



## SAFETY DATA SHEET

## SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

|                                                                                                                                                              |                                                                       |                                             |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------|-----------------------------|
| Product Identifier<br>MALONIC ACID                                                                                                                           |                                                                       | Product Use<br>Laboratory use               |                             |
| Chemical formula<br>HO <sub>2</sub> CCH <sub>2</sub> CO <sub>2</sub> H                                                                                       |                                                                       | Product code<br>MR-0113                     | Molar weight<br>104,06      |
| Chemical name / Commercial name / Synonymous<br>ACIDE PROPANEDIOÏQUE, ACIDE MÉTHANEDICARBOXYLIQUE, MALONIC ACID, PROPANEDIOIC ACID, METHANEDICARBOXYLIC ACID |                                                                       |                                             |                             |
| Supplier's name<br>Laboratoire MAT                                                                                                                           |                                                                       | Address-Street<br>610, Adanac Street        |                             |
| City<br>Québec                                                                                                                                               |                                                                       | Province<br>Québec                          |                             |
| Postal code<br>G1C 7B7                                                                                                                                       | Internet<br>www.labmat.com                                            | Phone number<br>418-660-8666 Lun-Ven 8h-16h |                             |
| Emergency phone                                                                                                                                              | 418-660-8666 Lun-Ven 8h-16h CENTRE ANTI-POISON DU QUÉBEC 800-463-5060 |                                             |                             |
| Date SDS<br>1/17/2024                                                                                                                                        | SDS Prepared by<br>Laboratoire MAT                                    |                                             | E-Mail<br>labmat@labmat.com |

## SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

| Ingrédients (Dénomination chimique / synonymes) | Numéro CAS et tout identificateur unique | Concentration (%P/P) |
|-------------------------------------------------|------------------------------------------|----------------------|
| Acide malonique                                 | 141-82-2                                 | <=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. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician. |
| <b>Most important symptoms and effects (acute and delayed)</b>         | Main symptoms of high exposure: Headaches. Nausea and vomiting. Breathing difficulties. Tiredness. Abdominal pain. Dermatitis. Cough. 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 water spray, alcohol-resistant foam, dry chemical or carbon dioxide.                                    |
| <b>Unsuitable extinguishing media</b>                                | Data not available.                                                                                         |
| <b>Hazardous combustion products</b>                                 | Hazardous combustion products formed under fire conditions: Carbon oxides.                                  |
| <b>Special fire and explosion hazards</b>                            | May react violently with incompatible products (Ref Section 10). Dust may form explosive mixtures with air. |
| <b>Special protective equipment and precautions for firefighters</b> | Wear self contained breathing apparatus for fire fighting if necessary.                                     |

## SECTION 06 - ACCIDENTAL RELEASE MEASURES

|                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Methods and materials for containment and cleaning up / Personnel precautions, protective equipment</b> | Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Use a respirator as needed. Pick up with a shovel or broom, taking care not to scatter dust. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains. Discharge into the environment must be avoided. |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## SECTION 07 - HANDLING AND STORAGE

|                                    |                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Conditions for safe storage</b> | Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Hygroscopic. Keep container tightly closed and store away from 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. Avoid ingestion and inhalation. Provide appropriate exhaust ventilation at places where dust or vapor is formed. 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.  | Control        | Value             | Basis                                                                                                                                   |
|--------------|----------|----------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| MALONIC ACID | 141-82-2 | 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 |

|                            |                                                                                                                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.                                     |
| <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>                        | Solid.                               |
| <b>Appearance</b>                            | Poudre blanche.                      |
| <b>Odour</b>                                 | inodore.                             |
| <b>Odour threshold</b>                       | Data not available                   |
| <b>pH</b>                                    | Donnée non disponible..              |
| <b>Melting point / Freezing point</b>        | 132-135°C                            |
| <b>Initial boiling point</b>                 | Data not available                   |
| <b>Boiling range</b>                         | Data not available                   |
| <b>Flash point</b>                           | 172°C                                |
| <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>Vapour density</b>                        | Data not available                   |
| <b>Relative density</b>                      | 1.60g/cm <sup>3</sup>                |
| <b>Solubility</b>                            | Très soluble dans l'eau et l'alcool. |
| <b>Partition coefficient water/n-octanol</b> | log Pow : -0.81-                     |
| <b>Auto-ignition temperature</b>             | 580°C                                |
| <b>Decomposition temperature</b>             | Data not available                   |
| <b>Viscosity</b>                             | Data not available                   |

