Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 1: Identification

Product Name Chloroacetic Acid 99%
Commercial Name Not available.
Product Use Not available.
Restrictions On Use Not available.

Product Code 50-1745

Company
PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

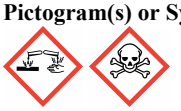
Section 2: Hazard(s) Identification

OSHA Haz Com: CFR 1910.1200 Acute Toxicity - Oral [Category 3] Acute Toxicity - Dermal [Category 3] Acute Toxicity - Inhalation [Category 2] Eye Damage/Irritation [Category 1] Specific Target Organ Toxicity (Single Exposure) [Category 1] Specific Target Organ Toxicity (Single Exposure) [Category 3] Specific Target Organ Toxicity (Repeated Exposure) [Category 2] Corrosive to Metals [Category 1] Aquatic Hazard (Acute) [Category 1] Aquatic Hazard (Long-Term) [Category 1] Skin Corrosion/Irritation [Category 1B

Signal Word DANGER

Hazard Statement(s) May be corrosive to metals. Causes severe skin burns and eye damage. May cause respiratory irritation. Toxic if swallowed, in contact with skin, or if inhaled.

Pictogram(s) or Symbol(s)



Precautionary Statement(s):

Prevention Keep only in original container. Do not breathe dust, fume, mist, vapors or spray. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Wear respiratory protection. Wear protective gloves, protective clothing, face protection.

Response If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Immediately call a poison center or doctor. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor. If exposed: Call a poison center or doctor. Absorb spillage to prevent material damage. Collect spillage.

Storage Store in corrosive resistant bottle or metal container with a resistant inner liner. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40 CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.)

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components Chloroacetic Acid 99%
% By Weight >99.0%(GC)(T)
CAS# 79-11-8
Molecular Weight 94.49 g/mole
Chemical Formula C2HsCl02
Synonym(s) Monochloroacetic Acid

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Monochloroacetic acid	79-11-8	100	Not available.	ORAL (LD50): Acute: 55 mg/kg [Rat]. VAPOR (LC50): Acute: 254.6 ppm 4 hour(s) [Rat].

Section 4: First-Aid Measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician.

Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.Immediately call a POISON CENTER or doctor/physician.

Ingestion Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.

Symptoms/Effects

Acute Pain. Redness.

Delayed Not available.

Immediate Medical Attention

Not available

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media

Dry chemical, foam, water spray, carbon dioxide.

Unsuitable Extinguishing Media

Not available

Products of Combustion

These products include: Carbon oxides Halogenated compounds

Firefighters Special Equipment and Precautions

Wear self-contained breathing apparatus if possible.

Section 6: Accidental Release Measures

Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc. Environmental precautions: Be careful not to let it flow into rivers, etc., since adverse effects on the environment are concerned. Methods and materials for containment and cleaning up: Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

Section 7: Handling and Storage

Handling: Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing. Use corrosive resistant equipment. Storage: Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store under inert gas. Protect from moisture. Store locked up. Store away from incompatible materials such as oxidizing agents. Hygroscopic

Section 8: Exposure Controls/Personal Protection

Exposure Limits Not available.

Engineering Controls Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust. Also install safety shower and eye bath.

Personal Protection Respiratory protection: Dust respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations. Hand protection: Impervious gloves. Eye protection: Safety goggles. A face-shield, if the situation requires. Skin and body protection: Impervious protective clothing. Protective boots, if the situation requires

Section 9: Physical and Chemical Properties

Appearance	Solid. (Crystals Powder. solid.) Color: White - Very pale yellow
Odor	Strong Acetic acid-like
Odor Threshold	Not available.

Melting Point	65°C (149°F)	**pH**	Not available
Freezing Point	Not available.	**Vapor Pressure**	8.68Pa/25 °C
Boiling Point/Range	189°C (372°F)	**Vapor Density**	3.26
Decomposition temperature	Not available.	**Viscosity**	Not available.
Partition Coefficient: n-octanol/water	Not available	**Evaporation Rate**	Not available.
Flash Point	CLOSED CUP: 126°C (259°I	**Autoignition temperature**	Not available
Flammability	Not available.	**Flammability or Explosive Limits:**	
		Lower	8
		Upper	?

