

# SAFETY DATA SHEET

Version: 5.0  
Date of Issue: 04 May 2017  
Date of First Issue: 04 September 2012

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ACCORDING TO OSHA HCS (29 CFR 1910.1200)

## SECTION 1: IDENTIFICATION

<b>Product identifier used on the label</b>	EpoxyLite 813 Part B	
<b>Other means of identification</b>	Not applicable	
<b>Recommended use of the chemical and restrictions on use</b>		
Recommended use	Metal surface treatment products, including galvanic and electroplating products.	
Restrictions on use	Anything other than the above.	
<b>Details of the supplier of the safety data sheet</b>		
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)	<a href="mailto:mm.us@vishaypg.com">mm.us@vishaypg.com</a>	
<b>Emergency telephone number</b>	1-800-424-9300	CHEMTREC (24 hours)

## SECTION 2: HAZARD(S) IDENTIFICATION

<b>Classification of the substance or mixture in accordance with paragraph (d) of 29 CFR 1910.1200</b>		
Physical hazards	Combustible Dust	
Health hazards	Skin Sensitisation, Category 1 Eye Damage, Category 1 Respiratory sensitization, Category 1 Specific target organ toxicity — repeated exposure, Category 1 Specific target organ toxicity — single exposure, Category 3 Carcinogen, Category 1	
Environmental hazards	Not classified	
<b>Hazard Symbol</b>		
<b>Signal Word(s)</b>	DANGER	
<b>Hazard Statement(s)</b>	May form combustible dust concentrations in air. May cause an allergic skin reaction. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes damage to organs through prolonged or repeated exposure. May cause respiratory irritation. May cause cancer.	
<b>Precautionary Statement(s)</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from all ignition sources including heat, sparks and flame Keep container closed and grounded	

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Prevent dust accumulations to minimize explosion hazard  
Wash hands and exposed skin thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
[In case of inadequate ventilation] wear respiratory protection.  
Do not breathe dust.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
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.  
Immediately call a POISON CENTER/doctor.  
IF exposed: Call a POISON CENTER or doctor/physician.  
Wash contaminated clothing before reuse.  
Dispose of contents in accordance with local, state or national legislation.

**Other hazards**

None known

**Percent of the mixture consists of ingredient(s) of unknown acute toxicity:**

0%

## 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
Benzene-1,2:4,5-tetracarboxylic dianhydride	30 - 60	89-32-7	201-898-9	Skin Sensitisation, Category 1 Eye damage, Category 1 Respiratory sensitization, Category 1
Crystalline silica	10 - 30	14808-60-7	238-878-4	Carcinogen, Category 1A Specific target organ toxicity — repeated exposure, Category 1 Specific target organ toxicity — single exposure, Category 3
Magnesium silicate talc	10 - 30	14807-96-6	238-877-9	Not classified

## SECTION 4: FIRST AID MEASURES



**Description of first aid measures**

Self-protection of the first aider

Do not breathe dust. Avoid all contact. Wear suitable protective clothing. Wear suitable respiratory protective equipment if exposure to high levels of material are likely.

Inhalation

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. If breathing is laboured, oxygen should be administered by qualified personnel. If breathing has stopped, apply artificial respiration.

Skin Contact

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Contaminated clothing should be thoroughly cleaned. If irritation develops and persists, get medical attention.

Eye Contact

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

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Ingestion	CENTER/doctor. Obtain prompt consultation, preferably from an ophthalmologist. Continue irrigation until medical attention can be obtained. If swallowed, rinse mouth with water (only if the person is conscious). Drink two glasses of water. Do not give milk or alcoholic beverages. Do not induce vomiting. Obtain medical attention if ill effects occur.
<b>Most important symptoms and effects, both acute and delayed</b>	May cause an allergic skin reaction. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes damage to organs through prolonged or repeated exposure. May cause respiratory irritation. May cause cancer.
<b>Indication of any immediate medical attention and special treatment needed</b>	Treat symptomatically.
Notes to a physician:	IF IN EYES: Chemical eye burns may require extended irrigation.

