

# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

Material name DEXTROSE  
Version # 02  
Revision date 08-26-2011  
CAS # 50-99-7  
Product Codes NC-11819, nc-11920  
C3521  
Synonym(s) D-glucose; dextrosol; corn sugar; grape sugar  
Distributor: The Science Company  
95 Lincoln St.  
Denver, CO 80203  
Customer Service 800-372-6726  
24 Hour Emergency 908-859-2151  
Chemtrec 800-424-9300

## 2. Hazards Identification

Emergency overview Low hazard for usual industrial or commercial handling. Handle in accordance with good industrial hygiene and safety practice.

OSHA regulatory status This material is not considered hazardous by the OSHA Hazard Communication Standard, OSHA 29 CFR 1910.1200.

Potential health effects

Routes of exposure Inhalation. Skin contact. Eye contact. Ingestion.

Eyes Dust or powder may irritate eye tissue. If irritation should occur, it is expected to be transient.

Skin Health injuries are not known or expected under normal use.

Inhalation Health injuries are not known or expected under normal use.

Ingestion Expected to be a low ingestion hazard.

Chronic effects None known.

Potential environmental effects The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

## 3. Composition / Information on Ingredients

Non-hazardous components	CAS #	Percent
DEXTROSE	50-99-7	90 - 100

## 4. First Aid Measures

First aid procedures

Eye contact Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Inhalation Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Ingestion Seek medical advice.

Notes to physician Treat symptomatically.

General advice Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## 5. Fire Fighting Measures

Flammable properties	Dust may form explosive mixture with air.
Extinguishing media	
Suitable extinguishing media	Water. Carbon dioxide (CO2). Dry chemical.
Unsuitable extinguishing media	None known.
Protection of firefighters	
Protective equipment and precautions for firefighters	Firefighters should wear full protective gear. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Special protective equipment for fire-fighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific methods	In the event of fire, cool tanks with water spray. In the event of fire and/or explosion do not breathe fumes.
Hazardous combustion products	Carbon monoxide and carbon dioxide.

## 6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Keep upwind. Ventilate the area. Avoid inhalation of dust from the spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Avoid dust formation.  Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.  Large Spills: Collect dust or particulates using a vacuum cleaner with a HEPA filter. Reduce airborne dust and prevent scattering by moistening with water.  Never return spills in original containers for re-use. Clean contaminated surface thoroughly. Clean up in accordance with all applicable regulations.

## 7. Handling and Storage

Handling	Keep formation of airborne dusts to a minimum. Dust may form explosive mixture with air. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Wash thoroughly after handling. See Section 8 of the MSDS for Personal Protective Equipment.
Storage	Keep container tightly closed. Store in a well-ventilated place.

## 8. Exposure Controls / Personal Protection

Exposure guidelines	No exposure standards allocated.
Engineering controls	Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.
Personal protective equipment	
Eye / face protection	Use tight fitting goggles if dust is generated.
Skin protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Respiratory protection	Wear respirator if there is dust formation.

General hygiene considerations

Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical & Chemical Properties

Appearance	Powder to Crystals
Color	Colorless to White.
Odor	Odorless.
Odor threshold	Not available.
Physical state	Solid.
Form	Solid.
Melting point	294.8 °F (146 °C)
Freezing point	294.8 °F (146 °C)
Boiling point	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor density	Not available.
Specific gravity	1.544
Relative density	Not available.
Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	-3.24
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Molecular weight	180.16 g/mol
Molecular formula	C6-H12-O6

## 10. Chemical Stability & Reactivity Information

Chemical stability	Stable under normal temperature conditions.
Conditions to avoid	Heat, flames and sparks. Dust clouds may be explosive under certain conditions.
Incompatible materials	Strong oxidizing agents. Inorganic peroxides.
Hazardous decomposition products	Carbon monoxide. Carbon Dioxide.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

## 11. Toxicological Information

Sensitization	Not a skin sensitizer.
Acute effects	Low hazard for usual industrial or commercial handling.
Chronic effects	None known.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Skin corrosion/irritation	Not applicable.
Epidemiology	No epidemiological data is available for this product.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Neurological effects	None known.
Reproductive effects	Contains no ingredient listed as toxic to reproduction
Teratogenicity	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Symptoms and target organs	None known.

## 12. Ecological Information

Ecotoxicity	This product has no known eco-toxicological effects.
Environmental effects	Ecological injuries are not known or expected under normal use. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Aquatic toxicity	This material is not expected to be harmful to aquatic life.
Persistence and degradability	Expected to be readily biodegradable.
Partition coefficient (n-octanol/water)	-3.24

## 13. Disposal Considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. Incinerate the material under controlled conditions in an approved incinerator.
Contaminated packaging	Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.

## 14. Transport Information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

## 15. Regulatory Information

US federal regulations	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.  CERCLA/SARA Hazardous Substances - Not applicable.
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CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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Section 311 hazardous chemical	No
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Food and Drug Administration (FDA)	Total food additive Direct food additive GRAS food additive
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Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.
Saf-T-Data	Health: 0 - None Flammability: 2 - Moderate Reactivity: 0 - None Contact: 0 - None Lab Protective Equip: B - GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES Storage Color Code: G - Green (General Storage)

## 16. Labeling Info

Label Hazard Warning	Low hazard for usual industrial or commercial handling. Handle in accordance with good industrial hygiene and safety practice.
Label Precautions	Keep away from heat, sparks and flame. Wash thoroughly after handling. Keep container closed.
Label First Aid	Immediately flush eyes with plenty of water for at least 15 minutes. Flush skin thoroughly with water. If gas/fume/vapor/dust/mist from the material is inhaled, remove the affected person immediately to fresh air. Get medical attention if irritation develops or persists. If ingestion of a large amount does occur, call a poison control center immediately.

## 17. Other Information

NFPA ratings	Health: 0 Flammability: 1 Instability: 0
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