

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 10/06/2011 Revision date: 08/08/2022 Supersedes: 23/05/2022 Version: 4.4 CLM-1396

SECTION 1: Identification of the sub	stance/mixture and of the company/undertaking	
1.1. Product identifier		
Product form	: Substance	
Substance name	: D-GLUCOSE (U-13C6, 99%)	
EC-No.	: 200-075-1 (Unlabeled)	
CAS-No.	: 110187-42-3	
Product code	: CLM-1396	
Formula	: HO*CH2(*CHOH)4*CHO	
Synonyms	: Dextrose	
Other means of identification	: Also applicable to: CLM-1396-NAT (U-13C6, 99%)	
1.2. Relevant identified uses of the subs	tance or mixture and uses advised against	
1.2.1. Relevant identified uses		
Main use category	: Professional use	
Industrial/Professional use spec	: For professional use only	
122 Uses advised against		
1.2.2. Uses advised against No additional information available		
	data abaat	
1.3. Details of the supplier of the safety of Cambridge Isotope Laboratories, Inc.	data sheet	
50 Frontage Road		
Andover, MA 01810		
USA: 1-800-322-1174 Int: 1-978-749-8000 cilsales@isotope.com www.isotope.com		
Emergency telephone number		
Emergency numbers:		
Chemtrec: 1-800-424-9300 (24 hours) International: 1-703-741-5970 (24 hours)		
SECTION 2: Hazards identification		
2.1. Classification of the substance or m	ixture	
Classification according to Regulation (EC) N	lo. 1272/2008 [CLP]	
Not classified		
Cleasification according to Directive C7/540/5		
Classification according to Directive 67/548/E		
Not classified		
GHS-US classification		
Not classified		
Adverse physicochemical, human health and environmental effects		
No additional information available		
2.2. Label elements		
Labeling according to Regulation (EC) No. 12	72/2008 [CLP]	
No labeling applicable		

GHS-US labeling

No labeling applicable

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2.3. **Other hazards**

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances			
Name	Product identifier	%	Classification according to Directive 67/548/EEC
D-GLUCOSE (U-13C6, 99%)	(CAS-No.) 110187-42-3 (EC-No.) 200-075-1 (Unlabeled)	100	Not classified
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
D-GLUCOSE (U-13C6, 99%)	(CAS-No.) 110187-42-3	100	Not classified

Full text of R- and H- phrases: see section 16

Name	Product identifier	%	GHS-US classification
D-GLUCOSE (U-13C6, 99%) (Main constituent)	(CAS-No.) 110187-42-3	100	Not classified

Full text of H-phrases: see section 16

Mixtures 3.2.

Not applicable

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area.
First-aid measures after inhalation	: When symptoms occur: go into open air and ventilate suspected area. If not breathing, give artificial respiration. Get medical advice/attention.
First-aid measures after skin contact	: Wash with plenty of soap and water. Get immediate medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes.
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.
4.2. Most important symptoms and effe	ects, both acute and delayed
Symptoms/effects after inhalation	: May be harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	: May be harmful in contact with skin. May cause moderate irritation.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed.
4.3. Indication of any immediate medic	al attention and special treatment needed
No additional information available	
SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Water spray, Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).
5.2. Special hazards arising from the s	ubstance or mixture
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
5.3. Advice for firefighters	
Firefighting instructions	 Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.
SECTION 6: Accidental release mea	asures
6.1. Personal precautions, protective e	quipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Avoid breathing vapors, mist, gas. Avoid dust formation.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

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6.2. Environmental precautions	
Prevent entry to sewers and public waters.	Do not allow to enter drains or water courses. Avoid release to the environment.
6.3. Methods and material for conta	inment and cleaning up
For containment	: Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal.
Methods for cleaning up	: This material and its container must be disposed of in a safe way, and as per local legislation.
6.4. Reference to other sections	
For further information refer to section 13.	
SECTION 7: Handling and storage	je
7.1. Precautions for safe handling	
Additional hazards when processed	: Avoid all eye and skin contact and do not breathe vapor and mist. Keep away from sources of ignition - No smoking. Caution. Combustible Dust. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.
Precautions for safe handling	: Provide adequate ventilation to minimize dust and/or vapor concentrations.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
7.2. Conditions for safe storage, inc	cluding any incompatibilities
Technical measures	: Store in a well-ventilated place. Keep container tightly closed.
Storage conditions	: Store at room temperature away from light and moisture.
7.3. Specific end use(s)	
No additional information available	
SECTION 8: Exposure controls/p	bersonal protection
8.1. Control parameters	
Additional information	: Contains no substances with occupational exposure limits
8.2. Exposure controls	
Appropriate engineering controls	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
Personal protective equipment	: Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.
Materials for protective clothing	: Wear suitable protective clothing and gloves.
Hand protection	: Wear suitable protective clothing and gloves.
Eye protection	: Wear eye protection. Chemical goggles or face shield with safety glasses.
Skin and body protection	: Wear suitable protective clothing, gloves and eye/face protection.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator.
Environmental exposure controls	: Avoid release to the environment.
SECTION 9: Physical and chemi	cal properties
9.1. Information on basic physical a	and chemical properties
Physical state	: Solid
Appearance	: Crystalline powder
Molecular mass	: 186.11 g/mol (Labeled)
Color	: White

