b>Chemical stability</b>	Stable under normal conditions.
10.3	<b>Possibility of hazardous reactions</b>	May react vigorously with oxidizing agents creating explosion hazard.
10.4	<b>Conditions to avoid</b>	Avoid contact with heat and ignition sources and oxidizers.
10.5	<b>Incompatible materials</b>	Keep away from: Oxidizing agents, Sodium hypochlorite and calcium hypochlorite, Organic acids and Mineral acids.
10.6	<b>Hazardous decomposition product(s)</b>	May decompose in a fire giving off toxic fumes. Carbon monoxide, carbon dioxide, Nitrogen oxides and Ammonia.

## 11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1	<b>Information on toxicological effects (Substances in preparations / mixtures)</b>	
	<b>Acute toxicity</b>	
	Ingestion	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: LC50 > 2000 mg/kg bw/day.
	Inhalation	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: LC50 > 20.0 mg/l.
	Skin Contact	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: LC50 > 2000 mg/kg bw/day.
	<b>Skin corrosion/irritation</b>	
	Tris-2,4,6-(Dimethylaminomethyl)	Skin Corr 1; H314: Causes severe skin burns and eye damage.
	Bis(dimethylaminomethyl)phenol	Skin Corr 1C; H314: Causes severe skin burns and eye damage. Corrosive to rabbit skin (OECD 404) Skin Corr 1B; H314: Causes severe skin burns and eye damage. EU classification and labelling inventory, ≥ 400 Notifiers
	<b>Serious eye damage/irritation</b>	
	Tris-2,4,6-(Dimethylaminomethyl)	Eye Dam. 1; H318: Causes serious eye damage.
	Bis(dimethylaminomethyl)phenol	Eye Dam. 1; H318: Causes serious eye damage. Corrosive to eyes. (rabbit) (Unnamed publication, 1975) Eye Dam. 1; H318: Causes serious eye damage. EU classification and labelling inventory, ≥ 300 Notifiers
	<b>Respiratory or skin sensitization</b>	
	Tris-2,4,6-(Dimethylaminomethyl)	Skin Sens. 1; H317: May cause an allergic skin reaction.
	Bis(dimethylaminomethyl)phenol	Skin Sens. 1; H317: May cause an allergic skin reaction. Human Positive data from patch testing. (Kanerva et al, 196)
	<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>	None.

## 12. SECTION 12: ECOLOGICAL INFORMATION

12.1	<b>Toxicity</b>	
	Liquid Diethoxymethane Polysulfide Polymer	Aquatic Chronic 3; H412: Harmful to aquatic life with long lasting effects. Estimated Mixture LC50: >10 - ≤100 mg/l (Fish)
	Tris-2,4,6-(Dimethylaminomethyl)	Aquatic Chronic 3; H412: Harmful to aquatic life with long lasting effects.
	Bis(dimethylaminomethyl)phenol	EU classification and labelling inventory, ≥ 120 Notifiers Not classified
12.2	<b>Persistence and degradability</b>	
	Liquid Diethoxymethane Polysulfide Polymer	No data for the mixture as a whole. Part of the components are poorly biodegradable.
	Tris-2,4,6-(Dimethylaminomethyl)	No data
	Bis(dimethylaminomethyl)phenol	Not readily biodegradable (OECD 301D) No data
12.3	<b>Bioaccumulative potential</b>	
	Liquid Diethoxymethane Polysulfide Polymer	No data for the mixture as a whole. The product is predicted to have low potential for bioaccumulation No data

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	Tris-2,4,6-(Dimethylaminomethyl) Bis(dimethylaminomethyl)phenol	No data No data
12.4	<b>Mobility in soil</b>	No data for the mixture as a whole. The product is predicted to have moderate mobility in soil.
	Liquid Diethoxymethane Polysulfide Polymer Tris-2,4,6-(Dimethylaminomethyl)	No data The substance is predicted to have moderate mobility in soil. Koc: 20.98 L/kg, (Q)SAR (Unnamed publication, 2010).
12.5	<b>Results of PBT and vPvB assessment</b>	No data Not classified as PBT or vPvB. None of the substances in this product fulfil the criteria for being regarded as a PBT or vPvB substance.
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 (2008/98/EEC). 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</b>	<b>IMDG</b>	<b>IATA</b>
14.1	<b>UN number</b>	UN 2735	UN 2735
14.2	<b>UN proper shipping name</b>	AMINES, LIQUID, CORROSIVE, N.O.S (Tris-2,4,6- (Dimethylaminomethyl))	AMINES, LIQUID, CORROSIVE, N.O.S (Tris-2,4,6- (Dimethylaminomethyl))
14.3	<b>Transport hazard class(es)</b>	8	8
14.4	<b>Packing group</b>	III	III
14.5	<b>Environmental hazards</b>	Not 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>	.	
	Limited Quantities	5 L	
	Excepted quantities	E1	
	Tunnel restriction code	3 (E)	

## 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>EU regulations</b>	
	Authorisations and/or restrictions on use	Not restricted
	Substance(s) of Very High Concern (SVHCs)	None
15.1.2	<b>National regulations</b>	
	Wassergefährdungsklasse (Germany)	Water hazard class: 2 (Self classification)
15.2	<b>Chemical Safety Assessment</b>	Not available.

## 16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

Updated substance / mixture classification. Updated version and date. Please review SDS with care. See below -

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Sections indicated with the following have been revised:

**References:** Existing Safety Data Sheet (SDS), Harmonised Classification(s) for Tris-2,4,6-(Dimethylaminomethyl) (CAS# 90-72-2). Existing ECHA registration(s) for Tris-2,4,6-(Dimethylaminomethyl) (CAS# 90-72-2), and the Classification and Labelling Inventory for Liquid Diethoxymethane Polysulfide Polymer (CAS# 68611-50-7) and Bis(dimethylaminomethyl)phenol (CAS# 71074-89-0).

#### Literature References:

1. Kanerva L, Estlander T, Jolanki R. 1996. Occupational allergic contact dermatitis caused by 2,4,6-tris-(dimethylaminomethyl)phenol, and review of sensitizing epoxy resin hardeners. Int J Dermatol. Dec;35(12):852-6.

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	Classification Procedure
Skin Corr 1; H314	Threshold Calculation
Skin Sens. 1; H317	Threshold Calculation
Eye Dam. 1; H318	Threshold Calculation
Aquatic Chronic 3; H412	Summation Calculation

#### LEGEND

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service
DNEL	Derived No Effect Level
EC	European Community
ECHA	European Chemicals Agency
EU	European Union
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
(Q)SAR	Quantitative structure-activity relationship
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the international railway transport of dangerous goods
UN	United Nations
vPvB	very Persistent and very Bioaccumulative

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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