

SPI Supplies Division

Structure Probe, Inc.

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Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: March 15, 2017

SPI Catalog #'s 02714-AB, 02715-AB, 02721-AB,
02722-AB, and 02723-AB SPI Supplies® Uniform
Borosilicate Glass Microspheres

SPI Catalog #'s 02717-AB, 02718-AB, 02719-AB,
02720-AB, 02724-AB, 02726-AB, 02727-AB, 02728-AB,
02729-AB, 02730-AB, 02731-AB, 02732-AB, 02733-AB,
02734-AB, 02735-AB, 02736-AB, 02737-AB, 02738-AB,
02739-AB, 02747-AB, 02748-AB, 02749-AB, 02770-AB,
02771-AB SPI Supplies® Uniform Soda Lime Glass
Microspheres

Section 1.1: Identification

Chemical Name/Synonyms Glass Microspheres

Product or Trade Name SPI Supplies® Uniform Borosilicate Glass Microspheres

..... SPI Supplies® Uniform Soda Lime Glass Microspheres

CAS #'s Various

Chemical Formula..... Not applicable

Section 1.2: Relevant Uses/Restrictions

Calibrants and controls for instruments in the microscopy laboratory

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.

Caution: May cause lung irritation if inhaled.

By normal use the product is not regarded as hazardous to health.

The product is not classified as flammable or harmful to the environment.

May cause eye, skin, digestive track, and respiratory track irritation.

The toxicological properties of this material have not been fully investigated.

2.2 Label elements: Not applicable.

2.3 Other Hazards: None known.

Hazardous Material Information System USA (estimated)

Health 1

Fire Hazard 0

Reactivity 0

Personal Protection

NFPA Rating (estimated)

Health 1

Flammability 0

Reactivity 0

Section 3: Composition

3.1 Substances:

Glass Microspheres CAS#: various Percentage: 100 EINECS/ELINCS: Not available

Section 4: First Aid Measures

4.1 Description of first aid measures:

Inhalation: Remove to fresh air and seek medical advice.

Skin Contact: In case of contact, remove clothes.
 Wash area with soap and flush with plenty of water.
 If an irritation develops, seek medical advice.

Eye Contact: Flush thoroughly with water for at least 15 minutes.
 If irritation develops, seek medical advice.

Ingestion: Give one or two glasses of water and seek medical advice.

Self-protection of the first aider: No further information available.

4.2 Most important symptoms and effects, both acute and delayed: No further information available.

- 4.3 Indication of any immediate medical attention and special treatment needed:
No further information available.

Section 5: Fire Fighting Measures

5.1 Extinguishing media

Not considered flammable or explosive.

Use extinguishing media appropriate for surrounding fire (water, foam, vaporizing liquid or multipurpose dry chemical).

5.2 Advice for firefighters

Use protective equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

6.1 Personal precautions

Areas covered with spilled microspheres may be slippery.
If material is spilled or released, cordon off the area.

6.2 Environmental precautions

No further information available.

6.3 Methods and material for containment and cleaning up

Collect material by wiping the spill area with a paper towel or disposable wipe, and place materials into an appropriate container.

Avoid inhaling fine particle dust.

Discard collected material in containers suitable for proper 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

When creating aerosols of fine articles use minimal and directional (away from the user) airflow.

Advice on general hygiene conditions

Use general laboratory safety precautions.

7.2 Conditions for safe storage, including any incompatibilities

Keep tightly sealed to prevent contamination.

Store at room temperature in a dry are.

Avoid damaging or puncturing containers.

7.3 Specific end uses

Calibrants and controls for instruments in the microscopy laboratory

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

Chemical Name: Borosilicate Glass, Soda Lime Glass, lead free

Workplace exposure limits:

“Particles Not Otherwise Classified” (PNOC)

OSHA – PEL	Cal-OSHA-PEL	ACGIH TLV	AIHA	NIOSH REL
15 mg/m ³ – total dust	10 mg/m ³ – total dust	10 mg/m ³ – total dust	not listed	not listed
5mg/m ³ –respirable dust	5 mg/m ³ – respirable dust			

Biological limit values: No additional data available.

8.2 Exposure controls

Exposure Guidelines: This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. Safety glasses with side shields are suggested.

General Hygiene Considerations: Wear appropriate protective clothing to prevent skin exposure.

8.2.1 Appropriate engineering controls:

Use minimal and directional (away from the user) airflow to minimize worker exposure.

8.2.2 Individual protection measures:

Wear appropriate protective gloves to prevent skin exposure. No skin irritation is expected. Respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149.

