

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                               |              |
|---|------------------------|-----------------------|-----------------------------|---|--------------|
| CALCIUM HYDROXIDE                             |                        |                       |                             | Laboratory use                            |              |
| Chemical formula                              |                        |                       |                             | Product code                              | Molar weight |
| Ca(OH) <sub>2</sub>                           |                        |                       |                             | CP-0111; CR-0115; CU-0115                 | 74,1         |
| Chemical name / Commerci<br>Hydroxyde de calc |                        | Calcium oxide hyd     | rated, Calcium dihyo        | droxide, Chaux hydratée.                  |              |
| Supplier's name                               |                        |                       | Address-Street              |   |              |
| Laboratoire MAT                               |                        |                       | 610, Adanac Street          |   |              |
| City  |                        |                       | Province                    |   |              |
| Québec  |                        |                       | Québec                      |   |              |
| Postal code                                   | code Internet          |                       | Phone number                |   |              |
| G1C 7B7                                       | G1C 7B7 www.labmat.com |                       | 418-660-8666 / 800-890-8666 |   |              |
| Emergency phone                               | CANUTEC: 61            | CANUTEC: 613-996-6666 |                             | CENTRE ANTI-POISON DU QUÉBEC 800-463-5060 |              |
| Date SDS SDS Prepare                          |                        | SDS Prepared by       | E-Mail                      |   |              |
| 7/22/2019 Labora                              |                        | aboratoire MAT        |                             | labmat@labmat.com                         |              |

## **SECTION 02 - HAZARDS IDENTIFICATION**

| Classification WHIMS / GHS   | Skin corrosion/irritation - Skin irritation category 2            |  |  |  |  |
|------------------------------|---|--|--|--|--|
|                              | Serious eye damage/eye irritation - Serious eye damage category 1 |  |  |  |  |
|                              | Specific target organ toxicity - Single exposure category 3       |  |  |  |  |
|                              | Specific rarger organ toxicity - Single exposure category 3       |  |  |  |  |
| Signal Word                  | DANGER  |  |  |  |  |
| Hazards statements (H)       | H315 Causes skin  | irritation.  |  |  |  |
|                              | H318 Causes serio   | ous eye damage.  |  |  |  |
|                              | H335 May cause i  | respiratory irritation.  |  |  |  |
| Precautionary statements (P) | P261  | Avoid breathing dust / fume / gas / mist / vapours / spray.  |  |  |  |
|                              | P264  | Wash the areas of the body that have been in contact with the product after handling.  |  |  |  |
|                              | P271  | Use only outdoors or in a well-ventilated area.  |  |  |  |
|                              | P280  | Wear protective gloves/protective clothing/eye protection/face protection.   |  |  |  |
|                              | P302 + P352   | IF ON SKIN: Wash with plenty of soap and water.  |  |  |  |
|                              | P304 + P340   | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.   |  |  |  |
|                              | P305 + P351 + P   | 338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.                     |  |  |  |
|                              | P310  | Immediately call a POISON CENTER or doctor/physician.  |  |  |  |
|                              | P312  | Call a POISON CENTER or doctor/physician if you feel unwell.   |  |  |  |
|                              | P321  | Specific treatment (see section 4 of the SDS and on this label).   |  |  |  |
|                              | P332 + P313   | If skin irritation occurs: Get medical advice/attention.   |  |  |  |
|                              | P362 + P364   | Take off contaminated clothing and wash it before reuse.   |  |  |  |
|                              | P403 + P233   | Store in a well-ventilated place. Keep container tightly closed.   |  |  |  |
|                              | 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                   | 1   |  |  |  |  |
| Other dangers                | N   | FPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)   |  |  |  |
|                              | Health 2  |  |  |  |  |
|                              | Fire 0  |  |  |  |  |
|                              | Reactivity 0  |  |  |  |  |
|                              | Special danger  |  |  |  |  |
| $\vee$                       |   |  |  |  |  |

# SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

| Ingrédients (Dénomination chimique / synonymes) | Numéro CAS et tout identificateur unique | Concentration (%) |
|---|--|-------------------|
| Hydroxyde de calcium                            | 1305-62-0                                | <=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   | Rinse mouth with water. If the person is conscious, drink water and do not induce vomiting Never give anything by mouth to an unconscious person. 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   | Not flammable or combustible.  |
| Suitable extinguishing media                                  | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.   |
| Unsuitable extinguishing media                                | Data not available.  |
| Hazardous combustion / decomposition products                 | Hazardous decomposition products formed under fire conditions Calcium oxide.   |
| Special fire and explosion hazards                            | Contact with metals can produce flammable hydrogen gas. Calcium hydroxide can cause explosive decomposition of maleic anhydride. Reactions Violents may occur in contact with the following products: nitroparaffins (i.e. nitroethane, nitromethane, nitropropane, etc.), phosphorus, polychlorinated phenols + potassium nitrate. 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. Avoid dust formation. Avoid breathing      |
| Personnal precautions, protective | dust. Clean and rinse with water. Dispose of residues in a container provided for the disposal of      |
| equipment                         | hazardous materials. Do not let product enter drains.  |