## SECTION 5: FIRE-FIGHTING MEASURES

<b>Extinguishing media</b>	As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical, foam or waterspray.
Suitable Extinguishing Media	
Unsuitable extinguishing Media	Do not use water jet. Direct water jet may spread the fire. Avoid dust generation. Finely dispersed particles form explosive mixtures with air.
<b>Special hazards arising from the substance or mixture</b>	Explosion: May form combustible dust concentrations in air. Avoid dust generation. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Decomposes in a fire giving off toxic fumes: Nitrogen oxides, Carbon dioxide and Carbon monoxide. Contact with water or moist air causes production of opaque and corrosive fumes.
<b>Special protective equipment and precautions for fire fighters</b>	Fight fire with normal precautions from a reasonable distance. Use low-pressure medium fog streams to avoid dust clouds. Apply agent gently to avoid dust clouds. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Avoid all contact. Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures</b>	Ensure adequate ventilation. Eliminate all ignition sources if safe to do so. Do not breathe dust. Avoid all contact. In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required. See Section: 8. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
<b>Environmental precautions</b>	Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.
<b>Methods and material for containment and cleaning up</b>	Stop leak if safe to do so. Ensure suitable personal protection during removal of spillages. Sweep spilled substances into containers if appropriate moisten first to prevent dusting. Recommended: Vacuum spilled material. Avoid dispersal of dust in the air (i.e do not use compressed air for cleaning purposes). Collect mechanically and dispose of according to Section 13. Use only non-sparking tools. Ventilate the area and wash spill site after material pick-up is complete. Avoid release to the environment.

## SECTION 7: HANDLING AND STORAGE

<b>Precautions for safe handling</b>	Ensure adequate ventilation. Do not breathe dust. Avoid all contact. Use personal protective equipment as required. See Section: 8. Avoid dust generation. Keep away from fire, sparks and heated surfaces - no smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Do not allow dust to accumulate on surfaces and equipment. Use non-dispersive workplace cleaning (no compressed air / high pressure cleaners). Do
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**Conditions for safe storage, including any incompatibilities**

Storage temperature  
 Storage life  
 Incompatible materials

not use in confined spaces. Wash hands thoroughly after handling.  
 Contaminated clothing should be thoroughly cleaned. Protect from moisture.  
 Ground/bond container and receiving equipment. Keep in a cool, dry, well ventilated place. Keep away from fire, sparks and heated surfaces. Keep only in original container. Protect from moisture.  
 Ambient.  
 Stable under normal conditions.  
 Keep away from: Acids, strong bases, Flammable liquids, Reducing agents, Oxidizing agents, Corrosive Substances and Alkalis.  
 Contact with water or moist air causes production of opaque and corrosive fumes.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational Exposure Limits**

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Quartz (SiO <sub>2</sub> ) (crystalline silica)	14808-60-7	-	0.05	-	-	NIOSH
		-	30	-	-	OSHA Total Dust
		-	10	-	-	Respirable Dust
		-	0.025	-	-	ACGIH, A2
Talc (containing no asbestos and less than 1% quartz)	14807-96-6	-	2	-	-	NIOSH Respirable Dust
		20 mppcf	-	-	-	OSHA
		-	2	-	-	ACGIH, A4
Particulates not otherwise regulated / Inert or nuisance dust	-	-	15	-	-	OSHA Total dust
		-	5	-	-	Respirable dust

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.

A2: Suspected Human Carcinogen: Human data are accepted as adequate in quality but are conflicting or insufficient to classify the agent as a confirmed human carcinogen; OR, the agent is carcinogenic in experimental animals at dose(s), by route(s) of exposure, at site(s), of histological type(s), or by mechanism(s) considered relevant to worker exposure. The A2 is primarily when there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans.