8.2.3 Environmental exposure controls:

No additional data available.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical+ and chemical properties

Appearance: White powder

Odor: Odorless

Odor threshold: Not available

pH: Not available

Melting point/Freezing point: 590 – 750 °C

Boiling point/Boiling point range: Not available

Flash Point: Not available

Evaporation rate: Not available

Flammability (solid, gas): Not available

Upper/lower flammability or explosive limits: Not available

Vapor Pressure: Not available

Vapor density: Not available

Powder density: 1.7 to 2.5 g/cm³

Solubility: Insoluble

Partition coefficient (n-octanol/water): Not available

auto-ignition temperature: Not available

Decomposition temperature: Not available

Viscosity: Not available

Explosive properties: Not available

Oxidizing Properties: Not 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 at room temperature in closed containers under normal storage and handling conditions.

10.3 Hazardous Polymerization

Will not occur

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

None known

10.6 Hazardous decomposition products

None known

Section 11: Toxicological Information

Information on the likely routes of exposure

11.1 Information on toxicological effects

- a. Acute toxicity – No additional information available.
- b. Skin corrosion/irritation – No additional information available.
- c. Serious eye damage/irritation – No additional information available.
- d. Respiratory or skin sensitization – No additional information available.
- e. Germ cell mutagenicity – Material is not considered to be a developmental toxicant.
- f. Carcinogenicity – Material is not listed by NTP, ACGIH, IARC, or OSHA as a carcinogen.
- g. Reproductive toxicity – Material is not considered to be a reproductive toxicant.
- h. STOT-single exposure – No additional information available.
- i. STOT-repeated exposure – No additional information available.
- j. Aspiration hazard – No additional information available.

Section 12: Ecological Information

12.1 Toxicity – Not regarded as dangerous for the environment LC/EC/IC 50 > 100 mg/L

12.2 Persistence and degradability – No information found.

12.3 Environmental – Not classified as harmful to the environment.

12.4 Mobility in soil – Not soluble in water.

12.5 Results of PBT and vPvB assessment – No information available.

12.6 Other adverse effects – No information found.

Section 13: Disposal Considerations

13.1 Waste treatment methods

Dispose of any waste residues according to prescribed federal, state, and local guidelines (e.g., to an appropriately permitted chemical waste incinerator). None of the components are on RCRA P & RCRA U Series Wastes List. EWC waste code 18 01 05 discard as chemicals and medicines.

Other Information: According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: Transport Information

Hazard Class: Not classified per US DOT, TDG, UNECE, ADR, AND, IATA, ICAO, RID, IMDG/IMO, OTIF, Mexico.

Section 15: Regulatory Information

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

Borosilicate Glass, Soda Lime Glass:

TSCA 8(b): Not listed
SARA 302: Not listed
SARA 313: Not listed
CERCLA: Not listed
RCRA 261.33: Not listed
TSCA 8(d): Not listed
TSCA 12(b): Not listed
FIFRA: Listed
CWC: Not listed
SARA 311/312: Not listed
EPCRA: Not listed
FDA: Listed

Not subject to ITAR and EAR regulations.

US State Right to Know (Borosilicate Glass, Soda Lime Glass) – Listed by Connecticut, Minnesota, Texas

California – Prop 65, Title * CCR, Title 22 CCR, ATHS, Occupational Exposure Limits, Ozone Depleting Compounds, Precursor Chemicals, SCAQMD, California No Significant Risk Level:
No information found. None of the chemicals are on Prop 65 lists.

Advisory Agencies/ Africa/ Asia-Pacific/ Europe Non-EU/EU Member Countries/ Latin America and Caribbean/

Middle East/ Government Inventory Lists (Borosilicate Glass, Soda Lime Glass)

OECD: yes
AICS: yes
New Zealand: yes
AICS: yes
Switzerland: no
PICCS: yes
China: yes
Korea: yes
Bulgaria: no
Germany VwVws: no

Lithuania: no
Exposure Limits – No information found.

European Union directives:

793/93/EEC: yes
1451/2007: yes
1907/2006 – REACH: yes

Canada Federal/Provincial Government

Borosilicate Glass, Soda Lime Glass

CEPA: no
NPRI: no
DSL: yes
NDSL: no
DWQ: no
WHMIS: no
Council of Ministers of the Environment: no
Controlled Drugs and Substances: no
Health Canada: No

WHMIS: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

15.2 Other information:

Date prepared: 15 March 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)
CWC: Chemical Weapons Convention
FDA: Federal Drug Agency
RCRA: Resource Conservation and Recovery Act
FIFRA: Federal Insecticide, Fungicide and Rodenticide Act
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
CEPA: Canada Environmental Protection Agency
NPRI: National Pollutant Release Inventory (Canada)
DWQ: Drinking Water Quality (Canada)

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 or fluids.

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