



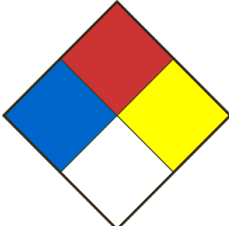
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## SAFETY DATA SHEET

### SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier BUFFER SOLUTION PH 10 (Blue)		Product Use Laboratory use	
Chemical formula -		Product code TB-0010	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 12/17/2018	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

### SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Not a hazardous substance according to WHMIS 2015
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 (%)
Eau	7732-18-5	97.8
Carbonate de potassium	584-08-7	0.6
Tétraborate de potassium	1332-77-0	0.4
Hydroxyde de potassium	1310-58-3	0.2
Acide éthylènediamine tétraacétique, sel disodique	6381-92-6	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>	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
<b>Inhalation</b>	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
<b>Ingestion</b>	If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person. Consult a physician.
<b>Most important symptoms and effects (acute and delayed)</b>	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 / decomposition products</b>	Hazardous decomposition products formed under fire conditions. Carbon oxides, Nitrogen oxides (NOx). - Potassium oxides. Boron oxides. Borane. - Sodium oxides.
<b>Special fire and explosion hazards</b>	May react violently with incompatible products (Ref Section 10).
<b>Special protective equipment and precautions for firefighters</b>	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

<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. Do not let product enter drains.
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## SECTION 07 - HANDLING AND STORAGE

<b>Conditions for safe storage</b>	Hygroscopic. 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. Air sensitive.
<b>Methods of handling</b>	Always open containers slowly to allow any excess pressure to vent. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Normal measures for preventive fire protection. 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
Potassium carbonate	584-08-7	TLV, TWA, STEL	No data available	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TLV, TWA, STEL	No data available	Canada. British Columbia OEL
		TLV, TWA, STEL	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 parameters	Basis
Potassium hydroxide	1310-58-3	C	2.000000 mg/m3	Canada. British Columbia OEL
		CEV	2.000000 mg/m3	Canada. Ontario OELs
		(c)	2.000000 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	2.000000 mg/m3	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 mg/m3	USA. ACGIH Threshold Limit Values (TLV)

Components	CAS-No.	Value	Control parameters	
EDTA Disodium salt, dihydrate	6381-92-6	TLV, TWA, STEL	No data available	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TLV, TWA, STEL	No data available	Canada. British Columbia OEL
		TLV, TWA, STEL	No data available	Québec. Regulation respecting occupational

				health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
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Composants	No.-CAS	Valeur	Paramètres de contrôle	Base
Boron Potassium oxide	1332-77-0	TWA STEL	2 mg/m <sup>3</sup> 6 mg/m <sup>3</sup>	Canada. LEP Colombie Britannique
		TLV, TWA, STEL	Donnée non disponible	Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE)
		TLV, TWA, STEL	Donnée non disponible	Québec. Règlement sur la santé et la sécurité du travail, Annexe 1 Partie 1: Valeurs d'exposition admissibles des contaminants de l'air

<b>Data source</b>	Sigma-Aldrich (Millipore Sigma) Fisher Scientific
<b>Ventilation</b>	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	Liquid.
Appearance	Liquide bleu-
Odour	inodore.
Odour threshold	Data not available
pH	10.
Melting point / Freezing point	Data not available
Initial boiling point	Data not available
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	Data not available
Solubility	Soluble dans l'eau. Insoluble dans l'alcool.
Vapour density	Data not available
Relative density	1.01 g/ml
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. Avoid moisture and excessive heat.
Incompatible material	When pure, the products react with the following products: Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong acids, chlorides and acid anhydrides, acrolein, acrylonitrile, alcohols, aluminum, organo-nitro and organochlorine compounds, copper, cyclopentadiene, tin, magnesium, organic materials, lead, sugars, zinc, heat, water and moisture. Strong reducing agents. Reactive metals, oxidizing agent, peroxides, perchlorates, nitrates. To our knowledge, the product has not been fully evaluated.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides, Nitrogen oxides (NOx). - Potassium oxides. - Borane/boron oxides, Sodium oxides.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### E.D.T.A., DISODIUM SALT, DIHYDRATE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	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.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Nervous disorders, liver damage, gastrointestinal disorders, cramps, diarrhea, headache, dizziness, convulsions, nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation, nervous disorders, chest pain, cough, dyspnoea, laryngitis, dizziness, headache, tiredness, loss of appetite, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 2800 mg/kg. LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	Data not available.

