

SPI Supplies Division

Structure Probe, Inc.

206 Garfield Ave., West Chester, PA 19380-4512 USA

Phone: 1-(610)-436-5400 Fax: 1-(610)-436-5755

sales@2spi.com

<http://www.2spi.com>

Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: June 3, 2019

SPI Catalog # 01300-XX
SPI Cold Mount Epoxy Kit - Hardener

Section 1.1: Identification

Chemical Name/Synonyms Cold Mount Epoxy Kit Hardener

Product or Trade Name SPI Cold Mount Epoxy Kit - Hardener

CAS #'s CAS # 112-24-3 plus non-hazardous ingredients

Chemical Formula..... Mixture

Section 1.2: Relevant Uses/Restrictions

Hardener for Cold Mount Epoxy Embedding Kit.

Section 1.3: Supplier of the Safety Data Sheet

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Section 1.4: Emergency telephone number

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-741-5970

Toll-free phone: 1-(800)-424-9300 USA + Canada only

Section 2: Hazard Identification

2.1 Classification of the substance

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Eye Damage (Category 1)

Skin Corrosion (Category 1B)

Skin Sensitization (Category 1)

Aquatic, Chronic (Category 3)

Acute Toxicity (Category 4) (ingestion)

Acute Toxicity (Category 4) (skin contact)

2.2 Label elements

Pictogram



Signal Word: Danger

Hazard-determining component of labeling:

3,6-diazaoctanethylenediamine

Hazard Statements:

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
H412 Harmful to aquatic life with long lasting effects

Precautionary Statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environmental.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P321 Specific treatment (read this label).
P362 Take off contaminated clothing and wash before reuse.
P363 Wash contaminated clothing before reuse.
P301 + 312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P301 + P330 + P 331: IF SWALLOWED: Rinse mouth. So NOT induce vomiting.
P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.
Rinse skin with water / shower.
P340 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 + P310 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 or doctor/physician.
P333 + P313 If skin irritation or a rash occurs: Get medical advice / attention.
P405 Store locked up.
P501 Dispose of contents/ container in accordance with local/ regional/ national/ international regulations.

2.3 Other Hazards:

Hazardous Material Information System USA

Health 4
Fire Hazard 1
Reactivity 0
Personal Protection

NFPA Rating (estimated)

Health 3
Flammability..... 1
Reactivity 0

Section 3: Composition

3.1 Substances: Not applicable

3.2 Mixtures:

Product is a mixture of the substances listed below, with non-hazardous additions.

Hazardous components:

CAS # 112-24-3	EC # 203-950-6	3,6-Diazoctanethylenediamine	25-50 %
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Section 4: First Aid Measures

4.1 Description of first aid measures:

General Information:

Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Inhalation:

Supply fresh air and to be sure call for a doctor.
In case of unconsciousness, place patient stably in side position for transportation.

Skin Contact:

Immediately wash with water and soap and rinse thoroughly.

Eye Contact:

Rinse opened eye for several minutes under running water.
Then consult a doctor.

Ingestion:

Immediately call a doctor.
Drink copious amounts of water and provide fresh air. Immediately call a doctor.

4.2 Most important symptoms and effects, both acute and delayed:

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

Section 5: Fire Fighting Measures

5.1 Extinguishing media:

Suitable extinguishing agents: Use firefighting measures that suit the environment.

5.2 Special hazards arising from the substance or mixture:

No further relevant information available.

5.3 Hazardous combustion products:

No further relevant information available.

5.4 Advice for firefighters:

Special protective equipment and precautions for firefighters:

No special measures required.

Section 6: Accidental Release Measures

6.1 Personal precautions:

Wear protective equipment.

Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers / surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose of contaminated material as waste according to Section 13.

Ensure adequate ventilation.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

Section 7: Handling and Storage

7.1 Precautions for safe handling:

Protective measures:

Ensure good ventilation / exhaustion at the workplace.

Prevent formation of aerosols.

Information about protection against explosions and fires: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities:

No special storage requirements.

Keep receptacle tightly sealed.

7.3 Specific end uses:

Hardener for Cold Mount Epoxy Embedding Kit.

This material is not being offered for clinical or diagnostic applications, agricultural uses or for human or animal consumption.

Section 8: Exposure Controls and Personal Protection

8.1 Control parameter and Personal Protection:

Workplace exposure limits:

CAS # 112-24-3	3,6-Diazaoctanethylenediamine	
WEEL	Long-term value:	6 mg/m ³ , 1 ppm Skin

Biological limit values: No additional information available.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls:

No further relevant information available.

8.2.2 General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution, use respiratory filter device.
In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of Hands:

Protective gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests, no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion, and the degradation.

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a reparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles.

