

SAFETY DATA SHEET

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1. Products and Company Identification

Identification of the product:	Polystyrene Nano-/Microspheres, 100 nm - 100 µm, 1 - 5% (w/v) in water
Chemical family:	Polystyrene Polymer
Use of the substance/preparation:	For laboratory research purposes
Supplier:	Alpha Nanotech Inc. 135-3800 Wesbrook Mall, Vancouver, BC V6S 2L9, Canada
Information:	www.alphananotechne.com info@alphananotechne.com +1 877 419 0711

2. Hazards Identification

Emergency Overview

WHMIS Classification

Not rated

Not a hazardous substance or mixture.

HMIS Classification

Health hazard: 0

Flammability: 0

Physical hazards: 0

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes Cause eye irritation.

Ingestion May be harmful if swallowed.

3. Composition/Information on Ingredients

Synonyms

Latex beads from PS

CAS-No.	Concentration
Polystyrene, 500-008-9	< 1-2%
Water, 231-791-2	> 98-99%

4. First aid Measures

After inhalation: Move the person into fresh air. When necessary, give artificial respiration with oxygen.

After skin contact: Wash skin with soap and plenty of water.

After ingestion: Make victim drink plenty of water. Never give anything by mouth to an unconscious person, rinse mouth with water.

After eye contact: Rinse out with plenty of water with the eyelid held wide open.

5. Fire-fighting measures

Conditions of flammability

Not flammable or combustible

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazards combustion productions from the substance

No data available

Explosion data - sensitivity to mechanical impact

No data available

Explosion data - sensitivity to static discharge

No data available

6. Accidental Release Measures

Personal precautionary measures

Use personal protective equipment. Avoid dust formation.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

7. Handling and Storage

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

For sizes from 100 nm to 1000 nm:

Keep container tightly closed at 2 - 8 °C.

For sizes >1000 nm:

Keep container tightly closed in a dry and well-ventilated place at room temperature.

8. Exposure controls/personal protection

Respiratory protection	Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Hand protection	Handle with gloves. The selected protective gloves have to satisfy the specification of EU Directive 89/686/EEC and the standard EN 374 derived from it. Wash and dry hands
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Skin and body protection	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. Physical and chemical properties

Appearance Form Colour	Liquids Colourless to pale white
Safety data pH Melting/freezing point Boiling point Flash point Ignition temperature Vapour pressure Density Water solubility Relative vapour density Odour Refractive Index Evaporation rate	No data available No data available No data available No data available No data available No data available 1.0 g/cm ³ No data available No data available No data available No data available No data available

10. Stability and reactivity

Chemical stability

Stable under recommended storage conditions

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - No data available

11. Toxicological information

Acute toxicity

Oral LD50

No data available

Inhalation LC50

No data available

Dermal LD50

No data available

Other information on acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Carcinogenicity

IARC

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available

Aspiration hazard

No data available

Potential health effects

Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion

May be harmful if swallowed.

Skin

May be harmful if absorbed through skin. May cause skin irritation.

Eyes

May cause eye irritation.

Synergistic effects

No data available

Additional Information

RTECS

Not available

12. Ecological information:

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

PBT and vPvB assessment

No data available

Other adverse effects

No data available

13. Disposal considerations

Product

Contact a licensed professional waste disposal service to dispose this material.

Contaminated packaging

Dispose of as unused product

14. Transport information

Road transport:	Not dangerous goods
Sea transport:	Not dangerous goods
Air transport:	Not dangerous goods

15. Regulatory information

WHMIS Classification

Not Rated

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

16. Other information

Alpha Nanotech Inc. provides the information contained herein in good faith and makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. shall not be held liable for any damage resulting from handling or from contact with the above product.