Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 03.06.2017
Version number 3
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Hazardous according to criteria of Australian Safety and Compensation Council

1 Identification of the substance/mixture and of the company/undertaking

· Product identifier
  · Trade name: Phosphate Cement powder
  · Relevant identified uses of the substance or mixture and uses advised against
    No further relevant information available.
    · Application of the substance / the mixture Dental cement

· Details of the supplier of the safety data sheet
  · Manufacturer/Supplier:
    Heraeus Kulzer Australia Pty Ltd
    Unit 32
    11 – 21 Underwood Rd
    HOMEBUSH NSW 2140
    Australia
    Tel: +61 (0) 2 9764 5222
  · Informing department: see above
  · Emergency telephone number: Emergency contact number: 13 11 26 (24 hours)

2 Hazards identification

· Classification of the substance or mixture
  The product is not classified according to the Globally Harmonised System (GHS).

· Label elements
  · Hazard pictograms Void
  · Signal word Void
  · Hazard statements Void

· Other hazards -
  · Results of PBT and vPvB assessment
    · PBT: Not applicable.
    · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterisation: Mixtures
  · Description: -

· Dangerous components:
<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>zinc oxide</td>
<td>75-90%</td>
</tr>
<tr>
<td>magnesium oxide</td>
<td>5-10%</td>
</tr>
<tr>
<td>calcium fluoride</td>
<td>0-5%</td>
</tr>
</tbody>
</table>

· Additional information For the wording of the listed hazard phrases refer to section 16.

(Contd. on page 2)
4 First aid measures

- **Description of first aid measures**
  - **General information** No special measures required.
  - **After skin contact** The product is not skin irritating.
  - **After eye contact** Rinse opened eye for several minutes under running water.
  - **After swallowing** Rinse out mouth and then drink plenty of water.
    In case of persistent symptoms consult doctor.
  - **Information for doctor**
    - **Most important symptoms and effects, both acute and delayed**
      No further relevant information available.
    - **Indication of any immediate medical attention and special treatment needed**
      No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
  - **Suitable extinguishing agents**
    CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
  - **Special hazards arising from the substance or mixture** No further relevant information available.
  - **Advice for firefighters**
    - **Protective equipment:** No special measures required.
  - **Additional information**

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
  Inform respective authorities in case product reaches water or sewage system.
- **Methods and material for containment and cleaning up:** Collect mechanically.
- **Reference to other sections**
  No dangerous materials are released.
  See Section 8 for information on personal protection equipment.

7 Handling and storage

- **Handling**
  - **Precautions for safe handling** No special measures required.
  - **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
  - **Storage**
    - **Requirements to be met by storerooms and containers:** No special requirements.
    - **Information about storage in one common storage facility:** Not required.
    - **Further information about storage conditions:** None.
Trade name: Phosphate Cement powder

- Specific end use(s) No further relevant information available.

* 8 Exposure controls/personal protection

  - Additional information about design of technical systems: No further data; see item 7.
  - Control parameters

<table>
<thead>
<tr>
<th>Components with critical values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>zinc oxide</strong></td>
</tr>
<tr>
<td>NES (Australia) Short-term value: 10** mg/m³</td>
</tr>
<tr>
<td>Long-term value: 10* 5** mg/m³</td>
</tr>
<tr>
<td>*dust **fume</td>
</tr>
<tr>
<td>PEL (USA) 15*: 5** mg/m³</td>
</tr>
<tr>
<td>Dust only *Total dust **Respirable dust</td>
</tr>
<tr>
<td>REL (USA) Short-term value: C 15*:10** mg/m³</td>
</tr>
<tr>
<td>Long-term value: 5;5** mg/m³</td>
</tr>
<tr>
<td>Zinc oxide, Dust only; *15-min Dust only; **Zinc</td>
</tr>
<tr>
<td>TLV (USA) Short-term value: 10 R mg/m³</td>
</tr>
<tr>
<td>Long-term value: 2 R mg/m³</td>
</tr>
<tr>
<td>1309-48-4 magnesium oxide</td>
</tr>
<tr>
<td>NES (Australia) 10 mg/m³</td>
</tr>
<tr>
<td>PEL (USA) 15*: mg/m³</td>
</tr>
<tr>
<td>*Total particulate</td>
</tr>
<tr>
<td>TLV (USA) 10 I mg/m³</td>
</tr>
<tr>
<td>7789-75-5 calcium fluoride</td>
</tr>
<tr>
<td>NES (Australia) 2.5 mg/m³</td>
</tr>
<tr>
<td>as F</td>
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</table>

  - Additional information: The lists that were valid during the compilation were used as basis.

