Material Safety Data Sheet
according to Regulation GB/T 16483-2008 and UN GHS(Rev.4)
Sorbitan monolaurate

Doc no.: RHB-STP-GY-003-2019  Version: C/0  Revision Date: 25-Nov-2019

Section 1: Chemical Product and Company Identification

1.1 Product identifier

Product name: Sorbitan monolaurate
CAS number: 1338-39-2

1.2 Recommended uses and uses advised against

Recommended use: According to GB2760-2014, use as emulsifier in food, pharmaceutical, industrial, cosmetics and other industries
Uses advised against: Unknown

1.3 Details of the manufacturer of the safety data sheet

Company: Guangdong Runhua Chemistry Co., Ltd.
Address: No.7 Jinnan 2nd Road, Fine Chemical Industry Base, Qinghua Park, Donghuazhen, Yingde, Guangdong, 513058, China
Phone: 86-020-36293412
Contact person: YAO Kunhui
Emergency Tel: 86-0763-2606712 (24HR)
Email address: gdrh@gdrunhua.com

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

2.1.1 GHS hazard classification

Physical hazards: None
Health hazards: None
Environmental hazards: None
2.2 Label element

Hazard pictogram: None
Hazard statements: None
Signal word: None

2.3 Precaution statements

Prevention: Keep away from heat and fire
Response: Not applicable
Storage: Store in dry, cool and well-ventilated place
Disposal: Disposal should be in accordance with applicable regional, national and local laws and regulations

Section 3: Composition and Information on Ingredients

3.1 Substance or mixture: Substance

3.2 Composition

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS#</th>
<th>EC#</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorbitan monolaurate</td>
<td>1338-39-2</td>
<td>215-663-3</td>
<td>~ 100</td>
</tr>
</tbody>
</table>

Section 4: First Aid Measures

4.1 First aid measures for different exposure routes

Inhalation: Move to fresh air. If symptoms persist, call a physician
Skin contact: Remove contaminated clothing. Rinse with plenty of water and soap
Eye contact: Rinse immediately with plenty of water, for at least 15 minutes. Get medical attention immediately if irritation persists
Ingestion: Drink plenty water to dilute. Get medical attention immediately if symptoms occur

4.2 Most important symptoms and effects: None under normal use conditions

4.3 Protection for emergency personnel: Emergency personnel should be informed
about the substance

4.4 Notes to physician

Physician should be informed about the substance and treat symptomatically

**Section 5: Fire and Explosion Data**

5.1 Extinguishing media

- **Suitable extinguishing media**
  
  Substance is high temperature flammable. Use water, carbon dioxide, foam, dry powder

- **Unsuitable extinguishing media**
  
  Unknown

5.2 Specific hazards arising from the chemical

May ignite by sparks, heat flames. Carbon dioxide and carbon dioxide may be released by fire

5.3 Special protective actions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**Section 6: Accidental Release Measures**

6.1 Personal precautions

Comply with good personal hygiene habits.

Advice for non-emergency personnel: do not breathe in steam or aerosol. Evacuate area; follow emergency procedures and seek for expert's advice. Use personal protective equipment recommended in Section 8

6.2 Environmental precautions

Untreated chemicals are strictly prohibited to be discharged into the environment

6.3 Methods for containment and clean up

Contain spillage, and then collect with non-combustible absorbent materials, (e.g. sand, dry lime, soda ash) and place in container for disposal according to local/ national regulations. It can also be diluted with a large amount of water before release into the waste water system. For large spill, use dike to contain and then collect, transfer, recycle or discard after treatment
6.4 Preventive measures against secondary hazards

Immediate clean-up of the spillage

Section 7: Handling and Storage

7.1 Handling

Technical measures
Use in well-ventilated place. Wear personal protective equipment. Wash hands after working with substance.

Local or general ventilation
Provide adequate ventilation

Precautionary measures
Avoid breathing excessive vapors/gas/fume. Do not get in eyes or contact with skin.

Safe operation statements
Avoid contact with eyes and skin. Use personal protection recommended by SDS Section 8.

