

Revision Date 16-Apr-2012

Revision Number 2

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product Identifier**

**Product Description:**

**Nickel(II) oxide**

**Synonyms**

Nickel monoxide; Nickelous oxide

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

**Recommended Use**

Laboratory chemicals

**Uses advised against**

No Information available

**Details of the supplier of the safety data sheet**

**Company**

Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

**E-mail address**

begel.sdsdesk@thermofisher.com

**Emergency Telephone Number**

For information in the US, call: 001-800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300

CHEMTREC Phone Number, Europe: 001-703-527-3887

## SECTION 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

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

Skin Sensitization	Category 1
Carcinogenicity	Category 1A
Specific target organ systemic toxicity (repeated exposure)	Category 1

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

*For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16*

**Symbol(s)**

T - Toxic

**R-phrases(s)**

R49 - May cause cancer by inhalation

R43 - May cause sensitization by skin contact

R53 - May cause long-term adverse effects in the aquatic environment

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**SECTION 2. HAZARDS IDENTIFICATION**

Label Elements



**Signal Word**

**Danger**

**Hazard Statements**

- H317 - May cause an allergic skin reaction
- H350 - May cause cancer
- H372 - Causes damage to organs through prolonged or repeated exposure
- H350i - May cause cancer by inhalation

**Precautionary Statements - EU (§28, 1272/2008)**

- P280 - Wear eye protection/ face protection
- P201 - Obtain special instructions before use
- P308 + P313 - IF exposed or concerned: Get medical advice/ attention
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray

**Other Hazards**

No information available.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Nickel oxide 1313-99-1	EEC No. 215-215-7	100	1313-99-1	R43 T; R48/23 Carc.Cat.1; R49 R53	Skin Sens. 1 (H317) Carc. 1A (H350i) STOT RE 1 (H372) Aquatic Chronic 4 (H413)	-

**For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16**

**SECTION 4. FIRST AID MEASURES**

Description of first aid measures

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**SECTION 4. FIRST AID MEASURES**

<b>Eye Contact</b>	Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.
<b>Ingestion</b>	Call a physician immediately. Clean mouth with water.
<b>Inhalation</b>	Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.
<b>Notes to Physician</b>	Treat symptomatically

**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing media****Suitable Extinguishing Media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. chemical foam.

**Extinguishing media which must not be used for safety reasons**

No information available.

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

Thermal decomposition can lead to release of irritating gases and vapors

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

**Environmental precautions**

Prevent further leakage or spillage if safe to do so

**Methods and material for containment and cleaning up**

Sweep up or vacuum up spillage and collect in suitable container for disposal.

**SECTION 7. HANDLING AND STORAGE****Precautions for Safe Handling**

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Do not breathe dust. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Use only in area provided with appropriate exhaust ventilation.

**Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

**Specific End Uses**
**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Control parameters**
**Exposure limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Component  
Nickel oxide**

European Union	The United Kingdom	France	Belgium	Spain
	STEL: 1.5 mg/m <sup>3</sup> 15 min TWA: 0.5 mg/m <sup>3</sup> 8 hr Skin	VME: 1 mg/m <sup>3</sup> 8 heures. Ni		VLA-ED: 0.1 mg/m <sup>3</sup> 8 horas

**Component  
Nickel oxide**

Italy	Germany	Portugal	The Netherlands	Finland
		TWA: 0.2 mg/m <sup>3</sup> 8 horas		TWA: 0.1 mg/m <sup>3</sup> 8 tunteina

**Component  
Nickel oxide**

Austria	Denmark	Switzerland	Poland	Norway
STEL: 2 mg/m <sup>3</sup> 15 Minuten		MAK: 0.05 mg/m <sup>3</sup> 8 Stunden		TWA: 0.05 mg/m <sup>3</sup> 8 timer

**Component  
Nickel oxide**

Estonia	Gibraltar	Greece	Hungary	Iceland
TWA: 0.1 mg/m <sup>3</sup> 8 tundides. Ni			Ceiling: 0.1 mg/m <sup>3</sup> Ni	

**Component  
Nickel oxide**

Latvia	Lithuania	Luxembourg	Malta	Romania
TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> Ni Nickel compounds			

**Component  
Nickel oxide**

Russia - TWA	Slovak Republic	Slovenia	Sweden	Turkey
	TWA: 0.5 mg/m <sup>3</sup> 8 hodinách STEL: 2.5 mg/m <sup>3</sup> 15 minútach			

**Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL)**

No information available.

