acc. to Safe Work Australia - Code of Practice

# Nickel(II)-oxide ≥ 99%, p.a, 325 mesh, green

article number: 9996 date of compilation: 2016-08-17 Version: GHS 3.0 en Revision: 2024-03-03

Replaces version of: 2022-01-14

Version: (GHS 2)

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

#### **Product identifier** 1.1

Identification of the substance Nickel(II)-oxide ≥ 99%, p.a, 325 mesh, green

Article number 9996

CAS number 1313-99-1

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

Relevant identified uses: Laboratory chemical

Laboratory and analytical use

Uses advised against: Do not use for products which come into contact

with foodstuffs. Do not use for private purposes (household). Food, drink and animal feeding-

stuffs.

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

Carl Roth GmbH + Co. KG Schoemperlenstr. 3-5 D-76185 Karlsruhe Germany

Telephone:+49 (0) 721 - 56 06 0 Telefax: +49 (0) 721 - 56 06 149 e-mail: sicherheit@carlroth.de Website: www.carlroth.de

Competent person responsible for the safety data Department Health, Safety and Environment

sheet:

sicherheit@carlroth.de e-mail (competent person):

#### 1.4 **Emergency telephone number**

Name	Street	Postal code/city	Telephone	Website
NSW Poisons Information Centre Childrens Hospital	Hawkesbury Road	2145 West- mead, NSW	131126	

# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

# Classification acc. to GHS

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.45	Skin sensitisation	1	Skin Sens. 1	H317
3.6	Carcinogenicity	1A	Carc. 1A	H350i
3.9	Specific target organ toxicity - repeated exposure	1	STOT RE 1	H372

For full text of abbreviations: see SECTION 16

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# The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure.

### 2.2 Label elements

# Labelling

Signal word Danger

# **Pictograms**

GHS07, GHS08





# **Hazard statements**

H317 May cause an allergic skin reaction H350i May cause cancer by inhalation

H372 Causes damage to organs through prolonged or repeated exposure

# **Precautionary statements**

# **Precautionary statements - prevention**

P260 Do not breathe dust/fume/gas/mist/vapours/spray

P280 Wear protective gloves/protective clothing/eye protection/face protection

# **Precautionary statements - 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

P333+P313 If skin irritation or rash occurs: Get medical advice/attention

# **Precautionary statements - disposal**

P501 Dispose of contents/container to industrial combustion plant

For professional users only

# 2.3 Other hazards

# **Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0.1\%$ .

# **SECTION 3: Composition/information on ingredients**

### 3.1 Substances

Name of substance Nickel(II)-oxide

Molecular formula NiO

Molar mass 74.69 <sup>g</sup>/<sub>mol</sub>

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# **SECTION 4: First aid measures**

# 4.1 Description of first aid measures



# **General notes**

Take off contaminated clothing.

# Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

# **Following skin contact**

After contact with skin, wash immediately with plenty of water. In case of skin reactions, consult a physician.

# Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

# Following ingestion

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

# 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

none

# **SECTION 5: Firefighting measures**

# 5.1 Extinguishing media



# Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings! water, foam, dry extinguishing powder, ABC-powder

# Unsuitable extinguishing media

water jet

# 5.2 Special hazards arising from the substance or mixture

Non-combustible.

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

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# **SECTION 6: Accidental release measures**

# 6.1 Personal precautions, protective equipment and emergency procedures



# For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe dust.

# 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

# 6.3 Methods and material for containment and cleaning up

# Advice on how to contain a spill

Covering of drains. Take up mechanically.

# Advice on how to clean up a spill

Take up mechanically. Control of dust.

# Other information relating to spills and releases

Place in appropriate containers for disposal.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

# **SECTION 7: Handling and storage**

# 7.1 Precautions for safe handling

Use extractor hood (laboratory). Avoid exposure. Avoid dust formation.

# Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

# 7.2 Conditions for safe storage, including any incompatibilities

Store in a dry place.

# **Incompatible substances or mixtures**

Observe hints for combined storage.

# **Consideration of other advice:**

# Specific designs for storage rooms or vessels

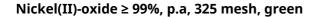
Recommended storage temperature: 15 - 25 °C

# 7.3 Specific end use(s)

No information available.

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# **SECTION 8: Exposure controls/personal protection**

# 8.1 Control parameters

**National limit values** 

**Occupational exposure limit values (Workplace Exposure Limits)** 

This information is not available.

# **Human health values**

Relevant DNELs and other threshold levels				
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	0.05 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	0.05 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
DNEL	18.9 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects

# **Environmental values**

# **Relevant PNECs and other threshold levels**

End- point	Threshold level	Organism	Environmental com- partment	Exposure time
PNEC	7.1 <sup>µg</sup> / <sub>l</sub>	aquatic organisms	freshwater	short-term (single instance)
PNEC	8.6 <sup>µg</sup> / <sub>l</sub>	aquatic organisms	marine water	short-term (single instance)
PNEC	0.33 <sup>mg</sup> / <sub>l</sub>	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	109 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	freshwater sediment	short-term (single instance)
PNEC	109 <sup>mg</sup> / <sub>kg</sub>	aquatic organisms	marine sediment	short-term (single instance)
PNEC	29.9 <sup>mg</sup> / <sub>kg</sub>	terrestrial organisms	soil	short-term (single instance)

# 8.2 Exposure controls

Individual protection measures (personal protective equipment)

# **Eye/face protection**





Use safety goggle with side protection.

# **Skin protection**





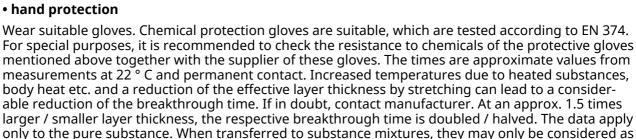
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# type of material

NBR (Nitrile rubber)

### material thickness

>0.11 mm

a guide.

