



610, rue Adanac, Quebec (Quebec) G1C 7B7

## SAFETY DATA SHEET

Tel. (Qc): (418) 660-8666

Tel. (Mtl): (450) 443-1046

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

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### **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

#### **1.1 Product identifiers**

Product name : Giemsa Solution

Product Number : GS-0826

#### **1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Synthesis of substances

#### **1.3 Details of the supplier of the safety data sheet**

Supplier : Laboratoire MAT Inc.  
610 Adanac street  
Quebec QC G1C 7B7  
CANADA  
www.labmat.com  
Telephone : 418-660-866  
Fax : 418-660-899  
Emergency : 418-660-8666 Mon-Fri 8h-16h  
E-mail : labmat@labmat.com

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### **SECTION 2: Hazards identification**

#### **2.1 Classification of the substance or mixture**

##### **GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)**

Flammable liquids (Category 2), H225

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 3), H311

Specific target organ toxicity - single exposure (Category 1), Eyes, H370

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### **2.2 GHS Label elements, including precautionary statements**

Pictogram



Signal Word

Danger

Hazard Statements

H225

Highly flammable liquid and vapor.

H301 + H311 + H331

Toxic if swallowed, in contact with skin or if inhaled.

H370

Causes damage to organs (Eyes).

Precautionary Statements

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233

Keep container tightly closed.

P240

Ground and bond container and receiving equipment.

P241

Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242

Use non-sparking tools.

P243

Take action to prevent static discharges.

P260

Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P264

Wash skin thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P271

Use only outdoors or in a well-ventilated area.

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301 + P310 + P330

IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P311

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

P308 + P311

IF exposed or concerned: Call a POISON CENTER/ doctor.

P361 + P364

Take off immediately all contaminated clothing and wash it before reuse.

P370 + P378

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

P403 + P233

Store in a well-ventilated place. Keep container tightly closed.

P403 + P235

Store in a well-ventilated place. Keep cool.

P405

Store locked up.

P501

Dispose of contents/ container to an approved waste disposal plant.

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

- none

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## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Synonyms

: Azure eosin methylene blue  
Giemsa solution

| Component           |                       | Classification                                                                                                                                                     | Concentration<br>* |
|---------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <b>Methanol</b>     |                       |                                                                                                                                                                    |                    |
| CAS-No.             | 67-56-1               | Flam. Liq. 2; Acute Tox. 3;<br>STOT SE 1; H225, H301,<br>H331, H311, H370<br>Concentration limits:<br>>= 10 %: STOT SE 1,<br>H370; 3 - < 10 %: STOT<br>SE 2, H371; | >= 80 - <= 100 %   |
| EC-No.              | 200-659-6             |                                                                                                                                                                    |                    |
| Index-No.           | 603-001-00-X          |                                                                                                                                                                    |                    |
| Registration number | 01-2119433307-44-XXXX |                                                                                                                                                                    |                    |
| * Weight %          |                       |                                                                                                                                                                    |                    |
| <b>glycerine</b>    |                       |                                                                                                                                                                    |                    |
| CAS-No.             | 56-81-5               |                                                                                                                                                                    | >= 10 - < 30 %     |
| EC-No.              | 200-289-5             |                                                                                                                                                                    |                    |
| Registration number | 01-2119471987-18-XXXX |                                                                                                                                                                    |                    |
| * Weight %          |                       |                                                                                                                                                                    |                    |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: fresh air. Make victim drink ethanol (e.g. 1 drinking glass of a 40% alcoholic beverage). Call a doctor immediately (mention methanol ingestion). Only in exceptional cases, if no medical care is available within one hour, induce vomiting (only in fully conscious persons) and make victim drink ethanol again (approx. 0.3 ml of a 40% alcoholic beverage/kg body weight/hour).

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

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## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

#### **Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

### **5.2 Special hazards arising from the substance or mixture**

Carbon oxides

Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

### **5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### **5.4 Further information**

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains. Risk of explosion.

