

CAS No: 7440-02-0
 RTECS No: QR5950000
 EC No: 028-002-00-7

(powder)
 Ni
 Atomic mass: 58.7

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Flammable as dust. Toxic fumes may be released in a fire.		Dry sand. NO carbon dioxide. NO water.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	

EXPOSURE		PREVENT DISPERSION OF DUST! AVOID ALL CONTACT!	
Inhalation	Cough. Shortness of breath.	Local exhaust or breathing protection.	Fresh air, rest.
Skin		Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap.
Eyes		Safety spectacles, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion		Do not eat, drink, or smoke during work.	Rinse mouth.

SPILLAGE DISPOSAL

Vacuum spilled material. Carefully collect remainder, then remove to safe place. Personal protection: P2 filter respirator for harmful particles.

PACKAGING & LABELLING

Xn Symbol
 R: 40-43
 S: (2-)22-36

EMERGENCY RESPONSE**SAFE STORAGE**

Separated from strong acids.

IMPORTANT DATA

Physical State; Appearance

SILVERY METALLIC SOLID IN VARIOUS FORMS.

Physical dangers

Dust explosion possible if in powder or granular form, mixed with air.

Chemical dangers

Reacts violently, in powder form, with titanium powder and potassium perchlorate, and oxidants such as ammonium nitrate, causing fire and explosion hazard. Reacts slowly with non-oxidizing acids and more rapidly with oxidizing acids. Toxic gases and vapours (such as nickel carbonyl) may be released in a fire involving nickel.

Occupational exposure limits

TLV: (Inhalable fraction) 1.5 mg/m³ as TWA; A5 (not suspected as a human carcinogen); (ACGIH 2004).

MAK: (Inhalable fraction); sensitization of respiratory tract and skin (Sah); Carcinogen category: 1; (DFG 2004).

Routes of exposure

The substance can be absorbed into the body by inhalation of the dust.

Inhalation risk

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.

Effects of short-term exposure

May cause mechanical irritation. Inhalation of fumes may cause pneumonitis.

Effects of long-term or repeated exposure

Repeated or prolonged contact may cause skin sensitization. Repeated or prolonged inhalation exposure may cause asthma. Lungs may be affected by repeated or prolonged exposure. This substance is possibly carcinogenic to humans.

PHYSICAL PROPERTIES

Boiling point: 2730°C
Melting point: 1455°C

Density: 8.9 g/cm³
Solubility in water: none

ENVIRONMENTAL DATA

NOTES

At high temperatures, nickel oxide fumes will be formed.

Depending on the degree of exposure, periodic medical examination is suggested.

The symptoms of asthma often do not become manifest until a few hours have passed and they are aggravated by physical effort.

Rest and medical observation are therefore essential.

Anyone who has shown symptoms of asthma due to this substance should avoid all further contact with this substance.

Card has been partly updated in April 2005. See section Occupational Exposure Limits.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible