

## Liquid Nickel Sulfate 4.5

Palm International's Liquid Nickel Sulfate 4.5 is specially produced for the demanding electroless nickel, surface finishing and industrial markets. LNS 4.5 is a reduced nickel concentration of Palm's LNS 134. It is the purest form of LNS available commercially and is manufactured to demanding specifications from carefully selected raw materials. LNS 4.5 is subjected to stringent quality control standards and testing.

Store and handle as an acid solution in a cool ventilated area away from foodstuffs. Keep containers tightly closed.



### Concentration

9.3 percent nickel or 1.02 lbs of nickel metal per gallon

### Appearance

Green Clear Liquid

### Contaminants

Measured in ppm

### Analysis:

Parameter	Specification
Nickel	120 -122 g/l
pH	3.0 - 4.0
Cadmium	< 0.2 ppm
Calcium	< 5 ppm
Chromium	< 0.5 ppm
Cobalt	< 1 ppm
Copper	< 1 ppm
Iron	< 3 ppm
Lead	< 0.3 ppm
Magnesium	< 1 ppm
Manganese	< 0.5 ppm
Zinc	< 1 ppm
Specific Gravity	1.305 - 1.315 SG

### Shelf Life

If stored at a temperature above 50°F and in its original container, this solution has an indefinite shelf life.

### Packaging

5 gallon pails, 55 gallon drums, 275 gallon totes or 4,000 gallon tanker.

### Storage/Safety

Store and handle as an acidic solution.