

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 Revision date: 21/07/2022 Date of issue: 21/06/2011 Supersedes: 13/07/2017 Version: 3.1 CLM-1510

SECTION 1: Identification of the sub	stance/mixture and of the company/undertaking
1.1. Product identifier	
Product form	: Substance
Substance name	: GLYCEROL (13C3, 99%)
EC-No.	: 200-289-5 (Unlabeled)
CAS-No.	: 63346-81-6
Product code	: CLM-1510
Formula	: (HO*CH2)2*CHOH
Synonyms	: 1,2,3-Propanetriol / Glycerin
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
1.2.2. Uses advised against	
No additional information available	
1.3. Details of the supplier of the safety	data sheet
Cambridge Isotope Laboratories, Inc.	
50 Frontage Road	
Andover, MA 01810 USA	
USA: 1-800-322-1174 Int: 1-978-749-8000	
<u>cilsales@isotope.com</u> 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	o. 1272/2008 [CLP]
Not classified	
Classification according to Directive 67/548/E	EC [DSD] or 1999/45/EC [DPD]
Not classified	
GHS-US classification	
Not classified	
Adverse physicochemical, human health and	environmental effects
No additional information available	
2.2. Label elements	
Labelling according to Regulation (EC) No. 12	

Labelling according to Regulation (EC) No. 1272/2008 [CLP] No labelling applicable

GHS-US labelling

No labelling applicable

2.3. **Other hazards**

No additional information available

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ECTION 3: Composition/infor	mation on ingredients		
.1. Substances			
Name	Product identifier	%	Classification according to Directive 67/548/EEC
GLYCEROL (13C3, 99%)	(CAS-No.) 63346-81-6 (EC-No.) 200-289-5 (Unlabeled)	100	Not classified
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
GLYCEROL (13C3, 99%)	(CAS-No.) 63346-81-6 (EC-No.) 200-289-5 (Unlabeled)	100	Not classified

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

Name	Product identifier	%	GHS-US classification
GLYCEROL (13C3, 99%) (Main constituent)	(CAS-No.) 63346-81-6	100	Not classified

Full text of H-statements: see section 16

3.2. Mixtures	
Not applicable	
SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general First-aid measures after inhalation First-aid measures after skin contact First-aid measures after eye contact First-aid measures after ingestion	 If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area. When symptoms occur: go into open air and ventilate suspected area. If not breathing, give artificial respiration. Get medical advice/attention. Wash with plenty of water/ Get immediate medical advice/attention. Rinse cautiously with water for several minutes. Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.
4.2. Most important symptoms and eff	fects, 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.
	cal 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	substance or mixture
Reactivity	: Hygroscopic.
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 me	asures
6.1. Personal precautions, protective	equipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Avoid breathing vapours, mist, gas. Avoid dust formation. Use personal protective equipment as required. Ensure adequate air ventilation.
6.1.2. For emergency responders	
Protective equipment	: Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Prevent entry to sewers and public waters. Do	o not allow to enter drains or water courses. Avoid release to the environment.
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6.3. Methods and materia			· · · · · · · · · · · · · · · · · · ·
For containment			sorbent material (for example sand, sawdust, a universa iquid spill: take up in non-combustible absorbent materi
Methods for cleaning up	: '	This material and its container must be	e disposed of in a safe way, and as per local legislation.
6.4. Reference to other s	ections		
No additional information availa	ble		
SECTION 7: Handling a	nd storage		
7.1. Precautions for safe	handling		
Precautions for safe handling	:	Provide adequate ventilation to minim	ize dust and/or vapour concentrations.
Hygiene measures		Wash hands and other exposed areas smoking and when leaving work.	s with mild soap and water before eating, drinking or
7.2. Conditions for safe s	storage, including a	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 availa	ble		
SECTION 8: Exposure c	ontrols/persona	al protection	
8.1. Control parameters			
GLYCEROL (13C3, 99%) (633	346-81-6)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/n	n³)	10 mg/m ³ USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)		Upper Respiratory Tract Irritation
USA OSHA	OSHA PEL (TWA)	(mg/m³)	15 mg/m ³ USA. Occupational Exposure Limits (OSHA - Table Z-1 Limits for Air Contaminants
USA OSHA	OSHA PEL (STEL)) (mg/m³)	5 mg/m ³ USA. Occupational Exposure Limits (OSHA) Table Z-1 Limits for Air Contaminants
USA OSHA	Remark (OSHA)		See Appendix D - Substances with No Established RELs
8.2. Exposure controls			
Appropriate engineering control	s :	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 goggle	es or face shield with safety glasses.
Skin and body protection		Wear suitable protective clothing, glov	
Respiratory protection	:	In case of inadequate ventilation wear	respiratory protection. Approved supplied air respirator
SECTION 9: Physical an	d chem <u>ical pro</u>	perties	
9.1. Information on basic			
Physical state		Liquid	
Appearance	:	Liquid	
Molecular mass	:	95.07 g/mol (Labeled)	

