Safety Data Sheet

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

Section 1: Identification

Product Name	Glacial Acetic acid USP
Commercial Name	Not available.
Product Use	Not available
Restrictions On Use	Not available
Product Code	50-1297

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

Flammable liquids Category 3 Corrosive to metals Category 1 Acute toxicity (Oral) Category 5 Acute toxicity (Dermal) Category 4 Acute toxicity (Inhalation - vapor) Category 4 Skin corrosion/irritation Category 1 Serious eye damage/eye irritation Category 1 Specific target organ toxicity - single exposure Category 3 Acute hazards to the aquatic environment Category 3

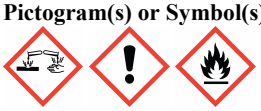
Signal Word

DANGER

Hazard Statement(s)

Flammable liquid and vapor. May be corrosive to metals. Harmful in contact with skin. Harmful if inhaled. Causes severe skin burns and eye damage. May cause respiratory irritation. Harmful to aquatic life.

Pictogram(s) or Symbol(s)



Precautionary Statement(s):

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep only in original container. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Avoid release to the environment.

Response

In case of fire: Use water spray, foam, dry powder or carbon dioxide for extinction. Absorb spillage to prevent material damage. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Storage

Store in corrosive resistant container with a resistant inner liner. Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

Disposal

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Section 3: Composition/Information on Ingredients

Substance/Mixture	Substance
Components	Acetic acid
% By Weight	99-100
CAS#	64-19-7
Molecular Weight	60.05 g/mole
Chemical Formula	CH3COOH
Synonym(s)	Acetic acid; glacial acetic acid

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Acetic acid	64-19-7	99-100	TWA: 10 STEL: 15 (mg/m3).	ORAL (LD50): Acute: 3310mg/kg [Rat].4960 mg/kg [Mouse]. 3530mg/kg [Rat]. DERMAL (LD50): Acute: 1060mg/kg [Rabbit]. VAPOR (LC50): Acute: 5620 ppm1 hours [Mouse].

Section 4: First-Aid Measures

Inhalation Move to fresh air. Call a physician or poison control center immediately. Apply artificial respiration if victim is not breathing If breathing is difficult, give oxygen

Skin Contact Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Eye Contact Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately. In case of irritation from airborne exposure, move to fresh air. Get medical attention immediately.

Ingestion Call a physician or poison control center immediately. Do not induce vomiting without advice from poison control center. Never give liquid to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Symptoms/Effects

Acute Not available

Delayed Not available.

Immediate Medical Attention

Symptoms may be delayed.

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media

Water spray, foam, dry powder or carbon dioxide.

Unsuitable Extinguishing Media

Avoid water in straight hose stream; will scatter and spread fire.

Products of Combustion

Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations.

Firefighters Special Equipment and Precautions

Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Section 6: Accidental Release Measures

Personal precautions: Use personal protective equipment. See Section 8 of the MSDS for Personal Protective Equipment. Keep unauthorized personnel away. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate area. Environmental precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Spill Cleanup Methods: Eliminate all ignition sources if safe to do so. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal. Notification Procedures: Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.

Section 7: Handling and Storage

Handling: DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Wear appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Ground/bond container and receiving equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using the product. Use caution when adding this material to water. See Section 8 of the MSDS for Personal Protective Equipment. Storage: Keep away from food, drink and animal feedingstuffs. Do not store in metal containers. Ground container and transfer equipment to eliminate static electric sparks. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids. Keep container tightly closed. Store in cool, dry place. Store in a well-ventilated place.

