

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	Mineral Core
Product use	Core for fire door and temperature rise metal doors
Product List	See Product List found in Section 16
Manufacturer information	Georgia-Pacific Gypsum LLC 133 Peachtree Street, NE Atlanta, GA 30303 MSDS Request 404.652.5119 Technical Information 800.225.6119 Chemtrec - Emergency 800.424.9300

2. Hazards Identification

Emergency overview	CAUTION! Sawing, sanding, drilling, or routing this product may generate dust. Dust can be irritating to the eyes, skin, and respiratory system.
Potential health effects	
Eyes	Dust may cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Skin	Dust may produce itching, rash, and redness. Handling can cause dry skin.
Inhalation	Dust may cause respiratory tract irritation.
Ingestion	Not applicable under normal conditions of use. May result in obstruction or temporary irritation of the digestive tract.

3. Composition / Information on Ingredients

Components	CAS #	Percent
PERLITE	93763-70-3	40 - 70
GYPSUM (CALCIUM SULFATE)	10101-41-4	15 - 40
FIRECLAYS**	Varied	10 - 30
SODIUM SILICATE***	1344-09-8	10 - 30
PORTLAND CEMENT*	65997-15-1	7 - 13
STARCH****	9005-27-0	7 - 13
DIATOMACEOUS EARTH**	68855-54-9	5 - 10
CRISTOBALITE**	14464-46-1	3 - 7
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	1 - 5
POLYVINYL ALCOHOL*	9002-89-5	1 - 5
CONTINUOUS FILAMENT GLASS FIBERS	65997-17-3	0.5 - 1.5

Composition comments	* - Contained only in White Core FD OR-001/MO-001 and Steel Dore Core FD MO-002 formulas. ** - Contained only in Blue Core FD OR-002 formula. *** - Contained only in White Core FD MO-001/Blue Core FD OR-002 formulas. **** - Contained only in Steel Door Core MO-002 formula.
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Gypsum (calcium sulfate), Portland Cement, perlite, fireclays, and diatomaceous earth contain naturally occurring crystalline silica (quartz) which is listed as a lung carcinogen. See Section 8 for exposure information.

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, seek medical attention.
Skin contact	For skin contact, wash immediately with soap and water. Get medical attention if irritation develops or persists.
Inhalation	Remove to fresh air. If symptoms persist, obtain medical attention.
Ingestion	May result in obstruction and irritation if ingested. Get medical attention.

5. Fire Fighting Measures

Flammable properties	Not flammable by OSHA/WHMIS criteria.
Extinguishing media	
Suitable extinguishing media	Treat for surrounding material.
Fire fighting equipment/instructions	Firefighters should wear full protective clothing including self contained breathing apparatus.
Explosion data	
Sensitivity to static discharge	Not applicable.
Sensitivity to mechanical impact	Not applicable.
Hazardous combustion products	May include, and are not limited to: calcium oxide and sulfur dioxide.

6. Accidental Release Measures

Personal precautions	Use personal protection recommended in Section 8. Keep unnecessary personnel away from the release.
Environmental precautions	Keep out of drains, sewers, ditches, and waterways.
Methods for containment	Pick up large pieces, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use personal protection recommended in Section 8.
Methods for cleaning up	Sweep up or gather material and place in appropriate container for disposal.

7. Handling and Storage

Handling	Avoid contact with skin and eyes. Do not breathe dust. Use only in well-ventilated areas. Handle with care. Do not eat or drink while using the product. Wash hands before eating, drinking, or smoking.
Storage	Keep away from children. Store level and keep dry. Dewpoint or other conditions causing the presence of moisture can damage the product during storage.

8. Exposure Controls / Personal Protection

Control parameters

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
CRISTOBALITE** (14464-46-1)	TWA	0.025 mg/m3	Respirable fraction.
CRYSTALLINE SILICA (QUARTZ) (14808-60-7)	TWA	0.025 mg/m3	(Respirable fraction)
GYPSUM (CALCIUM SULFATE) (10101-41-4)	TWA	10 mg/m3	Inhalable fraction.
PORTLAND CEMENT* (65997-15-1)	TWA	1 mg/m3	Respirable fraction; containing no asbestos and less than 1% crystalline silica.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
CRISTOBALITE** (14464-46-1)	TWA	1.2 mppcf	Respirable.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
CRYSTALLINE SILICA (QUARTZ) (14808-60-7)	TWA	0.15 mg/m3	Total dust.
		0.05 mg/m3	Respirable.
		0.1 mg/m3	Respirable.
GYPSUM (CALCIUM SULFATE) (10101-41-4)	TWA	0.1 mg/m3	Changed value
		3.3 mg/m3	(Respirable fraction)
		10 mg/m3	(Total dust)
		15 mg/m3	Total dust.
PORTLAND CEMENT* (65997-15-1)	TWA	5 mg/m3	Respirable fraction.
		5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

Exposure guidelines

The US OSHA exposure limits for CRYSTALLINE SILICA (QUARTZ) are calculated from the following equations: $30/(\%SiO_2+2)$ mg/m3 for total dust; and $10/(\%SiO_2+2)$ mg/m3 for the respirable fraction.

* - Contained only in White Core FD OR-001/MO-001 formulas.

