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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Nickel oxide, 99.9% Product Code: N 1522 CAS No : 1313-99-1

1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet
Company identification
OTTO CHEMIE PVT LTD
101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208.
Email info@ottokemi.com

1.4. Emergency telephone number Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Skin sensitization, (Category 1) Carcinogenicity, (Category 1A) Specific target organ toxicity repeated exposure, (Category 1) Lunas Long-term (chronic) aquatic hazard, (Category 4) 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Hazard Statements H317 H350i H372

H413 Precautionary Statements P202

P260 P273 P280

P302 + P352 P308 + P313 Supplemental Hazard Statements Restricted to professional users. Reduced Labeling (<= 125 ml) Pictogram Signal Word Hazard Statements H317 H350i H372 exposure if inhaled. H413 H317: May cause an allergic skin reaction. H350i: May cause cancer by inhalation. H372: Causes damage to organs through prolonged or repeated exposure if inhaled.

H413: May cause long lasting harmful effects to aquatic life.

Danger

May cause an allergic skin reaction. May cause cancer by inhalation. Causes damage to organs (Lungs) through prolonged or repeated exposure if inhaled. May cause long lasting harmful effects to aquatic life.

Do not handle until all safety precautions have been read and understood. Do not breathe dust. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection. IF ON SKIN: Wash with plenty of water. IF exposed or concerned: Get medical advice/ attention. none

Danger

May cause an allergic skin reaction. May cause cancer by inhalation. Causes damage to organs through prolonged or repeated

May cause long lasting harmful effects to aquatic life.

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Precautionary Statements P202 Do not handle until all safety precautions have been read and understood P260 Do not breathe dust. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302 + P352 IF ON SKIN: Wash with plenty of water. P308 + P313 IF exposed or concerned: Get medical advice/ attention. Supplemental Hazard none Statements 2 3 Other hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. **SECTION 3: Composition/information on ingredients** 3.1 Substances Formula : NiO Molecular weight : 74,69 g/mol CAS-No. : 1313-99-1 EC-No. · 215-215-7 Index-No. : 028-003-00-2

Component	Classification	Concentration
Nickel oxide		
CAS-No. 1313-99-1	Skin Sens. 1; Carc. 1A; STOT	RE 1; <= 100 %
EC-No. 215-215-7	Aquatic Chronic 4; H317, H350	Di, H372,
	H413	

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with

water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact

lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section

2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

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SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given. 5.2 Special hazards arising from the substance or mixture Nickel/nickel oxides Not combustible. Ambient fire may liberate hazardous vapours. 5.3 Advice for firefighters Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. 5.4 Further information Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. **SECTION 6: Accidental release measures** 6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. 6.2 Environmental precautions Do not let product enter drains. 6.3 Methods and materials for containment and cleaning up Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts. 6.4 Reference to other sections For disposal see section 13. **SECTION 7: Handling and storage** 7.1 Precautions for safe handling Advice on safe handling Work under hood. Do not inhale substance/mixture. Hygiene measures Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Storage class Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters Ingredients with workplace control parameters 8.2 Exposure controls Personal protective equipment Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses Skin protection This recommendation applies only to the product stated in the safety data sheet,

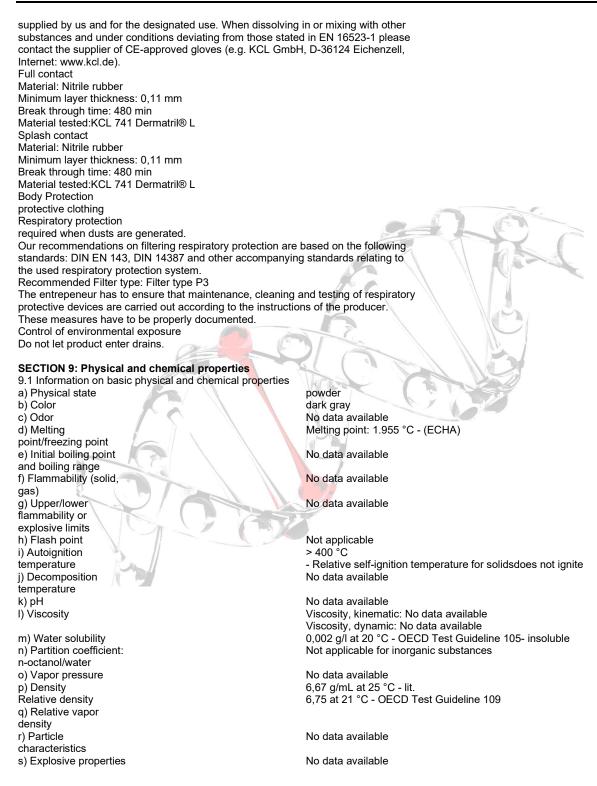
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t) Oxidizing properties9.2 Other safety informationNo data available

none

SECTION 10: Stability and reactivity 10.1 Reactivity No data available 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature). 10.3 Possibility of hazardous reactions No data available 10.4 Conditions to avoid no information available 10.5 Incompatible materials Strong acids 10.6 Hazardous decomposition products In the event of fire: see section 5 **SECTION 11: Toxicological information** 11.1 Information on toxicological effects Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals: Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L. Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant). Special Remarks on Toxicity to Animals: Not available. Special Remarks on Chronic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Not available. **SECTION 12: Ecological information** 12.1 Toxicity Toxicity to fish semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - 15,3 mg/l - 96 h Remarks: (ECHA) Toxicity to daphnia and other aduatic invertebrates static test LC50 - Ceriodaphnia dubia (water flea) - 0,027 mg/l - 48 h Remarks: (ECHA) Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata - 0,081 - 0,148 mg/l - 72 h (OECD Test Guideline 201) Toxicity to bacteria EC50 - activated sludge - 33 mg/l - 30 min (ISO 8192) Toxicity to fish(Chronic toxicity) flow-through test NOEC - Cyprinodon variegatus (sheepshead minnow) - 21,7 mg/l - 28 d Remarks: (ECHA) 12.2 Persistence and degradability The methods for determining biodegradability are not applicable to inorganic substances. 12.3 Bioaccumulative potential Bioaccumulation Fucus vesiculosus - 21 d - 0,00001 mg/l(Nickel oxide) Bioconcentration factor (BCF): 675 (Tested according to Annex V of Directive 67/548/EEC.) Remarks: The product may be accumulated in organisms. 12.4 Mobility in soil No data available

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12.5 Results of PBT and vPvB assessment This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. 12.6 Endocrine disrupting properties Product: : The substance/mixture does not contain components Assessment considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. 12.7 Other adverse effects No data available **SECTION 13: Disposal considerations** 13.1 Waste treatment methods No data available **SECTION 14: Transport information** 14.1 UN number ADR/RID: -IMDG: -IATA: 14.2 UN proper shipping name ADR/RID Not dangerous goods IMDG : Not dangerous goods IATA : Not dangerous goods 14.3 Transport hazard class(es) ADR/RID: -IMDG: -IATA: 14.4 Packaging group ADR/RID: -IMDG: -IATA: -14.5 Environmental hazards ADR/RID: no IMDG Marine pollutant: no IATA: no 14.6 Special precautions for user No data available Further information Not classified as dangerous in the meaning of transport regulations.

SECTION 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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