Version: 4.0

Date of Issue: 13-November-2020 Date of First Issue: 10-May-2017



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ACCORDING TO OSHA HCS (29 CFR 1910.1200)

SECTION 1: IDENTIFICATION

Product identifier used on the label RTC-2 Epoxy Part B

Other means of identification

Chemical Name Mixture
CAS No. Mixture
EINECS No. Mixture

Recommended use of the chemical and restrictions

on use

Recommended use Metal surface treatment products, including galvanic and electroplating products.

Restrictions on use None known.

Details of the supplier of the safety data sheet

Supplier VISHAY MEASUREMENTS GROUP, INC.

Address of Supplier Post Office Box 27777

Raleigh, NC 27611

USA

 Telephone
 +1 919-365-3800

 Fax
 +1 919-365-3945

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

Emergency telephone number 1-800-424-9300 CHEMTREC (24 hours)

SECTION 2: HAZARD(S) IDENTIFICATION

Classification of the substance or mixture in accordance with paragraph (d) of 29 CFR 1910.1200

Physical hazards Not classified

Health hazards Skin Corrosion/Irritation, Category 1

Skin sensitization, Category 1

Serious eye damage/irritation, Category 1

Environmental hazards Hazardous to the aquatic environment, Chronic, Category 3

Hazard Symbol





Signal Word(s) Danger

Hazard Statement(s)

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Harmful to aquatic life with long lasting effects.

Precautionary Statement(s)

Prevention Do not breathe vapour.

Wash hands and exposed skin thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

Response IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin

with water or shower. Immediately call a POISON CENTER/doctor. If skin irritation or rash occurs: Get medical advice/attention.

15581 Page: 1 of 8

Version: 4.0

Date of Issue: 13-November-2020 Date of First Issue: 10-May-2017

Storage

Disposal



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ACCORDING TO OSHA HCS (29 CFR 1910.1200)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Dispose of contents in accordance with local, state or national legislation.

Other hazards None Known

Percent of the mixture consists of ingredient(s) of

0%

unknown acute toxicity:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances Not applicable

Mixtures Substances in preparations / mixtures

Chemical identity of the substance	%W/W	Synonyms	CAS No.	Hazard classification
Liquid Diethoxymethane Polysulfide Polymer	< 100	Propane, 1,2,3-trichloro-, polymer with 1,1'-[methylenebis(oxy)]bis[2- chloroethane] and sodium sulfide (Na2(Sx)), reduced	68611-50-7	Hazardous to the aquatic environment, Chronic, Category 3
Tris-2,4,6-(Dimethylaminomethyl)	< 18	2,4,6- Tridimethylaminomethylphenol; Phenol, 2,4,6- tris[(dimethylamino)methyl]-	90-72-2	Acute toxicity, oral, Category 4 Skin corrosion/irritation, Category 1C Skin sensitization, Category 1 Serious eye damage/irritation, Category 1
Bis(dimethylaminomethyl)phenol	< 3	-	71074-89-0	Acute toxicity, oral, Category 4 Acute toxicity, dermal, Category 4 Skin corrosion/irritation, Category 1B Serious eye damage/irritation, Category 1 Specific target organ toxicity — single exposure, Category 3 (Irritation of the respiratory tract.)

SECTION 4: FIRST AID MEASURES



Description of first aid measures Self-protection of the first aider

Inhalation

Skin Contact

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.

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.

15581 Page: 2 of 8

Version: 4.0

Date of Issue: 13-November-2020 Date of First Issue: 10-May-2017



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

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 aspiration into the lungs. If aspiration is suspected obtain immediate medical attention.

Causes severe skin burns and eye damage. May cause an allergic skin reaction.

Most important symptoms and effects, both acute and delayed

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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.

IF IN EYES: Obtain prompt consultation, preferably from an ophthalmologist.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Unsuitable extinguishing Media

Special hazards arising from the substance or

Special protective equipment and precautions for fire fighters

As appropriate for surrounding fire. Suitable extinguishing media: alcohol resistant foam, Limestone powder, dry chemical, sand or carbon dioxide.

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

May decompose in a fire giving off toxic fumes. Carbon monoxide, carbon dioxide, Nitrogen oxides and Ammonia.

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

Personal precautions, protective equipment and emergency procedures

Methods and material for containment and cleaning up 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. Avoid release to the environment.

Adsorb 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.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

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.

Conditions for safe storage, including any incompatibilities

Storage temperature Incompatible materials when using this product. Wash hands before breaks and after Keep container tightly closed, in a cool, well ventilated place.

Recommended: Store locked up.

Ambient.

Keep away from: Oxidizing agents, Sodium hypochlorite and calcium hyprochlorite, Organic acids and Mineral acids.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

No Occupational Exposure Limit assigned. No OSHA permissible exposure limit (PEL).

