



Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865



All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

24 Hour Emergency Telephone: 908-859-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 613-996-6666

Outside U.S. And Canada
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

MONOCHLOROACETIC ACID

1. Product Identification

Synonyms: Chloroacetic acid; chloracetic acid; chloroethanoic acid
CAS No.: 79-11-8
Molecular Weight: 94.50
Chemical Formula: CH₂ClCOOH
Product Codes: 0216

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Chloroacetic Acid	79-11-8	99 - 100%	Yes

3. Hazards Identification

Emergency Overview

DANGER! CORROSIVE. CAUSES BURNS TO ANY AREA OF CONTACT. MAY BE FATAL IF SWALLOWED OR INHALED.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 4 - Extreme (Poison)
Flammability Rating: 1 - Slight
Reactivity Rating: 1 - Slight
Contact Rating: 4 - Extreme (Corrosive)
Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES
Storage Color Code: White (Corrosive)

Potential Health Effects

Inhalation:

Corrosive. Extremely destructive to tissues of the mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Inhalation may be fatal as a result of spasm inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

Ingestion:

Corrosive. Swallowing can cause severe burns of the mouth, throat, and stomach, leading to death. Can cause sore throat, vomiting, diarrhea.

Skin Contact:

Corrosive. Symptoms of redness, pain, and severe burn can occur.

Eye Contact:

Corrosive. Contact can cause blurred vision, redness, pain and severe tissue burns.

Chronic Exposure:

Liver and kidney dysfunctions have been reported.

Aggravation of Pre-existing Conditions:

Persons with pre-existing lung disease may be more susceptible to the effects of this substance.

4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.

Ingestion:

DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician, immediately. Wash clothing before reuse.

Eye Contact:

Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Call a physician immediately.

5. Fire Fighting Measures

Fire:

Flash point: 126C (259F) CC

Flammable limits in air % by volume:

lcl: 8

Explosion:

Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Keep unnecessary and unprotected personnel away.

Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Pick up spill for recovery or disposal and place in a closed container.

If material comes in contact with water, neutralize liquid with alkaline material (soda ash, slaked lime) then absorb with an inert material (e.g., vermiculite, dry sand, earth) and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Storage in metal containers is not recommended, since material is corrosive to metals. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

AIHA Workplace Environmental Exposure Level (WEEL):

0.5 ppm (TWA), skin contact can invalidate TWA

1.0 ppm (STEL), skin contact can invalidate STEL

– ACGIH Threshold Limit Value (TLV):

0.5 ppm (TWA) inhalable fraction and vapor

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded, and engineering controls are not feasible, a full-face piece respirator with an organic vapor cartridge and particulate filter (NIOSH type N100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P particulate filter. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

Colorless crystals.

Odor:

Penetrating, burning odor.

Solubility:

Very soluble in water.

Density:

1.580

pH:

No information found.

% Volatiles by volume @ 21C (70F):

No information found.

Boiling Point:

189C (372F)

Melting Point:

61 - 63C (142 - 145F)

Vapor Density (Air=1):

3.26

Vapor Pressure (mm Hg):

1 @ 43C (109F)

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Oxides of carbon as well as ionic or oxidized halogen.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Strong bases, oxidizing agents and most common metals.

Conditions to Avoid:

Heat, incompatibles.

11. Toxicological Information

Oral rat LD50: 580 mg/kg; inhalation rat LC50: 180 mg/m3; investigated as a tumorigen, mutagen.

-----\Cancer Lists\-----			
Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Chloroacetic Acid (79-11-8)	No	No	None

12. Ecological Information

Environmental Fate:

When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. When released into water, this material is not expected to evaporate significantly. When released into water, this material is expected to readily biodegrade. When released into the water, this material is expected to have a half-life between 1 and 10 days. This material has a log octanol-water partition coefficient of less than 3.0. This material is not expected to significantly bioaccumulate. Because of low vapor pressure, significant amounts of this material are not expected to exist in the atmosphere.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: CHLOROACETIC ACID, SOLID
Hazard Class: 6.1, 8
UN/NA: UN1751
Packing Group: II
Information reported for product/size: 500G

International (Water, I.M.O.)

Proper Shipping Name: CHLOROACETIC ACID, SOLID
Hazard Class: 6.1, 8
UN/NA: UN1751
Packing Group: II
Information reported for product/size: 500G

International (Air, I.C.A.O.)

Proper Shipping Name: CHLOROACETIC ACID, SOLID
Hazard Class: 6.1, 8
UN/NA: UN1751
Packing Group: II
Information reported for product/size: 500G

15. Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Chloroacetic Acid (79-11-8)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----				
Ingredient	Korea	--Canada--		
		DSL	NDSL	Phil.
Chloroacetic Acid (79-11-8)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302-		-SARA 313-	
	RQ	TPQ	List	Chemical Catg.
Chloroacetic Acid (79-11-8)	100	100*	Yes	No

-----\Federal, State & International Regulations - Part 2\-----			
Ingredient	CERCLA	-RCRA-	-TSCA-
		261.33	8(d)
Chloroacetic Acid (79-11-8)	100	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
Reactivity: No (Pure / Solid)

Australian Hazchem Code: 2R

Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 3 Flammability: 1 Reactivity: 0

Label Hazard Warning:

DANGER! CORROSIVE. CAUSES BURNS TO ANY AREA OF CONTACT. MAY BE FATAL IF SWALLOWED OR INHALED.

Label Precautions:

Do not get in eyes, on skin, or on clothing.

Do not breathe dust.

Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.

Label First Aid:

In all cases call a physician immediately. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Product Use:

Laboratory Reagent.

Revision Information:

MSDS Section(s) changed since last revision of document include: 3.

Disclaimer:

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