7.2 Storage

Technical measures
No special storage requirements

Safe storage conditions
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from kindling material, heat source and direct sunlight.

Incompatible substances
Oxidizing agent

Safe packaging material
Unknown

Section 8: Exposure Controls/Personal Protection

8.1 Exposure guidelines

Exposure limits
Unknown

Engineering controls
Closed production area; the use of local exhaust ventilation is recommended to control emissions near the source. Ensure there is eye wash station and emergency shower station nearby.

8.2 Personal protective equipment

Respiratory protection
Non-powered air-purifying respirators (full face mask) or self-contained respirator must be worn when expose to vapor

Hand protection
Wear appropriate protective gloves
Eye protection  Wear safety goggles
Skin and body protection  Wear gloves and protective clothing (non-permeable)
Hygiene measures  Smoking, eating and drinking are prohibited at work site.

### Section 9: Physical and Chemical Properties

#### 9.1 General information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>In between liquid and semi-solid</td>
</tr>
<tr>
<td>Shape</td>
<td>Viscous</td>
</tr>
<tr>
<td>Color</td>
<td>Brownish yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic odor</td>
</tr>
<tr>
<td>pH</td>
<td>6.0 – 8.0 (5% aqueous solution)</td>
</tr>
<tr>
<td>Melting point</td>
<td>Unknown</td>
</tr>
<tr>
<td>Boiling point / range</td>
<td>Unknown</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;120°C (Closed cup)</td>
</tr>
<tr>
<td>Flammability</td>
<td>Unknown</td>
</tr>
<tr>
<td>Upper flammability limit (%)</td>
<td>Unknown</td>
</tr>
<tr>
<td>Lower flammability limit (%)</td>
<td>Unknown</td>
</tr>
<tr>
<td>Upper explosion limit (%)</td>
<td>Unknown</td>
</tr>
<tr>
<td>Lower explosion limit (%)</td>
<td>Unknown</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Unknown</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Unknown</td>
</tr>
<tr>
<td>Relative density</td>
<td>Unknown</td>
</tr>
<tr>
<td>Density</td>
<td>Unknown</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in organic solvents such as ethanol, ethyl acetate and petroleum ether. Can be dispersed in hot water. Insoluble in cold water</td>
</tr>
<tr>
<td>Partition coefficient; n-octanol/water</td>
<td>Unknown</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Unknown</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>$\text{C}<em>{18}\text{H}</em>{34}\text{O}_6$</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>346.5 g/mol</td>
</tr>
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</table>

#### 9.2 Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility (other)</td>
<td>Unknown</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Unknown</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
Section 10: Stability and Reactivity Data

10.1 Stability
Stable under normal conditions

10.2 Possibility of hazardous reactions
None under normal processing

10.3 Conditions to avoid
Avoid incompatible materials and excessive heating

10.4 Incompatible materials
Strong oxidant and strong base

10.5 Hazardous decomposition products
Unknown

Section 11: Toxicological Information

11.1 Toxicokinetic, metabolism and distribution
Unknown

11.2 Toxicology information
Acute Toxicity
LD$_{50}$ (oral, mice) >10000mg/kg
LD$_{50}$ (percutaneous, rabbit) No data
LD$_{50}$ (inhalation, mice) No data

Skin corrosion/ irritation Uncategorized
Eye corrosion/ irritation Uncategorized
Respiratory/ skin sensitization Uncategorized
Germ cell mutagenicity Uncategorized
Carcinogenicity Uncategorized
Reproductive toxicity Uncategorized
STOT - single exposure Uncategorized
STOT - repeated exposure Uncategorized
Aspiration hazard Uncategorized
Section 12: Ecological Information

12.1 Ecotoxicity
   - Fish: Unknown
   - Water flea: Unknown
   - Algae

12.2 Persistence and degradability: Unknown

12.3 Bioaccumulation/accumulation: Unknown

12.4 Mobility in soil: Unknown

12.5 Other adverse effects: Unknown

Section 13: Disposal Considerations

13.1 Waste from Residues / Unused Products
   Disposal should be in accordance with applicable regional, national and local laws and regulations. Empty containers or gasket material may have residues; these material and containers must be disposed in a safe manner.

