

15117 Washington Highway
P. O. Box 1055 Ashland VA

Phone: (804) 227-3381
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CHEMTREC: (800) 424-9300
Poison Center: (800) 562-8236

Safety Data Sheet

Section 1: Product and Company Information

Product Name: Nickel
Company: Fine Metals Corporation
15117 Washington Hwy
Ashland, VA 23005

For more information call: 1-804-227-3381
(Monday - Friday 9-4:30)

In case of emergency: **Transportation (Chemtrec) 1-800-424-9300**
Poison Center: 1-800-562-8236
(24 hours/day, 7 days/week)

Section 2: HAZARD IDENTIFICATION

Emergency Overview

Emergency Target Organ Toxicity (Repeated exposure), Category 1; Skin Sensitization, Category 1; Carcinogenicity, Category 2
Negligible fire or explosion hazard in bulk form. Powdered material may form explosive dust-air mixture.

Hazard Statements: Signal word: Danger. Causes damage to organs through prolonged or repeated exposure (H372). Suspected of causing cancer (H351). May cause and allergic reaction (H317).

Precautionary Statements:

Prevention: Obtain special instructions before use (P201). Do not breath dust (P260). Wash skin thoroughly after handling (P264). Wear protective gloves/protective clothing/eye protection/face protection (P280).

Response: If inhaled: Remove to fresh air and keep at rest in a position comfortable for breathing. (P304+P340); If exposed or concerned: Get medical advice/attention. (P308,P313 P314); Collect spillage. (P391)

Appearance/Form:

Form: Solid
Color: Silvery grey metal
Odor: None

Hazard Summary: Non-flammable as sold (solid). Nickel powder or dust will support combustion and may form explosive mixtures in air. In a fire, nickel may form Nickel Carbonyl, a highly toxic substance and known carcinogen.

Acute Health Effects

Skin: Contact may cause skin irritation. Allergic reactions are possible.

Eyes: Contact may cause skin irritation.

Ingestion: May be harmful if swallowed.

Inhalation: Toxic: danger of serious damage to health by prolonged exposure through inhalation. Inhalation may provoke the following symptoms: Lung tissue affection/degeneration, Asthma. Fumes: Pneumonia.

Chronic Exposure: INHALATION-Irritation of the mucus membrane and possibly irritation of the respiratory tract may be caused by either dust or nickel fumes, may cause irritation to the upper respiratory tract and may result in "metal fume fever". May cause Pulmonary fibrosis and edema. SKIN-repeated or prolonged contact may cause skin irritation. May cause nickel rash, eczema, sensitization, burning sensation, redness and itching.

Aggravated Medical Conditions: Overexposure to the dust may aggravate pre-existing conditions such as asthma, emphysema, etc.

Carcinogenicity: IARC Group 2B - Possibly carcinogenic to humans.

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Section 3: Composition/Information on Ingredients

Chemical Name	CAS-No.	Reach #
Nickel	7440-02-0	01-2119438727-29-0082 231-111-4

>99 wt%

Section 4: FIRST AID MEASURES

Eye Contact: Flush eyes with water for at least 15 minutes. Seek prompt medical attention.
Skin Contact: Wash with large amounts of water, for at least 15 minutes. Remove contaminated clothing. See medical attention if irritation persists. Avoid prolonged or repeated contact with skin.
Inhalation: Remove victim to fresh air. Administer oxygen if needed. Seek medical attention.
Ingestion: Obtain immediate medical attention. NOTE: Do not make unconscious person vomit.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing Media: Use agents for metal fires such as dry chemical, dry sand, Met-L-X, or dry dolomite.
Unsuitable extinguishing media: Do not use carbon dioxide or water.
Specific hazards during firefighting: Dusts at sufficient concentrations can form explosive mixtures with air. Toxic metal oxides may form in fire.
Special protective equipment for firefighters: Self-contained breathing apparatus required. Firefighters should wear the usual protective gear. Remove containers from fire area if without risk.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Under normal handling and use, massive material is not dusty and does not present spillage or leakage problems. No protection is required, except prolonged or repeated direct skin contact should be avoided if sensitive to nickel. In such circumstances, the use of gloves is recommended. For powder spills wear appropriate protective equipment including NIOSH approved respiratory equipment. Practice good chemical hygiene.
Environmental Precautions: Avoid release to the environment.
Methods for Cleaning Up: Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Avoid formation of dust. Eliminate all ignition sources. Avoid breathing (dust, vapor, mist, gas). Practice good chemical hygiene during and after use.

