1. Product and Company Identification

Material name: SUCROSE
Version #: 03
Revision date: 09-08-2011
CAS #: 57-50-1
Product Codes: J.T.Baker: 4005, 4072, 4074, 4097, 4842
Macron: 1397, 7723, 7724, 8360
Synonym(s): alpha-D-glucopyranosyl-beta-D-fructofuranoside; sugar
Manufacturer: Avantor Performance Materials, Inc.
Address: 3477 Corporate Parkway
Suite #200
Center Valley, PA 18034
US
Customer Service: 855-282-6867
24 Hour Emergency: 908-859-2151
Chemtrec: 800-424-9300

2. Hazards Identification

Emergency overview: Low hazard for usual industrial or commercial handling. Handle in accordance with good industrial hygiene and safety practice.
OSHA regulatory status: This material is not considered hazardous by the OSHA Hazard Communication Standard, OSHA 29 CFR 1910.1200.
Potential health effects:
- Routes of exposure: Inhalation. Skin contact. Eye contact. Ingestion.
  - Eyes: Dust or powder may irritate eye tissue. If irritation should occur, it is expected to be transient.
  - Skin: Health injuries are not known or expected under normal use.
  - Inhalation: Health injuries are not known or expected under normal use.
  - Ingestion: Expected to be a low ingestion hazard.
Chronic effects: None known.
Potential environmental effects: The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Non-hazardous components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUCROSE</td>
<td>57-50-1</td>
<td>90 - 100</td>
</tr>
</tbody>
</table>

4. First Aid Measures

First aid procedures:
- **Eye contact**: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.
- **Skin contact**: Wash off with soap and water. Get medical attention if irritation develops and persists.
- **Inhalation**: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
- **Ingestion**: Seek medical advice.
- **Notes to physician**: Treat symptomatically.
General advice
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties
Dust may form explosive mixture with air.

Extinguishing media
Suitable extinguishing media
Water. Carbon dioxide (CO2). Dry chemical.

Unsuitable extinguishing media
None known.

Protection of firefighters

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

Specific methods
In the event of fire, cool tanks with water spray. In the event of fire and/or explosion do not breathe fumes.

Hazardous combustion products
Carbon monoxide and carbon dioxide.

6. Accidental Release Measures

Personal precautions
Keep unnecessary personnel away. Keep upwind. Ventilate the area. Avoid inhalation of dust from the spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions
Prevent further leakage or spillage if safe to do so.

Methods for containment
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up
Avoid dust formation.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Large Spills: Collect dust or particulates using a vacuum cleaner with a HEPA filter. Reduce airborne dust and prevent scattering by moistening with water.

Never return spills in original containers for re-use. Clean contaminated surface thoroughly. Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling
Keep formation of airborne dusts to a minimum. Dust may form explosive mixture with air. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Wash thoroughly after handling. See Section 8 of the MSDS for Personal Protective Equipment.

Storage
Keep container tightly closed. Store in a well-ventilated place.

8. Exposure Controls / Personal Protection

ACGIH
Material: SUCROSE (57-50-1)  
Type: TWA  
Value: 10.0000 mg/m3

Occupational exposure limits

U.S. - OSHA
Material: SUCROSE (57-50-1)  
Type: PEL  
Value: 15.0000 mg/m3  
Form: Total dust.
Material name: SUCROSE

<table>
<thead>
<tr>
<th>Material Name</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Material</td>
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<tr>
<td></td>
<td>Form</td>
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</tbody>
</table>

5.0000 mg/m³ Respirable fraction.

Engineering controls

Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.

Personal protective equipment

- Eye / face protection: Use tight fitting goggles if dust is generated.
- Skin protection: Wear appropriate clothing to prevent repeated or prolonged skin contact.
- Respiratory protection: Wear respirator if there is dust formation.
- General hygiene considerations: Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

- Appearance: Crystalline.
- Color: White.
- Odor: Odorless.
- Odor threshold: Not available.
- Physical state: Solid.
- Form: Crystals.
- Melting point: 366.8 °F (185.5 °C)
- Freezing point: 366.8 °F (185.5 °C)
- Boiling point: Not applicable.
- Flash point: Not available.
- Evaporation rate: Not available.
- Flammability limits in air, upper, % by volume: Not available.
- Flammability limits in air, lower, % by volume: Not available.
- Vapor density: Not available.
- Specific gravity: 1.58
- Relative density: Not available.
- Solubility (water): 2000 g/l
- Partition coefficient (n-octanol/water): -3.7
- Auto-ignition temperature: Not available.
- Molecular weight: 342.3 g/mol
- Molecular formula: C₁₂-H₂₂-O₁₁

