



# MARTRON INC. SAFETY DATA SHEET MARTRON 870A

## SECTION 1. IDENTIFICATION

<b>Product Name</b>	<b>MARTRON 870A</b>
<b>Product Code</b>	<b>MFC-004524</b>
<b>Recommended Use</b>	Plating agents and metal surface treating agents Surface treatment
<b>Restrictions on Use</b>	For industrial use only.
<b>Company Name of Supplier</b>	<b>Martron Inc.</b> 1394-A Walkup Ave. Monroe, NC 28110 704-289-1934
<b>Website</b>	<a href="http://www.martroninc.com">www.martroninc.com</a>
<b>Emergency Number</b>	<b>CHEMTREC 800-424-9300</b>

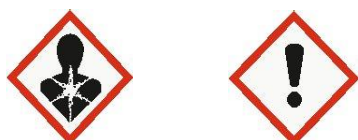
## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Acute toxicity (Oral)	Category 4
Skin irritation	Category 2
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity (Inhalation)	Category 1A
Reproductive toxicity	Category 1B
Specific target organ systemic toxicity – repeated exposure	Category 1

### GHS Label Element

#### Hazard Pictograms



### Signal Word

**DANGER**

### Hazard Statements

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H341 Suspected of causing genetic defects.  
H350i May cause cancer by inhalation.  
H360 May damage fertility or the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.

### Precautionary Statements

#### Prevention

P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves.  
P285 In case of inadequate ventilation wear respiratory protection.

**Response**

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P310 Immediately call a POISON CENTER or doctor/physician.

**Storage**

P405 Store locked up.

**Disposal**

P501 Dispose of contents/container to an approved waste disposal plant.

**Other Hazards**

None known.

**SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS**

**Substance/Mixture** Mixture

**Chemical Nature** Aqueous solution

**Hazardous Ingredients**

Chemical Name	CAS #	Concentration (%)
Nickel Sulfate	7786-81-4	>=25 - <40

This product may contain component (s) that are not listed under disclosure. All components not listed, do not contain hazardous materials above de minimus disclosure limits as defined by OSHA, NIOSH, ACGIH or Canadian WHMIS regulations and or guidelines. Please refer to other sections of the MSDS for information on safety, health and environmental guidelines and precautions.

**SECTION 4. FIRST AID MEASURES****General Advice**

Get medical attention.

**If Inhaled**

Call a physician or poison control center immediately. Move to fresh air.

**In Case of Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Get medical attention if irritation develops and persists.

**In Case of Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 5 minutes. If eye irritation persists, consult a specialist.

**If Swallowed**

If swallowed, call a poison control center or doctor immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

**Most Important Symptoms and Effects, Both Acute and Delayed**

Harmful if swallowed.

Causes skin irritation.

May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Suspected of causing genetic defects.

May cause cancer by inhalation.

May damage fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

**Protection of First Aiders**

First Aid responders should pay attention to self-protection and use the recommended protective clothing.

**Notes to Physician**

No information available.

**SECTION 5. FIREFIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

**Unsuitable Extinguishing Media**

No information available.

**Hazardous Combustion**

Nickel compounds products

Sulphur oxides

**Specific Extinguishing Methods**

Use a water spray to cool fully closed containers.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**Special Protective Equipment for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal Precautions, Protective Equipment and Emergency Procedures**

Use personal protective equipment.

Evacuate personnel to safe areas.

Keep people away from and upwind of spill/leak.

Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).

**Environmental Precautions**

Should not be released into the environment.

Local authorities should be advised if significant spillages cannot be contained.

**Methods and Materials for Containment and Cleanup**

Avoid formation of aerosol.

Dam up.

Soak up with inert absorbent material.

Keep in suitable, closed containers for disposal.

Clean contaminated floors and objects thoroughly while observing environmental regulations.

**SECTION 7. HANDLING and STORAGE****Advice on Safe Handling**

For personal protection see Section 8.

Smoking, eating and drinking should be prohibited in the application area.

Handle in accordance with good industrial hygiene and safety practice.

In case of insufficient ventilation, wear suitable respiratory equipment.

Avoid breathing mist or vapors.

**Conditions for Safe Storage**

Keep containers tightly closed in a dry, cool and well-ventilated place.

Keep locked up or in an area accessible only to qualified or authorized persons.

