



Centre Anti-Poison pour le Québec: (800) 463-5060

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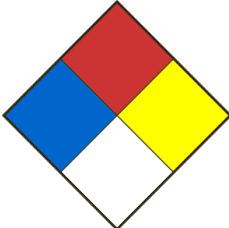
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## SAFETY DATA SHEET

### SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier TRIS(HYDROXYMETHYLE) AMINOMETHANE		Product Use Laboratory use	
Chemical formula (HOCH <sub>2</sub> ) <sub>3</sub> CNH <sub>2</sub>		Product code TR-0197; TR-0193; TU-0197	Molar weight 121,14
Chemical name / Commercial name / Synonymous TRIS(HYDROXYMETHYL)AMINOMETHANE, TROMETHAMINE, 2-AMINO-2-HYDROXYMETHYL-1,3-PROPANEDIOL, TRIMETHYLOL AMINOMETHANE, TRISAMINE, TROMETAMOL, TROMETHANE, TRIS, THAM			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
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Emergency phone	CANUTEC: 613-996-6666	CENTRE ANTI-POISON DU QUÉBEC 800-463-5060	
Date SDS 9/27/2018	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

### SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Not a hazardous substance or mixture
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	<b>Health</b> 1 <b>Fire</b> 0 <b>Reactivity</b> 0 <b>Special danger</b>

### SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Tris (hydroxyméthyl) aminométhane	77-86-1	<=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.
Skin contact	
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Rinse mouth with water. Never give anything by mouth to an unconscious person.
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

<b>Flammability</b>	No
<b>Ignition conditions</b>	Not flammable or combustible.
<b>Suitable extinguishing media</b>	
<b>Unsuitable extinguishing media</b>	Data not available.
<b>Dangerous fumes - combustion</b>	When heated to decomposition, tris (hydroxymethyl) aminomethane gives off toxic fumes of nitrogen oxides, carbon monoxide and carbon dioxide.
<b>Hazardous combustion products</b>	Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO <sub>x</sub> ).
<b>Special fire and explosion hazards</b>	To our knowledge, the product has not been fully evaluated. May react violently with incompatible products (Ref Section 10).
<b>Special protective equipment and precautions for firefighters</b>	Wear self contained breathing apparatus for fire fighting if necessary.

## SECTION 06 - ACCIDENTAL RELEASE MEASURES

<b>Methods and materials for containment and cleaning up / Personal precautions, protective equipment</b>	Pick up with a shovel or broom, taking care not to scatter dust. Ensure a good ventilation of the premises. Dispose of residues in a container provided for the disposal of hazardous materials. When handling, wear appropriate safety equipment. Use a respirator as needed. Avoid dust formation. Avoid breathing vapours, mist or gas.
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## SECTION 07 - HANDLING AND STORAGE

<b>Conditions for safe storage</b>	Store in a cool, dry place. Keep container tightly closed and store away from heat, moisture, and incompatible products. Store in a well-ventilated area. Hygroscopic.
<b>Methods of handling</b>	Provide appropriate exhaust ventilation at places where dust or vapor is formed.

## SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace control parameters

Components	CAS-No.	Value	Control Citric acid	
TRIS(HYDROXYMETHYL) AMINOMETHANE	77-86-1	No data available	TLV, TWA, STEL	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		No data available	TLV, TWA, STEL	Canada. British Columbia OEL
		No data available	TLV, TWA, STEL	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

<b>Ventilation</b>	Use fan.
<b>Respiratory</b>	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
<b>Gloves</b>	Handle with gloves.
<b>Eyes</b>	Safety goggles with safety shutters.
<b>Shoes</b>	Safety shoes.
<b>Clothing</b>	Labcoat.
<b>Engineering control</b>	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 de couleur blanche.-
Odour threshold	Data not available
pH	10-11.
Melting point / Freezing point	169°C
Initial boiling point	288 °C @ 101.06 - 101.62 kPa-
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	0 Pa @ 20 °C-
Vapour density	Data not available
Relative density	1.32g/ml
Solubility	Très soluble dans l'eau. Soluble dans l'alcool et l'éthylène glycol..
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

## 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)	This product quickly absorbs moisture from the air. Hygroscopic.
Incompatible material	Oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong bases, heat and humidity.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Toxic vapors of nitrogen oxides, monoxide and carbon dioxide.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### TRIS(HYDROXYMETHYLE) AMINOMETHANE

Routes of exposure	Inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation.
- Skin	Irritation.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Nervous disorders, cough, dyspnea, headache, dizziness, nausea and vomiting.
Acute toxicity (Ingestion)	Gastrointestinal disorders, cramps, diarrhea, headache, dizziness, convulsions, nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation, nervous disorders, chest pain, cough, dyspnea, headache, dizziness, tiredness, nausea and vomiting.
LD50 (specify species and route of entry)	LD50 Oral - rat - > 3,000 mg/kg. DL50 Dermal - Rat - > 5,000 mg/kg
CL50 (specify species and route of entry)	Data not available.

## SECTION 12 - ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Toxicity to daphnia and other aquatic invertebrates: CE50 - Daphnia (Daphnie) - > 980 mg/l - 48 h Toxicity to algae. CE50 - Algae - 397 mg/l - 72 h NOEC - Algae - 100 mg/l - 72 h
<b>Persistence and degradability</b>	Biodegradability Result: - Readily biodegradable Method: OECD Test Guideline 301F.
<b>Bioaccumulative potential</b>	No bioaccumulation is to be expected (log Pow <= 4).
<b>Mobility in soil</b>	Data not available.
<b>Other adverse effects</b>	Avoid release to the environment.

## SECTION 13 - DISPOSAL CONSIDERATIONS

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

## SECTION 14 - TRANSPORT INFORMATION

<b>UN Number</b>	N/R
<b>UN Proper shipping name</b>	
<b>Transport hazard class(es)</b>	
<b>Packing group</b>	
<b>Limited quantity index</b>	
<b>ERAP Index</b>	
<b>Special precautions</b>	

## SECTION 15 - REGULATORY INFORMATION

<b>WHIMS CANADA</b>	Not a hazardous substance or mixture
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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.

Last Update: 9/27/2018