No American Conference of Governmental Industrial Hygienists (ACGIH)

Threshold Limit Value (TLV)

15581 Page: 3 of 8

Version: 4.0

Date of Issue: 13-November-2020 Date of First Issue: 10-May-2017



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

Biological Exposure Indices

Appropriate engineering controls

Ensure adequate ventilation or use appropriate containment. Guarantee that the eye flushing systems and safety showers are located close to the working place.

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.

Not established.

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Straw Yellow Liquid
Odor Irritating odour
Odor Threshold Not established.

pH Not established.

Melting Point/Freezing Point Not established.

Initial boiling point and boiling range Not established.

Flash Point Not applicable.

Evaporation rate (Butyl acetate = 1)

Not known.

Flammability (solid, gas)

Upper/lower flammability or explosive limits

Not applicable - Liquid.

Not applicable.

Vapour pressure

Vapour density

Relative density

Solubility(ies)

Partition coefficient: n-octanol/water

Not applicable.

Not applicable.

0.97 (H2O=1)

< 20% (Water)

Partition coefficient: n-octanol/water

Not available.

Auto-ignition temperature Not available.

Decomposition Temperature Not available.

Viscosity Not applicable.

Other information

Explosive properties Not explosive.

Oxidising properties Not oxidising.

15581 Page: 4 of 8

Version: 4.0

Date of Issue: 13-November-2020 Date of First Issue: 10-May-2017



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

SECTION 10: STABILITY AND REACTIVITY

 Reactivity
 Stable under normal conditions.

 Chemical stability
 Stable under normal conditions.

Possibility of hazardous reactions

May react vigorously with oxidizing agents creating explosion hazard.

Conditions to avoid Avoid contact with heat and ignition sources and oxidizers.

Incompatible materials Keep away from: Oxidizing agents, Sodium hypochlorite and calcium

hyprochlorite, Organic acids and Mineral acids.

Hazardous decomposition product(s)

May decompose in a fire giving off toxic fumes. Carbon monoxide, carbon dioxide,

Nitrogen oxides and Ammonia.

SECTION 11: TOXICOLOGICAL INFORMATION

Tris-2,4,6-(Dimethylaminomethyl)

Tris-2,4,6-(Dimethylaminomethyl)

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 LC50 > 2000 mg/kg

bw/day.

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

Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 20.0 mg/l.

Acute toxicity - Skin Contact 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 Corrosion/Irritation, Category 1; Causes severe skin burns and eye damage.

Skin Corrosion/Irritation, Category 1C; Causes severe skin burns and eye

damage. Corrosive to rabbit skin (OECD 404)

Bis(dimethylaminomethyl)phenol Skin Corrosion/Irritation, Category 1B; Causes severe skin burns and eye

damage. EU classification and labelling inventory, ≥ 400 Notifiers

Serious eye damage/irritation, Category 1; Causes serious eye damage.

Serious eye damage/irritation, Category 1; Causes serious eye damage.

Corrosive to eyes. (rabbit) (Unnamed publication, 1975)

Bis(dimethylaminomethyl)phenol Serious eye damage/irritation, Category 1; Causes serious eye damage.

EU classification and labelling inventory, ≥ 300 Notifiers

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

Tris-2,4,6-(Dimethylaminomethyl)

Skin sensitization, Category 1; May cause an allergic skin reaction.

Human Positive data from patch testing. (Kanerya et al. 196)

Human Positive data from patch testing. (Kanerva et al, 196)

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 exposureBased upon the available data, the classification criteria are not met. **Aspiration hazard**Based upon the available data, the classification criteria are not met.

Information on likely routes of exposure

Inhalation Possible – accidental exposure Ingestion Unlikely – accidental exposure Skin Contact Possible – accidental exposure Eye Contact Unlikely – accidental exposure

Early onset symptoms related to exposure Causes severe skin burns and eye damage. May cause an allergic skin reaction.

Delayed health effects from exposure None known.

Other information

NTP Report on Carcinogens

IARC Monographs

OSHA Designated Carcinogen

Not listed

Not listed

15581 Page: 5 of 8

Version: 4.0

Date of Issue: 13-November-2020 Date of First Issue: 10-May-2017



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

SECTION 12: ECOLOGICAL INFORMATION

EcotoxicityHazardous to the aquatic environment, Chronic, Category 3; Harmful to aquatic

life with long lasting effects.

Estimated Mixture LC50: >10 - <100 mg/l (Fish)

Liquid Diethoxymethane Polysulfide Polymer Hazardous to the aquatic environment, Chronic, Category 3; Harmful to aquatic

life with long lasting effects.

EU classification and labelling inventory, ≥ 120 Notifiers

Tris-2,4,6-(Dimethylaminomethyl) Not classified Bis(dimethylaminomethyl)phenol Not classified

Persistence and degradability

No data for the mixture as a whole. Part of the components are poorly

biodegradable.