# breakthrough times of the glove material

>480 minutes (permeation: level 6)

# other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

# **Respiratory protection**





Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White).

### **Environmental exposure controls**

Keep away from drains, surface and ground water.

# SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Physical state solid

Form powder, crystalline

Colour dark green Odour odourless

1,955 °C (ECHA) Melting point/freezing point

Boiling point or initial boiling point and boiling not determined range

**Flammability** non-combustible

Lower and upper explosion limit 0 vol% (LEL) - 0 vol% (UEL)

Flash point not applicable

>400 °C (ECHA) Auto-ignition temperature

Decomposition temperature not relevant

pH (value) not applicable

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Kinematic viscosity not relevant

Solubility(ies)

Water solubility 0 <sup>g</sup>/<sub>l</sub> at 20 °C (practically insoluble) (ECHA)

Partition coefficient

Partition coefficient n-octanol/water (log value): not relevant (inorganic)

Vapour pressure not determined

Density and/or relative density

Density  $6.72 \, \mathrm{g}/\mathrm{cm}^3$ 

Relative vapour density Information on this property is not available.

Particle characteristics No data available.

Other safety parameters

Oxidising properties none

9.2 Other information

Information with regard to physical hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics: There is no additional information.

# **SECTION 10: Stability and reactivity**

# 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

# 10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser, Fluorine, Iodine, Hydrogen peroxide

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

# 10.5 Incompatible materials

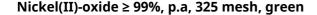
There is no additional information.

# 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

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# **SECTION 11: Toxicological information**

# 11.1 Information on toxicological effects

### Classification acc. to GHS

# **Acute toxicity**

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4. May be harmful if inhaled.

# **Acute toxicity**

Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	8,796 <sup>mg</sup> / <sub>kg</sub>	rat		ECHA
inhalation: dust/ mist	LC50	>5.08 <sup>mg</sup> / <sub>l</sub> /4h	rat		ECHA

### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

# Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

# Respiratory or skin sensitisation

May cause an allergic skin reaction.

# Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

# Carcinogenicity

May cause cancer by inhalation.

# **Reproductive toxicity**

Shall not be classified as a reproductive toxicant.

# Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

# Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

### **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

# Symptoms related to the physical, chemical and toxicological characteristics

# If swallowed

Data are not available.

# • If in eyes

Data are not available.

# • If inhaled

Data are not available.

# • If on skin

May produce an allergic reaction, pruritis, localised redness

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# ROTH

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### Other information

none

# 11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq$  0,1%.

# **SECTION 12: Ecological information**

### 12.1 Toxicity

May cause long lasting harmful effects to aquatic life.

# 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

BCF	45 (ECHA)
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# 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq$  0,1%.

### 12.7 Other adverse effects

Data are not available.

# **SECTION 13: Disposal considerations**

### 13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

# Sewage disposal-relevant information

Do not empty into drains.

# Waste treatment of containers/packagings

Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

# **Relevant provisions relating to waste(Basel Convention)**

# Properties of waste which render it hazardous

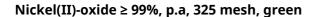
**H11** Toxic (Delayed or chronic)

# 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

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# **SECTION 14: Transport information**

**14.1 UN number** not subject to transport regulations

14.2 UN proper shipping name not assigned
 14.3 Transport hazard class(es) not assigned
 14.4 Packing group not assigned

**14.5 Environmental hazards** non-environmentally hazardous acc. to the dan-

gerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

Transport informationNational regulationsAdditional information(UN RTDG)

Not subject to transport regulations. UN RTDG

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

# **SECTION 15: Regulatory information**

**15.1** Safety, health and environmental regulations/legislation specific for the substance or mixture There is no additional information.

National regulations(Australia)

Australian Inventory of Chemical Substances(AICS)

Substance is listed.

### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

# **National inventories**

Country	Inventory	Status
AU	AIIC	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
JP	CSCL-ENCS	substance is listed
KR	KECI	substance is listed

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Country	Inventory	Status
MX	INSQ	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TR	CICR	substance is listed
TW	TCSI	substance is listed
US	TSCA	substance is listed (ACTIVE)
VN	NCI	substance is listed

Legend

AIIC CICR CSCL-ENCS DSL ECSI IECSC

Australian Inventory of Industrial Chemicals Chemical Inventory and Control Regulation List of Existing and New Chemical Substances (CSCL-ENCS)

CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS)
DSL Domestic Substances List (DSL)
ECSI EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC Inventory of Existing Chemical Substances Produced or Imported in China INSQ National Inventory of Chemical Substances
KECI Korea Existing Chemicals Inventory
NCI National Chemical Inventory
NZIOC New Zealand Inventory of Chemicals
PICCS Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg. REACH registered substances
TCSI Taiwan Chemical Substance Inventory
TSCA Toxic Substance Control Act

TCSI TSCA Toxic Substance Control Act

# 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

# **SECTION 16: Other information**

# Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.3	Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB.		yes
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.	yes
15.1		National inventories: change in the listing (table)	yes

# **Abbreviations and acronyms**

Abbr.	Descriptions of used abbreviations
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances

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Abbr.	Descriptions of used abbreviations
ELINCS	European List of Notified Chemical Substances
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LEL	Lower explosion limit (LEL)
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
UEL	Upper explosion limit (UEL)
UN RTDG	UN Recommendations on the Transport of Dangerous Good
vPvB	Very Persistent and very Bioaccumulative

# Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

# List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H317	May cause an allergic skin reaction.
H350i	May cause cancer by inhalation.
H372	Causes damage to organs through prolonged or repeated exposure.

# **Disclaimer**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

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