SPI Supplies Division

Structure Probe, Inc.

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Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: March 8, 2017

SPI #'s 02705-AB, 02706-AB, 02707-AB, 02708-AB

SPI Supplies® Brand Uniform Polystyrene DVB

Microspheres

Section 1.1: Identification

Chemical Name/Synonyms Uniform Polystyrene DVB Microspheres

Product or Trade Name Polystyrene DVB Microspheres

CAS #'s Not available

Chemical Formula...... Not available

Section 1.2: Relevant Uses/Restrictions

Calibration aid in electron microscopy.

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)

Not classified as a hazardous substance or mixture.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC: Not applicable.

2.2 Label elements: Not applicable.

2.3 Other Hazards: None known.

Hazardous Material Information System USA

NFPA Rating (estimated)

Health 0
Flammability 0
Reactivity 0

Section 3: Composition

3.1 Substances: Not applicable.

3.2 Mixtures: Polystyrene micro particles, at 1 to 30 % solids, suspended in distilled water.

Section 4: First Aid Measures

4.1 Description of first aid measures:

If inhaled: Move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: As a precaution, flush eyes with water.

If swallowed: Rinse mouth with water. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: Inhalation of particles are dangerous, breathing may become difficult.

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation

4.3 Indication of any immediate medical attention and special treatment needed No additional information available.

Section 5: Fire Fighting Measures

Non-flammable material.

- 5.1 Extinguishing media Use extinguishing media suitable for the surrounding fire.
- 5.2 Special hazards arising from the substance or mixture

None known.

5.3 Advice for firefighters

Use fire-fighting apparatus suitable to the surrounding fire.

Section 6: Accidental Release Measures

6.1 Personal precautions

Minimize contact with skin and eyes.

Prevent inhalation of dust.

Protective clothing and respirators should be used for clean-up.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and material for containment and cleaning up Keep in suitable closed containers for disposal.

6.4 Reference to other sections

See Section 13 for disposal.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Protective measures

Wear safety glasses and gloves.

Keep away from food.

Advice on general hygiene conditions

Use general laboratory safety precautions.

7.2 Conditions for safe storage, including any incompatibilities

Store in closed containers.

7.3 Specific end uses

Calibration aid in electron microscopy.

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: Contains no substances with occupational exposure limit values.

- 8.2 Exposure controls
 - 8.2.1 Appropriate engineering controls: Use general industrial good hygiene practices.

- 8.2.2 Individual protection measures: Wear protective clothing while handling.
- 8.2.3 Environmental exposure controls: No additional information available.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: White particles in water suspension

Odor: Odorless

Odor threshold: Not applicable

pH: No data available

Melting point/Freezing point: As water

Boiling point/Boiling point range: 100 Degrees Celsius

Flash Point: No data available

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor Pressure: As water

Vapor density: No data available

Specific Gravity: 1.0 to 1.05 grams/milliliter

Solubility: Water suspension, can be diluted with water Partition coefficient (n-octanol/water): No data available

auto-ignition temperature: No data available Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available Oxidizing Properties: No data available

9.2 Other information: No additional data available.

Section 10: Stability and Reactivity

10.1 Reactivity: No data available

10.2 Chemical Stability: Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions: No data available

10.4 Conditions to avoid: No data available

10.5 Incompatible materials: No data available

10.6 Hazardous decomposition products: No data available

Section 11: Toxicological Information

Information on the likely routes of exposure

Signs and Symptoms of Exposure: Exposed areas will be white or colored for dyed latex.

When water suspension is dried, dust may be an irritant to sensitive people.

11.1 Information on toxicological effects

a. acute toxicity: No data available

b. skin corrosion/irritation: No data available

c. serious eye damage/irritation: No data available

d. respiratory or skin sensitization: No data available

e. germ cell mutagenicity: No data available

f. carcinogenicity: No component of this material present at levels greater than or equal to 0.1% is identified as confirmed, potential, or anticipated carcinogen by IARC, ACGIH, NTP, or OSHA.

g. reproductive toxicity: No data available

h. STOT-single exposure: No data available

i.STOT-repeated exposure: No data available

j. aspiration hazard: No data available.

Section 12: Ecological Information

12.1 Toxicity: No data available

12.2 Persistence and degradability: No data available

12.3 Bio-accumulative potential: No data available

12.4 Mobility in soil: No data available

12.5 Results of PBT and vPvB assessment: No data available

12.6 Other adverse effects: No data available

Section 13: Disposal Considerations

13.1 Waste treatment methods:

Dispose of in accordance with Local, State and Federal regulations.

Section 14: Transport Information

DOT: Non-hazardous for transport.

IATA: Non-hazardous for transport by air.

IMDG: Non-hazardous for transport.

Section 15: Regulatory Information

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

SARA 302 Components:

Contains no components subject to the reporting requirements of SARA; Title III, Section 302.

SARA 313 Components:

Contains no components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

SAFA 311/312 Hazards:

Contains no SARA Hazards.

Pennsylvania Right to Know Components:

Latex beads, polystyrene CAS Number: not known

New Jersey Right to Know Components:

Latex beads, polystyrene CAS Number: not known

California Prop. 65 Components:

Does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

15.2 Chemical Safety Assessment Date of Preparation: March 6, 2017

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

TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit

STEL: Short Term Exposure Limit

CEIL: Ceiling

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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