SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	SODIUM TETRABORATE DECAHYDRATE (4%P/V)
Other identification (Chemical name, Commercial name, Synonymous)	BORATE DE SODIUM DECAHYDRATE; BORAX; BORAX DECAHYDRATE; BORON SODIUM OXIDE DECAHYDRATE
Product code	SS-0988
Chemical formula	$Na_2B_4O_7 \cdot 10\ H_2O$
Molar weight	381.37
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	2026-06-17

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Reproductive toxicity - category 1B

PICTOGRAMS



Signal Word

DANGER

Hazards statements (H)

- May damage fertility or the unborn child

Precautionary statements (P)

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Wear protective gloves (nitrile, butyle, neoprene), protective clothing and eye and face protection.
- IF exposed or if you feel unwell: Call a POISON CENTER or a physician.
- Store locked up.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.

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
Sodium tetraborate	1303-96-4	4%

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
If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Consult a physician.

Most important symptoms and effects (acute and delayed)
When concentrated, high exposure to the product causes the following main symptoms: Chest pain. Dermatitis. Nausea and vomiting. Redness. Cough. Diarrhea. Sore throat. Irritation of the nose and throat. Dyspnoea. Headaches. 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
Data not available.

Combustion products
Hazardous combustion products formed under fire conditions: Sodium oxides. Boron oxides. Borane.

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).

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 if necessary or for larger spills. Cut off all sources of ignition.

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, dry, and well-ventilated place. Keep container tightly closed and store away from heat, water, moisture, and incompatible products (ref. section 10).
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
Disodium tetraborate decahydrate	1303-96-4	TWA	2mg/m3	Canada. Ontario OELs
		STEL	6mg/m3	Canada. Ontario OELs
		TWA	1mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		STEL	3ppm	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	2mg/m3 (inhalable dust)	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEL	6mg/m3 (inhalable dust)	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	2mg/m3	Canada. British Columbia OEL
		STEL	6mg/m3	Canada. British Columbia OEL
		TWA	2 mg/m3	USA. ACGIH Threshold Limit Values (TLV)

		STEL	6 mg/m3	USA. ACGIH Threshold Limit Values (TLV)

Data origin	CNESST Ontario Regulation 833. Alberta OELs. Sigma-Aldrich (Millipore Sigma)
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. Butyl. Neoprene. 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. 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	No
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	> 100°C (Sodium tetraborate)
pH	~9
Kinematic viscosity	Data not available
Solubility	Soluble in water 38.1 g/l @ 20 °C. Insoluble in l'alcool (Sodium tetraborate)
Partition coefficient water/n-octanol	Log Pow: -1.53 @ 22 °C
Vapour pressure	0.213 hPa (20 °C) (Sodium tetraborate)
Relative density	1,04g/ml@20°C.
Vapour density	Data not available
Particle characteristics	Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May react violently with incompatible substances.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions to avoid	Avoid moisture. Avoid contact with incompatible materials. Avoid dust formation. Exposure to air. Avoid excessive heat.
Incompatible materials	When pure, the product reacts with the following products: Strong oxidizers. Acids. Metal salts. Mercuric chloride. Alkaloids. Can form an explosive mixture with: Zirconium. And its salts.
Hazardous decomposition products	Borane. Boron oxides. Sodium oxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

SODIUM TETRABORATE DECAHYDRATE (4%P/V)

Routes of exposure	Ingestion and inhalation.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
- Skin	To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
- Inhalation	Irritation of the mucous membranes and respiratory tract. 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	May damage the unborn child. Suspected of damaging fertility. May cause damage to: Reproductive system. 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 - Rabbit - >2000mg/kg.
CL50 (specify species and route of entry)	ETA Mix (Estimated Acute Toxicity) LC50 Inhalation - Rat - 4 h - 53mg/L.

SODIUM TETRABORATE DECAHYDRATE (BORAX)

Routes of exposure	Ingestion and inhalation.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation. Tearing
- Skin	Irritation.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Cough. Sore throat.
Acute toxicity (Ingestion)	Nausea and vomiting. Diarrhea. Headaches. Muscular weakness. Drowsiness. Tremors. Hallucinations. Convulsions. Some sources report having had cases of: Damage to the kidneys. Epistaxis (nosebleed). Cough. Some sources report having had cases of: Damage to the kidneys.
Chronic exposure effects / symptoms	Dermatitis. May damage the unborn child. Suspected of damaging fertility. May cause damage to: Reproductive system. Is recognized as an unclassifiable agent for its carcinogenicity (Group 3 according to IARC).
DL50 (specify species and route of entry)	LD50 Oral - Rat - 3500mg/kg. LD50 Dermal - Rabbit - >2000mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4 h - 2.12mg/l.

SECTION 12 - ECOLOGICAL INFORMATION

SODIUM TETRABORATE DECAHYDRATE (4%P/V)

Ecotoxicity	Data not available.
Persistence and degradability	Not applicable for inorganic substances.
Bioaccumulative potential	Accumulation is not expected.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	Data not available.

SODIUM TETRABORATE DECAHYDRATE (BORAX)

Ecotoxicity	Data not available.
Persistence and degradability	Not applicable for inorganic substances.
Bioaccumulative potential	Accumulation is not expected.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	Data not available.

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	- Reproductive toxicity - category 1B

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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