MATERIAL SAFETY DATA SHEET
D(+-)Glucose, anhydrous

Section 1 - Chemical Product and Company Identification

MSDS Name: D(+-)Glucose, anhydrous
Catalog Numbers: 41095-0000, 41095-0010, 41095-5000
Synonyms: Dextrose
Company Identification: Acros Organics BVBA
Janssen Pharmaceuticalaan 3a
2440 Geel, Belgium
Company Identification: (USA) Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410
For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
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<tr>
<th>CAS#</th>
<th>Chemical Name:</th>
<th>%</th>
<th>EINECS#</th>
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<tbody>
<tr>
<td>50-99-7</td>
<td>D(+-)Glucose, anhydrous</td>
<td></td>
<td>200-075-1</td>
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</table>

Hazard Symbols: None listed
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Not available

Potential Health Effects

Eye: Dust may cause mechanical irritation. Low hazard for normal industrial handling.
Skin: Dust may cause mechanical irritation. Low hazard for usual industrial handling.
Ingestion: No hazard expected in normal industrial use. May cause irritation of the digestive tract.
Inhalation: No hazard expected in normal industrial use. Inhalation of dust may cause respiratory tract irritation.

Chronic:

Section 4 - First Aid Measures

Eyes: 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: 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: Get medical aid. Wash mouth out with water.
Inhalation: Remove from exposure and move to fresh air immediately. Get medical aid if cough or other symptoms appear.
Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

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.

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. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Minimize dust generation and accumulation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. 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: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

CAS# 50-99-7:

Personal Protective Equipment

Eyes: Wear chemical splash goggles.
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
Color: white
Odor: odorless
pH: 6-7 (10% aq. sol.)
Vapor Pressure: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 146 deg C (294.80°F)
Autoignition Temperature: Not available
Flash Point: Not available
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Decomposition Temperature: Not available
Solubility in water: Soluble
Specific Gravity/Density:
Molecular Formula: C6H12O6
Molecular Weight: 180.16

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, dust generation, excess heat.
Incompatibilities with Other Materials: Strong oxidizing agents, strong acids, halogenated agents, nitrates, permanganates.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 50-99-7: LZ6600000
LD50/LC50: RTECS: CAS# 50-99-7: Oral, rat: LD50 = 25800 mg/kg;
Carcinogenicity: D(+)-Glucose, anhydrous - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Other: Biodegradable. Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

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<td>Packing Group:</td>
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</table>

Section 15 - Regulatory Information

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# 50-99-7: 0
Canada
CAS# 50-99-7 is listed on Canada's DSL List

US Federal
TSCA
CAS# 50-99-7 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 7/16/1996
Revision #2 Date 6/30/2005

Revisions were made in Sections: General revision.

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