



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation Monochloroacetic Acid Buffer, for Carbamate Analysis

Product Number 5210

Other Identifying Product Numbers 5210-32

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company Ricca Chemical Company

Address 412 West Fork Drive

Arlington, TX 76012 USA

Telephone 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA) 800-424-9300

CHEMTREC (International) 1+ 703-527-3887

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

Hazard Class	Category	Hazard Statements	Precautionary Statements
Acute Toxicity - Oral	Category 4	H302	P264,P270,P301+P312,P330,P501
Acute Toxicity - Dermal	Category 4	H312	P280,P302+P352,P312,P321,P362+P364,P501
Acute Toxicity - Inhalation (Dusts and Mists)	Category 4	H332	P261,P271,P304+P340,P312
Skin Corrosion / Irritation	Category 1	H314	P260,P264,P280,P301+P330+P331,P303+P361+P353,P363,P304+P340,P310,P321,P305+P351+P338,P405, P501
Serious Eye Damage / Eye Irritation	Category 1	H318	P280,P305+P351+P338,P310
Hazardous to the Aquatic Environment, Short-term (Acute)	Acute 2	H401	P273,P501

2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

NOTE: Hazard statements may be combined on labels to improve clarity and readability.

Hazard Number	Hazard Statement
H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled
H314	Causes severe skin burns and eye damage
H401	Toxic to aquatic life

Precautionary Statements:

NOTE: Precautionary statements may be combined or consolidated on labels to improve clarity and readability.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

Prevention

Precautionary Number	Precautionary Statement
P260	Do not breathe fumes or mist.
P264	Wash hands, arms, and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.

Response

Precautionary Number	Precautionary Statement
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center or doctor.
P330	Rinse mouth.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage

Precautionary Number	Precautionary Statement
P405	Store locked up.

Disposal

Precautionary Number	Precautionary Statement
P501	Dispose of contents/container to suitable waste stream in accordance with local, state, federal, and international regulations.

2.3. Hazards not Otherwise Classified

No other hazards identified.

2.4. Ingredients of Unknown Acute Toxicity

10.4 percent of this mixture consists of ingredient(s) of unknown acute dermal toxicity. 5 percent of this mixture consists of ingredient(s) of unknown acute inhalation toxicity.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 3: Composition / Information on Ingredients

3.1. Components of Mixture

Chemical Name (IUPAC)	Common Name and Synonyms	CAS Number	Weight%
water	Water	7732-18-5	76.38
2-chloroacetic acid	Chloroacetic Acid; Monochloroethanoic acid	79-11-8	13.21
acetic acid	Acetic Acid; Ethanoic acid	64-19-7	5.38
potassium hydroxide	Potassium Hydroxide; caustic potash	1310-58-3	5.03

SECTION 4: First-Aid Measures

4.1. Description of Necessary Measures

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause severe irritation with possible permanent damage.

Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Do not induce vomiting. Give large quantity of water. Call a physician immediately.

Inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. May cause serious damage to the skin. Effects may include redness, pain, skin burns.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Causes severe skin burns and eye damage DANGER! Toxic and corrosive. May be fatal if swallowed. Do not get in eyes, on skin, or on clothing. If ingested, dilute with water and call a physician. Do not induce vomiting. Wash areas of contact with plenty of water. For eyes, get medical attention. EYE CONTACT: May cause severe irritation with possible permanent damage. SKIN CONTACT: May cause serious damage to the skin. Effects may include redness, pain, skin burns. CHRONIC EFFECTS / CARCINOGENICITY: Chronic exposure may affect kidneys and liver.

4.3. Immediate Medical Attention or Special Treatment Needed

Immediately call a poison center or doctor. Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Do not induce vomiting. Give large quantity of water. Call a physician immediately.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Dry chemical powder, carbon dioxide, polymer foam, alcohol foam

5.2. Specific Hazards Arising from the Substance or Mixture in a Fire

Combustible solid. Combustion may produce hydrogen chloride and other irritants and toxic gases.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

5.3. Special Protective Equipment and Precautions for Firefighters

Wear special protective clothing and positive pressure self-contained breathing apparatus. Butyl rubber, Neoprene, polyethylene, or Viton barrier recommended.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

6.2. Cleanup and Containment Methods and Materials

Approach release from upwind. Absorb in noncombustible material for proper disposal.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

SECTION 8: Exposure Controls / Personal Protection

8.1. Exposure Limits

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

U.S. OSHA - Permissible Exposure Limits (PEL) - Time Weighted Averages (TWA)

Chemical Name	CAS Number	Exposure Limit
Acetic Acid	64-19-7	10 ppm TWA; 25 mg/m ³ TWA

U.S. OSHA - Permissible Exposure Limits (PEL) - Ceiling Limits

No limits found.

U.S. OSHA - Permissible Exposure Limits (PEL) - Short Term Exposure Limits (STEL)

No limits found.

U.S. OSHA - Specifically Regulated Chemicals

No limits found.

