SAFETY DATA SHEET

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.

Recommended restrictions None known.

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

Chemical name	Common name and synonyms	CAS number	%
Slag wool fiber		N/A	> 65
Calcium sulfate hemihydrate		26499-65-0	< 15

Limestone	1317-65-3	< 5
Kaolin	1332-58-7	< 2
Titanium dioxide	13463-67-7	< 0.25

Composition comments All concentrations are in percent by weight.

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.

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 Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed Under normal conditions of intended use, this material does not pose a risk to health. 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.

Specific methods Cool material exposed to heat with water spray and remove it if no risk is involved.

General fire hazards No unusual fire or explosion hazards noted.

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 No specific clean-up procedure noted. 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 Use work methods which minimise dust production. Avoid inhalation of dust and contact with skin and eyes. Wear appropriate personal protective equipment. Wash hands after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store away from incompatible materials.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

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

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

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

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

Components	Type	Value	Form
Calcium sulfate hemihydrate (CAS 26499-65-0)	STEL	20 mg/m3	Total dust.
	TWA	10 mg/m3	Inhalable
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable.
Limestone (CAS 1317-65-3)	STEL	20 mg/m3	Total dust.
	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Total dust.
Slag wool fiber	TWA	0.2 fibers/cm3	Fiber.
		5 mg/m3	Inhalable fibers.

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

Components	Type	Value	Form
Calcium sulfate hemihydrate (CAS 26499-65-0)	TWA	10 mg/m3	Inhalable fraction.
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable fraction.

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

Components	Type	Value	Form
Calcium sulfate hemihydrate (CAS 26499-65-0)	TWA	10 mg/m3	Inhalable fraction.
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable fraction.
Slag wool fiber	TWA	0.5 fibers/cc	Respirable fibers.
		5 mg/m3	Inhalable fraction.

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
Calcium sulfate hemihydrate (CAS 26499-65-0)	TWA	5 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
Kaolin (CAS 1332-58-7)	TWA	5 mg/m3	Respirable dust.
Limestone (CAS 1317-65-3)	TWA	10 mg/m3	Total dust.
Slag wool fiber	TWA	1 fibers/cm3n	Fiber.
		10 mg/m3	fibers, total dust

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

Components	Type	Value	Form
Calcium sulfate hemihydrate (CAS 26499-65-0)	15 minute	20 mg/m3	
	8 hour	10 mg/m3	
Kaolin (CAS 1332-58-7)	15 minute	4 mg/m3	Respirable fraction.
	8 hour	2 mg/m3	Respirable fraction.
Limestone (CAS 1317-65-3)	15 minute	20 mg/m3	
	8 hour	10 mg/m3	
Slag wool fiber	15 minute	10 mg/m3	Inhalable fraction.
	8 hour	0.2 fibers/cc	Respirable fibers.
		5 mg/m3	Inhalable fraction.

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	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.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	0.39 - 0.49 (H2O=1)
Solubility(ies)	
Solubility (water)	Very low solubility in water.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not applicable.
Viscosity	Not applicable.
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

Kaolin (CAS 1332-58-7)	A4 Not classifiable as a human carcinogen.

Canada - Alberta OELs: Carcinogen category

Slag wool fiber (CAS N/A)	Suspected human carcinogen.

Canada - Manitoba OELs: carcinogenicity

Kaolin (CAS 1332-58-7)	Not classifiable as a human carcinogen.

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.

Components		Species	Test Results
Calcium sulfate hemihydrate (CAS 26499-65-0)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	> 1970 mg/l, 96 hours
Titanium dioxide (CAS 13463-67-7)			
Aquatic			
Acute			
Crustacea	EC50	Daphnia magna	> 100 mg/l, 48 Hours
Fish	LL50	Oryzias latipes	> 100 mg/l, 96 Hours

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.

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

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

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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

Further information

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

1.) International Agency for Research on Cancer (IARC). Volume 93: Carbon Black, Titanium Dioxide, and Talc; (5. Summary of data reported). IARC, 2010. Available at: <http://monographs.iarc.fr/ENG/Monographs/vol93/mono93.pdf>
2.) North American Insulation Manufacturer's Association (NAIMA). Working Smart with Fiber Glass, Rock Wool and Slag Wool Products. NAIMA, 2007. Available at: <http://insulationinstitute.org/wp-content/uploads/2016/02/N059.pdf> ACGIH
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.