



MATERIAL SAFETY DATA SHEET
COMPLIES WITH 29 CFR 1910.1200.
OSHA HAZARD COMMUNICATION RULE

DATE OF LAST REVISION: 06-20-94

CHEMICAL IDENTITY

LABEL IDENTITY	Dysprosium Metal
CHEMICAL NAME/SYNONYMS	Dysprosium Metal
FORMULA	Dy
CAS REGISTRY NUMBER	7429-91-6, TSCA certified
SARA TITLE III HAZARD CLASSIFICATION	Fire Hazard, Reactive Hazard
HAZARDOUS INGREDIENTS %	OSHA Hazardous (H)/Non Hazardous (NH)
Dysprosium	>99 H

PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM	Silver solid (ingot, chunk, foil, powder)
ODOR	Odorless
BOILING POINT	4644°F
VAPOR DENSITY (AIR=1)	NA
VAPOR PRESSURE (mmHG @ 20°C)	NA
% VOLATILE BY VOLUME (%)	Zero
REACTION WITH WATER	ND
EVAPORATION RATE (butyl acetate=1)	NA
SOLUBILITY IN WATER	Insoluble
MELTING POINT	2574°F
SPECIFIC GRAVITY	8.55

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	NA
AUTOIGNITION TEMPERATURE (°C)	NA
FLAMMABLE LIMITS	Na
EXTINGUISHING MEDIA	Dry chemical, Class D Extinguisher DO NOT USE WATER!!!
SPECIAL FIRE FIGHTING PROCEDURES	Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.
UNUSUAL FIRE & EXPLOSION HAZARDS	Avoid creating fine dusts, because as a powder, this product is capable of creating a dust explosion.



DYSPROSIUM METAL MATERIAL SAFETY DATA SHEET

HEALTH HAZARD INFORMATION

EXPOSURE LIMITS IN AIR

<u>Chemical Name(s)</u>	<u>ACGIH (TLV)</u>	<u>OSHA (TWA)</u>	<u>OTHER</u>
Particulates not otherwise regulated	10mg/m3 (TWA) total dust	15mg/m3 total dust 5mg/m3 respirable	

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: **Pre-existing lung disorders**

EFFECTS OF SINGLE OVEREXPOSURE:

SWALLOWING: **evidence suggests low toxicity potential due to poor absorption by the oral route (1).**

SKIN ABSORPTION: **evidence suggests low toxicity potential due to poor skin absorption (1).**

INHALATION: **may be harmful if inhaled. Good industrial hygiene practice suggests limiting exposure to all respirable particulates.**

SKIN CONTACT: **may cause skin irritation.**

EYE CONTACT: **may cause eye irritation.**

OTHER: **has anticoagulant effect when given intravenously (1).**

CARCINOGENICITY: **this product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as a probable human carcinogen.**

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO MAN: **no data found**

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY OVEREXPOSURE: **no data found**

EMERGENCY FIRST AID PROCEDURES:

EYES: **In case of contact, immediately flush eyes with plenty of water for at least 15 minutes using and eyewash fountain. Lift upper and lower lids and rinse well under them. Get medical attention if irritation develops or persists.**

SKIN: **In case of contact, immediately wash with soap and plenty of water for at least 5 minutes. Remove contaminated clothing and shoes. Thoroughly clean contaminated clothing and shoes before reuse. Get medical attention if irritation develops or persists.**

INHALATION: **remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. GET IMMEDIATE MEDICAL ATTENTION.**

INGESTION: **If swallowed and victim is fully conscious, induce vomiting immediately by giving two glasses of water and sticking finger down throat. GET IMMEDIATE MEDICAL ATTENTION.**

NOTE TO PHYSICIAN: **all treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.**

Treat symptomatically.



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REACTIVITY DATA

STABILITY	Stable
CONDITIONS TO AVOID	Avoid creating dusts, air and moisture sensitive
INCOMPATIBILITY (MATERIALS TO AVOID)	Strong acids, strong oxidizers, and halogens
HAZARDOUS DECOMPOSITION PRODUCTS	Nature of decomposition is not known
HAZARDOUS POLYMERIZATION	Will Not Occur
CONDITIONS TO AVOID	NA

SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: **eliminate all sources of ignition. Evacuate area. Wear appropriate protective gear. Sweep into appropriate container. Avoid creating dusts, do not use "shop" vacuum as this may cause a fire. Ventilate area, wash spill area after material pickup is complete.**

WASTE DISPOSAL METHOD: **in accordance with state, federal and local regulations.**

SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION: **NIOSH/MSHA approved dust mask, use in dusty conditions.**
LOCAL EXHAUST: **as needed to maintain airborne exposure limits below control limits.**
EYE PROTECTION: **safety glasses with side shields, chemical workers dust proof goggles**
OTHER PROTECTIVE EQUIPMENT: **maintain a sink, safety shower and eyewash fountain in the work area. Have oxygen readily available. Use protective clothing and gloves.**

SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE: **store in cool, dry place in tightly closed containers. Air and moisture sensitive. Store away from oxidizers and other materials listed under incompatibilities. STORE UNDER ARGON OR OTHER INERT ENVIRONMENT. Avoid breathing dusts, avoid direct contact with skin and eyes. Wash hands thoroughly after handling. Do not rub eyes with soiled hands. Do not eat, drink or smoke in the work area.**

WARNING STATEMENTS **Flammable solid when a powder or thin foil.
All forms will react with dilute acids emitting flammable/explosive hydrogen gas.**

TRANSPORTATION STATUS: **powder & thin foil: Flammable solid, UN 1325**

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