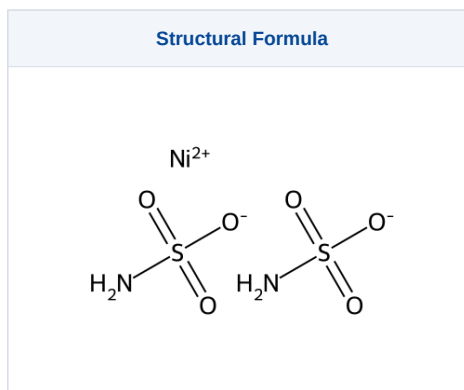


## CERTIFICATE OF ANALYSIS

Standard product specification — applicable to all consignments of this product and grade supplied by Scapex Exports Pvt. Ltd., manufacturer and supplier of quality chemicals.

|                   |                                                               |
|-------------------|---------------------------------------------------------------|
| Product Name      | Nickel Sulphamate                                             |
| C.A.S. Number     | 13770-89-3                                                    |
| Molecular Formula | H <sub>4</sub> N <sub>2</sub> NiO <sub>6</sub> S <sub>2</sub> |
| Molecular Weight  | 250.87                                                        |
| Grade / Standard  | ≥98% Technical Solution                                       |
| Physical Form     | Green liquid/crystalline solid                                |
| Product Category  | Inorganic Salts & Compounds                                   |
| Country of Origin | India                                                         |



## ANALYTICAL RESULTS

| S. No. | Test Parameter                 | Specification                              | Result                 | Method                    |
|--------|--------------------------------|--------------------------------------------|------------------------|---------------------------|
| 1      | Description                    | Green liquid/crystalline solid             | <b>Complies</b>        | Visual                    |
| 2      | Identification                 | Conforms to the structure of the substance | <b>Complies</b>        | FTIR / Chemical test      |
| 3      | Assay                          | Not less than 98.0 % w/w                   | <b>98.45</b>           | Titrimetry / Instrumental |
| 4      | Specific Gravity at 25 °C      | As per specification                       | <b>Conforms</b>        | Hydrometry / ASTM D4052   |
| 5      | Colour (APHA)                  | Not more than 30                           | <b>13</b>              | ASTM D1209                |
| 6      | Chloride (as Cl)               | Not more than 0.01 % w/w                   | <b>0.0015</b>          | Turbidimetry / IC         |
| 7      | Sulphate (as SO <sub>4</sub> ) | Not more than 0.02 % w/w                   | <b>0.0012</b>          | Turbidimetry / IC         |
| 8      | Iron (as Fe)                   | Not more than 20 ppm                       | <b>2.5 ppm</b>         | ICP-OES / AAS             |
| 9      | Heavy Metals (as Pb)           | Not more than 10 ppm                       | <b>Less than 5 ppm</b> | ICP-OES                   |
| 10     | Structure                      | Conforms to reference structure            | <b>Complies</b>        | FTIR / NMR                |

### Remarks

Material supplied against this specification is analysed on every production lot and **conforms** to the limits stated above in all tested parameters. Results shown are the typical values obtained for this grade.

Retained samples are held against every export consignment. Store in tightly closed original packing, in a cool, dry, well-ventilated place away from incompatible materials and direct sunlight.

### Checked and Approved by

**Prem Panchal**  
Quality Assurance  
Scapex Exports Pvt. Ltd.

This document sets out the standard specification for the product named above and applies to all consignments of this grade. It is issued by Scapex Exports Pvt. Ltd. as manufacturer and supplier. Refer to the Material Safety Data Sheet (MSDS) before handling.