SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
Product name : SEWPERCOAT 2000 HS
Product code : K00SPC2000HS.

1.2. Relevant identified uses of the substance or mixture and uses advised against
Hydraulic concrete for application in the sewers

1.3. Details of the supplier of the safety data sheet
Registered company name : KERNEOS INC.
Address : 1316 Priority Lane, VA 23324, Chesapeake, USA.
Telephone : +1 757 284 3200. Fax : +1 757 284 3300.
sds@kerneos.com
www.kerneosinc.com

1.4. Emergency telephone number : +1 800 424 9300.
Association/Organisation : Chemtrec for USA and Canada.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
HCS compliant.
Carcinogenicity, Category 1A (Carc. 1A).
This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

2.2. Label elements
HCS compliant.
Hazard pictograms :

GHS08
Signal Word :
DANGER
Product identifiers :
CAS 14808-60-7 QUARTZ
Hazard statements :
H350i May cause cancer by inhalation (if inhaled).
Precautionary statements - Prevention :
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements - Response :
P308 + P313 IF exposed or concerned: Get medical advice/attention.
Precautionary statements - Disposal :
P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

2.3. Other hazards
None to your knowlegde
SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition:
- Cement Alumina Chemicals  
  CAS : 65997-16-2  
  Classification HCS : not classified  
  Content : 20 - 30%
- Calcium aluminate aggregate  
  EC : 932-420-3  
  Classification HCS : not classified  
  Content : 50 - 90%

Identification

<table>
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<th>Identification</th>
<th>HCS</th>
<th>Nota</th>
<th>%</th>
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<td>GHS08</td>
<td>[1]</td>
<td>1 &lt;= x % &lt; 2.5</td>
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<tr>
<td>EC: 238-878-4</td>
<td>Dgr</td>
<td>[2]</td>
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<tr>
<td>QUARTZ</td>
<td>Carc. 1A, H350i</td>
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</tbody>
</table>

Information on ingredients:

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation:
- In case of exposure to high concentrations of dust: move the affected person away from the contaminated area and into the fresh air.

In the event of splashes or contact with eyes:
- Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.
- If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin:
- Watch out for any remaining product between skin and clothing, watches, shoes, etc.
- Wash with soap.

In the event of swallowing:
- Seek medical attention, showing the label.
- Never attempt to induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Slightly irritant for eye and skin.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture

- A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.
- Do not breathe in smoke.
- In the event of a fire, the following may be formed:
  - carbon monoxide (CO)
  - carbon dioxide (CO2)

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.
SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Consult the safety measures listed under headings 7 and 8.

For first aid worker
First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions
Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up
Retrieve the product by mechanical means (sweeping/vacuuming).

6.4. Reference to other sections
Sections 7, 8 & 13

SECTION 7: HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling
Always wash hands after handling.
Remove and wash contaminated clothing before re-using.

Fire prevention:
Prevent access by unauthorised personnel.

Recommended equipment and procedures:
For personal protection, see section 8.
Observe precautions stated on label and also industrial safety regulations.
Avoid exposure - obtain special instructions before use.

Prohibited equipment and procedures:
No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities
Keep the container tightly closed in a cool, well ventilated place
Keep the container away from dampness

Packaging
Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)
No data available.

SECTION 8: EXPOSURE CONTROLS/PERSOAL PROTECTION

8.1. Control parameters
Occupational exposure limits:
- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010):
<table>
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<th>CAS</th>
<th>TWA:</th>
<th>STEL:</th>
<th>Ceiling</th>
<th>Definition</th>
<th>Criteria</th>
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<td>14808-60-7</td>
<td>0.05 mg/m3</td>
<td>-</td>
<td>-</td>
<td>-</td>
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- France (INRS - ED984:2012):
| CAS | VMEM: | VME-mg/m3 | VLE-pm: | VLE-mg/m3 | Notes | TMP No |
| 14808-60-7 | 0.1 | - | - | - | - | 25 |
| CAS | TWA: | STEL: | Ceiling | Definition | Criteria |
| 14808-60-7 | 0.3 mg/m3 | - | - | - | R |
- USA / NIOSH REL (National Institute for Occupational Safety and Health, Recommended exposure limits):
| CAS | TWA: | STEL: | Ceiling | Definition | Criteria |
| 14808-60-7 | 0.05 mg/m3 | - | - | - | R |
- USA / NIOSH IDLH (National Institute for Occupational Safety and Health, Immediately Dangerous to Life or Health Concentrations):
| CAS | TWA: | STEL: | Ceiling | Definition | Criteria |
| 14808-60-7 | - | 50 | - | - | - |
- USA / OSHA PEL (Occupational Safety and Health Administration, Permissible Exposure Limits):

- Made under licence of European Label System® MSDS software from InfoDyne - http://www.infodyne.fr -
### 8.2. Exposure controls

**Personal protection measures, such as personal protective equipment**

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE):

- Eye / face protection
  - Avoid contact with eyes.
  - Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

- Hand protection
  - Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.
  - Gloves must be selected according to the application and duration of use at the workstation.
  - Protective gloves need to be selected according to their suitability for the workstation in question: other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.
  - Recommended properties:
    - Impervious gloves in accordance with standard EN374

- Body protection
  - Work clothing worn by personnel shall be laundered regularly.
  - After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection
  - Avoid breathing dust.
  - Type of FFP mask:
    - Wear a disposable half-mask dust filter in accordance with standard EN149.
  - Category:
    - FFP3

### SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1. Information on basic physical and chemical properties

**General information**

- Physical state: Solid in granules.
- Apparent bulk density (Loose packed): 1400 - 2000 kg/m³
- Color: Grey / brown
- Odour: Odourless

**Important health, safety and environmental information**

- **pH (aqueous solution):** 11 - 12
- **pH:** Not stated.
- **Boiling point/boiling range:** Not relevant.
- **Flash point interval:** Not relevant.
- **Vapour pressure (50°C):** Not relevant.
- **Density:** 2.9 - 3.3
- **Water solubility:** Partially soluble. <2%
- **Melting point/melting range:** Not specified.
- **Self-ignition temperature:** Not specified.
- **Decomposition point/decomposition range:** Not specified.
9.2. Other information
No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity
In contact with water, the product reacts chemically to form stable hydrates. This reaction is exothermic.