13.2 Contaminated packaging
   Empty containers should be sent to approved waste disposal sites for regeneration or disposal. Empty containers may have residues. Pay attention to label warnings even for empty containers.

13.3 Local Hazardous Waste Codes
   Recycle or send it to a special waste disposal site in a sealed container. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14: Transport Information

<table>
<thead>
<tr>
<th>UN- No.</th>
<th>ADR/ RID</th>
<th>IMDG</th>
<th>ICAO/ IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Uncategorized</td>
<td>Uncategorized</td>
<td>Uncategorized</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Non-dangerous good</td>
<td>Non-dangerous good</td>
<td>Non-dangerous good</td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------</td>
<td>--------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>UN hazard class</td>
<td>Uncategorized</td>
<td>Uncategorized</td>
<td>Uncategorized</td>
</tr>
<tr>
<td>Packaging group</td>
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<td>Uncategorized</td>
<td>Uncategorized</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Special precautions for user related to transport or transportation measures</td>
<td>Refer to Section 2.2</td>
<td>Refer to Section 2.2</td>
<td>Refer to Section 2.2</td>
</tr>
</tbody>
</table>

### Section 15: Other Regulatory Information

#### 15.1 Special regulations/legislation on the safety, health and environmental protection of substances and mixtures

Whether it is included in the chemical catalogs of other countries:

<table>
<thead>
<tr>
<th>Catalog</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>IECSC</td>
<td>The chemical is listed in the IECSC catalog</td>
</tr>
<tr>
<td>EINECS</td>
<td>The chemical is listed in the IECSC catalog</td>
</tr>
<tr>
<td>EPA/TSCA</td>
<td>The chemical is listed in the TSCA catalog</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>The chemical is listed in the DSL/NDSL catalog</td>
</tr>
<tr>
<td>2015 Catalogue of Hazardous Chemicals</td>
<td>This chemical is not listed in 2015 Catalogue of Hazardous Chemicals</td>
</tr>
</tbody>
</table>

The following laws, regulations and standards have made corresponding provisions on the safe use, storage, transportation, handling, classification and label of chemicals:

- Law of the People's Republic of China on Work safety;
- Environmental Protection Law of the People's Republic of China;
- Regulations on the Safe Management of Hazardous Chemicals in China;
- Regulations on Production Safety Licenses;

#### 15.2 Notes for downstream uses

Disposal of this product and container should comply with relevant regulations

### Section 16: Other Information
16.1 Revision description

This document has been updated to comply with GB/T16483-2008 Safety Date Sheet For Chemical Products Content and Order of Sections

16.2 Details

The information provided in the SDS is correct to the best of our knowledge. The information is prepared exclusively for the specific material designated.

16.3 Special remarks

The information given in this SDS is designed only as a guidance. Users must independently determine and judge whether the contents are suitable for use and protect the health and safety of anyone handling the product. This SDS does not provide any guarantee, the information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

16.4 Abbreviation

ADR (Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG (International Maritime Dangerous Goods Code)
IATA (International Air Transport Association)
ICAO-TI (International Civil Aviation Organization- Technical Instructions)
CAS (Chemical Abstracts Service)
LC50 (Median lethal concentration)
EC50 (Half maximal effective concentration)
LD50 (Median lethal dose)
ADI (Acceptable daily intake)

16.5 Disclaimer

The information provided in the SDS is correct to the best of our knowledge. No warranties, expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose or course of performance or usage of trade. User is responsible for determining whether the designated product is fit for a particular purpose and suitable for user’s method of use or application. Runhua is not responsible for any third-party compensation, loss, damage, or loss of profits caused, or any special, indirect, incidental, or consequential. All personnel handling product should be fully aware of the potential risks involved and take appropriate safety and regulatory measures before actually working with the product.