



SAFETY DATA SHEET

According to 29 CFR 1910.1200

GLACIAL ACETIC ACID

Date of issue: September 01, 2023 Revision date: - Version: 1

SECTION 1.- IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Product form Liquid
Substance name Glacial acetic acid
CAS No. 64-19-7
Formula C₂H₄O₂
Synonyms Ethanoic acid

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

Use of the substance/mixture Fertilizers

1.3 Details of the supplier of the safety data sheet

Química Pima, S.A. de C.V.
Del Cobre 20, Parque Industrial Hermosillo
Hermosillo, Sonora, México. C.P. 83297 Tel. 011 (662) 251-0010 / (662) 251-0316
ventas@qpima.com
www.qpima.com

1.4 Emergency telephone number

Emergency number CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

SECTION 2.- HAZARD IDENTIFICATION

2.1 GHS-US classification

Flammable Liquids	3	H226
Acute Oral Toxicity	5	H303
Acute Inhalation Toxicity	4	H312
Acute Dermal Toxicity	4	H314
Skin Corrosion/Irritation	1A	H317
Respiratory or Skin Sensitization	1	H332
Hazardous to Aquatic Environment (Acute)	3	H402

2.2 Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



Signal Word (GHS-US):

Danger

Hazard statement (GHS-US):

H226 Flammable liquid and vapor.
H303 May be harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.



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Precautionary statements (GHS-US):

H402 Harmful to aquatic life.

P210 Keep away from heat, hot surface, sparks, open flames and other ignition sources. No smoking.

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash your hands thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340+P310 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.

P305+P351+P338+P310 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/physician.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P370+P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of the contents/container in accordance with federal, state, and local laws.

No data available

Not applicable

2.3 Other hazards

2.4 Unknown acute toxicity (GHS-US)

SECCIÓN 3.- COMPOSITION / INFORMATION OF INGREDIENTS

3.1 Substance

Name	Product identifier	%
Glacial acetic acid	(CAS No.) 64-19-7	99.8

3.2 Mixture

Not applicable



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SECCIÓN 4.- FIRST AID MEASURE

4.1 Description of first aid measure

First-aid measures general

Check vital signs. Unconscious: keep airways clear and provide breathing assistance. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform CPR. Conscious victim with breathing difficulty: semi-upright position. Victim in shock: lying on back with legs slightly elevated. Vomiting: prevent choking or aspiration. Avoid cooling by covering the victim (without heating). Continue monitoring the victim. Provide psychological support. Keep the victim calm, and avoid physical strain. Depending on the victim's condition: seek medical attention/hospital. Never give anything by mouth to an unconscious person. If feeling unwell, seek medical attention (if possible, show the label).

First-aid measures after eye contact

Rinse the eyes immediately with water for at least 20 minutes, and keep the eyelids open to ensure thorough flushing of the eye and eyelid tissues. Rinsing the eyes within seconds is essential for maximum effectiveness. If wearing contact lenses, remove them after the first 5 minutes and then continue rinsing the eyes. Consult a doctor. It can cause serious damage to the cornea, conjunctiva, or other parts of the eye.

First-aid measures after skin contact

As a precautionary measure, thoroughly wash the exposed area for at least 20 minutes. Remove contaminated clothing. Wash contaminated clothing before using it again. Consult a doctor if any symptoms occur.

First-aid measures after inhalation

Move the victim to fresh air and keep them calm. If they are not breathing, administer artificial respiration. If they have difficulty breathing, provide oxygen. Seek medical attention immediately.

First-aid measures after ingestion

Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Give water to drink. If vomiting occurs, keep the person's head low to prevent aspiration. Seek medical attention.

4.2 Most important

Symptoms/injuries after inhalation

Cause severe irritation of the respiratory tract.

Symptoms/injuries after skin contact

Corrosive upon contact with skin.

Symptoms/injuries after eye contact

Corrosive upon eye contact.

Symptoms/injuries after ingestión

It can cause gastrointestinal corrosion.

Chronic symptoms

No data available

4.3 Indications of any immediate medical attention and special treatment needed

Symptomatic treatment. For more information, consult a Poison Control Center.

