



Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810

Number:
Issue Date

CLM-4806
08/29/11

Page 1 of 7

MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description BETA-THIODIGLYCOL (13C4, 99%)

Cambridge Isotope Laboratories, Inc.
50 Frontage Rd
ANDOVER, MA 01810
USA

E-mail cilsales@isotope.com
Web Site www.isotope.com

Phone Numbers

Emergency Contact Chemtrec
Emergency Phone 1-800-424-9300 (24 hours)

Customer Service 1-800-322-1174 (8:30-5:30 EST)
Phone
Transportation 1-202-483-7616 (24 hours)

2 HAZARDS IDENTIFICATION

OSHA Hazards
Irritant

GHS Classification
Skin irritation (Category 2)
Eye irritation (Category 2)
Specific Target Organ Toxicity - Single exposure (Category 3)

GHS Label Information

Signal Word Warning

Hazards Identification
Exclamation mark

Hazard Statement(s)
Causes eye irritation.
Causes skin irritation.
Specific Target Organ Toxicity - Single exposure (Category 3)

Precautionary Statement(s)
Wear protective gloves/protective clothing/eye protection/face protection.



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08/29/11

Page 2 of 7

MATERIAL SAFETY DATA SHEET

HMIS Ratings

Physical	0
Flammability	0
Health	2

NFPA Codes

Fire	0
Health	2
Reactivity	0

Potential Health Effects

Eyes	Causes eye irritation.
Ingestion	May be harmful if swallowed.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through the skin. Causes skin irritation.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Composition / Information on Ingredients

Synonyms	2,2'-Thiodiethanol
Chemical Formula	S(*CH ₂ *CH ₂ OH) ₂
Molecular Weight	126.16
CAS No.	111-48-8 (Unlabeled)
EC No.	203-874-3
Index No.	603-081-00-6

4 FIRST AID MEASURES

First Aid Measures

Eyes	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation	If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin	Wash off with soap and plenty of water. Consult a physician.
Additional Information	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.



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Number:
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08/29/11

Page 3 of 7

MATERIAL SAFETY DATA SHEET

5 FIRE FIGHTING MEASURE

Fire Fighting Measures

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Fire Fighting Equipment Wear self contained breathing apparatus for fire fighting if necessary.

6 ACCIDENTAL RELEASE MEASURES

Accidental Release Measures

Personal Precautions Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation.

Environmental Precautions Do not let product enter drains.

Methods and materials for containment and cleanup Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

Precautions for Safe Handling

Handling Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

Conditions for Safe Storage

Storage Store at room temperature away from light and moisture.

8 EXPOSURE CONTROL / PERSONAL PROTECTION

Personal Protection

Eyes - Face Wear safety glasses with side shields (or goggles) and a face shield.

Skin Wear suitable protective clothing and gloves.

Respiratory When appropriate, use NIOSH/CEN approved respirator.



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Page 4 of 7

MATERIAL SAFETY DATA SHEET

Protective Clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Work Hygienic Practices Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties (Unlabeled Compound)

Form	Liquid
Odor	Stench
pH	No data available
Melting Point	16 °C (61 °F)
Boiling Point	164 - 166 °C (327 - 331 °F) at 27 hPa (20 mmHg)
Flashpoint	113 °C (235 °F) - closed cup
Lower Explosion Limit	1.2 % (V)
Upper Explosion Limit	5.2 % (V)
Density	1.221 g/mL at 25 °C (77 °F)
Solubility in Water	No data available
Partition Coefficient	log Pow: -0.75
Auto Ignition Temperature	260 °C (500 °F)

10 STABILITY AND REACTIVITY

Stability and Reactivity

Chemical Stability Stable if stored under recommended conditions.

Possibility of Hazardous Reactions Not available

Conditions to Avoid Not available

11 TOXICOLOGICAL INFORMATION

Acute Toxicity



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Number:
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CLM-4806
08/29/11

Page 5 of 7

MATERIAL SAFETY DATA SHEET

LD50 Dermal Rabbit	23,640 mg/kg
LD50 Oral Rat	6,610 mg/kg
Serious Damage/Eye Irritation	Eyes - rabbit - Moderate eye irritation
Skin Corrosion/Irritation	Skin - rabbit - No skin irritation
Respiratory or Skin Sensitization	Not available
Germ Cell Mutagenicity	Not available
Carcinogenicity	Not available
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.
ACGIH	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.
NTP	No component of this product present at levels greater than or equal to 0.1% is identifiable as a known or anticipated carcinogen by NTP.
OSHA	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 available

Signs and Symptoms of Exposure

Nausea, Headache, Vomiting

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Other Information

RTECS KM2975000

12 ECOLOGICAL INFORMATION

Toxicity

Toxicity to Fish Leuciscus idus (Golden orfe) - > 10,000 mg/l - 96 h



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Number:
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CLM-4806
08/29/11

Page 6 of 7

MATERIAL SAFETY DATA SHEET

LC50	
Toxicity to Daphnia and Other Aquatic Invertebrates EC50	Daphnia magna (Water flea) - > 500 mg/l - 48 h
Persistence and Degradability	Not available
Bioaccumulative Potential	Not available
Mobility in Soil	Not available
PBT and vPvB Assessment	Not available
Other Adverse Effects	Not available

13 DISPOSAL CONSIDERATIONS

Disposal Considerations

Product Disposal Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations.

14 TRANSPORT INFORMATION

Transportation Information-DOT/IATA/IMDG

UN Number	3334
Prop. Ship. Name	Aviation regulated liquid, n.o.s., (Beta-Thiodiglycol 13C4)
Hazard Class	9
Marine Pollutant	No
Poison Inhalation Hazard	No

15 REGULATORY INFORMATION

Regulatory Information

Irritant



Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810

Number:
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CLM-4806
08/29/11

Page 7 of 7

MATERIAL SAFETY DATA SHEET

SARA

Sara 302 Component No chemicals in this material are subject to the reporting requirements.

Component

Sara 313 Component No chemicals in this material are subject to the reporting requirements.

Component

SARA 311/312 Hazards

Acute (Y/N) Y

STATE REGULATIONS

Massachusetts Right to Know Yes

Right to Know

Pennsylvania Right to Know Yes

to Know

New Jersey Right to Know Yes

to Know

California Proposition 65 This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Canada

DSL Status All components are on the Canadian DSL list.

EU

Hazard Irritant

Safety Statements

Wear suitable protective clothing, gloves and eye/face protection.

Risk Statements

Irritating to eyes, respiratory system and skin.

16 OTHER INFORMATION

Additional MSDS 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.

Approved On 08/29/11

Version Number 1