

Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: **9925** Version: **3.0 en** Replaces version of: 14.01.2022 Version: (2)

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

1.1 Product identifier

Identification of the substance	Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black
Article number	9925
Registration number (REACH)	01-2119467172-41-xxxx
Index number in CLP Annex VI	028-003-00-2
EC number	215-215-7
CAS number	1313-99-1

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

Relevant identified uses:

Uses advised against:

Laboratory chemical Laboratory and analytical use

Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). Food, drink and animal feedingstuffs.

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:

e-mail (competent person):

sicherheit@carlroth.de

1.4 Emergency telephone number

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.4S	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
4.1C	Hazardous to the aquatic environment - chronic hazard	4	Aquatic Chronic 4	H413

date of compilation: 11.08.2016 Revision: 03.03.2024

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure. Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

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

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
H413	May cause long lasting harmful effects to aquatic life

Precautionary statements

Precautionary statements - prevention

P260	Do not breathe dust
P280	Wear protective gloves/eve protection

Precautionary statements - response

P302+P352	IF ON SKIN: Wash with plenty of water
P308+P313	IF exposed or concerned: Get medical advice/attention

For professional users only

Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger



H317	May cause an allergic skin reaction.
H350i	May cause cancer by inhalation.
H372	Causes damage to organs through prolonged or repeated exposure.
H413	May cause long lasting harmful effects to aquatic life.
P260	Do not breathe dust.
P280	Wear protective gloves/eye protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P308+P313	IF exposed or concerned: Get medical advice/attention.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

2.3 Other hazards

Endocrine disrupting properties

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

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance	Nickel(II)-oxide
Molecular formula	NiO
Molar mass	74,69 ^g / _{mol}
REACH Reg. No	01-2119467172-41-xxxx
CAS No	1313-99-1
EC No	215-215-7
Index No	028-003-00-2

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

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

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. Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

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. If substance has entered a water course or sewer, inform the responsible authority.

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.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Coun try	Name of agent	CAS No	Identifi- er	TWA [mg/ m³]	STEL [mg/ m³]	Ceil- ing-C [mg/ m ³]	Nota- tion	Source
EU	nickel compounds	1313-99-1	IOELV	0,1			i	2022/431/ EU

Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur
 Inhalable fraction
 STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
 TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

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 ³	human, inhalatory	worker (industry)	chronic - systemic effects	
DNEL	0,05 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects	
DNEL	18,9 mg/m ³	human, inhalatory	worker (industry)	acute - local effects	

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

Relevant PNECs and other threshold levels						
End- point	Threshold level	Organism	Environmental com- partment	Exposure time		
PNEC	7,1 ^{µg} / _l	aquatic organisms	freshwater	short-term (single instance		
PNEC	8,6 ^{µg} / _l	aquatic organisms	marine water	short-term (single instance		
PNEC	0,33 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance		
PNEC	109 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single instance		
PNEC	109 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single instance		
PNEC	29,9 ^{mg} / _{kg}	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



hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a consider-able reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

• type of material

NBR (Nitrile rubber)

material thickness

>0,11 mm

• 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.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

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	black
Odour	odourless
Melting point/freezing point	1.955 °C (ECHA)
Boiling point or initial boiling point and boiling range	not determined
Flammability	non-combustible
Lower and upper explosion limit	0 vol% (LEL) - 0 vol% (UEL)
Flash point	not applicable
Auto-ignition temperature	>400 °C (ECHA)
Decomposition temperature	not relevant
pH (value)	not applicable
Kinematic viscosity	not relevant
Solubility(ies)	
Water solubility	0 ^g / _l 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 ^g / _{cm³}
Relative vapour density	Information on this property is not available.
Particle characteristics	No data available.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

	Other safety parameters Oxidising properties	none
9.2	Other information	
	Information with regard to physical hazard classes:	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.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	8.796 ^{mg} / _{kg}	rat		ECHA
inhalation: dust/ mist	LC50	>5,08 ^{mg} / _l /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.



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

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

Other information

none

11.2 Endocrine disrupting properties

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

11.3 Information on other hazards

There is no additional information.

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)

12.4 Mobility in soil

Data are not available.

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

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 $\ge 0,1\%$.
- 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. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

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

13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Properties of waste which render it hazardous

- HP 5 specific target organ toxicity (STOT)/aspiration toxicity
- HP7 carcinogenic
- HP 13 sensitising HP 14 ecotoxic

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.

SECTION 14: Transport information 14.1 **UN number or ID number** not subject to transport regulations 14.2 UN proper shipping name not assigned 14.3 Transport hazard class(es) none 14.4 Packing group not assigned 14.5 Environmental hazards non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Maritime transport in bulk according to IMO instruments The cargo is not intended to be carried in bulk.



