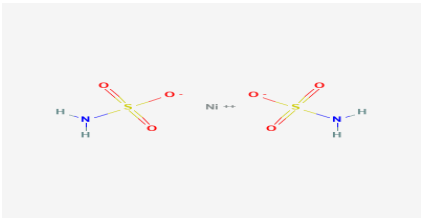
AQUABOND
Chemistry for Tomorrow

Summary Technical Data Sheet

Product Name: Nickel Sulphamate 180
CAS Number: 13770-89-3



Formula: $Ni(SO_3NH_2)_2$
Molecular weight: 250.87 g/mol.
Grade: Technical

Typical Properties

- Appearance: Green Clear Liquid
- Specific Gravity @ 20^0C: 1.55
- pH: 4.5
- Concentration: 180 g/l



Nickel Sulphamate 180

Product Specifications

Properties	Specification	Typical
Appearance:	Green Clear Liquid	
Specific Gravity:	1.54 - 1.56	1.55
pH:	4.4 - 4.6	4.5
Ni Concentration:	180 - 181	180.5
Ammonia:	< 100 ppm	75 ppm
Cadmium:	< 1 ppm	< 0.1 ppm
Calcium:	< 5 ppm	< 0.6 ppm
Chloride:	<10 ppm	5.0 ppm
Chromium:	< 1 ppm	0.1 ppm
Cobalt:	< 1 ppm	< 0.1 ppm
Copper:	< 1 ppm	< 0.1 ppm
Iron:	< 4 ppm	1.0 ppm
Lead:	< 1 ppm	< 0.1 ppm
Magnesium:	< 2 ppm	0.1 ppm
Manganese:	< 1 ppm	< 0.1 ppm
Sodium:	< 10 ppm	1.5 ppm
Sulfate:	< 700 ppm	275 ppm
Zinc:	< 1 ppm	< 0.1 ppm

Nickel Sulphamate 180 is a high purity product manufactured to demanding specifications from selected raw materials with carefully selected specifications to meet the needs of the surface finishing industry in a wide range of applications. Nickel Sulphamate is highly precise as a quality surface treatment in functional plating for electronic components and electroforming products.

Nickel sulphamate plating produces a semi-bright nickel deposit that excels in engineered and functional applications. The Sulphamate nickel produces a high purity, low-stress nickel deposit that performs the best nickel deposits (electrolytic or electroless) in flexing or crimping applications and joining functions such as soldering, brazing, epoxy bonding and welding. The low stress yields nickel deposits with ductility, elongation, machinability far superior to other nickel deposits. In addition, the high purity of the deposit affords temperature resistance up to 1400^0C. Nickel sulphamate plating produces 99.9% pure deposit devoid of organic brighteners or levelers.

Storage and Handling: Keep container tightly closed and store as an acidic solution with temperature between the range of 5^0C to 40^0C with an expected shelf life of 5 years.
Packaging: Tight-heads; 18,93 L, Drums; 208 L, Totes; 1040 L

Transport Regulations:

The above information, while not guaranteed, reflects our analysis and believed to be accurate. It is the end user's responsibility, prior to use of the above mentioned product to determine the suitability of the product. Aqua Bond shall not be, directly or indirectly responsible for damages of any nature whatsoever resulting from the use or reliance upon the above information.

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