

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				Product Use	
TRICHLOROACETIC ACID				Laboratory use	
Chemical formula				Product code	Molar weight
CCI3CO2H				TR-0164; TR-0964	163,39
Chemical name / Commerc TRICHLOROACETIC	ial name / Synonymous ACID, ACIDE TRICHLORC	DÉTHANOÏQUE, AC	ETO-CAUSTIN, VAR	RITOX	
Supplier's name		Address-Street			
Laboratoire MAT		610, Adanac Street			
City		Province			
Québec		Québec			
Postal code	Internet	Internet		Phone number	
G1C 787	www.labmat.co	www.labmat.com		418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 6	CANUTEC: 613-996-6666		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060	
Date SDS SDS Prepared by			E-Mail		

SECTION 02 - HAZARDS IDENTIFICATION

	tion - Skin corrosion category 1A e/eye irritation - Serious eye damage category 1
Serious eye damage	
a	
Specific target orga	n toxicity - Single exposure category 3
Carcinogenicity cate	gory 2
DANGER	
H314 Causes sever	e skin burns and eye damage.
H318 Causes seriou	s eye damage.
H335 May cause re	spiratory irritation.
H351 Suspected of	causing cancer.
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 + P3	31 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P3	53 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 + P3	38 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.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.
P261	Avoid breathing dust / fume / gas / mist / vapors / spray.
P271	Use only outdoors or in a well-ventilated area.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
NFI	PA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
Health 3 Fire 0 Reactivity 0 Special danger	
	DANGER H314 Causes severa H318 Causes seriou H335 May cause re H318 Causes seriou P260 P260 P280 P301 + P330 + P33 P304 + P340 P305 + P351 + P33 P301 P261 P271 P312 P403 + P233 P201 P202 P308 + P313 Image: Paint for the paint of the pain

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Acide trichloroacétique	76-03-9	<=100

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	Remove soiled clothing. Wash skin with plenty of water for at least 15 minutes. 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)	Causes burns, regardless of exposure routes. The product is a material corrosive. Do not perform gastric lavage, do not induce vomiting. Check the absence of Stomach or esophageal perforation, as ingestion causes severe swelling, severe tissue damage and danger of perforation. Notes to doctor: Treat according to symptoms. 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	No
Ignition conditions Not flammable or combustible.	
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Do not use a concentrated stream of water that could spread fire.
Hazardous combustion products	Hazardous decomposition products formed under fire conditions Carbon oxides, Hydrogen chloride gas.
Special fire and explosion hazards	A violent reaction was reported when mixing trichloroacetic acid with copper wool in dimethyl sulfoxide (Chem Eng.News, p.4, July 13, 1981). May react violently with incompatible products (Ref Section 10).
	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	Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid dust formation. Use personal
containment and cleaning up /	protective equipment. Use a respirator as needed. Pick up with a shovel or broom, taking care not to
Personnal precautions, protective	scatter dust. Dispose of residues in a container provided for the disposal of hazardous materials. Do not
equipment	let product enter drains.

SECTION 07 - HANDLING AND STORAGE

Location for corrosive material. Store in a cool, dry place. Store in a well-ventilated area. Storage of solutions with a concentration of less than 30% is not recommended due to decomposition under the effect of light and sunlight. Hygroscopic. Keep container tightly closed and store away from heat, moisture, and incompatible products. Air and moisture sensitive.
Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Use only under a fume hood. Wear personal protective equipment. Avoid contact with the skin, eyes and clothes. Avoid ingestion and inhalation.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis		
Trichloroacetic acid	76-03-9	TWA	1.000000 ppm	Canada. British Columbia OEL		
		TWAEV	1.000000 ppm 6.700000 mg/m3	Canada. Ontario OELs		
		TWA	1.000000 ppm 6.700000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)		
Remarks		Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required				
		TWAEV	1.000000 ppm 6.700000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants		
		TWAEV	1 ppm 6.7 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants		
		TWA	1.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)		
		TWA	0.5 ppm	USA. ACGIH Threshold Limit Values (TLV)		

Data source	Sigma-Aldrich.
Ventilation	Use fan.
Respiratory	If work under the hood is not possible, or 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	Solid.
Appearance	Poudre cristalline déliquescente et incolore. (Blanc)-
Odour	Odeur caractéristique
Odour threshold	Data not available
рН	Solution aqueuse 0.1M = pH 1.2.
Melting point / Freezing point	54-56°C
Initial boiling point	196 °C @ 760 mmHg-
Boiling range	Data not available
Flash point	110 °C @ 101.325 kPα-
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	1 hPa (1 mmHg) à 51 °C-
Vapour density	5.64 - (Air = 1.0)-
Relative density	1.62 g/cm3 à 25 °C-
Solubility	Très soluble dans l'eau, l'alcool et l'éther.
Partition coefficient water/n-octanol	Log Pow : 1.33 - 1.44-
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Acid product, reacts strongly with strong bases. Reacts strongly with metals.
Chemical stability	Moisture sensitive.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	This product quickly absorbs moisture from the air. Avoid excessive heat. Incompatible products. This product can decompose if exposed to air and moisture.
Incompatible material	Amines. Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong bases and moisture.
Hazardous decomposition products	Toxic vapors of hydrogen chloride, carbon monoxide, dioxide and carbon oxychloride (phosgene). Gaseous chlorine. Chloroforme.

SECTION 11 - TOXICOLOGICAL INFORMATION

TRICHLOROACETIC ACID

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and severe burns that can lead to corneal ulceration and blindness.
- Skin	Irritation, burns and ulcerations of the tissues. Intense exposure can cause blisters on the skin.
- 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)	Burns and ulcerations of the mouth, throat, esophagus and abdominal wall. Dysphagia, abdominal pain, cramps, diarrhea, melena, hematemesis, sweating, salivation, convulsions, nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation, nerve disorders, lung damage, chest pain, cough, dyspnea, laryngitis, headache, dizziness, confusion, irritability, sweating, salivation, paleness, gastrointestinal disorders, fatigue, weight loss and loss appetite, convulsions, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - male and female - 3,320 mg/kg. LD50 Dermal - Rat - > 2 000 mg/kg LD50 Dermal - Rabbit - 2 400 mg/kg
CL50 (specify species and route of entry)	LC50 - Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

	Toxicity to freshwater fish: >277 mg/l Toxicity of freshwater algae: 0.27 mg/l Toxicity to daphnia and other aquatic invertebrates: 110 mg/l
Persistence and degradability	Soluble in water. Persistence is unlikely based on the information provided.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water. Log Poctanol / water: 1.44
Other adverse effects	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

	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	1839
UN Proper shipping name	ACIDE TRICHLOROACÉTIQUE
Transport hazard class(es)	8 Corrosive substances
Packing group	II
Limited quantity index	lkg
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

Carcinogenicity category 2		Skin corrosion/irritation - Skin corrosion category 1A Serious eye damage/eye irritation - Serious eye damage category 1 Specific target organ toxicity - Single exposure category 3 Carcinogenicity category 2
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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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