

Nickel Metal
16240

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Nickel Metal

Catalog Numbers:

S80102, S80102-1, N40 500, N40-500, N40500, S801021

Synonyms:

Carbonyl nickel powder; raney alloy

Company Identification: Fisher Scientific

1 Reagent Lane

Fairlawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
7440-02-0	NICKEL	100.0	231-111-4

Hazard Symbols: XN

Risk Phrases: 40 43 45

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Appearance: white to gray white.

Caution! May cause respiratory tract irritation. May cause eye irritation. May cause allergic skin reaction. Causes digestive tract irritation. May cause cancer in humans.

Target Organs: Respiratory system.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause severe irritation and possible burns. May cause dermatitis.

Ingestion:

Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation:

Inhalation of fumes may cause metal fume fever, which is characterized by flu-like symptoms with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. Inhalation of a mist of this material may cause respiratory tract irritation.

Chronic:

Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. May cause respiratory tract cancer.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin:

Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap and water.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:

Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician:

Treat symptomatically and

Antidote:

There exists several chelation agents. The determination of there use should be made only by qualified medical personnel.

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Reduce airborne dust and prevent scattering by moistening with water. Sweep up, then place into a suitable container for disposal. Carefully scoop up and place into appropriate disposal container. Provide ventilation.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

Storage:

Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA-Final PELs
NICKEL	metal, inhalable fraction: 1.5 mg/m3	as Ni: 0.015 mg/m3 TWA; NIOSH Potential Occupational Carcinogen - see Appendix A Potential NIOSH carcinogen.	metal and insoluble compounds, as Ni: 1 mg/m3 TWA; soluble compounds, as Ni: 1 m g/m3 TWA

OSHA Vacated PELs:

NICKEL:
1 mg/m3 TWA

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to minimize contact with skin.

Respirators:

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State: Solid
Appearance: white to gray white
Odor: None reported
pH: Not available.
Vapor Pressure: 1 mm Hg @ 1810 C
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not applicable.
Boiling Point: 2730 deg C
Freezing/Melting Point: 1455 deg C
Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
NFPA Rating:
Explosion Limits, Lower: Not available.

Upper: Not available.
Decomposition Temperature: Not available.
Solubility: Insoluble in water.
Specific Gravity/Density: 8.90
Molecular Formula: Ni
Molecular Weight: 58.69

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, dust generation.

Incompatibilities with Other Materials:

Acids, aluminum, ammonia, ammonium nitrate, bromine pentafluoride, ethylene + aluminum, dioxane, fluorine, hydrazine, hydrazoic acid, hydrogen, methanol, nitric acid, nitryl fluoride, organic solvents, oxidants, phosphorus, potassium perchlorate, selenium, sulfur and compounds.

Hazardous Decomposition Products:

Toxic and highly flammable nickel carbonyl.

Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:

CAS# 7440-02-0: QR5950000

LD50/LC50:

CAS# 7440-02-0: Skin, rabbit: LD50 = >2 gm/kg.

Carcinogenicity:

NICKEL -

ACGIH: A5 - Not Suspected as a Human Carcinogen

California: carcinogen; initial date 10/1/89

NIOSH: occupational carcinogen

NTP: Suspect carcinogen

OSHA: Possible Select carcinogen

IARC: Group 2B carcinogen

Epidemiology:

Epidemiological studies have shown an increased incidence of cancers among nickel refinery workers.

Teratogenicity:

No information available.

Reproductive Effects:

No information available.

Neurotoxicity:

No information available.

Mutagenicity:

No information available.

Other Studies:

None.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Other

No information available.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Chemical waste generators must determine whether a discarded chemical is class if as a hazardous waste.US EPA guidelines for the classification determination are listed in 40 CFR Part Additionally, waste generators must consult state and local hazardous waste regu ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT

No information available

Canadian TDG

No information available.

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL

TSCA

CAS# 7440-02-0 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302 (RQ)

CAS# 7440-02-0: final RQ = 100 pounds (45.4 kg) (no reporting of relea

Section 302 (TPQ)

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 7440-02-0: acute, chronic, flammable.

Section 313

This material contains NICKEL (CAS# 7440-02-0, 100 0%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

Clean Air Act:

CAS# 7440-02-0 listed as ** no name ** is listed as a hazardous air pollutant (HAP).

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

CAS# 7440-02-0 is listed as a Priority Pollutant under the Clean Water Act.

CAS# 7440-02-0 is listed as a Toxic Pollutant under the Clean Water Act.

OSHA:

None of the chemicals in this product are considered highly

hazardous by OSHA.

STATE

NICKEL can be found on the following state right to know lists:
California, New Jersey, Florida, Pennsylvania, Minnesota,
Massachusetts.

The following statement(s) is(are) made in order to comply with
the California Safe Drinking Water Act:

WARNING: This product contains NICKEL, a chemical known to the state
of California to cause cancer.

California No Significant Risk Level:

None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 40 Possible risks of irreversible effects.

R 43 May cause sensitization by skin contact.

R 45 May cause cancer.

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 7440-02-0: No information available.

United Kingdom Occupational Exposure Limits

CAS# 7440-02-0: OES-United Kingdom, TWA organic compounds, as Ni: 1
mg/m3 TWA

CAS# 7440-02-0: OES-United Kingdom, STEL organic compounds, as Ni: 3
mg/m3 STEL

Canada

CAS# 7440-02-0 is listed on Canada's DSL/NDSL List.

This product has a WHMIS classification of D2A.

CAS# 7440-02-0 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 7440-02-0: OEL-ARAB Republic of Egypt:TWA 0.1 mg/m3

OEL-AUSTRALIA:TWA 1 mg/m3

OEL-BELGIUM:TWA 1 mg/m3

OEL-BELGIUM:TWA 1 mg/m3 (insoluble compounds)

OEL-CZECHOSLOVAKIA:TWA 0.05 mg/m3;STEL 0.25 mg/m3

OEL-DENMARK:TWA 0.05 mg/m3;Carcinogen

OEL-DENMARK:TWA 0.5 mg/m3 (dust)

OEL-DENMARK:TWA 1 mg/m3 (insoluble compounds)

OEL-FINLAND:TWA 0.1 mg/m3;Carcinogen

OEL-FINLAND:TWA 0.1 mg/m3;Skin;CAR (insoluble compounds)

OEL-FRANCE:TWA 1 mg/m3

OEL-GERMANY;Carcinogen

OEL-HUNGARY:STEL 0.005 mg/m3;CAR (insoluble compounds)

OEL-HUNGARY:STEL 0.005 mg/m3;Carcinogen

OEL-JAPAN:TWA 1 mg/m3;Carcinogen

OEL-THE NETHERLANDS:TWA 0.1 mg/m3

OEL-THE NETHERLANDS:TWA 1 mg/m3 (insoluble compounds)

OEL-THE PHILIPPINES:TWA 1 mg/m3

OEL-RUSSIA:STEL 0.05 mg/m3

OEL-SWEDEN:TWA 0.5 mg/m3

OEL-SWEDEN:TWA 0.5 mg/m3 (dust)

OEL-SWITZERLAND:TWA 0.5 mg/m3 (insoluble compounds)

OEL-SWITZERLAND:TWA 0.5 mg/m3;Carcinogen

OEL-THAILAND:TWA 1 mg/m3

OEL-UNITED KINGDOM:TWA 0.5 mg/m3 (insoluble compounds)

OEL-UNITED KINGDOM:TWA 0.5 mg/m3 (dust)

OEL-UNITED KINGDOM:TWA 1 mg/m3
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 3/19/1998 Revision #2 Date: 8/02/2000

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.
