Section 1: Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>cat#</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>64004-64028</td>
<td>Nanobead NIST Traceable Particle Size Standards</td>
</tr>
</tbody>
</table>

Identified uses: Lab use

Supplier: Polysciences Inc.
400 Valley Rd.
Warrington, PA 18976 USA
SDS Telephone #: 212-343-6484 Emergency only #: 215-378-4526

Section 2: Hazards Identification

Hazard Overview
Low hazard for usual industrial or commercial handling.

GHS Classification
Non-Hazardous

Signal Word: Non-Hazard

Hazard and Precautionary Statements

H000 Low hazard for normal industrial use
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305B IF IN EYES: Separate eyelids with fingertips.
P313 Get medical advice/attention
P351 Rinse cautiously with water for several minutes.

NFPA Rating
Hazard Ratings:
These ratings are Polysciences' Inc. own assessments of the properties of the material using the ANSI/NFPA 704 Standard. Additional information can be found by consulting in the NFPA published ratings lists (List 325 and List 49).

If no data is listed, the information is not available.

Health Flammability Reactivity
1 0 0

Section 3: Composition/Information on Ingredients

Note: items listed with a CASRN...number have no CAS# available

<table>
<thead>
<tr>
<th>Item#</th>
<th>Name</th>
<th>EINECS</th>
<th>CAS #</th>
<th>% in Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Solid polymer microspheres</td>
<td></td>
<td>090003536</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>composed of:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polystyrene or</td>
<td></td>
<td>090003707</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polystyrene divinylbenzene</td>
<td></td>
<td>026628228</td>
<td>0.075</td>
</tr>
<tr>
<td>2</td>
<td>Sodium azide</td>
<td></td>
<td>Proprietary</td>
<td>≤0.1</td>
</tr>
<tr>
<td>3</td>
<td>Surfactant</td>
<td></td>
<td>007732185</td>
<td>≥98.825</td>
</tr>
<tr>
<td>4</td>
<td>Water</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 4: First Aid Measures

Eyes: In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.
Skin: In case of contact, immediately wash skin with copious amounts of water for at least 15 minutes.
Inhalation: Contact physician immediately.
Systemic: Human effects not established. No specific antidote. Treatment based on sound judgment of physician and the individual reactions of the patient.

Section 5: Fire Fighting Measures

Extinguishing Media: Not applicable
Special hazards arising from the substance or mixture: Suspended material is not flammable. Sodium azide is known to form explosive compounds when it is combined with metal halides and many heavy metals, such as lead, copper, gold, & silver.
Advice for firefighters: Not applicable
Further Information: No data available
Section 6: Accidental Release Measures
Personal precautions, protective equipment and emergency procedures
Any information given below is considered to be in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition source from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel. Wear vinyl gloves, soak up spill in paper toweling, and rinse area with water. Put all generated waste into an approved container and dispose of as waste. Observe all applicable federal, state, and local disposal laws.
Environmental Precautions: No special measures are indicated.
Methods and materials for containment and cleaning up: No special measures are indicated.
Reference to other sections: For disposal see section 13.

Section 7: Handling and Storage
Respiratory Protection: None normally needed. In cases where there is a likelihood of inhalation exposure to dried particles, wear a NIOSH-approved dust respirator.
Conditions for safe storage, including any incompatibilities
Ventilation: Good room ventilation is adequate for most operations.
Respiratory Protection: None normally needed. In cases where there is a likelihood of inhalation exposure to dried particles, wear a NIOSH-approved dust respirator. Storage: Store at 4˚C. Keep refrigerated. Do not freeze. Keep container closed.

Section 8: Exposure Controls / Personal Protection
Control parameters
Respiratory Protection: None normally needed.
Wash / Hygienic Practices: Wash with soap and water when leaving work area and before eating, smoking, and using restroom facilities.
Exposure Controls: None Indicated
The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves. Chemical-resistant gloves should be worn whenever this material is handled. The glove material has to be impermeable and resistant to the product. Gloves should be replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water. All glove recommendations presume that the risk of exposure is through splash and not internal immersion of the hands into the product. Since glove permeation data does not exist for this material, no recommendation for the glove material can be given for the product. Permeation data must be obtained from the glove manufacturer to determine if the glove is suitable for the task.