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

Information for each of the UN Model Regulations 14.8

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

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

gerous substances with restrictions (REACH, Annex XVII)				
Name of substance	Name acc. to inventory	CAS No	Restriction	N
Nickel(II)-oxide	nickel compounds		R27	2
Nickel(II)-oxide	carcinogenic		R28-30	2
Nickel(II)-oxide	substances in tattoo inks and perman- ent make-up		R75	7

Leaend

R27 Shall not be used:

(a) in any post assemblies which are inserted into pierced ears and other pierced parts of the human body unless the rate of nickel release from such post assemblies is less than 0,2 μg/cm2/week (migration limit);
 (b) in articles intended to come into direct and prolonged contact with the skin such as:

earrings,
 necklaces, bracelets and chains, anklets, finger rings,

- wrist-watch cases, watch straps and tighteners,

rivet buttons, tighteners, rivets, zippers and metal marks, when these are used in garments,

if the rate of nickel release from the parts of these articles coming into direct and prolonged contact with the skin is greater than 0,5 µg/cm2/week

(c) in articles referred to in point (b) where these have a non-nickel coating unless such coating is sufficient to ensure that the rate of nickel release from those parts of such articles coming into direct and prolonged contact with the skin will not exceed 0,5 µg/cm2/week for a period of at least two years of normal use of the article.

2. Articles which are the subject of paragraph 1 shall not be placed on the market unless they conform to the requirements set out in that paragraph.

The standards adopted by the European Committee for Standardisation (CEN) shall be used as the test methods for demonstrating the conformity of articles to paragraphs 1 and 2. 1. Shall not be placed on the market, or used,

R28-30

- as substances

- as constituents of other substances, or, - in mixtures

for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than:

either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or,
 the relevant generic concentration limit specified in Part 3 of Annex I of Regulation (EC) No 1272/2008.

Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly as follows: 'Restricted to professional users'.

2. By way of derogation, paragraph 1 shall not apply to:
(a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC;
(b) cosmetic products as defined by Directive 76/768/EEC;

c) the following fuels and oil products:
 - motor fuels which are covered by Directive 98/70/EC.

mineral oil products intended for use as fuel in mobile or fixed combustion plants,
 fuels sold in closed systems (e.g. liquid gas bottles);
 (d) artists' paints covered by Regulation (EC) No 1272/2008;

(e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix 11, column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until the said date; (f) devices covered by Regulation (EU) 2017/745.



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925



8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

Legend

9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or gener-ate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).

10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market of a mixture low use for tattooing purposes, of to the use of a mixture for tattooing purposes, of to the use of a mixture for tattooing purposes, of to the use of a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this previous the tattoo of the use of the us Regulation shall apply cumulatively.

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

Not listed.

Seveso Directive

2012/18/EU (Seveso III)				
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the ap- plication of lower and upper-tier re- quirements	Notes	
11	nickel compounds in inhalable powder form	1		

Deco-Paint Directive

VOC content	0 %
-------------	-----

Industrial Emissions Directive (IED)

VOC content	0 %

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

Regulation concerning the establishment of a European Pollutant Release and Transfer **Register (PRTR)**

not listed

Water Framework Directive (WFD)

t of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
Nickel(II)-oxide	nickel compounds		b)	
Nickel(II)-oxide	nickel compounds	7440-02-0	c)	
Nickel(II)-oxide	Substances and preparations, or the breakdown products of such, which have been proved to pos- sess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine- related functions in or via the aquatic environment		a)	
Nickel(II)-oxide	Metals and their compounds		a)	

Legend

a) b) c)

Indicative list of the main pollutants List of priority substances in the field of water policy

Environmental Quality Standards for Priority Substances and certain other pollutants



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

Regulation on the marketing and use of explosives precursors

not listed

Regulation on drug precursors

not listed

Regulation on substances that deplete the ozone layer (ODS)

not listed

Regulation concerning the export and import of hazardous chemicals (PIC)

not listed

Regulation on persistent organic pollutants (POP)

not 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
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	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EÌNEĆS, 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

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

15.2 Chemical safety assessment

According to REACH, Article 14 (1) a chemical safety assessment has been carried out for this substance or components of this mixture when the substance has been registered in quantities of 10 tonnes or more per year per registrant.

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
14.8	Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional in- formation: Not subject to ADR, RID and ADN.		yes
15.1		National inventories: change in the listing (table)	yes
15.2	Chemical Safety Assessment: No Chemical Safety Assessment has been car- ried out for this substance.	Chemical safety assessment: According to REACH, Article 14 (1) a chemical safety assessment has been carried out for this substance or components of this mixture when the substance has been registered in quantities of 10 tonnes or more per year per registrant.	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2022/431/EU	Directive (EU) 2022/431 of the European Parliament and of the Council of 9 March 2022 amending Direct- ive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or muta- gens at work
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)
BCF	Bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identi- fier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU



Nickel(II)-oxide ≥ 96%, p.a, 400 mesh, black

article number: 9925

Abbr.	Descriptions of used abbreviations
ΙΑΤΑ	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
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
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
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	Short-term exposure limit
SVHC	Substance of Very High Concern
TWA	Time-weighted average
UEL	Upper explosion limit (UEL)
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). 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.
H413	May cause long lasting harmful effects to aquatic life.

Disclaimer

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