

Revision date 29-Aug-2023

SAFETY DATA SHEET

Version 4

1. Identification Product identifier CviAll **Product name** Other means of identification **Product No** R0640 Synonyms None Recommended use of the chemical and restrictions on use This product is for research and development only **Recommended use** No information available **Restrictions on use** Details of the supplier of the safety data sheet Supplier Address New England BioLabs 240 County Road Ipswich, MA 01938 **ÚSA** Emergency telephone number **Company Phone Number** 978-927-5054, 800-632-5227 (toll free) Telefax 978-921-1350 E-mail address info@neb.com 24 Hour Emergency Phone Number Chemtrec +1 703-741-5970

2. Hazard(s) identification

Classification

Label elements

Hazard statements

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

51.461 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

51.461 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

51.461 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Other information

No information available.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Glycerol	56-81-5	30 - 60	-	-

4. First-aid measures

Description of first aid measures

Inhalation	Remove to fresh air.	
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.	
Skin contact	Wash skin with soap and water.	
Ingestion	Rinse mouth.	
Most important symptoms and effects, both acute and delayed		
Symptoms	No information available.	
Effects of Exposure	No information available.	
Indication of any immediate medical attention and special treatment needed		

Note to physicians

Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	No information available.
Explosion data Sensitivity to mechanical impac Sensitivity to static discharge	t None. None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Glycerol	-	TWA: 15 mg/m ³ mist, total	-
56-81-5		particulate	
		TWA: 5 mg/m ³ mist,	
		respirable fraction	

	(vacated) TWA: 10 mg/m ³ mist, total particulate (vacated) TWA: 5 mg/m ³ mist, respirable fraction	
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Chemical name	Alberta	British Columbia	Ontario	Quebec
Glycerol	TWA: 10 mg/m ³	TWA: 10 mg/m ³	-	TWA: 10 mg/m ³
56-81-5	_	TWA: 3 mg/m ³		-

Chemical name	Nunavut	Prince Edward Island	Saskatchewan	Yukon
Glycerol	TWA: 10 mg/m ³		TWA: 10 mg/m ³	TWA: 30 mppcf
	STEL: 20 mg/m ³		STEL: 20 mg/m ³	TWA: 10 mg/m ³

Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
Individual protection measures, su	ch as personal protective equipment
Eye/face protection	No special protective equipment required.
Hand protection	No special protective equipment required.
Skin and body protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Information on basic physical and o		
Physical state	Liquid	
Appearance	Colorless	
Color	No information available	
Odor	Mild	
Odor threshold	No information available	
Property	Values	Remarks • Method
	No data available	None known
рН		
Melting point / freezing point	No data available	None known
Initial boiling point and boiling rang	eNo data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	

Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
	No data available	None known
Water solubility		
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	392.78 °C / 739 °F	
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Other information		
Explosive properties	No information available	
Oxidizing properties	No information available	
Softening point	No information available	
Molecular weight	No information available	
VOC content	No information available	
Liquid Density	No information available	
Bulk density	No information available	

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.
Symptoms related to the physical, of Symptoms	chemical and toxicological characteristics No information available.
Acute toxicity	
Numerical measures of toxicity	

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	22,445.40	mg/kg
ATEmix (dermal)	19,432.20	mg/kg
ATEmix (inhalation-gas)	99,999.00	ppm
ATEmix (inhalation-vapor)	99,999.00	mg/l

ATEmix (inhalation-dust/mist) 99,999.00 mg/l

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

51.461 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

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Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50	
Glycerol	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 2.75 mg/L (Rat)4 h	
56-81-5				

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. Ecological information

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Glycerol	-	LC50: 51 - 57mL/L (96h,	-	-
56-81-5		Oncorhynchus mykiss)		

Persistence and degradability No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient		
Glycerol	-1.75		
56-81-5			

Mobility in soil

No information available.

Other adverse effects

No information available.

13. Disposal considerations				
Waste treatment methods				
Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.			
Contaminated packaging	Do not reuse empty containers.			

14. Transport information

DOT	Not regulated
TDG	Not regulated
<u>MEX</u>	Not regulated
ICAO (air)	Not regulated
IATA	Not regulated
IMDG	Not regulated
RID	Not regulated
<u>ADR</u>	Not regulated
<u>ADN</u>	Not regulated

15. Regulatory information

Regulatory information

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories TSCA

Contact supplier for inventory compliance status.

Chemical name	CAS No.	US TSCA Inventory listing	US TSCA inactive/active designation	
Glycerol	56-81-5	Present	Active	
Water	7732-18-5	Present	Active	
Sodium Chloride	7647-14-5	Present	Active	
Tris-HCI	1185-53-1	Present	Active	
Triton X-100	9002-93-1	Present	Active	

Chemical name	CAS No.	US TSCA Inventory listing	US TSCA inactive/active designation	
Bovine Serum Albumin	9048-46-8	Present	Active	
Dithiothreitol	3483-12-3	Present	Active	
Ethylenediamine tetraacetic acid	60-00-4	Present	Active	

*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIIC	Contact supplier for inventory compliance status.
NZIOC	Contact supplier for inventory compliance status.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

US Federal Regulations

<u>SARA 313</u>

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

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NFPA Health haza		Flammability Flammability		Instability 0 Physical hazards	0	Special hazards - Personal protection
Key or legend to abbreviations and	acronyms	used in the safe	ty data sh	eet		
Legend Section 8: EXPOSURE CON TWA TWA (time-weighte Ceiling Maximum limit value Key literature references and source	ed average Je) S *	STEL	STEL (Short Skin designa		I Exposure Limit)
Agency for Toxic Substances and Disc U.S. Environmental Protection Agency European Food Safety Authority (EFS EPA (Environmental Protection Agency Acute Exposure Guideline Level(s) (Al U.S. Environmental Protection Agency U.S. Environmental Protection Agency Food Research Journal Hazardous Substance Database International Uniform Chemical Inform National Institute of Technology and E Australia National Industrial Chemicals NIOSH (National Institute for Occupati National Library of Medicine's ChemID National Library of Medicine's PubMed National Toxicology Program (NTP) New Zealand's Chemical Classification Organization for Economic Co-operati Organization for Economic Co-operati World Health Organization	ease Regis ChemView A) EGL(s)) Federal In High Prod ation Datab valuation (I Notificatio onal Safety Plus (NLM database and Inforr on and Dev on and Dev	ery (ATSDR) v Database secticide, Fungici uction Volume Ch base (IUCLID) NITE) n and Assessmer and Health) I CIP) (NLM PUBMED) (NLM PUBMED) nation Database (elopment Environ elopment High Pr	de, and Ro emicals nt Scheme CCID) ment, Hea oduction V	(NICNAS) Ith, and Safety Publi olume Chemicals Pr		
Prepared by	Environm	ental, Health and	Safety, 978	8-927-5054		

Revision date	29-Aug-2023
Revision note	No information available.

Revision note Disclaimer

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End of Safety Data Sheet