**Predicted No Effect Concentration (PNEC)**

No information available.

**Exposure controls**

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<b>Engineering Measures</b>	Ensure adequate ventilation, especially in confined areas
<b>Personal protective equipment</b>	
<b>Eye Protection</b>	Goggles
<b>Hand Protection</b>	Protective gloves
<b>Skin and body protection</b>	Wear appropriate protective gloves and clothing to prevent skin exposure
<b>Respiratory Protection</b>	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice
<b>Environmental exposure controls</b>	No information available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Powder, Solid
<b>Appearance</b>	Beige
<b>Boiling Point/Range</b>	No information available.
<b>Melting Point/Range</b>	1960°C / 3560°F
<b>Flash Point</b>	No information available.
<b>Autoignition Temperature</b>	No information available.
<b>Water Solubility</b>	Insoluble
<b>Specific Gravity</b>	6.670
<b>Molecular Formula</b>	Ni O
<b>Molecular Weight</b>	74.7

**SECTION 10. STABILITY AND REACTIVITY****Reactivity****Chemical Stability**

Stable under normal conditions.

**Possibility of Hazardous Reactions**

**Hazardous Polymerization** Hazardous polymerization does not occur.  
**Hazardous Reactions .** No information available.

**Conditions to Avoid**

Incompatible products.

**Incompatible Materials**

Strong acids, Fluorine, Peroxides.

**Hazardous Decomposition Products**

Burning produces obnoxious and toxic fumes.

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**SECTION 11. TOXICOLOGICAL INFORMATION**

Information on Toxicological Effects

Acute Toxicity

**Component Information**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nickel oxide	5000 mg/kg ( Rat )		

Chronic Toxicity

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	IARC	UK
Nickel oxide	Group 1	

**Sensitization**

May cause sensitization by skin contact

**Mutagenic Effects**

No information available

**Reproductive Effects**

No information available.

**Developmental Effects**

No information available.

**Target Organs**

No information available.

**Other Adverse Effects**

See actual entry in RTECS for complete information

**Endocrine Disruptor Information**

None known

**SECTION 12. ECOLOGICAL INFORMATION**

Toxicity

**Ecotoxicity effects**

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Nickel oxide	127.3 mg/L EC50 > 72 h	100 mg/L LC50 96 h		100 mg/L EC50 > 48 h

Persistence and degradability

No information available

Bioaccumulative potential

No information available.



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**Mobility in soil**

No information available.

**Results of PBT and vPvB assessment**

**Other adverse effects**

No information available

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Waste from Residues / Unused Products** Dispose of in accordance with local regulations

**Contaminated Packaging** Empty containers should be taken to local recyclers for disposal

## SECTION 14. TRANSPORT INFORMATION

**IMDG/IMO** Not regulated

**ADR** Not regulated

**IATA** Not regulated

## SECTION 15. REGULATORY INFORMATION

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

**International Inventories**

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Nickel oxide	215-215-7	-		X	X	-	X	X	X	X	X

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

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**ENCS** - Japan Existing and New Chemical Substances  
**CHINA** - China Inventory of Existing Chemical Substances  
**AICS** - Inventory of Chemical Substances  
**KECL** - Existing and Evaluated Chemical Substances

**Chemical Safety Assessment****SECTION 16. OTHER INFORMATION****Full text of R-phrases referred to under sections 2 and 3**

R49 - May cause cancer by inhalation  
R43 - May cause sensitization by skin contact  
R53 - May cause long-term adverse effects in the aquatic environment

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Revision Summary

Reason for revision Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet