

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name Diluent A
Product No B8001

Recommended use of the chemical and restrictions on use

Recommended use This product is for research and development only
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address New England BioLabs
240 County Road
Ipswich, MA 01938
USA

Company Phone Number 978-927-5054
800-632-5227 (toll free)

Telefax 978-921-1350

E-mail address info@neb.com

Emergency telephone number

Emergency telephone 978-927-5054
800-632-5227 (toll free)
9:00am - 5:00pm Monday-Friday EST

2. HAZARDS IDENTIFICATION

Emergency Overview

May cause adverse kidney effects

Appearance Colorless

Physical state Liquid

Odor Mild

Principle Routes of Exposure

Acute toxicity

Inhalation

May be harmful if inhaled.

Eyes

Redness. May cause slight irritation.

Skin

Prolonged contact may cause redness and irritation. Repeated exposure may cause skin dryness or cracking.

Ingestion

May cause drowsiness or dizziness. Ingestion causes burns of the upper digestive and respiratory tracts. Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting.

Chronic Effects

Chronic toxicity

No information available

Symptoms

No information available.

Aggravated Medical Conditions

Preexisting eye disorders. Kidney disorders. Skin disorders. Respiratory disorders.

Interactions with Other Chemicals

No information available

Environmental hazard

See Section 12: ECOLOGICAL INFORMATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Glycerol	56-81-5	30-60
Water	7732-18-5	30-60
Potassium Chloride	7447-40-7	0.1-1
Tris-HCl	1185-53-1	0.1-1
Bovine Serum Albumin	9048-46-8	<0.1
Ethylenediamine tetraacetic acid	60-00-4	<0.1
Dithiothreitol	3483-12-3	<0.1

The product contains no substances which at their given concentration, are considered to be hazardous to health

4. FIRST AID MEASURES

General advice

Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove from exposure, lie down. Do not breathe dust/fume/gas/mist/vapors/spray.

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.

Inhalation

Remove to fresh air.

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Specification No No information available

Ingestion

Clean mouth with water and drink afterwards plenty of water.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health hazards 0

Flammability 0

Stability 0

Special Hazard -

HMIS

Health hazards 0

Flammability 0

Physical hazards 0

Personal protection -

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment [PPE]

Use personal protection recommended in Section 8.

Environmental precautions

See Section 12 for additional Ecological Information.

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. This material and its container must be disposed of as hazardous waste.

7. HANDLING AND STORAGE

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice.

Storage temperature

Refer to www.neb.com for specific information.

Storage Conditions

Keep/store only in original container.

Incompatible materials

None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glycerol 56-81-5	-	TWA: 15 mg/m ³ mist, total 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	-

Other information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Engineering controls

Showers. Eyewash stations.

Personal protective equipment (PPE)

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear suitable protective clothing and gloves.

Respiratory protection

Use in well ventilated areas.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Colorless
Odor	Mild

Property

pH

Melting point / freezing point

Boiling point / boiling range

Flash point

Evaporation rate

Flammability (solid, gas)

Flammability Limit in Air

Upper flammability limit

Lower flammability limit

Vapor pressure

Vapor density

Relative density

Specific gravity

Water solubility

Solubility in other solvents

Partition coefficient

Autoignition temperature

Decomposition temperature

Kinematic viscosity

Dynamic viscosity

Remarks • Method

Refer to www.neb.com for specific information

No information available

No information available

No information available

No information available

No information available

No information available

No information available

No information available

No information available

No information available

No information available

No information available

No information available

No information available

No information available

No information available

No information available

Explosive properties
Oxidizing properties

No information available
No information available

Other information

Softening point
Molecular weight
VOC content (%)
Density
Bulk density

No information available
No information available
No information available
No information available
No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Stability

Stable under normal conditions.

Possibility of hazardous reactions

Can react briskly with oxidizers - danger of explosion.

Conditions to avoid

Incompatible materials, Ignition sources, Heat.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product information

Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation

Avoid breathing vapors or mists. May cause irritation of respiratory tract.

