

Safety Data Sheet: Basic Nickel(II) Carbonate

1. Identification

Product	Basic Nickel(II) Carbonate; CAS 12607-70-4; EC 235-715-9
Use	Industrial raw material for professionally supervised chemical processing.
Company	Hainan Zhongxin Chemical Co., Ltd. (ZXCHEM)
Address	Room 1001, Building A, Caohejing Center, No. 1520 Gumei Road, Xuhui District, Shanghai, China
Telephone / email	+86-21-54265599 / sales@zxchem.com.cn
Emergency contact	ZXCHEM office number above, office hours, China time (UTC+8). For urgent medical assistance contact local emergency services.
Scope	Reference safety information for Basic Nickel(II) Carbonate. The reference composition, concentration and supply-grade differences are described in Section 3. This document does not certify the composition or transport status of a specific delivered batch or a different formulation.

2. Hazards Identification

Classification	Acute oral/inhalation toxicity 4; skin irritation 2; skin and respiratory sensitization 1; mutagenicity 2; inhalation carcinogenicity 1A; reproductive toxicity 1B; STOT repeated exposure 1; aquatic acute/chronic toxicity 1.
Signal word / symbols	Danger; GHS07, GHS08, GHS09
Hazard statements	H302/H332: harmful exposure. H315/H317/H334: irritation or sensitization. H341: genetic concern. H350i/H360D/H372: inhalation cancer, developmental and repeated-exposure hazards. H410: persistent aquatic toxicity.
Prevention	Use adequate ventilation; avoid inhaling dust. Prevent skin and eye contact. Wear suitable chemical-resistant gloves and eye protection. Wash after handling; keep food and drink out of the work area.
Response	After exposure, stop work and seek medical advice. For severe exposure obtain urgent medical care. Rinse contaminated skin or eyes with water; move an inhalation casualty to fresh air.
Environment	Prevent uncontrolled release to drains, soil or surface water. Collect spills for appropriate disposal.



3. Composition / Information on Ingredients

Reference ingredient	Basic nickel carbonate hydroxide hydrate; reference identifies tetrahydrate CAS39430-27-8 >95% and basic carbonate CAS12607-70-4. Supply nickel content ≥42%.
Supply grade	Nickel content ≥42%
Applicability	The cited concentration or purity describes the reference material. It is not a certificate of analysis for the delivered batch; different solvents or dilutions require the matching supplier safety document.

4. First-Aid Measures

General	Protect the rescuer from exposure and show the product information to medical personnel. Obtain medical advice if symptoms occur or exposure is significant.
Inhalation	Move to fresh air and keep the person comfortable. Seek medical care for breathing difficulty or persistent symptoms. Avoid exposing rescuers to dust.
Skin	Remove contaminated clothing and rinse skin thoroughly with water. Seek medical advice for persistent irritation.
Eyes	Rinse gently with clean water for at least 15 minutes. Remove contact lenses when easy and continue rinsing. Seek medical advice if irritation persists.
Ingestion	Rinse the mouth. Do not induce vomiting. Give nothing by mouth to an unconscious person. Obtain medical advice.
Effects / treatment	Nickel dust can cause sensitization, chronic organ injury, cancer by inhalation and developmental effects. Treatment is symptomatic and directed by a clinician.

5. Fire-Fighting Measures

Extinguishing media	Use water spray, foam, dry chemical or carbon dioxide suited to the surrounding fire.
Hazards	Nickel oxides during fire. Metal-containing dust and residue require containment.
Protection	Firefighters require suitable protective clothing and self-contained breathing equipment. Prevent contaminated firefighting water entering drains.

6. Accidental Release Measures

Personnel	Isolate the spill and provide ventilation. Use chemical-resistant gloves and eye protection; avoid contact and dust exposure.
Environment	Contain the release and protect drains and waterways. Report significant environmental contamination to the responsible authority.
Cleanup	Collect spilled solid without raising dust into closed labelled containers.

7. Handling and Storage

Handling	Use controlled transfer and effective ventilation. Avoid generating dust and prevent contamination of the work area.
Storage	Store tightly sealed in a cool, dry, ventilated area. Restrict access to trained personnel and segregate acids, ammonia and incompatible oxidizers; prevent releases of metal-containing dust.
Incompatibilities	Strong oxidizers; separate from acids and ammonia during storage.
Specific use	Evaluate compatibility and appropriate operating conditions in the complete formulation before industrial use.

