#### ERBIUM OXIDE

SAFETY DATA SHEET

DATE OF LAST REVISION: 07/09/15

Section 1: Identification

Product Name: Erbium Oxide CAS Number: 12064-16-4 / EC Number: 235-045-7 Company: Angstrom Sciences, Inc. 40 South Linden Street Duquesne, PA 15110 For more information call: 412-469-8466 (Monday - Friday 9:00 AM -5:00 PM EST)

## Section 2: HAZARD IDENTIFICATION

Signal Word: Warning



Hazard Statements:	H319: Causes serious eye irritation
Precautionary Statements:	<ul> <li>P264: Wash thoroughly after handling</li> <li>P280: Wear protective gloves/protective clothing/eye protection/face protection</li> <li>P305 + P351 + P338: If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337 + P313: If eye irritation persists get medical advice/attention.</li> </ul>

## HMIS Health Ratings (0-4): Health:

Flammability:	Ο
Physical:	1

### Section 3: Composition/Information on Ingredients

Chemical characterization: Ceramic Additional Names: Erbium (III) oxide CAS# Description: 12061-16-4 Percentage: 100 wt% EC number: 235-045-7

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## Section 4: FIRST AID MEASURES

General Treatment: Seek medical attention if symptoms persist.

Special Treatment: None

Important Symptoms: None

Eye Contact: Flush eyes with water, blinking often for several minutes. Remove contact lenses if

present and easy to do. Continue rinsing.

**Skin Contact:** Wash affected area with mild soap and water. Remove any contaminated clothing. **Inhalation:**Remove to fresh air. If required, give artificial respiration. Seek medical advice. **Ingestion**: Seek medical attention

#### Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing Media: No special restrictions - Use suitable extinguishing agent for surrounding material and type of fire.

Flammability: Non-Flammable

**Special Fire Fighting Procedure:** Use full-face, self contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

#### Section 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.

Environmental Precautions: Isolate runoff to prevent environmental pollution.

#### Section 7: HANDLING AND STORAGE

Handling Precautions for safe handling: Handle under dry protective gas. Wash thoroughly after handling.

**Conditions for safe storage, including any incompatibilities** Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in Section 10.

**Work/Hygienic Maintenance:** Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation: Provide sufficient ventilation to maintain concentration at or below threshold limit.

### Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Permissible Exposure Limits:	N/A
Threshold Limit Value:	N/A
Special Equipment:	None
<b>Respiratory Protection:</b>	Dust Respirator
Protective Gloves:	Rubber Gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Color:	Pink
Odor:	Odorless
Water Solubility:	0.0049 g/l
Boiling Point:	N/A
Melting Point:	2400°C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	8.64 g/cc
Molecular Weight:	382.52 g/mol

#### Section 10: STABILITY AND REACTIVITY

Reactivity: Chemical Stability: Incompatible Conditions: Hazardous Decomposition Products: Oxidizing agents Stable under recommended storage conditions Water/moisture Metal oxide fume

Section 11: TOXICOLOGICAL INFORMATION

#### Potential Health Effects:

**Eyes:** Causes serious eye damage

Skin: May cause irritation

Ingestion: May cause irritation Inhalation: May cause irritation

Chronic: N/A

Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	N/A

Section 12: ECOLOGICAL INFORMATION

Aquatic Toxicity: Low

Persistence Bioaccumulation Toxicity: No

Very Persistent, Very Bioaccumulative: No

Notes: N/A

### Section 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, national, and international regulations

### Section 14: TRANSPORT INFORMATION

Hazardous:Not hazardous for transportationHazard Class:N/APacking Group:N/AUN Number:N/AProper Shipping Name:N/A

Hazard Class:4.1 Flammable solids, self-reactive substances and solid desensitized explosives.Packing Group:UN3178UN Number:IIProper Shipping Name:Flammable solid, inorganic, n.o.s. (Erbium pieces)

## Section 15: REGULATORY INFORMATION

Sec 302 Extremely Hazardous:	No
Sec 304 Reportable Quantities:	N/A
Sec 313 Toxic Chemicals:	No

### Section 16: OTHER INFORMATION

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.