SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name

Nickel

Substance name nickel

Identification numbers

CAS no. 7440-02-0

EC no. 231-111-4

Index no. 028-002-00-7

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

Relevant identified uses of the substance or mixture
chemical analysis

Uses advised against
No data available.

1.3 Details of the supplier of the safety data sheet

Address

ELTRA GmbH

Retsch-Allee 1-5

42781 Haan

GERMANY

Telephone no. +49 (0) 2104 23 33-400

Fax no. +49 (0) 2104 23 33-499

Information provided by / telephone

+49 (0) 2104 23 33-192

Advice on Safety Data Sheet

info@eltra.com

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0) 551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Carc. 2; H351
Skin Sens. 1; H317
STOT RE 1; H372**

<table>
<thead>
<tr>
<th>Note</th>
<th>Specific concentration limits</th>
<th>M-factor (acute)</th>
<th>M-factor (chronic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. 7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Full text for the notes: pls. see section 16 “Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)’.

Classification information

(*, **, ***,***) Detailed explanation pls. refer to CLP regulation No. 1272/2008, annex VI, 1.2
This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:
Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP
Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3 and 4 of Annex I to CLP.

2.2 Label elements
EC safety data sheet

Trade name: Nickel

Current version: 2.0.1, issued: 31.01.2020
Replaced version: 2.0.0, issued: 22.08.2018
Region: GB

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Product identifier
028-002-00-7 (nickel)

Hazard pictograms

GHS07  GHS08

Signal word
Danger

Hazard statement(s)
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statement(s)
P201 Obtain special instructions before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 IF skin irritation or rash occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container to hazardous or special waste collection point.

2.3 Other hazards
No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances
Chemical characterization
Substance name nickel

Identification numbers
CAS no. 7440-02-0
EC no. 231-111-4
Index no. 028-002-00-7

3.2 Mixtures
Not applicable. The product is not a mixture.

SECTION 4: First aid measures

4.1 Description of first aid measures
General information
In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation
Ensure supply of fresh air.

After skin contact
Wash immediately with plenty of water for several minutes. Consult a doctor if skin irritation persists.

After eye contact
Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical assistance.

After ingestion
Seek medical advice immediately. Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting.
4.2 Most important symptoms and effects, both acute and delayed
No data available.

4.3 Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Foam; Carbon dioxide; Metal fire powders; Extinguishing powder

Unsuitable extinguishing media
No data available.

5.2 Special hazards arising from the substance or mixture
Nickel oxide

5.3 Advice for firefighters
Use self-contained breathing apparatus. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Keep away sources of ignition.

For emergency responders
No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up
Take up mechanically. When collected, handle material as described under the section heading "Disposal considerations".

6.4 Reference to other sections
No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Advice on safe handling
Provide good ventilation at the work area (local exhaust ventilation, if necessary). Adhere to the maximum workplace concentration values specified in chapter 8 when the product shape is modified through downstream operations such as grinding, polishing, spark erosion, welding, melting where dust or vapour are generated during processing.

General protective and hygiene measures
Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Provide eye wash fountain in work area. Avoid contact with eyes and skin.

Advice on protection against fire and explosion
Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities
Technical measures and storage conditions
Keep container tightly closed and dry in a cool, well-ventilated place. Protect from direct sunlight.

Requirements for storage rooms and vessels
Keep in original packaging, tightly closed. Storage rooms must be properly ventilated.

Incompatible products
Do not store together with acids. Do not store together with foodstuffs. Do not store together with animal feedstocks.
7.3 Specific end use(s)
No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
No parameters available for monitoring.

8.2 Exposure controls

Appropriate engineering controls
No data available.

Personal protective equipment

Respiratory protection
If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection
Safety glasses (EN 166)

Hand protection
In case of intensive contact, wear protective gloves (EN 374). Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer’s instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

- Appropriate Material: nitrile
- Appropriate Material: Latex
- Appropriate Material: PVC

Other
Normal chemical work clothing.

Environmental exposure controls
No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form/Colour</td>
<td>solid</td>
</tr>
<tr>
<td></td>
<td>metallic; shining; silver coloured</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH value</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>Value: 2832 °C</td>
</tr>
<tr>
<td>Melting point / melting range</td>
<td>Value: 1453 °C</td>
</tr>
<tr>
<td>Decomposition point / decomposition range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td></td>
</tr>
</tbody>
</table>
### Section 9: Other information

#### Oxidising properties
- No data available

#### Explosive properties
- No data available

#### Flammability (solid, gas)
- No data available

#### Lower flammability or explosive limits
- No data available

#### Upper flammability or explosive limits
- No data available

#### Vapour pressure
- No data available

#### Vapour density
- No data available

#### Evaporation rate
- No data available

#### Relative density
- No data available

#### Density
- No data available

#### Bulk density

<table>
<thead>
<tr>
<th>Value</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1600 - 2600 kg/m³</td>
</tr>
</tbody>
</table>