SECCIÓN 5.- FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use dry chemical powder, foam, sand, or CO₂. Flood with water. Use the product according to the surrounding materials.

Unsuitable extinguishing media

DO NOT USE direct water jets.

5.2 Special hazard arising from the substance or mixture

Fire hazard

In case of fire, it may release smoke and irritating and/or toxic gases, such as carbon monoxide and other substances resulting from incomplete combustion. Hot products may cause violent eruptions upon contact with water, potentially projecting hot material and causing serious burns.



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Explosion hazard

The container, when exposed to heat, may unexpectedly explode and project dangerous fragments.

Reactivity

No data available.

5.3 Advice for firefighters

Precautionary measures fire

Vapors are heavier than air and can spread along the ground. In case of fire, it may release smoke and irritating and/or toxic gases, such as carbon monoxide and other substances resulting from incomplete combustion.

Firefighting instructions

Spray water on containers to keep them cool. Cool containers with water jets long after the fire has been extinguished. Fight the fire from a maximum distance or use fixed hose holders or regulators. Prevent water used for fire control or dilution from entering waterways, drains, or springs. Immediately retreat if there is an increasing sound from ventilation safety mechanisms, or if the tank starts discoloring. ALWAYS stay away from tanks engulfed in fire. Hot products may cause violent eruptions upon contact with water, potentially projecting hot material and causing serious burns.

Protection during firefighting

Use a self-contained breathing apparatus. Structural firefighter protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. In major spills, use chemical protective clothing specifically recommended by the manufacturer. This may provide little or no thermal protection.

SECCIÓN 6.- ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment

Use the recommended protective equipment in section 8.

Emergency procedures

Avoid ignition sources. Evacuate personnel to a ventilated area.

Measures in case of dust release

Ventilate immediately, especially in low-lying areas where vapors may accumulate.

6.1.2 For emergency responders

Eliminate all sources of ignition (no smoking, no flares, sparks, or flames in the danger area). Stop the leak if you can do so without risk. All equipment used to handle the product must be grounded. Do not touch or walk on the spilled material. Flood the area with water. Do not allow spilled products to be reused. Consider the information and recommendations in sections 5 and 7. Use the recommended protective equipment in section 8.

6.2 Environmental precautions

Contain the liquid with a barrier. Prevent entry into waterways, sewers, basements, or confined areas.

6.3 Methods and material for containment and cleaning up

Method for containment

Contain the liquid with a barrier. Collect the product using sand, vermiculite, soil, or inert absorbent material and thoroughly clean or wash the contaminated area. Dispose of the water and collected waste in labeled containers for disposal as chemical waste.

Method for cleaning up

Collect the product using sand, vermiculite, soil, or inert absorbent material and thoroughly clean or wash the contaminated area. Dispose of the water and collected waste in labeled containers for disposal as chemical waste.

6.4 Reference to other sections

For further information refer to section 8: Exposure-controls/personal protection

SECTION 7.- HANDLING AND STORAGE



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7.1 Precautions for safe handling

Precautions for safe handling

Prohibited to eat, drink, or smoke during handling. Avoid contact with eyes, skin, and clothing. Wash arms, hands, and nails after handling this product. The use of gloves is recommended. Provide access to emergency showers and eye wash stations. Avoid inhalation of the product. Keep the container closed. Use with adequate ventilation. Handle containers with care.

Hygiene measures

Use local exhaust ventilation to keep vapor concentrations in the air below permissible exposure levels. Wash hands before breaks and at the end of the workday. Remove and launder soiled clothing.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a clean, dry, and well-ventilated area. Protect from sunlight. Regularly check containers for leaks and damage. Containers must be properly labeled. Store at a temperature between 15°C and 25°C. It may attack some plastics, rubber, and coatings.

Incompatible products

Strong oxidizing agents, bases, metals, peroxides, amines, alcohols.

Heat-ignition

It can react explosively with hydrocarbons (fuels), igniting other combustible materials (wood, paper, oil, clothing, etc.).

Storage area

Store in a clean, dry, and well-ventilated area. Keep away from incompatible materials and direct sunlight. Store at a temperature between 15°C and 25°C.

