

## 1. IDENTIFICATION

|                     |                                                                                   |
|---------------------|-----------------------------------------------------------------------------------|
| Product Name        | 4-Methylphenyl 2,3,4-tri-O-benzyl-1-thio-D-glucopyranosiduronic acid benzyl ester |
| Catalogue Number    | MG814                                                                             |
| 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     | 4-Methylphenyl 2,3,4-tri-O-benzyl-1-thio-D-glucopyranosiduronic acid benzyl ester                |
| Synonym           | 4-Methylphenyl 2,3,4-tris-O-(phenylmethyl)-1-thio-D-glucopyranosiduronic acid phenylmethyl ester |
| CAS Number        | 2248121-66-4                                                                                     |
| Molecular Formula | C <sub>41</sub> H <sub>40</sub> O <sub>6</sub> S                                                 |
| Molecular Weight  | 660.82                                                                                           |

## 4. FIRST-AID MEASURES

|              |                                                                                                                                                      |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation   | Call a POISON CENTER or doctor/physician if you feel unwell.<br>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.                                                                                         |

## 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, 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 | Wear protective clothing, gloves, and safety glasses in accordance with good laboratory practices. |
|-------------------------------|----------------------------------------------------------------------------------------------------|

|                             |                                                         |
|-----------------------------|---------------------------------------------------------|
| Conditions for Safe Storage | Store at 0 to -20 °C.<br>Keep container tightly closed. |
| 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.                                                                                                                                                                                         |
| <b>Individual Protection Measures / Personal Protective Equipment</b> |                                                                                                                                                                                                                                                           |
| 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

|                           |                         |                                           |                             |
|---------------------------|-------------------------|-------------------------------------------|-----------------------------|
| Appearance                | White Crystalline Solid | Flammable/Explosive Limits                | Not determined              |
| Odour                     | Not determined          | Vapour Pressure                           | Not determined              |
| Odour Threshold           | Not determined          | Vapour Density                            | Not determined              |
| pH                        | Not determined          | Relative Density                          | Not determined              |
| Melting Point             | Not determined          | Solubility                                | DMSO, MeOH, DMF, DCM, EtOAc |
| Boiling Point             | Not determined          | Partition Coefficient log K <sub>OW</sub> | Not determined              |
| Flash Point               | Not determined          | Auto-ignition Temperature                 | Not determined              |
| Evaporation Rate          | Not determined          | Decomposition Temperature                 | Not determined              |
| Flammability (solid, gas) | Not determined          | Viscosity                                 | Not determined              |

## 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                                           |
| <b>Hazardous Decomposition Products</b> |                                                          |
| Formed under Fire Conditions            | Carbon oxides, Sulphur oxides                            |

## 11. TOXICOLOGICAL INFORMATION

|                           |                                                                   |
|---------------------------|-------------------------------------------------------------------|
| Likely Routes of Exposure | Not determined                                                    |
| 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

|                   |                                                                                                      |
|-------------------|------------------------------------------------------------------------------------------------------|
| 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 | 2026-02-18 |
|-----------------|------------|

##### Abbreviations

|                        |                                                                 |             |                                                                            |
|------------------------|-----------------------------------------------------------------|-------------|----------------------------------------------------------------------------|
| <b>ATE</b>             | Acute Toxicity Estimate                                         | <b>DSL</b>  | Domestic Substances List                                                   |
| <b>K<sub>OW</sub></b>  | Concentration in octanol phase / Concentration in aqueous phase | <b>NDSL</b> | Non-Domestic Substances List                                               |
| <b>LC<sub>50</sub></b> | Median Lethal Concentration                                     | <b>TSCA</b> | Toxic Substances Control Act                                               |
| <b>LD<sub>50</sub></b> | Median Lethal Dose                                              | <b>IATA</b> | International Air Transport Association                                    |
| <b>TDL<sub>o</sub></b> | Lowest Known Toxic Dose                                         | <b>IMDG</b> | International Maritime Dangerous Goods                                     |
| <b>EC<sub>50</sub></b> | Half Maximal Effective Concentration                            | <b>ADR</b>  | Agreement concerning the International Carriage of Dangerous Goods by Road |
| <b>RTECS</b>           | Registry of Toxic Effects of Chemical Substances                |             |                                                                            |