

Issuing Date: 14/04/2014

Revision on: 14/04/2014

1. IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Trade Name : MTA-ANGELUS WHITE / MTA-ANGELUS GREY**Application:** Reparative Cement

Identification of the company

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

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

2. COMPOSITION / INFORMATION OF 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. HAZARDS IDENTIFICATION

**Xi:** Irritant.**R 36/38:** Irritant to eyes and skin.**Appearance:** odorless powder.**Effect to eye contact:** May cause eye irritation.**Skin:** May cause skin irritation.**Ingestion:** If swallowed do not induce vomiting. Seek medical attention.**Inhalation:** Move person to breath fresh air.

4. FIRST AID PROCEDURES

- 4.1. Eye contact:** Rinse eyes thoroughly with water for at least 15 minutes, including under the lids, to remove all particles. Seek medical attention for abrasion and burns.
- 4.2. Skin contact:** Wash the affected area with plenty of water and mild skin detergent. Seek for medical attention for rash, burns and dermatitis.
- 4.3. Ingestion:** Do not induce vomiting. If conscious have the person drink plenty of water. Seek medical attention immediately.
- 4.4. Inhalation:** Move the person to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not stop.

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5. FIREFIGHTING MEASURES

- 5.1. **Recommended Extinguishers:** Use the fire-fighting resources available in the site.
- 5.2. **Non-recommended Extinguishers:** Not applicable
- 5.3. **Specific hazard arising from product combustion:** No specific risk.
- 5.4. **Protecting equipment:** Use equipments to protect the person from inhalation.

6. ACCIDENTAL RELEASE MEASURES

- 6.1. **Individual safety measures:** Not required.
- 6.2. **Environmental measures:** No special measure required.
- 6.3. **Cleaning measures:** Clean exceeding material and dispose in accordance with local, state and federal regulations.

7. HANDLING AND STORAGE

- 7.1. **Handling precaution:** No special handling is required. Observe instruction of use.
- 7.2. **Storage conditions:** Store in dry area. Store away from foods and drinks. Do not store near ammonia, ammonia nitrate and chlorine or chlorine containing areas.

8. EXPOSURE CONTROLS / PRECAUTION MEASURES

- 8.1. **Respiratory protection:** Not required.
- 8.2. **Hands protection:** Use gloves.
- 8.3. **Eyes protection:** Wear safety goggles when handling dust or wet product to prevent contact with eye.
- 8.4. **Skin protection:** Wear impervious clothing to eliminate skin contact.
- 8.5. **Addition information:** Handle in accordance with good personal hygiene and safety practices. These practices include avoiding unnecessary exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1. **Aspect:** Solid powder.
- 9.2. **Color:** white or grey.
- 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. **Explosion limits:** Not applicable.
- 9.9. **Steam pressure:** Not applicable.
- 9.10. **Relative density:** Not applicable.
- 9.11. **Solubility in water:** Soluble in water (0,1 a 1,0%)
- 9.12. **Auto-ignition temperature:** Not applicable.
- 9.13. **Decomposition temperature:** Not applicable.

10. STABILITY AND REACTIVITY

- 10.1. **Thermal decomposition:** Product is stable in normal conditions

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- 10.2. **Conditions to be avoided:** No special conditions to be avoided.
- 10.3. **Materials to be avoided:** product is alkaline. It is incompatible with acids, ammonia, ammonium salts, aluminum metal and chlorine.
- 10.4. **Risk of reaction:** There is no known hazardous reaction to the product.
- 10.5. **Hazardous decomposition products:** Decomposition will not spontaneously occur.

11. TOXICOLOGICAL EFFECTS INFORMATION

11.1. Primary irritation effects:

Skin: Moderate irritation.

Eyes: Severe irritation.

Inhalation: Cough, sneezing and nasal secretion.

Ingestion: Gastrointestinal irritation and abdominal pain.

11.2. Sensibility:

Not applicable.

11.3. Immediate and serious toxic effects and also long and short-term chronic effects:

Not applicable.

11.4. Additional information:

None.

12. ECOLOGICAL INFORMATION

- 12.1. **Ecotoxicity (aquatic and ground, where available):** Do not allow high quantities of the product to be discharged in draining system.
- 12.2. **Persistence and degradability:** Not applicable.
- 12.3. **Bioaccumulative potential:** Not applicable.
- 12.4. **Mobility in soil:** Not applicable.
- 12.5. **Other adverse effects:** Not applicable.

13. DISPOSAL CONSIDERATIONS

- 13.1. **Product disposal:** Small quantities can be discharged in domestic trash. Dispose big quantities in accordance with local, state and federal regulations.
- 13.2. **Packaging disposal:** Must be discharged in accordance with local regulations.

14. TRANSPORT INFORMATION

Product classified as not hazardous in accordance to transport regulations.

15. REGULATORY INFORMATION

Product classified as not unhealthy.

16. OTHER INFORMATION

The information presented above is based on our current knowledge on the above date. This information is solely related to the product indicate herein and does not constitute guarantee of an specific quality. The user is responsible to adopt the require precautions to protect persons and assets against any damage that can derives from the product's use or manipulation. We recommend the user to closely observe the indications and usage of the product described in its instructions for use.

In case of doubt, ask for technical support by phone (+55 43 2101-3200) or e-mail (sac@angelus.ind.br)