SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NuSieve™ GTG™
Product Use Description : Scientific research and development

Company : Lonza Inc. - Rockland
191 Thomaston Street
Rockland, ME 04841-2994
USA
Business Telephone: (207) 594-3400

Lonza Inc. - Walkersville
8830 Biggs Ford Road
Walkersville, MD 21793-0127
USA
Business Telephone (301) 898-7025

Emergency telephone number : 703-527-3887 (US: 800-424-9300)

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Warning
Form: powder, Colour: white, Odour: odourless
OSHA Hazards : POTENTIAL DUST EXPLOSION HAZARD.

Potential Health Effects
Inhalation : No hazards to be specially mentioned.
Skin : May cause skin irritation.
Eyes : May cause eye irritation.
Ingestion : No hazards to be specially mentioned.
Chronic Exposure : No hazards to be specially mentioned.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Hydroxyethyl agarose</td>
<td>39346-81-1</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

First aid procedures

Inhalation : No special precautions required.

Skin contact : After contact with skin, wash immediately with plenty of soap and water. If skin irritation persists, call a physician.

Eye contact : Immediately flush eye(s) with plenty of water. If eye irritation persists, consult a specialist.

Ingestion : If swallowed, do not induce vomiting - seek medical advice. Immediately give large quantities of water to drink. Never give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Flammable properties

Fire fighting

Suitable extinguishing media : Dry powder
Water spray
Foam

Further information : Use water spray to cool unopened containers.

Protective equipment and precautions for firefighters

Specific hazards during firefighting : Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Heating or fire can release toxic gas.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Use personal protective equipment. Avoid dust formation.

Environmental precautions : Prevent product from entering drains.

Methods for containment / Methods for cleaning up : Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Nonsparking tools should be used.

SECTION 7. HANDLING AND STORAGE

Handling

Handling : Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Advice on protection against fire and explosion : Avoid dust formation. During processing, dust may form explosive mixture in air.

Dust explosion class : St1

Storage

Requirements for storage areas and containers : Keep container tightly closed. To maintain product quality, do not store in heat or direct sunlight. Keep in a dry, cool and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Contains no substances with occupational exposure limit values.

Engineering measures

Engineering measures : It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems
involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Personal protective equipment

<table>
<thead>
<tr>
<th>Protection</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye protection</td>
<td>Handle in accordance with good industrial hygiene and safety practice.</td>
</tr>
<tr>
<td>Hand protection</td>
<td>Handle in accordance with good industrial hygiene and safety practice.</td>
</tr>
<tr>
<td>Skin and body protection</td>
<td>Wear suitable protective clothing and gloves.</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Respirator must be worn if exposed to dust.</td>
</tr>
<tr>
<td>Hygiene measures</td>
<td>Handle in accordance with good industrial hygiene and safety practice.</td>
</tr>
</tbody>
</table>

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>powder</td>
</tr>
<tr>
<td>Colour</td>
<td>white</td>
</tr>
<tr>
<td>Odour</td>
<td>odourless</td>
</tr>
</tbody>
</table>

**Safety data**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Note: no data available</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>Note: no data available</td>
</tr>
<tr>
<td>Density</td>
<td>1.49 g/cm³</td>
</tr>
<tr>
<td>Water solubility</td>
<td>10 g/l at 176 °F (80 °C)</td>
</tr>
</tbody>
</table>
SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Remarks: Avoid dust formation.
Materials to avoid : Remarks: Strong acids and oxidizing agents
Hazardous decomposition products
Hazardous reactions : Note: Stable under normal conditions.
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Further information : There is no data available for this product.

SECTION 12. ECOLOGICAL INFORMATION

Biodegradability : Remarks: no data available
Bioaccumulation : Remarks: no data available
Acute Fish toxicity : Remarks: no data available
Additional ecological information : There is no data available for this product.

SECTION 13. DISPOSAL CONSIDERATIONS

Further information : In accordance with local and national regulations.
Contact waste disposal services.

SECTION 14. TRANSPORT INFORMATION

DOT
Not dangerous goods

TDG
Not dangerous goods

IATA
Not dangerous goods
IMDG-CODE
Not dangerous goods

RID
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Potential dust explosion hazard.
WHMIS Classification : Not a controlled Product

TSCA Status : indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base production and Site Reports (40 CFR 710 (B))

SARA 311/312 Hazards : No SARA Hazards

EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO - KNOW

SARA 302 Components : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know Components : No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components : No components are subject to the Pennsylvania Right to know act
New Jersey Right To Know Components : No components are subject to the New Jersey Right to know act
California Prop. 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.
SECTION 16. OTHER INFORMATION

Further information

HMIS Classification: Health hazard: 1
                     Flammability: 1
                     Reactivity: 0

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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