1. Identification

Product Name: Isopropyl 1-thio-β-D-glucopyranoside
Catalogue Number: IG653
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
- Acute Toxicity, Oral (Category 4)
- Acute Toxicity, Dermal (Category 4)
- Skin Corrosion / Irritation (Category 2)
- Serious Eye Damage / Eye Irritation (Category 2A)
- Acute Toxicity, Inhalation (Category 4)
- Specific Target Organ Toxicity, Single Exposure; Respiratory Tract Irritation (Category 3)
- Germ Cell Mutagenicity (Category 1B)
- Carcinogenicity (Category 1B)

Label Elements

Pictograms

Signal Word: Danger

Hazard Statements

H302: Harmful if swallowed
H312: Harmful in contact with skin
H315: Causes skin irritation
H319: Causes serious eye irritation
H332: Harmful if inhaled
H335: May cause respiratory irritation
H340: May cause genetic defects
H350: May cause cancer

Precautionary Statements

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.
P264: Wash skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing.
P281: Use personal protective equipment as required.
P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes.
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P330: Rinse mouth.
P332 + P313: If skin irritation occurs: Get medical advice / attention.
P337 + P313: If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.

Wash contaminated clothing before reuse.

Store in a well ventilated place. Keep container tightly closed.

Store locked up.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Isopropyl 1-thio-β-D-glucopyranoside</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonym</td>
<td>1-Methylethyl 1-thio-β-D-glucopyranoside</td>
</tr>
<tr>
<td>CAS Number</td>
<td>19165-11-8</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>C₉H₁₈O₅S</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>238.30</td>
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</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Concentration</th>
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<tbody>
<tr>
<td>Isopropyl 1-thio-β-D-glucopyranoside</td>
<td>19165-11-8</td>
<td>100%</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact
IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Eye Contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion
IF SWALLOWED: 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

Specific Hazardous Combustion Products
Carbon oxides, Sulphur oxides

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
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fumes/gas/mist/vapours/spray. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves. Use personal protective equipment as required.
Conditions for Safe Storage
Store at 0 to 8 °C.
Store in a well ventilated place. Keep container tightly closed.
Store locked up.

Incompatible Materials
Not determined

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>
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</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White Waxy Solid</td>
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<tr>
<td>Odour</td>
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<tr>
<td>Odour Threshold</td>
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</tr>
<tr>
<td>pH</td>
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</tr>
<tr>
<td>Melting Point</td>
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</tr>
<tr>
<td>Boiling Point</td>
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</tr>
<tr>
<td>Flash Point</td>
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</tr>
<tr>
<td>Evaporation Rate</td>
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<td>Flammability (solid, gas)</td>
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<tr>
<td>Flammable/Explosive Limits</td>
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<tr>
<td>Vapour Pressure</td>
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<tr>
<td>Vapour Density</td>
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<tr>
<td>Relative Density</td>
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<tr>
<td>Solubility</td>
<td>DMSO, EtOH, H₂O, MeOH</td>
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<td>Partition Coefficient log KₐW</td>
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<tr>
<td>Auto-ignition Temperature</td>
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</tr>
<tr>
<td>Decomposition Temperature</td>
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</tr>
<tr>
<td>Viscosity</td>
<td>Not determined</td>
</tr>
</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
Carbon oxides, Sulphur oxides

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Ingestion, Skin Contact, Eye Contact, Inhalation

Acute Toxicity, Oral
Harmful if swallowed
ATE Oral (mg/kg) - 500

Acute Toxicity, Dermal
Harmful in contact with skin
ATE Dermal (mg/kg) - 1100

Skin Corrosion / Irritation
Causes skin irritation

Serious Eye Damage / Eye Irritation
Causes serious eye irritation

Acute Toxicity, Inhalation
Harmful if inhaled
ATE Inhalation (Dust/Mist, mg/L) - 1.5

Specific Target Organ Toxicity, Single Exposure; Respiratory Tract Irritation
May cause respiratory irritation

Germ Cell Mutagenicity
May cause genetic defects

Carcinogenicity
May cause cancer
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
Canada DSL / NDSL The components of this product are not on the DSL Inventory but are manufactured at <100kg per year.
USA TSCA Negative Certification

16. OTHER INFORMATION
Latest Revision 2020-06-08

Abbreviations

- **ATE**: Acute Toxicity Estimate
- **K\text{OW}**: Concentration in octanol phase / Concentration in aqueous phase
- **LC\text{50}**: Median Lethal Concentration
- **LD\text{50}**: Median Lethal Dose
- **TDL\text{0}**: Lowest Known Toxic Dose
- **EC\text{50}**: Half Maximal Effective Concentration
- **RTECS**: Registry of Toxic Effects of Chemical Substances
- **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