



PRODUCT INFORMATION

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DATE: JANUARY 3, 2005

EMERGENCY - MARTRON 704-289-1934
CHEMTREC 800-424-9300

REF # - MFC-002013

MARTRON NICKEL SULFAMATE 24

SECTION 1. INTRODUCTION

Martron Nickel Sulfamate 24 was designed for electronic, electroforming and engineering applications where deposits with low internal stress and high purity are essential. This product is supplied in a concentrated form that can either be added directly to an existing plating solution to replenish the nickel metal content or diluted with deionized water to make-up a new plating bath.

Advantages of **Martron Nickel Sulfamate 24** include:

- Consistently high purity means improved deposit characteristics.
- The use of virgin nickel metal in the manufacturing process assures high product purity with very low impurity levels.
- Certified analysis on each batch produced provides data for SPC tracking.
- An ultra-clear product alleviates concerns about turbidity and the effect it has on product performance and quality of the work produced.

SECTION 2. SPECIFICATIONS

	<u>Specification</u>	<u>Typical</u>
Ni as Ni Metal -	24 oz/gal (180 g/l) Min.	24.4 oz/gal (183 g/l)
Sulfate (SO ₄) -	500 ppm Max.	160 ppm
Ammonium (NH ₄) -	100 ppm Max.	75 ppm
Chloride (Cl) -	10 ppm Max.	5 ppm
Iron (Fe) -	5 ppm Max.	1 ppm
Copper (Cu) -	2 ppm Max.	1 ppm
Lead (Pb) -	2 ppm Max.	1 ppm
Chromium (Cr) -	3 ppm Max.	1 ppm
Zinc (Zn) -	2 ppm Max.	0.1 ppm
Cobalt -	3 ppm Max.	2 ppm
Manganese (Mn) -	2 ppm Max.	1 ppm
Aluminum (Al) -	3 ppm Max.	1 ppm
Calcium (Ca) -	5 ppm Max.	2 ppm
Magnesium (Mg) -	5 ppm Max.	2 ppm

SECTION 3. PROPERTIES

Appearance	Blue Green Clear Liquid
pH	4.0 – 5.0
Density	12.5 lbs/gal (1499 g/l)

SECTION 4. PACKAGING

Martron Nickel Sulfamate 24 is packaged in 5-gallon plastic pails (24 per pallet) and 55-gallon plastic drums (4 per pallet).

SECTION 5. WASTE DISPOSAL

This material must be disposed of in accordance with all applicable federal, state, and local regulations and permits. Consult the Safety Data Sheet (SDS) for additional regulatory information. The information contained herein is general in nature and may not apply to each application.

SECTION 6. GENERAL SAFETY PRECAUTIONS

When working with this product(s), ensure that all health, environmental, and safety regulations and standards are met. Avoid direct contact with this material. Do not inhale associated mist, vapors, and/or dust. Maintain and limit exposure as recommended by OSHA, ACGIH, and other state and local regulations. Wash contaminated clothing before reuse. Always comply with the Hazard Communication Standard, 29 CFR 1910.1200. Emergency showers and eyewashes must be readily available.

It is recommended that the plating chemistry product(s) referred to in this Technical Information Sheet be used: (a) in accordance with the information provided in product specific Safety Data Sheet (SDS); and (b) in compliance with all applicable requirements and guidelines established by OSHA, NIOSH, ACGIH, NFPA, and others.

NOTE: A Safety Data Sheet (SDS) for this product(s) is available upon request from **Martron Inc., 1394A Walkup Ave, Monroe, NC 28110.**

Review Safety Data Sheet (SDS) before using this plating chemistry and for specific information. A precautionary approach should be used when there is potential for chemical exposure -- this includes minimizing exposure potential, rapid decontamination, and medical follow-up.