1. Identification

Product identifier: USG® Glacier™ Basic Acoustical Ceiling Panels

Other means of identification:
- SDS number: 41281160001
- Additional Products: Arctic, Cheyenne™, Frost™ Basic, Frost™, Frost™ High LR, Frost™ Basic Foil-Back, "F" Fissured™ Basic, Frost™ High NRC/High CAC, Sandrift™, Renditions
- Synonyms: Cast Mineral Fiber Ceiling Panels/Tiles

Recommended use: Interior use.

Manufacturer/Importer/Supplier/Distributor information:
- Manufacturer: 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

Supplier: CGC Inc.
- Address: 350 Burnhamthorpe Road West, 5th Floor, Mississauga, Ontario L5B 3J1
- A Subsidiary of USG Corporation
- Telephone: 1-800-387-2690
- Website: www.cgcinc.com
- Emergency phone number: 1-800-507-8899

2. Hazard identification

Physical hazards: Not classified.

Health 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.

Other hazards: None known.

Supplemental information: Not applicable.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slag wool fiber</td>
<td></td>
<td>N/A</td>
<td>&gt; 65</td>
</tr>
<tr>
<td>Calcium sulfate hemihydrate</td>
<td></td>
<td>26499-65-0</td>
<td>&lt; 15</td>
</tr>
</tbody>
</table>
Raw materials and/or coatings in this product contain small amounts of titanium dioxide, which has been classified as possibly carcinogenic to humans by the International Agency for Research on Cancer (IARC). However, per IARC "no significant exposure to primary particles of titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as in paints" (1). See Section 16 for further information.
8. Exposure controls/personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate hemihydrate (CAS 26499-65-0)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td>Kaolin (CAS 1332-58-7)</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Slag wool fiber</td>
<td>TWA</td>
<td>1 fibers/cm³</td>
<td>Fiber, respirable (length &gt; 5 μm and aspect ratio ≥ 3:1)</td>
</tr>
</tbody>
</table>

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate hemihydrate (CAS 26499-65-0)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Kaolin (CAS 1332-58-7)</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Respirable.</td>
</tr>
<tr>
<td>Limestone (CAS 1317-65-3)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Slag wool fiber</td>
<td>TWA</td>
<td>0.2 fibers/cm³</td>
<td>Fiber.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td>Total particulate.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td>Fiber, total</td>
</tr>
</tbody>
</table>

#### Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate hemihydrate (CAS 26499-65-0)</td>
<td>STEL</td>
<td>20 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td>Kaolin (CAS 1332-58-7)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Inhalable.</td>
</tr>
<tr>
<td>Limestone (CAS 1317-65-3)</td>
<td>STEL</td>
<td>20 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td>Slag wool fiber</td>
<td>TWA</td>
<td>0.2 fibers/cm³</td>
<td>Fiber.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td>Inhalable fibers.</td>
</tr>
</tbody>
</table>

#### Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate hemihydrate (CAS 26499-65-0)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td>Kaolin (CAS 1332-58-7)</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

#### Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate hemihydrate (CAS 26499-65-0)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td>Kaolin (CAS 1332-58-7)</td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Slag wool fiber</td>
<td>TWA</td>
<td>0.5 fibers/cc</td>
<td>Respirable fibers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
</tbody>
</table>
### Canada. Quebec OELs (Ministry of Labor - Regulation respecting occupational health and safety)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate hemihydrate (CAS 26499-65-0)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Respirable dust.</td>
</tr>
<tr>
<td>Kaolin (CAS 1332-58-7)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td>Limestone (CAS 1317-65-3)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Respirable dust.</td>
</tr>
<tr>
<td>Slag wool fiber</td>
<td>TWA</td>
<td>1 fibers/cm³</td>
<td>Fiber.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³</td>
<td>fibers, total dust</td>
</tr>
</tbody>
</table>

### Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium sulfate hemihydrate (CAS 26499-65-0)</td>
<td>15 minute</td>
<td>20 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 hour</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Kaolin (CAS 1332-58-7)</td>
<td>15 minute</td>
<td>4 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td>8 hour</td>
<td>2 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Limestone (CAS 1317-65-3)</td>
<td>15 minute</td>
<td>20 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 hour</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Slag wool fiber</td>
<td>15 minute</td>
<td>10 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td></td>
<td>8 hour</td>
<td>0.2 fibers/cc</td>
<td>Respirable fibers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td>Inhalable fraction.</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 minimise the risk of exposure.

Cut and trim with a utility knife or hand saw to minimize dust levels. If a router is used it must have a dust collection system. Operations such as power cutting, power kerfing or using compressed air to remove dust are not recommended (2). See Section 16 for further information.

### 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 minimise 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.
- **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**: Panel or tile.
- **Colour**: Various colors.
- **Odour**: Low to no odour.
- **Odour threshold**: Not applicable.
- **pH**: 9
- **Melting point/freezing point**: 1204.44 °C (2200 °F) (Slag wool)
Initial boiling point and boiling range
Flash point
Evaporation rate
Flammability (solid, gas)
Upper/lower flammability or explosive limits
  Flammability limit - lower (%)
  Flammability limit - upper (%)
  Explosive limit - lower (%)
  Explosive limit – upper (%)
Vapour pressure
Vapour density
Relative density  0.39 - 0.49 (H2O=1)
Solubility(ies)
  Solubility (water)
Partition coefficient (n-octanol/water)
Auto-ignition temperature
Decomposition temperature
Viscosity
Other information
  Bulk density  24 - 30 lb/ft³
  Explosive properties  Not explosive.
  Oxidising properties  Not oxidising.
  VOC  0 % (See section 16 for further detail)

10. Stability and reactivity
Reactivity  The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability  Material is stable under normal conditions.
Possibility of hazardous reactions  Hazardous polymerisation does not occur.
Conditions to avoid  Contact with incompatible materials.
Incompatible materials  Acids. Strong oxidising agents.
Hazardous decomposition products  No hazardous decomposition products are known.

