



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

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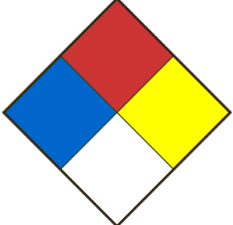
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## SAFETY DATA SHEET

### SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier ACETONITRILE		Product Use Laboratory use	
Chemical formula CH <sub>3</sub> CN		Product code AH-0101; AO-0106; AR-0106	Molar weight 41,05
Chemical name / Commercial name / Synonymous ACETONITRILE, CYANURE DE MÉTHYLE, CYANOMÉTHANE, MÉTHANECARBONITRILE, ETHANENITRILE, ETHYL NITRILE, METHYL CYANIDE			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
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Emergency phone	CANUTEC: 613-996-6666		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS 8/26/2019	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

## SECTION 02 - HAZARDS IDENTIFICATION

<b>Classification WHIMS / GHS</b>	<p>Flammable liquids category 2</p> <p>Acute toxicity - Oral category 4</p> <p>Acute toxicity - Inhalation category 4</p> <p>Acute toxicity - Dermal category 4</p> <p>Serious eye damage/eye irritation - Eye irritation category 2</p>
<b>Signal Word</b>	<p>DANGER</p>
<b>Hazards statements (H)</b>	<p>H225 Highly flammable liquid and vapour.</p> <p>H302 Harmful if swallowed.</p> <p>H312 Harmful in contact with skin.</p> <p>H332 Harmful if inhaled.</p> <p>H319 Causes serious eye irritation.</p>
<b>Precautionary statements (P)</b>	<p>P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.</p> <p>P233 Keep container tightly closed.</p> <p>P240 Ground/bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical/ventilating/lighting equipment.</p> <p>P242 Use only non-sparking tools.</p> <p>P243 Take precautionary measures against static discharge.</p> <p>P261 Avoid breathing dust / fume / gas / mist / vapours / spray.</p> <p>P264 Wash the areas of the body that have been in contact with the product after handling.</p> <p>P270 Do no eat, drink or smoke when using this product.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P302 + P352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P321 Specific treatment (see section 4 of the SDS and on this label).</p> <p>P330 Rinse mouth.</p> <p>P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction.</p> <p>P403 + P235 Store in a well-ventilated place. Keep cool.</p> <p>P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.</p> <p>P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P362 + P364 Take off contaminated clothing and wash it before reuse.</p> <p>P337 + P313 If eye irritation persists: Get medical advice/attention.</p>
<b>PICTOGRAMS</b>	
<b>Other dangers</b>	<p>NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)</p>
	<p><b>Health</b> 2</p> <p><b>Fire</b> 3</p> <p><b>Reactivity</b> 0</p> <p><b>Special danger</b></p>

## SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Acétonitrile	75-05-8	<=100

## SECTION 04 - FIRST AID MEASURES

<b>Eye contact</b>	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.
<b>Skin contact</b>	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
<b>Inhalation</b>	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
<b>Ingestion</b>	If the person is conscious, rinse the mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.
<b>Most important symptoms and effects (acute and delayed)</b>	Ref. section 11.
<b>Immediate medical attention and special treatment, if necessary</b>	In case of medical consultation, keep this sheet available.
<b>General advice</b>	Show this safety data sheet to the doctor in attendance.

## SECTION 05 - FIREFIGHTING MEASURES

<b>Flammability</b>	Yes
<b>Ignition conditions</b>	Heat, sparks and open flame. No smoking.
<b>Suitable extinguishing media</b>	Carbon dioxide, dry chemical powder and polymer foam.
<b>Unsuitable extinguishing media</b>	Do not use a concentrated stream of water that could spread fire.
<b>Hazardous combustion / decomposition products</b>	Hazardous decomposition products formed under fire conditions. Carbon oxides, Nitrogen oxides (NOx). Hydrogen cyanide gas.
<b>Special fire and explosion hazards</b>	May react violently with incompatible products (Ref Section 10). Vapors may rise to the source of ignition and flash back. Vapors may form explosive mixtures with air. Containers may explode when heated.
<b>Special protective equipment and precautions for firefighters</b>	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

<b>Methods and materials for containment and cleaning up / Personnel precautions, protective equipment</b>	Evacuate personnel to safe areas. Remove all sources of ignition. Avoid the accumulation of charges electrostatic. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary. Avoid breathing vapours, mist or gas. Vapours can accumulate in low areas. Do not let product enter drains.
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## SECTION 07 - HANDLING AND STORAGE

<b>Conditions for safe storage</b>	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
<b>Methods of handling</b>	Avoid contact with the skin, eyes and clothes. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

## SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Acetonitrile	75-05-8	TWA	20.000000 ppm 34.000000 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	20.000000 ppm	Canada. British Columbia OEL
	Contributes significantly to the overall exposure by the skin route.			
		TWAEV	20.000000 ppm	Canada. Ontario OELs
	Skin			
		TWAEV	40.000000 ppm 67.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEV	60.000000 ppm 101.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	20.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)

