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MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description ERBIUM-166 OXIDE (166Er2)

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 Emergency Phone	Chemtrec 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 Eye irritation (Category 2)

GHS Label Information

Signal Word Warning

Hazards Identification Exclamation mark

Hazard Statement(s) Causes eye irritation. Precautionary Statement(s) Wash skin thoroughly after handling. IF IN EYES: Rinse with water for several minutes. Remove contact lenses. If eye irritation persists: Get medical advice/attention.

HMIS Ratings



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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

Chemical Formula	Er2O3
Molecular Weight	379.9
CAS No.	12061-16-4 (unlabeled)
EC No.	235-045-7

4 FIRST AID MEASURES

First Aid Measures

Eyes	Flush eye with water for 15 minutes. Get medical attention.
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	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

5 FIRE FIGHTING MEASURE

Fire Fighting Measures



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

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

6 ACCIDENTAL RELEASE MEASURES

Accidental Release Measures

Personal Precautions	Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.
Environmental Precautions	Do not empty into drains.
Methods and materials for containment and cleanup	Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

Precautions for Safe Handling

Handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. 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 Protecton

Ċ	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.



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Work HygienicHandle in accordance with good industrial hygiene and safety practice. Wash hands before breaksPracticesand at the end of workday.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties (Unlabeled Compound)

Form	Powder
pH Melting Point	No data available No data available
Boiling Point	No data available
Flashpoint Lower Explosion	Not applicable
Limit	
Upper Explosion	No data available
Solubility in Water	No data available
Auto Ignition	No data available
Temperature	

10 STABILITY AND REACTIVITY

Stability and Reactivity

Chemical Stability	Stable if stored under recommended conditions.
Conditions to Avoid	Avoid air and moisture
Hazardous decomposition products	Formed under fire conditions: Erbium oxides

Materials to avoid Strong oxidizing agents, Carbon dioxide (CO2)

11 TOXICOLOGICAL INFORMATION

L S E	e Toxicity .D50 Oral Rat Serious Damage/Eye rritation	> 5,000 mg/kg Eyes - rabbit - Mild eye irritation
S	Skin	No data available

Corrosion/Irritation



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	Inhalation	No data available
	Respiratory or Skin Sensitization	Not available
	Germ Cell Mutagenicity	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
S	pecific Target Organ To	oxicity
	Single Exposure	No data available
Repeated Exposure No data available		
Si	Signs and Symptoms of Exposure The chemical, physical, and toxicological properties have not been thoroughly investigated.	
Other Information		
	RTECS	KD9250000
12	2 ECOLOGICAL IN	FORMATION
Т	oxicity	
	Persistance and Degradability	Not available
	Bioaccumulative Potential	Not available
	Mobility in Soil	Not available
	PBT and vPvB Assessment	Not available



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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 Not dangerous goods. Notes

15 REGULATORY INFORMATION

Regulatory Information

Irritant

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 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.



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Canada

All components are on the Canadian DSL list.
All components are on the Canadian DSL lis

EU

Irritant

Safety Statements

Hazard

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

Risk Statements

Irritating to eyes, respiratory system and skin.

16 OTHER INFORMATION

Additional MSDS 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 On05/10/11Version Number1