



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

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


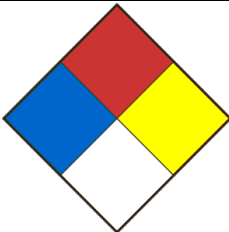
Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier 1-METHYLE-2-PYRROLIDONE		Product Use Laboratory use	
Chemical formula C ₅ H ₉ NO		Product code MR-0247	Molar weight 99,13
Chemical name / Commercial name / Synonymous 1-METHYL-2-PYRROLIDINONE, 1-METHYLPYRROLIDONE, METHYLPYRROLIDONE, N-METHYLPYRROLIDONE, METHYL-1 PYRROLIDINONE-2, N-METHYL-2-PYRROLIDINONE, 1-METHYL-5-PYRROLIDINONE, M-PYROL			
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 4/15/2019	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Liquides inflammables category 4 Serious eye damage/ Eye irritation category 2A Reproductive toxicity category 1B Specific target organ toxicity - Single exposure category 3
Signal Word	DANGER
Hazards statements (H)	H319 Causes serious eye irritation. H335 May cause respiratory irritation. H360 May damage fertility or the unborn child. H227 Combustible liquid.
Precautionary statements (P)	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. 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. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection. 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. P308 + P313 IF exposed or concerned: Get medical advice/attention. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P337 + P313 If eye irritation persists: Get medical advice/attention. P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction. 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. P403 Store in a well-ventilated place.
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 (%)
1-méthyle-2-pyrrolidone	872-50-4	<=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	If breathing is difficult, give oxygen. If breathed in, move person into fresh air. If not breathing, give artificial respiration. 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	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO _x).
Special fire and explosion hazards	Combustible liquid. Moderate fire hazard in the presence of heat or flame. Contact with strong oxidizing agents may cause fire. 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

Methods and materials for containment and cleaning up / Personnel precautions, protective equipment	Evacuate personnel to safe areas. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. 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.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Keep container tightly closed and store away from heat, moisture, combustible and incompatible products. Use venting and electrical equipment that is grounded and does not produce ignition sources (sparks). Moisture sensitive.
Methods of handling	Always open containers slowly to allow any excess pressure to vent. Avoid inhalation of vapour or mist. 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.	Control parameters	Value	Basis
N-methyl-2-pyrrolidone	872-50-4	TWAEV	400.000000 mg/m ³	Canada. Ontario OELs
		TWA	400.000000 mg/m ³	Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
		TLV, TWA, STEL	No data available	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TLV, TWA, STEL	No data available	Canada. British Columbia OEL
		TLV, TWA, STEL	No data available	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

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 à légèrement jaunâtre.-
Odour	Donnée non disponible.
Odour threshold	Data not available
pH	7.7 -8.
Melting point / Freezing point	-24°C
Initial boiling point	203°C
Boiling range	Data not available
Flash point	91 -coupelle fermée °C
Evaporation rate	Data not available
Flammability	Yes
Lower flammable / Explosive limit	1.3% v/v
Upper flammable / Explosive limit	9.5% v/v
Vapour pressure	0.39 - 0.43 hPa (0.29 - 0.32 mmHg) à 20 °C (68 °F) 1.32 hPa (0.99 mmHg) à 40 °C (104 °F)-
Vapour density	3.42 (air = 1.0)-
Relative density	1.033g/ml
Solubility	Miscible avec l'eau en toutes proportions. Miscible avec l'alcool, l'acétone, le benzène, le chloroforme et l'éther.
Partition coefficient water/n-octanol	log Pow : - 0.46-
Auto-ignition temperature	270°C
Decomposition temperature	Data not available
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Heat, flames and sparks.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	This product quickly absorbs moisture from the air. Heat, flames, sparks.
Incompatible material	Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong reducing agents (potassium, sodium, metal hydrides), strong acids, heat and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Toxic vapors of nitrogen oxides, monoxide and carbon dioxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

1-METHYLE-2-PYRROLIDONE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and may cause inflammation of the conjunctiva.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Nervous disorders, cough, dyspnea, headache, dizziness, drowsiness, nausea and vomiting.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Gastrointestinal disorders, cramps, diarrhea, headache, dizziness, drowsiness, seizures, nausea and vomiting.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, conjunctivitis, nervous disorders, chest pain, cough, dyspnoea, laryngitis, headache, dizziness, drowsiness, asthenia, weight loss and loss of appetite, nausea and vomiting. Prolonged exposure may cause reproductive abnormalities in humans.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 3914 mg/kg. LD50 Dermal - Rabbit - >5000mg/kg
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4h - 5.1 mg/L.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity to fish: LC50 - Other fish: 4,000 mg/l - 96 h. LC50: Leuciscus idus(ide) - > 500 mg/l - 96 h. Toxicity for daphnia and the others invertebrates aquatic. EC50 - Daphnia magna (Water flea) - >1000 mg/L - 24h. Toxicity to bacteria: LC50 - Bacteria - > 9,000 mg/l.
Persistence and degradability	Biodegradability Result: 90 % - 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	Liquides inflammables category 4 Serious eye damage/ Eye irritation category 2A Reproductive toxicity category 1B Specific target organ toxicity - Single exposure category 3
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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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