#### Solubility in water

<table>
<thead>
<tr>
<th>Comments</th>
<th>Insoluble</th>
</tr>
</thead>
</table>

#### Solubility(ies)
- No data available

#### Partition coefficient: n-octanol/water
- No data available

#### Viscosity
- No data available

### Section 10: Stability and reactivity

#### Reactivity
- No data available.

#### Chemical stability
- No data available.

#### Possibility of hazardous reactions
- No data available.

#### Conditions to avoid
- None, if handled according to intended use.

#### Incompatible materials
- No data available.

#### Hazardous decomposition products
- No data available.
SECTION 11: Toxicological information

11.1 Information on toxicological effects

**Acute oral toxicity**

<table>
<thead>
<tr>
<th>LD50</th>
<th>&gt; 9000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>rat</td>
</tr>
<tr>
<td>Method</td>
<td>OECD 401</td>
</tr>
</tbody>
</table>

**Acute dermal toxicity**

No data available

**Acute inhalational toxicity**

No data available

**Skin corrosion/irritation**

No data available

**Serious eye damage/irritation**

Evaluation: Irritation is possible.

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity**

No data available

**Reproduction toxicity**

No data available

**Carcinogenicity**

No data available

**STOT - single exposure**

No data available

**STOT - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Prolonged and repeated overexposure may result in allergic reactions with asthma-like symptoms in certain individuals.

SECTION 12: Ecological information

12.1 Toxicity

**Toxicity to fish (acute)**

<table>
<thead>
<tr>
<th>LC50</th>
<th>40 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of exposure</td>
<td>96 h</td>
</tr>
<tr>
<td>Species</td>
<td>fish</td>
</tr>
</tbody>
</table>

**Toxicity to fish (chronic)**

No data available

**Toxicity to Daphnia (acute)**

<table>
<thead>
<tr>
<th>EC50</th>
<th>1 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of exposure</td>
<td>48 h</td>
</tr>
<tr>
<td>Species</td>
<td>Crustacea</td>
</tr>
</tbody>
</table>

**Toxicity to Daphnia (chronic)**

No data available
Toxicity to algae (acute)  
No data available

Toxicity to algae (chronic)  
No data available

Bacteria toxicity  
No data available

12.2 Persistence and degradability  
No data available.

12.3 Bioaccumulative potential  
No data available.

12.4 Mobility in soil  
No data available.

12.5 Results of PBT and vPvB assessment  
No data available.

12.6 Other adverse effects  
No data available.

12.7 Other information  

Other information
Do not discharge into the drains or waters and do not store on public depositories.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product  
Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging  
Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN  
The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG  
The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA  
The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information  
No data available.

14.5 Environmental hazards  
Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user  
No data available.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code  
Not relevant

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
EC safety data sheet

Trade name: Nickel

Current version: 2.0.1, issued: 31.01.2020
Replaced version: 2.0.0, issued: 22.08.2018
Region: GB

**EU regulations**

| Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation) |
|-------------------------------------------------------------------------------------------------
| In accordance with the Reach regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation. |

<table>
<thead>
<tr>
<th>REACH candidate list of substances of very high concern (SVHC) for authorisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>In accordance with article 57 and article 59 of the Reach regulation (EC) 1907/2006, this substance is not considered as subject to listing in annex XIV, inventory of substances requiring authorisation (&quot;Authorization list&quot;).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nickel</td>
<td>7440-02-0</td>
<td>231-111-4</td>
<td>27</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>This substance is not subject to Part I or 2 of Annex I</td>
</tr>
</tbody>
</table>

15.2 Chemical safety assessment

No data available.

**SECTION 16: Other information**

Further information

Article number:

- 90258, 100g
- 90250, 100g
- 90257, 100 pcs.
- 90256, 250 pcs.

Sources of key data used to compile the data sheet:

National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Notes relating to the identification, classification and labelling of substances and mixtures (EC) No 1272/2008, Annex VI)

S This substance may not require a label according to Article 17 (see section 1.3 of Annex I) (Table 3.1). This substance may not require a label according to Article 23 of Directive 67/548/EEC (see section 8 of Annex VI to that Directive) (Table 3.2).

7 Alloys containing nickel are classified for skin sensitisation when the release rate of 0.5 μg Ni/cm2/week, as measured by the European Standard reference test method EN 1811, is exceeded.

Department issuing safety data sheet

UMCO GmbH
Georg-Wilhelm-Str. 187, D-21107 Hamburg
Tel.: +49 40 / 555 546 300 Fax: +49 40 / 555 546 357 e-mail: umco@umco.de

This information is based on our present knowledge and experience.
The safety data sheet describes products with a view to safety requirements.
It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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