## POTASSIUM CARBONATE (ANHYDROUS)

<b>Routes of exposure</b>	Ingestion, inhalation, skin and eyes.
<b>Acute exposition effects / symptoms:</b>	By exposure route below.
<b>- Eyes</b>	Severe irritation and may result in inflammation of the conjunctiva.
<b>- Skin</b>	Severe irritation and dermatitis.
<b>- Inhalation</b>	Irritation of the mucous membranes and respiratory tract. Nervous disorders, chest pain, cough, dyspnea, headache, dizziness, sweating, salivation, nausea and vomiting.
<b>Acute toxicity (Ingestion)</b>	Irritation of the mucous membranes. Abdominal pain, cramps, diarrhea, headache, dizziness, sweating, salivation, convulsions, nausea and vomiting.
<b>Chronic exposure effects / symptoms</b>	Burning sensation, dermatitis, conjunctivitis, nervous disorders, chest pain, cough, dyspnea, laryngitis, headache, dizziness, confusion, irritability, sweating, salivation, fatigue, nausea and vomiting.
<b>DL50 (specify species and route of entry)</b>	LD50 Oral - Rat - 1870 mg/kg LD50 Dermal - Rabbit - 2000 mg/kg
<b>CL50 (specify species and route of entry)</b>	LC50 - Inhalation - Rat - 4.5h 4.96 mg/L

<b>Routes of exposure</b>	Ingestion, inhalation, skin and eyes.
<b>Acute exposition effects / symptoms:</b>	By exposure route below.
<b>- Eyes</b>	May cause eye irritation.
<b>- Skin</b>	May cause skin irritation.
<b>- Inhalation</b>	À notre connaissance, le produit n'a pas été complètement étudié.
<b>Acute toxicity (Ingestion)</b>	May cause nausea, vomiting, diarrhea and abdominal cramps.
<b>Chronic exposure effects / symptoms</b>	Toxic suspected to be reproductive for humans Suspected of damaging the unborn child. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
<b>DL50 (specify species and route of entry)</b>	LD50 Oral - Rat - male -> 2,500 mg / kg LD50 Dermal - Rabbit - > 2,000 mg / kg
<b>CL50 (specify species and route of entry)</b>	LC50 Inhalation - Rat - 4 h -> 2.04 mg / l

## POTASSIUM HYDROXIDE

<b>Routes of exposure</b>	Inhalation, skin and eyes.
<b>Acute exposition effects / symptoms:</b>	By exposure route below.
<b>- Eyes</b>	Severe irritation and burns that may cause permanent eye damage.
<b>- Skin</b>	Irritation, burns and ulcerations of the tissues.
<b>- Inhalation</b>	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death.
<b>Acute toxicity (Ingestion)</b>	Burns and ulcerations of the mouth, throat, esophagus and abdominal wall. Dysphagia, abdominal pain, cramps, diarrhea, melena, possibility of oesophageal and gastric perforations, bloody vomiting with mucous membrane fragments, tremors and convulsions, stupor, circulatory collapse, loss of consciousness, coma and can lead to death.
<b>Chronic exposure effects / symptoms</b>	Burning sensation, dermatitis, conjunctivitis, lung and eye damage, nerve disorders, chest pain, cough, dyspnea, laryngitis, headache, dizziness, confusion, irritability, sweating, salivation, tearing, fatigue, alopecia, loss weight loss and loss of appetite, seizures, nausea and vomiting.
<b>DL50 (specify species and route of entry)</b>	LD50 Oral - Rat - 273 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 - Rabbit LC50 Inhalation: 315 mg/L- 4h - Rat

## 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	Not a hazardous substance according to WHMIS 2015
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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: 12/17/2018