Section 9: Physical and Chemical Properties
Formula: No data  Formula weight: No data
Boiling Point: 100˚C / 212˚F  Melting Point : No data
Density (particles): ~1.05 g/cc  Solubility: dispersible in water
Vapor Pressure: No data  Vapor Density: No data
Specific Gravity: No data  ph: No data
Appearance: odorless, white or colorless liquid suspension that may stratify

Section 10: Stability and Reactivity
Reactivity: No data available
Chemical Stability: Stable under recommended storage conditions
Possibility of hazardous reactions: No data available
Conditions to avoid: Product may irreversibly aggregate if frozen.
Incompatible materials: No dangerous reaction known under conditions of normal use.
Hazardous decomposition products: Sodium azide is known to form explosive compounds when it is combined with metal halides and many heavy metals, such as lead, copper, gold, & silver.

Section 11: Toxicological Information
Information on toxicological effects: To the best of our knowledge, the chemical, physical, and toxic properties of this product have not been thoroughly investigated. Sodium azide is known to be highly toxic.
Acute Effects: Sodium azide may result in eye and skin irritation. Ingestion may result in nausea, headache, and vomiting.
Chronic Effects: Sodium azide can cause cancer, or alter genetic material. Target organs include heart, nerves, and brain.

Section 12: Ecological Information
No Data

Section 13: Disposal Considerations
Waste treatment methods: The following chart lists the status of the chemical and its components in reference to 40 CFR Part 261.33. If the product is listed by code number, the substance may be subject to special federal and state disposal regulations. If no codes are listed, the material must be disposed of in compliance with all Federal, State, and Local Regulations.
Section 14: Transportation Data
Refer to bill of lading or container label for DOT or other transportation hazard classification, if any.

Section 15: Regulatory Information
All components of this product are on the TSCA public inventory.

Prop 65: Column A identifies those items which are known to the State of California to cause cancer. Column B identifies those which are known to the State of California to cause reproductive toxicity.

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>009003536</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>009003707</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>026628228</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>007732185</td>
<td>no</td>
<td>no</td>
</tr>
</tbody>
</table>

SARA Toxic Release Chemicals (as defined in Section 313 of SARA Title III): This list identifies the toxic chemicals, including their de minimis concentrations for which reporting is required under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). This list is also referred to as the Toxic Release Inventory (TRI) List.

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Regulated Name</th>
<th>de minimis conc</th>
<th>Rep. Thres.</th>
</tr>
</thead>
<tbody>
<tr>
<td>009003536</td>
<td>not listed</td>
<td>not listed</td>
<td>not listed</td>
</tr>
<tr>
<td>009003707</td>
<td>not listed</td>
<td>not listed</td>
<td>not listed</td>
</tr>
<tr>
<td>026628228</td>
<td>Sodium azide (NaN₃)</td>
<td>1.0</td>
<td>not listed</td>
</tr>
<tr>
<td>007732185</td>
<td>not listed</td>
<td>not listed</td>
<td>not listed</td>
</tr>
</tbody>
</table>

SARA Extremely Hazardous Substances and TPQs: This list identifies hazardous substances regulated under Section 302 of SARA Title III with their TPQs (in pounds), as listed in 40 CFR 355, Appendices A and B.

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Regulated Name</th>
<th>TPQ (pounds)</th>
<th>EHS-RQ (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>009003536</td>
<td>not listed</td>
<td>not listed</td>
<td>not listed</td>
</tr>
<tr>
<td>009003707</td>
<td>not listed</td>
<td>not listed</td>
<td>not listed</td>
</tr>
<tr>
<td>026628228</td>
<td>Sodium azide (NaN₃)</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>007732185</td>
<td>not listed</td>
<td>not listed</td>
<td>not listed</td>
</tr>
</tbody>
</table>

Section 16 Other Information
POLYSCIENCES, INC. provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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