SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	TISAB®(IV) BUFFER
Other identification (Chemical name, Commercial name, Synonymous)	TAMPON TISAB®(IV) ; TISAB®(IV) BUFFER
Product code	TS-3001
Chemical formula	Mélange
Molar weight	
Recommended use and Restrictions on use	For laboratory, school, commercial or industrial use. Not for medical or household use. Do not use for medical, food or household purposes.
Supplier	LABORATOIRE MAT 610, rue Adanac Québec Québec G1C 7B7 418-660-8666 Mon-Fri 8h-16h www.labmat.com labmat@labmat.com
Emergency phone	418-660-8666 Mon-Fri 8h-16h CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS	2025-05-06

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Skin corrosion/irritation - Skin irritation - category 2
- Serious eye damage/eye irritation - Eye irritation - category 2

PICTOGRAMS

Signal Word

ATTENTION

Hazards statements (H)

- Causes skin irritation
- Causes serious eye irritation

Precautionary statements (P)

- IF ON SKIN: Wash with plenty of water
- If skin irritation occurs: Get medical attention.
- Wear protective gloves (nitrile, butyle, neoprene), protective clothing and eye and face protection.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists get medical attention.

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

Component	No. CAS	% Weight
Tris(hydroxymethyle) aminomethane	77-86-1	16%
Sodium tartrate dihydrate	6106-24-7	15%
Hydrochloric acid	7647-01-0	2%
Water	7732-18-5	Balance

SECTION 04 - FIRST AID MEASURE

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 contaminated 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	Consult a physician. If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Skin irritation. Eyes irritation. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. Ref. section 11.
Immediate medical attention and special treatment, if necessary	Treat according to symptoms. Show this sheet to the attending physician.

SECTION 05 - FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Do not use a jet of water.
Combustion products	Hazardous combustion products formed under fire conditions: Carbon oxides. Gaseous Hydrogen Chloride. Sodium oxides. Nitrogen oxides (NOx).
Specific hazards of the dangerous product	When concentrated, the product reacts according to the following characteristics: May react violently with incompatible products (Ref Section 10). To our knowledge, the product has not been fully evaluated.
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

Personal precautions, protective equipment and emergency measures	Evacuate personnel to safe areas. When handling, wear appropriate safety equipment (reference Section 8 for protective equipment to be used). Ensure a good ventilation. Use NIOSH cartridge respiratory protection for larger spills.
Methods and materials for containment and cleaning up	Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Dispose of residues in a container for disposal of hazardous materials. Discharge into the environment must be avoided.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool and dry place. Keep container tightly closed in a dry, well-ventilated place.
Methods of handling	Avoid contact withh eyes, skin and clothing. Avoid ingestion and inhalation. Wear personal protective equipment (ref. section 8) when handling. Always ensure good ventilation. Apply the usual standard hygiene rules: Wash your hands after use. Do not eat or drink during use.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

WORKPLACE CONTROL PARAMETERS

Components	CAS-No.	Control parameters	Value	Basis
Hydrochloric acid	7647-01-0	(c)	2 ppm 3 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required			
		C	2 ppm	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	A substance which may not be recirculated in accordance with section 108			
		(c)	2 ppm	Canada. Ontario Reg.833
		C	2 ppm	Canada. British Columbia OEL
		C	2 ppm	USA. ACGIH Threshold Limit Values (TLV)

Component	CAS-No.	Value
TRIS(HYDROXYMETHYL) AMINOMETHANE	77-86-1	No occupational exposure limits established by region-specific regulators - Quebec, Alberta, Ontario, British Columbia.

Component	CAS-No.	Value
Sodium tartrate	6106-24-7	No occupational exposure limits established by region-specific regulators - Quebec, Alberta, Ontario, British Columbia.

Respiratory	If work under the hood is not possible, or if the permissible levels are exceeded, use NIOSH cartridge respiratory protection, or an air-supplied respirator.
Gloves	Handle with protective gloves. Suggested material: Nitrile. Neoprene. Butyl. The type, thickness and length of the glove must be chosen according to the use, the concentration of the product, as well as the duration of use. Replace gloves regularly for better protection.
Eyes	Safety goggles with safety shutters.
Shoes	Use safety shoes.
Clothes	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	Use fan. Recirculation is prohibited. 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
Color	Colorless
Odour	Data not available
Odour threshold	Data not available
Melting point and freezing point	Data not available
Boiling point	Data not available
Flammability	Data not available
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Flash point	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
pH	8.7
Kinematic viscosity	Data not available
Solubility	Water soluble
Partition coefficient water/n-octanol	Data not available
Vapour pressure	Data not available
Relative density	Data not available
Vapour density	Data not available
Particle characteristics	Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May react violently with incompatible substances. To our knowledge, the product has not been fully evaluated.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions to avoid	Avoid contact with incompatible materials and extreme temperatures.
Incompatible materials	When pure, the products react with the following products: Bases. Fluor. Amines. Metals. Metal acetylides. Lithium silicide. Alkali metals. Oxydants. Reducing agents. Strong acids.
Hazardous decomposition products	Nitrogen oxides (NOx). Carbon monoxide (CO), Carbon dioxide (CO_2). Sodium oxide. Gaseous Hydrogen Chloride.

