

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

Phone

1-800-322-1174 (8:30-5:30 EST)

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)

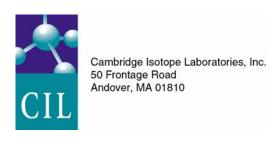
Causes eye irritation.

Causes skin irritation.

Specific Target Organ Toxicity - Single exposure (Category 3)

Precautionary Statement(s)

Wear protective gloves/protective clothing/eye protection/face protection.



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(*CH2*CH2OH)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 Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of

Information dangerous area.



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

Precautions 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.

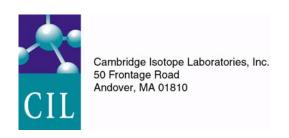
8 EXPOSURE CONTROL / PERSONAL PROTECTION

Personal Protecton

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.



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

the work place.

Work Hygienic

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks

Practices 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 1.2 % (V)

Limit

Upper Explosion

5.2 % (V)

Limit

Density 1.221 g/mL at 25 °C (77 °F)

Solubility in Water No data available
Partition Coefficient log Pow: -0.75
Auto Ignition 260 °C (500 °F)

Temperature

10 STABILITY AND REACTIVITY

Stability and Reactivity

Chemical Stability Stable if stored under recommended conditions.

Possibility of Hazardous Not available

Reactions

Conditions to Avoid Not available

11 TOXICOLOGICAL INFORMATION

Acute Toxicity



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MATERIAL SAFETY DATA SHEET

LD50 Dermal

23,640 mg/kg

Rabbit

Skin

LD50 Oral Rat 6,610 mg/kg

Serious

Eyes - rabbit - Moderate eye irritation

Damage/Eye Irritation

Skin - rabbit - No skin irritation

Corrosion/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 hav enot been thoroughly investigated.

Other Information

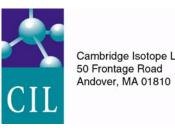
RTECS KM2975000

12 **ECOLOGICAL INFORMATION**

Toxicity

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

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Cambridge Isotope Laboratories, Inc.

MATERIAL SAFETY DATA SHEET

LC50

Toxicity to Daphnia and Other Aquatic

Daphnia magna (Water flea) - > 500 mg/l - 48 h

Invertebrates EC50

Persistance and

Not available

Bioaccumulative

Degradability

Potential

Not available

Mobility in Soil

Not available

PBT and vPvB

Not available

Assessment

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

Aviation regulated liquid, n.o.s., (Beta-Thiodiglycol 13C4) Prop. Ship. Name

Hazard Class 9 Marine Pollutant No Poison Inhalation

Hazard

No

15 REGULATORY INFORMATION

Regulatory Information

Irritant



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MATERIAL SAFETY DATA SHEET

SARA

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

Component

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

Component

SARA 311/312 Hazards

Acute (Y/N) Y

STATE REGULATIONS

Massachusetts Yes

Right to Know

Pennsylvania Right Yes

to Know

New Jersey Right

to Know

Yes

California

This product does not contain any chemicals known to the State of California to cause cancer,

Proposition 65 birth defects, or any other reproductive harm.

Canada

DSL Status All components are on the Canadian DSL list.

ΕU

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