Special rules on packaging

Store in a tightly sealed, dry, clean, and properly labeled container. Comply with applicable regulatory requirements. Secure fragile packaging in sturdy containers.

Packaging materials

It may attack some plastics, rubber, and coatings.

7.3 Specific end use(s)

No additional information is available

SECTION 8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Glacial acetic acid 64-19-7	10 ppm	10 ppm	50 ppm

8.2 Exposure controls

Appropriate engineering controls

Keep the workplace ventilated. Normal ventilation for routine manufacturing operations is generally adequate. Local exhaust hoods should be used during operations that produce or release large quantities of product. Mechanical ventilation should be provided in low or confined areas. Eye-wash stations and showers should be available.

Personal protective equipment

Safety goggles, face shield, full-face respirator with organic vapor cartridges, gloves, protective clothing/suit/boots.

Material for protective clothing

Nitrile, butyl, or PVC.

Hand protection

Use appropriate protective gloves to avoid skin exposure. Wear suitable protective clothing to minimize skin contact. Nitrile, butyl, or PVC gloves are recommended. Do not use materials made of natural fibers.



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Eye protection

Safety goggles, splash-proof for chemical products. Face shield (minimum of 8 inches). Use eye protection equipment tested and approved under appropriate government standards, such as NIOSH (USA) or EN 166 (EU).

Skin and body protection

Wear suitable protective clothing to minimize skin contact. Do not use materials made from natural fibers.

Respiratory protection

When risk assessment shows that respirators are appropriate, use a full-face respirator with cartridges for acid organic vapors as a backup to existing engineering controls. If the respirator is the only means of protection, use a self-contained breathing apparatus (SCBA). Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Special attention should be paid to oxygen levels present in the air.

Environmental exposure controls

Avoid release to the environment.

SECTION 9.- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear liquid
Odor	Pungent
Color	Colorless
Molecular mass	60.05 g/mol
Odor threshold	1 ppm
pH	2.4
pH solution	1 M (25 °C)
Relative evaporation rate (butyl acetate = 1)	0.97 (BuAc = 1)
Melting/Freezing point	16 °C (62 °F)
Boiling point	118 °C (244 °F)
Flash point	40 °C (104 °F) c.c. 43 °C (109 °F) o.c.
Self-ignition temperature	426 °C (799 °F)
Decomposition temperature	No data available
Flammability (solid, gas)	Flammable
Vapor pressure	11.4 mmHg
Relative vapor density at 20 °C	2.1
Relative density	1.049 (20 °C)
Solubility	100% in water
Log Kow/Pow	-0.17
Viscosity, kinematic	1.163X10 ⁻⁶ m ² /s (20 °C)
Viscosity, dynamic	1.22 cP (20 °C)
Explosive properties	Non-explosive under normal conditions
Oxidizing properties	Non-combustible
Explosive limits	4% to 16%

9.2 Other information

No additional information is available



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SECTION 10.- STABILITY AND REACTIVITY

10.1 Reactivity	This material is stable under normal handling and storage conditions.
10.2 Chemical stability	This material is stable under normal handling and storage conditions.
10.3 Possibility of hazardous reactions	This material is stable under normal handling and storage conditions.
10.4 Conditions to avoid	Avoid high temperatures, flames, and sparks.
10.5 Incompatible materials	Oxidizers, soluble carbonates and phosphates, hydroxides, metals, peroxides, permanganates, amines, alcohols.
10.6 Hazardous decomposition products	In case of heating, it may release irritating and toxic vapors.

SECTION 11.- TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Likely routes of exposure	Skin and eyes contact, inhalation, and ingestion.
Acute toxicity	It can be harmful if swallowed.
Skin corrosión/irritation	It causes burns to the skin.
Serious eye damage/irritation	It causes severe eye burns.
Respiratory or skin sensitization	It can be harmful if inhaled.
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target toxicity (single exposure)	Inhalation toxicity is the main route of exposure.
Specific target toxicity (repeat exposure)	No data available
Aspiration hazard	It can be harmful if inhaled. It can be harmful if swallowed.

