Version: 3.0

Date of Issue: 02 May 2017 Date of First Issue: 04 Sept 2012



www.vishaypg.com

#### ACCORDING TO OSHA HCS (29 CFR 1910.1200)

# **SECTION 1: IDENTIFICATION**

Product identifier used on the label EPY-500 Part A

Other means of identification

Chemical Name Mixture
CAS No. Mixture
EINECS No. Mixture

Recommended use of the chemical and restrictions

on use

Recommended use PC14 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 2
Skin Sensitisation, Category 1

Skin Sensitisation, Category 1 Eye Irritation, Category 2

Environmental hazards Hazardous to the aquatic environment, Chronic, Category 2

Hazard Symbol





Signal Word(s) Warning

Hazard Statement(s)

Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye irritation.

Toxic to aquatic life with long lasting effects.

Precautionary Statement(s) Wash hands and exposed skin thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid breathing vapours.

IF ON SKIN: Wash with plenty of water.

If skin irritation occurs, get medical advice/attention.

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.

14013 Page: 1 of 7

Version: 3.0

Date of Issue: 02 May 2017 Date of First Issue: 04 Sept 2012



www.vishaypg.com

# ACCORDING TO OSHA HCS (29 CFR 1910.1200)

Take off contaminated clothing and wash it before reuse.

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

Other hazards Susceptible to polymerisation initiated by prolonged heating or the presence of

catalyst. Bulk: May undergo autopolymerisation.

Percent of the mixture consists of ingredient(s) of

unknown acute toxicity:

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

Substances Not applicable

Mixtures Substances in preparations / mixtures

| Chemical identity of the substance   | %W/W   | CAS No.    | EC No.    | Hazard classification   |
|--|--------|------------|-----------|---|
| Phenol, polymer with formaldehyde, glycidyl ether  | < 87   | 28064-14-4 | 608-164-0 | Skin corrosion/irritation, Category 2 Skin Sensitisation, Category 1 Eye Irritation, Category 2 Hazardous to the aquatic environment, Chronic, Category 2 |
| Magnesium silicate talc  | 5 - 10 | 14807-96-6 | 238-877-9 | Not classified  |
| Reaction product: Bisphenol-A-<br>(epichlorhydrin) epoxy resin<br>(number average molecular weight<br>≤ 700) | < 5    | 25068-38-6 | 500-033-5 | Skin corrosion/irritation, Category 2 Skin Sensitisation, Category 1 Eye Irritation, Category 2 Hazardous to the aquatic environment, Chronic, Category 2 |

# **SECTION 4: FIRST AID MEASURES**



Description of first aid measures

Self-protection of the first aider Use personal protective equipment as required. Wear appropriate personal

protective equipment, avoid direct contact.

Inhalation If breathing is difficult, remove victim to fresh air and keep at rest in a position

comfortable for breathing.

Skin Contact IF ON SKIN: Remove contaminated clothing and wash all affected areas with plenty of water. Contaminated clothing should be thoroughly cleaned. 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.

Do not give milk or alcoholic beverages. Do not give anything by mouth to an Ingestion

unconscious person. Obtain medical attention if ill effects occur.

Most important symptoms and effects, both acute Causes skin irritation. May cause an allergic skin reaction. Causes serious eye and delayed irritation. Overexposure may aggravate existing eye, skin, and/or respiratory

Indication of any immediate medical attention and Treat symptomatically.

special treatment needed

## **SECTION 5: FIRE-FIGHTING MEASURES**

#### **Extinguishing media**

Suitable Extinguishing Media

As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical, foam or waterspray. Alcohol resistant foams (ATC type) are preferred. General

14013 Page: 2 of 7

Version: 3.0

Date of Issue: 02 May 2017 Date of First Issue: 04 Sept 2012

mixture



www.vishaypg.com

# ACCORDING TO OSHA HCS (29 CFR 1910.1200)

Unsuitable extinguishing Media

purpose synthetic foams (including AFFF) or protein foams may function, but will

be less effective.

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 and phenolic. Dense smoke is emitted when burned without sufficient oxygen. Susceptible to polymerisation initiated by prolonged heating or the

presence of catalyst.

Special protective equipment and precautions for

fire fighters

Special hazards arising from the substance or

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. Avoid breathing vapours. Use personal protective equipment as required. See Section: 8.

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.

#### SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Ensure adequate ventilation. Avoid breathing vapours. Avoid contact with skin, eyes or clothing. 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. Susceptible to polymerisation initiated by prolonged heating or the presence of catalyst. Bulk: May undergo autopolymerisation.

Conditions for safe storage, including any incompatibilities

Storage temperature

Storage life

Incompatible materials

Ambient.

Stable under normal conditions.

Keep away from: Polymerisation catalysts such as peroxy or azo compounds,

strong acids, alkalis, oxidising agents and metal salts.

