



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

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier OXALIC ACID DIHYDRATE 14%W/V (saturated)		Product Use Laboratory use	
Chemical formula $H_2C_2O_4 \cdot 2H_2O$		Product code OS-0814	Molar weight 126,04
Chemical name / Commercial name / Synonymous OXALIC ACID DIHYDRATE, ETHANEDIOIC ACID DIHYDRATE, ETHANEDIONIC ACID DIHYDRATE			
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 3/22/2023	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/eye irritation - Serious eye damage category 1		
Signal Word	DANGER		
Hazards statements (H)	H315 Causes skin irritation. H318 Causes serious eye damage.		
Precautionary statements (P)	P264 Wash the areas of the body that have been in contact with the product after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor/physician. P321 Specific treatment (see section 4 of the SDS and on this label). P332 + P313 If skin irritation occurs: Get medical advice/attention. P362 + P364 Take off contaminated clothing and wash it before reuse.		
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 (%)
Acide oxalique dihydrate	6153-56-6	12

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: Paresthesia (tingling, stiffness of the skin (cardboard skin), numbness). Skin lesions. Convulsions. Tremors. Tetany (muscle contractures). 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	Data not available.
Dangerous fumes - combustion	Carbon oxides.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: Formic acid. Carbon oxides.
Special fire and explosion hazards	When concentrated, the product reacts according to the following characteristics: May react violently with incompatible products (Ref Section 10). Oxalic acid dihydrate in high concentration in the air is capable of creating a dust explosion. Reacts with certain silver compounds to form silver oxalate which is explosive.
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. Do not let product enter drains.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in cool place. Keep container tightly closed and store away from heat, moisture, and incompatible products. Protect from the sun's rays. Keep container tightly closed in a dry and well-ventilated place. Moisture sensitive.
Methods of handling	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. Avoid ingestion and inhalation. 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	No.-CAS	Control parameters	Value	Basis
Oxalic acid	144-62-7	TWA	1.000000 mg/m3	Canada. LEP Colombie Britannique
		STEL	2.000000 mg/m3	Canada. LEP Colombie Britannique
		TWA	1.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarques	La limite d'exposition professionnelle est basée sur les effets de l'irritation et son ajustement pour compenser les emplois du temps de travail inhabituels n'est pas nécessaire			
		STEL	2.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
	La limite d'exposition professionnelle est basée sur les effets de l'irritation et son ajustement pour compenser les emplois du temps de travail inhabituels n'est pas nécessaire			
		TWAEV	1.000000 mg/m3	Canada. Ontario OELs
		STEV	2.000000 mg/m3	Canada. Ontario OELs
		VEMP	1.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		VEMP	1 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		VECD	2 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		VECD	2.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	1 mg/m3	Canada. British Columbia OEL
		STEL	2 mg/m3	Canada. British Columbia OEL

Data source	Sigma-Aldrich (Millipore Sigma)
Ventilation	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 incolore.
Odour	inodore.
Odour threshold	Data not available
pH	1.7.
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 (env.126.1 g/l à 20 °C (68 °F)) ; soluble dans l'alcool.
Vapour density	Data not available
Relative density	1.03g/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	Acid product, reacts strongly with strong bases. May react violently with incompatible substances.
Chemical stability	Moisture sensitive. Sublimates with heat, with partial decomposition.
Possibility of hazardous reactions	Risk of explosion in contact with strong oxidants.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid moisture. Decomposes at 155°C.
Incompatible material	When pure, the product reacts with the following products: Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), acid chlorides, corroded steel, furfuryl alcohol, silver and its salts, bases, alkali metals, chlorate and sodium hypochlorite, heat and humidity.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Formic acid. Carbon oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

OXALIC ACID DIHYDRATE

Routes of exposure	Ingestion and inhalation.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe irritation and burns that may cause permanent eye damage.
- Skin	Severe irritation and tissue burn. Prolonged contact with oxalic acid solutions produces skin lesions that become worse over time; these can cause gangrenous cyanosis.
- Inhalation	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.
Acute toxicity (Ingestion)	Burns and corrosion of the digestive tract. Possibility of oesophageal or gastric perforation and bleeding, kidney damage, abdominal pain, diarrhea, nausea and vomiting, hypocalcemia, paresthesia, myoclonus, spasmodic muscle contractions, fast and irregular pulse, convulsions, hypotension, coma and can lead to death.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, conjunctivitis, skin lesions, brittle and blackish nails, kidney damage, nerve disorders, chest pain, cough, dyspnea, laryngitis, headache, dizziness, albuminuria, irritability, sweating, salivation, fatigue, loss of weight and loss of appetite, seizures, nausea and vomiting. Hypocalcemia, kidney stones, tetany.
DL50 (specify species and route of entry)	Data based on the anhydrous product: LD50 Oral - Rat - 375 mg/kg. LD50 Dermal - Rabbit - 20 000 mg/kg
CL50 (specify species and route of entry)	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: No data available

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Oxalic acid: Toxicity to fish: LC50: <i>Leuciscus idus melanotus</i> : 160 mg/L - 48 h Toxicity to daphnia and other aquatic invertebrates: EC50 - <i>Daphnia magna</i> (Water flea) - 137 mg/L -48 h
Persistence and degradability	Biodegradability aerobic. Readily 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	Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/eye irritation - Serious eye damage category 1
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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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