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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Nickel fluoride Product Code: N 1500 CAS No : 10028-18-9

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 Acute toxicity, (Category 3) Acute toxicity, (Category 3) Skin irritation, (Category 2) Serious eye damage, (Category 1) Respiratory sensitization, (Category 1)

Skin sensitization, (Category 1) Germ cell mutagenicity. (Category 2) Carcinogenicity, (Category 1A) Reproductive toxicity, (Category 1B) Specific target organ toxicity repeated exposure, (Category 1), Respiratory Tract Short-term (acute) aquatic hazard, (Category 1) Long-term (chronic) aquatic hazard, (Category 1) 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Hazard Statements H301 + H331 H315 H317 H318 H334 H341 H350i H360D H372

H331: Toxic if inhaled.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317: May cause an allergic skin reaction.
H341: Suspected of causing genetic defects.
H350: May cause cancer by inhalation.

H301: Toxic if swallowed.

H360D: May damage the unborn child.

H372: Causes damage to organs through prolonged or repeated exposure if inhaled.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

Danger

Toxic if swallowed or if inhaled. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. May cause cancer by inhalation. May damage the unborn child. Causes damage to organs (Respiratory Tract) through prolonged or repeated exposure if inhaled. Very toxic to aquatic life with long lasting effects.

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H410

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Precautionary Statements P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P301 + P310 P302 + P352 IF ON SKIN: Wash with plenty of water. P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor. IF IN EYES: Rinse cautiously with water for several minutes. P305 + P351 + P338 Remove contact lenses, if present and easy to do. Continue rinsing. Supplemental Hazard none Statements Restricted to professional users. Reduced Labeling (<= 125 ml) Pictogram Signal Word Danger Hazard Statements May cause allergy or asthma symptoms or breathing difficulties H334 if inhaled. H317 May cause an allergic skin reaction. H341 Suspected of causing genetic defects. H350i May cause cancer by inhalation. H372 Causes damage to organs through prolonged or repeated exposure if inhaled. Causes serious eye damage. H318 May damage the unborn child. H360D H301 + H331 Toxic if swallowed or if inhaled. **Precautionary Statements** Wear protective gloves/ protective clothing/ eye protection/ face P280 protection. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P302 + P352 IF ON SKIN: Wash with plenty of water. P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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. Strong hydrogen fluoride-releaser **SECTION 3: Composition/information on ingredients** 3.1 Substances

Formula	: F2Ni
Molecular weight	: 96,69 g/mol
CAS-No.	: 10028-18-9
EC-No.	: 233-071-3

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Component	Classification	Concentration
Nickel(2+) fluoride		
CAS-No. 10028-18-9 EC-No. 233-071-3	Acute Tox. 3; Skin Irrit. 2; Eye Dam. 1; Resp. Sens. 1; Skin Sens. 1; Muta. 2; Carc. 1A; Repr. 1B; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H301, H331, H315, H318, H334, H317, H341, H350i, H360D, H372, H400, H410 Concentration limits: >= 1 %: STOT RE 1, H372; 0,1 - < 1 %: STOT RE 2, H373; >= 0,01 %: Skin Sens. 1, H317; M-Factor - Aquatic Acute: 1 - Aquatic Chronic: 1	<= 100 %

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

Hydrofluoric (HF) acid burns require immediate and specialized first aid and medical treatment. Symptoms may be delayed up to 24 hours depending on the concentration of HF. After decontamination with water, further damage can occur due to penetration/absorption of the fluoride ion. Treatment should be directed toward binding the fluoride ion as well as the effects of exposure. Skin exposures can be treated with a 2.5% calcium gluconate gel repeated until burning ceases. More serious skin exposures may require subcutaneous calcium gluconate except for digital areas unless the physician is experienced in this technique, due to the potential for tissue injury from increased pressure. Absorption can readily occur through the subungual areas and should be considered when undergoing decontamination. Prevention of absorption of the fluoride ion in cases of ingestion can be obtained by giving milk, chewable calcium carbonate tablets or Milk of Magnesia to conscious victims. Conditions such as hypocalcemia, hypomagnesemia and cardiac arrhythmias should be monitored for, since they can occur after exposure. First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

