

1. Identification of the substance / mixture and of the company / undertaking

1.1 Product identifier

Product name: Nickel
CAS-No.: 7440-02-0
EC-No.: 231-111-4

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use: Laboratory chemical

1.3 Details of the supplier of the safety data sheet

Company: NETZSCH-Gerätebau GmbH
Wittelsbacherstraße 42
95100 Selb / Germany

Customer service Phone: +49 9287 881-555

1.4 Emergency Phone: +49 9287 881-174 (during office hours)

Fax: +49 9287 881-505

E-mail Address: service@ngb.netzsch.com

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

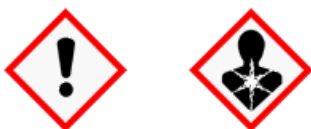
Carc. 2 H351 Suspected of causing cancer.
STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms:



Signalword: Danger

| | |
|---------------------------|--|
| Hazard statements: | H317 May cause an allergic skin reaction. H351 Suspected of causing cancer. H372 Causes damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects. |
| Precautionary statements: | P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P308+P313 IF exposed or concerned: Get medical advice/attention. P405 Store locked up. |
| Additional information: | - |

2.3 Other hazards

All chemicals are potentially dangerous.
They are therefor only be handled by specially trained personnel with the necessary care.

Results of PBT- und vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3. Composition / information on ingredients

3.1 Chemical characterization:

Substances

CAS-No. Description: 7440-02-0 nickel

Identification number(s):

EC number: 231-111-4

Formula: Ni

Molar mass [g/mol]: 58.71

4. First aid measures

4.1 Description of first aid measures

| | |
|----------------------|--|
| General information: | In case of ailments consult a physician. Show this safety data sheet to the doctor in attendance. Remove any clothing soiled by the product. |
| After inhalation: | Move person into fresh air. If there are any symptoms then consult a physician. |
| After skin contact: | Wash off with soap and plenty of water. If skin irritation continues, consult a doctor. |
| After eye contact: | Rinse opened eye for 10 minutes under running water. Then consult a doctor. |
| After swallowing: | Rinse out mouth and drink a glass of water. Do not induce vomiting. Call for a doctor immediately and show the container or label. |

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. Fire-Fighting measures

5.1 Extinguishing agents

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

Water

Foam

Dry sand

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

In the event of fire development of hazardous combustion gases or vapours possible (Nickel/Nickeloxides).

Danger of dust explosion (as powder).

5.3 Advice for firefighters

Protective equipment: Wear self-contained respiratory protective device.
Wear fully protective suit.

Additional information: Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Prevent fire-fighting water from entering surface water or groundwater.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with the eyes and skin.

Keep people at a distance and stay on the windward side.

Ensure adequate ventilation

Avoid formation of dust.

Wear personal protective equipment.

Evacuate the danger area, observe emergency procedures, consult an expert.

6.2 Environmental precautions

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow product to reach sewage system or any water course.

Keep contaminated washing water and dispose of appropriately.

6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Dispose of the material collected according to regulations.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation / exhaustion at the workplace.

Information about fire and explosion protection:

Dust can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for safe storage, including any incompatibilities: Prevent any seepage into the ground.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions: Store in dry conditions.

Recommended storage temperature: 15-25 °C

7.3 Specific end use(s)

No further relevant information available.

8. Exposure controls / personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: None

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Do not eat, drink or smoke while working.
Do not breathe dust.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Individual protection measures:

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Respiratory protection:

Required when dusts are generated.
Filter P3 (colour code: white)

Protection of hands:

Protective gloves:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Material: Nitrile

Eye protection:

Tightly sealed goggles.

