

# MATERIAL SAFETY DATA SHEET

## MALTOTRIOSE

### 1. IDENTIFICATION OF PRODUCT AND COMPANY

<b>Product name</b>	Maltotriose	<b>Company</b>	#3208, Building III, College of Agriculture and Life Sciences 99, Daehak-ro Yuseong-gu Daejeon, 34134, South Korea.
<b>Product use</b>	For laboratory research use only.	<b>Tel</b>	+82-42-821-8936
		<b>Fax</b>	+82-821-8777
		<b>Website</b>	<a href="http://www.carboexpert.com">www.carboexpert.com</a>

### 2. HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008

#### Label elements

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008

#### Other hazards

None

### 3. COPPOSITION AND INFORMATION ON INGREDIENTS

<b>CAS No</b>	1109-28-0
<b>Synonyms</b>	$\alpha$ -D-Glc-(1→4)- $\alpha$ -D-Glc-(1→4)-D-Glc O- $\alpha$ -DD-Glucopyranosyl-(1→4)-O- $\alpha$ -D-glucoopyranosyl-(1→4)-D-glucose
<b>Fomula</b>	C <sub>18</sub> H <sub>32</sub> O <sub>16</sub>
<b>Molecualr weight</b>	504.44g / mol
<b>EC-NO.</b>	214-174-2

## 4. FIRST AID MEASURES

### Description of first aid measures

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact**

Wash off with soap and plenty of water.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### Indication of any immediate medical attention and special treatment needed

No data available

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Use water spray, dry chemical, carbon dioxide, or chemical foam.

### Specific hazards arising from the chemical

Carbon oxides.

### Precautions for firefighters

As in any fire, wear a MSHA/NIOSH-approved or equivalent, pressure-demand, self-contained breathing apparatus and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas.

For personal protection see section 8

### Environmental precautions

Do not let product enter drains

### Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

For precautions see section 2.2.

**Storage**

Keep container tightly closed. Keep container in a cool, well-ventilated area.

**8. EXPOSURE CONTROL/PERSONAL PROTECTION****Exposure Guidelines**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering Controls**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection**

Safety glasses. Lab coat. Dust respirator. Use a dust respirator if ventilation is inadequate or handling of material creates visible dust clouds, and airborne concentrations exceed the recommended exposure limits. Be sure to use an approved/certified respirator or equivalent.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	White powder
<b>Odor</b>	No data available
<b>pH</b>	No data available.
<b>Melting point/ freezing point</b>	132 - 135 °C
<b>Initial boiling point and boiling range</b>	No data available.
<b>Flash Point</b>	No data available.
<b>Evaporation Rate</b>	No data available.
<b>Upper Flammability</b>	No data available.
<b>Lower Flammability</b>	No data available.
<b>Vapor Pressure</b>	No data available.
<b>Vapor Density</b>	No data available.
<b>Solubility</b>	No data available.
<b>Explosive properties</b>	No data available.

**Oxidizing properties** No data available.

**Partition coefficient** No data available.

## 10. STABILIT AND REACTIVITY

**Reactivity** No data available.

**Chemical stability** Stable under recommended temperatures and pressures.

**Reactivity** No data available.

**Possibility of hazardous reactions**  
No data available.

**Conditions to avoid** Dust generation.

**Incompatible materials** Strong oxidizing agents.

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

## 11. TOXICOLOGICAL INFORMATION

**RTECS#** No data available.

**Acute toxicity** No data available.

**Routes of exposure** Inhalation, eye contact, skin contact, ingestion.

**Carcinogenicity**  
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Specific target organ toxicity**  
No data available

**NTP** Not listed.

**OSHA** Not listed

**Acute toxic effects**  
Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** No data available.

**BOD5 and COD** No data available.

**Products of Biodegradation**

Possibly hazardous short term degradation

**Toxicity of the Products of Biodegradation**

The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation**

No data available.

## 13. DISPOSAL CONSIDERATIONS.

**Waste Disposal** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

## 14. TRANSPROT INFORMATION.

**DOT Classification** Not applicable.

**Identification** Not applicable.

**Transport hazard class(es)**

Not applicable.

**Packing group**

Not applicable.

## 15. REGULATORY INFORMATION

**TSCA Chemical Inventory**

This product is on the EPA Toxic Substance Control Act (TSCA) inventory. The product is supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720 et seq. The health risks have not been fully determined. Any information that is or becomes available will be supplied on an SDS sheet.

**Other Regulations**

**EINECS** This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 232-940-4).

**Canada** Listed on Canadian Domestic Substance List (DSL).

**China** Listed on National Inventory.

<b>Japan</b>	Listed on National Inventory (ENCS).
<b>Korea</b>	Listed on National Inventory (KECI).
<b>Philippines</b>	Listed on National Inventory (PICCS).
<b>Australia</b>	Listed on AICS.

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## 16. ADDITIONAL INFORMATION.

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**Revision note**            No data available.

### **Disclaimer**

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**End of Material Safety Data Sheet**