8. Exposure Controls / Personal Protection

Exposure limits	Check current jurisdiction-specific limits for the chemical and any metal-containing dust. Use effective extraction and a task-specific exposure assessment.
Engineering controls	Use local extraction where dust can be generated. Maintain accessible eyewash and emergency washing facilities.
Personal protection	Wear chemical-resistant gloves selected for the task, suitable protective clothing and splash goggles. Add face protection for splash-prone tasks.
Respiratory protection	Use a properly selected respirator under a respiratory-protection program where engineering controls do not adequately limit airborne exposure.
Hygiene	Wash after handling, remove contaminated clothing promptly and do not eat, drink or smoke in the work area.

9. Physical and Chemical Properties

Appearance	Light green powder
Formula / molecular weight	$\text{NiCO}_3 \cdot 2\text{Ni}(\text{OH})_2 \cdot x\text{H}_2\text{O}$ / 304.12 g/mol (anhydrous basis)
Supply form	Light green powder
Nickel content, supply limit	≥42%
Hydration	Variable hydrated basic carbonate
Other properties	Product-specific values for odor threshold, vapor pressure, partition coefficient, autoignition temperature and viscosity are not supplied by the selected reference set. No values are inferred.

10. Stability and Reactivity

Stability	Handle and store under the recommended conditions. Prevent contamination and unnecessary heating.
Incompatibilities	Strong oxidizers; separate from acids and ammonia during storage.
Decomposition	Nickel oxides during fire. Metal-containing dust and residue require containment.

11. Toxicological Information

Exposure effects	Nickel dust can cause sensitization, chronic organ injury, cancer by inhalation and developmental effects.
Reference classification	Acute oral/inhalation toxicity 4; skin irritation 2; skin and respiratory sensitization 1; mutagenicity 2; inhalation carcinogenicity 1A; reproductive toxicity 1B; STOT repeated exposure 1; aquatic acute/chronic toxicity 1.
Toxicological data	Nickel dust can cause sensitization, chronic organ injury, cancer by inhalation and developmental effects. Detailed numerical data are not reproduced in this compilation.

12. Ecological Information

Environmental effects	Prevent discharge to drains, soil and surface water. The identified reference assigns aquatic hazards; collect spills and contaminated waste.
Controls	Prevent uncontrolled release, collect spills and dispose of contaminated material through an authorized route.
Assessment	No product-specific PBT/vPvB assessment is claimed. Absence of data does not establish absence of environmental effects.

13. Disposal Considerations

Product	Collect surplus product and contaminated cleanup material for disposal by an authorized chemical-waste contractor in accordance with local requirements.
Packaging	Containers may retain product residues. Do not reuse contaminated packaging without an approved cleaning process; use an authorized disposal route.

14. Transport Information

Classification	Class 9 — Environmentally hazardous
UN number	UN 3077
Shipping name	Environmentally hazardous substance, solid, n.o.s. (Basic nickel carbonate)
Class / packing group	ADR, IMDG and IATA: Class 9, packing group III; marine pollutant.
Transport precautions	Protect packaging and closures from damage, secure loads and prevent releases. This reference is not a shipping declaration for a specific consignment.

15. Regulatory Information

Identity	Basic Nickel(II) Carbonate; CAS 12607-70-4; EC 235-715-9
HS reference	283699; reference heading rather than a destination customs ruling.
Compliance	Apply applicable workplace, environmental and transport rules. A raw-material listing does not establish finished-product authorization.
Assessment	No ZXCHEM-specific chemical safety assessment or destination registration is asserted.

16. Other Information

Hazard meanings	H302/H332: harmful exposure. H315/H317/H334: irritation or sensitization. H341: genetic concern. H350i/H360D/H372: inhalation cancer, developmental and repeated-exposure hazards. H410: persistent aquatic toxicity.
Limitations	Prepared as reference safety information for the identified material. It is not a batch analytical certificate or safety assessment of a different solvent-containing formulation.
Revision	2026.2; prepared 2026-10-06. Customer-document branding and title corrected; technical safety data retained.
Document scope	Reference safety information for the material and grade described in Sections 1 and 3. Different concentrations, solvents or formulations require the applicable safety information. This is not a batch analytical certificate.

Revision: 2026.2 | Revision date: 2026-10-06