

Safety Data Sheet **MALTOSE Monohydrate**

SDS no. 6Q3TAUPM • Version 1.0 • Date of issue: 2024-02-27

SECTION 1: Identification

GHS Product identifier

Product name MALTOSE Monohydrate

Other means of identification

Maltose Monohydrate ML005
Maltose Monohydrate LR ML005-100G
Maltose Monohydrate LR ML005-500G

Recommended use of the chemical and restrictions on use

Nutrient, sweetener, sugar supplement for diabetics, culture media, prepared bee food, stabilizer for polysulfides, brewing, pharmaceutical dispensing and laboratory reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
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Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as non-Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

Not a hazardous substance or mixture.

GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

Other hazards which do not result in classification

Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 360.32

Components

| Component | CAS no. | Concentration |
|---------------------------|-----------|---------------------|
| D-(+)-Maltose Monohydrate | 6363-53-7 | 95 - 100 % (weight) |

CLASSIFICATIONS: No data available. HAZARDS: No data available.

SECTION 4: First-aid measures

Description of necessary first-aid measures

| | |
|-------------------------|--|
| General advice | First Aid Facilities: Maintain eyewash fountain in work area. |
| If inhaled | Remove victim to fresh air. Seek medical advice if effects persist. |
| In case of skin contact | Wash with plenty of soap and water. Seek medical advice if effects persist. |
| In case of eye contact | Irrigate with copious quantity of water for 15 minutes. Seek medical assistance if symptoms persist. |
| If swallowed | Rinse mouth thoroughly with water immediately. Do not induce vomiting. Seek medical advice if effects persist. |

Most important symptoms/effects, 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 immediate medical attention and special treatment needed, if necessary

Treat symptomatically based on judgement of doctor and individual reactions of the patient.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Small fire: Use dry chemical, CO₂, water spray or foam.

Large fire: Use water spray, fog or foam.

Specific hazards arising from the chemical

May emit toxic fumes in fire including oxides of carbon.

May burn but do not ignite readily. Runoff may pollute waterways. Fire may produce irritating, poisonous and/or corrosive gases.

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation and avoid breathing dust. Avoid inhalation, contact with skin, eyes and clothing.

Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid generation or accumulation of dusts. Do not breathe dust. Do not get in eyes, on skin, on clothing.

Avoid prolonged or repeated exposure. Use in well ventilated areas away from all ignition sources. Wear suitable protective clothing.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Keep container tightly closed and in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Recommendation: Rubber or plastic gloves

Body protection

Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state

Solid

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| | |
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| Appearance | Colourless crystals or white powder. |
| Color | No data available. |
| Odor | Odourless. |
| Odor threshold | No data available. |
| Melting point/freezing point | 110-130 °C |
| 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. |
| Explosive properties | No data available. |
| Auto-ignition temperature | No data available. |
| Decomposition temperature | No data available. |
| Oxidizing properties | No data available. |
| pH | Neutral (5% solution, 20 °C); pH 4.0-5.5 (30% solution); pH 3.7-4.7 (100% solution, 20°C). |
| Kinematic viscosity | No data available. |
| Solubility | Solubility in Water: Soluble (85 g/100ml water @ 25°C). Solubility in Organic Solvents: Slightly soluble in alcohol. Insoluble in ether. |
| Partition coefficient n-octanol/water (log value) | No data available. |
| Vapor pressure | No data available. |
| Evaporation rate | No data available. |
| Density and/or relative density | Specific Gravity: 0.34 –0.45 (bulk) |
| Relative vapor density | No data available. |
| Particle characteristics | No data available. |

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

Other Information: About one-third as sweet as sucrose.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable under normal conditions of storage and use.

Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

May form combustible dust concentrations in air

Conditions to avoid

Exposure to moisture. Exposure to air. Heat, flames, ignition sources and incompatibles. Dust generation. Incompatibles.

Incompatible materials

Strong oxidisers.

Hazardous decomposition products

Oxides of carbon.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: Oral LD50 (rat): 34.8 g/kg (anhydrous).

Ingestion: Large doses may cause gastro-intestinal upset.

Inhalation: Inhalation of dust may cause irritation to the respiratory tract.

Skin corrosion/irritation

May cause skin irritation.

Serious eye damage/irritation

Contact may cause transient irritation.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

Specific target organ toxicity (STOT) - single exposure

No data available.

Specific target organ toxicity (STOT) - repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

Chronic Effects: Claims have been made that this material has a neoplastic effect, i.e. causes the formation of neoplasm(s) or non-metastasizing abnormal or new growth(s). As maltose is produced by the action of enzymes on starch foodstuffs, this source of contact is the major one in man. Contact with this material in a laboratory will have an insignificant effect compared with this natural process contact. Cases of chronic poisoning from prolonged use (up to 200 g/day) have been recorded. However, it would be virtually impossible to take such large quantities accidentally.

D-(+)-Maltose Monohydrate: Oral, mouse: LD50 = >44 gm/kg;

Oral, rat: LD50 = 34800 mg/kg;

SECTION 12: Ecological information

Toxicity

No data available.

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

No data available.

Endocrine disrupting properties

No data available.

Other adverse effects

Other Information: Maltose is naturally found in animals and plants.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.
Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.
Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)