



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

Tél. (Qc): (418) 660-8666 / 800-890-8666

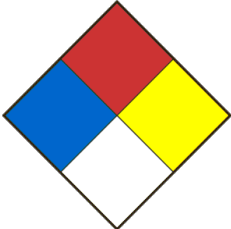
Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier DIETHYL ETHER (ANHYDROUS)		Product Use Laboratory use	
Chemical formula C ₄ H ₁₀ O		Product code ER-0166	Molar weight 74,12
Chemical name / Commercial name / Synonymous ETHER, 1,1'-OXYBISÉTHANE, ÉTHOXYETHANE, ÉTHER ÉTHYLIQUE, OXYDE D'ÉTHYLE, OXYDE DE DIÉTHYLE, ÉTHER SULFURIQUE, ÉTHER ANESTHÉSIQUE			
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 1/8/2019	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Flammable liquids category 1 Acute toxicity - Oral category 4 Serious eye damage/ Eye irritation category 2A Specific target organ toxicity - Single exposure category 3	
Signal Word	DANGER	
Hazards statements (H)	H224 Extremely flammable liquid and vapour. H302 Harmful if swallowed. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.	
Precautionary statements (P)	P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing dust / fume / gas / mist / vapours / 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. P280 Wear protective gloves/protective clothing/eye protection/face protection. 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. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth. P337 + P313 If eye irritation persists: Get medical advice/attention. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P370 + P378 In case of fire: Use for extinction.	
PICTOGRAMS		
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Significant; 4=Extreme)	
	Health 2 Fire 4 Reactivity 1 Special danger	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Éther diéthylique	60-29-7	<=100

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)	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	Yes
Ignition conditions	Strong oxidizing agents, heat, sparks, open flame or contact with a hot surface.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. The water spray will then be used to cool nearby containers.
Unsuitable extinguishing media	The water could be ineffective. Do not use a heavy water stream.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides.
Special fire and explosion hazards	Steam can travel a great distance and ignite on an ignition source such as heaters, electrical appliances, cigarettes, sparks, etc. Containers exposed to fire may explode. This product may form explosive peroxides if stored for too long or exposed to ambient air and light. Vapors may form explosive mixtures with air. Ether can cause a potentially explosive reaction in contact with oxidizing agents, halogens and interhalogens, sulfur and its compounds. An explosion can occur if completely distilled diethyl ether which contains peroxides.
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. Cut off all sources of ignition. Cover residues with activated charcoal absorbent to neutralize the product. Clean and rinse with water. Ensure a good ventilation of the premises. When handling, wear appropriate safety equipment. Use a respirator as needed. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains.
--	---

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool place, preferably below 15 ° C. Keep container tightly closed and store away from oxidizing agents, heat, moisture and incompatible materials. Use venting and electrical equipment that is grounded and does not produce ignition sources (sparks). Ventilate containers occasionally. Protect from sunlight and light.
Methods of handling	Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14) Take measures to prevent the build up of electrostatic charge.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Composants	No.-CAS	Valeur	Paramètres de contrôle	Base
Diethyl ether	60-29-7	TWA	400.000000 ppm 1,210.000000 mg/m3	Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE)
		STEL	500.000000 ppm 1,520.000000 mg/m3	Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE)
		TWA	400.000000 ppm	Canada. LEP Colombie Britannique
		STEL	500.000000 ppm	Canada. LEP Colombie Britannique
		VEMP	400.000000 ppm 1,210.000000 mg/m3	Québec. Règlement sur la santé et la sécurité du travail, Annexe 1 Partie 1: Valeurs d'exposition admissibles des contaminants de l'air
		VECD	500.000000 ppm 1,520.000000 mg/m3	Québec. Règlement sur la santé et la sécurité du travail, Annexe 1 Partie 1: Valeurs d'exposition admissibles des contaminants de l'air
		TWA	400 ppm 1,210 mg/m3	Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE)
		STEL	500 ppm 1,520 mg/m3	Canada. Alberta, Code de santé et de sécurité au travail (tableau 2 : VLE)
		TWA	400 ppm	Canada. LEP Colombie Britannique
		STEL	500 ppm	Canada. LEP Colombie Britannique
		VEMP	400 ppm 1,210 mg/m3	Québec. Règlement sur la santé et la sécurité du travail, Annexe 1 Partie 1: Valeurs d'exposition admissibles des contaminants de l'air
		VECD	500 ppm 1,520 mg/m3	Québec. Règlement sur la santé et la sécurité du travail, Annexe 1 Partie 1: Valeurs d'exposition admissibles des contaminants de l'air

Data source	Sigma-Aldrich.
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.
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	Aromatique.
Odour threshold	0.83ppm
pH	Donnée non disponible.
Melting point / Freezing point	-116°C
Initial boiling point	34.6°C
Boiling range	Data not available
Flash point	-45°C
Evaporation rate	37.5%
Flammability	Yes
Lower flammable / Explosive limit	1.9% v/v
Upper flammable / Explosive limit	36% v/v
Vapour pressure	439.8 mm @ 20°CmmHg
Vapour density	2.55 (Air=1)-
Relative density	0.71g/ml
Solubility	Peu soluble dans l'eau (64.9 g/L). Miscible avec l'alcool, le benzène et le chloroforme.
Partition coefficient water/n-octanol	0.129-
Auto-ignition temperature	160-175°C
Decomposition temperature	Data not available
Viscosity	0.235mPa.s

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Heat, air, moisture and light. Avoid the accumulation of static electricity.
Incompatible material	Oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), halogen and interhalogen elements (bromine, chlorine, iodine), sulfur and its compounds, heat, moisture, air and the light.
Hazardous decomposition products	Toxic vapors of carbon monoxide and dioxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

DIETHYL ETHER (ANHYDROUS)

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and tearing.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Narcotic effects, chest pain, cough, dyspnea, headache, dizziness, drowsiness, nausea and vomiting, tremors, paleness, salivation, hypotension, respiratory arrest, unconsciousness, coma and may result in death.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Narcotic effects, liver and kidney damage, gastrointestinal disorders, cramps, diarrhea, headache, paleness, nausea and vomiting, dizziness, drowsiness, tremor, salivation, seizures, hypotension, respiratory collapse, unconsciousness, coma and can lead to death.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, narcotic effects, kidney damage, chest pain, cough, dyspnoea, laryngitis, headache, dizziness, drowsiness, arousal, confusion, irritability, addiction, asthenia, muscle weakness, weight loss and loss appetite, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 1 200 - 3 560 mg/kg LD50 Dermal - Data not available.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4h - 32000 ppm.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity to fish: LC50 - Pimephales promelas (fathead minnow) - 2,560 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 165 mg/l - 24 h Toxicity to algae: NOEC - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72h
Persistence and degradability	Biodegradability Result: - Not readily biodegradable.
Bioaccumulative potential	No bioaccumulation is to be expected (log Pow <= 4).
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	1155
UN Proper shipping name	ÉTHER DIÉTHYLIQUE ou ÉTHER ÉTHYLIQUE
Transport hazard class(es)	3 Flammable liquids
Packing group	I
Limited quantity index	OL
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Flammable liquids category 1 Acute toxicity - Oral category 4 Serious eye damage/ Eye irritation category 2A Specific target organ toxicity - Single exposure category 3
---------------------	---

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: 1/8/2019