Safety Data Sheet
TOPCEM

Safety Data Sheet dated 8/9/2009, version 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

   Trade name: TOPCEM
   Product type and use: Special hydraulic binder.

   Supplier: MAPEI S.p.A. - Via Cafiero 22 - Milan - ITALY
   Emergency telephone number of the company and/or of an authorised advisory centre:
   MAPEI S.p.A. - Tel. +(39)02376731
   Poison Centre - Ospedale di Niguarda - Milan - Tel. +39/02/66101029

   Competent person responsible for the safety data sheet:
   sicurezza@mapei.it

2. HAZARDS IDENTIFICATION

   Properties / Symbols:
   Xi Irritant

   R Phrases:
   R36/37/38 Irritating to eyes, respiratory system and skin.
   R43 May cause sensitization by skin contact.

   If brought into contact with the eyes, the product causes irritation that may last for over 24h, if inhaled, it causes irritation to the airways, and if brought into contact with the skin it causes significant inflammation with erythema, scabs, and oedema.
   If brought into contact with the skin, the product may cause sensitisation of the skin.

3. COMPOSITION/INFORMATION ON INGREDIENTS

   Hazardous components within the meaning of EEC directive 67/548 and corresponding classification:
   70% - 80% Portland cement, Cr(VI) < 2 ppm
   CAS: 65997-15-1   EC: 266-043-4
   Xi; R36/37/38-43

   2.5% - 5% calcium oxide
   Xi; R38-41

   1% - 2.5% calcium hydroxide
   Xi; R37/38-41

4. FIRST AID MEASURES

   Contact with skin:

   900246/3
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

**Contact with eyes:**
Wash immediately and thoroughly with running water, keeping eyelids raised, for at least 10 minutes. Following this, protect the eyes with sterile gauze or a clean, dry, handkerchief. OBTAIN A MEDICAL EXAMINATION. Do not use eyewash or ointment of any kind before obtaining an examination or advice from an ophthalmologist.

**Swallowing:**
Wash the mouth thoroughly and drink plenty of water. In case of disease consult a physician immediately and present this safety-data sheet.

**Inhalation:**
Ventilate the premises. The patient is to be removed immediately from the premises contaminated and made to rest in a well ventilated area. Should the patient feel unwell, consult a physician.

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**5. FIRE-FIGHTING MEASURES**
The product does not present a fire hazard

Extinguishers not to be used:
None in particular.

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**6. ACCIDENTAL RELEASE MEASURES**

Measures for personal safety:
None in particular

Environmental measures:

Cleaning methods:
Rapidly recover the product, wearing protective clothing.
Scoop into containers and seal for disposal.
After the product has been recovered, rinse the area and materials involved with water.

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**7. HANDLING AND STORAGE**

Handling precautions:
Avoid contact with skin and eyes and exposure to high dust concentration.
Avoid powder development and deposit

Incompatible materials:
Keep away from water or from damp surroundings.

Storage conditions:
Always keep the containers tightly closed.

Instructions as regards storage premises:
Adequately ventilated premises.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure limit values (TLV-TWA):**
(powder) 10 mg/m³

Precautionary measures:
Give adequate ventilation to the premises where the product is stored and/or handled.

Respiratory protection:
Not needed for normal use.
Use adequate protective respiratory equipment, when above TLV.
A dust mask should be worn if above exposure limits.

Protection for hands:
Use protective rubber gloves.
Neoprene gloves are suggested (0.5 mm) not recommended gloves: none

Eye protection:
Safety goggles.

Protection for skin:
Use clothing that provides comprehensive protection to the skin.
Personal Protective Equipment should comply with relevant CE standards (as EN 374 for gloves and EN 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Exposure limit value of single components:
- Portland cement, Cr(VI) < 2 ppm
- TLV TWA:: (polvere)10 mg/m³
- calcium hydroxide
- TLV TWA:: 5 mg/m³

Carry out the control of the concentrations of the substances with exposure limits assigned, in the working place according to local dispositions.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>powder</td>
</tr>
<tr>
<td>Colour</td>
<td>grey</td>
</tr>
<tr>
<td>Odour</td>
<td>slight, typical of cement</td>
</tr>
<tr>
<td>pH</td>
<td>(water dispersion, 10%) 12.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>N.A.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>100°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>100°C</td>
</tr>
<tr>
<td>Solid/gas flammability</td>
<td>N.A.</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>100°C</td>
</tr>
<tr>
<td>Explosion limits (by volume)</td>
<td>N.A.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>N.A.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>N.A.</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.85 g/cm³</td>
</tr>
<tr>
<td>Apparent density</td>
<td>N.A.</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>partly soluble</td>
</tr>
<tr>
<td>Lipid solubility</td>
<td>insoluble</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N.A.</td>
</tr>
<tr>
<td>Vapour density (air=1)</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Conditions to avoid:
- Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

Route(s) of entry:
- Ingestion: Yes
- Inhalation: Yes
- Contact: No

Toxicological information related to the product:
- No toxicological data are available at the moment on the product itself.
- There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

- calcium hydroxide
  - LD₅₀ (orale, ratto) = 7340
Corrosive/Irritating Properties:
Skin:
The product can cause irritation by contact.
Eye:
The product can cause irritation by contact

Sensitizing Properties:
Frequent and prolonged skin contacts with cement paste may cause dermatitis.

Cancerogenic Effects:
No effects are known.

Mutagenic Effects:
No effects are known.

Teratogenic Effects:
No effects are known.

Additional Information:
Susceptibility to skin irritation and sensitization varies from person to person.
In a sensitized individual the allergic dermatitis may not appear until after several days or weeks of frequent and prolonged contact.
Therefore, even though the skin irritation potential is slight, skin contact should be avoided. Once sensitization has occurred, exposure of the skin to very small quantities of the material may cause erythema and edema.

12. ECOLOGICAL INFORMATION

Biodegradability: no data available on the preparation.
Adopt good industrial practices, so that the product is not released into the environment.

13. DISPOSAL CONSIDERATIONS

Recover if possible. In so doing, comply with the local and national regulations currently in force.
Where applicable, refer to the following regulatory provisions: 91/156/EEC, 91/689/EEC, 94/62/EC and subsequent amendments.

Disposal of hardened product (EC waste code): 17 01 01
Disposal of not hardened product (EC waste code): 17 01 01
The suggested European waste code is just based on the composition of the product.
According to the specific process or application field a different waste code may be necessary.

14. TRANSPORT INFORMATION

UN Number: ==
Rail/Road(RID/ADR): no dangerous good
Sea (IMO/IMDG): no dangerous good
MAR/POL 73/78, Annex III: No
Air (ICAO/IATA): no dangerous good

15. REGULATORY INFORMATION

16. OTHER INFORMATION

Main bibliographic sources:
- NIOSH - Registry of toxic effects of chemical substances
- Istituto Superiore di Sanità - Inventario Nazionale Sostanze Chimiche
- ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
- ACGIH - Threshold Limit Values - 2004 edition
- SAX'S - Dangerous properties of industrial materials

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Text of R phrases referred to under heading 3:
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R37/38 Irritating to respiratory system and skin.
- R43 May cause sensitization by skin contact.

Paragraphs modified from the previous revision:

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