1. PRODUCT AND COMPANY IDENTIFICATION

Identification

Product Name LUNA FX7™ GF Calibration Beads
Product Number F73102

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances

Manufacturer
Logos Biosystems, Inc.
L 2 & 3 28 Simindaero 327 beon-gil
Dongan-gu, Anyang-si
Gyeonggi-do 14055
South Korea
Telephone: +82-31-478-4185
Fax: +82-31-360-4277
E-mail: sales@logosbio.com

Supplier
Logos Biosystems, Inc.
FL 2 & 3 28 Simindaero 327 beon-gil
Dongan-gu, Anyang-si
Gyeonggi-do 14055
South Korea
Telephone: +82-31-478-4185
Fax: +82-31-360-4277
E-mail: sales@logosbio.com

Emergency telephone number +82 31 478 4185

For research use only. Not intended for human or animal diagnostic or therapeutic use.

2. HAZARDS IDENTIFICATION

[GHS classification]

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Not hazardous

Label elements
Labeling according to the Regulation (EC) No 1272/2008

Hazard pictograms None

Signal word Not hazardous

Hazard statements
Not hazardous
Precautionary statements
Not hazardous

Other hazards
The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures

<table>
<thead>
<tr>
<th>Component</th>
<th>Synonyms</th>
<th>Formula</th>
<th>CAS No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid polymer microspheres</td>
<td>Polystyrene or Polystyrene divinylbenzene or polymethylmethacrylate</td>
<td>(C₈H₈₅)ₙ or (C₂₄H₂₈₅)ₙ or [CH₂C(CH₃)(CO₂CH₃)]ₙ</td>
<td>9003-53-6 or 9003-70-7 or 9011-14-7</td>
<td>&lt; 1%</td>
</tr>
<tr>
<td>Sodium azide</td>
<td>Hydrazoic acid sodium salt</td>
<td>NaN₃</td>
<td>26628-22-8</td>
<td>&lt; 0.002%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of first aid measures

| In case of eye contact       | In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. |
| In case of skin contact      | In case of contact, immediately wash skin with copious amounts of water for at least 15 minutes.   |
| After inhalation             | Remove to fresh air if effects occur. Consult medical personnel.                                |
| After swallowing             | Contact physician immediately.                                                                |
| Indication of any immediate medical attention and special treatment needed | Human effects not established. No specific antidote. Treatment based on sound judgment of physician and the individual reactions of the patient. |

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Special hazards arising from the substances 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 of fire-fighters
Protective equipment
Not applicable
Further information
No data available

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.

7. HANDLING AND STORAGE

Precautions for safe handling
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 4-8°C. Keep refrigerated. Do not freeze. Keep container closed and fluorescent particles protected from light.

Specific end use(s)
No data available

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
Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

| Respiratory protection | In case of insufficient ventilation wear suitable respiratory equipment. |
Hand protection

Handle with impervious gloves. Chemical-resistant gloves should be worn whenever this material is handled. Gloves should be removed and 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.

Eye protection

Safety glasses with side-shields.

Skin and Body protection

Lightweight protective clothing.

Control of Environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Form: translucent liquid suspension</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Odour Threshold</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>100°C</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Specific Gravity/Relative density</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Dispersible in water</td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol / water</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Dynamic viscosity</strong></td>
<td>No data available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY
Stability

Stable under recommended storage conditions.

Reactivity

No data available

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.

11. TOXICOLOGICAL INFORMATION

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

Germ cell mutagenicity

No data available

Carcinogenicity

| IARC | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |

Reproductive toxicity

No data available

Specific target organ toxicity – single exposure

No data available

Specific target organ toxicity – repeated exposure

No data available

Aspiration hazard

No data available
Potential health effects

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>May be harmful if inhaled. May cause respiratory tract irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed.</td>
</tr>
<tr>
<td>Skin</td>
<td>May be harmful if absorbed through skin. May cause skin irritation.</td>
</tr>
<tr>
<td>Eyes</td>
<td>May cause eye irritation.</td>
</tr>
</tbody>
</table>

**Additional Information**
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. Sodium azide may result in eye and skin irritation. Ingestion may result in nausea, headache, and vomiting. Sodium azide can cause cancer, or alter genetic material. Target organs include heart, nerves, and brain.

**12. ECOLOGICAL INFORMATION**

**Toxicity**
No data available

**Persistence and degradability**
No data available

**Bioaccumulative potential**
No data available

**Mobility in soil**
No data available

**Results of PBT and vPvB assessment**
No data available

**Other adverse effects**
No data available

**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.

<table>
<thead>
<tr>
<th>Product</th>
<th>CAS#</th>
<th>Waste Code</th>
<th>Regulated Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9003-53-6</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td></td>
<td>9003-70-7</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>
Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>UN number</th>
<th>ADR/RID: -</th>
<th>IMDG: -</th>
<th>IATA: -</th>
</tr>
</thead>
<tbody>
<tr>
<td>9011-14-7</td>
<td>Not listed</td>
<td>Not listed</td>
<td></td>
</tr>
<tr>
<td>26628-22-8</td>
<td>P105</td>
<td>Sodium azide</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UN proper shipping name</th>
<th>ADR/RID: Not dangerous goods</th>
<th>IMDG: Not dangerous goods</th>
<th>IATA: Not dangerous goods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transport hazard class(es)</th>
<th>ADR/RID: -</th>
<th>IMDG: -</th>
<th>IATA: -</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Packaging group</th>
<th>ADR/RID: -</th>
<th>IMDG: -</th>
<th>IATA: -</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental hazards</th>
<th>ADR/RID: -</th>
<th>IMDG: -</th>
<th>IATA: -</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Special precautions for user</th>
<th>No data available</th>
</tr>
</thead>
</table>

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available

Chemical safety assessment
No data available

16. OTHER INFORMATION

Further information
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End of Safety Data Sheet