1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name	Potassium Acetate Chloroacetic acid Solution
Product identifier	Carbamate preservative
CAS-No.	not applicable to mixtures

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Preservative for analytical chemistry.

1.3 Details of the supplier of the safety data sheet

Company MDH – Public Health Laboratory
601 Robert St. N
St. Paul MN 55164
Telephone +1 651-201-5300

1.4 Emergency telephone number

Emergency Phone # 612-282-3750

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture (for chloroacetic acid)

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin corrosion (Category 2)
Serious eye damage / Eye irritation (Category 2)

2.2 GHS Label elements, including precautionary statements

Pictogram 

Signal word Warning

Hazard statement(s)
H315 Causes skin irritation.
H 319 Causes serious eye irritation
Precautionary statement(s)
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see supplemental first aid instructions on this label
P332 P337 + P313 If skin irritation occurs: get medical advice / attention
P337 + P313 If eye irriation persists: get medical advice / attention.
P362 Take off contamination clothing and wash before reuse

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS – none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Formula : N/A to mixtures
Molecular Weight N/A to mixtures

Ingredient	CAS Number	EC Number	Percent	Hazardous
Chloroacetic acid	79-11-8	201-178-4	~15% (w/v)	Yes

potassium acetate	127-08-2	204-822-2	~15% (w/v)	No
Water	7732-18-5	231-791-2	~70%	No

4. FIRST AID MEASURES

4.1 General advice:

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled: move person into fresh air. If not breathing, give artificial respiration. Call a physician.
In case of skin contact: Rinse thoroughly with soap and plenty of water. Call a physician.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to the hospital.
If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Call a physician immediately and show this container or label.

4.2 Most important symptoms and effects, both acute and delayed The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed: no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

5.2 Special hazards arising from the substance or mixture

Minimal fire hazard. Emits toxic fumes under fire conditions.
Carbon monoxide, carbon dioxide, hydrogen chloride gas, and phosgene gas

5.3 Advice for firefighters : Wear self-contained approved breathing apparatus and full protective clothing, including eye protection and boots.

5.4 Further information: no data available.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ventilate area of leak or spill. Wear appropriate personal protective equipment (specified in Section 8)

6.2 & 6.3 Environmental precautions and Methods and materials for containment and cleaning:

Contain and recover liquid when possible. Do not let product enter drains. Dike with a suitable absorbent material (e. g., granulated clay,) and place in a suitable, closed, chemical waste container for disposal as hazardous waste. Notify Local Emergency Planning Committee and State Emergency Response Commission for releases greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800) 424-8802 (USA) or (202) 426-2675 (USA). The RQ for 100% Chloroacetic acid is 100 lbs.

6.4 Reference to other sections: For disposal see section 13

7. HANDLING AND STORAGE

7.1 & 7.2 Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities:

Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances. Store in a cool dry place.

7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure Limit for (100% Chloroacetic Acid):

4 mg/m3 (1mL/m3) AGS MAK 1 times/shift (skin)
0.3 ppm AIHA recommended TWA (skin)

1 ppm AIHA recommended STEL 15 min (skin)
0.3 ppm (1.2 mg/m3) UK OES TWA (skin)

Not classifiable as a human carcinogen

8.2 Exposure controls

Mechanical exhaust required: 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.

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection: Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Avoid contact with eyes, skin and clothing. , The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air purifying respirators are appropriate use a NIOSH/MSHA-approved respirator.

Control of environmental exposure
Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	clear, colorless solution
Odor	slight, pungent, characteristic vinegar
Odor threshold	no data available
pH	2.5
Melting point/range	no data available
Boiling point/range	no data available
Flash point	not applicable
Evaporation rate	no data available
Flammability (solid/gas)	no data available
Upper/lower flammability / Explosive limits	not applicable
Vapor pressure	no data available
Vapor density	no data available
Relative density	no data available
Water solubility	completely miscible
Partition coefficient	no data available
Auto-ignition temp	no data available
Decomposition temp	no data available
Viscosity	no data available
Explosive properties	not explosive
Oxidizing properties	no data available

