1. Identification

Product identifier HYDROCAL® Dental Gypsum Cements

Other means of identification

- SDS number 52000000010
- Additional Products HYDROCAL® ECONOSTONE, HYDROCAL® X-21 HK Gypsum Cement, HYDROCAL® Marvel Special Gypsum Cement, HYDROCAL® MG Gypsum Cement, HYDROCAL® 105 Gypsum Cement, HYDROCAL® 106 Gypsum Cement, HYDROCAL® B-Base, HYDROCAL® C-Base, Dental Plaster, HYDROCAL® Marvel Yellow Gypsum Cement, HYDROCAL® X-21 Green, HYDROCAL® 105 LP, HYDROCAL® 106 XB, HYDROCAL® X-21 Gypsum Cement, HYDROCAL® X-21 3-5 Min set, HYDROCAL® X-21 Rose 9-12 Min

Synonyms Dental Gypsum Cement

Recommended use Dental Plaster or Dental Stone.

Recommended restrictions Use in accordance with manufacturer's recommendations.

Manufacturer/Importer/Supplier/Distributor information

- Company name United States Gypsum Company
- Address 550 West Adams Street
  Chicago, Illinois 60661-3637
- Telephone 1-800-874-4968
- Website www.usg.com
- Emergency phone number 1-800-507-8899

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

- Hazard symbol None.
- Signal word None.
- Hazard statement None.

Precautionary statement

- Prevention Observe good industrial hygiene practices.
- Response Get medical attention/advice if you feel unwell.
- Storage Store as indicated in Section 7.
- Disposal Dispose of in accordance with local, state, and federal regulations.

Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1)</td>
<td>26499-65-0</td>
<td>&gt; 95</td>
</tr>
</tbody>
</table>

All concentrations are in percent by weight unless ingredient is a gas.

4. First-aid measures

Inhalation Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. Move injured person into fresh air and keep person calm under observation. Get medical attention if symptoms persist.
Skin contact
Contact with dust: Rinse area with plenty of water. Get medical attention if irritation develops or persists.

Eye contact
Dust in the eyes: Do not rub eyes. Flush thoroughly with water. If irritation occurs, get medical assistance.

Ingestion
Plaster of Paris hardens and if ingested may result in stomach and intestinal blockage. Drinking gelatin solutions or large volumes of water may delay setting.

Most important symptoms/effects, acute and delayed
Under normal conditions of intended use, this product is not expected to be a health risk. Dust may irritate throat and respiratory system and cause coughing.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically.

General information
Ensure that medical personnel are aware of the material(s) involved.

5. Fire-fighting measures

Suitable extinguishing media
Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media
Not applicable.

Specific hazards arising from the chemical
Not a fire hazard.

Special protective equipment and precautions for firefighters
Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions
Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
See Section 8 of the SDS for Personal Protective Equipment.

Methods and materials for containment and cleaning up
Vacuum up the spilled material. Vacuums used for this purpose should be equipped with HEPA filters. Containers must be labeled. Collect in approved containers and seal securely. For waste disposal, see Section 13 of the SDS.

Environmental precautions
Avoid discharge to drains, sewers, and other water systems.

7. Handling and storage

Precautions for safe handling
Minimize dust production when mixing, or opening and closing bags. Avoid inhalation of dust. Wear appropriate personal protective equipment. Wash hands after handling. Observe good industrial hygiene practices and use appropriate lifting techniques.

Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well-ventilated place. Store away from incompatible materials. Avoid contact with acids, water, and moisture.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
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<th>Value</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Inhalable fraction.</td>
</tr>
</tbody>
</table>
**US. NIOSH: Pocket Guide to Chemical Hazards**

**Components**

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<td>TWA</td>
<td>5 mg/m³</td>
<td>Respirable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³</td>
<td>Total</td>
</tr>
</tbody>
</table>

**Biological limit values**
No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**
Provide sufficient ventilation for operations causing dust formation. Observe occupational exposure limits and minimize the risk of exposure.

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

- **Eye/face protection**
  Wear approved safety goggles.

- **Skin protection**
  - **Hand protection**
    It is a good industrial hygiene practice to minimize skin contact. For prolonged or repeated skin contact use suitable protective gloves.
  - **Other**
    Normal work clothing (long sleeved shirts and long pants) is recommended.

- **Respiratory protection**
  If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.

- **Thermal hazards**
  None.

**General hygiene considerations**
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment separately from regular wash. Observe any medical surveillance requirements.

**9. Physical and chemical properties**

**Appearance**

- **Physical state**
  Solid.
- **Form**
  Powder.
- **Color**
  White to off-white.
- **Odor**
  Low to no odor.
- **Odor threshold**
  Not applicable.
- **pH**
  6 - 8
- **Melting point/freezing point**
  Not applicable.
- **Initial boiling point and boiling range**
  Not applicable.
- **Flash point**
  Not applicable.
- **Evaporation rate**
  Not applicable.
- **Flammability (solid, gas)**
  Not applicable.

