

Safety Data Sheet NICKEL FLUORIDE

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION		
Product Name	NICKEL FLUORIDE	
Synonyms	NICKEL(II) FLUORIDE TETRAHYDRATE, 98+%, NICKEL DIFLUORIDE HYDRATE, NICKELOUS FLUORIDE HYDRATE	
CAS No	10028-18-9	
General Use	Industrial / Chemical Manufacturing, Laboratory chemicals, Manufacture of substances	
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SECTION 2 : HAZARDS IDENTIFICATION	
Classification of the substance or mixture	
Classification according to Regulation (EC) No 1272/2008	
Acute toxicity, Oral (Category 3),	H301
Acute toxicity, Inhalation (Category 3),	H331
Skin irritation (Category 2),	H315
Serious eye damage (Category 1),	H318
Respiratory sensitisation (Category 1),	H334
Skin sensitisation (Category 1),	H317
Germ cell mutagenicity (Category 2),	H341
Carcinogenicity, Inhalation (Category 1A),	H350i
Reproductive toxicity (Category 1B),	H360D
Specific target organ toxicity - repeated exposure (Category 1),	H372
Acute aquatic toxicity (Category 1),	H400
Chronic aquatic toxicity (Category 1),	H410
For the full text of the H-Statements mentioned in this Section, see Section 16.	

Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H301 + H331	Toxic if swallowed or if inhaled
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H360D	May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201	Obtain special instructions before use.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273	Avoid release to the environment.
P280	Wear eye protection/ face protection.
P280	Wear protective gloves.
P284	Wear respiratory protection.

Supplemental Hazard Statements none

Restricted to professional users.

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. Strong hydrogen fluoride-releaser

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENT

INGREDIENT	CAS No	Percent	ACGIH (TWA)	OSHA (PEL)
NICKEL(II) FLUORIDE TETRAHYDRATE	10028-18-9	34%	0.1mg/m ³ (as Ni)	1mg/m ³ (as Ni)

SECTION 4 : FIRST AID MEASURES

Eye Exposure: Immediately flush the eyes with copious amounts of water for at least 10-15 minutes. A victim may need assistance in keeping their eye lids open. Get immediate medical attention.

Skin Exposure: Wash the affected area with water. Remove contaminated clothes if necessary. Apply calcium gluconate jelly or water soluble calcium salts as antidote. Seek medical assistance.

Inhalation: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

Ingestion: Seek medical attention immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 : FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Hydrogen fluoride, Nickel/nickel oxides

Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

Further information
No data available



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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.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7 : HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place. Do not store in glass. Storage class (TRGS 510): Combustible solids, toxic

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

Control parameters

Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.



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SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Color and Form	Green Powder
Ni	33- 34%
SO4	0.02%
Fe	0.05%
Cl	0.02%
Pb	0.005%
Moisture	0.5%

SECTION 10 : STABILITY AND REACTIVITY

Stability	: Air and moisture stable
Hazardous Polymerization	: No hazardous polymerization
Conditions to Avoid	: None
Incompatibility	: None
Decomposition Products	: Metal fluorides and water

SECTION 11 : TOXICOLOGICAL INFORMATION

RTECS Data	: No information available in the RTECS files.
Carcinogenic Effects	: Carcinogen (as Ni)
Mutagenic Effects	: no data
Tetratogenic Effects	: no data

Carcinogenicity

IARC: 1 - Group 1: Carcinogenic to humans (Nickel difluoride)
3 - Group 3: Not classifiable as to its carcinogenicity to humans (Nickel difluoride)

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3 - Group 3: Not classifiable as to its carcinogenicity to humans (Nickel difluoride)

Additional Information

Repeated dose toxicity - Rat - male and female - Inhalation(Nickel difluoride)

Fluoride ion can reduce serum calcium levels possibly causing fatal hypocalcemia.

Salivation, Nausea, Vomiting, Fever, Dermatitis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated., Gastrointestinal disturbance, Material reacts with moisture on the skin, eyes, and mucous membranes to g destructive and may cause deep progressive burns that induce subcutaneous lesions of dead tissue that are slow to heal.(Nickel difluoride)

SECTION 12 : ECOLOGICAL INFORMATION

Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available(Nickel difluoride)
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.	
Other adverse effects	Very toxic to aquatic life with long lasting effects.

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14 : TRANSPORT INFORMATION

UN number

ADR/RID: 3288 IMDG: 3288 IATA: 3288

UN proper shipping name

ADR/RID: TOXIC SOLID, INORGANIC, N.O.S. (Nickel difluoride)
IMDG: TOXIC SOLID, INORGANIC, N.O.S. (Nickel difluoride)
IATA: TOXIC SOLID, INORGANIC, N.O.S. (Nickel difluoride)

Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15 : REGULATORY INFORMATION

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

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

Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16 : OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

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H301 + H331	Toxic if swallowed or if inhaled
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H360D	May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Other Special Considerations : Not available.

Creation Date : October 2008

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