

Safety Data Sheet

Glycerine USP Grade

IP6128

Version 1

Revision Date 07.10.2016

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Glycerine

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Food additive

1.3 Details of the supplier of the safety data sheet

Company : Caldic Canada Inc.
6980 Creditview Road
Mississauga, ON. L5N 8E2

Telephone : (905) 812-7300
Telefax : (905) 812-7308
E-mail address : www.caldic.com
Responsible/issuing person

1.4 Emergency telephone number

Emergency # (905) 845-6820 (Work Hours), (905) 330-0940 (After Hours)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Classification according to Regulation (EC) No. 1272-2008

Physical hazards	Not classified
Health hazards	Not classified
Environmental hazards	Not classified

GHS Label Elements

Signal Words	None
Symbols	None
Hazard statement	None

Other hazards which do not result in classifications

None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

WHMIS hazardous composition: N/A

Further ingredients

Component	EC Number	CAS-No.	Weight percent
Glycerine	200-289-5	56-81-5	>99.7%

SECTION 4. FIRST AID MEASURES

Description of necessary first-aid measures

EYE - Wash out with plenty of water. Remove contact lenses, if present and easy to do. Get medical attention if any sensations persist.

SKIN - Remove contaminated clothing. Wash skin thoroughly with plenty of water. Get medical attention if necessary.

INHALATION - Use self-contained breathing equipment if in confined place. Remove to fresh air. Get medical attention if necessary.

INGESTION - Remove material from mouth. Drink plenty of water. No typical symptoms and effects known. However, if large amount swallowed or symptoms develop, get medical attention. Do not induce vomiting.

Most important symptoms/effects, acute and delayed

EYE - Direct contact with eyes is likely irritating.

SKIN - Not expected under normal conditions of use.

INHALATION - Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

INGESTION - If a large quantity has been ingested, may cause nausea, vomiting, and diarrhoea.

Indication of immediate medical attention and special treatment needed, if necessary

If medical advice is needed, have product container or label at hand.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media

Appropriate extinguishing media Use extinguishing media appropriate for surrounding fire. Water fog, water spray, foam, dry powder, carbon dioxide (CO₂) and alcohol resistant foam.

Unsuitable extinguishing media None known. However, avoid using water jet as that may cause the fire to spread.

Special hazards arising from the chemical

Fire Hazard - Not flammable.

Explosion Hazard - Not explosive.

Reactivity - Stable at ambient temperature and under normal conditions of use.

Special protective actions for fire-fighters

Specific hazards – Combustion causes toxic fumes

Protection during firefighting – Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus and face mask. Cool containers exposed to flames with water until well after the fire is out.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use appropriate personal protection equipment (PPE).

Evacuate unnecessary personnel.

Equip clean-up crew with proper protection

Environmental precautions

Prevent runoff from entering drains, sewers, or streams. Avoid discharge onto the ground.

Methods and materials for containment and cleaning up

Method for spill containment

Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Method for spill clean-up

Large Spills - Dike far ahead of spill for later disposal. Use a noncombustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Small Spills - Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water.

Never return spills in original containers for re-use.

Reference to other sections

Please refer to section 8 on information for exposure controls / personal protection, and section 13 for disposal considerations.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Recommendations for safe handling Handle in accordance with good industrial hygiene and safety procedures.

Conditions for safe storage, including any incompatibilities

Safe storage conditions Store in a cool, dry place in the original container.

Incompatible products Strong acids, strong bases and strong oxidizers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Glycerol (56-81-5)

USA – OSHA PEL (TWA) Value: 5 mg/m³ Form: Mist

Engineering Controls

Adequate ventilation should be provided so that exposure limits are not exceeded.

Personal Protective Equipment

Eye – Safety glasses or chemical goggles.

Skin – Wear suitable protective clothing. Wear chemical resistant protective gloves.

Inhalation – No personal respiratory protective equipment normally required. In case of risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type A2/P2).

General – Practice good industrial hygiene and safety. Keep away from food and drink.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Water white clear viscous liquid
Odour	Generally odourless
Odour threshold	Not available
pH	Not available
Melting point	18°C
Boiling point	290°C
Flash point	198.9°C (PMCC)
Evaporation rate	Not available
Flammability (solid, gas)	Not available

Upper/lower flammability or explosive limits	Not available
Vapour pressure	<0.01 mmHg @ 50°C
Vapour density	Not available
Specific Gravity (H2O = 1)	Approx. 1.26
Solubility(ies)	Soluble
Partition coefficient: noctanol/water	-1.8
Auto-ignition temperature	Approx 400°C
Decomposition temperature	Not available
Viscosity	1410mPa.s at 20°C

Other information

Other information on physical and chemical parameters

None

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Stable at ambient temperature and under normal conditions of use.

Chemical stability

Product is stable.

Possibility of hazardous reactions

Hazardous polymerization does not occur.

Conditions to avoid

Avoid temperatures exceeding 200oC as decomposition may occur.

Incompatible materials

Contact of glycerine with strong oxidizing agents such as nitric acid or other strong acids, chromium trioxide, potassium chlorate, or potassium permanganate may cause explosion.

