1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Sucrose
Product Number : S0389
Brand : Sigma
Company : Sigma-Aldrich Canada, Ltd
2149 Winston Park Drive
OAKVILLE ON L6H 6J8
CANADA
Telephone : +1 9058299500
Fax : +1 9058299292
Emergency Phone # : 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : alpha -D-Glc-(1->2)-beta -D-Fru
alpha -D-Glucopyranosyl beta -D-fructofuranoside
beta -D-Fructofuranosyl-alpha -D-glucopyranoside
D(+)-Saccharose
Sugar

Formula : C12H22O11
Molecular Weight : 342.30 g/mol

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sucrose</td>
<td>57-50-1</td>
<td>200-334-9</td>
<td>-</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

WHMIS Classification
Not Rated

HMIS Classification
Health Hazard: 0
Flammability: 0
Physical hazards: 0

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
4. 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.

5. FIRE-FIGHTING MEASURES

Flammable properties
Flash point no data available
Ignition temperature no data available

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid dust formation.

Environmental precautions
Do not let product enter drains.

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

7. HANDLING AND STORAGE

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

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sucrose</td>
<td>57-50-1</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>2005-12-07</td>
<td>Canada. Worker's Compensation Act, Occupational Health and Safety Regulations (BC Reg 296/97 as amended), 7.2 [B.C. Reg. 382/2004, s.1]</td>
</tr>
</tbody>
</table>

Remarks
The 8-hour TWA listed in the Table is for the total dust. The substance also has an 8-hour TWA of 3 mg/m³ for the respirable fraction.
<table>
<thead>
<tr>
<th>TWA</th>
<th>3 mg/m³</th>
<th>2005-12-07</th>
<th>Canada. Worker's Compensation Act, Occupational Health and Safety Regulations (BC Reg 296/97 as amended), 7.2 [B.C. Reg. 382/2004, s.1]</th>
</tr>
</thead>
</table>

The 8-hour TWA listed in the Table is for the total dust. The substance also has an 8-hour TWA of 3 mg/m³ for the respirable fraction.

|------|----------|------------|----------------------------------------------------------------------------------------------------------------------------------|

<table>
<thead>
<tr>
<th>TWA</th>
<th>10 mg/m³</th>
<th>2004-04-30</th>
<th>Canada. Occupational Health and Safety Code 218</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>TWA</th>
<th>10 mg/m³</th>
<th>2000-01-12</th>
<th>Canada. Act Respecting Occupational Health and Safety [R.S.Q., c.2.1], Regulation respecting Occupational Health and Safety (O.C.885-2001), Division XV, Sections 130-14</th>
</tr>
</thead>
</table>

### Personal protective equipment

**Respiratory protection**
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**
For prolonged or repeated contact use protective gloves.

**Eye protection**
Safety glasses

**Hygiene measures**
General industrial hygiene practice.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
- Form: crystalline
- Colour: white

**Safety data**
- pH: 5.5 - 7 at 342 g/l at 25 °C (77 °F)
- Melting point: 189 - 191 °C (372 - 376 °F)
- Boiling point: no data available
- Flash point: no data available
- Ignition temperature: no data available
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>no data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>342 g/l at 20 °C (68 °F) - completely soluble</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

**Storage stability**
Stable under recommended storage conditions.

**Materials to avoid**
Strong oxidizing agents

**Hazardous decomposition products**
- **Hazardous decomposition products formed under fire conditions.**
  - Carbon oxides

### 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**
- **LD50 Oral - rat** - 29,700 mg/kg

**Irritation and corrosion**
- no data available

**Sensitisation**
- no data available

**Chronic exposure**
- no data available

**Signs and Symptoms of Exposure**
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Potential Health Effects**
- **Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.
- **Skin** May be harmful if absorbed through skin. May cause skin irritation.
- **Eyes** May cause eye irritation.
- **Ingestion** May be harmful if swallowed.

### 12. ECOLOGICAL INFORMATION

**Elimination information (persistence and degradability)**
- no data available

**Ecotoxicity effects**
- no data available

**Further information on ecology**
- no data available
13. DISPOSAL CONSIDERATIONS

**Product**
Observe all federal, state, and local environmental regulations.

**Contaminated packaging**
Dispose of as unused product.

14. TRANSPORT INFORMATION

**DOT (US)**
Not dangerous goods

**IMDG**
Not dangerous goods

**IATA**
Not dangerous goods

15. REGULATORY INFORMATION

**TSCA Status**
On TSCA Inventory

**DSL Status**
All components of this product are on the Canadian DSL list.

**WHMIS Classification**
Not Rated

16. OTHER INFORMATION

**Further information**
Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.