**Recommended Storage**

-5 - 40°C temperature

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Ingredients with Workplace Control Parameters**

Ingredients	CAS #	Value Type (Form of Exposure)	Control Parameters/Permissible Concentration	Basis
Nickel Sulfate	7786-81-4	TWA	1 mg/m <sup>3</sup> (Nickel)	OSHA Z-1
		TWA (Inhalable fraction)	0.1 mg/m <sup>3</sup> (Nickel)	ACGIH
		TWA	0.1 mg/m <sup>3</sup> (Nickel)	OSHA P0
		TWA	0.015 mg/m <sup>3</sup> (Nickel)	NIOSH REL

**Personal Protective Equipment****Respiratory Protection**

In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

In case of insufficient ventilation, wear suitable respiratory equipment.

**Hand Protection**

Wear protective gloves. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Follow the instructions for use issued by the producer.

**Eye Protection**

Tightly fitting safety goggles

Ensure that eyewash stations and safety showers are close to the workstation location.

**Skin and Body Protection**

Impervious clothing

Boots

**Protective Measures/Engineering Measures**

Ensure adequate ventilation, especially in confined areas.

**Hygiene Measures**

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and immediately after handling the product.

When using do not eat, drink or smoke.

**SECTION 9. PHYSICAL and CHEMICAL PROPERTIES**

<b>Appearance</b>	Liquid
<b>Color</b>	Green
<b>Odor</b>	No information available.
<b>Odor Threshold</b>	No data available
<b>pH</b>	3.5 - 5.5
<b>Melting Point/Freezing Point</b>	Not determined
<b>Initial Boiling Point</b>	Not determined range
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	No data available
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper Explosion Limits</b>	No data available
<b>Lower Explosion Limits</b>	No data available
<b>Vapor Pressure</b>	ca. 23 hPA (20°C)
<b>Relative Vapor Density</b>	No data available
<b>Density</b>	1.28 - 1.38 g/cm <sup>3</sup>
<b>Solubility(ies)</b>	
<b>Water Solubility</b>	Completely miscible

<b>Partition Coefficient</b>	
<b>N-Octanol/Water</b>	No data available
<b>Auto-Ignition Temperature</b>	No data available
<b>Thermal Decomposition</b>	No data available
<b>Viscosity</b>	
<b>Viscosity, Dynamic</b>	No data available
<b>Viscosity, Kinematic</b>	No data available
<b>Oxidizing Properties</b>	Not applicable

## SECTION 10. STABILITY and REACTIVITY

### Reactivity

None under normal processing.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

No dangerous reaction known under conditions of normal use

### Conditions to Avoid

To avoid thermal decomposition, do not overheat.

### Incompatible Materials

No data available

### Hazardous Decomposition Products

No hazardous decomposition products are known.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

Inhalation                      Skin                      Absorption

### Acute Toxicity

Harmful if swallowed.

### Acute Oral Toxicity

Acute toxicity estimate: 1,025 mg/kg

Method: Calculation method

### Acute Inhalation Toxicity

Acute toxicity estimate: > 40 mg/l

Exposure time: 4 h

Test atmosphere: vapor

Method: Calculation method

### Ingredients

Nickel sulfate

### Acute Oral Toxicity

LD50 Oral (Rat): 275 mg/kg

### Acute Inhalation Toxicity

Acute toxicity estimate: 1.5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

### Remarks

The acute toxicity estimate (ATE) of the ingredients are derived using the D50/LC50 values where available.

### Skin Corrosion/Irritation

Causes skin irritation.

**Remarks**

May cause skin irritation and/or dermatitis.

**Serious Eye Damage/Eye Irritation**

Not classified based on available information.

**Skin Sensitization**

May cause an allergic skin reaction.

**Respiratory Sensitization**

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Remarks**

Causes sensitization.

**Germ Cell Mutagenicity**

Suspected of causing genetic defects.

**Carcinogenicity**

May cause cancer by inhalation.

**IARC**

Group 1: Carcinogenic to humans  
Nickel sulfate 7786-81-4

**ACGIH**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**OSHA Specified**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP**

Known to be human carcinogen  
Nickel sulfate 7786-81-4

**Reproductive Toxicity**

May damage fertility or the unborn child.

**Ingredients**

Nickel sulfate

**Reproductive Toxicity**

May damage the unborn child.

**STOT-Single Exposure**

Not classified based on available information.

**STOT-Repeated Exposure**

Causes damage to organs through prolonged or repeated exposure.

**Target Organs**

No specific target organs noted

**Aspiration Toxicity**

Not classified based on available information.

**Further Information - Product Remarks**

No data available

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

**Ingredients**

Nickel sulfate

**Toxicity to Fish**

LC50: 1.28 mg/l Exposure time: 96 h

**Toxicity to Daphnia and Other Aquatic Invertebrates**

EC50: 1 mg/l Exposure time: 48 h

**Toxicity to Algae**

EC50: 0.75 mg/l Exposure time: 72 h

**Persistence and Degradability**

No data available

**Bio-Accumulative Potential**

No data available

**Mobility in Soil**

No data available

**Other Adverse Effects**

No data available

**Product**

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal Methods****Waste from Residues**

Dispose of in accordance with local regulations. Dispose of wastes in an approved waste disposal facility.

