

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Kevitsa Nickel Concentrate**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier****Trade name**

Kevitsa Nickel Concentrate

CAS number

-

EC number

310-127-6

REACH registration number

Not required - exempt from REACH registration.

1.2. Relevant identified uses of the substance or mixture and uses advised against**Relevant identified uses**

Raw material for metal production.

1.3. Details of the supplier of the safety data sheet**Supplier**

Boliden Kevitsa

Address

Kevitsantie 730

99670 Petkula

Finland

Telephone

+358 16 451 100

Email

kevitsa.msds@boliden.com

1.4. Emergency telephone number

09-4711/Myrkytystietokeskus tai suora numero 09-471977 Myrkytystietokeskus/HUS, Tukholmankatu 17, 00029 HUS (Helsinki) 112

Available outside office hours

Yes

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classification

Hazardous to the aquatic environment — Chronic hazard category 3
Respiratory sensitisation, hazard category 1

Hazard statements

H334, H412

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger

Hazard statements

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P281 Use personal protective equipment as required.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P406 Store in corrosive resistant container with a resistant inner liner.
P501 Dispose of contents/container to in accordance with local regulations.

More information

Nickel Concentrate is a naturally occurring UVCB substance, including: Pentlandite, Chalcopyrite, Violarite.

2.3. Other hazards

Dust can irritate eyes and respiratory organs.
Oxidation of material can consume all oxygen from surrounding airspace, especially relevant when material is stored in closed or confined space (eg: silo, hold, etc.)
Burning concentrate can cause formation of sulphur dioxide, which is toxic and can irritate eyes and respiratory organs.

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SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
Nickel concentrate	- 310-127-6 - -	100%	Resp. Sens. 1, Aquatic Chronic 3	H334, H412 - -	-

Product based on

Nickel concentrate is a UVCB substance, including (name (CAS), concentration):

Pentlandite (Ni,Fe)S (12174-14-0), 15-40%

Pyrrhotite Fe₇S₈ (12305-96-3), 15-30%

Chalcopyrite CuFeS₂ (1308-56-1), 5-10%

Cubanite CuFe₂S₃ (12140-08-8), 5-10 %

Pyrite (FeS₂) (1309-36-0), 1-20%

Violarite (FeNi₂S₄) (12332-31-9), 1-10%

Substance additional information

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Description of first aid measures

In the event of an accident: Contact a doctor or emergency department - bring the label or this safety data sheet. In case of persistent symptoms or if there is any doubt about the affected person's condition, seek medical help. Never give water or the like to an unconscious person.

Inhalation

Remove person to fresh air and keep comfortable for breathing. Keep under medical supervision for at least 48 hours.

In case of respiratory tract irritation, consult a physician.

Skin contact

Take off contaminated clothing and wash it before reuse.

IF ON SKIN: Wash with plenty of soap and water.

In case of skin reactions, consult a physician.

Eye contact

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

In case of eye irritation consult an ophthalmologist.

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Ingestion

If the substance has been swallowed, contact a doctor immediately and show the safety data sheet or label. If the person is conscious, give them water. Don't throw up. Keep the patient's face down to prevent vomit from returning to the mouth and pharynx. Prevent shock by keeping the injured person warm and calm. Begin immediate CPR if breathing stops. If the patient is unconscious, turn them to their side.

4.2. Most important symptoms and effects, both acute and delayed

Carcinogenic effects:

The product contains substances that are considered, or have been proven, to be carcinogenic based on epidemiological studies or animal experiments.

Reproductive toxicity:

The product contains teratogenic substances that can cause permanent damage to human offspring. The effect on the child can be: malformations, delayed development or disability. The product contains substances that can damage the reproductive process, e.g. through damage to gametes or hormone regulation. The effect can be: sterility, reduced fertility, menstrual changes, etc.

4.3. Indication of any immediate medical attention and special treatment needed

In case of exposure or suspicion of exposure:

Seek medical attention immediately.

Information for doctors:

Show this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

The product is not flammable.

Alcohol resistant foam, Carbon dioxide (CO₂), Powder, Water spray

Unsuitable extinguishing media

Full water jet.

Water jet should not be used as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

When heated to high temperatures, harmful fumes containing sulfur oxides and metal oxides can be formed.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Wear complete protective equipment including respirator.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spills. In emergency situations, safety glasses must be worn. Gloves and other personal protective equipment must be used if necessary. If there is dust in the air, use a respirator with a class ABEK P3 filter.

6.2. Environmental precautions

Avoid discharges into lakes, rivers, sewers, etc. Contact the local environmental authorities in the event of discharges into the surroundings.

Dispose of waste for waste collection, to prevent release to the environment. See section 8 for personal protection. Avoid direct contact with the product.

6.3. Methods and material for containment and cleaning up

Spilled material is collected in a suitable container for removal.

6.4. Reference to other sections

See section 13 for waste management. See section 8 for safety instructions.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions

Dispose of waste for waste collection, to prevent release to the environment. See section 8 for personal protection. Avoid direct contact with the product.