## **SECTION 07 - HANDLING AND STORAGE**

| Air and moisture sensitive. 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 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.                   | Value | Control parameters | Basis   |
|------------------------|---------------------------|-------|--------------------|---|
| Calcium<br>dihydroxide | 1305-62-0                 | TWA   | 5.000000<br>mg/m3  | Canada. British Columbia OEL  |
|                        |                           | TWA   | 5.000000<br>mg/m3  | Canada. Alberta, Occupational Health and Safety<br>Code (table 2: OEL)  |
| Remarks                | Occupational unusual work |       |                    | tation effects and its adjustment to compensate for   |
|                        |                           | TWAEV | 5.000000<br>mg/m3  | Canada. Ontario OELs  |
|                        |                           | TWAEV | 5.000000<br>mg/m3  | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
|                        |                           | TWAEV | 5 mg/m3            | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
|                        |                           | TWA   | 5 mg/m3            | USA. ACGIH Threshold Limit Values (TLV)   |
|                        |                           | TWA   | 5.000000<br>mg/m3  | USA. ACGIH Threshold Limit Values (TLV)   |

| Data source         | Sigma-Aldrich.   |
|---------------------|--|
| Ventilation         | 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 cristalline de couleur blanche à blanc cassé                                       |
| Odour                                 | inodore.  |
| Odour threshold                       | Data not available  |
| рН                                    | Solution aqueuse saturée (25°C) = pH 12.5.  |
| Melting point / Freezing point        | 580°C (dec)   |
| Initial boiling point                 | 2850°C  |
| 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                      | $2.24 \mathrm{g/cm^3}$  |
| Solubility                            | Peu soluble dans l'eau (< 2g/L @20°C). Soluble dans la glycérine. Insoluble dans l'alcool |
| 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) | Sensitive to moisture and air. Avoid excessive heat. Avoid dust formation. This product quickly absorbs carbon dioxide from the air to form calcium carbonate. |
| Incompatible material   | Strong acids, maleic anhydride, carbon dioxide, nitroparaffins (i.e. nitroethane, nitromethane, nitropropane), phosphorus and moisture.                        |
| Hazardous decomposition products  | Hazardous decomposition products formed under fire conditions Calcium oxide.   |

## **SECTION 11 - TOXICOLOGICAL INFORMATION**

#### **CALCIUM HYDROXIDE**

| Routes of exposure                        | Ingestion, inhalation, skin and eyes.  |
|---|--|
| Acute exposition effects / symptoms:      | By exposure route below.   |
| - Eyes                                    | Severe irritation and may result in opacification of the cornea.   |
| - Skin                                    | Severe irritation and dermatitis.  |
| - Inhalation                              | Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death.   |
| Acute toxicity (Ingestion)                | Irritation and burning of the mouth, throat, esophagus and abdominal wall. Dysphagia, abdominal pain, cramps, diarrhea, headache, dizziness, salivation, convulsions, nausea and vomiting.   |
| Chronic exposure effects / symptoms       | Burning sensation, dermatitis, conjunctivitis, nervous disorders, chest pain, cough, dyspnoea, laryngitis, headache, dizziness, confusion, irritability, salivation, fatigue, weight loss and loss of appetite, nausea and vomiting. |
| DL50 (specify species and route of entry) | LD50 Oral - Rat - 2000 mg/kg. LD50 Dermal - Rabbit - 2500 mg/kg,   |
| CL50 (specify species and route of entry) | LC50 Inhalation - Rat - 4h - 6.04 mg/L.  |

## **SECTION 12 - ECOLOGICAL INFORMATION**

|                               | Toxicity to fish: LC50 - Clarias gariepinus - 33.884 mg / I - 96 h Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Great Daphnia) - 49.1 mg / I - 48 h Method: OECD Guideline 202 Toxicity to algae: EC50 - Pseudokirchneriella subcapitata (green algae) - 184.6 mg / I - 72 h Method: OECD Test Guideline 201 |
|-------------------------------|--|
| Persistence and degradability | Data not available.  |
| Bioaccumulative potential     | Does not bioaccumulate.  |
| Mobility in soil              | Data not available.  |
| Other adverse effects         | An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  |

## **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 | Skin corrosion/irritation - Skin irritation category 2            |
|--------------|---|
|              | Serious eye damage/eye irritation - Serious eye damage category 1 |
|              | Specific target organ toxicity - Single exposure category 3       |

#### **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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