



# Material Safety Data Sheet

May be use to comply with  
OSHA's Hazard Communication Standard,  
29 CFR 1910.1200. Standard must be  
consulted for specific requirements.

# U.S. Department of Labor

Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072

IDENTITY *(As Used on Label and List)*

Erbium (Er) CAS# 7440 520

*Note: Blank spaces are not permitted. If any item is not applicable, or no  
information is available, the space must be marked to indicate that.*

## Section I

Manufacturer's Name <b>Ames Laboratory, USDOE</b>	Emergency Telephone Number <b>515-294-3483</b>
Address <i>(Number, Street, City, State, and ZIP Code)</i> <b>121 Metals Development Building</b>	Telephone Number for Information <b>515-294-1366</b>
<b>Materials Preparation Center, Iowa State University</b>	Date Prepared <b>3-30-88</b>
<b>Ames, IA 50011</b>	Signature of Preparer <i>(optional)</i>

## Section II — Hazardous Ingredients/Identity Information

Hazardous Components <i>(Specific Chemical Identity; Common Name(s))</i>	OSHA PEL	ACGIH TLV	Other Limits Recommended	% <i>(optional)</i>
Not established, low oral toxicity: LD <sub>50</sub> orally > 1000mg chloride/kg rat				

## Section III — Physical/Chemical Characteristics

Boiling Point	2870°C	Specific Gravity (H <sub>2</sub> O = 1)	9.066
Vapor Pressure (mm Hg.)	NA	Melting Point	1529°C
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Solubility in Water	Negligible		
Appearance and Odor	Silver metallic - odorless		

## Section IV — Fire and Explosion Hazard Data

Flash Point <i>(Method Used)</i>	NA	Flammable Limits	LEL	UEL
Extinguishing Media	Metal fire agent			
Special Fire Fighting Procedures	No water, use lime			
Unusual Fire and Explosion Hazards	Fine particles ignite readily and burn white hot.			

## Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid Fine particles under oxidizing conditions.
	Stable	X	

Incompatibility (*Materials to Avoid*)

Acids

Hazardous Decomposition or Byproducts

None known

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

## Section VI — Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	X		

Health Hazards (*Acute and Chronic*)

Overexposure to some compounds (such as oxides, hydroxides, carbides, etc.) may irritate the skin, eyes, and mucous

membrane.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
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Signs and Symptoms of Exposure

Medical Conditions

Generally Aggravated by Exposure      Dust may aggravate respiratory problems

Emergency and First Aid Procedures

## Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled

Sweep-up spilled material.

Waste Disposal Method

Normal - dispose of in an approved chemical landfill.

Precautions to Be Taken in Handling and Storing

Avoid strongly oxidizing conditions.

Other Precautions

Finely divided metal can oxidize rapidly -- store under inert conditions.

## Section VIII — Control Measures

Respiratory Protection (*Specify Type*)

Wear a respirator if dusting is a problem.

Ventilation	Local Exhaust Provide for dust	Special NA
	Mechanical ( <i>General</i> ) NA	Other NA

Protective Gloves

Recommended

Eye Protection

Recommended

Other Protective Clothing or Equipment

None

Work/Hygenic Practices

NA