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## MATERIAL SAFETY DATA SHEET

### Section 1- PRODUCT IDENTIFICATION

COMPOSITION <b>Ni</b>	PRODUCT NAME <b>Nickel</b>
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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)
<b>Nickel</b>	<b>7440-02-0</b>	<b>100</b>	<b>15ug(ni)/m<sup>3</sup></b>	<b>1mg/m<sup>3</sup></b>

### 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 <b>Silver, hard, malleable &amp; ductile metal. (Odorless)</b>
MELTING POINT (BASE METAL) <b>1455°</b>	SPECIFIC GRAVITY <b>8.90 at 25°</b>

### Section 4- FIRE AND EXPLOSION

Flash Point (Method Used) <b>N/A</b>	Flammable Limits: <b>Moderate</b>	LEL: <b>N/A</b>	UEL: <b>N/A</b>
EXTINGUISHING MEDIA <b>Agents for metal fires such as powdered limestone, sand, graphite, MET-L-X, or TEC.</b>			
SPECIAL FIRED FIGHTING PROCEDURES <b>DO NOT USE WATER. Smother fire with Class D fire extinguisher or allow to burn.</b>			
UNUSUAL FIRE AND EXPLOSION HAZARDS <b>Finely divided nickel dust and powders like most metal powders are potential explosion hazards when exposed to sparks, open flame or high heat source.</b>			

### Section 5- REACTIVITY DATA

STABILITY <b>Stable</b>	INCOMPATIBILITY (MATERIALS TO AVOID) <b>No Data</b>
CONDITIONS TO AVOID <b>Nickel is soluble in acids. Contact with mineral acids liberates hydrogen gas which may form explosive mixtures in air. Under the right conditions, (high pressure, high CO concentration), toxic nickel carbonyl gas may be formed.</b>	
HAZARDOUS DECOMPOISTION PRODUCTS <b>No Data</b>	

## Section 6- HEALTH HAZARD GUIDE

MAJOR EXPOSURE HAZARD

Inhalation Skin Skin Absorption Eye Contact Ingestion

EFFECTS OF OVEREXPOSURE

**INHALATION:** May cause irritation to the upper respiratory tract. May cause asthma in individuals sensitive to nickel.

**EYE CONTACT:** May cause slight eye irritation. Repeated or prolonged contact may cause skin irritation. May cause allergic skin reaction in individuals sensitive to nickel.

**OTHER:** Amounts ingested incidental to industrial handling are not likely to cause injury. Single dose oral toxicity is low. See attached sheet for toxicity.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** Pre-existing lung disorders.

EMERGENCY & FIRST AID PROCEDURES

**INHALATION:** Remove from exposed area to fresh air immediately.

**SKIN CONTACT:** Remove contaminated clothing & wash affected area with soap and water.

**EYE CONTACT:** Flush eyes with water, occasionally lifting upper and lower lids.

**INGESTION:** Induce vomiting.

## Section 7- SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES

**Collect spills by (1) wet sweeping, (2) dry sweeping, using sweeping compound, or (3) by vacuuming using vacuum cleaner equipped with an HEPA filter, (HEPA = high efficiency particulate air filter) and place in a container for proper disposal. Take care not to raise dust.**

WASTE DISPOSAL METHODS

**Observe all federal, state and local regulations when storing or disposing of this substance.**

## Section 8- SPECIAL PROTECTION

RESPIRATORY

**Wear NIOSH-approved dust-mist-fume cartridge respirator.**

VENTILATION

**Use local ventilation to meet TLV requirements.**

EYE PROTECTION & PROTECTIVE CLOTHING

**Wear protective clothing to avoid skin and clothing contamination. Use neoprene gloves and safety glasses.**

## Section 9- SPECIAL PRECAUTIONS

**Keep containers closed. Do not store near mineral acids. Wash hands and face thoroughly after handling material and before eating.**

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