Odor

pН

Odor threshold

Melting point Freezing point

Boiling point

Flash point

Auto-ignition temperature Decomposition temperature

Relative evaporation rate (butyl acetate=1)

: No data available

: No data available

: No data available

: No data available

: No data available : No data available

: No data available

: No data available

: No data available

: 150 - 152 °C (302 - 306 °F)

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Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble in water Water: 100 %
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. **Other information**

No additional information available

SECT	ION 10: Stability and reactivity
10.1.	Reactivity
The pro	duct is non-reactive under normal conditions of use, storage and transport.
10.2.	Chemical stability
Five ye	ars after receipt if stored as stated in "Storage" section. Re-QC after 5 years.
10.3.	Possibility of hazardous reactions
No dan	gerous reactions known under normal conditions of use.
10.4.	Conditions to avoid
No add	itional information available
10.5.	Incompatible materials
Strong	oxidizing agents
10.6.	Hazardous decomposition products
Carbon	

Carbon oxides (CO, CO2)

Carbon oxides (CO, CO2)		
SECTION 11: Toxicological information		
11.1. Information on toxicological effects		
Acute toxicity	: Not classified	
D-GLUCOSE (U-13C6, 99%) (110187-42-3)		
LD50 oral rat	25800 mg/kg Remarks: Behavioral: Coma. Cyanosis. Diarrhea.	
Skin corrosion/irritation	: Not classified	
Serious eye damage/irritation	: Not classified	
Respiratory or skin sensitization	: Not classified	
Germ cell mutagenicity	: Not classified	
Carcinogenicity	: Not classified	
Reproductive toxicity	: Not classified	
Specific target organ toxicity – single exposure	: Not classified	
Specific target organ toxicity – repeated exposure	: Not classified	
Aspiration hazard	: Not classified	
Potential Adverse human health effects and symptoms	: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.	
Symptoms/effects after inhalation	: May be harmful if inhaled. May cause respiratory irritation.	
Symptoms/effects after skin contact	: May be harmful in contact with skin. May cause moderate irritation.	
Symptoms/effects after eye contact	: May cause eye irritation.	
Symptoms/effects after ingestion	: May be harmful if swallowed.	

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SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
12.2. Persistence and degradability	
No additional information available	
12.3. Bioaccumulative potential	
No additional information available	
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB assessmer No additional information available	ıt
12.6. Other adverse effects	
No additional information available	
SECTION 13: Disposal consideration	S
13.1. Waste treatment methods	
Regional legislation (waste)	: Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.
Product/Packaging disposal recommendations	: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Ecology - waste materials	: Dispose of as unused product.
SECTION 14: Transport information	
In accordance with ADR / RID / IMDG / IATA / AD	N
14.1. UN number	
Not applicable	
14.2. UN proper shipping name	
Not applicable	
14.3. Additional information	
Other information	: No supplementary information available.
Special transport precautions	: Not classified as dangerous in the meaning of transport regulations.
Overland transport	
No additional information available	
Transport by sea	
No additional information available	
Air transport	
No additional information available	
14.4. Environmental hazards	
Other information	: No supplementary information available.
14.5. Special precautions for user	
Special transport precautions	: Not classified as dangerous in the meaning of transport regulations.
14.6. Transport in bulk according to Annex	k II of MARPOL 73/78 and the IBC Code
Not applicable	
SECTION 15: Regulatory information	
15.1. US Federal regulations	
D-GLUCOSE (U-13C6, 99%) (110187-42-3)	

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D-GLUCOSE (U-13C6, 99%) (110187-42-3)	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.

15.2. International regulations

CANADA

No additional information available

15.2.1. National regulations

D-GLUCOSE (U-13C6, 99%) (110187-42-3)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

15.3. US State regulations

Totol de diato regulatione		
D-GLUCOSE (U-13C6, 99%)(110187-42-3)		
U.S California - Proposition 65 - Carcinogens List	No	
U.S California - Proposition 65 - Developmental Toxicity	No	
U.S California - Proposition 65 - Reproductive Toxicity - Female	No	
U.S California - Proposition 65 - Reproductive Toxicity - Male	No	
State or local regulations	RTK - U.S Pennsylvania - RTK (Right to Know) List RTK - U.S New Jersey - Right to Know Hazardous Substance List	

SECTION 16: Other information	
Other information	: This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.
NFPA health hazard	: 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard	: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.
Hazard Rating	
Health	: 0 Minimal Hazard - No significant risk to health
Flammability	: 0 Minimal Hazard
Physical	: 0 Minimal Hazard

CIL Substance SDS

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