

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                                                                                               |  |                                           | Product Use        |                                |               |
|------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------|--------------------|--------------------------------|---------------|
| METHYLENE BLUE                                                                                                   |  |                                           |                    | Laboratory use                 |               |
| Chemical formula                                                                                                 |  |                                           |                    | Product code                   | Molar weight  |
| C <sub>16</sub> H <sub>18</sub> CIN <sub>3</sub> S.3H <sub>2</sub> O                                             |  |                                           |                    | BP-0142                        | 373,9         |
| Chemical name / Commercial name / Synonymous<br>METHYLENE BLUE, BASIC BLUE 9, CHLORURE DE MÉTHYLTHION<br>BASIQUE |  |                                           | NE, CHLORURE DE    | TÉTRAMÉTHYLTHIONINE, SOLVANT B | LEU 8, BLEU 9 |
| Supplier's name                                                                                                  |  |                                           | Address-Street     |                                |               |
| Laboratoire MAT                                                                                                  |  |                                           | 610, Adanac Street |                                |               |
| City                                                                                                             |  | Province                                  |                    |                                |               |
| Québec                                                                                                           |  |                                           | Québec             |                                |               |
| Postal code Internet                                                                                             |  | Phone number                              |                    |                                |               |
| G1C 7B7 www.labmat.com                                                                                           |  | 418-660-8666 / 800-890-8666               |                    |                                |               |
| Emergency phone CANUTEC: 613-996-6666                                                                            |  | CENTRE ANTI-POISON DU QUÉBEC 800-463-5060 |                    |                                |               |
| Date SDS SDS Prepared by                                                                                         |  |                                           | E-Mail             |                                |               |
| 11/28/2018 Laboratoire MA                                                                                        |  | Т                                         | labmat@labmat.com  |                                |               |

### **SECTION 02 - HAZARDS IDENTIFICATION**

| Classification WHIMS / GHS   | Acute toxicity - Oral category 4                                                                                                                                                                                                                                                                                                                                                                                                  |  |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Signal Word                  | WARNING                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| Hazards statements (H)       | H302 Harmful if swallowed.                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| Precautionary statements (P) | P264 Wash the areas of the body that have been in contact with the product after handling.   P270 Do no eat, drink or smoke when using this product.   P330 Rinse mouth.   P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.   P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. |  |
| PICTOGRAMS                   |                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Other dangers                | NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)                                                                                                                                                                                                                                                                                                                                                             |  |
|                              | Health 1<br>Fire 0<br>Reactivity 0<br>Special danger                                                                                                                                                                                                                                                                                                                                                                              |  |

# SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

| Ingrédients (Dénomination chimique / synonymes) | Numéro CAS et tout identificateur unique | Concentration (%) |
|-------------------------------------------------|------------------------------------------|-------------------|
| Bleu de méthylène                               | 7220-79-3                                | <=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                                                       | Never give anything by mouth to an unconscious person. If the person is conscious, rinse the mouth with water. Get immediate medical help.               |  |
| 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                                                  | No                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ignition conditions                                           | Non flammable.                                                                                                                                                                                                                                            |
| Suitable extinguishing media                                  | Use dry chemical powder, dry ice, water spray or foam.                                                                                                                                                                                                    |
| Unsuitable extinguishing media                                | Data not available.                                                                                                                                                                                                                                       |
| Hazardous combustion /<br>decomposition products              | Toxic fumes of carbon monoxide and dioxide, nitrogen oxides, sulfur oxides and hydrogen chloride. Hazardous decomposition products formed under fire conditions. Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides, Hydrogen chloride gas.              |
| Special fire and explosion<br>hazards                         | 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         | Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Pick      |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------|
| containment and cleaning up /     | up with a shovel or broom, taking care not to scatter dust. Dispose of residues in a container provided for |
| Personnal precautions, protective | the disposal of hazardous materials. Do not let product enter drains.                                       |
| equipment                         |                                                                                                             |

### SECTION 07 - HANDLING AND STORAGE

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

| 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               | 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                        | Solid.                                                             |
|---------------------------------------|--------------------------------------------------------------------|
| Appearance                            | Poudre fine de couleur vert foncé                                  |
| Odour                                 | Inodore                                                            |
| Odour threshold                       | Data not available                                                 |
| рН                                    | Donnée non disponible.                                             |
| Melting point / Freezing point        | 190°C (dec)                                                        |
| Initial boiling point                 | Data not available                                                 |
| Boiling range                         | Data not available                                                 |
| Flash point                           | Data not available                                                 |
| Evaporation rate                      | Data not available                                                 |
| Flammability                          | No                                                                 |
| Lower flammable / Explosive limit     | Data not available                                                 |
| Upper flammable / Explosive limit     | Data not available                                                 |
| Vapour pressure                       | Data not available                                                 |
| Vapour density                        | Data not available                                                 |
| Relative density                      | Data not available                                                 |
| Solubility                            | Soluble dans l'eau : 40,00 g/l à 20 °C, l'alcool et le chloroforme |
| Partition coefficient water/n-octanol | Data not available                                                 |
| Auto-ignition temperature             | Data not available                                                 |
| 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                                                              | Stable under normal conditions.                                                                                                                     |  |  |
| Conditions of instability<br>(Including sensitivity to shock /<br>static discharge / vibration) | Avoid dust formation. Avoid excessive heat. Incompatible products.                                                                                  |  |  |
| Incompatible material                                                                           | Strong oxidizing agents, reducing agents, alkalis, dichromates, iodides and moisture.                                                               |  |  |
| Hazardous decomposition<br>products                                                             | 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**

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

#### **SECTION 12 - ECOLOGICAL INFORMATION**

| Ecotoxicity                   | Data not available.                                                          |
|-------------------------------|------------------------------------------------------------------------------|
| Persistence and degradability | Soluble in water. Persistence is unlikely based on the information provided. |
| 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**

|                        | 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

Acute toxicity - Oral category 4

## **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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