



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

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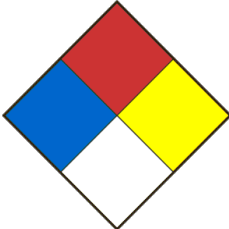
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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier NITROMETHANE		Product Use Laboratory use	
Chemical formula CH ₃ NO ₂		Product code NR-0125	Molar weight 61,04
Chemical name / Commercial name / Synonymous NITROMETHANE, NITROCARBOL, NMT			
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 10/24/2019	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Flammable liquids category 3 Carcinogenicity category 2 Acute toxicity - Oral category 4
Signal Word	WARNING
Hazards statements (H)	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H351 Suspected of causing cancer.
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. 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. 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. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P308 + P313 IF exposed or concerned: Get medical advice/attention. P330 Rinse mouth. P370 + P378 In case of fire: Use dry powder or dry sand for extinction. 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.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	Health 2 Fire 3 Reactivity 3 Special danger

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Nitrométhane	75-52-5	<=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	Do NOT induce vomiting. If the person is conscious, rinse the mouth with water. 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 and friction.
Suitable extinguishing media	Dry powder or dry sand.
Unsuitable extinguishing media	Do not use a jet of water.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides, Nitrogen oxides (NO _x).
Special fire and explosion hazards	May react violently with incompatible products (Ref Section 10). Steam can travel a great distance and ignite on sources of ignition such as heaters, electrical appliances, cigarettes, sparks, etc. Containers exposed to fire may explode. Vapors may form flammable or explosive mixtures with air. Nitromethane can explode by adiabatic compression, shock or friction; its sensitivity is increased when mixed with acetone, aluminum powder, amines, alkalis, strong acids, bases, bromoform, chloroform, hydrazine, methylammonium acetate, metal oxides and high temperatures. Violent reactions with calcium hypochlorite, formaldehyde, halogenated hydrocarbons, hydroxides and metal oxides.
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. Remove all sources of ignition. Ensure adequate ventilation. 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. Avoid the accumulation of charges electrostatic. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Do not let product enter drains. Discharge into the environment must be avoided.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Close all opened containers carefully and store vertically to avoid any flow. Use venting and electrical equipment that is grounded and does not produce ignition sources (sparks). Protect from the sun's rays. Store under nitrogen.
Methods of handling	Bottle in the glass only. Avoid contact with the skin, eyes and clothes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Do not use tools that produce sparks. Take measures to prevent the build up of electrostatic charge. 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

Components	CAS-No.	Value	Control parameters	Basis
NITROMETHANE	75-52-5	VEMP	100 ppm 250 mg/m ³	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	20 ppm 50 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	The occupational exposure limit is based on the effects of irritation and its adjustment to compensate for unusual work schedules is not necessary			
		TWA	20 ppm	Canada. British Columbia OEL
	IARC "2B" applies to substances that are considered to be possibly carcinogenic in humans.			

Data source	Sigma-Aldrich.
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	Use 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	Clair et incolore.
Odour	Doux..
Odour threshold	100ppm
pH	Solution aqueuse 0.01M = pH 6.4.
Melting point / Freezing point	-29°C
Initial boiling point	101.2°C
Boiling range	100-102°C
Flash point	36°C
Evaporation rate	6.6%
Flammability	Yes
Lower flammable / Explosive limit	7.3%
Upper flammable / Explosive limit	62%
Vapour pressure	27.3 mmHg @ 20°C.
Vapour density	2.11 - (Air = 1.0)-
Relative density	1.127g/cm ³
Solubility	Peu soluble dans l'eau (9.5% par vol.). Miscible avec l'alcool et l'éther.
Partition coefficient water/n-octanol	log Pow: -0.24.
Auto-ignition temperature	418°C
Decomposition temperature	Data not available
Viscosity	0.614 cP à 25 ° C.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Stable under normal conditions. Risk of explosion by shock, friction, fire or other sources of ignition.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Avoid heat, open flame, friction and shocks.
Incompatible material	Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong reducing agents (potassium, sodium, hydrides of metals), strong acids, alkalis, amines, strong bases, copper and lead and their respective alloys, metal oxides, acetone, calcium hypochlorite, formaldehyde, hydrazine, heat and moisture. Reacts violently with calcium hypochlorite. May explode with halogenated hydrocarbons or acetone. Amines, hydrazine, bases, methylammonium acetate, metal oxides, acids and detonating agents increase the sensitivity to the explosion.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides, Nitrogen oxides (NO _x).

SECTION 11 - TOXICOLOGICAL INFORMATION

NITROMETHANE

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, paresthesia, nystagmus, nausea and vomiting, methemoglobinemia, cyanosis and may result in unconsciousness.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Liver and kidney damage, gastrointestinal disorders, cramps, diarrhea, headache, dizziness, tremors, paresthesia, nystagmus, nausea and vomiting, seizures, methemoglobinemia, cyanosis, unconsciousness, coma and may result in death.
Chronic exposure effects / symptoms	Is recognized as a possible carcinogen for humans (class 2B) by IARC. Burning sensation, dermatitis, liver and kidney damage, narcotic effects, chest pain, cough, dyspnea, laryngitis, headache, dizziness, somnolence, paresthesia, nystagmus, asthenia, methemoglobinemia, muscle weakness, weight loss and loss of appetite, nausea and vomiting. Absorption in the body leads to the formation of methemoglobin which in insufficient concentration causes cyanosis. It can appear after 2 to 4 hours or more. It is found in breast milk in humans.
DL50 (specify species and route of entry)	LD50 Oral - Rat - Male et female - 1478 mg/kg. LD50 Dermal - Rabbit - >2000 mg/kg
CL50 (specify species and route of entry)	CL50 inhalation - Rat >12.75 mg/L - 1h.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	EC50 - Daphnia magna (Water flea) - Immobilization >103 mg/L - 48 h. EC50 - Pseudokirchneriella subcapitata (green algae) - Inhibition of growth - >102 mg/L - 72h. LC50 - Pimephales promelas (fathead minnow) - Static test: 659.2 mg/L - 96 h. LC50 - Danio rerio (zebra fish) - Static test: 460 mg/L - 48 h.
Persistence and degradability	Biodégradabilité aérobie - Durée d'exposition 28 d Résultat: 9.9 % - Difficilement biodégradable. (OCDE ligne directrice 301D)
Bioaccumulative potential	Data not available.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
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	1261
UN Proper shipping name	NITROMÉTHANE
Transport hazard class(es)	3 Flammable liquids
Packing group	II
Limited quantity index	1L
ERAP Index	-
Special precautions	38

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Flammable liquids category 3 Carcinogenicity category 2 Acute toxicity - Oral category 4
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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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