

MATERIAL SAFETY DATA SHEET

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Version 1.7

Section 1 - Product and Company Information

Product Name D-(+)-GLUCOSE ANHYDROUS CELL
CULTURE TESTED
Product Number G7021
Brand SIGMA
Company Sigma-Aldrich
Street Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS MO 63103 US
Technical Phone: 314 771 5765
Emergency Phone: 414 273 3850 Ext. 5996
Fax: 800 325 5052

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313 No
GLUCOSE	50-99-7	
Formula	C6H12O6	
Synonyms	Anhydrous dextrose * Cartose * Cerelose * Corn sugar * Dextropur * Dextrose * Dextrose, anhydrous * Dextrosol * Glucolin * Glucose * Glucose, anhydrous * D-Glucose, anhydrous * Glucose liquid * Grape sugar * Sirup * Sugar, grape	
RTECS Number:	LZ6600000	

Section 3 - Hazards Identification

HMIS RATING

HEALTH: 0

FLAMMABILITY: 0

REACTIVITY: 0

NFPA RATING

HEALTH: 0

FLAMMABILITY: 0

REACTIVITY: 0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is
conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult,
call a physician.

DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT

N/A

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Wear dust mask.
Hand: Protective gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
Molecular Weight	180.16 AMU	
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	153.0 - 156.0 °C	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	N/A	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	N/A	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	N/A	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral

Rat

25800 mg/kg

LD50

Remarks: Gastrointestinal:Hypermotility, diarrhea. Lungs, Thorax, or Respiration:Cyanosis. Behavioral:Coma.

Intraperitoneal

Mouse

18 GM/KG

LD50

Intravenous

Mouse

9 GM/KG

LD50

CHRONIC EXPOSURE - CARCINOGEN

Species: Rat

Route of Application: Subcutaneous

Dose: 15400 GM/KG

Exposure Time: 22W

Frequency: C

Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Tumorigenic:Tumors at site or application.

CHRONIC EXPOSURE - TERATOGEN

Species: Woman

Dose: 2 GM/KG

Route of Application: Oral

Exposure Time: (28W PREG)

Result: Specific Developmental Abnormalities: Craniofacial (including nose and tongue). Specific Developmental Abnormalities: Other developmental abnormalities.

Species: Woman

Dose: 1057 UG/KG

Route of Application: Intravenous

Exposure Time: (39W PREG)

Result: Specific Developmental Abnormalities: Hepatobiliary system.

Species: Hamster

Dose: 20 GM/KG

Route of Application: Intraperitoneal

Exposure Time: (6-8D PREG)

Result: Specific Developmental Abnormalities: Eye, ear.

Species: Hamster

Dose: 20 GM/KG

Route of Application: Subcutaneous

Exposure Time: (6-8D PREG)

Result: Specific Developmental Abnormalities: Eye, ear.

Species: Hamster

Dose: 20 GM/KG

Route of Application: Multiple

Exposure Time: (6-8D PREG)
Result: Specific Developmental Abnormalities: Eye, ear. Specific
Developmental Abnormalities: Musculoskeletal system.

CHRONIC EXPOSURE - MUTAGEN

Species: Human
Dose: 30 MMOL/L
Cell Type: Other cell types
Mutation test: DNA damage

Species: Mouse
Dose: 179 MMOL/L
Cell Type: lymphocyte
Mutation test: Mutation in mammalian somatic cells.

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Woman
Dose: 2 GM/KG
Route of Application: Intravenous
Exposure Time: (39W PREG)
Result: Effects on Embryo or Fetus: Other effects to embryo.
Maternal Effects: Other effects.

Species: Woman
Dose: 1300 MG/KG
Route of Application: Intravenous
Exposure Time: (39W PREG)
Result: Effects on Newborn: Behavioral. Effects on Newborn:
Biochemical and metabolic.

Species: Rat
Dose: 300 GM/KG
Route of Application: Intraperitoneal
Exposure Time: (30D PRE)
Result: Maternal Effects: Ovaries, fallopian tubes. Maternal
Effects: Uterus, cervix, vagina.

Species: Hamster
Dose: 20 MG/KG
Route of Application: Multiple
Exposure Time: (6-8D PREG)
Result: Effects on Fertility: Post-implantation mortality (e.g.,
dead and/or resorbed implants per total number of implants).
Specific Developmental Abnormalities: Urogenital system.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose
of this material. Dissolve or mix the material with a combustible
solvent and burn in a chemical incinerator equipped with an
afterburner and scrubber. Observe all federal, state, and local
environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.