

Printing Date: 14/04/2014

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Trade Name: MTA-ANGELUS GREY/ WHITE

Application: Reparative Cement

Company Identification

ANGELUS INDÚSTRIA DE PRODUTOS ODONTOLÓGICOS S/A - CNPJ 00.257.992/0001-37
 Street Waldir Landgraf 101 - Bairro Lindóia / CEP 86031-218 LONDRINA - PARANA - BRAZIL.

Information in case of emergency: +55 43 2101-3200 or sac@angelus.ind.br

2. COMPOSITION / INFORMATION ABOUT THE HAZARDOUS COMPONENTS

Chemical Components	CAS Number	Percentage (%)
3CaO.SiO ₂ Tricalcium silicate	CAS # 12168-85-3	45-60
2CaO.SiO ₂ Dicalcium silicate	CAS # 10034-77-2	5-12
3CaO.Al ₂ O ₃ Tricalcium aluminate	CAS # 12042-78-3	5-12
4CaO.Al ₂ O ₃ .Fe ₂ O ₃ Tetracalcium aluminoferrite	CAS # 12068-35-8	1-7
CaO Calcium oxide	CAS # 1305-78-8	0-7
Bi ₂ O ₃ Bismuth oxide	CAS # 1304-76-3	15-30

3. HAZARD IDENTIFICATION



Xi: Irritating.

R 36/38: Irritating for eyes and skin.

Appearance: Powder substance.

Effect on the eyes: It may cause eye irritation.

Skin: It may cause skin irritation.

Ingestion: If swallowed, do not provoke vomiting. Look for a physician.

Inhalation: Move to a ventilated area, if inhaled.

4. FIRST AID

- 4.1. **Contact with the skin:** Wash the affected skin area with plenty of water and soft detergent. Look for medical care for cutaneous rash, burning and dermatitis.
- 4.2. **Contact with the eyes:** Wash the eyes with plenty of water during at least 15 minutes, including under the eyelids, to remove all particles. Look for medical help for abrasion and burning.
- 4.3. **Ingestion:** Do not provoke vomiting. If conscious, drink plenty of water. Look for medical assistance immediately.
- 4.4. **Inhalation:** Take the person to a fresh place. Look for medical care for the discomfort or if the cough or other symptoms do not disappear.

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5. FIRE FIGHTING MEASURES

- 5.1. **Recommended extinguishers:** Use the firefighting resources available at the location.
- 5.2. **Not recommended extinguishers:** Not Applicable
- 5.3. **Specific risks from the product combustion:** No specific risks.
- 5.4. **Protection equipment:** Use equipment for respiratory tract protection

6. ACCIDENTAL LEAKAGE MEASURES

- 6.1. **Personal safety measures:** Not required
- 6.2. **Environmental measures:** Special measures not required.
- 6.3. **Cleaning methods:** Remove the excess of material mechanically and dispose according to the local legislation.

7. HANDLING AND STORAGE

- 7.1. **Precautions for handling:** Special measures not required, observe the instructions on the packaging.
- 7.2. **Storage conditions:** Store in a dry place. Store far from food and beverages. Do not store close to ammonium, ammonium nitrate and chlorine or areas containing chlorine.

8. EXPOSURE CONTROLS - precaution measures

- 8.1. **Breathing protection:** Not required.
- 8.2. **Hands protection:** Use gloves.
- 8.3. **Eyes protection:** Use protection goggles when handling dust or wet product, in order to avoid contact with the eyes.
- 8.4. **Skin protection:** Use impermeable clothes to eliminate contact with the skin.
- 8.5. **General Information:** Handle according to the good hygiene practices and personal safety. These practices include avoiding unnecessary exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1. **Aspect:** Solid powder
- 9.2. **Color:** White or gray
- 9.3. **Odor:** Not Applicable
- 9.4. **pH:** ~ 12 (with water)
- 9.5. **Melting Point:** Not Applicable
- 9.6. **Boiling Point:** Not Applicable
- 9.7. **Evaporation rate:** Not Applicable
- 9.8. **Exposure limit:** Not Applicable
- 9.9. **Vapor pressure:** Not Applicable
- 9.10. **Relative Density:** Not Applicable
- 9.11. **Solubility in water:** soluble in water (0.1 to 1.0%)
- 9.12. **Auto-ignition temperature:** Not Applicable
- 9.13. **Decomposition temperature:** Not Applicable

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10. STABILITY AND REACTIVITY

- 10.1. **Thermal decomposition:** Product stable in normal conditions.
 - 10.2. **Conditions to be avoided:** There are no special conditions to be avoided.
 - 10.3. **Materials to be avoided:** Alkaline product. It is compatible with acids, ammonium, ammonium salts, ammonium metal and chlorine.
 - 10.4. **Risk Reactions:** There are no known dangerous reactions.
 - 10.5. **Hazardous decomposition products:** Decomposition will not occur spontaneously.
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11. TOXICOLOGICAL INFORMATION (information about the toxicological effects)

- 11.1. **Primary irritation effect**
 - Skin:** Moderate irritation
 - Eyes:** Severe irritation
 - Inhalation:** Cough, sneeze and nasal secretion
 - Ingestion:** Gastrointestinal irritation and stomach ache
 - 11.2. **Sensitivity:** Not applicable.
 - 11.3. **Late and immediate effects and short-term and long-term chronic effects:** Not applicable.
 - 11.4. **Additional information:** None
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12. ECOLOGICAL INFORMATION

- 12.1. **Eco-toxicity (aquatic, land, where available):** Do not let big quantities of the product to be disposed in draining systems.
 - 12.2. **Persistence and Degradability :** Not Applicable
 - 12.3. **Bio-accumulation potential:** Not Applicable
 - 12.4. **Mobility in soil:** Not Applicable
 - 12.5. **Other adverse effects:** Not Applicable
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13. CONSIDERATIONS ABOUT DISPOSAL - Description of residues and information about their treatment and methods for safe elimination, including the elimination of contaminated residue packaging.

- 13.1. **Product disposal:** Small quantities can be disposed in the domestic waste and big quantities according to the local state and federal regulations.
 - 13.2. **Packaging disposal:** It shall be disposed according to the local legislation.
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14. INFORMATION ABOUT TRANSPORT

Product classified as non-hazardous according to the transport regulations.

15. REGULATORY INFORMATION

Product not classified as hazardous and not hazardous to health.

16. OTHER INFORMATION

The information contained in this sheet are based on our knowledge on the date indicated above. This information refer only to the indicated product and of not constitute guarantee for a particular quality. The user is fully responsible to adopt the due precautions to protect property and people against any damages, which might derive from such handling and use. We recommend the user to carefully observe the destination and the form of use of the product, using according to the instructions.

In case of doubts, request technical guidelines: **+55 43 2101-3200 or sac@angelus.ind.br**