

NICKEL SULPHATE (Hexa)

SECTION 1: PRODUCT IDENTIFICATION

Product Name: NICKEL SULPHATE (Hexa)

Product Code: 3324

CAS#: 10101-97-0

Chemical Formula: $\text{NiSO}_4 \cdot 6\text{H}_2\text{O}$

Molecular Formula: 262.85 g/mol

Formula Weight: NA

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Substances Synonyms: NA

Formula: $\text{NiSO}_4 \cdot 6\text{H}_2\text{O}$

Molecular Weight: 262.85 g/mol

CAS-No.: 10101-97-0

SECTION 3: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity, (Category 4) H302: Harmful if swallowed.

Acute toxicity, (Category 4) H332: Harmful if inhaled.

Skin irritation, (Category 2) H315: Causes skin irritation.

Respiratory sensitisation, (Category 1) H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

Skin sensitisation, (Category 1) H317: May cause an allergic skin reaction.

Germ cell mutagenicity, (Category 2) H341: Suspected of causing genetic defects.

Carcinogenicity, (Category 1A) H350i: May cause cancer by inhalation.

Reproductive toxicity, (Category 1B) H360D: May damage the unborn child.

Specific target organ toxicity - repeated exposure, (Category 1), Respiratory Tract H372: Causes damage to organs through prolonged or repeated exposure if inhaled.

Short-term (acute) aquatic hazard, (Category 1) H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, (Category 1) H410: Very toxic to aquatic life with long lasting effects.

Other hazards:

This substance/mixture contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (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 4: FIRST AID MEASURES

Description of first aid measures

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



Eye Contact: Flush eyes with water as a precaution.

Skin Contact: Wash off with soap and plenty of water. Consult a physician.

Serious Skin Contact: Not available

Serious Inhalation: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician

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

Serious Ingestion: Not available

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

Special hazards arising from the substance or mixture no data available

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 vapor's, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

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.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Specific end use(s) A part from the uses no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Personal protective equipment

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

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance Form

: Green color crystalline powder.

Odour

: Not available

Taste

: Not available



Molecular Weight	: Not available
Colour	: Not available
pH	: Not available
Boiling Point	: Not available
Melting Point	: Not available
Critical Temperature	: Not available
Specific Density	: Not Available
Vapor Pressure	: Not Available
Vapor Density	: Not available
Volatility	: Not Available
Odor Threshold	: Not Available
Water/Oil Dist. Coeff.	: Not Available
Ionicity (in Water)	: Not Available
Dispersion Properties	: Not Available
Solubility	: Not available

SECTION 10: STABILITY AND REACTIVITY DATA

Reactivity no data available

Chemical stability Stable under recommended storage conditions.

Possibility of hazardous reactions increased reactivity with: Strong acids

Conditions to avoid no data available

Incompatible materials no data available

Hazardous decomposition products no data available

Other decomposition products no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 361,9 mg/kg

Remarks: anhydrous substance Acute toxicity estimate Inhalation - 4 h - 1,6 mg/l - dust/mist

Dermal: No data available

Skin corrosion/irritation: Remarks: No data available

Serious eye damage/eye irritation: Remarks: No data available

Respiratory or skin sensitization:

Maximisation Test - Guinea pig

May cause allergic skin reaction.

Germ cell mutagenicity:

In vitro tests showed mutagenic effects Suspected of causing genetic defects.

Test Type: Mutagenicity (mammal cell test):

Result: positive

Remarks: (National Toxicology Program)

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Remarks: (National Toxicology Program)

Test Type: comet assay

Species: Rat

Application Route: inhalation (dust/mist/fume)

Result: positive

Remarks: (ECHA)



Carcinogenicity:

Positive evidence from human epidemiological studies (inhalation)

Reproductive toxicity:

Presumed human reproductive toxicant May damage the unborn child.

Specific target organ toxicity: no data available

Specific target organ toxicity - repeated exposure

Inhalation - Causes damage to organs through prolonged or repeated exposure. - Respiratory Tract

Aspiration hazard no data available

SECTION 12: ECOLOGICAL INFORMATION

Toxicity no data available

Persistence and degradability The methods for determining biodegradability are not applicable to inorganic substances

Bio-accumulative potential no data available

Mobility in soil no data available

Results of PBT and vPvB assessment PBT/vPvB assessment This substance/mixture contains no components considered to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects no data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

UN number:

ADR/RID: 3077

IMDG: 3077

IATA: 3077

UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (NICKEL SULFATE HEXAHYDRATE) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (NICKEL SULFATE HEXAHYDRATE)

IATA: Environmentally hazardous substance, solid, n.o.s. (NICKEL SULFATE HEXAHYDRATE)

Transport hazard class(es):

ADR/RID: 9

IMDG: 9

IATA: 9

Packaging group:

ADR/RID: III

IMDG: III

IATA: III

Environmental hazards:

ADR/RID: Yes

IMDG Marine pollutant: Yes

IATA: Yes

Special precautions for user

Tunnel restriction code : (-)

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

SECTION 15: OTHER REGULATORY INFORMATION

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



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

This material safety data sheet 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

References: Full text of H AND R-Statements

H302: Harmful if swallowed.

H332: Harmful if inhaled.

H315: Causes skin irritation.

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.

H350i: May cause cancer by inhalation.

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.

LD50 Oral - Rat - 361,9 mg/kg

Other Special Considerations: Not available.

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. The information is offered solely for user's obligation to investigate and determine the suitability of the information for their particular purpose.