



Centre Anti-Poison pour le Québec: (800) 463-5060  
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## SAFETY DATA SHEET

### SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier TBE 10X BUFFER		Product Use Laboratory use	
Chemical formula -		Product code TB-0026	Molar weight
Chemical name / Commercial name / Synonymous -			
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 12/15/2021	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

### SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Reproductive toxicity category 1B
Signal Word	DANGER
Hazards statements (H)	H360 May damage fertility or the unborn child.
Precautionary statements (P)	<p>P201 Obtain special instructions before use.</p> <p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P308 + P313 IF exposed or concerned: Get medical advice/attention.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.</p>
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	<p>Health 1</p> <p>Fire 0</p> <p>Reactivity 0</p> <p>Special danger</p>

## SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Tris (hydroxyméthyl) aminométhane Acide borique EDTA Tétrásodique	77-86-1 10043-35-3 194491-31-1	10-15 4-7 <1

## SECTION 04 - FIRST AID MEASURES

<b>Eye contact</b>	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.
<b>Skin contact</b>	If irritation persists, seek medical attention.
<b>Inhalation</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>Ingestion</b>	Rinse mouth with water. Never give anything by mouth to an unconscious person.
<b>Most important symptoms and effects (acute and delayed)</b>	Main symptoms of high exposure: Nausea and vomiting. Abdominal pain. Skin lesions. Cyanosis (blue to black coloring of the skin and nails). Tachycardia. Ref. section 11.
<b>Immediate medical attention and special treatment, if necessary</b>	In case of medical consultation, keep this sheet available.
<b>General advice</b>	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>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable extinguishing media</b>	Data not available.
<b>Hazardous combustion products</b>	Hazardous combustion products formed under fire conditions: - Carbon oxides, nitrogen oxides (NOx). - Borane/boron oxides, Sodium oxides.
<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 / Personnel precautions, protective equipment</b>	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 vapors, mist or gas. Do not let product enter drains.
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## SECTION 07 - HANDLING AND STORAGE

<b>Conditions for safe storage</b>	Store in a cool, dry place. Protect from the sun's rays. Keep container tightly closed away from heat, moisture, and incompatible materials.
<b>Methods of handling</b>	Always open containers slowly to allow any excess pressure to vent. Avoid inhalation of vapor or mist. 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 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

Components	No.-CAS	Value	Control parameters	Basis
Boric acid	10043-35-3	TWA	2.000000 mg/m <sup>3</sup>	Canada. British Columbia OEL
		STEL	6.000000 mg/m <sup>3</sup>	Canada. British Columbia OEL
		No data available		Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		No data available		Canada. Ontario OELs
		No data available		Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Components	CAS-No.	Value	Control Citric acid	
EDTA Disodium salt, dihydrate	6381-92-6	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>Data source</b>	Sigma-Aldrich (Millipore Sigma)
<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. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<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

<b>Physical state</b>	Liquid.
<b>Appearance</b>	Liquide incolore.
<b>Odour</b>	Donnée non disponible.
<b>Odour threshold</b>	Data not available
<b>pH</b>	Donnée non-disponible.
<b>Melting point / Freezing point</b>	Data not available
<b>Initial boiling point</b>	Data not available
<b>Boiling range</b>	Data not available
<b>Flash point</b>	Data not available
<b>Evaporation rate</b>	Data not available
<b>Flammability</b>	No
<b>Lower flammable / Explosive limit</b>	Data not available
<b>Upper flammable / Explosive limit</b>	Data not available
<b>Vapour pressure</b>	Data not available
<b>Solubility</b>	Soluble dans l'eau.
<b>Vapour density</b>	Data not available
<b>Relative density</b>	Data not available
<b>Partition coefficient water/n-octanol</b>	Data not available
<b>Auto-ignition temperature</b>	Data not available
<b>Decomposition temperature</b>	Data not available
<b>Viscosity</b>	Data not available

## SECTION 10 - STABILITY AND REACTIVITY

<b>Reactivity</b>	May react violently with incompatible substances.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	Stable under normal conditions.
<b>Conditions of instability (Including sensitivity to shock / static discharge / vibration)</b>	Exposure to light.
<b>Incompatible material</b>	When pure, the products react with the following products: Oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong bases, heat and humidity. Acid anhydrides, alkali carbonates and hydroxides, metallic potassium and moisture.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions. Toxic vapors of hydrogen chloride, carbon monoxide, dioxide and carbon oxychloride (phosgene).

## SECTION 11 - TOXICOLOGICAL INFORMATION

## BORIC ACID

<b>Routes of exposure</b>	Ingestion, inhalation, skin and eyes.
<b>Acute exposition effects / symptoms:</b>	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. Nervous disorders, chest pain, cough, dyspnea, headache, dizziness, weakness, nausea and vomiting. Acute inhalation of boric acid may result in cyanosis characterized by a blue-gray coloring of the skin and lips caused by lack of oxygen.
<b>Acute toxicity (Ingestion)</b>	Irritation of the mucous membranes. Abdominal pain, kidney damage, cramps, diarrhea, headache, dizziness, sweating, salivation, erythema, nausea and vomiting, tachycardia, cyanosis, delirium, convulsions, coma and can lead to death. Ingesting 5 to 20 grams can be fatal in humans.
<b>Chronic exposure effects / symptoms</b>	Burning sensation, dermatitis, conjunctivitis, nervous disorders, chest pain, cough, dyspnea, headache, dizziness, confusion, irritability, sweating, salivation, fatigue, erythema, nausea and vomiting. Chronic exposure to boric acid can cause borism, which is characterized by gastric disturbances and dry skin with rashes.
<b>DL50 (specify species and route of entry)</b>	2660 mg/kg.
<b>CL50 (specify species and route of entry)</b>	Data not available.

## TRIS(HYDROXYMETHYLE) AMINOMETHANE

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

## E.D.T.A. (TETRASODIUM) (ANHYDROUS)

<b>Routes of exposure</b>	Ingestion, inhalation, skin and eyes.
<b>Acute exposition effects / symptoms:</b>	By exposure route below.
- Eyes	Irritation and tearing.
- Skin	Irritation.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Nervous disorders, cough, dyspnea, headache, dizziness, nausea and vomiting.
<b>Acute toxicity (Ingestion)</b>	Irritation of the mucous membranes.
<b>Chronic exposure effects / symptoms</b>	Burning sensation, nervous disorders, chest pain, cough, dyspnea, headache, dizziness, tiredness, nausea and vomiting.
<b>DL50 (specify species and route of entry)</b>	LD50 Oral - Rat - 1780 mg/kg. LD50 Dermal - Data not available.
<b>CL50 (specify species and route of entry)</b>	LC50 - Inhalation - Data not available.

## SUMMARY

Acute exposure effects / Symptoms:	By exposure routes below.
Ingestion	To our knowledge, the product has not been fully evaluated
Inhalation	To our knowledge, the product has not been fully evaluated
Skin	To our knowledge, the product has not been fully evaluated
Eyes	To our knowledge, the product has not been fully evaluated
Chronic exposure effects / Symptoms:	To our knowledge, the product has not been fully evaluated
ETA Mix (Estimated Acute Toxicity)	LD50 Oral: > 5000 mg/kg - Rat LD50 Dermal: > 5000 mg/kg- Undefined species LC50 Inhalation: No data available

## SECTION 12 - ECOLOGICAL INFORMATION

Available ecological information	No
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## 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	Reproductive toxicity category 1B
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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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