11. Toxicological information
Information on likely routes of exposure
  Inhalation  Inhalation of dusts may cause respiratory irritation.
  Skin contact  May cause irritation through mechanical abrasion.
  Eye contact  Direct contact with airborne particulates may cause temporary irritation.
  Ingestion  Ingestion may cause irritation and stomach discomfort.
Symptoms related to the physical, chemical and toxicological characteristics  Under normal conditions of intended use, this material does not pose a risk to health.
Information on toxicological effects
  Acute toxicity  Not expected to be a hazard under normal conditions of intended use.
  Skin corrosion/irritation  Prolonged skin contact may cause temporary irritation.
  Serious eye damage/eye irritation  Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitisation

**Canada - Alberta OELs:** Irritant
- Slag wool fiber (CAS N/A) Irritant

**Respiratory sensitisation**
No data available, but none expected.

**Skin sensitisation**
This product is not expected to cause skin sensitisation.

**Germ cell mutagenicity**
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**
Not expected to cause cancer.

**ACGIH Carcinogens**
- Slag wool fiber (CAS N/A) Suspected human carcinogen.

**Canada - Manitoba OELs:** carcinogenicity

**Canada - Quebec OELs:** Carcinogen category
- Slag wool fiber (CAS N/A) Detected carcinogenic effect in animals.

**Reproductive toxicity**
No data available.

**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.

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>Calcium sulfate hemihydrate (CAS 26499-65-0)</td>
<td>Fathead minnow (Pimephales promelas)</td>
<td>LC50 &gt; 1970 mg/l, 96 hours</td>
</tr>
<tr>
<td>Aquatic Fish</td>
<td>Daphnia magna</td>
<td>EC50 &gt; 100 mg/l, 48 Hours</td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>Daphnia magna</td>
<td>LL50 &gt; 100 mg/l, 96 Hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**
No data is available on the degradability of this product.

**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**
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products**
Dispose of in accordance with local regulations.

**Contaminated packaging**
Dispose of in accordance with local regulations.

14. Transport information

**TDG**
Not regulated as dangerous goods.

**IATA**
Not regulated as dangerous goods.
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

Canadian regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act
Not regulated.

Export Control List (CEPA 1999, Schedule 3)
Not listed.

Greenhouse Gases
Not listed.

Precursor Control Regulations
Not regulated.

International regulations

Stockholm Convention
Not applicable.

Rotterdam Convention
Not applicable.

Kyoto Protocol
Not applicable.

Montreal Protocol
Not applicable.

Basel Convention
Calcium sulfate hemihydrate (CAS 26499-65-0)

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>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<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

Issue date: 25-March-2019
Revision date: 01-November-2019
Version No.: 02
Slag Wool Fiber: Large morbidity and mortality studies of both European and North American mineral wool manufacturing workers have been conducted. These studies have found no significant association of non-malignant (i.e. fibrosis) or malignant (i.e., lung cancer or mesothelioma) lung disease and exposures to slag wool fibers and have not established a causal relationship between exposure and non-malignant or malignant diseases.

In 2001, the International Agency for Research on Cancer (IARC) assigned slag wool fiber to the Group 3 category ["not classifiable as to carcinogenicity to humans"]. The synthetic mineral fiber used in this product is exonerated from classification as a carcinogen in accordance with Note Q in the EU Commission Directive 97/69/EC.

Titanium dioxide: Raw materials and/or coatings in this product contain small amounts of titanium dioxide. The International Agency for Research on Cancer (IARC) has determined that titanium dioxide is possibly carcinogenic to humans (Group 2B) based on inadequate evidence in humans and sufficient evidence in experimental animals. This conclusion relates to long-term inhalation exposure to high concentrations of pigmentary (powdered) or ultrafine titanium dioxide. However, no significant exposure to primary particles of titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as in paints. The available human studies do not suggest an association between occupational exposure to titanium dioxide and risk for cancer. The American Conference of Governmental Industrial Hygienists (ACGIH) has designated this chemical as not classifiable as a human carcinogen (A4). The US National Toxicology Program (NTP) has not listed this chemical in its report on carcinogens.

VOC Emissions: USG certifies the products listed in Section 1 of this SDS as Low-Emitting, defined as below the emissions of the concentration for each individual volatile organic chemical of concern (VOC) as specified in the Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Small-Scale Environmental Chambers Version 1.1 [CDPH/EHLB/Standard Method V1.1 (February 2010); aka, chamber testing portion of CA Section 01350] and ASTM Guide D5116-06.

NFPA Ratings:
Health: 1
Flammability: 0
Physical hazard: 0
Hazard Scale: 0 = Minimal  1 = Slight  2 = Moderate  3 = Serious  4 = Severe

References
EPA: AQUIRE database
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents
Taiwan. Dangerous Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)
Taiwan. Industrial Precursor Chemicals (Categories and Regulations Governing Inspection and Declaration of Industrial Precursor Chemicals, MOEA Decree No. 87, as amended)
Taiwan. OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials)
Taiwan. Toxic Chemical Substances (TCS) (List of Toxic Chemical Substances announced by the Environmental Protection Administration)
Taiwan. Toxic Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits
GOST 30333-2007 - Chemical production safety passport. General requirements
JIS Z 7252:2009 Classification of chemicals based on “Globally Harmonized System of Classification and Labelling of Chemicals (GHS)”
JIS Z 7253:2012 Hazard communication of chemicals based on GHS – Labelling and Safety Data Sheet (SDS)
Japan Chemical Industry Association (JCIA) GHS Guideline, June 2012

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.