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. 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 , Incolore.-
Odour	Éthérée.
Odour threshold	170 ppm-
pH	Solution à 10% = pH neutre.
Melting point / Freezing point	-48°C
Initial boiling point	81-82°C
Boiling range	Data not available
Flash point	6.0 °C (Coupelle fermée ).
Evaporation rate	5.8%
Flammability	Yes
Lower flammable / Explosive limit	3%
Upper flammable / Explosive limit	16%
Vapour pressure	98.64 hPa à 20°C-
Vapour density	1.42 (Air =1.0 )-
Relative density	0.786 g/mL à 25°C.
Solubility	Miscible avec l'eau, l'alcool et l'éther.
Partition coefficient water/n-octanol	log Pow : -0.54 à 25°C-
Auto-ignition temperature	524°C
Decomposition temperature	Data not available
Viscosity	0.36 cP à 20°C.

## SECTION 10 - STABILITY AND REACTIVITY

<b>Reactivity</b>	Non-reactive under normal conditions.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	Stable under normal conditions. Vapours may form explosive mixture with air.
<b>Conditions of instability (Including sensitivity to shock / static discharge / vibration)</b>	Heat, flames and sparks. Avoid extreme temperature variations. Sun exposure.
<b>Incompatible material</b>	Strong acids, strong oxidants. Reducing agents. Bases. Alkali metals. sulfur trioxide, water, heat and humidity.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions. Carbon oxides, Nitrogen oxides (NOx). Toxic vapors of hydrogen cyanide.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### ACETONITRILE

<b>Routes of exposure</b>	Ingestion, inhalation, skin and eyes.
<b>Acute exposition effects / symptoms:</b>	By exposure route below.
<b>- Eyes</b>	Severe irritation if there is penetration into the eyes.
<b>- Skin</b>	May be harmful if absorbed through skin.
<b>- Inhalation</b>	May be harmful if inhaled. Irritation of the mucous membranes and respiratory tract. Pain in the chest, cough, dyspnea, sore throat head, vertigo, feeling of tightness, erythema, bronchial constriction, weakness, stupor, collapse respiratory, ataxia, cyanosis, coma and can lead to death. NOTE: The smell of acetonitrile becomes less noticeable after a few hours of exposure because of the olfactory fatigue that develops.
<b>Acute toxicity (Ingestion)</b>	May be harmful if swallowed. Irritation of the mucous membranes. Abdominal pain, liver and kidney damage, cramps, diarrhea, ailments headache, nausea and vomiting, tachycardia, acidosis, somnolence, seizures, stupor, collapse respiratory, ataxia, cyanosis, coma and can lead to death. NOTE: during absorption, the product releases cyanide ions in the body.
<b>Chronic exposure effects / symptoms</b>	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Metabolism may release cyanide, which may result in headache, dizziness, weakness, collapse, unconsciousness, and possible death: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Burning sensation, dermatitis, conjunctivitis, nervous disorders, liver, kidney and lung damage (pulmonary inflammation), chest pain, cough, dyspnea, laryngitis, headache, dizziness, drowsiness, anemia, erythema, olfactory disorders, weight loss and loss of appetite, seizures, nausea and vomiting.
<b>DL50 (specify species and route of entry)</b>	LD50 Oral - Rat - 175 mg/kg LD50 Dermal - Rabbit - > 2000 mg/kg
<b>CL50 (specify species and route of entry)</b>	CL50 inhalation - Rat 7551 ppm - 8 h

## SECTION 12 - ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	LC50 - Pimephales promelas (fathead minnow) - 1640 mg/L - 96 h - dynamic test CL50 - Artemia salina (shrimp) 400 mg/L - 24 h - static test. EC50 - Phaeodactylum tricornutum (algae) 9696 mg/L - 72 h - static test. CE50- activated sludge >1000 mg/L - 30 minutes
<b>Persistence and degradability</b>	Biodegradability Result: 70% - Readily biodegradable.
<b>Bioaccumulative potential</b>	No bioaccumulation is to be expected (log Pow <= 4).
<b>Mobility in soil</b>	Not expected to adsorb on soil.
<b>Other adverse effects</b>	Avoid release to the environment.

## SECTION 13 - DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method</b>	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
<b>Contaminated Packaging</b>	Dispose of as unused product.

## SECTION 14 - TRANSPORT INFORMATION

UN Number	1648
UN Proper shipping name	ACÉTONITRILE
Transport hazard class(es)	3 Flammable liquids
Packing group	II
Limited quantity index	1L
ERAP Index	-
Special precautions	-

## SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Flammable liquids category 2 Acute toxicity - Oral category 4 Acute toxicity - Inhalation category 4 Acute toxicity - Dermal category 4 Serious eye damage/eye irritation - Eye irritation 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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