



# SAFETY DATA SHEET

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## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Nickel Powder**  
PRODUCT NUMBER: 2668  
CAS NUMBER: 7440-02-0  
SYNONYMS: Carbonyl nickel powder

### MANUFACTURER:

Prochem, Inc.  
826 Roosevelt Road  
Rockford, IL 61109

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IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

**Danger**

### Hazard Statements

H228	Flammable solid.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.

### Precautionary Phrases

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P260	Do not breathe dust or mist.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P272	Contaminated clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

### HMIS CLASSIFICATION:

Health: 1 Fire: 3 Reactivity Hazard: 1

### NFPA RATING:

Health: 1 Flammability: 3 Reactivity Hazard: 1

**EYE CONTACT:** May cause slight to mild irritation to the eyes.

**SKIN CONTACT:** May cause slight to mild irritation to the skin.

**INHALATION:** May cause respiratory tract irritation.

**INGESTION:** May be irritating if swallowed.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Ni

Molecular Weight: 58.69

CHEMICAL NAME	CAS#	%
Nickel	7440-02-0	100

## SECTION 4 FIRST AID MEASURES

**EYE EXPOSURE:** Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

**SKIN EXPOSURE:** Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

**INHALATION:** Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

**INGESTION:** Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

## SECTION 5 FIREFIGHTING MEASURES

**FLASH POINT:** Highly flammable solid.

**AUTO IGNITION TEMPERATURE:** Not available

**EXPLOSION LIMITS:** Product does not present an explosion hazard.

**EXTINGUISHING MEDIUM:** Use special powders for metal fires. Do NOT use water.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** Nickel oxides

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust. Remove all sources of ignition.

**ENVIRONMENTAL PRECAUTIONS:** Prevent spillage from entering drains or allowing to be released into the environment.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Mix spill with vermiculite, ground limestone, or soda ash. Sweep up and place in suitable container

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation.. Avoid formation of dusts and aerosols. Keep away from sources of ignition – No smoking. Take measure to prevent the build up of electrostatic charge.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated area.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

### EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Nickel	1.5 mg/m <sup>3</sup>	TLV	ACGIH
	1 mg/m <sup>3</sup>	PEL	OSHA
	0.015 mg/m <sup>3</sup>	REL	NIOSH

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

**EYE PROTECTION:** Wear chemical safety glasses or goggles and face shield.

**SKIN PROTECTION:** Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

**VENTILATION:** Provide local exhaust, preferably mechanical.

**RESPIRATOR:** Use an approved respirator.

**ADDITIONAL PROTECTION:** Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**COLOR AND FORM:** Silver gray powder

**ODOR:** None

**MOLECULAR WEIGHT:** 58.69

**BOILING POINT:** 2732°C

**MELTING POINT:** 1453-1455°C

**SPECIFIC GRAVITY:** 8.908 gm/ml

**SOLUBILITY:** Insoluble

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Heat, flames, and sparks. Extremes of temperature and direct sunlight. Mixtures of fine dust with air.

**INCOMPATIBILITY:** Halogens, acids, oxidizing agents, sulfur compounds, hydrogen gas, oxygen, methanol, organic solvents, aluminum, fluorine, and ammonia.

**DECOMPOSITION PRODUCTS:** Nickel oxides

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** LDLo Oral – Rat – 5mg/kg. LD50 Intraperitoneal – Rat – 250mg/kg. LDLo Intratracheal – Rat – 12mg/kg. LDLo Intravenous – Mouse – 50mg/kg. LDLo Subcutaneous – Cat – 12500µg/kg. LDLo Intraperitoneal – Rabbit – 7mg/kg. TCLo Inhalation – Rat - 100µg/m<sup>3</sup>/24H/17W-1. TDLo Oral – Mouse – 500mg/kg/5D-1. TDLo Subcutaneous – Rat – 2000mg/kg/6W-1. TDLo Intraperitoneal – Rat – 100mg/kg/21W-1. Hamster kidney; morphological transformation: 400mg/L.

**CARCINOGENIC EFFECTS:** Product is possibly/reasonably anticipated to be a carcinogen by IARC and NTP. ACGIH and OSHA do not suspect to be carcinogenic.

**MUTAGENIC EFFECTS:** Possible mutagen.

**TETRAOGENIC EFFECTS:** Possible reproductive effector.

**CHRONIC TOXICITY:** Not available

**RTECS:** No data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

## SECTION 12 ECOLOGICAL DATA

**AQUATIC VERTEBRATE:** LC50 – Cyprinus carpio (Carp) – 1.3mg/L – 96h.

**AQUATIC INVERTEBRATE:** EC50 – Daphnia magna (Water flea) – 1mg/L – 48h.

Do not allow product to reach ground water, watercourse, or sewage system. Avoid transfer to the environment. Danger to drinking water if even small quantities leak into the ground. Harmful to aquatic organisms.

## SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

## SECTION 14 TRANSPORTATION DATA

<b>DOT:</b> UN3089	<b>IATA:</b> UN3089
Metal powders, flammable, n.o.s. (Nickel powder)	Metal powder, flammable, n.o.s. (Nickel powder)
CLASS 4.1	CLASS 4.1
PG II	PG II

Marine Pollutant: No

## SECTION 15 REGULATORY INFORMATION

**TSCA:** Listed in the TSCA inventory

**SARA 302/304:** Not Listed

**SARA 311/312:** Fire Hazard, Acute Health Hazard, Chronic Health Hazard

**SARA (TITLE 313):** Nickel powder

**CALIFORNIA PROP. 65:** Nickel powder

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS:** Nickel powder

**NEW JERSEY RIGHT TO KNOW COMPONENTS:** Nickel powder

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS:** Nickel powder

## SECTION 16 OTHER INFORMATION

**DISCLAIMER:** The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

**DATE PREPARED:** 05/15

**SDS DEPT.**