



SAFETY DATA SHEET

SECTION 01 - IDENTIFICATION

Product Identifier	ETHYL ALCOHOL DENATURED
Other identification (Chemical name, Commercial name, Synonymous)	Alcool dénaturé; Denatured Ethyl Alcohol DA-2A (Anhydrous); 2A Alcohol or solvent, DAG-2A
Product code	EP-0166
Chemical formula	C ₂ H ₅ OH
Molar weight	46.07
Recommended use and Restrictions on use	For laboratory, school, commercial or industrial use. Not for medical or household use. Do not use for medical, food or household purposes.
Supplier	LABORATOIRE MAT 610, rue Adanac Québec Québec G1C 7B7 418-660-8666 Mon-Fri 8h-16h www.labmat.com labmat@labmat.com
Emergency phone	418-660-8666 Mon-Fri 8h-16h CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS	2025-10-21

SECTION 02 - HAZARDS IDENTIFICATION

WHIMS CANADA

- Flammable liquids - category 2
- Serious eye damage/eye irritation - Eye irritation - category 2
- Specific Target Organ Toxicity - Single exposure - category 1

PICTOGRAMS



Signal Word

DANGER

Hazards statements (H)

- Highly flammable liquid and vapour
- Causes serious eye irritation
- Causes damage to organs

Precautionary statements (P)

- Keep away from heat, sparks, open flames, hot surfaces. — No smoking.
- Keep container tightly closed.
- Ground and bond container and receiving equipment.
- Use explosion-proof equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wear protective gloves (Nitrile, butyl, laminated material (PE/EVOH)), protective clothing and eye and face protection.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse with water.
- In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.
- Store in a well-ventilated place. Keep cool.
- Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists get medical attention.
- Do not breathe mists, gases, vapors and other fumes, or the product itself.
- Do not eat, drink or smoke when using this product.
- If exposed or concerned: Call a POISON CENTER or a physician.
- Store locked up.

Other dangers

NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Significant; 4=Extreme)

Health 2
Fire 4
Reactivity 0
Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	No. CAS	% Weight
Ethanol	64-17-5	85%
Methanol	67-56-1	14%
Ethyl acetate	141-78-6	1%
Water	7732-18-5	<1%

SECTION 04 - FIRST AID MEASURE

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 contaminated 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. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	When concentrated, high exposure to the products causes the following main symptoms: Feeling drunk. Dizziness. Vision blurs. Skin, eye and respiratory system irritation. Nausea and vomiting. Fatigue. Diarrhea. Headaches. Gastrointestinal disorders. Ref. section 11.
Immediate medical attention and special treatment, if necessary	Treat according to symptoms. Show this sheet to the attending physician. In case of poisoning, the following can be administered as an antidote: Fomepizole. Ethanol. Folinic acid or folic acid as an adjuvant can be given in case of methanol poisoning.

SECTION 05 - FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Do not use a jet of water.
Combustion products	Hazardous combustion products formed under fire conditions: Formaldehyde. Carbon oxides.
Specific hazards of the dangerous product	Highly concentrated vapors in the air can ignite or even explode if exposed to an intense ignition source. Keep the product and empty containers away from heat and ignition sources. 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

Personal precautions, protective equipment and emergency measures	Evacuate personnel to safe areas. Cut off all sources of ignition. Use anti-spark tools and anti-explosion equipment. Avoid the accumulation of charges electrostatic. Avoid breathing in vapours, spray mists or gases. When handling, wear appropriate safety equipment (reference Section 8 for protective equipment to be used). Ensure a good ventilation. Use NIOSH cartridge respiratory protection if necessary or for larger spills. Beware of vapors accumulating to form explosive concentrations. Vapours can accumulate in low-lying areas.
Methods and materials for containment and cleaning up	Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Dispose of residues in a container for disposal of hazardous materials. Discharge into the environment must be avoided.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Keep container tightly closed in a dry, well-ventilated place. Keep container tightly closed and store away from heat, moisture, and incompatible products (ref. section 10). Keep away from sources of ignition - No smoking. Take measures to prevent the accumulation of electrostatic charges. Protect from the sun's rays. Use venting and electrical equipment that is grounded and does not produce ignition sources (sparks).
Methods of handling	Avoid contact with eyes, skin and clothing. Avoid ingestion and inhalation. Wear personal protective equipment (ref. section 8) when handling. Always ensure good ventilation. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Apply the usual standard hygiene rules: Wash your hands after use. Do not eat or drink during use.