Eye contact

Redness. May cause slight irritation.

Skin contact

Prolonged contact may cause redness and irritation. Repeated exposure may cause skin dryness or cracking.

Ingestion

May cause drowsiness or dizziness. Ingestion causes burns of the upper digestive and respiratory tracts. Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Glycerol	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m ³ (Rat) 1 h
Water	> 90 mL/kg (Rat)	-	-
Potassium Chloride	= 2600 mg/kg (Rat)	-	-
Ethylenediamine tetraacetic acid	= 1700 mg/kg (Rat)	-	-

Chronic toxicity

Skin corrosion/irritation

Mild

Serious eye damage/eye irritation	Mild
Irritation	Mild
Corrosivity	Mild
Sensitization	
Skin	No information available
Respiratory	No information available
Germ cell mutagenicity	No information available
Carcinogenicity	No information available

Reproductive toxicity	No information available
Developmental toxicity	No information available
Teratogenicity	No information available
STOT - single exposure	No information available
STOT - repeated exposure	No information available
Chronic toxicity	No information available
Subchronic toxicity	No information available
Target organ effects	Eyes, Kidneys, Respiratory system, Skin.
Neurological effects	No information available
Other adverse effects	No information available
Aspiration hazard	No information available

12. ECOLOGICAL INFORMATION

Marine pollutant

No information available

Ecotoxicity

No information available

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Glycerol		51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static	500: 24 h Daphnia magna mg/L EC50
Potassium Chloride	2500: 72 h Desmodesmus subspicatus mg/L EC50	1060: 96 h Lepomis macrochirus mg/L LC50 static 750 - 1020: 96 h Pimephales promelas mg/L LC50 static	825: 48 h Daphnia magna mg/L EC50 83: 48 h Daphnia magna mg/L EC50 Static
Ethylenediamine tetraacetic acid	1.01: 72 h Desmodesmus subspicatus mg/L EC50	44.2 - 76.5: 96 h Pimephales promelas mg/L LC50 static 34 - 62: 96 h Lepomis macrochirus mg/L LC50 static	113: 48 h Daphnia magna mg/L EC50 Static

Persistence and degradability

No information available

Bioaccumulation

No information available

Mobility

No information available

Chemical Name	Partition coefficient
Glycerol	-1.76

Other adverse effects No information available

Ozone depletion potential (ODP) No information available

13. DISPOSAL CONSIDERATIONS

Relevant Information

Product name Diluent A

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Specification No No information available

Keep out of drains, sewers, ditches and waterways.

Disposal considerations

Use a licensed professional waste disposal service to dispose of this product. Product may be dissolved in a combustible solvent or absorbed onto a combustible material and burned by a chemical incinerator.

Contaminated packaging

Empty containers must be tripled rinsed prior to disposal.

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO (air)	Not regulated
IATA	Not regulated
IMDG	Not regulated
RID	Not regulated
ADR	Not regulated
ADN	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
NDSL	Complies

Chemical Name	TSCA	DSL	NDSL
Glycerol	Present	X	Not Listed
Water	Present	X	Not Listed
Potassium Chloride	Present	X	Not Listed
Tris-HCl	Present	X	Not Listed
Bovine Serum Albumin	Present	X	Not Listed
Ethylenediamine tetraacetic acid	Present	X	Not Listed
Dithiothreitol	Present	X	Not Listed

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

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

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No

Sudden release of pressure hazard
Reactive hazard

No
No

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)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ethylenediamine tetraacetic acid	5000 lb	-	-	X

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

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethylenediamine tetraacetic acid	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

International Regulations

Chemical Name	Carcinogenicity	Exposure Limits
Glycerol	-	Mexico: TWA 10 mg/m ³

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

16. OTHER INFORMATION

Prepared by EH&S Manager
978-927-5054
Prepared by New England BioLabs
Issue date No data available
Revision note SDS is valid 3 years from revision date. Contact info@neb.com for latest revision

Disclaimer

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End of Safety Data Sheet