ACGIH - Threshold Limit Values - Ceilings (TLV-C)

Chemical Name	CAS Number	Exposure Limit
Potassium Hydroxide	1310-58-3	2 mg/m ³ Ceiling

ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)

Chemical Name	CAS Number	Exposure Limit
Acetic Acid	64-19-7	15 ppm STEL

ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Chemical Name	CAS Number	Exposure Limit
Acetic Acid	64-19-7	10 ppm TWA
Chloroacetic Acid	79-11-8	0.5 ppm TWA (inhalable fraction and vapor)

8.2. Engineering Controls

Use only outdoors or in a well-ventilated area. A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

8.3. Individual Protective Measures and Personal Protective Equipment

Respiratory Protection: Work with adequate ventilation or wear respirator with acid gas/organic vapor cartridge.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Physical State:	liquid
Color:	Colorless
Odor:	Data not available.
Odor Threshold:	Data not available.
Melting/Freezing Point:	Data not available.
Boiling Point/Range:	Data not available.
Flammability:	Data not available.
Flammability/Explosive Limits:	Data not available.
Flash Point:	Not flammable
Auto-Ignition Temperature:	Data not available.
Decomposition Temperature:	Data not available.
pH:	3.04
Kinematic Viscosity:	Data not available.
Solubility:	miscible
Vapor Pressure:	Data not available.
Evaporation Rate:	Data not available.
Relative Density:	1.09
Relative Vapor Density:	Data not available.
Particle Characteristics:	Data not available.
Partition Coefficient n-octanol/water, log	Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Strong bases, can react with metals to release Hydrogen gas, oxidizing agents.

10.4. Hazardous Decomposition Products

Will not occur.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Oral acute toxicity estimate (ATE): 501 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Potassium Hydroxide	1310-58-3	Oral LD50 Rat 205 mg/kg (Source: Canada_HSA)
Acetic Acid	64-19-7	Oral LD50 Rat 3530 mg/kg (Source: Canada_HSA)
Chloroacetic Acid	79-11-8	Oral LD50 Rat 76.2 mg/kg (Source: Canada_WHMIS)

Acute Toxicity - Dermal Exposure:

Dermal acute toxicity estimate (ATE): 1207 mg/kg(calculated)

Chemical Name	CAS Number	Toxicity
Chloroacetic Acid	79-11-8	Dermal LD50 Rabbit 178 mg/kg (Source: Canada_WHMIS)

Acute Toxicity - Inhalation Exposure:

Inhalation acute toxicity estimate (ATE, vapor): 157.9926 mg/L, 4 h(calculated); Inhalation acute toxicity estimate (ATE, dust or mist): 1.3626 mg/L,

Chemical Name	CAS Number	Toxicity
Acetic Acid	64-19-7	Inhalation LC50 Rat > 8.5 mg/L 4 h (Source: Canada_HSA)
Chloroacetic Acid	79-11-8	Inhalation LC50 Rat 180 mg/m3 4 h (aerosol, Source: EPA_AEGL)

11.2 Carcinogenicity:

International Agency for Research on Cancer (IARC)

Chemical Name	CAS Number	Classification
		No data found.

National Toxicology Program (NTP)

Chemical Name	CAS Number	Classification
Chloroacetic Acid	79-11-8	Male Rat - No Evidence; Female Rat - No Evidence; Male Mice - No Evidence; Female Mice - No Evidence (TR-396)

U.S. OSHA specifically regulated carcinogens

Chemical Name	CAS Number	Classification
		No data found.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

11.3 Additional Toxicology Information:

Harmful if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Chemical Name	CAS Number	Species	Exposure	Toxicity
Chloroacetic Acid	79-11-8	Freshwater Algae	Acute	EC50 72 h <i>Desmodesmus subspicatus</i> 0.025 mg/L (IUCLID); EC50 72 h <i>Pseudokirchneriella subcapitata</i> 1.8 mg/L (IUCLID)
Acetic Acid	64-19-7	Freshwater Fish	Acute	LC50 96 h <i>Pimephales promelas</i> 79 mg/L [static] (EPA); LC50 96 h <i>Lepomis macrochirus</i> 75 mg/L [static] (EPA)
Chloroacetic Acid	79-11-8	Freshwater Fish	Acute	LC50 96 h <i>Pimephales promelas</i> 145 mg/L [semi-static] (IUCLID)
Acetic Acid	64-19-7	Water Flea	Acute	EC50 48 h <i>Daphnia magna</i> 65 mg/L [Static] (EPA)
Chloroacetic Acid	79-11-8	Water Flea	Acute	EC50 48 h <i>Daphnia magna</i> 77 mg/L (IUCLID); EC50 48 h <i>Daphnia magna</i> 71 - 85 mg/L [Static] (EPA)

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 14: Transportation Information

14.1 Transportation by Land - Department of Transportation (DOT, United States of America)

Sizes: 1 L

UN Number: UN1750

Proper Shipping Name: Chloroacetic Acid, solution

Hazard Class: 6.1 (8)

Packing Group: II

Hazard Label(s):



14.2 Transportation by Air - International Air Transport Association (IATA)

Sizes: 1 L

UN Number: UN1750

Proper Shipping Name: Chloroacetic acid solution

Hazard Class: 6.1 (8)

Packing Group: II

Hazard Label(s):



14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 1 L

UN Number: UN1750

Proper Shipping Name: CHLOROACETIC ACID, SOLUTION

Hazard Class: 6.1 (8)

Packing Group: II

Hazard Label(s):



Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

SECTION 15: Regulatory Information

15.01. Occupational Safety and Health Administration (OSHA) Hazards

Chemical Name	CAS Number	Regulatory Information
		No data found.

