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)*
Ytterbium (Yb) CAS# 7440 644

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

Section II — Hazardous Ingredients/Identity Information

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

Section III — Physical/Chemical Characteristics

Boiling Point	1196°C	Specific Gravity (H_2O = 1)	6.965
Vapor Pressure (mm Hg.)	NA	Melting Point	819°C
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA

Solubility in Water
Negligible

Appearance and Odor
Silver metallic

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
NA			

Extinguishing Media
Metal fire agent, CO_2

Special Fire Fighting Procedures
No water, use lime

Unusual Fire and Explosion Hazards
May ignite during machining operations. Fine particles ignite readily and burn white hot.

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid Thin foils and powders in air, heat and flame.
	Stable	X	Bulk metals oxidize with prolonged exposure to air.

Incompatibility *(Materials to Avoid)*

Acids

Hazardous Decomposition or Byproducts

Hazardous Polymenzation	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI — Health Hazard Data

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

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?

None

Signs and Symptoms of Exposure

None

Medical Conditions

Generally Aggravated by Exposure: Dust may aggravate respiratory problems

Emergency and First Aid Procedures

Flush exposed skin and eyes with water

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

Allow to oxidize under controlled conditions and dispose of in approved chemical landfill.

Precautions to Be Taken in Handling and Storing

Store under inert gas to prevent oxidation.

Other Precautions

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

Section VIII — Control Measures

Respiratory Ptortection *(Specify Type)*

Wear a respirator if dusting is a problem.

Ventilation	Local Exhaust Provide for dust	Special NA
	Mechanical *(General)* NA	Other NA

Protective Gloves Recommended	Eye Protection Recommended

Other Protective Clothing or Equipment

Lab coat

Work/Hygenic Practices

Do not eat or smoke in the area.