### **6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemisorb®). Dispose of properly. Clean up affected area.

### **6.4 Reference to other sections**

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

#### Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

#### Storage class

Storage class (TRGS 510): 3: Flammable liquids

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

| Components | CAS-No.                                                              | Value | Control parameters               | Basis                                                               |
|------------|----------------------------------------------------------------------|-------|----------------------------------|---------------------------------------------------------------------|
| Methanol   | 67-56-1                                                              | TWA   | 200 ppm<br>262 mg/m <sup>3</sup> | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL) |
| Remarks    | Substance may be readily absorbed through intact skin                |       |                                  |                                                                     |
|            |                                                                      | STEL  | 250 ppm<br>328 mg/m <sup>3</sup> | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL) |
|            | Substance may be readily absorbed through intact skin                |       |                                  |                                                                     |
|            |                                                                      | TWA   | 200 ppm                          | Canada. British Columbia OEL                                        |
|            | Contributes significantly to the overall exposure by the skin route. |       |                                  |                                                                     |

|           |                                                                                                                                        |       |                      |                                                                                                                                         |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
|           |                                                                                                                                        | STEL  | 250 ppm              | Canada. British Columbia OEL                                                                                                            |
|           | Contributes significantly to the overall exposure by the skin route.                                                                   |       |                      |                                                                                                                                         |
|           |                                                                                                                                        | STEV  | 250 ppm<br>328 mg/m3 | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
|           | Skin (percutaneous)                                                                                                                    |       |                      |                                                                                                                                         |
|           |                                                                                                                                        | TWAEV | 200 ppm<br>262 mg/m3 | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
|           | Skin (percutaneous)                                                                                                                    |       |                      |                                                                                                                                         |
| glycerine | 56-81-5                                                                                                                                | TWAEV | 10 mg/m3             | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
|           |                                                                                                                                        | TWA   | 10 mg/m3             | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)                                                                     |
|           | Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required |       |                      |                                                                                                                                         |
|           |                                                                                                                                        | TWA   | 10 mg/m3             | Canada. British Columbia OEL                                                                                                            |
|           |                                                                                                                                        | TWA   | 3 mg/m3              | Canada. British Columbia OEL                                                                                                            |
|           |                                                                                                                                        | TWAEV | 10 mg/m3             | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
|           |                                                                                                                                        | TWA   | 200 ppm              | USA. ACGIH Threshold Limit Values (TLV)                                                                                                 |
|           |                                                                                                                                        | STEL  | 250 ppm              | USA. ACGIH Threshold Limit Values (TLV)                                                                                                 |

## 8.2 Exposure controls

### Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

### Personal protective equipment

#### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

#### Skin protection

Full contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 30 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### Body Protection

Flame retardant antistatic protective clothing.

#### Respiratory protection

Recommended Filter type: Filter type AX

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### Control of environmental exposure

Do not let product enter drains. Risk of explosion.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                 |                              |
|-------------------------------------------------|------------------------------|
| a) Appearance                                   | Form: liquid<br>Color: blue  |
| b) Odor                                         | No data available            |
| c) Odor Threshold                               | No data available            |
| d) pH                                           | No data available            |
| e) Melting point/freezing point                 | No data available            |
| f) Initial boiling point and boiling range      | 64.7 °C 148.5 °F - lit.      |
| g) Flash point                                  | 12 °C (54 °F)                |
| h) Evaporation rate                             | No data available            |
| i) Flammability (solid, gas)                    | No data available            |
| j) Upper/lower flammability or explosive limits | No data available            |
| k) Vapor pressure                               | No data available            |
| l) Vapor density                                | No data available            |
| m) Density                                      | No data available            |
| Relative density                                | No data available            |
| n) Water solubility                             | No data available            |
| o) Partition coefficient: n-octanol/water       | No data available            |
| p) Autoignition temperature                     | No data available            |
| q) Decomposition temperature                    | No data available            |
| r) Viscosity                                    | No data available            |
| s) Explosive properties                         | Not classified as explosive. |
| t) Oxidizing properties                         | none                         |

### 9.2 Other safety information

No data available

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## **SECTION 10: Stability and reactivity**

### **10.1 Reactivity**

Vapors may form explosive mixture with air.

### **10.2 Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) .

### **10.3 Possibility of hazardous reactions**

No data available

### **10.4 Conditions to avoid**

Warming.

### **10.5 Incompatible materials**

Acids, Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents

### **10.6 Hazardous decomposition products**

Nature of decomposition products not known.

In the event of fire: see section 5

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## **SECTION 11: Toxicological information**

### **11.1 Information on toxicological effects**

#### **Mixture**

#### **Acute toxicity**

Oral: No data available

Acute toxicity estimate Oral - 125.13 mg/kg  
(Calculation method)

Inhalation: No data available

Acute toxicity estimate Inhalation - 4 h - 3.88 mg/l - vapor(Calculation method)

Dermal: No data available

Acute toxicity estimate Dermal - 375.13 mg/kg  
(Calculation method)  
No data available

#### **Skin corrosion/irritation**

Remarks: No data available

#### **Serious eye damage/eye irritation**

Remarks: No data available

#### **Respiratory or skin sensitization**

No data available

#### **Germ cell mutagenicity**

No data available

#### **Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

No data available

**Specific target organ toxicity - single exposure**

Remarks: No data available

Mixture causes damage to organs. - Eyes

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Additional Information**

Methyl alcohol may be fatal or cause blindness if swallowed., Effects due to ingestion may include:, Nausea, Headache, Vomiting, Gastrointestinal disturbance, Dizziness, Weakness, Confusion., Drowsiness, Unconsciousness, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

**Components****Methanol****Acute toxicity**

Acute toxicity estimate Oral - 100.1 mg/kg

(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Symptoms: Nausea, Vomiting

Acute toxicity estimate Inhalation - 4 h - 3.1 mg/l - vapor

(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Symptoms: Irritation symptoms in the respiratory tract.

