



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

Number:  
Issue Date

DYLM-4493  
06/21/11

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## MATERIAL SAFETY DATA SHEET

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### 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description DYSPROSIUM-164 OXIDE (164DY)

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)

### 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

Chemical Formula	*Dy <sub>2</sub> O <sub>3</sub>
Molecular Weight	375.9
CAS No.	1308-87-8 (unlabeled)
EC No.	215-164-0

### 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.
Additional Information	Move out of dangerous area. Consult a physician and show this 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	Avoid dust formation. Avoid breathing vapors, mist or gas.
Environmental Precautions	Do not empty into drains.



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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.

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 Powder

Color Light yellow

pH No data available

Melting Point No data available

Boiling Point No data available



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Flashpoint	No data available
Lower Explosion Limit	No data available
Upper Explosion Limit	No data available
Solubility in Water	No data available
Auto Ignition Temperature	No data available

### 10 STABILITY AND REACTIVITY

#### Stability and Reactivity

Chemical Stability	Stable if stored under recommended conditions.
Hazardous decomposition products	Formed under fire conditions: Metal oxides
Materials to avoid	Strong acids, Strong oxidizing agents, Carbon dioxide (CO <sub>2</sub> )

### 11 TOXICOLOGICAL INFORMATION

#### Acute Toxicity

LD50 Oral Rat	> 5,000 mg/kg
Serious Damage/Eye Irritation	No data available

Skin Corrosion/Irritation	No data available
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Inhalation	No data available
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Respiratory or Skin Sensitization	Not available
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Germ Cell Mutagenicity	Not available
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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.
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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.
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NTP	No component of this product present at levels greater than or equal to 0.1% is identifiable as a
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OSHA known or anticipated carcinogen by NTP.  
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.

### Other Information

General Comments Not available

## 12 ECOLOGICAL INFORMATION

### Toxicity

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.



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### 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 Right to Know      No

Pennsylvania Right to Know      Yes

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

DSL Status      Listed on the Canadian NDSL list.

### 16 OTHER INFORMATION

Manufacturer Disclaimer      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      06/21/11  
Version Number      1