Mppcf<sup>2</sup>: Millions of particles per cubic foot of air

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

**Biological Exposure Indices**

Not established

**Appropriate engineering controls**

Ensure adequate ventilation or use appropriate containment. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

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

General hygiene measures for the handling of chemicals are applicable. Do not breathe dust. Avoid all contact. Wash hands before breaks and after work. Keep

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Eye/face protection



work clothes separately. Contaminated clothing should be thoroughly cleaned. Do not eat, drink or smoke at the work place. Have available eyewash bottle with clean water. Do not use in confined spaces.

Use eye protection designed to protect against dusts. 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.

Body protection: Wear dustproof working clothes. Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection



Wear suitable respiratory protective equipment if processing involves working in areas where dusts or vapours are likely to be evolved. (Recommended: Respiratory protection necessary at/for: > 10 mg/m<sup>3</sup> Dust).

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Powder
Odor	Not available.
Odor Threshold	Not available.
pH	Not established.
Melting Point/Freezing Point	Not established.
Initial boiling point and boiling range	Not established.
Flash Point	>94°C
Evaporation rate (Butyl acetate = 1)	Not applicable.
Flammability (solid, gas)	Non-flammable
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	2.0060 g/cm <sup>3</sup> @ 25°C
Relative density	2.01 (H <sub>2</sub> O = 1) @ 25°C
Solubility(ies)	Soluble in water.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.

## SECTION 10: STABILITY AND REACTIVITY

<b>Reactivity</b>	Stable under normal conditions.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	May form combustible dust concentrations in air. Contact with water or moist air causes production of opaque and corrosive fumes.
<b>Conditions to avoid</b>	Keep away from fire, sparks and heated surfaces. Take precautionary measures against static discharge. Do not allow dust to accumulate on surfaces and equipment. Do not use in confined spaces. Protect from moisture.
<b>Incompatible materials</b>	Keep away from: Acids, strong bases, Flammable liquids, Reducing agents, Oxidizing agents, Corrosive Substances and Alkalis.
<b>Hazardous decomposition product(s)</b>	Decomposes in a fire giving off toxic fumes: Nitrogen oxides, Carbon dioxide and Carbon monoxide.

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## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on toxicological effects (Substances in preparations / mixtures)

<b>Acute toxicity - Ingestion</b>	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
<b>Acute toxicity - Inhalation</b>	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 (Dusts) > 5 mg/l.
<b>Acute toxicity - Skin Contact</b>	Based upon the available data, the classification criteria are not met. Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
<b>Skin corrosion/irritation</b>	Based upon the available data, the classification criteria are not met.
<b>Serious eye damage/irritation</b>	Eye damage, Category 1: Causes serious eye damage.
<b>Skin sensitization</b>	Skin Sensitisation, Category 1: May cause an allergic skin reaction.
<b>Respiratory sensitization</b>	Respiratory sensitization, Category 1: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>Germ cell mutagenicity</b>	Based upon the available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Carcinogen, Category 1: May cause cancer.
<b>Reproductive toxicity</b>	Based upon the available data, the classification criteria are not met.
<b>STOT - single exposure</b>	Specific target organ toxicity — single exposure, Category 3: May cause respiratory irritation.
<b>STOT - repeated exposure</b>	Specific target organ toxicity — repeated exposure, Category 1: Causes damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	Based upon the available data, the classification criteria are not met.
<b>Information on likely routes of exposure</b>	
Inhalation	Possible – accidental exposure
Ingestion	Unlikely – accidental exposure
Skin Contact	Possible – accidental exposure
Eye Contact	Unlikely – accidental exposure
<b>Early onset symptoms related to exposure</b>	May cause an allergic skin reaction. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.
<b>Delayed health effects from exposure</b>	Causes damage to organs through prolonged or repeated exposure. May cause cancer.
<b>Other information</b>	
NTP Report on Carcinogens	Quartz (Silica, respirable Crystalline) - Group K: Known To Be Human Carcinogens
IARC Monographs	Talc - Group 3: Not classifiable as to its carcinogenicity to humans. Quartz (Silica, respirable Crystalline) - Group 1: Carcinogenic to humans
OSHA Designated Carcinogen	Not listed.

