



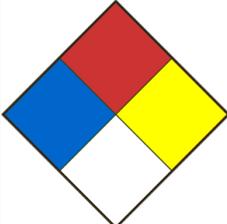
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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier TRIS-HCl		Product Use Laboratory use	
Chemical formula (HOCH ₂) ₃ CNH ₂ .HCl		Product code TU-1000 ; TR-0194	Molar weight 157,64
Chemical name / Commercial name / Synonymous TRIS hydrochloride TRIS HCl Tris(hydroxymethyl)aminomethanehydrochloride			
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 9/28/2018	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)
	Health 1 Fire 0 Reactivity 0 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Tris(hydroxyméthyl)aminométhane hydrochlorure	1185-53-1	<=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. 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.
Dangerous fumes - combustion	When heated to decomposition, tris (hydroxymethyl) aminomethane hydrochloride gives off toxic fumes of nitrogen oxides, hydrogen chloride, carbon monoxide and carbon dioxide.
Hazardous combustion products	Oxides of carbon, oxides of nitrogen (NOx), Hydrogen chloride gas.
Special fire and explosion hazards	May react violently with incompatible products (Ref Section 10).
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 / Personnel precautions, protective equipment	Evacuate personnel to safe areas. Avoid dust formation. Avoid breathing vapours, mist or gas. When handling, wear appropriate safety equipment. Use a respirator as needed. Pick up and evacuate without creating dust. Sweep and shovel. Keep in suitable containers and closed for disposal. Ensure adequate ventilation.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Hygroscopic.
Methods of handling	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
Chlorhydrate TRIS	1185-53-1	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

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	Use 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	Solid.
Appearance	Poudre cristalline de couleur blanche.-
Odour	Donnée non disponible..
Odour threshold	Data not available
pH	Donnée non disponible..
Melting point / Freezing point	150 - 152°C
Initial boiling point	225 - 295 °C @ 101.3 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 - 0.001 Pa @ 20 - 50 °C-
Vapour density	Data not available
Relative density	1.28 @ 20.2 °C-
Solubility	Très soluble dans l'eau..
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)	Avoid moisture.
Incompatible material	Oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong bases, heat and humidity.
Hazardous decomposition products	Oxides of carbon, oxides of nitrogen (NOx), Hydrogen chloride gas.

SECTION 11 - TOXICOLOGICAL INFORMATION

TRIS-HCL

Routes of exposure	Ingestion, inhalation, skin contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	May cause eye irritation.
- Skin	May be harmful if absorbed through the skin. Provoke a skin irritation.
- Inhalation	May be harmful if inhaled. Causes irritation of the respiratory system.
Acute toxicity (Ingestion)	May be harmful if swallowed.
Chronic exposure effects / symptoms	To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
DL50 (specify species and route of entry)	Data not available.
CL50 (specify species and route of entry)	Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity for daphnia and the others invertebrates aquatic. EC50 - Daphnia -> 100 mg / l - 48 h. Toxicity to algae. EC50 - other microorganisms -> 1,000 mg / l - 3 h.
Persistence and degradability	Readily biodegradable, according to the appropriate OECD test.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	Data not available.

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

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	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: 9/28/2018