8.2.3 Environmental exposure controls:

Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers / surface or ground water.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

Appearance:

Form: Liquid
Color: Clear
Odor: Characteristic
Odor threshold: Not determined
pH-value: Not determined
Change in conditions
Melting point/ Melting range: Undetermined
Boiling point/ Boiling range: 278°C (532°F)
Flash point: 135°C (275°F)
Flammability (solid,gaseous): Not applicable
Ignition temperature: 335°C (635°F)
Decomposition temperature: Not determined
Auto igniting: Product is not self-igniting
Danger of explosion: Product does not present an explosion hazard
Explosion limits:
Lower: Not determined
Upper: Not determined
Vapor pressure: Not determined
Density at 20°C (68°F): 0.9 g/cm³ (7.511 lbs./gal)
Relative density: Not determined
Vapor density: Not determined
Evaporation rate: Not determined
Solubility in / Miscibility with Water: Not miscible or difficult to mix
Partition coefficient (n-octanol/water): Not determined
Viscosity:
Dynamic: Not determined
Kinematic: Not determined
Solvent content:
Organic solvents: 0.0%

9.2 Other information:

No further relevant information available.

Section 10: Stability and Reactivity

10.1 Reactivity:

No relevant information available.

10.2 Chemical Stability:

No relevant information available.

10.3 Possibility of Hazardous Reactions:

No dangerous reactions known.

10.4 Thermal decomposition / Conditions to avoid:

No decomposition if used according to specifications.
No further relevant information available.

10.5 Incompatible materials:

No further relevant information available.

10.6 Hazardous decomposition products:

No dangerous decomposition products known.

Section 11: Toxicological Information

Information on the likely routes of exposure:

11.1 Information on toxicological effects:

A. Acute toxicity:

CAS # 112-24-93,6-Diazaoctanethylenediamine

Oral LD50 2500 mg/kg (rat)

Dermal LD50 805 mg/kg (rabbit)

B. Skin corrosion/irritation:

Strong caustic effect on skin and mucous membranes.

C. Serious eye damage/irritation:

Strong caustic effect on the eye.

Strong irritant with the danger of severe eye injury.

D. Respiratory or skin sensitization:

Sensitization possible through skin contact.

E. Germ cell mutagenicity:

No relevant information available.

F. Carcinogenicity:

IARC (International Agency for Research on Cancer): None of the ingredients is listed.

NTP (National Toxicology Program): None of the ingredients is listed.

OSHA-CA (Occupational Safety & Health Administration): None of the ingredients is listed.

G. Reproductive toxicity:

No relevant information available.

H. STOT-single exposure:

The product shows the following dangers according to internally approved calculation methods for preparation:

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

I.. STOT-repeated exposure:

No further relevant information available.

J. Aspiration hazard:

No further relevant information available.

Section 12: Ecological Information

12.1 Toxicity:

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability:

No further relevant information available.

12.3 Bio-accumulative potential:

No further relevant information available.

12.4 Mobility in soil:

No further relevant information available.

12.5 Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects:

No further relevant information available.

Section 13: Disposal Considerations

13.1 Waste treatment methods:

Recommendation:

Must not be disposed of together with household garbage.

Do not allow product to reach sewage system.

Uncleaned Packagings:

Recommendation: Disposal must be made according to official regulations.

Section 14: Transport Information

DOT:

UN Number: NA2735

Proper shipping name: Polyamines, liquid, corrosive, n.o.s. (Triethylenetetramine)

Class: 8 Corrosive substances

Label: 8

Packing Group: II

IATA / IMDG

UN Number: UN2735

Proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (TRIETHYLENETETRAMINE)

Class: 8 Corrosive substances

Label: 8

Packing Group: II

Environmental hazards:

Marine pollutant: No

Special precautions for user: Warning: Corrosive substances

EMS Number: F-A,S-B

Segregation groups Alkalis

UN "Model Regulation": UN2735, Polyamines, liquid, corrosive, n.o.s. (Triethylenetetramine), 8, II

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/ legislation specific for the substance or mixture:

U.S. Government Regulations:

Safety, health and environmental regulation/ legislation specific for the substance or mixture

Sara Section 355: (extremely hazardous substances): None of the ingredients is listed.

Sara Section 313 (Specific toxic chemical listings): None of the ingredients is listed.

TSCA (Toxic Substances Control Act): CAS # 112-24-3 is listed on the TSCA Active Inventory List.

Proposition 65: (chemicals known to cause cancer, reproductive toxicity for females, reproductive toxicity for males or to cause developmental toxicity): None of the ingredients is listed.

Carcinogenic categories:

EPA (Environmental Protection Agency): None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH): None of the ingredients is listed.

NIOSH-CA (National Institute for Occupational Safety and Health): None of the ingredients is listed.

GHS label elements: The product is classified and labeled according to the Globally Harmonized System (GHS).

15.2 Chemical Safety Assessment: A Chemical Safety Assessment has not been carried out.

Date of Preparation: 03 June 2019.

Abbreviations and acronyms

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

CMRG: Chemical Manufacturer's Recommended Guidelines

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulative and Toxicological

vPvB: very Persistent and very Bio-accumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety Health

ATE: Acute Toxicity Estimates

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

STEL: Short Term Exposure Limit

CEIL: Ceiling

TSCA: Toxic Substances Control Act (USA)

DSL: Domestic Substances List (Canada)

PICCS: Philippine Inventory of Chemicals and Chemical Substances

ENCS: Existing and New Chemical Substances (Japan)

AICS: Australian Inventory of Chemical Substances

IECSC: Inventory of Existing Chemical Substances in China

KECL: Korea Existing Chemicals List

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues of fluids.

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