

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 31.01.2017

Version 14.1

---

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

### 1.1 Product identifier

Catalogue No. 112277

Product name Nickel powder 99+

REACH Registration Number A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. 7440-02-0

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

Identified uses Catalyst  
For additional information on uses please refer to the Merck Chemicals portal ([www.merckgroup.com](http://www.merckgroup.com)).

### 1.3 Details of the supplier of the safety data sheet

Company Merck KGaA \* 64271 Darmstadt \* Germany \* Phone:+49 6151 72-0

Responsible Department LS-QHC \* e-mail: [prodsafe@merckgroup.com](mailto:prodsafe@merckgroup.com)

1.4 Emergency telephone number Please contact the regional company representation in your country.

---

## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 112277  
Product name Nickel powder 99+

---

Carcinogenicity, Category 2, H351

Specific target organ toxicity - repeated exposure, Category 1, Respiratory Tract, Skin, H372

Skin sensitisation, Category 1, H317

Chronic aquatic toxicity, Category 3, H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

*Hazard pictograms*



*Signal word*

Danger

*Hazard statements*

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to organs (Respiratory Tract, Skin) through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

*Precautionary statements*

Prevention

P260 Do not breathe dust.

P273 Avoid release to the environment.

P280 Wear protective gloves.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P314 Get medical advice/ attention if you feel unwell.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 112277  
Product name Nickel powder 99+

---

## Reduced labelling (≤125 ml)

### Hazard pictograms



### Signal word

Danger

### Hazard statements

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to organs (Respiratory Tract, Skin) through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

### Precautionary statements

P280 Wear protective gloves.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Index-No. 028-002-01-4

## 2.3 Other hazards

None known.

---

## SECTION 3. Composition/information on ingredients

### 3.1 Substance

Formula	Ni (Hill)
Index-No.	028-002-01-4
EC-No.	231-111-4
Molar mass	58,69 g/mol

### Hazardous components (REGULATION (EC) No 1272/2008)

#### Chemical Name (Concentration)

CAS-No.	Registration number	Classification
nickel (powder) (<= 100 % )		
7440-02-0	*)	Carcinogenicity, Category 2, H351

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 112277  
Product name Nickel powder 99+

---

Specific target organ toxicity - repeated exposure, Category 1,  
H372

Skin sensitisation, Category 1, H317

Chronic aquatic toxicity, Category 3, H412

\*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 3.2 Mixture

Not applicable

---

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

After inhalation: fresh air. Call in physician.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/  
shower. Consult a physician.

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

After swallowing: immediately make victim drink water (two glasses at most). Consult a  
physician.

### 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 information available.

---

## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

*Suitable extinguishing media*

Water, Foam, Sand

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	112277
Product name	Nickel powder 99+

---

## *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

### **5.2 Special hazards arising from the substance or mixture**

Combustible material

Risk of dust explosion.

Development of hazardous combustion gases or vapours possible in the event of fire.

### **5.3 Advice for firefighters**

#### *Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

#### *Further information*

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

## **SECTION 6. Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

### **6.4 Reference to other sections**

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	112277
Product name	Nickel powder 99+

---

Indications about waste treatment see section 13.

---

## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

#### *Advice on safe handling*

Observe label precautions.

Work under hood. Do not inhale substance/mixture.

#### *Hygiene measures*

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

### 7.2 Conditions for safe storage, including any incompatibilities

#### *Storage conditions*

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

Recommended storage temperature see product label.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

---

## SECTION 8. Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### **Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 112277  
Product name Nickel powder 99+

---

## 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.

### *Eye/face protection*

Safety glasses

### *Hand protection*

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

### *Other protective equipment*

protective clothing

### *Respiratory protection*

required when dusts are generated.

Recommended Filter type: Filter P 3 (acc. to DIN 3181) for solid and liquid particles of toxic and very toxic substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	112277
Product name	Nickel powder 99+

---

properly documented.

## Environmental exposure controls

Do not let product enter drains.

---

## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	powder
Colour	grey
Odour	odourless
Odour Threshold	Not applicable
pH	No information available.
Melting point	1.453 °C
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapour pressure	low



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	112277
Product name	Nickel powder 99+

---

Relative vapour density	No information available.
Density	8,90 g/cm <sup>3</sup> at 25 °C
Relative density	No information available.
Water solubility	at 20 °C insoluble
Partition coefficient: n-octanol/water	Not applicable
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none

## 9.2 Other data

Ignition temperature	Not applicable
Bulk density	1.600 - 2.600 kg/m <sup>3</sup>
Particle size	Particle size ca.10 µm

---

## SECTION 10. Stability and reactivity

### 10.1 Reactivity

danger of spontaneous combustion!

