

NIACET CORPORATION
400 47th St.
Niagara Falls, NY 14304
Fx (716) 285 1497
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MSDS
MONOCHLOROACETIC ACID
80% AQUEOUS SOLUTION
Issued: January 2008

EMERGENCY PHONE NUMBER: (800) 424 9300, (202) 483-7616

MATERIAL SAFETY DATA SHEET

MONOCHLOROACETIC ACID

80% AQ SOLUTION

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SECTION I - PRODUCT IDENTIFICATION

Product Name: Monochloroacetic acid, 80% aqueous solution
Chemical Synonyms: MCA, MCAA, chloroethanoic acid
Chemical Family: halocarboxylic acid
Chemical Formula: $\text{ClCH}_2\text{CO}_2\text{H}$

SECTION II - HAZARDOUS INGREDIENTS

<u>Ingredient</u>	<u>% by wt.</u>	<u>CAS #</u>
Monochloroacetic acid	79-81	79-11-8
Dichloroacetic acid	0.5 max	79-43-6
Acetic acid	0.2 max	64-19-7
Water	balance	7732-18-5

Hazards: Eye irritant, skin irritant, skin absorption hazard, ingestion hazard, inhalation hazard, toxic, poison. See Health Hazard Data.

SECTION III - PHYSICAL DATA

Appearance:	colorless liquid	Odor:	characteristic, pungent
Freezing Point:	16 - 18°C	Boiling Point:	116 °C
Vapor Pressure:	17.5 mm Hg at 20°C	Specific Gravity:	1.33 at 20°C
Reactivity in Water:	does not react		

SECTION IV - FIRE & EXPLOSION HAZARD

Flash Point: None by Tag Closed Cup
Flammable Limits: LFL Not Determined
UFL Not Determined
Auto-Ignition Temperature: Not Applicable
Extinguishing Media: Water fog, alcohol foam, carbon dioxide, dry chemical
Special Procedures: Use pressure demand, self-contained breathing apparatus and impervious, full protective clothing.
Unusual Hazards: Emits toxic and corrosive fumes under fire conditions.

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SECTION V - REACTIVITY DATA

Hazardous Decomposition Products: Hydrogen chloride, phosgene and carbon monoxide
Hazardous Polymerization: Will not occur.
Incompatibility: Alkalis, alcohols

SECTION VI - TOXICITY DATA

<u>Route</u>	<u>Test</u>	<u>Dose</u>	
oral-rat	LD50	55 mg/kg	moderately toxic
oral-mouse	LD50	165 mg/kg	
skin-rabbit	LD50	175 mg/kg	highly toxic
inhal-rat	LC50	180 mg/m3	highly toxic

Occupational Exposure: No exposure limits have been set by OSHA, NIOSH or ACGIH.
Carcinogen: IARC: NO, NTP: NO, OSHA: NO

SECTION VII - HEALTH HAZARD INFORMATION

Primary Routes of Exposure:

Monochloroacetic acid is highly toxic by absorption thru any route of exposure. Human fatality has resulted from contact over 10% of body surface.

In animal tests MCA was found to be lethal with 3% body coverage.

Ingestion: High, single-dose oral toxicity. Undiluted material will severely burn mucous membranes.

Eye Contact: Can cause severe corneal damage with possible permanent impairment of vision.

Skin Contact: Brief contact causes a severe burn that can be slow to heal.
Readily absorbed in **highly toxic** amounts.

Inhalation: Irritation will result from the inhalation of the vapors.

Effects of Overexposure:

Systemic poison. Symptoms may be delayed after exposure.

Depressant of the central nervous system. Symptoms include: abdominal cramps, asphyxia, dyspnea, pneumonia, skin burns, skin necrosis, neoplasm, respiratory distress, angina pectoris, cough, respiratory edema and pharyngitis.

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SECTION VIII - EMERGENCY FIRST AID PROCEDURES

- Ingestion: If person is conscious, give water or milk to dilute stomach contents.
Get immediate medical attention!
- Eye Contact: Immediate and continuous irrigation with flowing water (hold eyelids open) for at least 30 minutes is imperative. **Get immediate medical attention!**
- Skin Contact: Immediate removal of contaminated clothing and continuous washing of affected area with flowing water is imperative to prevent serious injury or death. **Get immediate medical attention!**
Destroy all contaminated clothing and shoes.
- Inhalation: Remove to fresh air. Administer artificial respiration if breathing has stopped.
Get immediate medical attention!

SECTION IX - EMPLOYEE PROTECTION

- Protective Clothing: Clothing suitable to prevent skin contact. If chance of exposure exists a plastic or neoprene rain suit should also be worn.
- Eye Protection: Chemical goggles and a full face shield.
Contact lenses should not be worn when working with this material.
- Respiratory Protection: Recommend control of vapors with local ventilation, use a caustic scrubber. If airborne concentrations become irritating use a NIOSH approved respirator.
Eye wash safety shower at the work station.

SECTION X - SPILL AND DISPOSAL PROCEDURES

Action to be Taken for Spills:

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind. Positive pressure, self-contained breathing apparatus and chemical protective clothing is recommended. **Structural firefighters' protective clothing is NOT effective for these materials.** Contain spill with earthen dike. Pump solution to a suitable container. Neutralize area with soda ash. Collect spent soda ash for disposal. Wash down neutralized area of spill with large quantities of water.

Disposal Methods:

Neutralized material is readily biodegradable. Dispose of in accordance with applicable Federal, state and local regulations. This material is defined as a hazardous substance under CERCLA.

See Addendum to MSDS Titled "Recommended Safe Handling Practices"

SECTION XI - TRANSPORTATION REGULATORY REQUIREMENTS

DOT Proper Shipping Name: Chloroacetic acid, liquid, UN 1750
Hazard Class or Division: 6.1
Primary: POISON
Subsidiary: Corrosive
Packing Group: II
Labels: TOXIC

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SECTION XII - OTHER REGULATORY CONTROLS

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Chloroacetic acid, CAS # 79-11-8

TSCA Inventory: YES
Regulated under RECRA: NO
Regulated under CERCLA: YES
Regulated under SARA Title III: YES
Section 302 & 313: YES
RQ: YES

OSHA Health Hazards: eye hazard, irritant, nervous system toxin, skin hazard, toxic
OSHA Physical Hazards: corrosive, poison
SARA Hazard Class: Acute: YES, Chronic: YES
Fire: NO Pressure: NO Reactivity: NO

Dichloroacetic acid CAS # 79-43-6

TSCA Inventory: YES
Regulated under RECRA: NO
Regulated under CERCLA: NO
Regulated under SARA Title III: NO

Acetic acid CAS # 64-19-7

TSCA Inventory: YES
Regulated under RECRA: NO
Regulated under CERCLA: YES
Regulated under SARA Title III: NO

IMPORTANT

Monochloroacetic acid is an extremely hazardous substance and a toxic chemical subject to reporting requirements of Section 302 & 313 of the Emergency Planning and Community Right to Know Act of 1986, Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III.

In New York State, this product may not be delivered to a tank that is not registered with New York State Department of Environmental Conservation under regulation 6NYCRR Part 596, Registration of Hazardous Substances Bulk Storage Tanks. Similar regulations may exist in other states.

The information herein is given in good faith and believed to be accurate and has been compiled from sources believed to be reliable. Buyer assumes all risk of use, storage and handling of this product in compliance with applicable federal, state, and local laws and regulations.