Body protection:

Protective work clothing.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

| | |
|--|---|
| <u>Appearance</u> Form: Colour: | Wire Grey |
| Odour: | Odourless |
| Odour threshold: | Not determined. |
| pH-value: | Not applicable. |
| <u>Change in condition</u> Melting point / Melting range: Boiling point / Boiling range: | 1453 °C 2732 °C |
| Flash point: | Not applicable. |
| Flammability (solid, gaseous): | No information available |
| Ignition temperature: | No information available |
| Decomposition temperature: | Not determined. |
| Self-igniting: | Not determined. |
| Danger of explosion: | Product does not present an explosion hazard. |
| <u>Explosion limits</u> Lower: Upper: | Not determined. Not determined. |
| Oxidizing properties: | No information available. |
| Vapour pressure: | Not applicable. |
| Density at 25°C: | 8.9 g/cm ³ |
| Relative density: | Not determined. |
| Vapour density: | Not applicable. |
| Evaporation rate: | Not applicable. |
| Solubility in / Miscibility with water: | Not miscible or difficult to mix. |
| Partition coefficient (n-octanol / water): | Not determined. |
| <u>Viscosity</u> Dynamic: Kinematic: | Not applicable. Not applicable. |

9.2 Other information

No further relevant information available.

10. Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heating

10.5 Incompatible materials

Acids, oxidation means, sulphur connections, hydrogen, oxygen, methanol, organic solvents, aluminium, fluorine, ammonia .

10.6 Hazardous decomposition products

In case of fire: see item 5.

Additional information: Sensitive to air.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD / LC50 values relevant
for classification:

Oral | LD₅₀ | 9000 mg/kg (rat)

Potential health effects

Skin:

Risk of Skin sensitization.

Eyes:

No Information available.

Inhalation:

In case of dust irritation symptoms in the respiratory tract possible.

Sensitization:

Sensitisation possible through skin contact.

CMR effects

Carc. 2

Germ cell mutagenicity:

No Information available.

Carcinogenicity:

Suspected of causing cancer.

Reproductive toxicity:

No Information available.

Aspiration hazard:

No Information available.

Specific target organ toxicity – single exposure:

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ toxicity – repeated exposure:

Causes damage to organs through prolonged or repeated exposure.

Additional toxicological information:

We have no description of any toxic symptoms.

Further information:

The product should be handled with the usual care as necessary for chemicals.

12. Ecological information**12.1 Toxicity****Aquatic toxicity**

| | | | |
|------------------|---|-------------------|--------------------------------|
| Fish toxicity | | Daphnia toxicity: | |
| LC ₅₀ | >100 mg/l/96 h (Danio rerio) | EC ₅₀ | >100 mg/l/48 h (Daphnia magna) |
| Algeal toxicity: | | | |
| IC ₅₀ | 100 mg/l/72 h (Selenastrum capricornutum) | | |

12.2 Persistence and degradability

Not applicable .

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

Ecotoxicological effects

Remark: Do not allow to enter waters, waste water, or soil!
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Harmful to fish

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects

No further relevant information available.

13. Disposal considerations

Waste treatment methods

Recommendation: Dispose of residual amounts and non-reusable solutions in accordance with local legal regulations. Waste code must be classified as hazardous. Waste codes must be assigned by the user based on the application for which the product was used.

Uncleaned packaging

Recommendation: Disposal same as for unused product.

14. Transport Information

| | ADR | IMDG | IATA |
|---|------|------|------|
| 14.1 UN-Number | Void | Void | Void |
| 14.2 UN proper shipping name | Void | Void | Void |
| 14.3 Transport hazard class(es) / -label | | | |
| 14.4 Packing group: | Void | Void | Void |
| Transport hazard class(es): | Void | Void | Void |
| Label: | Void | Void | Void |
| danger symbol: | | | |
| 14.5 Environmental hazards: | No | No | NO |

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

15. Regulatory information

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture

National regulations:

Information about limitation of use: Employment restrictions concerning pregnant and lactating women must be observed.
Employment restrictions concerning juveniles must be observed.

Waterhazard class: Water hazard class 2 (Assessment by list): hazardous for water.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

16. Other Information

Guarantee

This information has been compiled to the best of our knowledge; however, we make no claim as to its completeness and it is meant to serve only as a guideline. NETZSCH-Gerätebau GmbH disclaims any liability for damages which may occur in handling or in contact with these chemicals.

Disclaimer

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