## SECTION 12: ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Based upon the available data, the classification criteria are not met. Estimated Mixture LC50 >100 mg/l (Fish)
<b>Persistence and degradability</b>	No data for the mixture as a whole.
<b>Bioaccumulative potential</b>	No data for the mixture as a whole.
<b>Mobility in soil</b>	The product is predicted to have high mobility in soil.
<b>Other adverse effects</b>	None known

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## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

Containers of this material may be hazardous when empty since they retain product residue. This material and its container must be disposed of as hazardous waste. Dispose of wastes in an approved waste disposal facility. Dispose of contents in accordance with local, state or national legislation.

## SECTION 14: TRANSPORT INFORMATION

(Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods')

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not classified	Not classified	Not classified
<b>UN proper shipping name</b>	Not classified	Not classified	Not classified
<b>Transport hazard class(es)</b>	Not classified	Not classified	Not classified
<b>Packing group</b>	Not classified	Not classified	Not classified
<b>Environmental hazards</b>	Not classified	Not classified as a Marine Pollutant.	Not classified
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable		
<b>Special precautions for user</b>	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)

Benzene-1,2,4,5-tetracarboxylic dianhydride - Subject to 25,000 lb reporting threshold

Quartz (Silica, respirable Crystalline) - Subject to 25,000 lb reporting threshold

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

EPCRA/SARA Section 302 Extremely Hazardous Substances

All chemicals are not listed

EPCRA Section 313 Toxics Release Inventory (TRI) Program

All chemicals are not listed

NIOSH Occupational Carcinogen List

Quartz (Silica, respirable Crystalline) - Listed

OSHA List of highly hazardous chemicals, toxics and reactives

All chemicals are not listed

NTP Report on Carcinogens (RoC) List

Quartz (Silica, respirable Crystalline) - Group K: Known To Be Human Carcinogens

Poison Prevention Packaging Act

All chemicals are not listed

#### US State Regulations

California State, Proposition 65 List

Quartz (Silica, respirable Crystalline) - Listed

California State, Safer Consumer Products Regulations

Benzene-1,2,4,5-tetracarboxylic dianhydride - Candidate Chemicals List

Quartz (Silica, respirable Crystalline) - Candidate Chemicals List

Magnesium silicate talc - Candidate Chemicals List

Maine State, Toxic Chemicals in Children's Products Act

Quartz (Silica, respirable Crystalline) - COC list. CHC list

New Jersey State Worker and Community RTK Act

Magnesium silicate talc - RTKHSL. SHHSL

Quartz (Silica, respirable Crystalline) - RTKHSL. SHHSL

Pennsylvania State, Worker and Community RTK Act

Magnesium silicate talc - Hazardous Substance List

Quartz (Silica, respirable Crystalline) - Hazardous Substance List

Rhode Island State, Hazardous Substances RTK Act

Magnesium silicate talc - Hazardous Substance List

Quartz (Silica, respirable Crystalline) - Hazardous Substance List

#### Non-Regional

IARC Monographs, List of Classifications

Magnesium silicate talc - Group 3: Not classifiable as to its carcinogenicity to humans.

Quartz (Silica, respirable Crystalline) - Group 1: Carcinogenic to humans



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## SECTION 16: OTHER INFORMATION

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

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### References:

Existing Safety Data Sheet (SDS), EU Data: Harmonised Classification(s) for 1,2,4,5-Benzenetetracarboxylic Dianhydride (CAS# 89-32-7), and the Classification and Labelling Inventory for Crystalline silica (CAS# 14808-60-7) and Magnesium silicate talc (CAS# 14807-96-6).

GHS Classification of the substance or mixture	Classification Procedure
Skin Sensitisation, Category 1	Threshold Calculation
Eye Damage, Category 1	Threshold Calculation
Respiratory sensitization, Category 1	Threshold Calculation
Specific target organ toxicity — repeated exposure, Category 1	Threshold Calculation
Specific target organ toxicity — single exposure, Category 3	Threshold Calculation
Carcinogen, Category 1A	Threshold 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<sup>2</sup>: 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

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