

Nickel(II) Sulfamate Solution

Concentrated aqueous nickel sulfamate for precision electroplating and electroforming.

CAS No. 13770-89-3	EC / List No. 237-396-1	Transport Class 9 — Environmentally hazardous
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Product Information

Nickel sulfamate solution supplies dissolved nickel for compatible electroplating and electroforming baths. CAS 13770-89-3 identifies the nickel sulfamate solute, $\text{Ni}(\text{NH}_2\text{SO}_3)_2$, with molecular weight 250.88 g/mol. The aqueous solution has no single molecular formula or molecular weight.

Specifications

Parameter	Specification
Appearance	Dark green, clear aqueous solution
Nickel	≥ 180 g/L
Sodium	≤ 10 g/L
Iron	≤ 15 mg/L
Manganese	≤ 10 mg/L
Cobalt	≤ 50 mg/L
Sulfate	≤ 700 mg/L
Chloride	≤ 50 mg/L
Relative density at 20/4°C	≥ 1.538

Nickel concentration is the supply control; a mass-percent solution assay is not inferred from it. Formula and molecular weight identify the dissolved solute, not a tetrahydrate crystal or the entire solution.

Typical Properties

Property	Typical Value
Molecular formula	$\text{Ni}(\text{NH}_2\text{SO}_3)_2$ (solute)
Molecular weight	250.88 g/mol (solute)

Applications

Precision nickel electroplating: Nickel feed for compatible engineering and precision plating baths. Evaluate bath chemistry, impurity buildup and deposit properties with the full operating procedure.

Electroforming and mold production: Nickel source for electroformed components and molds. Control bath conditions and additives to achieve the required deposit stress, thickness and mechanical properties.

Connector and specialty surface treatment: Feed solution for selected connector, PCB and nickel-alloy processes. Confirm compatibility, metal balance and applicable product requirements before production.

Packaging / Storage

Item	Information
Packing	30 kg / 300 kg drums / 1,250 kg IBC
Storage	Store tightly sealed in a cool, ventilated place with controlled access and secondary containment. Protect from contamination and excessive heat; keep separate from oxidizers, ammonia and incompatible acids.
Handling	Use closed liquid transfer and local extraction to prevent nickel aerosol exposure. Wear suitable chemical-resistant gloves, protective clothing and eye protection. Use respiratory protection where the exposure assessment requires it. Keep contaminated work clothing separate and prevent releases to drains.

Company Contact

Supplier	Hainan Zhongxin Chemical Co., Ltd. (ZXCHEM)
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