SECTION 11 - TOXICOLOGICAL INFORMATION

TISAB®(IV) BUFFER

Routes of exposure	Ingestion, inhalation, skin and eye contact. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	May cause severe eye irritation.
- Skin	May cause skin irritation.
- Inhalation	To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
Acute toxicity (Ingestion)	To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
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)	ETA Mix (Estimated Acute Toxicity): LD50 Oral - Rat - >5000mg/kg. LD50 Dermal - >5000mg/kg. Undefined species.
CL50 (specify species and route of entry)	ETA Mix (Estimated Acute Toxicity) LC50 Inhalation - Data not available.

HYDROCHLORIC ACID 36.5-38%

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	The corrosive effect will outweigh the toxicity for the concentrated product. By exposure route below.
- Eyes	Severe burns and destruction of ocular tissue that can lead to corneal ulceration and blindness.
- Skin	Severe burns and tissue ulcerations. Perhaps fatal, if the extent of the burns is considerable.
- Inhalation	Spasms. Irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis. Pulmonary edema. Can lead to death.
Acute toxicity (Ingestion)	Corrosion and ulceration of the mouth, throat, esophagus, stomach and abdominal wall. Dysphagia. Abdominal pain. Cramps. Diarrhea. Melena. Hematemesis. Possible perforation of the esophagus and stomach. Sweating, Salivation.
Chronic exposure effects / symptoms	Burning sensation. Dermatitis. Conjunctivitis. Photophobia. Lung damage. Eye damage. Chest pain. Dental enamel abrasion. Cough. Dyspnoea. Laryngitis. Tracheobronchitis. Headache. Dizziness. Fever. Sweating. Salivation. Thirst.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 700mg/kg. LD50 Dermal - Rabbit - > 5 010 mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 1 h - 3124 ppm

TRIS(HYDROXYMETHYLE) AMINOMETHANE

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation.
- Skin	Irritation
- Inhalation	May irritate the respiratory system. Nervous disorders. Cough. Dyspnoea. Headaches. Dizziness. Nausea and vomiting.
Acute toxicity (Ingestion)	Gastrointestinal disorders. Cramps. Diarrhea. Headaches. Dizziness. Convulsions. Nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation. Nervous disorders. Chest pain. Cough. Dyspnoea. Headache. Dizziness. Fatigue. Nausea and vomiting.

DL50 (specify species and route of entry)	LD50 Oral - Rat - > 3000 mg/kg . LD50 Dermal - Rat - >5000mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

SODIUM TARTRATE DIBASIC DIHYDRATE

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation.
- Skin	Irritation
- Inhalation	Irritation of the mucous membranes and respiratory tract. Dyspnoea. Cough.
Acute toxicity (Ingestion)	Mucous membrane irritation. Gastrointestinal disorders. Cramps. Diarrhea. Headaches. Dizziness. Nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation. Nervous disorders. Chest pain. Cough. Dyspnoea. Headache. Dizziness. Fatigue. Irritability. Nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Data not available. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Data not available.

SECTION 12 - ECOLOGICAL INFORMATION

TISAB®(IV) BUFFER

Ecotoxicity	Data not available.
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	Data not available. Avoid release to the environment.

HYDROCHLORIC ACID 36.5-38%

Ecotoxicity	Toxicity to fish: LC50 - Lepomis macrochirus - 24.6 mg/L -96h. Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea): 4.91mg/L - 48h.
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	Avoid release to the environment.

TRIS(HYDROXYMETHYLE) AMINOMETHANE

Ecotoxicity	Toxicity to daphnia and other aquatic invertebrates: Static test EC50 - Daphnia magna (Water flea): > 980mg/l - 48h. Toxicity to bacteria: Static test EC50 - > 1,000mg/l - 3h
Persistence and degradability	Biodegradability aerobic - Duration of exposure 28 days - Result: 97.1% - Readily biodegradable.
Bioaccumulative potential	Accumulation is not expected.
Mobility in soil	Data not available.
Other adverse effects	Avoid release to the environment.

SODIUM TARTRATE DIBASIC DIHYDRATE

Ecotoxicity	Data not available.
Persistence and degradability	Soluble in water. Persistence is unlikely based on information provided.
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	Avoid release to the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents and container in accordance with local, regional and national 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	- Skin corrosion/irritation - Skin irritation - category 2 - Serious eye damage/eye irritation - Eye irritation - category 2

SECTION 16 - OTHER INFORMATION

CNESST: Commission des normes, de l'équité et de la santé et sécurité au travail
NIH: National institute of health (U.S. Naltional Library of Medecine)
ECHA: Agence Européenne de Chimie
ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
VECD: Valeur d'exposition courte durée
VEMP: Valeur d'exposition moyenne pondérée
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TLV : Threshold limit value
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling
RSST: Règlement sur la santé et sécurité au travail (Québec)
INRS: l'Institut national de recherche et de sécurité pour la prévention des accidents du travail et des maladies professionnelles (France)

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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