1. IDENTIFICATION

Product Name: 1-Deoxygalactonojirimycin hydrochloride
Catalogue Number: DL327
Recommended Use: Laboratory research and development.
Supplier: Synthose Inc., 50 Viceroy Road, Unit 7, Concord, Ontario, L4K 3A7, Canada
Emergency Phone No.: +1-905-669-0017
Email: admin@synthose.com

2. HAZARD IDENTIFICATION

Classification: Not classifiable according to GHS.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name: 1-Deoxygalactonojirimycin hydrochloride
Synonyms: DGJ HCl, Migalastat HCl, (2R,3S,4R,5S)-2-(Hydroxymethyl)-3,4,5-piperidinetriol hydrochloride, GR181413
CAS Number: 75172-81-5
Molecular Formula: C_6H_{13}NO_4Cl
Molecular Weight: 199.63

4. FIRST-AID MEASURES

Inhalation: Call a POISON CENTER or doctor/physician if you feel unwell. Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Skin Contact: Wash with plenty of soap and water.
Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes.
Ingestion: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Most Important Symptoms and Effects, Acute and Delayed: Not determined

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
Unsuitable Extinguishing Media: Not determined
Special Protective Equipment and Precautions for Firefighters: Not determined
Specific Hazards Arising from the Hazardous Product: Hazardous Combustion Products: Carbon oxides, Nitrogen oxides, Hydrogen chloride gas

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Use personal protective equipment. Avoid breathing dust, fumes, gas, mist, vapours, or spray.
Methods and Materials for Containment and Cleaning Up: Pick up and arrange disposal without creating dust. Sweep up and shovel or soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Wear protective clothing, gloves, and safety glasses in accordance with good laboratory practices.
Conditions for Safe Storage: Store at 0 to 8 °C. Keep container tightly closed.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Guidelines
Not determined

Appropriate Engineering Controls
Use mechanical exhaust or laboratory fume hood to avoid exposure.

Individual Protection Measures / Personal Protective Equipment

Eye/Face Protection
Wear safety glasses with side-shields, chemical safety goggles, or face shield. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection
Handle with gloves. Wear long-sleeved lab coat. Do not wear open-toed shoes.

Respiratory Protection
Use particle respirator for nuisance exposures. For greater protection, use half or full face mask respirator with cartridges. Respiratory equipment should be tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White Crystalline Solid</td>
</tr>
<tr>
<td>Odour</td>
<td>Not determined</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting Point</td>
<td>240-244 °C</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Stationary Flash Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammable/Explosive Limits</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>Not determined</td>
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<tr>
<td>Relative Density</td>
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</tr>
<tr>
<td>Solubility</td>
<td>H₂O</td>
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<tr>
<td>Partition Coefficient log K_{ow}</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined</td>
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</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
Not reactive

Chemical Stability
Stable under recommended storage conditions

Possibility of Hazardous Reactions
None expected under normal conditions of storage and use

Conditions to Avoid
Open flames, sparks, static discharge, excessive heat

Incompatible Materials
Not determined

Hazardous Decomposition Products
Formed under Fire Conditions
Carbon oxides, Nitrogen oxides, Hydrogen chloride gas

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation
May be harmful if inhaled, may cause respiratory tract irritation

Skin Contact
May be harmful in contact with skin, may cause skin irritation

Eye Contact
May cause eye irritation

Ingestion
May be harmful if swallowed

12. ECOLOGICAL INFORMATION

Not determined

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, regional, and/or federal regulations.
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

14. TRANSPORT INFORMATION
Not dangerous goods for transport according to IATA, IMDG, or ADR.

15. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>Canada DSL / NDSL</th>
<th>The components of this product are not on the DSL Inventory but are manufactured at &lt;100kg per year.</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA TSCA</td>
<td>Negative Certification</td>
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16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Latest Revision</th>
<th>2020-05-14</th>
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Abbreviations

<table>
<thead>
<tr>
<th>ATE</th>
<th>Acute Toxicity Estimate</th>
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</thead>
<tbody>
<tr>
<td>K_{OW}</td>
<td>Concentration in octanol phase / Concentration in aqueous phase</td>
</tr>
<tr>
<td>LC_{50}</td>
<td>Median Lethal Concentration</td>
</tr>
<tr>
<td>LD_{50}</td>
<td>Median Lethal Dose</td>
</tr>
<tr>
<td>TDLo</td>
<td>Lowest Known Toxic Dose</td>
</tr>
<tr>
<td>EC_{50}</td>
<td>Half Maximal Effective Concentration</td>
</tr>
<tr>
<td>RTECS</td>
<td>Registry of Toxic Effects of Chemical Substances</td>
</tr>
</tbody>
</table>

DSL Domestic Substances List
NDSL Non-Domestic Substances List
TSCA Toxic Substances Control Act
IATA International Air Transport Association
IMDG International Maritime Dangerous Goods
ADR Agreement concerning the International Carriage of Dangerous Goods by Road