Do not expose to heat. Do not expose to sources of ignition. Do not swallow the product. Do not inhale dust from the product. Wear suitable protective clothing.

7.2. Conditions for safe storage, including any incompatibilities

Store the product so that emissions into the environment are prevented.

Storage temperature: No data available

7.3. Specific end use(s)

This product should only be used for the uses described in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits

Professional users are covered by the work environment legislation's rules on maximum concentrations for exposure. See the occupational hygiene limit values.

National occupational exposure limits

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Ingredient	CAS No. EC No.	Exposure limit ppm / mg/m ³	Source	Remark	Year
Nickel, metal	7440-02-0 231-111-4	- 0,01	Publication HTP Values 2020	Ni, alveolar fraction	2014
Nickel, compounds	- -	- 0,05	Publication HTP Values 2020	Ni, respirable dust	2014
Nickel, compounds	- -	- 0,01	Publication HTP Values 2020	Ni, alveolar fraction	2014
Inorganic dust	- -	- 10	Publication HTP Values 2020	-	1981

8.2. Exposure controls

Appropriate engineering controls

Compliance with the specified limit values should be checked regularly. Provide good ventilation. Ensure good industrial hygiene.

Exposure scenario

If there is an appendix to this safety data sheet, the exposure scenarios set out in the appendix must be followed.

Technical measures and storage conditions

Take general care when using the product. Avoid inhaling gas and dust. Well-ventilated areas are recommended.

Hygiene measures

At each break when using the product and at the end of the work, the exposed areas of the body should be washed. Always wash hands, forearms and face.

Personal Protective Equipment Symbols



Eye / face protection

Wear approved goggles.
Use only CE-marked or locally approved protective equipment.

Hand protection

Wear protective gloves.
Use only CE-marked or locally approved protective equipment.

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Other skin protection

Wear clean protective clothing and suitable shoes.
Use only CE-marked or locally approved protective equipment.

Respiratory protection

Follow work routines that minimize dust formation. For certain parts, approved respiratory protection for dust may be needed. If the product develops smoke from oxidation, use an approved respirator for thermally generated particles and acid gases.
Use only CE-marked or locally approved protective equipment.

Environmental exposure controls

Follow the risk management measures that provide adequate control over the environmental exposure of the substance for the exposure scenarios set out in the Annex to the Safety Data Sheet (if such an Annex exists).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Solid. Very fine, dry powder

Colour

Greenish to gray

Odour

Odourless

Melting point / freezing point

No data available

Boiling point or initial boiling point and boiling range

No data available

Flammability

No data available

Lower and upper explosion limit

No data available

Flash point

No data available

Auto-ignition temperature

No data available

Decomposition temperature

No data available

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pH

No data available

Kinematic viscosity

No data available

Solubility

Solubility in fat (g / L): Insoluble

Water solubility

Practically insoluble

Partition coefficient n-octanol/water

No data available

Vapour pressure

No data available

Density and/or relative density4,4 g/cm³**Relative vapour density**

No data available

Particle characteristics

No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable under storage at normal ambient temperatures.

10.2. Chemical stability

The product is stable under the conditions specified in section 7.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur

10.4. Conditions to avoid

None under normal use.

Do not expose to heat. Do not expose to sources of ignition. Do not swallow the product. Do not inhale dust from the product. Wear suitable protective clothing.

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10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents and strong reducing agents.
Reacts with acids to form toxic hydrogen sulfide gas.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Skin corrosion/irritation

Dust can irritate skin.

Serious eye damage/irritation

Dust may irritate eyes and respiratory organs.

Respiratory or skin sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties

According to the currently available resources, there is no conclusive data on the endocrine-disrupting properties for this product and its constituents.

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

Not readily biodegradable (according to OECD criteria)

Oxidation of material may cause acidic seepage waters for a very long time period (2-10 years) from open storage area.

12.3. Bioaccumulative potential

Metals may be accumulated on plants.

12.4. Mobility in soil

Mobility

Material can spread to the environment as dust or within rainwater to the water system.

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12.5. Results of PBT and vPvB assessment

The PBT and vPvB criteria are not applicable to inorganic substances.

12.6. Endocrine disrupting properties

According to the currently available resources, there is no conclusive data on the endocrine-disrupting properties for this product and its constituents.

12.7. Other adverse effects

This product contains substances, which due to poor biodegradability, may cause adverse long-term effects on the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

This product is subject to hazardous waste regulations.

The product may cause harmful contamination of soil and water.

Packaging

The waste category is indicative and depends on the way in which the waste was created.

Packaging with residual content of the product must be discarded in the same way as the product.

Waste code	Waste description
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05

Please note - an asterisk (*) next to a code denotes that it is HAZARDOUS WASTE.

SECTION 14: Transport information

14.1. UN number

Not dangerous goods according to ADR, IATA and IMDG.

