



MARTRON INC. SAFETY DATA SHEET MARTRON F-TX-20A

SECTION 1 - PRODUCT and COMPANY INFORMATION

Product Name: MARTRON F-TX-20A
Product Number: MFC-004564

Chemical Family: Plating chemicals
Recommended Uses: Metal finishing

Supplier: Martron Inc.
1394-A Walkup Ave.
Monroe, NC 28110
704-289-1934

Website: www.martroninc.com

Emergency Number:
CHEMTREC 800-424-9300

SECTION 2 - HAZARD IDENTIFICATION

Pictograms:

Health Hazard – Corrosion - Exclamation Mark - Environment



Signal Word:
DANGER

Physical Hazards:
Not Classified

Health Hazards:

Acute toxicity, Oral (Category 4) Harmful if swallowed.
Acute toxicity, Inhalation (Category 4) Harmful if inhaled.
Skin irritation (Category 1) Causes severe skin burns and eye damage.
Eye Damage/Irritation (Category 1) Causes serious eye damage.
Respiratory sensitization (Category 1) May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization (Category 1) May cause allergic skin reaction.
Germ cell mutagenicity (Category 2) Suspected of causing genetic defects.
Carcinogenicity (Category 1) May cause cancer.
Reproductive toxicity (Category 1) May damage fertility or the unborn child.
Specific target organ toxicity - repeated exposure (Category 1) May cause damage to organs.

Environmental Hazards:

Acute aquatic toxicity (Category 1) Very toxic to aquatic life.
Chronic aquatic toxicity (Category 1) Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:

Wash hands or other contact areas thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid breathing fumes or mist.
Use only outdoors or in a well-ventilated area.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.

Wash thoroughly after handling.
 Wear protective gloves or clothing.
 Obtain special instructions before use.
 Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.
 Avoid release to the environment.

Response:**If Swallowed:**

Rinse mouth. Seek medical attention if you feel unwell.

If on Skin:

Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

If Inhaled:

Remove person to fresh air and keep comfortable for breathing. Seek medical attention if you feel unwell.

If Exposed or Concerned:

CALL A POISON CENTER. Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.

Collect Spillage**Storage:**

Store locked up.

Disposal:

Dispose of container or contents in accordance with all regulations. Dispose of contents/container to an approved waste disposal plant.

HNOC:*

None known

Supplemental Info:**HMIS Rating:**

Health hazard: 2 Chronic Health Hazard: * Flammability: 0 Physical Hazard 0

NFPA Rating:

Health hazard: 2 Fire Hazard: 0 Reactivity Hazard: 0 None

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| Component | CAS Number | Percentage (wt.) |
|----------------|------------|------------------|
| Nickel Sulfate | 7786-81-4 | 20-30 |

Note:

Any ingredient not listed in Section 3 is non-regulated or present in the product in concentrations below legal disclosure limits.

SECTION 4 - FIRST AID MEASURES

Eye Contact:

Get medical attention immediately. Chemical burns must be treated promptly by a physician. Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Provide a readily accessible eyewash facility and quick-drench safety shower.

Skin Contact:

Get medical attention immediately. In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. May cause sensitization by skin contact. Provide a readily-accessible eyewash facility and quick-drench safety shower. Chemical burns must be treated promptly by a physician. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation:

Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In the event of any complaints or symptoms, avoid further exposure.

Ingestion:

Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Protection of First Responders:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wear suitable protective clothing, gloves and eye/face protection. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SECTION 5 - FIREFIGHTING MEASURES**Basic Firefighting Procedures:**

Flammability of the product: In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing Media:

Suitable: Use an extinguishing agent suitable for the surrounding fire.

Not Suitable:

None known

Special Exposure Hazards:

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous Combustion Products:

Sulfur Oxides, metal oxide/oxides.

Special Protective Equipment for Firefighters:

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6 - ACCIDENTAL RELEASE MEASURES**Refer to Section 8: Exposure Control and Personal Protection****Emergency Action:**

Isolate release area and keep unnecessary people away. Exercise caution regarding personnel safety and exposure.

