Material Safety Data Sheet

Version: 02

Revision Date : 4-8-2025

Section 1. Product Information and Company Identification			
Product name	Acetic acid glacial		
Mol. formula	CH3COOH	**CAS No.**	64-19-7
Mol.wt	60.05 g/mol		
manufacturer name	Pioneers for laboratory chemicals		
Brand name	Piochem		
Address	Area 540, Industrial Zone 6th October city Giza, Egypt.		
Website	www.piochem.com		
E-mail	info@piochem.com		
Phone number	0 12 05700001		

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 3), H226

Skin corrosion (Category1A), H314

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word	Danger
Hazard statement(s)	
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
Precautionarystatement(s)	
P210	Keep awayfrom heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face

	protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediatelyall contaminatedclothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370 + P378	In case of fire: Use dry powder or dry sand to extinguish.
SupplementalHazard Statements	none

2.3 Other hazard

This substance/mixturecontains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	:	Glacial acetic acid
Formula	:	CH3COOH
Molecular weight	:	60.05 g/mol
CAS-No.	:	64-19-7
EC-No.	:	200-580-7
Index-No.	:	607-002-00-6
Registration number	:	01-2119475328-30-XXXX

Hazardous ingredients according to Regulation (EC) No 1272/20

Component		Classification	Concentration
Acetic aci			
CAS-No.	64-19-7	Flam. Liq. 3; Skin Corr. 1A; H226, H314 Concentration limits: >= 90 %: Skin Corr. 1A, H314; 25 - < 90 %: Skin Corr. 1B, H314; 10 - < 25 %: Skin Irrit. 2, H315; 10 - < 25 %: Eye Irrit. 2, H319;	<= 100 %
EC-No.	200-580-7		
Index-No.	607-002-00-6		

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safetydata sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughlywith plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delay

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 neede

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistantfoam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixtu

Carbon oxides

5.3 Advice for firefighter

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedure

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations.Vapours can accumulate in low areas.

For personal protection see section 8.

6.2 Environmental precaution

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).\'20 Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet - brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other section

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handlin

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilitie

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefullyresealed and kept upright to prevent leakage.

Moisture sensitive.

Storage class (TRGS 510): Flammable liquids

7.3 Specific end use(s

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Derived No Effect Level (DNEL)

Application Area	Exposure routes	Health effect	Value
Workers	Inhalation	Acute local effects	25 mg/m3
Workers	Inhalation	Long-term local effects	25 mg/m3
Workers	Skin contact	Long-term local effects	10mg/kg BW/d
Consumers	Inhalation	Acute local effects	25 mg/m3
Consumers	Inhalation	Long-term local effects	25 mg/m3

Predicted No Effect Concentration (PNEC)

Compartment	Value
Soil	0.478 mg/kg
Marine water	0.3058 mg/l
Fresh water	3.058 mg/l
Marine sediment	1.136 mg/kg
Fresh water sediment	11.36 mg/kg
Sewage treatment plant	85 mg/l
Aquatic intermittent release	30.58 mg/l

8.2 Exposure controls

Appropriate engineering controls

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

Tightlyfitting safety goggles. Faceshield (8-inch minimum). 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

Complete suit protecting against chemicals, Flame retardant antistatic protective 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 (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: liquid Colour: colourless
b)	Odour	pungent

c)	Odour Threshold	No data available
d)	pH	2.4 at 60.05 g/l
e)	Melting point/freezing point	Melting point/range: 16.2 °C - lit.
f)	Initial boiling point and boiling range	117 - 118 °C - lit.
g)	Flash point	40.0 °C - closed cup
h)	Evaporation rate	No data available
i)	Flammability(solid, gas)	No data available
j)	Upper/lower flammabilityor explosive limits	Upper explosion limit: 19.9 %(V) Lower explosion limit: 4 %(V)
k)	Vapour pressure	55.0 mmHg at 50.0 °C 11.4 mmHg at 20.0 °C
l)	Vapour density	No data available
m)	Relative density	1.049 g/cm3 at 25 °C
n)	Water solubility	completelymiscible
o)	Partition coefficient: n-octanol/water	log Pow: -0.17
p)	Auto-ignition temperature	485.0 °C
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

9.2 Other safety information 28.8 mN/m at 10.0 °C

Surface tension

SECTION 10: Stability and reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols, Nitric acid

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decompositionproducts - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - 3,310 mg/kg(Acetic acid)
LC50 Inhalation - Mouse - 1 h - 5620 ppm(Acetic acid)
Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctiveirritation.
Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Other.Blood:Other changes.
LC50 Inhalation - Rat - 4 h - 11.4 mg/l(Acetic acid)

LD50 Dermal - Rabbit - 1,112 mg/kg(Acetic acid)

Skin corrosion/irritation
Skin - Rabbit(Acetic acid)

Result: Causes severe burns.

Serious eye damage/eye irritation
Eyes - Rabbit(Acetic acid)

Result: Corrosive to eyes

Respiratory or skin sensitisation

No data available(Acetic acid)

Germ cell mutagenicity

No data available(Acetic acid)

Carcinogenicity

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.

Reproductive toxicity
No data available(Acetic acid)
Specific target organ toxicity - single exposure
No data available(Acetic acid)
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available(Acetic acid)
Additional Information
RTECS: AF1225000
Material is extremelydestructive to tissue of the mucous membranes and upper respiratorytract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonaryedema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Ingestion or inhalation of concentrated acetic acid causes damage to tissues of the respiratoryand digestive tracts. Symptoms include: hematemesis, bloody diarrhea, edema and/or perforation of the esophagus and pylorus, pancreatitis, hematuria, anuria, uremia, albuminuria, hemolysis, convulsions, bronchitis, pulmonaryedema, pneumonia, cardiovascular collapse, shock, and death. Direct contact or exposure to high concentrations of vapor with skin or eyes can cause: erythema, blisters, tissue destruction with slow healing, skin blackening, hyperkeratosis, fissures, corneal erosion, opacification, iritis, conjunctivitis, and possible blindness., To the best of our knowledge, the chemical, physical, and

toxicological properties have not been thoroughlyinvestigated.(Aceticacid)

SECTION 12: Ecological information

12.1 Toxicity

Toxicityto fish	semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 1,000 mg/l - 96 h(Acetic acid) (OECD Test Guideline 203)
Toxicityto daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - > 300.82 mg/l - 48 h(Acetic acid) (OECD Test Guideline 202)

12.2 Persistence and degradability

Biodegradability	aerobic - Exposure time 30 d(Acetic acid) Result: 99 % - Readily biodegradable Remarks: Expected to be biodegradable
BiochemicalOxygen Demand (BOD)	880 mg/g(Acetic acid)

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available(Acetic acid)

12.5 Results of PBT and vPvB assessment

This substance/mixturecontains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Additional ecological information	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 2789 IMDG: 2789 IATA: 2789

14.2 UN proper shipping name

ADR/RID: ACETIC ACID, GLACIAL
IMDG: ACETIC ACID, GLACIAL
IATA: Acetic acid, glacial

14.3 Transport hazard class(es)

ADR/RID: 8 (3) IMDG: 8 (3) IATA: 8 (3)

14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

A Chemical Safety Assessmenthas been carried out for this substance.