15.02. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Chemical Name	CAS Number	RQ	TPQ
Chloroacetic Acid	79-11-8	100 lb lower TPQ; 10000 lb upper TPQ	100 lb EPCRA RQ

15.03. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Chemical Name	CAS Number	Regulatory Information
Potassium Hydroxide	1310-58-3	1000 lb final RQ; 454 kg final RQ
Acetic Acid	64-19-7	5000 lb final RQ; 2270 kg final RQ
Chloroacetic Acid	79-11-8	100 lb final RQ; 45.4 kg final RQ

15.04. Superfund Amendments and Reauthorization Act (SARA) 313 Toxics Release Inventory (TRI)

Chemical Name	CAS Number	List	Regulatory Information
Chloroacetic Acid	79-11-8	Emission Reporting	1.0 % de minimis concentration

15.05. Massachusetts Right-to-Know Substance List

Chemical Name	CAS Number	Regulatory Information
Potassium Hydroxide	1310-58-3	Present
Acetic Acid	64-19-7	Present (including glacial)
Chloroacetic Acid	79-11-8	Extraordinarily hazardous

15.06. Pennsylvania Right-to-Know Hazardous Substances

Chemical Name	CAS Number	Regulatory Information
Potassium Hydroxide	1310-58-3	Environmental hazard
Acetic Acid	64-19-7	Environmental hazard; Environmental hazard (water solutions)
Chloroacetic Acid	79-11-8	Environmental hazard

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

15.07. New Jersey Worker and Community Right-to-Know Components

Chemical Name	CAS Number	Regulatory Information
Potassium Hydroxide	1310-58-3	sn 1571
Acetic Acid	64-19-7	sn 0004
Chloroacetic Acid	79-11-8	sn 0373

15.08. California Proposition 65

Chemical Name	CAS Number	Regulatory Information
No data found.		

15.09. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Chemical Name	CAS Number	List	Status
Potassium Hydroxide	1310-58-3	DSL	Present
Acetic Acid	64-19-7	DSL	Present
Acetic Acid	64-19-7	NDSL	"Present" As Carboxylic acids, C1-5 [68937-68-8]
Water	7732-18-5	DSL	Present
Chloroacetic Acid	79-11-8	DSL	Present

15.10. United States of America Toxic Substances Control Act (TSCA) List

Chemical Name	CAS Number	Status
Potassium Hydroxide	1310-58-3	Present (ACTIVE)
Acetic Acid	64-19-7	Present (ACTIVE)
Water	7732-18-5	Present [XU] (ACTIVE)
Chloroacetic Acid	79-11-8	Present (ACTIVE)

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Chemical Name	CAS Number	List	Number
Potassium Hydroxide	1310-58-3	EINECS	215-181-3
Acetic Acid	64-19-7	EINECS	200-580-7
Water	7732-18-5	EINECS	231-791-2
Chloroacetic Acid	79-11-8	EINECS	201-178-4

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

15.12. China - Inventory of Existing chemical Substances (IECSC)

Chemical Name	CAS Number	Status
Potassium Hydroxide	1310-58-3	Present [27680]
Acetic Acid	64-19-7	Present [39068]
Water	7732-18-5	Present [32224]
Chloroacetic Acid	79-11-8	Present [24712]

15.13. Korea - Existing Chemicals Inventory (KECI/KECL)

Chemical Name	CAS Number	List	Status
Potassium Hydroxide	1310-58-3	Annex 1	Present [KE-29139]
Acetic Acid	64-19-7	Annex 1	Present [KE-00013]
Water	7732-18-5	Annex 1	Present [KE-35400]
Chloroacetic Acid	79-11-8	Annex 1	Present [KE-05492]

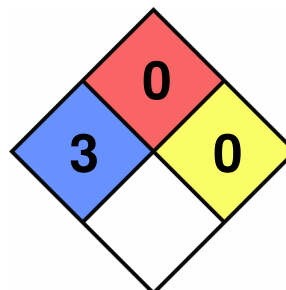
15.14. Japan - Existing and New Chemical Substances Inventory (ENCS)

Chemical Name	CAS Number	MITI No.
Potassium Hydroxide	1310-58-3	(1)-369
Acetic Acid	64-19-7	(2)-688
Water	7732-18-5	- (listed on Japanese Pharmacopoeia 8th Edition)
Chloroacetic Acid	79-11-8	(2)-1145

SECTION 16: Other Information

16.1 National Fire Protection Associate (NFPA) Rating

Health: 3
Flammability: 0
Reactivity: 0
Special Hazard:





Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS 2024)

16.2 Document Revision

Last Revision Date:

2026-05-25

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.