

MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description TRIETHYL ORTHOACETATE (1,2-13C2, 96%) 95% CHEMICAL PURITY

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

Flammable liquid, Irritant

GHS Classification

Flammable liquids (Category 2) Skin irritation (Category 2) Eye irritation (Category 2)

GHS Label Information

Signal Word Warning

Hazards Identification

Flame

Exclamation mark

Hazard Statement(s)

Flammable liquid and vapour.

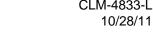
Causes skin irritation.

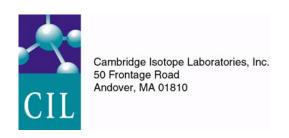
Causes serious eye irritation.

Precautionary Statement(s)

IF IN EYES: Rinse with water for several minutes. Remove contact lenses.

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HMIS Ratings

Physical 0 Flammability 3 2 Health

NFPA Codes

Fire 3 2 Health 0 Reactivity

Potential Health Effects

Causes eye irritation. Eyes

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.

COMPOSITION / INFORMATION ON INGREDIENTS 3

Composition / Information on Ingredients

*CH3*C(OCH2CH3)3 Chemical Formula

Molecular Weight 164.21

CAS No. 78-39-7 (unlabeled)

EC No. 201-112-4

FIRST AID MEASURES

First Aid Measures

Flush eye with water for 15 minutes. Get medical attention. Eyes

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth Ingestion

with water. Consult a physician.

If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a Inhalation

physician.

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

the work place.

Additional

Move out of dangerous area. Consult a physician and show this safety data sheet.

Information

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FIRE FIGHTING MEASURE 5

Fire Fighting Measures

Extinguishing Media For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For

large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as mist or spray; solid streams of water may be ineffective. Cool all affected containers

with flooding quantities of water.

Fire Fighting Equipment

Wear self contained breathing apparatus for fire fighting if necessary.

Fire Fighting **Procedures**

Use water spray to cool unopened containers.

ACCIDENTAL RELEASE MEASURES 6

Accidental Release Measures

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

ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours

accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental **Precautions**

Do not empty into drains.

Methods and materials for containment and

cleanup

Contain spillage, then collect with non-combustible absorbent material. Disposal should be in

accordance with applicable Federal, State and local regulations.

7 HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of Handling

ignition - No smoking. Take measures to prevent build up of electrostatic charge.

Conditions for Safe Storage

Storage Store at room temperature away from light and moisture.

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EXPOSURE CONTROL / PERSONAL PROTECTION 8

Personal Protecton

Work Hygienic

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

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

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

the work place.

Respiratory When appropriate, use NIOSH/CEN approved respirator.

Protective Clothing Wear suitable protective clothing and gloves.

Practices and at the end of workday.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties (Unlabeled Compound)

Form Liquid

Color Colourless

No data available рΗ Melting Point No data available **Boiling Point** 142 °C (288 °F)

Flashpoint 32 °C (90 °F) - closed cup

No data available

Lower Explosion

Limit

No data available Upper Explosion

Limit

Solubility in Water No data available Auto Ignition No data available

Temperature

STABILITY AND REACTIVITY 10

Stability and Reactivity

Chemical Stability Stable if stored under recommended conditions.

Possibility of Hazardous Reactions

Vapors may form explosive mixture with air.

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Conditions to Avoid Avoid Heat, Flames and Sparks.

Hazardous decomposition Formed under fire conditions: Ethanol

products

Materials to avoid Strong oxidizing agents

TOXICOLOGICAL INFORMATION 11

Acute Toxicity

Serious No data available

Damage/Eye Irritation

Skin No data available

Corrosion/Irritation

Inhalation No data available

Respiratory or Skin

Sensitization

Not available

Germ Cell

IARC

Not available

Mutagenicity

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

Specific Target Organ Toxicity

Single Exposure No data available Repeated Exposure No data available

Signs and Symptoms of Exposure

The chemical, physical, and toxicological properties have not been thoroughly investigated.

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12 **ECOLOGICAL INFORMATION**

Toxicity

Persistance and Degradability

Not available

Bioaccumulative

Potential

Not available

Mobility in Soil

Not available

PBT and vPvB

Assessment

Not available

Other Adverse

Effects

Not available

DISPOSAL CONSIDERATIONS 13

Disposal Considerations

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

environmental control regulations.

TRANSPORT INFORMATION 14

Transportation Information-DOT/IATA/IMDG

UN Number 3272

Prop. Ship. Name Esters, n.o.s., (TRIETHYL ORTHOACETATE)

Hazard Class 3 Packing Group Ш Marine Pollutant No Poison Inhalation No

Hazard

15 REGULATORY INFORMATION

Regulatory Information

Flammable liquid, Irritant



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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

Fire (Y/N) Υ

Acute (Y/N) Υ

STATE REGULATIONS

Massachusetts No

Right to Know

Pennsylvania Right Yes

to Know

New Jersey Right

to Know

Yes

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.

Canada

Listed on the Canadian NDSL list. **DSL Status**

ΕU

Irritant Hazard

Safety Statements

For waste disposal purposes, this product is not known to be defined or designated as hazardous by current provisions of the Federal (EPA) resource Conservation and Recovery Act (RCRA, 40CFR261).

Risk Statements

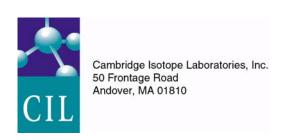
Flammable.

Irritating to eyes 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.



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Approved On 10/28/11 Version Number 1