10.2. Chemical stability
This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
Avoid:
- formation of dusts
- humidity

10.5. Incompatible materials
None, to our knowledge

10.6. Hazardous decomposition products
The thermal decomposition may release/form:
- carbon monoxide (CO)
- carbon dioxide (CO2)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Known human carcinogen by inhalation.

11.1.1. Substances
Skin corrosion/skin irritation:
CEMENT, ALUMINA, CHEMICALS (CAS: 65997-16-2)
- Corrosivity:
  - No observed effect - Rabbit - OECD 404

Serious damage to eyes/eye irritation:
Dust may cause slight irritation to the ocular mucous membranes due to the presence of a foreign body.
CEMENT, ALUMINA, CHEMICALS (CAS: 65997-16-2)
- Corneal haze & Iritis:
  - Average score < 1 - Rabbit - 72h - OECD 405
  - Conjunctival redness & Conjunctival oedema:
    - Average score < 2 - Rabbit - 72h - OECD 405

11.1.2. Mixture
Skin corrosion/skin irritation:
Slightly irritating to skin

Serious damage to eyes/eye irritation:
Dust may cause slight irritation to the ocular mucous membranes due to the presence of a foreign body.
Lightly irritant for eyes

SECTION 12 : ECOLOGICAL INFORMATION

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances
CEMENT, ALUMINA, CHEMICALS (CAS: 65997-16-2)
- Fish toxicity:
  - CL50 > 100 mg/l - NOEC > 100 mg/l
  - Oncorhynchus mykiss - 96 h - OECD 203
- Crustacean toxicity:
  - CE50 = 6.6 mg/l - NOEC = 1.8 mg/l
  - Daphnia magna - 48 h - OECD 202
- Algae toxicity:
  CEr50 > 5.6 mg/l - NOEC = 3.2 mg/l
Pseudokirchnerella subcapitata - 72 h - OECD 201

12.1.2. Mixtures
No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability
After hydration (several hours or several days under humid conditions), the product is stable in soil and in water, with a negligible mobility of its components.

12.3. Bioaccumulative potential
No data available.

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
No data available.

12.6. Other adverse effects
No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS
The appropriate waste management of the mixture and/or its container must be determined in accordance with local regulations.

13.1. Waste treatment methods
Do not pour into drains or waterways.

Waste:
Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.
Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.
Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging:
Empty container completely. Keep label(s) on container.
Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION
Exempt from transport classification and labelling.

14.1. UN number
-

14.2. UN proper shipping name
-

14.3. Transport hazard class(es)
-

14.4. Packing group
-

14.5. Environmental hazards
-

14.6. Special precautions for user
-

SECTION 15 : REGULATORY INFORMATION
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
The following regulations have been used:
- Container information:
No data available.
- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704):
  NFPA 704, Labelling: Health=3 Inflammability=0 Instability/Reactivity=0 Specific Risk=none

- Clean Water Act: Toxic Pollutants (CWA 307A)
  Unlisted.

- Clean Water Act: Hazardous Substances (CWA 311)
  Unlisted.

- Clean Water Act: Hazardous Substances (CWA 304b)
  Unlisted.

- Clean Water Act: Priority Pollutants (CWA Priority)
  Unlisted.

- Clean Air Act: Hazardous Air Pollutants (CAA 112(b) HAP (188))
  Unlisted.

- Clean Air Act: Organic Hazardous Air Pollutants National Emission Standards (CAA 112(b) HON (387))
  Unlisted.

- Clean Air Act: Protection of Stratospheric Ozone (CAA 602)
  Unlisted.

- SARA 110
  Unlisted.

- SARA 302/304
  Unlisted.

- SARA 313
  Unlisted.

- California proposition 65: Chemicals known to the state to cause cancer or reproductive toxicity
  Unlisted.

- Massachusetts: Right to Know
  Unlisted.

- New Jersey: Right to Know
  CAS 14808-60-7 QUARTZ

- Pennsylvania: Hazardous Substance
  CAS 14808-60-7 QUARTZ

- Rhode Island: Hazardous substance list
  CAS 14808-60-7 QUARTZ

- TSCA (Toxic Substances Control Act) - USA
  All components are listed or exempted.

15.2. Chemical safety assessment
No data available.

SECTION 16: OTHER INFORMATION
Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.
The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.
It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.
The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.
Wording of the phrases mentioned in section 3:
H350i May cause cancer by inhalation.

Abbreviations:
CMR: Carcinogenic, mutagenic or reprotoxic.
ADR: European agreement concerning the international carriage of dangerous goods by Road.
IMDG: International Maritime Dangerous Goods.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organisation
RID: Regulations concerning the International carriage of Dangerous goods by rail.
GHS08: Health hazard
PBT: Persistent, bioaccumulable and toxic.
vPvB: Very persistent, very bioaccumulable.
HCS: Hazard Communication standard (OSHA).