Molecular mass	: 95.07 g/mol (Labeled)
Colour	: Colorless to faint yellow
Odour	: Odourless
Odour threshold	: No data available
рН	: 5.5 - 8
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 20 °C (68 °F)
Freezing point	: No data available
Boiling point	: 182 °C (360 °F) at 27 hPa (20 mmHg)

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Flash point	: 160 °C (320 °F) - closed cup
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 0.0033 hPa (0.0025 mmHg) at 50 °C (122 °F)
Relative vapour density at 20 °C	: 3.18 - (Air = 1.0)
Relative density	: No data available
Density	: 1.25 g/mL
Solubility	: Water: Soluble
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
Oxidising properties	: No data available
Explosive limits	: 2.7 - 19 vol % (V) at 1013 hPa (760 mmHg)
9.2. Other information	
Additional information	: Surface tension 63.4 mN/m at 20 °C (68 °F)

Additional information

SECT	ION 10: Stability and reactivity
10.1.	Reactivity
Hygros	copic.
10.2.	Chemical stability
Stable i	if stored under recommended conditions.
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. Strong bases.
10.6.	Hazardous decomposition products

Carbon oxides (CO, CO2).

SECTION 11: Toxicological informat	on
11.1. Information on toxicological effects	
Acute toxicity	: Not classified
GLYCEROL (13C3, 99%) (63346-81-6)	
LD50 oral rat	12600 mg/kg
LD50 dermal rabbit	> 10000 mg/kg
Skin corrosion/irritation	: Not classified
	Skin rabbit mild skin irritation 24 Hours
	pH: 5.5 - 8
Serious eye damage/irritation	: Not classified
	Eyes rabbit mild eye irritation 24 Hours
	pH: 5.5 - 8
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified

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Carcinogenicity	: No component of this product present at levels greater than or equal to 0.1 % is identified as a known or anticipated carcinogen by NTP. No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH. No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible, or confirmed human carcinogen by IARC. No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible, or confirmed human carcinogen by IARC. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Headache. Nausea. Vomiting. Kidney - irregularities - Based on Human Evidence. 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.
SECTION 12: Ecological informatic	n
12.1. Toxicity	. The product is not considered hermful to aquetic organisms par to cause long term adverse

Ecology - genera

: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

40.0 Development of the second of 1997	
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 assessme	nt
No additional information available	
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	NI .
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	
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Transport by sea

No additional information available

Air transport

No additional information available

14.4.	.4. Environmental hazards	
Other in	formation	: 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 II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information			
5.1. US Federal regulations			
GLYCEROL (13C3, 99%) (63346-81-6)			
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.		
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard		
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.		

15.2. International regulations

CANADA		
	GLYCEROL (13C3, 99%) (63346-81-6)	
	Listed on the Canadian DSL (Domestic Substances List)	Γ

15.2.1. National regulations

No additional information available

15.3. US State regulations

GLYCEROL (13C3, 99%)(63346-81-6)	
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 Massachusetts - Right To Know List RTK - U.S New Jersey - Right to Know Hazardous Substance List RTK - U.S Pennsylvania - RTK (Right to Know) List

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	: 1 - Materials that must be preheated before ignition can occur.

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NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.
HMIS III Rating	
Health	: 0 Minimal Hazard - No significant risk to health
Flammability	: 1 Slight Hazard
Physical	: 0 Minimal Hazard

CIL Substance SDS

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