



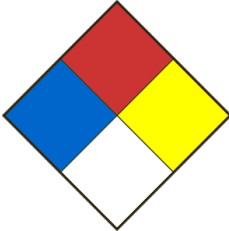
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## SAFETY DATA SHEET

### SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier METHYLENE BLUE 1%W/V		Product Use Laboratory use	
Chemical formula C <sub>16</sub> H <sub>18</sub> ClN <sub>3</sub> S·3H <sub>2</sub> O		Product code BS-0110	Molar weight 373,9
Chemical name / Commercial name / Synonymous METHYLENE BLUE, BASIC BLUE 9, CHLORURE DE MÉTHYLTHIONINE, CHLORURE DE TÉTRAMÉTHYLTHIONINE, SOLVANT BLEU 8, BLEU 9 BASIQUE			
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 2/8/2019	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

### SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Not a hazardous substance according to WHMIS 2015
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)
	<b>Health</b> 0 <b>Fire</b> 0 <b>Reactivity</b> 0 <b>Special danger</b>

### SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Bleu de méthylène	61-73-4	1
Eau	7732-18-5	Balance

## 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>	Never give anything by mouth to an unconscious person. If the person is conscious, rinse the mouth with water. Get immediate medical help.
<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>	No
<b>Ignition conditions</b>	Non flammable.
<b>Suitable extinguishing media</b>	Use dry chemical powder, dry ice, water spray or foam.
<b>Unsuitable extinguishing media</b>	Data not available.
<b>Hazardous combustion / decomposition products</b>	Hazardous decomposition products formed under fire conditions. Toxic fumes of carbon monoxide and dioxide, nitrogen oxides, sulfur oxides and hydrogen chloride.
<b>Special fire and explosion hazards</b>	May react violently with incompatible products (Ref Section 10).
<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 / Personnal precautions, protective equipment</b>	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. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary.
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## SECTION 07 - HANDLING AND STORAGE

<b>Conditions for safe storage</b>	Store in a cool, dry place. Store in a well-ventilated area. Keep container tightly closed and store away from heat, moisture, and incompatible products.
<b>Methods of handling</b>	Always open containers slowly to allow any excess pressure to vent. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

## SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace control parameters

Components	CAS-No.	Value	Control	Citric acid
Methylene Blue	7220-79-3	No data available	TLV, TWA, STEL	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		No data available	TLV, TWA, STEL	Canada. British Columbia OEL
		No data available	TLV, TWA, STEL	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

<b>Ventilation</b>	Use fan.
<b>Respiratory</b>	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
<b>Gloves</b>	Handle with gloves.
<b>Eyes</b>	Safety goggles with safety shutters.
<b>Shoes</b>	Safety shoes.
<b>Clothing</b>	Labcoat.
<b>Engineering control</b>	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

<b>Physical state</b>	Liquid.
<b>Appearance</b>	Liquide de couleur bleue foncée..
<b>Odour</b>	Inodore..
<b>Odour threshold</b>	Data not available
<b>pH</b>	6-7.
<b>Melting point / Freezing point</b>	Data not available
<b>Initial boiling point</b>	Data not available
<b>Boiling range</b>	Data not available
<b>Flash point</b>	Data not available
<b>Evaporation rate</b>	Data not available
<b>Flammability</b>	No
<b>Lower flammable / Explosive limit</b>	Data not available
<b>Upper flammable / Explosive limit</b>	Data not available
<b>Vapour pressure</b>	Data not available
<b>Solubility</b>	Soluble dans l'eau : 40,00 g/l à 20 °C, l'alcool et le chloroforme (Bleu de méthylène)..
<b>Vapour density</b>	Data not available
<b>Relative density</b>	Data not available
<b>Partition coefficient water/n-octanol</b>	Data not available
<b>Auto-ignition temperature</b>	Data not available
<b>Decomposition temperature</b>	Data not available
<b>Viscosity</b>	Data not available

## 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.
<b>Conditions of instability (Including sensitivity to shock / static discharge / vibration)</b>	Avoid excessive heat. Incompatible products.
<b>Incompatible material</b>	When pure, the product reacts with the following products: Strong oxidizing agents, reducing agents, alkalis, dichromates, iodides and moisture.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions. Oxides of carbon, Oxides of nitrogen (NOx), Oxides of sulfur, Hydrogen chloride gas.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### METHYLENE BLUE

<b>Routes of exposure</b>	Ingestion, inhalation, skin and eyes.
<b>Acute exposition effects / symptoms:</b>	By exposure route below.
<b>- Eyes</b>	Irritation and may cause inflammation of the conjunctiva.
<b>- Skin</b>	Irritation.
<b>- Inhalation</b>	Irritation of the mucous membranes and respiratory tract. Nervous disorders, chest pain, cough, dyspnea, headache, dizziness, nausea and vomiting, cyanosis.
<b>Acute toxicity (Ingestion)</b>	Irritation of the mucous membranes. Gastrointestinal disorders, cramps, diarrhea, dizziness, headache, convulsions, anemia and methemoglobinemia.
<b>Chronic exposure effects / symptoms</b>	Burning sensation, conjunctivitis, nervous disorders, chest pain, cough, dyspnoea, laryngitis, headache, dizziness, tiredness, loss of appetite, nausea and vomiting.
<b>DL50 (specify species and route of entry)</b>	LD50 Oral - Rat - 1180 mg/kg LD50 Dermal - Data not available.
<b>CL50 (specify species and route of entry)</b>	LC50 - Inhalation - Data not available.

### SUMMARY

<b>Acute exposure effects / Symptoms:</b>	By exposure routes below.
<b>Ingestion</b>	To our knowledge, the product has not been fully evaluated
<b>Inhalation</b>	To our knowledge, the product has not been fully evaluated
<b>Skin</b>	To our knowledge, the product has not been fully evaluated
<b>Eyes</b>	To our knowledge, the product has not been fully evaluated
<b>Chronic exposure effects / Symptoms:</b>	To our knowledge, the product has not been fully evaluated
<b>ETA Mix (Estimated Acute Toxicity)</b>	LD50 Oral: >5000mg/kg - Rat LD50 Dermal: Data not available LC50 Inhalation: Data not available

## SECTION 12 - ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Data not available.
<b>Persistence and degradability</b>	Soluble in water. Persistence is unlikely based on the information provided.
<b>Bioaccumulative potential</b>	Data not available.
<b>Mobility in soil</b>	Probable mobility in the environment due to its solubility in water.
<b>Other adverse effects</b>	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	Not a hazardous substance according to WHMIS 2015
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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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