Hazardous decomposition products

Dangerous Decomposition Product - Acrolein (>280°C)

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological (health) effects

Hazard class	Result	Criteria
Oral LD50	>20000 mg/kg (rat)	OECD GHS
Acute toxicity	Inhalation 4655 mg/min/litre (rat) L(Ct)50	OECD GHS
	Dermal LD50 45 ml/kg (guinea pig)	OECD GHS

Information on likely routes of exposure

Ingestion	Not classified
Inhalation	Not classified
Skin contact	Not classified
Eye contact	Not classified

Sesitization

Respiratory	Not classified
Skin	Not classified

Hazard class	Result	Criteria
Mutagenicity		
Mutagenicity	Not classified	
Germ cell mutagenicity: Ames test	Result: Negative Species: Salmonella Typhimurium (Salmonella enterica)	in vitro, OECD 471
Germ cell mutagenicity: Chromosome aberration	Result: No effects	in vitro – Chinese Hamster Ovary, OECD 473
Carcinogenicity		
Carcinogenicity	Not classified. Not considered a carcinogen by IARC, ACGIH, NTP and OSHA. Result: No effects Species: Rat Test Duration: 2 years	Oral: feed
Reproductive toxicity		
Reproductive effects	Not Classified	
Fertility effects	Result: No effects Species: Rat	2000 mg/kg bw/day; Oral: feed, 2 generation study
Teratogenicity		
Teratogenicity	Not classified	
Developmental effects	Result: No effects Species: Rat	1310 mg/kg bw/day Oral: feed, NOAEL. Study followed intent of OECD 414
Serious eye damage/eye irritation		
Serious eye damage/eye irritation	Not classified	
Irritation Corrosion - Eye	Result: No effects Species: Rabbit Test duration: 7 days	0.1 ml in vivo
Specific target organ toxicity		
STOT-single exposure	Not Classified (Single / Repeated Exposure) Result: No effects. Species: Rat Test Duration: 13 weeks	167 mg/m ³ Inhalation, NOAEL. Study followed intent of OECD 413
	Result: No effects. Species: Rabbit Test Duration: 45 weeks	5040 mg/kg bw/day Dermal, NOEL
	Result: No effects. Species: Rat Test Duration: 2 years	8000 - 10000 mg/kg bw/day Oral, NOAEL. Study followed intent of OECD 452
Other information on adverse health effects		
See section 2 for effects of the substance		
SECTION 12. ECOLOGICAL INFORMATION		
Toxicity		
Aquatic and	Fish (Oncorhynchus mykiss)	LC50> 54000 mg/l, 96 hours
Terrestrial	Crustacea (Daphnia magna)	EC50> 10000 mg/l, 24 hours
Organisms	Algae (Scenedesmus quadricauda)	EC3> 10000 mg/l, 8 days
Ecotoxicity	Cyanobacteria (Microcystis aeruginosa)	EC3> 2900 mg/l, 8 days
	Other aquatic/terrestrial toxicological end points	No information
Persistence and degradability		
Conclusion		
Readily biodegradable (OECD 301)	Supporting Information Percent degradation (Aerobic biodegradation-ready) Result: Readily biodegradable Species: Activated sludge, industrial Test Duration: 24 hours	

Bioaccumulative potential

Low bioaccumulation potential, accumulation in organisms is not expected Octanol/water partition coefficient log Kow = -1.75.

Mobility in soil

Low potential for sorption to soil. Henry's law
Glycerine will partition primarily to water. Calculation result: 0.000000006 atm m3/mol@25°C

Results of PBT and vPvB assessment

The substance is not PBT / vPvB
Persistence: The substance is demonstrated to be readily biodegradable, thus meeting screening criterion for "not P and not vP"
Bioaccumulation: The substance has measured log Kow of -1.75, which is well below the screening criterion of log Kow <= 4.5 for "not B and not vB"
Toxicity: The available acute aquatic E/LC50 values are well above the screening criterion of E/LC50 < 0.1 mg/L for "T". The substance is not classified for CMR or other organ-specific chronic health effects.

Other adverse effects

Avoid release to the environment

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Disposal is to be performed in compliance with all federal, state/provincial and local regulations. Do not dispose of via sinks, drains or into immediate environment.

SECTION 14. TRANSPORT INFORMATION

Land transport - International Carriage by Rail (RID) and by Road (ARD)

Not regulated as dangerous goods.

Inland waterway transport (AND(R))

Not regulated as dangerous goods.

Marine transport - International Maritime Dangerous Goods Code (IMDG)

Not regulated as dangerous goods.

Air transport - International Civil Aviation Organization (ICAO) International Air Transport Association (IATA)

Not regulated as dangerous goods.

United States Department of Transportation (US DOT)

Not regulated as dangerous goods.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question

OSHA (Occupational Safety and Health Administration) status	This product is not hazardous under the criteria of the Federal OSHA Hazard Standard 29 CFR 1910.1200.
CERCLA (Comprehensive Response compensation, and Liability Act)	No chemicals in this material with known CAS numbers are subject to the reporting requirements of CERCLA.
SARA Title III (Superfund Amendments and Reauthorization Act)	Section 302 Extremely Hazardous Substances: No. Section 311/312 Hazardous Chemical: No.
California Proposition 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Inventory Status	Country(s) or region	Inventory Name	On inventory (yes.no)
	Australia	Australian Inventory of Chemical Substances (AICS)	Yes
	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)	Yes
	Switzerland	Inventory Switzerland FOPH	No

SECTION 16. OTHER INFORMATION

Further information HMIS® is a registered trade and service mark of the NPCA.

Substance meets the criteria of Paragraph 9 of Annex V of the REACH EC Regulation No. 987/2008 and is therefore exempted from the obligation to register under REACH.

HMIS® ratings Health: 0

Flammability: 1

Physical hazard: 0

NFPA ratings Health: 0

Flammability: 1

Instability: 0

Key/Abbreviations

SDS: Material Safety Data Sheet

PBT: Substance with Persistent, Bioaccumulative and Toxic properties

vPvB: Substance with very Persistent and very Bioaccumulative properties

Mixture classification information

Not relevant

The information provided in this Safety Data Sheet is correct to the best of our knowledge.

The information given is designed only as a guidance for safe handling, use, processing, storage, Transportation, disposal and release and is not to be considered a warrant or quality specification.