Material Safety Data Sheet

Mannitol

Section 1: Chemical Product and Company Identification Product Name: Mannitol Catalog Codes: SLM1867, SLM1096 CAS#: 69-65-8 RTECS: OP2050000 TSCA: TSCA 8(b) inventory: Mannitol CI#: Not available. Synonym: Chemical Name: Not available. Chemical Formula: C6H14O6 Contact Information:

Section 2: Composition and Information on Ingredients Composition: Name CAS # % by Weight Mannitol 69-65-8 100 Toxicological Data on Ingredients:Not applicable.

Section 3: Hazards Identification

Potential Acute Health Effects: Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4: First Aid Measures

Eye Contact: Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used.

Skin Contact: After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact: Not available.

Inhalation: Allow the victim to rest in a well ventilated area. Seek immediate medical attention. Serious Inhalation: Not available.

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Ingestion: Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention. Serious Ingestion:Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: 460°C (860°F)

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO2).

Fire Hazards in Presence of Various Substances: Not available.

Explosion Hazards in Presence of Various Substances: Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions: Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label.

Storage: Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Exposure Limits:Not available.

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Section 9: Physical and Chemical Properties Physical state and appearance: Solid. Taste: Not available. Color: Not available. Boiling Point: Decomposes. Critical Temperature: Not available. Vapor Pressure: Not applicable. Volatility: Not available. Water/Oil Dist. Coeff.: Not available. Dispersion Properties: See solubility in water.

Odor: Not available. Molecular Weight: 182.17 g/mole pH (1% soln/water): Not available. Melting Point: 166°C (330.8°F) Specific Gravity: 1.52 (Water = 1) Vapor Density: Not available. Odor Threshold: Not available. Ionicity (in Water): Not available. Solubility: Soluble in cold water.

Section 10: Stability and Reactivity Data Stability: The product is stable. Instability Temperature: Not available. Conditions of Instability: Not available. Incompatibility with various substances: Not available. Corrosivity: Non-corrosive in presence of glass. Special Remarks on Reactivity: Not available. Special Remarks on Corrosivity: Not available. Polymerization:No.

Section 11: Toxicological Information

Routes of Entry: Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 13500 mg/kg [Rat].

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information Ecotoxicity: Not available. BOD5 and COD: Not available. Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations Waste Disposal:

Section 14: Transport Information DOT Classification: Not a DOT controlled material (United States).

WEB SITE: www.jk-ingredients.com

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Identification: Not applicable. Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information Federal and State Regulations: TSCA 8(b) inventory: Mannitol Other Regulations: Not available.. Other Classifications: WHMIS (Canada): Not controlled under WHMIS (Canada). DSCL (EEC): This product is not classified according to the EU regulations. HMIS (U.S.A.): Health Hazard: 1 Fire Hazard: 1 Reactivity: 0 Personal Protection: E National Fire Protection Association (U.S.A.): Health: 1 Flammability: 1 Reactivity: 0 Specific hazard: Protective Equipment: Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or

equivalent. Safety glasses.

Section 16: Other Information References: Not available. Other Special Considerations: Not available. Created: 10/10/2005 08:22 PM Last Updated: 05/21/2013 12:00 PM The information above is believed to be access

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