



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

DATE OF LAST REVISION: 05-15-96

CHEMICAL IDENTITY

LABEL IDENTITY	SAMARIUM
CHEMICAL NAME/SYNONYMS	SAMARIUM
FORMULA	Sm
CHEMICAL FAMILY	METAL
HAZARDOUS INGREDIENTS	SAMARIUM
CAS # % OSHA (TWA)	ACGIH (TLV)
7440-19-9 >99 15mg/m3	15mg/m3
	total dust
	5mg/m3 restorable

PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR	Silver solid (ingot, chunk, foil powder) /Odorless
BOILING POINT	3256° F
DENSITY (gm/cc)	NA
VAPOR PRESSURE @ 20°	NA
% VOLATILE BY VOLUME (%)	Zero
REACTION WITH WATER	NA
EVAPORATION RATE (H2O=1)	NA
SOLUBILITY IN WATER	Insoluble
MELTING POINT	1971° (melting)
SPECIFIC GRAVITY (H2O=1)	7.52
OTHER	ND

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	NA
AUTOIGNITION TEMPERATURE (°C)	NA
FLAMMABILITY	Flammable solid when powder, thin foil. All forms will react with dilute acids emitting Flammable/explosive hydrogen gas.
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.



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HEALTH HAZARD INFORMATION

ROUTES OF ENTRY INHALATION, SKIN, INGESTION
THRESHOLD LIMIT VALUE Inhalation, ingestion, dermal

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: **Respiratory Disorders**
EFFECTS OF SINGLE OVEREXPOSURE:

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

DERMAL/EYE: **May cause eye irritation.**

SWALLOWING: **Evidence suggests low toxicity potential due to poor absorption by the oral route.**

SKIN ABSORPTION: **Evidence suggests low toxicity potential due to poor skin absorption.**

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

OTHER: **Has anticoagulant effect when given intravenously.**

CARCINOGENICITY: **No** NTP: **No** IARC MONOGRAPHS: **No** OSHA REGULATE: **No**

EMERGENCY FIRST AID PROCEDURES:

EYES: **Flush eyes immediately with plenty of water for at least 15 min using eyewash fountain, lift upper & lower lids and rinse well.**

SKIN: **Wash with soap & water for 5 min., remove clothing & shoes and clean them thoroughly before reuse. Sure was to oxide fumes.**

INGESTION: **If victim is conscious induce vomiting**

INHALATION: **Remove from area, give CPR if not breathing and oxygen if breathing is difficult.**

SKIN CONTACT: **Wash affected area with soap and water, seek medical attention**

EYE CONTACT: **Flush eyes for at least 15 minutes with lukewarm water, seek medical.**

***NOTE TO DOCTOR: 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 mat'l other than this may have occurred.**

REACTIVITY DATA

STABILITY
INCOMPATIBILITY (MATERIALS TO AVOID)

HAZARDOUS DECOMPOSITION PRODUCTS
HAZARDOUD POLYMERZATION
CONDITIONS TO AVOID

Stable
Strong acids, strong oxidizing agents and Halogens.
Not Known
Will Not Occur
Avoid creating dusts, air and moisture sensitive.



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SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Eliminate all sources of ignition. Evacuate area. Wear protective gear. Sweep into the appropriate container. Avoid creating dust. **DO NOT USE "SHOP" VACUUM**, this will cause a fire. Ventilate area. Wash spill after pickup is complete.

WASTE DISPOSAL METHOD:

Dispose of in accordance with local, state and federal regulations.

SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION	NIOSH/MSHA approved dust mask
LOCAL EXHAUST	NA
MECHANICAL (general)	NA
PROTECTIVE GLOVES	Recommended
EYE PROTECTION	Safety glasses with side shields, chemical workers dust-proof goggles (under dusting conditions)
OTHER PROTECTIVE EQUIPMENT	Maintain a sink, safety shower & eyewash fountain in the work area. Have oxygen readily available.

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 incompatibility. 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.

TRANSPORTATION STATUS:

POWDER AND THIN FOIL: Flammable solid, n.o.s. (samarium metal), UN 1325

INGOT AND CHUNCK: Not regulated

REPORTABLE QUANTITY (RO), under U.S. EPA CERCLA: None listed

PRECAUTIONARY LABELING: NONE

WARNING STATEMENTS: NONE

SPECIFICALLY LISTED UNDER SARA TITLE III: Not Listed

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NA= NOT APPLICABLE

ND= NO DATA FOUND