First treatment with calcium gluconate paste. 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. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

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

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

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Hydrogen fluoride 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. Keep in a dry place. Do not store in glass Storage class Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials 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). Tightly fitting safety goggles Skin protection This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please

contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

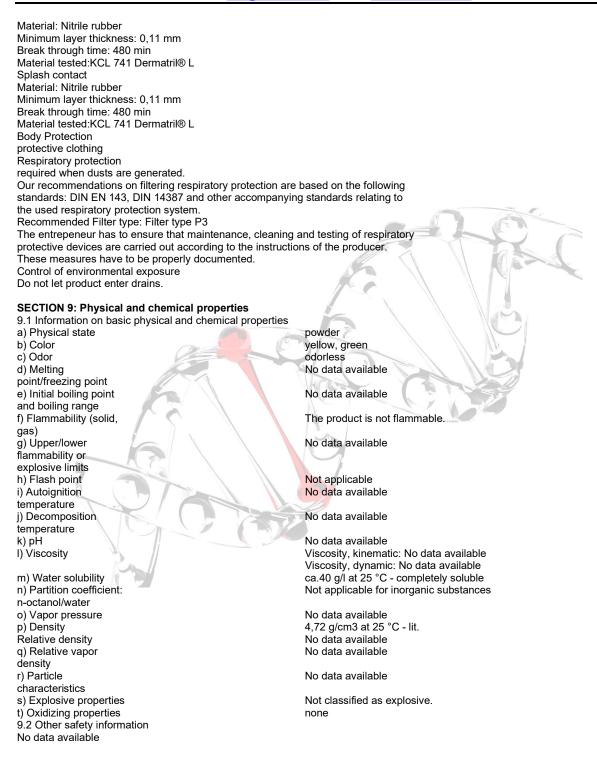
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SECTION 10: Stability and reactivity

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
Reacts dangerously with glass.
no information available
10.5 Incompatible materials
glass
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 bacteria 12.2 Persistence and degradability The methods for determining biodegradability are not applicable to inorganic substances. 12.3 Bioaccumulative potential No data available 12.4 Mobility in soil No data available 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: Assessment : 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. 12.7 Other adverse effects Discharge into the environment must be avoided. **SECTION 13: Disposal considerations**

13.1 Waste treatment methods No data available

SECTION 14: Transport information

14.1 UN number		
ADR/RID: 3288	IMDG: 3288	
14.2 UN proper shipping name		
ADR/RID	: TOXIC SOLID, INORGANIC, N.O.S. (Nickel(2+) fluoride)	
IMDG	: TOXIC SOLID, INORGANIC, N.O.S. (Nickel(2+) fluoride)	
IATA	: Toxic solid, inorganic, n.o.s. (Nickel(2+) fluoride)	

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IATA: 3288

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	IMDG: 6.1 IMDG: III IMDG Marine pollutant: r E) No data available	IATA: 6.1 IATA: III yes IATA: no
substance or mixture This material safety data sheet of 1907/2006. Authorisations and/or restrictions REACH - Restrictions on the ma placing on the market and use of dangerous substances, mixtures (Annex XVII) : Nickel(2+) fluoride REACH - Restrictions on the ma placing on the market and use of dangerous substances, mixtures (Annex XVII) : Nickel(2+) fluoride National legislation Seveso III: Directive 2012/18/EU European Parliament and of the on the control of major-accident involving dangerous substances H2 ACUTE TOXIC E1 ENVIRONMENTAL HAZARE H2 ACUTE TOXIC E1 ENVIRONMENTAL HAZARE Other regulations Observe work restrictions regard stricter national regulations wher Take note of Dir 94/33/EC on the 15.2 Chemical Safety Assessme	nental regulations/legislation specific for the omplies with the requirements of Regulation on use nufacture, f certain and articles of the Council hazards S S S S Ing maternity protection in accordance to E e applicable. e protection of young people at work.	

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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