

**AERCHEM INC.**  
**320 North Walnut**  
**Bloomington, IN 47408**

**Tel: 812.334.9996      Fax: 812.334.1960      Emergency: 800.424.9300**

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**SECTION 1: IDENTIFICATION**

**Effective Date:** 9/26/97  
**Product Name:** **D-XYLITOL**, D-xylo-pentane-1,2,3,4,5-pentol  
**Molecular Formula:** C<sub>5</sub>H<sub>12</sub>O<sub>5</sub>  
**CAS No.:** 87-99-0

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**SECTION 2: HAZARDOUS INGREDIENTS:**

Slightly dangerous to dangerous in case of inhalation. Very slightly to slightly dangerous in case of eye contact (irritant), of ingestion. Substance is toxic to lungs. Repeated or prolonged exposure to the substance can produce target organs damage.

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**SECTION 3: PHYSICAL DATA**

Odor:	odorless
Appearance:	powdered solid, white, sweet taste
Melting point.:	94°C (201.2°F)
Boiling point:	216°C (420.8°F)
pH (depends on quality):	n/a
Solubility in water:	easily soluble in cold water; soluble in methanol
Specific gravity (water = 1)	1.52
Vapor density:	n/a
Vapor pressure:	n/a

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**SECTION 4: FIRE AND EXPLOSION DATA**

Flash point:	n/a
Flammable limit:	n/a
Flammability:	combustible
Extinguishing media:	use dry chemicals, carbon dioxide, water spray or foam; do not use water jet
Fire fighting procedures:	n/a
Unusual fire and explosions hazards:	Material in powder form, capable of creating a dust explosion.

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**SECTION 5: REACTIVITY DATA**

Stable   X   Unstable \_\_\_\_\_  
**Decomposition byproducts:** carbon oxides  
**Incompatibilities/Condition to Avoid:** No specific information available in database regarding activity of material in presence of other materials.  
**Hazardous Polymerization:** No

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**SECTION 6: HEALTH HAZARD DATA**

**Toxicity:** LD50 acute oral toxicity - mouse: 22000 mg/kg  
**Route of Entry:** ingestion, inhalation  
**Permissible Exposure limits:** n/a

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**SECTION 7: SPILLAGE AND DISPOSAL PROCEDURES**

**Spillage:** Use appropriate tools to put spilled solid in convenient waste disposal container. Finish cleaning by spreading water on contaminated surface and dispose of according to local and regional authority requirements.  
**Disposal:** Recycle to process, if possible. Consult your local or regional authorities.

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**SECTION 8: FIRST AID PROCEDURES**

**Eye Contact:** Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used.  
**Skin Contact:** No know effect according to database.  
**Inhalation:** Allow victim to rest in a well ventilated area. Seek immediate medical attention.  
**Ingestion:** Remove dentures, if any. Have conscious person drink several glasses of water or milk. Induce vomiting by sticking finger in throat. Lower head so vomit won't reenter mouth and throat. Never give an unconscious person anything to ingest. Seek medical attention.

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**SECTION 9: HANDLING AND STORAGE INFORMATION:**

Keep away from heat, sources of ignition and strong oxidizing agents. Empty container pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Keep container dry, in a cool place, tightly closed, and in a well ventilated area. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment.

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**SECTION 10: SPECIAL PROTECTION INFORMATION:**

<b>Ventilation:</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.
<b>Skin Protection:</b>	yes, in case of a large spill
<b>Eye Protection:</b>	safety glasses
<b>Respiratory Protection:</b>	dust respirator - be sure to use a MSHA.NIOSH approved respirator or equivalent when ventilation is inadequate
<b>Other:</b>	lab coat

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**SECTION 11: TRANSPORT INFORMATION**

**DOT Classification:** not a DOT controlled material (USA)

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**SECTION 12: OTHER REGULATORY INFORMATION**

Federal and State regulations:	D-xylitol is listed on TSCA
WHMIS (Canada):	WHMIS class D-2A: material causing other toxic effects (very toxic)
DSCL (EEC):	R42- may cause sensitization by inhalation
HMIS (USA):	Health hazard 1, Fire hazard 1, Reactivity 0, Personal protection a