



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

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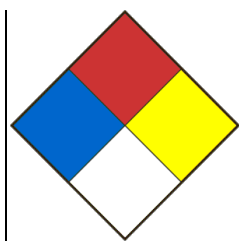
SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier GLUTARALDEHYDE (25%)		Product Use Laboratory use	
Chemical formula HCO(CH ₂) ₃ CHO		Product code GS-0025	Molar weight 100,12
Chemical name / Commercial name / Synonymous PENTANEDIAL 25 WT. % SOLUTION IN WATER, GLUTARIC DIALDEHYDE 25 WT. % SOLUTION IN WATER, ALDÉHYDE GLUTARIQUE SOLUTION AQUEUSE 25%, GLUTARAL 25 WT. % SOLUTION IN WATER, 1,3-DIFORMYLPROPANE 25 WT. % SOLUTION IN WATER			
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 12/9/2021	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Skin corrosion/irritation - Skin corrosion category 1B Serious eye damage/eye irritation - Serious eye damage category 1 Respiratory or skin sensitization - Respiratory sensitizer category 1 Acute toxicity - Oral category 4 Acute toxicity - Inhalation category 2 Respiratory or skin sensitization - Skin sensitize category 1A
Signal Word	DANGER
Hazards statements (H)	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H330 Fatal if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Precautionary statements (P)	P260 Do not breathe dust / fume / gas / mist / vapors / spray. P261 Avoid breathing dust / fume / gas / mist / vapors / spray. P264 Wash the areas of the body that have been in contact with the product after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P284 Wear respiratory protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. P320 Specific treatment is urgent (see section 4 on this SDS on this label). P321 Specific treatment (see section 4 of the SDS and on this label). P330 Rinse mouth. P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. P362 + P364 Take off contaminated clothing and wash it before reuse. P363 Wash contaminated clothing before reuse. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. 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=Significant; 4=Extreme)



Health 4
Fire 0
Reactivity 1
Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Glutaraldéhyde Méthanol	111-30-8 67-56-1	25 ≥0.1-1

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. Rinse mouth with water. 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: Skin, eye and respiratory system irritation. Skin sensitizer. Cough. Breathing difficulties. Respiratory tract lesions. Palpitations. Tachycardia. Dizziness. Tingling. 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	Non flammable.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Do not use a heavy water stream.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: Carbon oxides.
Special fire and explosion hazards	May react violently with incompatible products (Ref Section 10). The product in solution is not considered to be combustible, but in a fire the water would evaporate, and the dry product would regain its combustible properties.
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 sand or vermiculite. When handling, wear appropriate safety equipment. Ensure a good ventilation of the premises. Avoid breathing vapors, mist or gas. Use a respirator as needed. 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 a cool, dry place. Store in a well-ventilated area. Keep container tightly closed and store away from heat, air, moisture and incompatible products. Protect from the sun's rays.
Methods of handling	Ensure good ventilation. Always open containers slowly to allow any excess pressure to vent. Avoid ingestion and inhalation. Do not bottle in a metal container. 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

Composants	No.-CAS	Valeur	Paramètres de contrôle	Base
Glutaraldehyde	111-30-8	(c)	0.05 ppm 0.2 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarques	Sensibilisant			
		C	0.05ppm	Canada. British Columbia OEL
	Sensibilisant			
		P	0.05ppm	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	Sensibilisant			
Components	CAS-No.	Value	Control parameters	Basis
Methanol	67-56-1	TWA	200.000000 ppm 262.000000 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Substance may be readily absorbed through intact skin			
		STEL	250.000000 ppm 328.000000 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
	Substance may be readily absorbed through intact skin			
		TWA	200.000000 ppm	Canada. British Columbia OEL
	Contributes significantly to the overall exposure by the skin route.			
		STEL	250.000000 ppm	Canada. British Columbia OEL
	Contributes significantly to the overall exposure by the skin route.			
		TWAEV	200.000000 ppm 262.000000 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	Skin (percutaneous)			
		STEV	250.000000 ppm 328.000000 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	Skin (percutaneous)			
		TWA	200.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	250.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich (Millipore Sigma)
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 incolore.
Odour	Pommes pourries.
Odour threshold	0.04ppm (Glutaraldéhyde).
pH	2.9.
Melting point / Freezing point	-5 à -10°C
Initial boiling point	101°C
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	16.4 mm @ 20°CmmHg
Vapour density	Data not available
Relative density	1.060g/cm ³
Solubility	Miscible avec l'eau en toutes proportions.
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	187-188°C
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May react violently with incompatible substances.
Chemical stability	Unstable if heated. It is unstable in basic solution.
Possibility of hazardous reactions	May polymerize under the following conditions: In a basic environment. Pure product may polymerize on contact with water or when heated.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	May discolor in the air or light. Unstable in basic pH.
Incompatible material	Strong acids, Strong bases, Strong oxidizers. Amines. Alcohols. Hydrazine. Metals.
Hazardous decomposition products	Toxic vapors of carbon monoxide and dioxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

GLUTARALDEHYDE (25%)

Routes of exposure	Ingestion, inhalation, skin contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Causes eye burns.
- Skin	Severe irritation. May cause allergic and inflammatory skin reaction characterized by hives or eczematous lesions.
- Inhalation	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonia and pulmonary edema. May cause hypersensitivity of the respiratory system, especially asthma attacks.
Acute toxicity (Ingestion)	Irritation and burning of the mouth, throat, esophagus and abdominal wall. Dysphagia, liver and kidney damage, abdominal pain, cramps, diarrhea, headache, dizziness, sweating, salivation, tremors, convulsions, stupor, respiratory collapse, unconsciousness, coma and can be fatal.
Chronic exposure effects / symptoms	Tachycardia. Burning sensation, respiratory and skin allergies, nervous disorders, damage to liver, kidneys and lungs, chest pain, cough, dyspnea, laryngitis, headache, dizziness, tearing, confusion, irritability, sweating, salivation, tremors, fatigue, weight loss and loss of appetite, convulsions, nausea and vomiting. Allergic reactions, eczema, asthma. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 134 mg/kg. LD50 Dermal - Rat - > 2500 mg/kg
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4h - 0.28 - 0.39 mg/L.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity to fish: LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout) - Static. 17 mg/L - 24 h. Toxicity for daphnia and the others invertebrates aquatic. LC50 - <i>Daphnia magna</i> (Water flea) - Static. >4,3 mg/L - 21 jours / 50 % glutaraldehyde.
Persistence and degradability	Persistence is unlikely based on information available.
Bioaccumulative potential	Data not available.
Mobility in soil	Soluble in water. Probable mobility in the environment due to its solubility in water.
Other adverse effects	Do not throw residues in the sewer.

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	3265
UN Proper shipping name	LIQUIDE ORGANIQUE CORROSIF, ACIDE N,S,A
Transport hazard class(es)	8 Corrosive substances
Packing group	II
Limited quantity index	1L
ERAP Index	-
Special precautions	16 (Glutaraldéhyde)

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Skin corrosion/irritation - Skin corrosion category 1B Serious eye damage/eye irritation - Serious eye damage category 1 Respiratory or skin sensitization - Respiratory sensitizer category 1 Acute toxicity - Oral category 4 Acute toxicity - Inhalation category 2 Respiratory or skin sensitization - Skin sensitize category 1A
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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: 12/9/2021