

Safety Data Sheet **NICKEL (III) OXIDE, Black**

SDS no. 5CX79BF1 • Version 1.1 • Date of issue: 2023-07-31 • Print date: 2026-01-14

SECTION 1: Identification

GHS Product identifier

Product name NICKEL (III) OXIDE, Black

Recommended use of the chemical and restrictions on use

Laboratory and analytical reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Carcinogenicity, Cat. 1A
- Skin sensitizer, Cat. 1
- Specific target organ toxicity following repeated exposure, Cat. 1

GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

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Hazard statement(s)

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

Precautionary statement(s)

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of water/soap
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.
P362+P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight	165.39
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Component	Identification	Weight %	Classifications
Nickel (III) oxide	CAS no.: 1314-06-3 EC no.: 215-217-8	100 %	CLASSIFICATIONS: Carcinogenicity, Cat. 1A; Hazardous to the aquatic environment, long-term (chronic), Cat. 4; Sensitization - skin, Cat. 1; Specific target organ toxicity, repeated exposure, Cat. 1. HAZARDS: H317 - May cause an allergic skin reaction; H350 - May cause cancer [route]; H372 - Causes damage to organs [organs] through prolonged or repeated exposure [route]; H413 - May cause long lasting harmful effects to aquatic life.

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice First Aid Facilities: Maintain eyewash fountain and drench facilities in work area.

If inhaled If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.

In case of skin contact Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek immediate medical advice /attention depending on the severity.

In case of eye contact Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice.

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If swallowed

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Material is not flammable follow appropriate procedures for surrounding fire.

Material is not flammable and is not expected to pose a fire or explosion hazard.

Specific hazards arising from the chemical

Material does not burn. Fire or heat may produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Runoff may pollute waterways.

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Methods and materials for containment and cleaning up

Do NOT touch or walk through this product. Do NOT touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas. Prevent dust cloud. Use clean non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal.

SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

SECTION 7: Handling and storage

Precautions for safe handling

Do not breathe (dust, vapor or spray mist) Do not use in areas without adequate ventilation. Keep container closed when not in use. Wear suitable protective clothing, including gloves.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Store in well ventilated area. Keep containers securely sealed and protected against physical damage.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

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Hand protection should comply with AS 2161 Industrial Safety Gloves and Mittens (Excluding Electrical and Medical Gloves).

Body protection

Wear suitable protective clothing to prevent skin contact. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/ NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	Finely divided powder.
Color	Green to black
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/ flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	No data available.
Partition coefficient n-octanol/ water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 1.1 - 1.4
Relative vapor density	No data available.

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Particle characteristics	No data available.
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Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

None under normal use conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

Conditions to avoid

Avoid storing in direct sunlight and avoid extremes of temperature.

Incompatible materials

Hydrogen peroxide.

Hazardous decomposition products

Oxides of nickel

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

May cause irritation to the gastrointestinal tract. Large oral dose may cause nausea, vomiting, abdominal pain and diarrhea.

May cause headaches, dizziness, difficult breathing, coughing, sore throat and shortness of breath. Finer dust particulates may irritate the respiratory tract. May cause cancer by inhalation.

Skin corrosion/irritation

Irritating to skin. May cause redness and pain. May cause sensitisation by skin contact.

Serious eye damage/irritation

Irritating to eyes. May cause redness and pain.

Respiratory or skin sensitization

May cause an allergic skin reaction

Germ cell mutagenicity

No data available.

Carcinogenicity

Nickel oxide (CAS No. 1313-99-1) is classified as hazardous—Category 1 carcinogenic substance. The International Agency for Research on Cancer (IARC) has classified nickel compounds as 'Carcinogenic to humans' (Group 1). The available data support this classification.

Reproductive toxicity

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No data available.

Summary of evaluation of the CMR properties

No data available.

Specific target organ toxicity (STOT) - single exposure

No data available.

Specific target organ toxicity (STOT) - repeated exposure

Causes damage to organs through prolonged or repeated exposure

Aspiration hazard

No data available

Additional information

Chronic Effects: May cause a form of dermatitis known as nickel itch. May cause intestinal disorders, pulmonary disorders, convulsions and asphyxia.

NICNAS - Nickel oxide: Human health tier II assessment

SECTION 12: Ecological information

Toxicity

May cause long lasting harmful effects to aquatic life.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

15/1/26 - Corrected colour.

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Further information/disclaimer

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)