Personal Precautions:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental Precautions:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant

authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Notification:

Any spill or release to navigable water that causes a visible sheen upon the water must be reported immediately to the National Response Center (800-424-8802), as required by U.S. federal law.

SECTION 7 - HANDLING and STORAGE

Refer to Section 8: Exposure Control and Personal Protection

Handling:

Educate and train employees in the safe use and handling of this product. Wear proper protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Do not ingest. For industrial use only. Use good hygiene practices when handling product, including changing and laundering work clothes. Contaminated leather shoes and leather goods should always be destroyed. Get medical attention if you are exposed and feel unwell. The shipping and storage container is not designed to be pressurized. Containers should be completely emptied and disposed of properly. Empty containers may contain residue or vapors. Do not cut, grind, drill, weld or reuse containers.

Storage:

Store product in closed containers in a well-ventilated area away from heat, sources of ignition and incompatibles. Do not store in unlabeled containers. Empty containers may contain residue or vapors. When handling empty containers, all labeled precautions must be observed due to product residues. Do not reuse containers until they have been professionally cleaned, reconditioned, and old labeling has been removed. Do not reuse for food or drink. Store in properly labeled closed containers in cool dry place away from incompatible substances. For industrial use only. Keep product and its containers out of reach of children.

Special Precautions for Repair and Maintenance of Contaminated Equipment:

Remove all traces of Product and its residue before working on equipment. Maintenance personnel should wear protective equipment and clothing so as to prevent personal contact and should be informed regarding necessary precautions applicable to this product.

SECTION 8 - EXPOSURE CONTROL and PERSONAL PROTECTION**Components:**Nickel Sulfate

ACGIH TLV (United States, 2/2005). Notes: Inhalable TWA: 0.1 mg/m³ 8 hour(s). Form: As Nickel OSHA PEL (United States, 2/2005).

TWA: 1 mg/m³ 8 hours(s). Form: As Nickel ACGIH TLV (United States, 2/2010). Notes: as Ni TWA: 0.1 mg/m³, (as Ni) 8 hour(s). Form: Inhalable fraction OSHA PEL 1989 (United States, 3/1989). Notes: as Ni TWA: 0.1 mg/m³, (as Ni) 8 hour(s). Form: Soluble TWA: 1 mg/m³, (as Ni) 8 hour(s).

NIOSH REL (United States, 6/2009). Notes: as Ni TWA: 0.015 mg/m³, (as Ni) 10 hour(s).

OSHA PEL (United States, 6/2010). Notes: as Ni TWA: 1 mg/m³, (as Ni) 8 hour(s).

Engineering Controls:

Use appropriate ventilation to maintain airborne concentration limits below recommended exposure limits. Local exhaust may be necessary if dusts or sprays are generated.

Recommended Monitoring Procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measure and/or the necessity to use respiratory protective equipment.

Engineering Measures:

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Provide a readily-accessible eyewash facility and quick-drench shower. Processes should be designed to minimize airborne and skin exposure to hazardous substances.

Hygiene Measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Take off immediately all contaminated clothing. Contaminated work clothing should not be allowed out of the workplace.

Personal Protection**Respiratory:**

Use a properly fitted, air-purifying or air-fed respirator complying with NIOSH if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Risk assessments should be completed by a Certified Industrial Hygienist.

Hands:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes:

Avoid contact with eyes. Safety eyewear should be used when there is a likelihood of exposure. Use safety eyewear designed to protect against splash of liquids.

Skin:

Avoid contact with skin and clothing. Wear suitable protective clothing. Body garments used should be based upon the task being performed (e.g., lab coat, chemical resistant protective suit, synthetic apron, gauntlets) to avoid exposed skin surfaces.

Environmental Exposure Controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Carcinogenicity: This product contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Human carcinogen.