10. Chemical Stability & Reactivity Information

- Chemical stability: Stable under normal temperature conditions.
- Conditions to avoid: Heat, flames and sparks. Dust clouds may be explosive under certain conditions.
- Hazardous decomposition products: Carbon monoxide. Carbon Dioxide.
- Possibility of hazardous reactions: Hazardous polymerization does not occur.
### 11. Toxicological Information

<table>
<thead>
<tr>
<th>Toxicological data</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product</strong></td>
<td><strong>Test Results</strong></td>
</tr>
<tr>
<td>SUCROSE (57-50-1)</td>
<td>Acute Oral LD50 Rat: 29700 mg/kg</td>
</tr>
</tbody>
</table>

**Sensitization**
- Not a skin sensitizer.

**Acute effects**
- Low hazard for usual industrial or commercial handling.

**Chronic effects**
- None known.

**Carcinogenicity**
- This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**ACGIH Carcinogens**
- SUCROSE (CAS 57-50-1) A4 Not classifiable as a human carcinogen.

**Skin corrosion/irritation**
- Not applicable.

**Epidemiology**
- No epidemiological data is available for this product.

**Mutagenicity**
- No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Neurological effects**
- None known.

**Reproductive effects**
- Contains no ingredient listed as toxic to reproduction

**Teratogenicity**
- No data available to indicate product or any components present at greater than 0.1% may cause birth defects.

**Symptoms and target organs**
- None known.

### 12. Ecological Information

**Ecotoxicity**
- This product has no known eco-toxicological effects.

**Environmental effects**
- Ecological injuries are not known or expected under normal use. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Aquatic toxicity**
- This material is not expected to be harmful to aquatic life.

**Persistence and degradability**
- Expected to be readily biodegradable.

**Partition coefficient (n-octanol/water)**
- -3.7

### 13. Disposal Considerations

- **Disposal instructions** Dispose of contents/container in accordance with local/regional/national/international regulations. Incinerate the material under controlled conditions in an approved incinerator.

- **Contaminated packaging** Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.

### 14. Transport Information

**DOT**
- Not regulated as dangerous goods.

**IATA**
- Not regulated as dangerous goods.

**IMDG**
- Not regulated as dangerous goods.
15. Regulatory Information

**US federal regulations**
This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

**CERCLA (Superfund) reportable quantity**
None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

- **Hazard categories**
  - Immediate Hazard - No
  - Delayed Hazard - No
  - Fire Hazard - No
  - Pressure Hazard - No
  - Reactivity Hazard - No

- **Section 311 hazardous chemical**
  No

**Food and Drug Administration (FDA)**

- Total food additive
- Direct food additive
- GRAS food additive

**Inventory status**

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
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<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
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<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
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<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
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<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
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<td>New Zealand</td>
<td>New Zealand Inventory</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
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<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations**
This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US - Pennsylvania RTK - Hazardous Substances: Listed substance**

- SUCROSE (CAS 57-50-1) Listed.

**Saf-T-Data**

- Health: 0 - None
- Flammability: 2 - Moderate
- Reactivity: 0 - None
- Contact: 1 - Slight
- Lab Protective Equip: B - GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES
- Storage Color Code: G - Green (General Storage)

16. Labeling Info

**Label Hazard Warning**
Low hazard for usual industrial or commercial handling. Handle in accordance with good industrial hygiene and safety practice.

**Label Precautions**
Keep away from heat, sparks and flame. Wash thoroughly after handling. Keep container closed.
Label First Aid

Immediately flush eyes with plenty of water for at least 15 minutes. Flush skin thoroughly with water. If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. Get medical attention if irritation develops or persists. If ingestion of a large amount does occur, call a poison control center immediately.

17. Other Information

NFPA ratings

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
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</thead>
<tbody>
<tr>
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Issue date 09-08-2011

This data sheet contains changes from the previous version in section(s):

Physical & Chemical Properties: Appearance