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

WORKPLACE CONTROL PARAMETERS

Components	CAS-No.	Value	Control parameters	Basis
Ethanol	64-17-5	TWAEV	1000 ppm 1900 mg/m3	Canada. Ontario OELs
		TWA	1000 ppm 1880mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		VEMP	1000 ppm 1880mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEL	1000 ppm	Canada. British Columbia OEL
		TWA	1000 ppm	Canada. British Columbia OEL
Components	CAS-No.	Value	Control parameters	Basis
Methanol	67-56-1	TWA	200.000000 ppm 262.000000 mg/m3	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/m3	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/m3	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/m3	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)

Components	CAS-No.	Value	Control parameters	Basis
Ethyl acetate	141-78-6	TWA	400.000000 ppm 1,440.000000 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			
		TWA	150.000000 ppm	Canada. British Columbia OEL
		TWAEV	400.000000 ppm 1,440.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	400.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)

Data origin

Sigma-Aldrich (Millipore Sigma)

Respiratory

If work under the hood is not possible, or if the permissible levels are exceeded, use NIOSH cartridge respiratory protection, or an air-supplied respirator.

Gloves

Handle with protective gloves. Suggested material: Nitrile. Butyl. Laminated material (PE/EVOH)
The type, thickness and length of the glove must be chosen according to the use, the concentration of the product, as well as the duration of use. Replace gloves regularly for better protection.

Eyes

Safety goggles with safety shutters.

Shoes

Use safety shoes.

Clothes

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

Use fan. 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
Color	Colorless
Odour	Data not available
Odour threshold	Data not available
Melting point and freezing point	-90 °C / -130 °F
Boiling point	79 °C / 173.3 °F
Flammability	Yes
Lower flammable / Explosive limit	2.2%
Upper flammable / Explosive limit	36%
Flash point	~12°C / 53 °F
Auto-ignition temperature	385°C
Decomposition temperature	Data not available
pH	Not applicable
Kinematic viscosity	Data not available
Solubility	Miscible in water
Partition coefficient water/n-octanol	Data not available
Vapour pressure	40.9mmHg @ 20°C
Relative density	0.7905
Vapour density	1.6 (Ethanol) (air = 1)
Particle characteristics	Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May ignite on contact with oxidants if heat and oxygen are present in sufficient quantities. Flammable product, may ignite with source of ignition, if temperature above flash point. May react violently with incompatible substances.
Chemical stability	Stable under recommended storage conditions. Air sensitive. Sensitive to heat.
Possibility of hazardous reactions	Flammable liquid and vapours. Vapours can form explosive mixtures with air when heated. May react violently with incompatible substances.
Conditions to avoid	Avoid contact with incompatible materials. Heat, flames and sparks. Avoid the build-up of static electricity.
Incompatible materials	When pure, the products react with the following products: Strong acids. Oxydants. Acid anhydrides. Alkali metals. Reducing agents. Acid chlorides. Oleum. Lithium tetrahydroaluminate. Potassium tert-butoxide. Strong bases. Heat and humidity. Azo compounds. Epoxides. Isocyanates. Nitrides.
Hazardous decomposition products	Formaldehyde. Carbon oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

ETHYL ALCOHOL DENATURED

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
- Skin	Irritation. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
- Inhalation	Irritation of the mucous membranes and respiratory tract. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
Acute toxicity (Ingestion)	Feeling drunk. Headaches. Drowsiness. Incoordination. Nausea and vomiting. Acute absorption can lead to: Blindness. Damage to the liver. Damage to the kidneys. Damage to the eyes. Loss of consciousness. Coma. Possible death. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
Chronic exposure effects / symptoms	Visual troubles. Liver damage. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 4142 mg/kg. LD50 Dermal - Rabbit - >5000mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - 4h - 26 900ppm. Undefined species.

ETHANOL (ABSOLUTE)

Routes of exposure	Ingestion.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation. Tearing
- Skin	Irritation.
Acute toxicity (Ingestion)	Euphoria. Depression of the central nervous system. Headaches. Nausea and vomiting. Dizziness. Incoordination. Speech disorder. Mental confusion. Anesthesia.
Chronic exposure effects / symptoms	Liver cirrhosis. Gastrointestinal system disease. Cardiovascular disease. Nervous system damage. Hematological disease. Respiratory disease.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 7000 mg/kg. LD50 Dermal - Rabbit - >2000mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4 h - 116mg/L. LC50 Inhalation - Mouse - 1 h - 60000 ppm.

METHANOL

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation.
- Skin	Irritation. Dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Narcotic effects. Chest pain. Cough. Dyspnoea. Headaches. Dizziness. Watery eyes. Paresthesia. Nystagmus. Drowsiness. Confusion. Nausea and vomiting.
Acute toxicity (Ingestion)	Mucous membrane irritation. Narcotic effects. Liver and kidney damage. Injury to the eyes. Abdominal pain. Cramps. Diarrhea. Headaches. Dizziness. Paresthesia. Nystagmus. Drowsiness. Incoordination. Acidosis. Nausea and vomiting. Convulsions. Hypotension. Respiratory collapse. Loss of consciousness. Coma. Possible death. Acute absorption can lead to: Blindness. Damage to the liver. Damage to the kidneys. Damage to the eyes. Damage to the heart. Damage to the central nervous system.
Chronic exposure effects / symptoms	Dizziness. Headache. Nausea. Visual troubles. Decrease in visual acuity. Liver damage. Kidney damage.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 1187 mg/kg. LD50 Dermal - Rabbit - 15840 mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4 h - 64000 ppm. LC50 Inhalation - Rat - 4 h - 115.9-130.7mg/L air.