Section 7: HANDLING AND STORAGE

Handling: Avoid prolonged or repeated direct skin contact. Keep away from heat and flame. If particulates containing nickel are encountered, then approved respirators with a HEPA filter are recommended. Wash in soap and water after exposure to any particulates. Remove contaminated clothing and wash before reuse. Wash hands before eating. Do not eat or drink in a work area.
Storage: Nickel material should be stored in covered containers to avoid contamination because of dampness and dust. Store away from incompatible materials in a cool, dry and well ventilated area.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls: Use process enclosures, local exhaust ventilation or other means to maintain employee exposure as far below limits as possible

Component Exposure Limits

Component	Location	Value
Nickel	ACGIH TLV TWA	1.5
	OSHA OEL TWA	1
	NIOSH REL TWA	0.015
	Canada TWA	1
	Canada - British Columbia	0.05

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Austria, Denmark, Norway	0.05
Germany, Sweden TWA	0.5
Aus, Japan, NZ, Singapore	1
UK WEL TWA	0.5

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Respiratory Protection: Not normally needed. If ventilation is inadequate and this material is handled at elevated temperatures or dust/fumes/mists are generated a NIOSH/MSHA approved air purifying respirator with a manufacturers approved cartridge or canister may be permissible under certain circumstances.

Eye/Face: Wear safety glasses or goggles as appropriate to the task performed.

Skin Protection: Gloves are recommended. Lab coat or apron are also recommended.

Work Hygienic Practices: Practice good chemical hygiene during and after use.

Comments: None

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Odor: None

Color: Grey metallic

Melting Point: 1455° C

Boiling Point: 2730° C

Vapor Pressure: 1 mm @ 1810° C

Vapor Density (air = 1): N/A

Evaporation Rate: N/A

Solubility In Water: Insoluble

Specific Gravity (water = 1): 8.9

Atomic Weight: 58.69

% Volatility By Volume: No information available

Density: 8.9 at 25° C

Section 10: STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and usage.

Incompatible Materials: Oxidizing agents, Acids, Aluminum, Methanol, Selenium, Ammonium Nitrate, Sulphur compounds.

Hazardous Decomposition: Reacts with acids to liberate hydrogen gas which may form explosive mixtures in air.

Products:

Possibility of Hazardous No information available

Reactions:

Section 11: TOXICOLOGICAL INFORMATION

Acute Toxicity: LD50/Oral/Rat >9000 mg/kg. May cause an allergic skin reaction.

Chronic Toxicity: Chronic inhalation exposure to nickel in humans may result in respiratory effects, including a type of asthma specific to nickel, decreased lung function, and bronchitis. Dermatitis is the most common effect in humans from chronic dermal exposure to nickel. Cases of nickel dermatitis have been reported following occupational and non-occupational exposure, with symptoms of eczema (rash, itching) of the fingers, hands, wrists, and forearms.

Reproductive Toxicity: This material may contain the following components which are known to the State of California to cause cancer, birth defects or other reproductive harm and may be subject to the requirements of California Proposition 65.

Mutagenicity: Not available

Carcinogenicity: IARC - Group 2B - possibly carcinogenic to humans; NTP - Reasonably anticipated to be a human carcinogen.

Other: None

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: The environmental classification for nickel has not been determined. Nickel metal is essentially insoluble in water, but dissolves in acids. It is an ubiquitous trace element and occurs in soil, water, air, and in the biosphere. 96-Hour

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LC50: .06 mg/L (Oncorhynchus mykiss)

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Persistence/Degradability: No information available

Bioaccumulation/Accumulation: Nickel does not bioaccumulate to a great extent in animals. There is evidence of uptake and accumulation in certain plants.

Mobility in Environment: No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste Classification: Material may be recyclable.

All disposal activities must comply with federal, state, provincial and local regulations.

Section 14: TRANSPORT INFORMATION

US DOT (ground): Not regulated

ICAO/IATA (air): Not regulated

IMO/IMDG (water): Not regulated

Special Provisions: Not regulated

Section 15: REGULATORY INFORMATION

UNITED STATES

SARA Title III (Superfund Amendments and Reauthorization Act) 313 Reportable Ingredients: Yes

TSCA (Toxic Substance Control Act) status: All components of this product are included in inventory, exempt, or notified.

STATE REGULATIONS

The following components appear in one or more of the following states hazardous substances

Component	CAS #	CA	MA	MN	NJ
Nickel	7440-02-0	Yes	Yes	Yes	Yes

California Proposition 65: This material may contain the following components which are known to the State of California to cause cancer, birth defects or other reproductive harm and may be subject to the requirements of California Proposition 65.

CANADA

WHMIS (Workplace Hazardous Materials Information System): All components of this product are included in inventory, exempt, or notified.

Domestic Substance List (Inventory): All components of this product are included in inventory, exempt, or notified.

GENERAL COMMENTS

None

Section 16: OTHER INFORMATION

Information Contact: sds@finemetalscorp.com

Issue Date: 7/5/1999

Revision Date: 1/1/2015

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HMIS® (II)		NFPA	
Health:	1		
Flammability:	0		0
Reactivity:	0	1	0
PPE:	F		

Ratings range from 0 (no hazard) to 4 (severe hazard)

The information contained in this SDS is believed to be correct, but is not all inclusive and shall be used only as a guide. Fine Metals Corporation shall not be liable for any damage resulting from handling or from contact with the product listed in the SDS. Any comments or questions should be directed to:

Safety Manager
Fine Metals Corporation
15117 Washington Highway
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Ashland VA 23005
(804) 227-3381