Solubility(ies)	Very soluble in water. Other: Ether, Alcohols, Many organic solvents
Other	Not available.

Section 10: Stability and Reactivity

Reactivity	Not available.
Chemical Stability	Stable under proper conditions
Hazardous Polymerization	Non-corrosive in presence of glass.
Conditions to Avoid	Not available.
Incompatible Materials	Oxidizing agents, Strong bases, Reducing agents
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide etc

Section 11: Toxicological Information

RTECS AF8575000

Acute Toxicity
orl-rat LD50:55 mg/kg skn-rat LDLo:125 mg/kg ihl-rat LC50:180 mg/m3 scu-rat LD50:5 mg/kg orl-man LDLo:0.89 mL/kg

Skin Corrosion/Irritation
Not available.

Serious Eye Damage/Irritation
Not available.

Respiratory or Skin Sensitization
Not available.

Germ Cell Mutagenicity
mmo-mus-lym 548 mg/L (+/-S9)

Carcinogenicity
scu-mus TDLo:100 mg/kg

Reproductive Toxicity
Not available.

Routes of Entry
Not available.

Symptoms Related to Exposure
Not available.

Potential Health Effects
May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure: Liver Heart

Target Organ(s) Causes damage to: Nervous System Cardiovascular System Kidney

Section 12: Ecological Information

Ecotoxicity
Fish: 96h LC50:72 mg/L (Oryzias latipes) Crustacea: No data available Algae: 72h EC50:0.16 mg/L (Selenastrum capricornutum), 72h NOEC:0.0058 mg/L (Selenastrum capricornutum)

Persistance and Degradability
65.0 % (by BOD) , 98.8 % (by TOC) , 100 % (by GC)

Bioaccumulative Potential
3.2

Mobility in Soil
Log Pow: 0.22 Soil adsorption (Koc): 31 Henry's Law (PaM 3/mol): 9.38 x 10-4

Other Adverse Effects
Not available.

Section 13: Disposal Considerations

Waste Disposal
Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.

Disposal of Container
Dispose of as unused product. Do not re-use empty containers

Other Considerations
Not available.

Section 14: Transport Information

DOT Classification

DOT (US) IATA IMDG EmS number: F-A, S-B Reportable Quantitiy: 100 Pounds (45.4 Kilograms) 15. REGULATORY INFORMATION Toxic Substance Control Act (TSCA 8b.): This product is ON the EPA Toxic Substances Control Act (TSCA) inventory. US Federal Regulations CERCLA Hazardous substance and Reportable Quantity: SARA 313: Listed SARA 302: Listed State Regulations State Right-to-Know Massachusetts Listed New Jersey Listed Pennsylvania Listed California Proposition 65: Not Listed Other Information International Inventories Canada: DSL On DSL EC-No: 201-178-4 16. OTHER INFORMATION Revision date: 07/06/2018 Revision number: 1 TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations. UN number: UN1751 Proper Shipping Name: Chloroacetic acid, solid Class or Division: 6.1 Toxic material. Subrisk(s): 8 Corrosive material Packing Group: II

Section 15: Regulatory Information

Regulations

US Federal Regulations CERCLA Hazardous substance and Reportable Quantity: SARA 313: Listed SARA 302: Listed State Regulations State Right-to-Know Massachusetts Listed New Jersey Listed Pennsylvania Listed California Proposition 65: Not Listed

Other

WHMIS (Canada) CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS E: Corrosive solid.;DSCL (EEC) R23/25- Toxic by inhalation and if swallowed. R35- Causes severe burns.;Gloves.;Synthetic apron.;Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.;Splash goggles.

Section 16: Other Information

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein Is believed to be correct, but does not claim to be all Inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new Information is obtalned. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must.be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.