Liquid Diethoxymethane Polysulfide Polymer No data

Tris-2,4,6-(Dimethylaminomethyl)

Not readily biodegradable (OECD 301D)

Bis(dimethylaminomethyl)phenol No data

Bioaccumulative potential No data for the mixture as a whole. The product is predicted to have low

potential for bioaccumulation

Liquid Diethoxymethane Polysulfide Polymer

Tris-2,4,6-(Dimethylaminomethyl)
Bis(dimethylaminomethyl)phenol

Mobility in soil

Other adverse effects

Liquid Diethoxymethane Polysulfide Polymer

Tris-2,4,6-(Dimethylaminomethyl)

No data for the mixture as a whole. The product is predicted to have moderate

mobility in soil.

No data

No data

No data

No data

The substance is predicted to have moderate mobility in soil.

Koc: 20.98 L/kg, (Q)SAR (Unnamed publication, 2010).

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

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.

Additional Information Containers of this material may be hazardous when empty since they retain

product residue. Ensure that all packaging is disposed of safely.

SECTION 14: TRANSPORT INFORMATION

 ADR/RID
 IMDG
 ICAO/IATA

 UN number
 UN 2735
 UN 2735
 UN 2735

UN proper shipping name

AMINES, LIQUID,

AMINES, LIQUID,

AMINES, LIQUID,

CORROSIVE, N.O.S (Tris-2,4,6-(Dimethylaminomethyl)) 2,4,6-(Dimethylaminomethyl)) 2,4,6-(Dimethylaminomethyl)) 2,4,6-(Dimethylaminomethyl))

Transport hazard class(es)888Packing groupIIIIIIIII

Environmental hazards Not classified as a Marine Pollutant / Environmentally hazardous substance

Transport in bulk according to Annex Not applicable.

II of MARPOL 73/78 and the IBC Code

Special precautions for user See Section: 2

Additional Information

Limited Quantities 5 L
Excepted quantities E1
Tunnel restriction code 3 (E)

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture US Federal Regulations

15581 Page: 6 of 8

Version: 4.0

Date of Issue: 13-November-2020 Date of First Issue: 10-May-2017



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

TSCA Chemical Data Reporting (CDR) Rule Liquid Diethoxymethane Polysulfide Polymer - exempt from reporting under

CDR)

Tris-2,4,6-(Dimethylaminomethyl) - Subject to 25,000 lb reporting threshold

Bis(dimethylaminomethyl)phenol - Not Listed

EPCRA/SARA Section 302 Extremely Hazardous

Substances

No Components Listed

EPCRA Section 313 Toxics Release Inventory (TRI)

Program

No Components Listed

NIOSH Occupational Carcinogen List

OSHA List of highly hazardous chemicals, toxics and

reactives

No Components Listed No Components Listed

NTP Report on Carcinogens (RoC) List

Poison Prevention Packaging Act

No Components Listed

No Components Listed

US State Regulations

California State, Proposition 65 List
California State, Safer Consumer Products Regulations
Maine State, Toxic Chemicals in Children's Products Act
New Jersey State Worker and Community RTK Act
Pennsylvania State, Worker and Community RTK Act
Rhode Island State, Hazardous Substances RTK Act

No Components Listed

No Components Listed No Components Listed No Components Listed No Components Listed No Components Listed

Rhode Island State, Hazardous Substances RTK Ac Non-Regional

No Components Listed

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1 - 16. Updated substance / mixture classification. Updated version and date. Please review SDS with care. See below -

Sections indicated with the following have been revised:

IARC Monographs, List of Classifications

Version 4.0

Revision Date 13-November-2020 Date of First Issue 10-May-2017

References:

Existing Safety Data Sheet (SDS), EU 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 in accordance with paragraph (d) of 29 CFR 1910.1200	Classification Procedure	
Skin Corrosion/Irritation, Category 1	Threshold Calculation	
Skin sensitization, Category 1	Threshold Calculation	
Serious eye damage/irritation, Category 1	Threshold Calculation	
Hazardous to the aquatic environment, Chronic, Category 3	Summation Calculation	

LEGEND

ACGIH: American Conference of Governmental Industrial Hygienists

IARC: International Agency for Research on Cancer

NIOSH: National Institute of Occupational Safety and Health

NTP: National Toxicology Program

OECD: Organisation for Economic Cooperation and Development

OSHA: The Occupational Safety & Health Administration

PEL: Permissible exposure limit

(Q)SAR: Quantitative structure-activity relationship

REL: Recommended exposure limit

TLV: Threshold Limit value

TSCA: Toxic Substance Control Act

15581 Page: 7 of 8

Version: 4.0

Date of Issue: 13-November-2020 Date of First Issue: 10-May-2017



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

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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15581 Page: 8 of 8



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