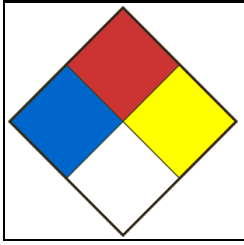
Centre Anti-Poison pour le Québec: (800) 463-5060
Tél. (Qc): (418) 660-8666 / 800-890-8666
Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier TRICHLOROETHYLENE		**Product Use** Laboratory use	
Chemical formula CCl_2=CHCl		**Product code** TR-0099	**Molar weight** 131,39
Chemical name / Commercial name / Synonymous TRICHLOROETHYLENE, TRICHLORÉTHYLÈNE, TRICHLOROÉTHÈNE, TRICHLORURE D'ACÉTYLÈNE, ETHINYL TRICHLORIDE, /ALGYLEN, CHLORYLEN, TRILENE			
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 1/3/2019	**SDS Prepared by** Laboratoire MAT	**E-Mail** labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/ Eye irritation category 2A Germ cell mutagenicity category 2 Carcinogenicity category 1B Specific target organ toxicity - Single exposure category 3
Signal Word	DANGER
Hazards statements (H)	H315 Causes skin irritation. H319 Causes serious eye irritation. H341 Suspected of causing genetic defects . H350 May cause cancer. H336 May cause drowsiness or dizziness.
Precautionary statements (P)	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. 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. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/attention. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P321 Specific treatment (see section 4 of the SDS and on this label). P332 + P313 If skin irritation occurs: Get medical advice/attention. P337 + P313 If eye irritation persists: Get medical advice/attention. P362 + P364 Take off contaminated clothing and wash it 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 / vapours / spray. P271 Use only outdoors or in a well-ventilated area. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	**Health** 2 **Fire** 1 **Reactivity** 0 **Special danger**

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Trichloroéthylène	79-01-6	<=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	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. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	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	Data not available.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. Phosgene (carbonyl dichloride) - Carbon oxides, Hydrogen chloride gas.
Special fire and explosion hazards	May react violently with incompatible products (Ref Section 10). Vapors highly concentrated in the air can ignite or even explode if exposed to an intense source of ignition. Trichlorethylene may react violently with alkalis, aluminum, nitrogen tetroxide, barium, epoxides, lithium, magnesium, potassium nitrate, sodium and titanium.
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. 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 vapours, mist or gas. Do not let product enter drains.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Keep container tightly closed and store away from heat, moisture, and incompatible products. Protect from light and sunlight. Keep container tightly closed in a dry and well-ventilated place. Light sensitive. Handle and store under inert gas.
Methods of handling	Bottle in the glass only. Always open containers slowly to allow any excess pressure to vent. Avoid inhalation of vapour or mist.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Trichloroethylene	79-01-6	TWA	50.000000 ppm 269.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		STEL	100.000000 ppm 537.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	10.000000 ppm	Canada. British Columbia OEL
		STEL	25.000000 ppm	Canada. British Columbia OEL
		TWAEV	50.000000 ppm 269.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEV	200.000000 ppm 1,070.000000 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	25.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich.
Ventilation	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	Face shield (20 cm minimum).
Shoes	Safety shoes.
Clothing	Labcoat.
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	Donnée non disponible.
Odour threshold	Data not available
pH	Donnée non disponible.
Melting point / Freezing point	-85°C/-121°F-
Initial boiling point	87°C /188.6 °F-
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	0.69 (Carbon Tetrachloride =1.0)-
Flammability	No
Lower flammable / Explosive limit	8% à 25 °C; 7,8% à 100 °C-
Upper flammable / Explosive limit	10,5 % à 25 °C; 52% à 100 °C-
Vapour pressure	77.3 mbar @ 20°C-
Vapour density	4.5 (Air=1.0)-
Relative density	1.464g/ml
Solubility	Insoluble dans l'eau. Miscible avec l'alcool, l'acétone, le chloroforme et l'éther.
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	410°C / 770°F-
Decomposition temperature	>120°C-
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Sensitive to light
Possibility of hazardous reactions	Oxidants, Strong bases. magnesium
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid exposure to air, light and moisture. Avoid excessive heat. Avoid contact with incompatible materials.
Incompatible material	Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong reducing agents (potassium, sodium, hydrides of metals), alkalis, aluminum, nitrogen tetroxide, barium, strong bases, epoxides, lithium, magnesium, magnesium nitrate, titanium, heat, moisture and light.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Toxic vapors of hydrogen chloride, carbon monoxide, dioxide and carbon oxychloride (phosgene).

SECTION 11 - TOXICOLOGICAL INFORMATION

TRICHLOROETHYLENE

Routes of exposure	Inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and may cause inflammation of the conjunctiva.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Narcotic effects, chest pain, cough, dyspnea, headache, dizziness, drowsiness, incoordination, dysarthria, sensory disturbances, hypotension, cardiac arrhythmia, unconsciousness, coma and may result in death from cardiac or respiratory arrest.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Narcotic effects, liver and kidney damage, cramps, diarrhea, headache, dizziness, drowsiness, incoordination, tremors, nausea and vomiting, cardiac arrhythmia, hypotension, convulsions, unconsciousness, coma and can lead to death. NOTE: The absorption of alcohol may increase the effects of toxicity.
Chronic exposure effects / symptoms	58/5000 Is recognized as a carcinogen (class 1) by IARC. Burning sensation, dermatitis, conjunctivitis, narcotic effects, liver and kidney damage, chest pain, cough, dyspnea, headache, dizziness, drowsiness, confusion, irritability, sensory disturbances, transient digital palsy, bradycardia, fatigue, insomnia, weight loss and loss of appetite, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 4290 mg/kg à 4920 mg/kg LD50 Dermal - Rabbit - > 2,000 mg / kg
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4h - 12500 ppm.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity to fish: LC50 - Pimephales promelas (fathead minnow) - 41 mg/l -96.0 h. LOEC - other fish - 11 mg/l - 10.0 d. NOEC - Oryzias latipes - 40 mg/l - 10.0 d. Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 18.00 mg/l - 48 h Toxicity to algae: LC50 - Pseudokirchneriella subcapitata (green algae) - 175.00 mg/l - 96 h.
Persistence and degradability	Persistence is unlikely based on information available.
Bioaccumulative potential	Does not bioaccumulate.
Mobility in soil	Probable mobility in the environment due to its volatility.
Other adverse effects	Harmful to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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	1710
UN Proper shipping name	TRICHLORÉTHYLÈNE
Transport hazard class(es)	6.1 Toxic substances
Packing group	III
Limited quantity index	5L
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/ Eye irritation category 2A Germ cell mutagenicity category 2 Carcinogenicity category 1B Specific target organ toxicity - Single exposure category 3

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.

Last Update: 1/3/2019