Material Safety Data Sheet
Xylitol

Section 1: Chemical Product and Company Identification

Product Name: Xylitol
Chemical Name: xylitol
Customs Tariff No: 29062900
Synonym Name: xylite
Chemical Formula: C₅H₁₂O₅

Company Information:
Chemtrade International
Rm. 201, Unit 3, Building 8, Shijia Garden, No. 93,
Xiangjiang Road, Qingdao Development Zone,
Qingdao, Shandong, China 266555
Tel: 0086-532-86893005
Fax: 0086-532-86893005

Section 2: Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS No.</th>
<th>EINECS No.</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylitol</td>
<td>87-99-0</td>
<td>201-788-0</td>
<td>99+</td>
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</table>

Section 3: Hazards Identification

EMERGENCY OVERVIEW

Appearance: white crystalline powder.
Caution! May cause eye, skin, and respiratory tract irritation. Hygroscopic (absorbs moisture from the air).
Target Organs: None known.

Potential Health Effects
Eye: May cause eye irritation.
Skin: May cause skin irritation. May be harmful if absorbed through the skin.
Ingestion: May cause irritation of the digestive tract. Low hazard for usual industrial handling.
Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.
Chronic: No information found.

Section 4: First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.
Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Ingestion: Do not induce vomiting. Get medical aid if irritation or symptoms occur.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
Notes to Physician: Treat symptomatically and supportively.

Section 5: Fire and Explosion Data

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.
Flash Point: Not available.
Autoignition Temperature: Not available.
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 1

Section 6: Accidental Release Measures
General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

Section 7: Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage: Store in a cool, dry place. Store in a tightly closed container.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylitol</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
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OSHA Vacated PELs: Xylitol: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9: Physical and Chemical Properties

Physical State: Crystalline powder
Appearance: white
Odor: none reported
pH: 5.0 (50% aq. sol.)
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: 92 - 96 deg C
Decomposition Temperature: 440 deg C
Solubility: 1700 g/L (20癋)
Specific Gravity/Density: Not available.
Molecular Formula: C5H12O5
Molecular Weight: 152.15

Section 10: Stability and Reactivity Data

Chemical Stability: Hygroscopic; absorbs moisture or water from the air.
Conditions to Avoid: Incompatible materials, dust generation, exposure to moist air or water.
Incompatibilities with Other Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information
RTECS#:
CAS# 87-99-0: ZF0800000

LD50/LC50:
CAS# 87-99-0:
  Oral, mouse: LD50 = 12500 mg/kg;
  Oral, rabbit: LD50 = 25 gm/kg;
  Oral, rat: LD50 = 16500 mg/kg;

Carcinogenicity:
CAS# 87-99-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found
Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: No information found
Neurotoxicity: No information found
Other Studies:

Section 12: Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: No information available.
Physical: No information available.
Other: Do not empty into drains.

Section 13: Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14: Transport Information

Not regulated as a hazardous material

Section 15: Other Regulatory Information

US FEDERAL

TSCA
  CAS# 87-99-0 is listed on the TSCA inventory.
Health & Safety Reporting List
  None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
  None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
  None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
  None of the chemicals in this material have a SNUR under TSCA.
CERCLA Hazardous Substances and corresponding RQs
  None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances
  None of the chemicals in this product have a TPQ.
Section 313
  No chemicals are reportable under Section 313.
Clean Air Act:
  This material does not contain any hazardous air pollutants.
  This material does not contain any Class 1 Ozone depleters.
This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**
None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**
CAS# 87-99-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California Prop 65**
California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**
**European Labeling in Accordance with EC Directives**

**Hazard Symbols:**
Not available.

**Risk Phrases:**

**Safety Phrases:**
S 24/25 Avoid contact with skin and eyes.

**WGK (Water Danger/Protection)**
CAS# 87-99-0: 0

**Canada - DSL/NDSL**
CAS# 87-99-0 is listed on Canada's NDSL List.

**Canada - WHMIS**
not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

<table>
<thead>
<tr>
<th>Section 16: Other Information</th>
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<tbody>
<tr>
<td><strong>MSDS Creation Date:</strong> 6/16/2000</td>
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<tr>
<td><strong>Revision #4 Date:</strong> 3/15/2007</td>
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