- Exposure controls
  - Personal protective equipment
    - General protective and hygienic measures
      The usual precautionary measures should be adhered to in handling the chemicals.
    - Breathing equipment: Not required.
  - Protection of hands:
    Check protective gloves prior to each use for their proper condition.
    recommended
  - Material of gloves

(Contd. on page 4)
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
  Butyl rubber, BR
  Nitrile rubber, NBR

- **Eye protection:** not absolutely neccessary

- **Body protection:** Light weight protective clothing

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - Form: Powder
      - Colour: Yellowish
      - Smell: Odourless
      - Odour threshold: Not determined.
  - **pH-value:** Not applicable.
  - **Change in condition**
    - Melting point/Melting range: Not determined
    - Boiling point/Boiling range: Not determined
  - **Flash point:** Not applicable
  - **Inflammability (solid, gaseous)** Not determined.
  - **Ignition temperature:**
    - Decomposition temperature: Not determined.
  - **Self-inflammability:** Product is not selfigniting.
  - **Danger of explosion:** Product is not explosive.
  - **Critical values for explosion:**
    - Lower: Not determined.
    - Upper: Not determined.
  - **Steam pressure:** Not applicable.
  - **Density** Not determined
    - Settled apparent density: 500 kg/m3
    - Relative density: Not determined.
    - Vapour density: Not applicable.
    - Evaporation rate: Not applicable.
Trade name: Phosphate Cement powder

- Solubility in / Miscibility with
  - Water: Insoluble
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - dynamic: Not applicable.
  - kinematic: Not applicable.
- Other information: No further relevant information available.

10 Stability and reactivity
- Reactivity: No further relevant information available.
- Chemical stability
  - Conditions to be avoided: No decomposition if used and stored according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: None

11 Toxicological information
- Information on toxicological effects
  - Acute toxicity
    - Primary irritant effect:
      - Skin corrosion/irritation: No irritant effect.
      - Serious eye damage/irritation: No irritant effect.
    - Respiratory or skin sensitisation: No sensitizing effect known.

12 Ecological information
- Toxicity
  - Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behaviour in environmental systems:
  - Bioaccumulative potential: No further relevant information available.
  - Mobility in soil: No further relevant information available.
- Ecotoxicological effects:
  - Remark: Very toxic for fish
- Additional ecological information:
  - General notes:
    - Do not allow product to reach ground water, water bodies or sewage system.
    - Danger to drinking water if even small quantities leak into soil.
    - Also poisonous for fish and plankton in water bodies.
    - Very toxic for aquatic organisms
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
Other adverse effects - No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
  - Recommendation: Packaging can be reused or recycled after cleaning.

14 Transport information

- UN-Number
  - ADG, IMDG, IATA 3077

- UN proper shipping name
  - IMDG, IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc oxide)

- Transport hazard class(es)
  - ADG
    - Class 9 (M7) Miscellaneous dangerous substances and articles.
    - Label 9
  
  - IMDG
    - Class 9 Miscellaneous dangerous substances and articles.
    - Label 9
  
  - IATA
    - Class 9 Miscellaneous dangerous substances and articles.
Trade name: Phosphate Cement powder

- Label
  - Packing group
    - ADG, IMDG, IATA
  - Environmental hazards:
    - Marine pollutant: Yes
    - Special marking (ADG): Symbol (fish and tree)
    - Special marking (IATA): Symbol (fish and tree)
  - Special precautions for user: Warning: Miscellaneous dangerous substances and articles.
    - Kemler Number: 90
    - EMS Number: F-A,S-F

- Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable.

- Transport/Additional information:
  - UN "Model Regulation": UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc oxide), 9, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - GHS label elements: Void
  - Hazard pictograms: Void
  - Signal word: Void
  - Hazard statements: Void

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Abbreviations and acronyms:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative

- * Data compared to the previous version altered.