Name	LD ₅₀ oral	LD ₅₀ dermal	LC ₅₀ inhalation
Glacial acetic acid	3310 mg/kg (rat)	1112 mg/kg (rabbit)	11.4 mg/l (4h, rat)

SECTION 12.- ECOLOGICAL INFORMATION

12.1 Toxicity

Ecology – General	No data available
Ecology – Air	No data available
Ecology – Water	This material has demonstrated toxicity to aquatic organisms: ATE-EC ₅₀ <i>O. mykiss</i> (> 100 mg/l, 48 h). ATE-EC ₅₀ <i>D. magna</i> (> 100 mg/l, 48 h) ATE-EC ₅₀ <i>P. subcapitata</i> (> 100 mg/l, 48 h) ATE-EC ₅₀ <i>T. pyriformis</i> (> 100 mg/l, 48 h) ATE-NOEC <i>D. rerio</i> (> 1 mg/l, 14 d) ATE-NOEC <i>D. magna</i> (> 1 mg/l, 14 d)

12.2 Persistence and degradability

Easily biodegradable (estimated: 96% in 20 days).



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12.3 Bioaccumulative potential

BIOACCUMULATION IN FISH - BCF (OECD 305): Biodegrades easily in soil or water. Has a half-life of 10 days in water. In the air, the half-life ranges from 10 to 30 days.

12.4 Mobility in soil

No data available

12.5 Other adverse effects

Other information

SECCIÓN 13.- INFORMACIÓN RELATIVA A LA ELIMINACIÓN DE LOS PRODUCTOS

13.1 Waste treatment methods

Waste treatment methods

Both the leftover products and empty containers should be disposed of following current legislation on Environmental Protection and particularly Hazardous Waste. You must classify the waste and dispose of it through an authorized company. Disposal procedure: neutralization and treatment of wastewater.

Waste disposal recommendations

Dispose of the waste material following local, regional, national, and international regulations.

SECTION 14.- TRANSPORT INFORMATION

14.1 UN Number

2789

14.2 UN proper shipping name

ACETIC ACID, GLACIAL OR ACETIC ACID SOLUTION, WITH MORE THAN 80 PERCENT ACID, BY MASS.

14.3 Class of hazards in transportation

8

14.4 Packaging group

II

14.3 Additional information



Other information

No supplementary information is available.

Overland transport

No additional information is available.

Transport by sea

No additional information is available.

Air transport

No additional information is available.

SECTION 15.- REGULATORY INFORMATION

International inventories

TSCA

TSCA – Toxic Substances Control Act Inventory Section 8(b).

DSL/NDL - Domestic Substance List/Non-Domestic Substance List.

US Federal Regulations: Not available

SARA 311/312 Categories.

Acute Health Hazard	Yes	Chronic Health Hazard	Yes	Fire Hazard	Yes
Sudden Hazardous Pressure Release	No	Reactive Hazard	No		



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Clean Water Act. No data available

CERCLA. Glacial acetic acid CAS 64-19-7

Official Mexican Standard NOM-002-SCT/2011, List of the Most Commonly Transported Hazardous Substances and Materials.

SECTION 16.- OTHER INFORMATION

NFPA	NFPA health Hazard	3	NFPA fire Hazard	2	NFPA instability Hazard	0	NFPA Special hazard	-
HMIS III	Health	3	Flammability	2	Physical	0	Personal protection	G

Splash goggles, gloves, and vapor respirator.

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Made for: Química Pima, S.A. de C.V. Del Cobre No. 20 Parque Industrial. Hermosillo, Sonora, México. 83297.

Date of issue: September 01, 2023

Revision date: -

Revision note: -

IMPORTANT NOTE: Information in this SDS is from available published sources and is believed to be accurate, but is not exhaustive and will be used only as a guide, which is based on current knowledge of the chemical substance or mixture and applied to the appropriate product for safety precautions. No warranty, express or implied, is made and Pima Chemicals & Fertilizers, LLC and Química Pima, S.A. de C.V. assumes no liability resulting from the use of this SDS. The user must determine the suitability of this information for his application.

End of Safety Data Sheet