9.2 Other safety information: no data available

10. STABILITY AND REACTIVITY

10.1 Reactive Hazard: no data available

10.2 Chemical stability: Stable under ordinary conditions of use and storage.

10.3 Possibility of hazardous reactions: no data available

10.4 Conditions to avoid: no data available

10.5 Incompatible materials: Keep from contact with metals, alcohols, oxidizing agents, bases, and combustible materials

10.6 Hazardous decomposition products: Under fire conditions. In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral (Rat, female) 90.4 mg/kg
(OECD Test Guideline 401)
LC50 Inhalation (Rat) 180 mg/m3
LD50 Dermal (Rat, female) 305 mg/kg
(OECD Test Guideline 402)
LD50 Subcutaneous (Rat, female) 97.4 mg/kg

Skin corrosion/irritation
Skin (Rabbit) Result: Corrosive 24 h
Serious eye damage/eye irritation
Eyes (Rabbit) Result: Corrosive 24 h

Respiratory or skin sensitization: No data available

Germ cell mutagenicity
Ames test (S. typhimurium) Result: negative

(OECD Test Guideline 477)
Drosophila melanogaster (male) Result: negative

Carcinogenicity
Carcinogenicity (Mouse) Subcutaneous
Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration:Tumors. Liver:Tumors.

Carcinogenicity (Mouse) Subcutaneous
Tumorigenic:Equivocal tumorigenic agent by RTECS criteria.
Tumorigenic:Tumors at site or application.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

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.

Reproductive toxicity
No data available

Specific target organ toxicity-single exposure
No data available

Specific target organ toxicity-repeated exposure
No data available

Aspiration hazard

No data available

Additional Information
Repeated dose toxicity (Rat, male) Oral: No observed adverse effect level-3.5 mg/kg

RTECS AF8575000
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin.,Cough, Shortness of breath, Headache, Nausea

Stomach-Irregularities-Based on Human Evidence

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish: semi-static test LC50 (Danio rerio: zebra fish) 370 mg/l 96 h
(OECD Test Guideline 203)

Toxicity to daphnia / other aquatic invertebrates: static test EC50 (Daphnia magna: Water flea) 77 mg/l 48 h
(DIN 38412)

Toxicity to algae: static test EC50 (Desmodesmus subspicatus /Scenedesmus subspicatus) 0.033 mg/l 72 h
(OECD Test Guideline 201)

12.2 Persistence and degradability

Biodegradability aerobic: Exposure time 21 d. Result 65% - Readily biodegradable
(OECD Test Guideline 301C)

12.3 Bioaccumulative potential No data available

12.4 Mobility in soil No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

Very toxic to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. No other data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number: D002. Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

UN number: 1750	Class: 6.1	subclass 8	Packing group: II
Proper shipping name: Chloroacetic acid buffer solution			
Maritime Transport IMDG/GGV Sea		Class: 6.1	Packing group: II
Class Marine pollutant: No			
Air Transport ICD-TL and IATA-DGR		Class:6.1	

15. REGULATORY INFORMATION

FOR 100% Chloroacetic Acid:

TSCA INVENTORY STATUS: Yes.
TSCA 12 (b) EXPORT NOTIFICATION: Not listed.
CERCLA SECTION 102a/103 (40CFR302.4): Yes.
Chloroacetic Acid: 100 lbs RQ.

SARA SECTION 302 (40CFR355.30): Yes.
Chloroacetic Acid: 100/1000 lbs TPQ

SARA SECTION 304 (40CFR355.40): Yes.
Chloroacetic Acid: 100 lbs RQ

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):
ACUTE: Yes.
CHRONIC: Yes.
FIRE: No.
REACTIVE: No
SUDDEN RELEASE: No.

SARA SECTION 313 (40CFR372.65): Yes.
OSHA PROCESS SAFETY (29CFR1910.119): No.

STATE REGULATIONS:
CALIFORNIA PROPOSITION 65: No.
Massachusetts Right-to-Know: Yes.
New Jersey Right-to-Know: Yes.
Pennsylvania Right-to-Know: Yes.

CANADIAN REULATIONS:
WHMIS CLASSIFICATION: Not Determined.

16. OTHER INFORMATION

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

Prepared by: that would be us, I think
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