Acute toxicity estimate Dermal - 300.1 mg/kg

(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Skin corrosion/irritation**

Skin - Rabbit

Result: No skin irritation

Remarks: (ECHA)

Remarks: Drying-out effect resulting in rough and chapped skin.

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: No eye irritation

Remarks: (ECHA)

**Respiratory or skin sensitization**

Sensitisation test: - Guinea pig

Result: negative

(OECD Test Guideline 406)

**Germ cell mutagenicity**

Based on available data the classification criteria are not met.

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster lung cells

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male and female - Bone marrow

Result: negative

**Carcinogenicity**

Did not show carcinogenic effects in animal experiments.

**Reproductive toxicity**

Based on available data the classification criteria are not met.

**Specific target organ toxicity - single exposure**

Causes damage to organs. - Eyes, Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Acute oral toxicity - Nausea, Vomiting

Acute inhalation toxicity - Irritation symptoms in the respiratory tract.

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**glycerine****Acute toxicity**

LD50 Oral - Rat - female - 27,200 mg/kg

Remarks: (ECHA)

LC50 Inhalation - Rat - male and female - 4 h - > 5,850 mg/l - aerosol

Remarks: (ECHA)

LD50 Dermal - Guinea pig - male and female - 56,750 mg/kg

Remarks: (ECHA)

**Skin corrosion/irritation**

Skin - Rabbit

Result: No skin irritation - 24 h

Remarks: (ECHA)

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: No eye irritation - 7 Days

Remarks: (ECHA)

**Respiratory or skin sensitization**

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

**Germ cell mutagenicity**

Test Type: Ames test

Test system: S. typhimurium

Result: negative

Remarks: (IUCLID)

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster ovary cells

Result: negative

Test Type: sister chromatid exchange assay

Test system: Chinese hamster ovary cells

Result: negative

Test Type: unscheduled DNA synthesis assay

Test system: rat hepatocytes

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster ovary cells

Result: negative

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure****Aspiration hazard**

No data available

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**SECTION 12: Ecological information****12.1 Toxicity****Mixture**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## 12.6 Endocrine disrupting properties

No data available

## 12.7 Other adverse effects

No data available

### Components

#### Methanol

|                                                     |                                                                                                                               |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                    | flow-through test LC50 - <i>Lepomis macrochirus</i> (Bluegill) - 15,400.0 mg/l - 96 h (US-EPA)                                |
| Toxicity to daphnia and other aquatic invertebrates | semi-static test EC50 - <i>Daphnia magna</i> (Water flea) - 18,260 mg/l - 96 h (OECD Test Guideline 202)                      |
| Toxicity to algae                                   | static test ErC50 - <i>Pseudokirchneriella subcapitata</i> (green algae) - ca. 22,000.0 mg/l - 96 h (OECD Test Guideline 201) |
| Toxicity to bacteria                                | static test IC50 - activated sludge - > 1,000 mg/l - 3 h (OECD Test Guideline 209)                                            |
| Toxicity to fish(Chronic toxicity)                  | NOEC - <i>Oryzias latipes</i> (Orange-red killifish) - 7,900 mg/l - 200 h<br>Remarks: (External MSDS)                         |

#### glycerine

|                  |                                                                                                       |
|------------------|-------------------------------------------------------------------------------------------------------|
| Toxicity to fish | static test LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout) - 54,000 mg/l - 96 h<br>Remarks: (ECHA) |
|------------------|-------------------------------------------------------------------------------------------------------|

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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**SECTION 14: Transport information****TDG**

UN number: 1230    Class: 3 (6.1)    Packing group: II  
Proper shipping name: METHANOL  
Subsidiary risk                      : 6.1  
Labels: 3  
(6.1)ERG Code: 131  
Marine pollutant: no

**IATA**

UN number: 1230    Class: 3 (6.1)    Packing group: II  
Proper shipping name: MethanolSOLUTION

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**SECTION 15: Regulatory information**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

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**SECTION 16: Other information****Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. 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. 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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