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MATERIAL SAFETY DATA SHEET

Section 1- PRODUCT IDENTIFICATION

COMPOSITION Nb	PRODUCT NAME Niobium
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Section 2- HAZARDOUS INGREDIENTS

Note: Products under normal conditions do not represent an inhalation, ingestion or contact health hazard.

MATERIAL OR COMPONENT	CAS NUMBER	WT%	EXPOSURE LIMITS	
			OSHA PEL (Mg/M3)	ACGIH TLV(MG/M3)
Niobium	7440-03-01	100	N/A	N/A

Section 3- PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS) <input type="checkbox"/> Liquid <input type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other	APPEARANCE AND ODOR Steel gray lustrous powder, pieces
MELTING POINT (BASE METAL) <p style="text-align: center;">Approx. 2468° C</p>	SPECIFIC GRAVITY <p style="text-align: center;">8.57gm</p>

Section 4- FIRE AND EXPLOSION

Flash Point (Method Used) N/A	Flammable Limits Flammable in form of dust	LEL N.A.	UEL N.A.
EXTINGUISHING MEDIA Agent for metal fires such as graphite			
SPECIAL FIRED FIGHTING PROCEDURES Do not use water on niobium fires			
UNUSUAL FIRE AND EXPLOSION HAZARDS Moderate fire/explosion hazard in the form of dust when exposed to flame			

Section 5- REACTIVITY DATA

STABILITY Stable	INCOMPATIBILITY (MATERIALS TO AVOID) BrF3, Cl2, F2
CONDITIONS TO AVOID None	
HAZARDOUS DECOMPOSITION PRODUCTS None	

Section 6- HEALTH HAZARD GUIDE

MAJOR EXPOSURE HAZARD

Inhalation **Skin** **Skin Absorption** **Eye Contact** **Ingestion**

INHALATION: Possible mild respiratory irritation.

DERMAL/EYE CONTACT: Niobium is a skin irritant and a moderate eye irritant.

OTHER: Causes severe nephritic (kidney) effects; tubular epithelial damage in the convoluted tubules.

EMERGENCY & FIRST AID PROCEDURES

INHALATION: Remove from exposed area to fresh

INGESTION: Give 1-2 glasses of milk or water and induce vomiting.

SKIN CONTACT: Wash affected area with soap or mild detergent.

EYE CONTACT: Flush eyes with lukewarm water lifting up the upper and lower lids for at least fifteen minutes. If irritation develops, contact a physician.

Section 7- SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCUDRES

Sweep or scoop up being careful to avoid raising dust.

WASTE DISPOSAL METHODS

May be disposed of with normal refuse. Not regulated as a hazardous waste under RCRA.

Section 8- SPECIAL PROTECTION

RESPIRATORY

Dust mask, NIOSH approved.

VENTILATION

Use well vented hood for local Exhaust: Mechanical ventilation not recommended.

EYE PROTECTION & PROTECTIVE CLOTHING

Appropriate to avoid contact with material (rubber gloves). Use safety glasses and normal lab wear.

Section 9- SPECIAL PRECAUTIONS

Keep container closed when not in use.

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