Keep away from heat, sources of ignition and direct sunlight.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Occupational Exposure Limits**

| SUBSTANCE               | CAS No.    | LTEL (8 hr TWA<br>ppm) | LTEL (8 hr TWA<br>mg/m³) | STEL (ppm) | STEL (mg/m³) | Note            |
|-------------------------|------------|------------------------|--------------------------|------------|--------------|-----------------|
| Talc                    |            |                        |                          |            |              | NIOSH           |
| (containing no asbestos | 14807-96-6 | -                      | 2                        | -          | -            | Respirable Dust |
| and less than 1%        |            | 20 mppcf               | -                        | -          | -            | OSHA            |
| quartz)                 |            | -                      | 2                        | -          | -            | ACGIH, A4       |

Note: OSHA PELs 1910.1000 TABLE Z-3/ NIOSH RELs / ACGIH TLVs

A4: Not Classifiable as a Human Carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of the lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories.

Mppcf: Millions of particles per cubic foot of air

The other components listed in Section 3 do not have occupational exposure limits.

Not established **Biological Exposure Indices** 

Appropriate engineering controls Ensure adequate ventilation or use appropriate containment. Atmospheric levels

should be controlled in compliance with the occupational exposure limit.

14013 Page: 3 of 7

Version: 3.0

Date of Issue: 02 May 2017 Date of First Issue: 04 Sept 2012



www.vishaypg.com

## ACCORDING TO OSHA HCS (29 CFR 1910.1200)

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

General hygiene measures for the handling of chemicals are applicable. Avoid breathing vapours. Avoid contact with skin, eyes or clothing. 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.

Eye/face protection



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

Skin protection



Hand protection: Wear impervious gloves. Gloves should be changed regularly to avoid permeation problems. 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.

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 Liquid Not available. Odor Odor Threshold Not available. Not available. рΗ Melting Point/Freezing Point Not available Initial boiling point and boiling range Not available. Flash Point >94°C Evaporation rate (Butyl acetate = 1) Not applicable. Flammability (solid, gas) Not applicable - liquid Upper/lower flammability or explosive limits Not applicable. Vapour pressure Not available. Vapour density Not available. 1.27 @ 25°C Relative density Solubility(ies) Not established. Partition coefficient: n-octanol/water Not available. Auto-ignition temperature Not available.

# **SECTION 10: STABILITY AND REACTIVITY**

**Decomposition Temperature** 

Viscosity

 Reactivity
 Stable under normal conditions.

 Chemical stability
 Stable under normal conditions.

Possibility of hazardous reactions Susceptible to polymerisation initiated by prolonged heating or the presence of

Not available.

>22 mm²/s @ 40°C

catalyst. Bulk: May undergo autopolymerisation.

Conditions to avoid Keep away from heat, sources of ignition and direct sunlight.

Incompatible materials Polymerisation catalysts such as peroxy or azo compounds, strong acids,

alkalis, oxidising agents and metal salts.

Hazardous decomposition product(s)

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

dioxide and phenolic.

14013 Page: 4 of 7

Version: 3.0

Date of Issue: 02 May 2017 Date of First Issue: 04 Sept 2012



www.vishaypg.com

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

**Acute toxicity - Skin Contact** 

## **SECTION 11: TOXICOLOGICAL INFORMATION**

## 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 - 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/irritationSkin corrosion/irritation, Category 2: Causes skin irritation.Serious eye damage/irritationEye Irritation, Category 2: Causes serious eye irritation.

Respiratory or skin sensitization
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.

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 irritation to eyes and skin. May cause an allergic skin reaction.

Delayed health effects from exposure None known.

Other information

NTP Report on Carcinogens Not listed.

IARC Monographs Magnesium silicate talc: Group 3 - Not classifiable as to its carcinogenicity to

humans.

OSHA Designated Carcinogen Not listed.

# **SECTION 12: ECOLOGICAL INFORMATION**

**Ecotoxicity** Aquatic Chronic 2: Toxic to aquatic life with long lasting effects.

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

Persistence and degradabilityPart of the components are poorly biodegradable.Bioaccumulative potentialThe product has low potential for bioaccumulation.Mobility in soilThe product is predicted to have low mobility in soil.

Other adverse effects None known

# **SECTION 13: DISPOSAL CONSIDERATIONS**

Waste treatment methods This material and its container must be disposed of as hazardous waste.

Containers of this material may be hazardous when empty since they retain product residue. Send after pre-treatment to a appropriate hazardous waste

incinerator facility according to legislation.