ETHYL ACETATE

Routes of exposure	Ingestion, inhalation, skin and eye contact.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Inflammation of the conjunctiva. Can lead to corneal opacity.
- Skin	Irritation. Dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Narcotic effects. Cough. Dyspnoea. Headaches. Dizziness. Drowsiness. Paresthesia. Nystagmus. Nausea and vomiting. Convulsions. Can lead to loss of consciousness.
Acute toxicity (Ingestion)	Mucous membrane irritation. Narcotic effects. Liver and kidney damage. Gastrointestinal disorders. Cramps. Diarrhea. Headaches. Dizziness. Drowsiness. Convulsions. Nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation. Dermatitis. Conjunctivitis. Narcotic effects. Liver and kidney damage. Chest pain. Cough. Dyspnoea. Laryngitis. Headache. Dizziness. Drowsiness. Nausea and vomiting. Loss of appetite. Weight loss. Paresthesia. Nystagmus. Muscle weakness. Anemia. Leukocytosis.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 5620 mg/kg LD50 Dermal - Rabbit - >2000mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4 h - 4000 ppm. LC50 Inhalation - Mouse - 4 h - 1500 ppm.

SECTION 12 - ECOLOGICAL INFORMATION

ETHYL ALCOHOL DENATURED

Ecotoxicity	Data not available.
Persistence and degradability	Data not available.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	Avoid release to the environment.

ETHANOL (ABSOLUTE)

Ecotoxicity	Toxicity to algae: EC50 (72h) (<i>Chlorella vulgaris</i>) - 275mg/l. Toxicity to fish: LC50 - <i>Pimephales promelas</i> (Bighead Minnow) - 14200 mg/l/96h. Toxicity to bacteria: <i>Photobacterium phosphoreum</i> - EC50 - 34634 mg/L/30 min. 35470 mg/L/5 min. <i>Daphnia magna</i> (Water flea) - EC50 - 9268 mg/L/48h. 10800 mg/L/24h.
Persistence and degradability	Persistence is unlikely based on information provided.
Bioaccumulative potential	Data not available.
Mobility in soil	Will likely be mobile in the environment due to its volatility.
Other adverse effects	Data not available.

METHANOL

Ecotoxicity	Toxicity to fish: LC50 - <i>Lepomis macrochirus</i> - 15,400.0 mg/l - 96 h.
Persistence and degradability	Biodegradability aerobic - Readily biodegradable Result: 72%.
Bioaccumulative potential	Bioaccumulation <i>Cyprinus carpio</i> (Carp) - 72 d à 20 °C. Bioconcentration factor (BCF): 1.
Mobility in soil	Do not get absorbed by the ground.
Other adverse effects	Avoid release to the environment.

ETHYL ACETATE

Ecotoxicity	Toxicity to fish: LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout) - 350.00 - 600.00 mg/l - 96 h. LC50 - <i>Pimephales promelas</i> (Bighead Minnow) - 220.00 - 250.00 mg/l - 96 h. Toxicity to daphnia and other aquatic invertebrates: EC50 - <i>Daphnia magna</i> (Water flea) - 2,300.00 - 3,090.00 mg/l - 24 h. LC50 - <i>Daphnia magna</i> (Water flea) - 560 mg/l - 48 h. Toxicity to algae: EC50 - 4,300.00 mg/l - 24 h. EC50 - <i>Selenastrum</i> - 1,800.00 - 3,200.00 mg/l - 72 h.
Persistence and degradability	Readily biodegradable Result: 79%.
Bioaccumulative potential	Bioconcentration factor (BCF): 30.
Mobility in soil	Will likely be mobile in the environment due to its volatility.
Other adverse effects	Avoid release to the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	1986
UN Proper shipping name	ALCOOLS INFLAMMABLES, TOXIQUES, N.S.A.(Éthanol, méthanol)
Transport hazard class(es)	Liquides inflammables 3 Matières toxiques 6.1
Packing group	II
Limited quantity index	1 L
ERAP Index	-
Special precautions	16

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	- Flammable liquids - category 2 - Serious eye damage/eye irritation - Eye irritation - category 2 - Specific Target Organ Toxicity - Single exposure - category 1
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SECTION 16 - OTHER INFORMATION

CNESST: Commission des normes, de l'équité et de la santé et sécurité au travail

NIH: National institute of health (U.S. National Library of Medicine)

ECHA: Agence Européenne de Chimie

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

VECD: Valeur d'exposition courte durée

VEMP: Valeur d'exposition moyenne pondérée

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TLV : Threshold limit value

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

RSST: Règlement sur la santé et sécurité au travail (Québec)

INRS: l'Institut national de recherche et de sécurité pour la prévention des accidents du travail et des maladies professionnelles (France)

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: 2025-10-21