## SECTION 10 - STABILITY AND REACTIVITY

|                                                                                                  |                                                                                                        |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                                                                                | Acid product, reacts strongly with strong bases. May react violently with incompatible substances.     |
| <b>Chemical stability</b>                                                                        | Stable under recommended storage conditions. Hygroscopic.                                              |
| <b>Possibility of hazardous reactions</b>                                                        | May form combustible dust concentrations in the air. May react violently with incompatible substances. |
| <b>Conditions of instability (Including sensitivity to shock / static discharge / vibration)</b> | Avoid exposure to air, light and moisture.                                                             |
| <b>Incompatible material</b>                                                                     | Strong oxidizing agents. Strong reducing agents. Bases.                                                |
| <b>Hazardous decomposition products</b>                                                          | Hazardous decomposition products formed under fire conditions. Carbon oxides.                          |

## SECTION 11 - TOXICOLOGICAL INFORMATION

### MALONIC ACID

|                                                  |                                                                                                                                                                                                                                                 |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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 and may result in inflammation of the conjunctiva.                                                                                                                                                                            |
| <b>- Skin</b>                                    | Irritation and dermatitis. May be harmful if absorbed through skin.                                                                                                                                                                             |
| <b>- Inhalation</b>                              | Irritation of the mucous membranes and respiratory tract. Inhalation at high concentrations can lead to pulmonary edema and death. Nervous disorders, lung damage, pain in the chest, cough, dyspnea, dizziness, headache, nausea and vomiting. |
| <b>Acute toxicity (Ingestion)</b>                | Irritation of the mucous membranes. May be harmful if swallowed. Nervous disorders, gastrointestinal disorders, cramps, diarrhea, headache, convulsions, nausea and vomiting.                                                                   |
| <b>Chronic exposure effects / symptoms</b>       | Burning sensation, dermatitis, nervous disorders, cough, dyspnea, headache, dizziness, confusion, irritability, tiredness, nausea and vomiting.                                                                                                 |
| <b>DL50 (specify species and route of entry)</b> | LD50 Oral - Rat - 1310 mg/kg LD50 Dermal - Data not available.                                                                                                                                                                                  |
| <b>CL50 (specify species and route of entry)</b> | CL50 inhalation - Rat > 8989 mg/m <sup>3</sup> - 1 h                                                                                                                                                                                            |

## SECTION 12 - ECOLOGICAL INFORMATION

|                                      |                                                                                    |
|--------------------------------------|------------------------------------------------------------------------------------|
| <b>Ecotoxicity</b>                   | LC50 - Lepomis macrochirus - 150 mg/L - 24 h EC50 - Daphnia magna: 275 mg/L - 48 h |
| <b>Persistence and degradability</b> | Data not available.                                                                |
| <b>Bioaccumulative potential</b>     | Data not available.                                                                |
| <b>Mobility in soil</b>              | Probable mobility due to its solubility in water.                                  |
| <b>Other adverse effects</b>         | All littering must be avoided in the environment.                                  |

## SECTION 13 - DISPOSAL CONSIDERATIONS

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

## SECTION 14 - TRANSPORT INFORMATION

|                                   |     |
|-----------------------------------|-----|
| <b>UN Number</b>                  | N/R |
| <b>UN Proper shipping name</b>    |     |
| <b>Transport hazard class(es)</b> |     |
| <b>Packing group</b>              |     |
| <b>Limited quantity index</b>     |     |
| <b>ERAP Index</b>                 |     |
| <b>Special precautions</b>        |     |

## SECTION 15 - REGULATORY INFORMATION

|              |                                                                                                       |
|--------------|-------------------------------------------------------------------------------------------------------|
| WHIMS CANADA | Serious eye damage/eye irritation - Serious eye damage category 1<br>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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