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

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14.6. Special precautions for user

In sea transport, nickel sulphide concentrates can consume oxygen during transportation from within the ship's closed holds. Holds must be adequately ventilated and oxygen levels measured before entering holds.

14.7. Maritime transport in bulk according to IMO instruments

IMO MARPOL V Classification: Not Harmful to the Marine Environment

Other

Not applicable

SECTION 15: Regulatory information

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

EU regulations

EU Regulation (EC) No. 1907/2006 (REACH)

CLP - Regulation (EC) No 1272/2008

Directive 94/33 / EC on the protection of young people at work.

COUNCIL DIRECTIVE 92/85 / EEC on measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

National regulations

Restrictions on use

The product may not be used professionally by young people under 18 years of age. Exclusively for professional use.

Pregnant and breastfeeding women should not be exposed to the product. The risk and the possibilities for technical precautionary measures or adaptation of the workplace to avoid such an impact must therefore be considered.

Ministry of Social Affairs and Health Decree on Concentrations known to be Harmful (654/2020)

Government Decree on Chemical Agents at Work (715/2001)

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes to previous revision

1-16

Abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

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ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE - Acute Toxicity Estimate
C&L - Classification and Labelling
CAS no. - Chemical Abstracts Service number
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSR - Chemical Safety Report
DNEL - Derived No Effect Level
EWC - European Waste Catalogue
ECHA - European Chemicals Agency
EC no. - EINECS number (European Inventory of Existing Commercial Substances)
GHS - Globally Harmonized System
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OEL - Occupational Exposure Limit
PBT - Persistent, Bioaccumulative and Toxic substance
PNEC - Predicted No Effect Concentration(s)
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
SCBA - Self-Contained Breathing Apparatus
STOT - Specific Target Organ Toxicity
SVHC - Substances of Very High Concern
UFI - Unique Formula Identifier
vPvB - Very Persistent and Very Bioaccumulative

Phrase meaning

Aquatic Chronic 3 - Hazardous to the aquatic environment — Chronic hazard category 3
Resp. Sens. 1 - Respiratory sensitisation, hazard category 1
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H412 Harmful to aquatic life with long lasting effects.

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Additional information

Emergency telephone number

Austria: Poison Control Centre Emergency helpline +43 1 406 43 43, 112

Belgium: 070 - 245 245

Bulgaria: +359 2 9154 233

Czech Republic: Toxikologické informační středisko Telefon: +420 224 919 293, +420 224 915 402

Denmark: Kontakt Giftlinien på tf.nr.: 8212 1212 (åbent 24 timer i døgnet).

Estonia: 112, 16662, ((+372) 7943 794)

Finland: 112, Poison Information Center 0800 147 111 avoinna 24 tuntia vuorokaudessa

France: ORFILA (INRS) : + 33 (0)1 45 42 59 59. 24 heures sur 24 et 7 jours sur 7 Germany: 112, Gift-notruf Berlin: +49 30 19240 (Tag und Nacht)

Greece: (0030) 2107793777

Hungary: +36-80-201-199 (0-24h)

Iceland: Neyðarlínan: Sími 112. Eitrunarmiðstöð Landsspítalans. Sími: 543 2222.

Ireland: +353 1 809 2566

Italy: Centro antiveneni di Roma - Policlinico Umberto I tel. 06-49978000 Latvia: 112, Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs +371 67042473

Lithuania: 112, Visuomenės sveikatos centrams +370 5 236 20 52

Malta: 112, Medicines & Poisons Info Office +356 25456508

Netherlands: 112, NVIC: +31 (0)88 755 8000 Uitsluitend bestemd om professionele hulpverleners te informeren bij acute vergiftiging

Norway: Giftinformasjonssentralen på tf.nr.: 22 59 13 00, 113

Poland: 112, Instytut Medycyny Pracy i Zdrowia Srodowiskowego +48 32 266 11 45

Portugal: 112, Em caso de intoxicacao, ligue Centro de Informação Antivenenos (CIAV) +351 800 250 250

Romania: +40 21 3183606

Slovakia: +421 2 54 77 4166

Slovenia: 112, +386 41 635 500

Spain: 112, Servicio de Información Toxicológica Teléfono: + 34 91 562 04 20 (solo emergencias toxicológicas) Información en español (24h/365 días)

Sweden: 112 - När det är brådskande, begär giftinformation 24 timmar om; 010-456 6700 - Vid mindre akuta fall (24 timmar om dygnet)

United Kingdom: 999 (or 111 for non-emergency medical advice). Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department or the NHS enquiry service)

Manufacturer's notes

It is recommended to disclose this SDS to the actual user of the product

The information in this SDS is based on our current knowledge. The information on the safety data sheets is based on the best available data and applies to the product's intended handling. This data sheet only applies to this product and may not be applicable if the product is used as an ingredient in another product.

If the product is used in another way or in an application other than the one for which the product was originally developed for, or recommended for, this is done entirely under the user's responsibility. The purpose of this SDS is to describe the safety requirements for the product. It must not be construed as a guarantee of the product's properties and the information may not replace a product sheet.