

## NICKEL(II) CHLORIDE HEXAHYDRATE

### SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

**Product Name:** Nickel(II) chloride hexahydrate

**Product Code:** 2131

**CAS#:** 10034-96-5

**Synonym:** Not available

**Chemical Name:** Not available

**Chemical Formula:**  $MnSO_4 \cdot 6H_2O$

**Formula weight :** 237.69

### SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

**Composition:**

**Name:** Manganese(II) chloride tetrahydrate

**Toxicological Data on Ingredients:** Acute Tox. 3; Skin Irrit. 2;

Resp. Sens. 1; Skin Sens.1; Muta. 2; Carc. 1A;Repr. 1B; STOT RE 1;Aquatic Acute 1; Aquatic

Chronic 1; H301, H331,H315, H334, H317, H341,H350i, H360D, H372,H400, H410

### SECTION 3: HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

Skin irritation (Category 2), H315

Respiratory sensitization (Category 1), H334

Skin sensitization (Category 1), H317

Germ cell mutagenicity (Category 2), H341

Reproductive toxicity (Category 1B), H360D

**Potential Acute Health Effects:**

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

Short-term (acute) aquatic hazard (Category 1), H400

**Potential Chronic Health Effects**

Long-term (chronic) aquatic hazard (Category 1), H410

**Carcinogenic Effects:** Carcinogenicity, Inhalation (Category 1A), H350i

**Mutagenic Effects:** Not available.

**Teratogenic Effects:** Not available.

**Developmental Toxicity:** Not Available

**Specific target organ toxicity** - repeated exposure, Inhalation (Category 1), Lungs, H372

### SECTION 4: FIRST AID MEASURES

**Description of first aid measures**

General advice Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled If breathed in:** Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Flush eyes with water as a precaution.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delay:** No data available



**Indication of any immediate medical attention and special treatment needed:** No data available

### SECTION 5: FIRE AND EXPLOSION DATA

**Extinguishing media**

**Suitable extinguishing media :**

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

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

Hydrogen chloride gas

Nickel/nickel oxides

Not combustible.

Ambient fire may liberate hazardous vapours

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

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures** Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

**Environmental precautions** Do not let product enter drains.

**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.

### SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling**

Work under hood. Do not inhale substance/mixture.

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

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Hygroscopic.

**Storage Class:**

Not available.

**Specific end use(s) A part from the uses:**

No other specific uses are stipulated

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure controls**

**Appropriate engineering controls** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal protective equipment**

**Eye/face protection** Safety glasses with side-shields conforming to EN166 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.

**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** For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).



**Control of environmental exposure** Do not let product enter drains.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance Form</b>	: Solid
<b>Colour</b>	: Green
<b>Odour</b>	: Not available
<b>Odour Threshold</b>	: Not available
<b>pH</b>	: Not available
<b>Melting point/freezing point</b>	: Not available
<b>Initial boiling point and boiling range</b>	: Not available
<b>Flash point</b>	: Not available
<b>Evaporation rate</b>	: Not available
<b>Flammability (solid, gas)</b>	: Not available
<b>Upper/lower flammability or explosive limits</b>	: Not available
<b>Vapour pressure</b>	: Not available
<b>Vapour density</b>	: Not available
<b>Relative density</b>	: Not available
<b>Water solubility</b>	: 2.540 g/l at 20 °C - soluble
<b>Partition coefficient</b>	: Not available
<b>Auto-ignition temperature</b>	: Not available

### SECTION 10: STABILITY AND REACTIVITY DATA

**Reactivity** no data available

**Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature).

**Possibility of hazardous reactions**

Violent reactions possible with:

Alkali metals

**Conditions to avoid :**

Avoid moisture.

no information available

**Incompatible materials**

Metals, Light metals

**Hazardous decomposition products** **Other decomposition products** - In the event of fire

### SECTION 11: TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

**Acute Toxicity:**

LD50 Oral - Rat - female - 175 mg/kg

LC50 Inhalation - Rat - male - 4 h - 0,593 mg/l

**Skin corrosion/irritation** no data available

**Serious eye damage/eye irritation** no data available

**Respiratory or skin sensitization** no data available

**Carcinogenicity** no data available

### SECTION 12: ECOLOGICAL INFORMATION

**Toxicity:**

Toxicity to fish semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - 15,3 mg/l - 96 h



Toxicity to daphnia static test LC50 - Ceriodaphnia dubia (water flea) - 0,013 mg/l - 48h  
and other aquatic  
invertebrates

Toxicity to algae static test ErC50 - green algae - 0,243 mg/l - 72 h

**Persistence and degradability:**

no data available

**Bioaccumulative potential :**

no data available

**Mobility** in soil no data available

**Results of PBT and vPvB assessment PBT/vPvB assessment** not available

**Other adverse affects** no data available

### 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 chemical incinerator equipped with an afterburner and 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(II) chloride hexahydrate)

**IMDG:** TOXIC SOLID, INORGANIC, N.O.S. (Nickel(II) chloride hexahydrate)

**IATA:** TOXIC SOLID, INORGANIC, N.O.S. (Nickel(II) chloride hexahydrate)

**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:** Yes

**IMDG Marine pollutant:** Yes

**IATA:** No

### SECTION 15: OTHER REGULATORY INFORMATION

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

### SECTION 16: OTHER INFORMATION

**References: Full text of H AND R-Statements.**

H301 Toxic if swallowed.

H301 + H331 Toxic if swallowed or if inhaled.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

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 (/\$/\*\_ORG\_REP\_INHA\$/) through prolonged or



repeated exposure if inhaled.

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.

**Special Considerations:** Not available

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