



Cambridge Isotope Laboratories, Inc.  
3 Highwood Drive  
Tewksbury, MA 01876

Number:  
Issue Date

CLM-4289  
01/07/15

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## MATERIAL SAFETY DATA SHEET

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### 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description THYMIDINE (DEOXYRIBOSE-1-13C, 99%)

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

E-mail [cilsales@isotope.com](mailto:cilsales@isotope.com)  
Web Site [www.isotope.com](http://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)

General Use Additional Synonyms: 1-(2-Deoxy-Beta-D-ribofuranosyl)thymine.  
1-(2-Deoxy-Beta-D-ribofuranosyl)-5-methyluracil. 2'-Deoxythymidine.

### 2 HAZARDS IDENTIFICATION

#### OSHA Hazards

No known OSHA hazards

#### HMIS Ratings

Physical 0  
Flammability 0  
Health 0

#### NFPA Codes

Fire 0  
Health 0  
Reactivity 0

#### Potential Health Effects

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



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### 3 COMPOSITION / INFORMATION ON INGREDIENTS

#### Composition / Information on Ingredients

Synonyms dT. Thymine deoxyriboside

Chemical Formula \*CC9H14N2O5  
Molecular Weight 243.22  
CAS No. 50-89-5 (Unlabeled)  
EC No. 200-070-4

### 4 FIRST AID MEASURES

#### First Aid Measures

Eyes Flush eyes with water as a precaution.

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 with soap and plenty of water. Consult a physician.

### 5 FIRE FIGHTING MEASURE

#### Fire Fighting Measures

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

Hazardous Decomposition Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides (NO<sub>x</sub>)

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

### 6 ACCIDENTAL RELEASE MEASURES

#### Accidental Release Measures

Personal Precautions Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.



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Environmental Precautions      Do not empty into drains.

Methods and materials for containment and cleanup      Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 7 HANDLING AND STORAGE

#### Precautions for Safe Handling

Handling      Provide appropriate exhaust ventilation at places where dust is formed. 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      Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory      When appropriate, use NIOSH/CEN approved respirator.

Protective Clothing      Wear suitable protective clothing and gloves.

### 9 PHYSICAL AND CHEMICAL PROPERTIES

#### Physical and Chemical Properties (Unlabeled Compound)

Form      Powder

Color      White

Odor      No data available

Odor Threshold      No data available

pH      No data available



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Melting Point	186 - 188 °C (367 - 370 °F)
Boiling Point	No data available
Flashpoint	No data available
Evaporation Rate	No data available
Fammability	No data available
Flammable Limits	No data available
Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Density	No data available
Solubility in Water	Soluble
Partition Coefficient	No data available
Auto Ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available

### 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
Hazardous decomposition products	Formed under fire conditions: Carbon oxides, nitrogen oxides (NO <sub>x</sub> )
Materials to avoid	Strong oxidizing agents

### 11 TOXICOLOGICAL INFORMATION

#### Acute Toxicity

Serious Damage/Eye Irritation	No data available
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Skin Corrosion/Irritation	No data available
Inhalation	No data available
Respiratory or Skin Sensitization	Not available
Germ Cell Mutagenicity	Genotoxicity in vitro - mouse - fibroblast Unscheduled DNA synthesis  Genotoxicity in vivo - mouse - Oral DNA inhibition
Genotoxicity in vivo Mouse	Oral - DNA inhibition
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
Specific Target Organ Toxicity	
Single Exposure	No data available
Repeated Exposure	No data available
Signs and Symptoms of Exposure	
	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Other Information	
RTECS	XP2071000
General Comments	LD50 Intraperitoneal - mouse - 2,512 mg/kg Remarks: Behavioral: Somnolence (general depressed activity). Behavioral: Change in motor activity (specific assay).

### 12 ECOLOGICAL INFORMATION

Toxicity



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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

Special Shipping Notes      Not dangerous goods.

### 15 REGULATORY INFORMATION

#### Regulatory Information

No known OSHA hazards

#### SARA

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

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

#### STATE REGULATIONS

Massachusetts      No



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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 State of California to cause cancer, birth defects, or any other reproductive harm.

Canada

DSL Status All components are on the Canadian DSL list.

### 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 01/07/15  
Version Number 2