

# SAFETY DATA SHEET

## **SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

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EMERGENCY NO. 1-800-424-9300 CHEMTREC

MATERIAL NAME: **Chrome Etch 1020AC**

REVISED: April 2014

CHEMICAL FAMILY: Acetic acid/ceric ammonium nitrate aqueous solution

Product Number: 060-0021001

## **SECTION 2. HEALTH HAZARD INFORMATION**

### **Hazard Statements**

H302 Acute toxicity Oral : Category 4

H312 Acute Toxicity Dermal: Category 4

H332 Acute toxicity Inhalation : Category 4

H316 Skin corrosion / Skin irritation : Category 3

H320 Serious eye damage / Eye irritation : Category 2B

H371 Special target organ systemic toxicity single exposure: Category 2

H373 Special target organ systemic toxicity repeated exposure : Category 2

### **Pictograms or Hazard symbols**



Warning: Harmful if swallowed, in contact with skin, or inhaled.



Warning. Health hazard. May cause damage to lungs, eyes, and mucous membranes through prolonged or repeated exposure.

Warning: Causes eye irritation and mild skin irritation.

### **Precautionary Statements**

P260 Do not breathe fume/gas/mist/vapors.

P261 Avoid breathing fumes/mist/vapors.

P264 Wash thoroughly after handling.

P270 Do not eat, drink, or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves, clothing, and eye and face protection.

P301 + P312 If swallowed, call a physician if you feel unwell.  
P302 + P352 If on skin, wash with plenty of water. Remove contact lenses if present and easy to do so. Continue rinsing.  
P304 + P340 If inhaled, remove person to fresh air and keep comfortable for breathing.  
P305 + P351 + P338 If in eyes, rinse cautiously with water for several minutes.  
P308 + P311 If exposed or concerned, call a physician.  
P312 Call a physician if you feel unwell.  
P314 Get medical advice/attention if you feel unwell.  
P330 Rinse mouth.  
P332 + P313 If skin irritation occurs, get medical advice/attention.  
P337 + P313 If eye irritation persists, get medical advice/attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P370 + P378 In case of fire use water spray or fog, carbon dioxide and dry chemical. Do not use organic media to extinguish.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

Material		Wt %	Toxicity
Acetic Acid	CAS# 64-19-7	5-10	2 ppm (TLV)
Ceric Ammonium Nitrate	CAS# 16774-21-3	10-15	244 ppm
Water	CAS# 7732-18-5	75-85	
Total		100	

### **SECTION 4. FIRST AID MEASURES**

#### **EFFECTS OF OVEREXPOSURE**

##### **FIRST AID:**

**Eye Contact:** Corrosive to naked eye; in case of contact flush eyes well for 15 minutes, lifting the lower and upper eyelids occasionally. May cause blindness. Seek medical attention.

**Skin Contact:** Obtain medical attention: Corrosive to exposed skin. Flush skin well with water for 15 minutes, wash with soap and water. Remove affected clothing, get medical attention.

**Inhalation:** If mist or fumes are inhaled, remove to fresh air. If not breathing give artificial respiration. Seek medical attention. Effects may be delayed. May cause chemical burns to the respiratory tract.

**Ingestion:** May cause severe and permanent damage to the digestive tract. Causes gastrointestinal burns and perforation of the digestive tract. Get medical attention immediately.

### **SECTION 5. FIRE FIGHTING MEASURES**

Flash Point and Method	Autoignition Temp.	Flammability Limits In Air	<u>LOWER</u>	<u>UPPER</u>
non-flammable	NA		NA	NA

**Extinguishing media:** Water spray or fog, carbon dioxide and dry chemical. Do not use organic media.

**Special fire fighting procedures:** Wear chemically retardant gear and NIOSH approved self-contained breathing apparatus. Thermal decomposition produces irritating and toxic fumes. Contact with oxidizing reagents may cause extremely violent combustion.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**SPILLS, LEAKS:** Ventilate area of leak or spill. Clean up personnel should wear protective clothing and NIOSH approved respirator. Dike and cover the contaminated areas with absorbent, non-combustible material such as earth, sand, or vermiculite.

## SECTION 7. HANDLING AND STORAGE

Wash thoroughly after handling. Remove contaminated clothing and wash before re-use. Do not breathe dust, mist, or vapor. Do not expose eyes, skin, or clothing. Keep container closed tightly. Avoid contact with combustibles. Do not use with metal tools or items. Use with adequate ventilation or respiratory protection. Do not store near combustibles or in direct sunlight. Store in a cool, dry, well-ventilated area away from incompatible substances. Separate from metals, alkali, and organics.

## SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

**Respiratory protection:** Wear NIOSH/MESA approved full or half face piece (with goggles) respiratory protective equipment to avoid exposure to vapors above 0.1ppm. A respiratory protection program complying with requirements of 29CFR 1910.134 is recommended.

**Ventilation:** Where adequate ventilation is not available, use NIOSH approved vapor respirator with dust, fume and mist filters. Local ventilation through fume hoods or laminar flow stations is also preferred. Keep fumes away from strong bases.

**Protective gloves:** Skin contact should be minimized through use of rubber gloves.

Other protective equipment: Steel tipped shoes/eye wash station/chemical safety chemical retardant clothing.

Eye protection: Safety goggles / face shield

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form :</b>	Liquid
<b>Appearance :</b>	Orange
<b>Odor :</b>	Vinegar
<b>pH :</b>	< 1
<b>Melting point:</b>	Not available
<b>Boiling point/Boiling range :</b>	100 °C (water)
<b>Flash point :</b>	Non-flammable.
<b>Ignition point :</b>	Will not ignite.
<b>Danger of explosion:</b>	Product is not explosive
<b>Decomposition temperature:</b>	> 150 °C
<b>Vapor density (Air = 1) :</b>	Not available
<b>Volatiles, %:</b>	75-84
<b>Vapor pressure at 15° C, mm Hg:</b>	51 mm Hg at 25 °C
<b>Specific gravity :</b>	1.06 g/cc
<b>Solubility in / Miscibility:</b>	Completely miscible in water
<b>Evap. Rate (Water = 1):</b>	< 1

## SECTION 10. STABILITY AND REACTIVITY

Stability	Stable	X	Conditions to avoid: Excess heat , light, confined spaces
	Unstable		

Incompatible with:

Metals/metal powders, reducing agents, strong bases, acetic acid, alcohol, acetone, aniline, hydrogen sulfide,

carbides, organic solvents, combustibles, chromic acid, flammables, cyanides, sulfides.

Hazardous decomposition products: Nitrogen oxides

Hazardous	May occur	Conditions to avoid: Excess heat, damp.
polymerization:	Will not occur	X

## **SECTION 11. TOXICOLOGICAL INFORMATION**

ACUTE:

LDLo (oral, human): 4500 mg/kg (anhydrous substance) (IUCLID)

Specific symptoms in animal studies: burns to eyes (rabbit), burns to skin (rabbit)

SUBACUTE TO CHRONIC TOXICITY:

Bacterial mutagenicity: Ames test: negative

OTHER DATA:

Corrosive. Vapor inhalation burns mucous membranes; causes coughing, dyspnoea.

Inhalation may lead to oedemas in the respiratory tract. Burns skin, eyes (risk of blindness). Swallowing results in damage to mouth esophagus, and gastrointestinal tract; risk of perforation; bloody vomiting; death.

## **SECTION 12. ECOLOGICAL INFORMATION**

**Bioaccumulation :** There is no evidence of bioaccumulation.

**Ecotoxicity :** Biologic effects:

Toxic effect on fish and plankton. Harmful effect due to pH shift. Forms corrosive mixtures with water even when diluted. Does not cause biological oxygen deficit.

Hazardous to drinking water supplies.

Fish toxicity: *Gambusia affinis* LC<sub>50</sub>: 756 mg/L/96 h

Hazard for drinking water: Fish: LC<sub>50</sub> > 1500 mg/L.

## **SECTION 13. DISPOSAL CONSIDERATIONS**

DISPOSAL: Dispose of in accordance with all federal state and local regulations. Send waste to an approved waste disposal facility.

## **SECTION 14. TRANSPORTATION INFORMATION**

Non-restricted.

## **SECTION 15. REGULATORY**

Symbol: C, Corrosive

R-Phrase:

R: Contact with combustible material may cause fire.

R21/22: Harmful in contact with skin and if swallowed.

R41: Risk of serious damage to eyes.

S-Phrases:

S17: Keep away from combustible material.

S23-36/37/39-45 Do not breathe vapor. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## **SECTION 16. OTHER INFORMATION**

NFPA Codes:

Health: 2

Flammability: 0

Reactivity: 1

R8: Contact with combustible material may cause fire.

All ingredients of this product are listed on the US TSCA inventory under their parent anhydrous compounds.