IARC: 1 - Group 1: Carcinogenic to humans (Nickel sulfate)

NTP: Known to be human carcinogen (Nickel sulfate)

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

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES**General Information on Basic Physical and Chemical Properties:**

| | |
|--------------------------------------|-------------------------------|
| Physical State: | Liquid |
| Color: | Green |
| Odor: | Sweetish |
| Boiling Point/Range: | 212°F |
| Flash Point: | Not Available |
| Auto-Ignition Temp: | Not Available |
| Lower Flammability Limit: | Not Available |
| Upper Flammability Limit: | Not Available |
| Vapor Pressure (psi @294°F): | 1 MM Hg |
| Vapor Density: | 4.9 |
| Freezing Point/Melting Point: | 58°F |
| Solubility (Water): | Soluble in Cold and Hot Water |

Specific Gravity: 1.25
EvaporationRate: Not Available
Viscosity: Not Available
pH: <2.0

OtherInformation:
RelativeDensity: NotAvailable
VOC: 0 g/l

Note:

Physical Data is typical values based on material tested, but may vary based on composition. Values should not be accepted as guaranteed for every lot or as specifications for this product.

SECTION 10 - STABILITY and REACTIVITY

Reactivity:

Stability: The product is stable.

Conditions to Avoid:

No specific data.

Incompatibility with Various Substances:

Reactive with oxidizing agents, alkalis.

Hazardous Decomposition Products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous Polymerization:

Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:

Eyes and Skin

Acute Effects:

Irritant.

Chronic Effects:

Any acute symptoms may be aggravated. Refer to Sections 2 and 4 for recommended actions.

Symptoms:

May include redness, drying, and cracking of the skin, gastrointestinal and respiratory discomfort. Refer to Sections 2 and 4 for recommended actions.

Carcinogenicity:

No comp Carcinogenicity - IARC: 1 - Group 1: Carcinogenic to humans (Nickel sulfate) NTP: Known to be human carcinogen (Nickel sulfate) - See Section 8.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

Nickel sulfate:

Acute IC50 7.28 mg/L Marine Water Algae-Phaeodactylum tricornutum-Exponential growth phase 72 hours Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 2.9 - 17.6mg/l - 96 h (OECD Test Guideline 203) Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 2 mg/l - 48 h Toxicity to algae EC50 - Scenedesmus quadricauda (Green algae) - 0.58 mg/l - 12 d

Persistence and Degradability:

No data available

Bio-Accumulative Potential:Bioaccumulation *Cyprinus carpio* (Carp) - 46.5 h - 3,200 µg/l Bioconcentration factor BCF): 11.3**Mobility in Soil:**

No data available

Other Adverse Effects:

Very toxic to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATION**Treatment, Storage, Transportation and Disposal:**

Must be in accordance with applicable Federal, State/Provincial, and local regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator.

Waste Disposal:

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal should be in accordance with applicable regional, national and local laws and regulations. The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

SECTION 14 - TRANSPORT INFORMATION**DOT (US) Only hazardous if packaged in 55 gal. drums or larger for CF49R**

UN Number: 3082
Class: 9
Packing Group: III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Nickel Sulfate)
Reportable Quantity (RQ): 100 lbs.
Poison Inhalation Hazard: No

IMDG

UN Number: 3082
Class: 9
Packing Group: III
EMS-No: F-A, S-F
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Nickel Sulfate)
Marine Pollutant: Yes

IATA

UN Number: 3082
Class: 9
Packing Group: III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Nickel Sulfate)

Further Information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packaging and combination packaging containing inner packaging with Dangerous Goods > 5L for liquids or > 5kg for solids.

SECTION 15 - REGULATORY INFORMATION**SARA 302 Components**

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

SARA 313 Components

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

CAS-No. 7786-81-4

Revision Date 1993-04-24

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

States:

Massachusetts Right to Know Components

Pennsylvania Right to Know Components

New Jersey Right to Know Component:

Nickel sulfate CAS-No. 7786-81-4 Revision Date 1993-04-24

California Prop. 65 Components:

WARNING! This product contains a chemical known to the State of California to cause cancer. - Nickel Sulfate.

SECTION 16 - OTHER INFORMATION**Notice:**

Martron Inc. believes that the information given herein is accurate. Final determination of suitability of any material is the sole responsibility of the user.