**Contaminated Packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal.

**SECTION 14. TRANSPORT INFORMATION****International Regulation****UNRTDG**

<b>UN Number</b>	UN 3082
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>Technical Name(s)</b>	Nickel Sulfate
<b>Class</b>	9
<b>Packing Group</b>	III
<b>Labels</b>	9

**IATA-DGR**

<b>UN/ID Number</b>	UN 3082
<b>Proper Shipping Name</b>	Environmentally hazardous substance, liquid, N.O.S.
<b>Technical Name(s)</b>	Nickel Sulfate
<b>Class</b>	9
<b>Packing Group</b>	III
<b>Labels</b>	Miscellaneous
<b>Packing Instruction (Cargo Aircraft)</b>	964
<b>Packing Instruction (Passenger Aircraft)</b>	964

**IMDG-Code**

<b>UN Number</b>	UN 3082
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>Technical Name(s)</b>	Nickel Sulfate

Class 9  
 Packing Group III  
 Labels 9  
 EmS Code F-A, S-F  
 Marine Pollutant Yes

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

Domestic Regulation DOT/49 CFR  
 UN/ID/NA Number UN 3082  
 Proper Shipping Name Environmentally hazardous substance, liquid, N.O.S.  
 Technical Name(s) (Nickel sulfate)  
 Class 9  
 Packing Group III  
 Labels CLASS 9  
 ERG Code 171  
 Marine Pollutant No

**Remarks**

Above applies only to containers with a net weight above RQ value stated in section 15. Not regulated if shipped in packages less than or equal to RQ value stated in section 15.

**SECTION 15. REGULATORY INFORMATION**

**TSCA 5a**

Not relevant

**TSCA\_12b**

Not relevant

**DEA**

Not applicable

**EPCRA - Emergency Planning and Community Right-to-Know  
 CERCLA Reportable Quantity**

Ingredients	CAS #	Component RQ (lbs.)	Calculated Product RQ (lbs.)
Nickel Sulfate	7786-81-4	100	373

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards:**

Acute Health Hazard

Chronic Health Hazard

**SARA 302:**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313:**

The following components are subject to reporting levels established by SARA Title III, Section 313:

**Massachusetts Right to Know**

Nickel sulfate 7786-81-4 25 - 40 %

**Pennsylvania Right to Know**

Nickel sulfate 7786-81-4 25 - 40 %

**New Jersey Right to Know**

Nickel sulfate 7786-81-4 25 - 40 %

**California Prop 65**

**WARNING!** This product contains a chemical known in the State of California to cause cancer.

Sulfuric acid 7664-93-9  
 Nickel sulfate 7786-81-4



**Remarks**

Components which are only displayed in Section 15 are being reported for local regulatory purposes. These components are not displayed in Section 3 due to one or more of the following conditions being met: being present in the product at concentration(s) below threshold limit values for reporting, not considered hazardous materials, health hazards or because they do not contribute to the overall GHS Classification of the final product as required by OSHA HazCom 2012 final rule (29 CFR 1910.1200).

**Substances currently restricted by WEEE/RoHS (European Directive 2002/96/EC,2002/95/EC) or ELV (European Directive 2000/53/EC):**

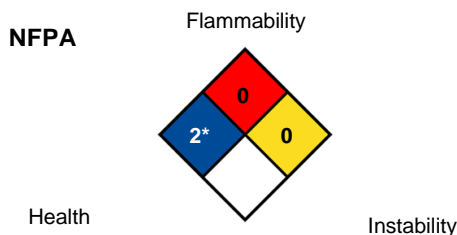
PBDE	PBB	CrVI	Hg	Pb	Cd
-	-	-	-	-	-

**Please Note**

Current legislation restricting the use of certain substances applies to "homogeneous material" in finished articles being supplied to the market. Substances deposited during surface finishing may have a composition (weight percent) higher than the weight percent of the substance in the operating solution from which the deposit is made. Martron encourages its customers to implement systems to ensure their finished products comply with the regulations in force.

**SECTION 16. OTHER INFORMATION**

**Further Information**



**HMIS III**

<b>HEALTH</b>	<b>2*</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = Not significant  
 1 = Slight,  
 2 = Moderate,  
 3 = High  
 4 = Extreme,  
 \* = Chronic

**Revision Date** 5/12/2015

The information provided in this Safety Data Sheet (SDS) is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.