**Upper/lower flammability or explosive limits**

- **Flammability limit - lower (%)**
  Not applicable.
- **Flammability limit - upper (%)**
  Not applicable.
- **Explosive limit - lower (%)**
  Not applicable.
- **Explosive limit - upper (%)**
  Not applicable.
- **Vapor density**
  Not applicable.
- **Relative density**
  2.96 (H₂O=1)
- **Solubility(ies)**
  Solubility (water) 0.15 - 0.4 g/100 g (H₂O)
Partition coefficient
(n-octanol/water) Not applicable.
Auto-ignition temperature Not applicable.
Decomposition temperature 2642 °F (1450 °C)
Viscosity Not applicable.
Other information
  Bulk density 55 - 70 lb/ft³
  Particle size Varies.
  VOC (Weight %) 0 %

10. Stability and reactivity
Reactivity Not available.
Chemical stability Material is stable under normal conditions.
Possibility of hazardous reactions Hazardous polymerization does not occur.
Conditions to avoid When mixed with water this product can become very hot. Encasing or making moulds of any body part can cause serious burns that may require surgical removal of affected tissue and even amputation of encased body part.
Incompatible materials Acids. Exposure to water and acids must be supervised because the reactions are vigorous and produce large amounts of heat.
Hazardous decomposition products Calcium oxides. Sulfur oxides.

11. Toxicological information
Information on likely routes of exposure
  Ingestion Ingestion may cause irritation and stomach discomfort.
  Inhalation Airborne dust may irritate throat and upper respiratory system causing coughing.
  Skin contact Under normal conditions of intended use, this product does not pose a skin hazard.
  Eye contact Direct contact with airborne particulates may cause temporary irritation.
Symptoms related to the physical, chemical and toxicological characteristics Dust may irritate eyes and mucous membranes of the nose, throat and upper respiratory system causing sneezing and/or coughing.

Information on toxicological effects
Acute toxicity Not expected to be a hazard under normal conditions of intended use.
Skin corrosion/irritation Not a skin irritant.
Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization
  Respiratory sensitization Not expected to cause respiratory sensitization based on non-skin sensitization history.
  Skin sensitization Not a skin sensitizer. Plaster of Paris has displayed little sensitization potential.
Germ cell mutagenicity No evidence of mutagenicity found in Ames bacterial tests.
Carcinogenicity This material is not classified as a carcinogen by IARC, ACGIH, NTP or OSHA.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.
Reproductive toxicity Not expected to be a reproductive hazard.
Specific target organ toxicity - single exposure No data available, but none expected.
Specific target organ toxicity - repeated exposure No data available, but none expected.
Aspiration hazard Due to the physical form of the product it is not an aspiration hazard.
Chronic effects No other specific acute or chronic health impact noted.
12. Ecological information

Ecotoxicity
The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)</td>
<td>Aquatic Fish</td>
<td>LC50 Fathead minnow (Pimephales promelas) &gt; 1970 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability
Calcium sulfate dissolves in water forming calcium and sulfate ions.
Bioaccumulative potential
Bioaccumulation is not expected.
Mobility in soil
No data available.
Other adverse effects
None expected.

13. Disposal considerations

Disposal instructions
Dispose in accordance with applicable federal, state, and local regulations. Recycle responsibly.
Local disposal regulations
Dispose of in accordance with local regulations.
Hazardous waste code
Not regulated.
Waste from residues / unused products
Dispose of in accordance with local regulations.
Contaminated packaging
Dispose of in accordance with local regulations.

14. Transport information

DOT
Not regulated as dangerous goods.
IATA
Not regulated as dangerous goods.
IMDG
Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable. This product is a solid. Therefore, bulk transport is governed by IMSBC code.

15. Regulatory information

US federal regulations
This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.
CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No
SARA 302 Extremely hazardous substance
Not listed.
SARA 311/312 Hazardous chemical
No
SARA 313 (TRI reporting)
Not regulated.
Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations

US. Massachusetts RTK - Substance List
Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)

US. New Jersey Worker and Community Right-to-Know Act
Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)

US. Pennsylvania Worker and Community Right-to-Know Law
Plaster of Paris (Calcium Sulfate Hemihydrate CAS 10034-76-1) (CAS 26499-65-0)

US. Rhode Island RTK
Not regulated.

US. California Proposition 65
This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Not listed.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A “Yes” indicates this product complies with the inventory requirements administered by the governing country(s).
A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 05-August-2014
Revision date -
Version # 02

Further information
Plaster of Paris: Is classified as a hazardous substance but is generally considered a safe material for routine use. When plaster of Paris is used responsibly it is not considered as a dangerous material. However, when mixed with water this product can become very hot. DO NOT attempt to make a cast enclosing any part of the body. Encasing any body part can cause serious burns and even amputation of the encased body part.

NFPA Ratings:
Health: 1
Flammability: 0
Physical hazard: 0

Hazard Scale: 0 = Minimal  1 = Slight  2 = Moderate  3 = Serious  4 = Severe

NFPA ratings

Disclaimer
This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.