Section 8: Exposure Controls/Personal Protection

Exposure Limits	ACETIC ACID STEL 20 mg/m3 China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1) (03 2008) TWA 10 mg/m3 China. OELs (Occupational Exposure Limits for Hazardous Agents in the Workplace) (GBZ 2.1) (03 2008) TWA 10 ppm 25 mg/m3 Taiwan. OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials) (12 2003
Engineering Controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment. `
Personal Protection	Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information. Eye protection: Wear safety glasses with side shields (or goggles) and a face shield. Hand protection: Chemical resistant gloves Skin protection: Wear suitable protective clothing and gloves. Hygiene measures: Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

Section 9: Physical and Chemical Properties

Appearance	colorless liquid.
Odor	Strong, vinegar-like
Odor Threshold	Not available

Melting Point	Not available.	**pH**	2.4 (1.0 M aqueous solution)
Freezing Point	16.6 °C	**Vapor Pressure**	2.093 kPa (25 °C)
Boiling Point/Range	117.9°C (244°F)	**Vapor Density**	2.1 AIR=1
Decomposition temperature	Not available	**Viscosity**	Not available.
Partition Coefficient: n-octanol/water	-0.17	**Evaporation Rate**	0.97 (BuAc=1)
Flash Point	103 °F (Closed Cup)	**Autoignition temperature**	426C
Flammability	Class II Combustible Liquid	**Flammability or Explosive Limits:**	
		Lower	Not available
		Upper	Not available

Solubility(ies)	Miscible with water.
Other	Relative density: 1.0446

Section 10: Stability and Reactivity

Reactivity	Not available.
Chemical Stability	Material is stable under normal conditions.
Hazardous Polymerization	Hazardous polymerization will not occur. .
Conditions to Avoid	Heat, sparks, flames. Moisture
Incompatible Materials	Strong oxidizing agents. Peroxides. Caustics. Metals.
Hazardous Decomposition Products	Oxides of carbon

Section 11: Toxicological Information

RTECS AF1225000

Acute Toxicity

Oral Product: LD 50 (Rat): 3,310 mg/kg Dermal Product: LD 50 (Rabbit): 1,060 mg/kg Inhalation Product: LC 50 (Rat, 4 h): 11.4 mg/l Repeated dose toxicity Product: No data available.

Skin Corrosion/Irritation

Not available

Serious Eye Damage/Irritation

Not available

Respiratory or Skin Sensitization

Not available

Germ Cell Mutagenicity

Not available

Carcinogenicity

Not available

Reproductive Toxicity

Not available

Routes of Entry

Inhalation. Ingestion. Skin. Eye.

Symptoms Related to Exposure

Not available

Potential Health Effects
Respiratory tract irritation.

Target Organ(s) Not available

Section 12: Ecological Information

Ecotoxicity
Fish Product: LC 50 (Bluegill (Lepomis macrochirus), 96 h): 75 mg/l Aquatic invertebrates Product: EC 50 (Water flea (Daphnia magna), 48 h): 65 mg/l

Persistance and Degradability
Expected to be readily biodegradable.

Bioaccumulative Potential
Not available.

Mobility in Soil
Not available

Other Adverse Effects
Harmful to aquatic organisms. The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms

Section 13: Disposal Considerations

Waste Disposal
Discharge, treatment, or disposal may be subject to national, state, or local laws.

Disposal of Container
Since emptied containers retain product residue, follow label warnings even after container is emptied.

Other Considerations
Not available

Section 14: Transport Information

DOT Classification
IMDG - International Maritime Dangerous Goods Code UN number: UN 2789 UN proper shipping name: ACETIC ACID, GLACIAL Transport hazard class(es): 8 Subsidiary risk label: – Packing group: II Label(s): 8, 3 Marine Pollutant: EmS No.: F-E; S-C IATA UN number: UN 2789 Proper Shipping Name: Acetic acid, glacial Transport hazard class(es): 8 Subsidiary risk label: – Packing group: II Label(s): 8, 3

Section 15: Regulatory Information

Regulations
Provisions of the Regulations for the Safe Handling of Chemicals in the Workplace, particularly those relating to the safe use, production, storage and transportation of dangerous chemicals. Regulations on the Control over the Safety of Dangerous Chemicals Code of Practice for Safe Management of Dangerous Chemicals (Ministry of Labor, No.677-1992).

Other
NFPA Hazard: Health: 3 Flammability: 2 Reactivity: 0

Section 16: Other Information

Not available.