SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Molecular Sieve 13X / 13X-S

NAME OF SUPPLIER: GL Sciences Inc.

ADDRESS: 22-1 Nishishinjuku 6-chome Shinjuku-ku Tokyo 163-1130, Japan

CHARGE SECTION: International Sales Section

TELEPHONE No.: +81-3-5323-6620

FACSIMILE No.: +81-3-5323-6621

PRODUCT No.: 1001-11603, 1001-11606, 1001-11608, 1001-11653, 1001-11656, 1001-11658, 1001-11674, 1001-11676, 1001-11678, 1001-11686, 1050-31130, 1050-31136, 1050-31138, 1001-, 1003-

SDS No.: 1001-0203

Research use only.

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION: Classification not possible

HAZARDS SYMBOL: - - -

SIGNAL WORD: - - -

HAZARD STATEMENTS: - - -

PRECAUTIONARY STATEMENTS: - - -

OTHER INFORMATIONS:
May be harmful if inhaled and ingested.
May cause eye and skin irritation.
Dispose of contents/container in accordance with all applicable regulations.

MOST IMPORTANT HAZARDS: Eye irritation, skin irritation, digestive tract irritation, respiratory tract irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL IDENTITY: Molecular Sieve 13X / 13X-S

CHEMICAL FORMULA: Single substance

<table>
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<tr>
<th>CHEMICAL NAME</th>
<th>CONTENT</th>
<th>CHEMICAL FORMULA</th>
<th>CAS RN</th>
<th>TSCA INVENTORY</th>
<th>EINECS No.</th>
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<tbody>
<tr>
<td>Molecular Sieve 13X</td>
<td>100%</td>
<td>-</td>
<td>63231-69-6</td>
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4. FIRST AID MEASURES

GENERAL ADVICE: If fragments/respirable dust contacts with eyes or skin, wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment. If irritation persists, consult a physician.

INHALATION: Move victim to fresh air and gargle. If breathing is difficult, give oxygen. If irritation persists, consult a physician.

SKIN CONTACT: Remove contaminated clothes and shoes, rinse skin with plenty of water or shower. Use soap to help assure removal. If irritation persists, consult a physician.

EYE CONTACT: Remove any contact lenses at once. Flush eyes well with flooding large amounts of running water for at least 15 minutes.Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, consult a physician.

INGESTION: Rinse mouth, give plenty of water to vomit. Never give anything by mouth to an unconscious person. Consult a physician.

MOST IMPORTANT SYMPTOMS AND EFFECTS: Shreds and dusts may cause irritation of mucous membranes, respiratory tract, skin and eyes.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical powder, foam, water spray
Use extinguishing agent suitable for type of surrounding fire.

FIRE & EXPLOSION HAZARDS: CO2, CO are included in a flue gas. Use cylinder-type air respiratory apparatus at the fire extinguishing in the room.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS

: Fireman should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

: Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid raising dust and avoid contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS

: Waist the fragments/respirable dusts in accordance with all applicable regulations.

METHODS FOR CLEANING UP

: Do not touch fragments/respirable dusts without suitable protection. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Pull all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose contaminated clothing.

7. HANDLING AND STORAGE

HANDLING

: This product has strongly moisture absorbency. Handle this quickly after opening to avoid heating. Pay attention when opening this material due to its inner pressure decreasing/increasing by changing temperature. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection. After using this product, dispose of contents/container in accordance with all applicable regulations and appropriate ways.

STORAGE

: Store away from moisture and water in well-ventilated dry place. Keep container tightly closed.

INCOMPATIBLE PRODUCTS

: Water, moisture

8. EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING MEASURES

: Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION

: Local Exhaust ; Necessary, Mechanical(General) ; Recommended

CONTROL PARAMETERS

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<th>ACGIH</th>
<th>OSHA PEL</th>
<th>NIOSH REL</th>
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<tr>
<td>Molecular Sieve 13X</td>
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PERSONAL PROTECTION

RESPIRATORY PROTECTION

: Safety mask

HAND PROTECTION

: Chemical resistant gloves

EYE PROTECTION

: Safety glasses(goggles)

SKIN PROTECTION

: Protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE

: Solid

COLOUR

: Brown

ODOUR

: No data available

MELTING POINT / FREEZING POINT

: No data available

BOILING POINT OR INITIAL BOILING POINT AND BOILING RANGE

: No data available

FLAMMABILITY

: No data available

LOWER AND UPPER EXPLOSION LIMIT / FLAMMABILITY LIMIT

: No data available

FLASH POINT

: No data available

AUTO-IGNITION TEMPERATURE

: No data available

DECOMPOSITION TEMPERATURE

: No data available

pH

: No data available
PRODUCT NAME: Molecular Sieve 13X / 13X-S

KINEMATIC VISCOSITY: Not applicable
SOLUBILITY: Insoluble
PARTITION COEFFICIENT
n-octanol/water (log value): No data available
VAPOUR PRESSURE: No data available
DENSITY AND/OR RELATIVE DENSITY: No data available
RELATIVE VAPOUR DENSITY: Not applicable
PARTICLE CHARACTERISTICS: No data available

10. STABILITY AND REACTIVITY
REACTIVITY: It is easy absorbing moisture in the air, and heat until 100 degrees C in some case.
CHEMICAL STABILITY: Stable under recommended storage conditions.
POSSIBILITY OF HAZARDOUS Reaction: No information available
CONDITION TO AVOID: Moisture, contact with materials such as hydro carbons and hydro chlorine.
INCOMPATIBLE MATERIALS: Moisture, water
HAZARDOUS DECOMPOSITION PRODUCTS: No data available

11. TOXICOLOGICAL INFORMATION
ACUTE TOXICITY -oral-: No data available
ACUTE TOXICITY-dermal-: No data available
ACUTE TOXICITY-inhalation-: No data available
SKIN CORROSION/IRRITATION: No data available
SERIOUS EYE DAMAGE/EYE IRRITATION: No data available
RESPIRATORY/SKIN SENSITIZATION: No data available
GERM CELL MUTAGENICITY: No data available
CARCINOGENICITY: No data available
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

12. ECOLOGICAL INFORMATION
ECOTOXICITY: No data available
BIODEGRADABILITY: No data available
BIOACCUMULATION POTENTIAL: No data available
MOBILITY IN SOIL: No data available
OTHER ADVERSE EFFECTS: Not listed in Montreal Protocol.

13. DISPOSAL INFORMATION
Dispose in a hazardous-waste site in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environment agency for specific rules).

14. TRANSPORT INFORMATION
International Regulations
Maritime regulations: Conform to the provisions of IMO.
UN No.: Not regulated
Proper Shipping Name: -
Class: -
Packing Group: -
Marine Pollutant: Not applicable
### 15. REGULATORY INFORMATION

For classification and labeling of chemicals in accordance with the applicable rules and regulations in the EU or each country, refer to GHS classification of this product (See Section 2).


**EU REGULATION**: CLP Regulation ((EC) No. 1272/2008)

### 16. OTHER INFORMATION

**NOTICE:**

The information contained in the SDS description is applicable exclusively to the chemical substance identified herein and for its intended use as an analytical reference standard or reagent and to the unit quantity intended for that purpose. The information does not relate to, and may not be appropriate for, any application or larger quantity of the substance described. Our products are intended for the use by individuals possessing sufficient technical skill and qualification on use the material potential hazardous chemical. Accordingly, no representation or warranty, express or implied, with respect to merchantability and fitness for a particular purpose is made with respect to the information contained herein.

**Attention:**

This product in terms of chemical identity and the unit amount provide is intended for use in chemical analysis and not for human consumption, nor any other purpose.