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

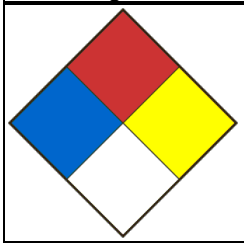
SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier TRIETHYLAMINE		**Product Use** Laboratory use	
Chemical formula $(C_2H_5)_3N$		**Product code** TR-0174	**Molar weight** 101,19
Chemical name / Commercial name / Synonymous TRIETHYLAMINE, N,N-DIETHYLETHANAMINE, (DIETHYLAMINO) ETHANE, TEN, TEA			
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 8/10/2020	**SDS Prepared by** Laboratoire MAT	**E-Mail** labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Flammable liquids category 2 Acute toxicity - Oral category 4 Skin corrosion/irritation - Skin corrosion category 1A Serious eye damage/eye irritation - Serious eye damage category 1 Acute toxicity - Dermal category 3 Acute toxicity - Inhalation category 3 Specific target organ toxicity - Single exposure category 3	
Signal Word	DANGER	
Hazards statements (H)	H225 Highly flammable liquid and vapour. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H311 Toxic in contact with skin. H331 Toxic if inhaled. H335 May cause respiratory irritation.	
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 / vapours / spray.
	P264	Wash the areas of the body that have been in contact with the product after handling.
	P270	Do no eat, drink or smoke when using this product.
	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).
	P330	Rinse mouth.
	P363	Wash contaminated clothing before reuse.
	P370 + P378	In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction.
	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.
	P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
	P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
	P271	Use only outdoors or in a well-ventilated area.
	P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
	P311	Call a POISON CENTER or doctor/physician.
	P312	Call a POISON CENTER or doctor/physician if you feel unwell.
	P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
	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** 3 **Fire** 3 **Reactivity** 1 **Special danger**

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Triéthylamine	121-44-8	<=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	Do NOT induce vomiting. If the person is conscious, rinse the mouth with water. 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	Yes
Ignition conditions	Heat, sparks and open flame.
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. - Carbon oxides, nitrogen oxides (NOx).
Special fire and explosion hazards	May react violently with incompatible products (Ref Section 10). Steam can travel a great distance and ignite on sources of ignition such as heaters, electrical appliances, cigarettes, sparks, etc. Containers exposed to fire may explode. Contact with strong oxidizing agents may cause fire. Violent exothermic reactions with maleic anhydride above 150 ° C.
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. Remove 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 vapours, mist or gas. Discharge into the environment must be avoided. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Do not let product enter drains.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Protect from sunlight and light. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep away from oxidizing materials and acids.
Methods of handling	Bottle in the glass only. Avoid contact with the skin, eyes and clothes. Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. 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
Triethylamine	121-44-8	TWAEV	5 ppm 20.5 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
Remarks	Skin (percutaneous)			
	TWAEV 5.000000 ppm 20.500000 mg/m3 Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants			
	Skin (percutaneous)			
		TWA	1.000000 ppm	Canada. British Columbia OEL
	Contributes significantly to the overall exposure by the skin route.			
		STEL	3.000000 ppm	Canada. British Columbia OEL
	Contributes significantly to the overall exposure by the skin route.			
		TWAEV	1.000000 ppm	Canada. Ontario OELs
		STEV	3.000000 ppm	Canada. Ontario OELs
		TWA	1.000000 ppm 4.100000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
	Substance may be readily absorbed through intact skin			
		STEL	3.000000 ppm 12.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
	Substance may be readily absorbed through intact skin			
	STEV 15.000000 ppm 61.500000 mg/m3 Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants			
	Skin (percutaneous)			
		STEV	15 ppm 61.5 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	Skin (percutaneous)			
		TWA	1.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	1 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	3.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	3 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	Use 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	Clair et incolore.
Odour	Type amine.
Odour threshold	0.25ppm
pH	12.7 à 100 g/l à 15 °C.
Melting point / Freezing point	-115°C
Initial boiling point	88.8°C
Boiling range	Data not available
Flash point	-14.99°C
Evaporation rate	2.7 (éther = 1)%
Flammability	Yes
Lower flammable / Explosive limit	1.2%
Upper flammable / Explosive limit	8%
Vapour pressure	51.75 mmHg à 20 °C.
Vapour density	3.49 (Air = 1.0)-
Relative density	0.726g/cm³
Solubility	Modérément soluble dans l'eau. Miscible avec l'alcool et l'éther.
Partition coefficient water/n-octanol	log Pow: 1.15-
Auto-ignition temperature	312°C
Decomposition temperature	Data not available
Viscosity	0.347 mPa.s à 25 deg C.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Stable under normal conditions.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid excessive heat. Heat, flames, sparks.
Incompatible material	Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong acids, aldehydes, ketones, halogenated hydrocarbons, maleic anhydride, diazotized tetroxide, heat, moisture and light.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx).

SECTION 11 - TOXICOLOGICAL INFORMATION

TRIETHYLAMINE

Routes of exposure	Ingestion, inhalation, skin contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe irritation and burning of the eye tissue that may lead to corneal ulceration and blindness.
- Skin	Severe irritation and tissue burn.
- 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)	Irritation and burning of the mouth, throat, esophagus and abdominal wall. Dysphagia, abdominal pain, liver and kidney damage, cramps, diarrhea, melena, hematemesis, salivation, convulsions, circulatory collapse, unconsciousness, coma and can lead to death.
Chronic exposure effects / symptoms	Burning sensation, nerve disorders, liver and kidney damage, chest pain, cough, dyspnoea, laryngitis, headache, dizziness, drowsiness, tearing, diaphoresis, asthenia, muscle weakness, weight loss and loss of appetite , nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 460 mg/kg. LD50 Dermal - Rabbit - 410 mg/kg.
CL50 (specify species and route of entry)	CL50 inhalation - Rat 7.1 mg/L - 4 h.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	LC50 - Oryzias latipes : 24 mg/l - 48 h (Hydrogen peroxide) CL50 - Daphnia dubia (Daphnie) 17,000 mg/l - 72 h LC50 - Bacteria - 95 mg/L - 17h. EC50 - Pseudokirchneriella subcapitata (green algae) - 8 mg/L - 72 h.
Persistence and degradability	Biodegradability aerobic. Result: 80 % - Readily biodegradable. Method: OECD Test Guideline 301B.
Bioaccumulative potential	Bioaccumulation Cyprinus carpio (Carp) - 42 d. Bioconcentration factor (BCF): < 0. Method: OECD Test Guideline 305C. Remarks: Does not bioaccumulate.
Mobility in soil	Data not available.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

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	1296
UN Proper shipping name	TRIÉTHYLAMINE
Transport hazard class(es)	3 Flammable liquids 8 Corrosive substances
Packing group	II
Limited quantity index	1L
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Flammable liquids category 2 Acute toxicity - Oral category 4 Skin corrosion/irritation - Skin corrosion category 1A Serious eye damage/eye irritation - Serious eye damage category 1 Acute toxicity - Dermal category 3 Acute toxicity - Inhalation category 3 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.

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