MATERIAL SAFETY DATA SHEET

Liquid Sugar

SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: Liquid Sugar
Applicable In: Australia
Other Names: Sugar Syrup, Sucrose Syrup
Recommended use: Food Additive, Foodstuff, Food Industry
Company: Sugar Australia Pty Limited ABN 82 081 245 169
Address: 265 Whitehall St
          Yarraville VIC 3013
          Australia
Telephone: +61 3 9283 4558
Facsimile: +61 3 9689 4085
Emergency Phone Number: Poisons Information Centre 13 11 26

This Material Safety Data Sheet (MSDS) is issued by the Supplier in accordance with the Code and guidelines from the Australian Safety and Compensation Council (ASCC, formerly National Occupational Health and Safety Commission - NOHSC). The information in it must not be altered, deleted or added to. The Supplier will not accept any responsibility for any changes made to its MSDS by any other person or organization. The Supplier will issue a new MSDS when there is a change in ASCC standards, guidelines, or regulations and/or a material change in product specifications.

SECTION 2: HAZARDS IDENTIFICATION


Liquid Sugar is classified as Non-Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Note: This product is a well known ingredient in food and beverages and this Material Safety Data Sheet is concerned only with occupational exposures.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Proportion</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sucrose</td>
<td>66-68%</td>
<td>57-50-1</td>
</tr>
<tr>
<td>Water</td>
<td>32-34%</td>
<td>7732-18-5</td>
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</tbody>
</table>
SECTION 4: FIRST AID MEASURES

Swallowed: Give water to drink.
Eye: Flush thoroughly with copious amounts of running water. If symptoms persist, seek medical attention.
Skin: Wash thoroughly with soap and water.
Inhaled: Remove to fresh air.
Advice to Doctor: Treat symptomatically. People with diabetes may need stabilisation.

SECTION 5: FIRE FIGHTING MEASURES

Specific Hazards: Incompatible with strong oxidising agents.
Flammability: Low, product will burn in surrounding fire situation.
Extinguishing Media: Water, dry chemical, carbon dioxide, BCF and foam.
Hazards from combustion products: With heat, product burns/oxidises to form carbon, carbon monoxide and or carbon dioxide, and smoke.
Special protective precautions and equipment for fire fighters: Standard fire-fighting precautions applicable.
Hazchem code: None allocated

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spills: Wet sweep, vacuum or pump into containers. Wash area with water. Notify any relevant waste or environmental authority.

SECTION 7: HANDLING AND STORAGE

Handling: Material can ferment if excessive moisture contamination is allowed. Fermentation can yield carbon dioxide with possible traces of ethanol or volatile fatty acids (e.g. acetic, propionic, lactic, or butyric) and if exposed to a spark or flame may result in an explosion. These conditions should be avoided. If maintenance of tank requires entry by personnel, confined space precautions should be complied with. Insufficient oxygen may be present in vessels containing the product due to the generation of carbon monoxide during fermentation.
Storage: This product should be stored in its factory packaging in a dry area. Liquid Sugar in bulk should be stored in a vented tank designed to contain a material with a specific gravity of 1.3 or greater. Localised microbiological deterioration may start in areas where the liquid becomes diluted. Storage above 40°C can lead to spontaneous decomposition.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

None allocated. Avoid liquid mist generation.

Engineering Controls: General room ventilation should be adequate, but local mechanical ventilation may be required if liquid mists are generated, particularly in confined spaces. Work areas should be cleaned regularly by wet sweeping or vacuuming.

Personal Protection
Skin Protection: Direct skin contact should be avoided by wearing long sleeved shirts and long
Eye Protection:  Ventilated non-fogging goggles (splash resistant AS/NZS 1336) should be worn if liquid mist is generated.

Respiratory Protection:  An approved particulate respirator conforming to Australian Standards AS/NZS 1715 and AS/NZS 1716 should be worn when working in liquid mists or dusts. Respirators should be correctly fitted, maintained in good condition, and kept in clean storage when not in use. Replaceable filters and cartridges should be replaced regularly in accordance with the manufacturers' guidelines and Australian Standards AS/NZS 1715 and AS/NZS 1716. Use only respirators that bear the Australian Standards mark and are fitted and maintained correctly, and kept in clean storage when not in use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colourless to pale yellow liquid
Odour: Faint caramel odour
pH, at stated concentration: Not available
Vapour pressure: Not determined
Vapour Density: Not determined
Boiling Point/range: (°C) >105°C
Freezing/Melting Point: (°C) Not applicable
Solubility in water: Totally miscible
Solubility (Other): Not applicable
Specific gravity: (H2O = 1) 1.33
Evaporation Rate: Not applicable
Flammability Limits: Not applicable
Flash Point: Not applicable
Autoignition temperature: 500°C after evaporation of water

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable
Incompatible Materials: Incompatible with oxidising agents (eg. peroxides).
Conditions to avoid: None
Hazardous Decomposition products: None
Hazardous Polymerisation: None

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity Data:  non-toxic – a foodstuff
Sucrose: LD50 (Ingestion): 29,700 mg/kg (rat)

Health Effects
Acute (short term).
Swallowed: No health effects under normal conditions of industrial use, but ingestion may destabilise people with diabetes.
Eye: Irritating to the eyes and may cause watering and redness.
Skin: Skin contact may result in mild skin irritation.
Inhaled: Not applicable unless aerosolised into liquid mists which may cause irritation to nose and throat.
Chronic: Repeated skin exposure to Liquid Sugar may result in skin irritation and if persistent, dermatitis which may become infected.
SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Non-toxic to aquatic and terrestrial organisms.
Persistence and Degradability: Product is persistent and would have a low degradability.
Mobility: A low mobility would be expected in a landfill situation.

SECTION 13: DISPOSAL CONSIDERATIONS

Liquid Sugar can be treated as a common waste for disposal or dumped into a landfill site in accordance with relevant authority guidelines. Note BOD load of sugar solutions in waste water streams. Personal precautions should be observed (see Section 8 above).

SECTION 14: TRANSPORT INFORMATION

Transport Requirements: No special transport requirements are necessary.
UN number: None allocated
Class: None allocated
Subsidiary Risk 1: None allocated
Packaging Group: None allocated
Hazchem code: None allocated
DG Class: None allocated
EPG: None
Incompatibilities: None
Proper Shipping Name: None allocated
Marine Pollutant: No

SECTION 15: REGULATORY INFORMATION

Poisons Schedule: None scheduled

SECTION 16: OTHER INFORMATION

Emergency Contact Number: Poisons Information Centre 13 11 26

For further information on this product, please contact the following:
Sugar Australia Pty Limited
ABN 82 081 245 169
265 Whitehall St Yarraville VIC 3013 Australia
Telephone: 61 3 9283 4558
Facsimile: 61 3 9689 4085

Additional information:
Australian Standards References:
AS/NZS 1336 Recommended Practices for Occupational Eye Protection.
AS/NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices.
AS/NZS 1716 Respiratory Protective Devices.
AS 2161 Industrial Safety Gloves and Mittens (excluding electrical and medical gloves).
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END OF MSDS