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	112277
Product name	Nickel powder 99+

---

Risk of dust explosion.

## 10.2 Chemical stability

Sensitive to air.

## 10.3 Possibility of hazardous reactions

A risk of explosion and/or of toxic gas formation exists with the following substances:

sulfur, selenium, halogens, nitril compounds, Oxidizing agents, performic acid, Hydrazine hydrate, perchlorates, Alcohols, organic solvent, nitrates, halogen-halogen compounds

Hydrogen, with

Dioxane

## 10.4 Conditions to avoid

Heating.

Exposure to air.

## 10.5 Incompatible materials

no information available

## 10.6 Hazardous decomposition products

no information available

---

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

*Acute oral toxicity*

LD50 Rat: > 9.000 mg/kg

(IUCLID)

*Acute inhalation toxicity*

This information is not available.

*Acute dermal toxicity*

This information is not available.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	112277
Product name	Nickel powder 99+

---

## *Skin irritation*

This information is not available.

## *Eye irritation*

This information is not available.

## *Sensitisation*

May cause an allergic skin reaction.

## *Germ cell mutagenicity*

This information is not available.

## *Carcinogenicity*

This information is not available.

## *Reproductive toxicity*

This information is not available.

## *Teratogenicity*

This information is not available.

## *CMR effects*

Carcinogenicity:

Suspected of causing cancer.

## *Specific target organ toxicity - single exposure*

This information is not available.

## *Specific target organ toxicity - repeated exposure*

Causes damage to organs through prolonged or repeated exposure.

Target Organs: Respiratory Tract, Skin

## *Aspiration hazard*

This information is not available.

## 11.2 Further information

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

---

## SECTION 12. Ecological information

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	112277
Product name	Nickel powder 99+

---

## 12.1 Toxicity

### *Toxicity to fish*

LC50 Danio rerio (zebra fish): > 100 mg/l; 96 h

OECD Test Guideline 203

### *Toxicity to daphnia and other aquatic invertebrates*

EC50 Daphnia magna (Water flea): > 100 mg/l; 48 h

OECD Test Guideline 202

### *Toxicity to algae*

IC50 Scenedesmus capricornutum (fresh water algae): 100 mg/l; 72 h

OECD Test Guideline 201

suspension

### *Toxicity to bacteria*

EC50 Pseudomonas fluorescens: 250 mg/l; 48 h

(Lit.)

## 12.2 Persistence and degradability

No information available.

## 12.3 Bioaccumulative potential

### *Partition coefficient: n-octanol/water*

Not applicable

## 12.4 Mobility in soil

No information available.

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

## 12.6 Other adverse effects

### *Additional ecological information*

Discharge into the environment must be avoided.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	112277
Product name	Nickel powder 99+

---

---

## SECTION 13. Disposal considerations

### *Waste treatment methods*

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

---

## SECTION 14. Transport information

### Land transport (ADR/RID)

14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
-------------	--

### Inland waterway transport (ADN)

Not relevant

### Air transport (IATA)

14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
-------------	--

### Sea transport (IMDG)

14.1 - 14.6	Not classified as dangerous in the meaning of transport regulations.
-------------	--

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

---

## SECTION 15. Regulatory information

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

#### *EU regulations*

Major Accident Hazard	SEVESO III
Legislation	Not applicable

Occupational restrictions	Take note of Dir 94/33/EC on the protection of young people at work. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.
---------------------------	---

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 112277  
Product name Nickel powder 99+

---

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of  $\geq 0.1\%$  (w/w).

## *National legislation*

Storage class 6.1C

## 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

---

## SECTION 16. Other information

### Full text of H-Statements referred to under sections 2 and 3.

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.

### Training advice

Provide adequate information, instruction and training for operators.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	112277
Product name	Nickel powder 99+

---

## Labelling

### *Hazard pictograms*



### *Signal word*

Danger

### *Hazard statements*

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to organs (Respiratory Tract, Skin) through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

### *Precautionary statements*

#### Prevention

P260 Do not breathe dust.

P273 Avoid release to the environment.

P280 Wear protective gloves.

#### Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P314 Get medical advice/ attention if you feel unwell.

## Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

## Regional representation

This information is given on the authorised Safety Data Sheet for your country.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	112277
Product name	Nickel powder 99+

---

---

*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*