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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier E.D.T.A. (DISODIUM SALT) (0.5M /1N)		Product Use Laboratory use	
Chemical formula $C_{10}H_{14}N_2O_8Na_2 \cdot 2H_2O$		Product code ES-0905	Molar weight 372,24
Chemical name / Commercial name / Synonyms Ethylenediaminetetraacetic acid disodium salt dihydrate, EDTA. disodique dihydrate, disodium edetate, disodium (ethylene dinitrilo) tetraacetic acid, ethylene diaminetetraacetic acid, edetic acid disodium salt, ethylenebis (iminodiacetic acid) disodium salt			
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 2/3/2023	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Specific Target Organ Toxicity - Repeated exposure category 2
Signal Word	WARNING
Hazards statements (H)	H373 May cause damage to organs through prolonged or repeated exposure.
Precautionary statements (P)	P260 Do not breathe dust / fume / gas / mist / vapors / spray. P314 Get medical advice/attention if you feel unwell. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	Health 2 Fire 0 Reactivity 0 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
E.D.T.A., Disodique, dihydrate	6381-92-6	15
Hydroxyde de sodium	1310-73-2	1-5

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. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Irritation of the respiratory system. Skin sensitizer. Kidney damage. Liver damage. 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	Fine dust in sufficient concentration may be combustible, or explode if confined to a small space and subject to a source of ignition.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Not applicable.
Dangerous fumes - combustion	When heated to decomposition, the product emits toxic fumes: Oxides of carbon, oxides of nitrogen (NO _x) Sodium oxides
Hazardous combustion products	Hazardous combustion products formed under fire conditions: Carbon oxides, Nitrogen oxides (NO _x). - Sodium oxides.
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. Absorb residues with vermiculite or other absorbents. Ensure a good ventilation of the premises. Dilute residues with water, clean and rinse. When handling, wear appropriate safety equipment. Dispose of residues in a container provided for the disposal of hazardous materials.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Air-, heat-, and moisture-sensitive. Store in a cool, dry place. Keep container tightly closed and store away from heat, moisture, and incompatible products.
Methods of handling	Always open containers slowly to allow any excess pressure to vent. Avoid ingestion and inhalation. Avoid formation of dust and aerosols. Ensure good ventilation. 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	
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

Components	CAS-No.	Value	Control parameters	Basis
Sodium hydroxide	1310-73-2	C	2.000000 mg/m ³	Canada. British Columbia OEL
		CEV	2.000000 mg/m ³	Canada. Ontario OELs
		(c)	2.000000 mg/m ³	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/m ³	USA. ACGIH Threshold Limit Values (TLV)
		C	2 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich.
Ventilation	Use 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	Safety shoes.
Clothing	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	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 clair.
Odour	inodore.
Odour threshold	Data not available
pH	8-9.
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: 108 g/L @ 20 °C (pH 5.3) (EDTA).
Vapour density	Data not available
Relative density	1.2 g/ml (Théorique).
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	May react violently with incompatible substances.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid contact with incompatible materials. Avoid excessive heat.
Incompatible material	When pure, the products react with the following products: Strong oxidizing agents, strong acids, organic materials.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Toxic vapors of nitrogen oxides, monoxide and carbon dioxide. - 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.

SODIUM HYDROXIDE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe burns and destruction of ocular tissue that can lead to corneal ulceration and blindness.
- Skin	May be harmful if absorbed through skin. Causes skin burns.
- Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Acute toxicity (Ingestion)	Corrosion of the digestive tract, bloody vomiting with mucous membrane fragments, diarrhea, inflammation of the larynx and possibility of oesophageal and gastric perforation, death.
Chronic exposure effects / symptoms	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.
DL50 (specify species and route of entry)	Oral rat: 140mg/kg Dermal rabbit: 1350mg/kg
CL50 (specify species and route of entry)	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: 4332 mg/kg - Rat LD50 Dermal: No data available LC50 Inhalation: No data available

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	E.D.T.A., disodium salt, dihydrate. Toxicity to fish: LC50: Leuciscus idus(ide) - > 500 mg/l - 96 h. Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna: > 100 mg/l - 24 h. Toxicity to algae: EC50 - Algae: 10 - 100 mg/l - 72 h.
Persistence and degradability	Data not available. Expected to be biodegradable
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	Specific Target Organ Toxicity - Repeated exposure category 2
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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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