** - Contained only in Blue Core FD OR-002 formula.

*** - Contained only in White Core FD MO-001/Blue Core FD OR-002 formulas.

Engineering controls

When sawing, sanding, drilling, or routing this product, provide local and general exhaust ventilation to keep airborne dust concentrations below exposure limits. Use wet methods, if appropriate, to reduce generation of dust.

Personal protective equipment**Eye / face protection**

Safety glasses or goggles are recommended when using this product. Ensure compliance with OSHA's PPE standard (29 CFR 1910.132 and .133) for eye and face protection. Safety shower/eye wash fountain must be readily available in the workplace area (29 CFR 1910.151(c)).

Skin protection

Impervious protective clothing and gloves recommended to prevent drying or irritation of skin. Ensure compliance with OSHA's PPE standards (29 CFR 1910.132 (general) and 138 (hand protection)). Safety shower/eye wash fountain is recommended in the workplace area (29 CFR 1910.151 (c)).

Respiratory protection

A NIOSH approved dust mask or filtering facepiece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

9. Physical & Chemical Properties

Appearance	Composite core door panel
Color	Grey, blue
Form	Not available.
Odor	Odorless
Odor threshold	Not available
pH	7 - 9
Freezing point	2564.6 °F (1407.23 °C) estimated
Boiling point	Not applicable
Flash point	Not applicable
Evaporation rate	Not available
Flammability	Not flammable
Flammability limits in air, upper, % by volume	Not applicable
Flammability limits in air, lower, % by volume	Not applicable
Vapor pressure	0.655 hPa estimated Not applicable
Vapor density	Not applicable
Specific gravity	0.5

	2.74352 estimated
Partition coefficient (n-octanol/water)	Not available
Solubility (water)	<0.2 at 22°C
Auto-ignition temperature	Not applicable

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions of reactivity	None known.
Incompatible materials	None known.
Hazardous decomposition products	May include and are not limited to: calcium oxide and sulfur dioxide.

11. Toxicological Information

Toxicological information (Ingredients)

GYPSUM (CALCIUM SULFATE) (CAS # 10101-41-4)

Toxicology Data - Selected LD50s and LC50s

Oral LD50 Mouse: 5824 mg/kg
Oral LD50 Rat: 3000 mg/kg

SODIUM SILICATE*** (CAS # 1344-09-8)

Toxicology Data - Selected LD50s and LC50s

Oral LD50 Rat: 1153 mg/kg
Dermal LD50 Rabbit: 4640 mg/kg
Oral LD50 Mouse: 1100 mg/kg
Oral LD50 Rat: 1.1 g/kg

Routes of exposure Not available.

Sensitization Not expected to be hazardous by OSHA/WHMIS criteria.

Chronic effects Hazardous by OSHA/WHMIS criteria.

Exposure to respirable crystalline silica in the form of quartz or cristobalite from occupational sources is listed by IARC and NTP as a lung carcinogen. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease, which may be disabling. While there may be a factor of individual susceptibility to a given exposure to a respirable silica dust, the risk of contracting silicosis and the severity of the disease is clearly related to the amount of respirable crystalline silica exposure and the length of time (usually years) of exposure.

Carcinogenicity Hazardous by OSHA/WHMIS criteria.

ACGIH Carcinogens

CRISTOBALITE** (CAS 14464-46-1)

US ACGIH Threshold Limit Values: A2 carcinogen

CRYSTALLINE SILICA (QUARTZ) (CAS 14808-60-7)

US ACGIH Threshold Limit Values: A2 carcinogen

IARC Monographs. Overall Evaluation of Carcinogenicity

CRISTOBALITE** (CAS 14464-46-1)

1 Volume 68, Volume 100C

CRYSTALLINE SILICA (QUARTZ) (CAS 14808-60-7)

1 Volume 68, Volume 100C

POLYVINYL ALCOHOL* (CAS 9002-89-5)

3 Volume 19, Supplement 7

Mutagenicity Not expected to be hazardous by OSHA/WHMIS criteria.

Reproductive effects Not expected to be hazardous by OSHA/WHMIS criteria.

Teratogenicity Not expected to be hazardous by OSHA/WHMIS criteria.

Synergistic materials Not available.

12. Ecological Information

Ecotoxicity Not considered to be harmful to aquatic life.

Components

Test Results

GYPSUM (CALCIUM SULFATE) (10101-41-4)

LC50 Fish: 2980 96.00 Hours

SODIUM SILICATE*** (1344-09-8)

LC50 Western mosquitofish (Gambusia affinis): 1800 mg/l
96.00 hours

13. Disposal Considerations

Disposal instructions

This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

14. Transport Information

DOT

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

15. Regulatory Information

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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Section 302 extremely hazardous substance	No
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Section 311 hazardous chemical	Yes
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Section 313 hazardous chemical	No
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Canadian regulations

Canada WHMIS Ingredient Disclosure: Threshold limits

CRISTOBALITE** (CAS 14464-46-1)	1 %
CRYSTALLINE SILICA (QUARTZ) (CAS 14808-60-7)	1 %
DIATOMACEOUS EARTH** (CAS 68855-54-9)	1 %

WHMIS status	Non-controlled
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Inventory status

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 that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Product list

White Core FD	OR-001
Blue Core FD	OR-002
White Core FD	MO-001
Steel Door Core	MO-002

HMIS® ratings

Health: 1*
Flammability: 0
Physical hazard: 0

NFPA ratings

Health: 1
Flammability: 0
Instability: 1

Disclaimer

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