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

14013 Page: 5 of 7

Version: 3.0

Date of Issue: 02 May 2017 Date of First Issue: 04 Sept 2012



www.vishaypg.com

(number average molecular

weight ≤ 700))

ACCORDING TO OSHA HCS (29 CFR 1910.1200)

# **SECTION 14: TRANSPORT INFORMATION**

 ADR/RID
 IMDG
 IATA

 UN number
 UN 3082
 UN 3082
 UN 3082

**ENVIRONMENTALLY UN proper shipping name ENVIRONMENTALLY ENVIRONMENTALLY** HAZARDOUS SUBSTANCE, HAZARDOUS SUBSTANCE, HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Phenol, LIQUID, N.O.S. (Phenol, LIQUID, N.O.S. (Phenol, polymer with formaldehyde, polymer with formaldehyde, polymer with formaldehyde, glycidyl ether and Reaction glycidyl ether and Reaction glycidyl ether and Reaction product: bisphenol-Aproduct: bisphenol-Aproduct: bisphenol-A-(epichlorhydrin) epoxy resin (epichlorhydrin) epoxy resin (epichlorhydrin) epoxy resin

(number average molecular (number average molecular weight ≤ 700)) weight ≤ 700))

Transport hazard class(es) 9 9 9
Packing group III III III

Environmental hazards

Classified as a Marine
Pollutant/ Environmentally
hazardous substance.

Classified as a Marine
Pollutant/ Environmentally
hazardous substance.

Classified as a Marine
Pollutant/ Environmentally
hazardous substance.

hazardous substance.

hazardous substance. 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

## **SECTION 15: REGULATORY INFORMATION**

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

TSCA (Toxic Substance Control Act)

Magnesium silicate talc - Subject to 25,000 lb reporting threshold

Not listed.

Not listed.

Not listed.

EPCRA/SARA Section 302 Extremely Hazardous Not listed.

Substances

EPCRA Section 313 Toxics Release Inventory (TRI)

Program

NIOSH Occupational Carcinogen List

OSHA List of highly hazardous chemicals, toxics and

reactives

NTP Report on Carcinogens (RoC) List Not listed.
Poison Prevention Packaging Act Not listed.

**US State Regulations** 

California State, Proposition 65 List Not listed.

California State, Safer Consumer Products Regulations Magnesium silicate talc - Candidate Chemicals List

Maine State, Toxic Chemicals in Children's Products Act
New Jersey State Worker and Community RTK Act
Magnesium silicate talc - RTKHSL. SHHSL

Pennsylvania State, Worker and Community RTK Act
Rhode Island State, Hazardous Substances RTK Act
Magnesium silicate talc - Hazardous Substance List
Magnesium silicate talc - Hazardous Substance List

Non-Regional

IARC Monographs, List of Classifications Magnesium silicate talc - Group 3: Not classifiable as to its carcinogenicity to

humans

## **SECTION 16: OTHER INFORMATION**

The following sections contain revisions or new statements: New SDS Regulation compliant with HazCom 2012 format, all sections have been updated to include new information. Please review SDS with care.

Version 3.0

Revision Date 02-May-2017 Date of First Issue 04-Sept-2012

14013 Page: 6 of 7

Version: 3.0

Date of Issue: 02 May 2017 Date of First Issue: 04 Sept 2012



www.vishavpg.com

## ACCORDING TO OSHA HCS (29 CFR 1910.1200)

#### References:

Existing Safety Data Sheet (SDS).

EU Data: Existing ECHA registration(s) for and Harmonised Classification(s) for Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) (CAS# 25068-38-6). EU Data: The Classification and Labelling Inventory for Phenol, polymer with formaldehyde, glycidyl ether (CAS# 28064-14-4) and Magnesium silicate talc (CAS# 14807-96-6).

| GHS Classification of the substance or mixture            | Classification Procedure |
|---|--------------------------|
| Skin corrosion/irritation, Category 2                     | Threshold Calculation    |
| Skin Sensitisation, Category 1                            | Threshold Calculation    |
| Eye Irritation, Category 2                                | Threshold Calculation    |
| Hazardous to the aquatic environment, Chronic, Category 2 | Summation Calculation    |

#### **LEGEND**

ACGIH: American Conference of Governmental Industrial Hygienists

BEI: Biological Exposure Indices (ACGIH)

IARC: International Agency for Research on Cancer

Irr: Irritation

NIOSH: National Institute of Occupational Safety and Health

NTP: National Toxicology Program

OSHA: The Occupational Safety & Health Administration

PBT: Persistent. Bioaccumulative and Toxic

PEL: Permissible exposure limit

REL: Recommended exposure limit

SCL: Specific Concentration Limit

Skin": Risk of overexposure via dermal contact

STEL: Short Term Exposure Limit

TLV: Threshold Limit value

TSCA: Toxic Substance Control Act TWA: Time Weighted Average URT: Upper respiratory tract

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.

## **Disclaimers**

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Vishay Precision Group gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Vishay Precision Group accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.

14013 Page: 7 of 7



# **Legal Disclaimer Notice**

Vishay Precision Group, Inc.

# **Disclaimer**

ALL PRODUCTS. PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "VPG"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. To the maximum extent permitted by applicable law, VPG disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on VPG's knowledge of typical requirements that are often placed on VPG products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at vpgsensors.com.

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of VPG.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling VPG products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify VPG for any damages arising or resulting from such use or sale. Please contact authorized VPG personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.

Document No.: 63999 Revision: 15-Jul-2014