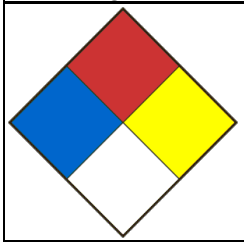
Centre Anti-Poison pour le Québec: (800) 463-5060
Tél. (Qc): (418) 660-8666 / 800-890-8666
Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier ACETIC ACID, GLACIAL		**Product Use** Laboratory use	
Chemical formula CH_3COOH		**Product code** AR-0103; AT-0103; AM-0103	**Molar weight** 60,05
Chemical name / Commercial name / Synonymous ACIDE ACÉTIQUE, ACIDE ÉTHANOÏQUE, ACIDE MÉTHANECARBOXYLIQUE, ACIDE DE VINAIGRE, ACI-JEL			
Supplier's name Laboratoire MAT		**Address-Street** 610, Adanac Street	
City Québec		**Province** Québec	
Postal code G1C 7B7	**Internet** www.labmat.com	**Phone number** 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666	CENTRE ANTI-POISON DU QUÉBEC 800-463-5060	
Date SDS 8/24/2021	**SDS Prepared by** Laboratoire MAT	**E-Mail** labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Flammable liquids category 3 Skin corrosion/irritation - Skin corrosion category 1A Serious eye damage/eye irritation - Serious eye damage category 1 Corrosive to metals-Category 1
Signal Word	DANGER
Hazards statements (H)	H226 Flammable liquid and vapor. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H290 May be corrosive to metals.
Precautionary statements (P)	P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P233 Keep container tightly closed. 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 the areas of the body that have been in contact with the product after handling. 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 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician. P321 Specific treatment (see section 4 of the SDS and on this label). P363 Wash contaminated clothing before reuse. P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company. P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction. P234 Keep only in original container. P390 Absorb spillage to prevent material damage. P406 Store in a corrosion resistant container / or a container with corrosion resistant liner.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	**Health** 3 **Fire** 2 **Reactivity** 0 **Special danger**

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Acide acétique glacial	64-19-7	>=97

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	The product is a material corrosive. Main symptoms of high exposure: Causes burns, regardless of exposure routes. Cough. Breathing difficulties. Eye damage. Vomiting. Skin sensitizer. The corrosive effect will outweigh the toxicity for the concentrated product. Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	Yes
Ignition conditions	Flammable in the presence of a source of ignition when the temperature is above the flash point.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: Carbon oxides.
Special fire and explosion hazards	Moderate fire hazard in the presence of heat or flame. May react violently with incompatible products (Ref Section 10). Acetic acid is classified as flammable if the concentration is between 80-100%. Solutions of 10 to 80% acetic acid can be combustible liquids.
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personnal precautions, protective equipment	Evacuate personnel to safe areas. Cut off all sources of ignition. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary. Avoid breathing vapors, mist or gas.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Store in a well-ventilated area. Keep container tightly closed and store away from heat, water, moisture, and incompatible products. Keep away from sources of ignition - No smoking. Take measures to prevent the accumulation of electrostatic charges. Protect from the sun's rays.
Methods of handling	Keep away from sources of ignition - No smoking. Avoid inhalation of vapor or mist. Always open containers slowly to allow any excess pressure to vent. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Acetic acid	64-19-7	TWA	10.000000 ppm 25.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		STEL	15.000000 ppm 37.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	10.000000 ppm	Canada. British Columbia OEL
		STEL	15.000000 ppm	Canada. British Columbia OEL
		TWAEV	10.000000 ppm 25.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEV	15.000000 ppm 37.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	10 ppm 25 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		STEL	15 ppm 37 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	10 ppm	Canada. British Columbia OEL
		STEL	15 ppm	Canada. British Columbia OEL
		TWAEV	10 ppm 25 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEV	15 ppm 37 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	10.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	15.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich (Millipore Sigma)
Ventilation	Fan.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid.
Appearance	incolore-
Odour	Odeur forte et irritante.
Odour threshold	1.018ppm
pH	Solution aqueuse 1.0 M = 2.4 Solution 0.1 M = 2.9 Solution 0.01 M = 3.4.
Melting point / Freezing point	16.2°C
Initial boiling point	117-118°C
Boiling range	Data not available
Flash point	40°C
Evaporation rate	0.97%
Flammability	Yes
Lower flammable / Explosive limit	4% v/v
Upper flammable / Explosive limit	16% v/v
Vapour pressure	11.4 mm @ 20°CmmHg
Vapour density	Data not available
Relative density	1.049g/ml à 25°C
Solubility	H2O: 602.9 g/L @ 25 °C.
Partition coefficient water/n-octanol	log Pow: -0.17-
Auto-ignition temperature	463.0 °C-
Decomposition temperature	Data not available
Viscosity	1.056mpas

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Acid product, reacts strongly with strong bases. May react violently with incompatible substances. May ignite on contact with oxidants.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Heat, flames, sparks. Avoid contact with incompatible materials and extreme temperatures.
Incompatible material	Strong oxidizing agents (chromic acid, nitric acid, peroxides, chlorates and perchlorates), bases, alcohols, carbonates, hydroxides, oxides, phosphates, 5-azidotetrazole, bromine pentafluoride, chromium trioxide, hydrogen peroxide, potassium permanganate, sodium peroxide, phosphorus trichloride, heat and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACETIC ACID, GLACIAL

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below. The corrosive effect will outweigh the toxicity for the concentrated product.
- Eyes	Severe burns and destruction of ocular tissue that can lead to corneal ulceration and blindness.
- Skin	Severe burns and tissue ulcerations. May be fatal, if the extent of the burns is considerable. Acetic acid will have a greater corrosive effect from 10%.
- Inhalation	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death.
Acute toxicity (Ingestion)	Corrosion and ulceration of the mouth, throat, esophagus, stomach and abdominal wall. Dysphagia, kidney damage, bloody diarrhea and vomiting, diaphoresis, intense thirst, shock, circulatory collapse, unconsciousness, coma and can lead to death.
Chronic exposure effects / symptoms	Burning sensation, conjunctivitis, hyperkeratosis, nervous disorders, chest pain, dental erosion, cough, dyspnea, laryngitis, headache, dizziness, diarrhea, asthenia, irritability, weight loss and loss of appetite, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 3,530 mg/kg. LD50 Dermal - Rabbit - 1060 mg/kg
CL50 (specify species and route of entry)	LC50 Inhalation - Rat -4h - 11.4 mg/L (4400 ppm - 4 h) LC50 Inhalation - Mouse- 1hre - 5620 ppm

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Acetic acid. Toxicity to fish: Semi-static test LC50 - Oncorhynchus mykiss: > 1,000 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna: > 300.82 mg/l - 48 h
Persistence and degradability	Biodegradability Result: - Readily biodegradable
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	Biochemical oxygen demand (BOD): 880 mg/g

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	2789
UN Proper shipping name	ACIDE ACÉTIQUE GLACIAL
Transport hazard class(es)	8 Corrosive substances 3 Flammable liquids
Packing group	II
Limited quantity index	1L
ERAP Index	3000
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Flammable liquids category 3 Skin corrosion/irritation - Skin corrosion category 1A Serious eye damage/eye irritation - Serious eye damage category 1 Corrosive to metals-Category 1

SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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