

1. Product and Company Identification

Material name Fireguard® Gypsum Boards
Product use Non-combustible gypsum boards used in wall, floor, and ceiling applications.
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!
Cutting, sanding, or otherwise working with this product may generate large amounts of 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 and glass fibers 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 and temporary irritation of the digestive tract.

3. Composition / Information on Ingredients

Components	CAS #	Percent
GYPSUM (CALCIUM SULFATE)	10101-41-4	60 - 100
VERMICULITE (NON-ASBESTOS CONTAINING)**	1318-00-9	3 - 7
CRYSTALLINE SILICA (QUARTZ)*	14808-60-7	1 - 5
CONTINUOUS FILAMENT GLASS FIBER	65997-17-3	0.1 - 1

Composition comments Gypsum (calcium sulfate) and vermiculite contain naturally occurring crystalline silica (quartz) which is listed as a lung carcinogen. See Section 8 for exposure information.

*The weight percent for crystalline silica represents total crystalline silica and not the respirable fraction. Testing conducted by Georgia-Pacific did not detect respirable crystalline silica during activities associated with the normal use of this product; however, jobsite air monitoring should be conducted to determine actual exposure when permissible exposure limits may be exceeded.

** Found in products in List B, Section 16 of this MSDS.

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

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

Contain the spill, then place in a suitable container. Minimize dust generation.

Methods for cleaning up

Sweep up or gather material and place in an appropriate container for disposal. Utilize wet methods, if appropriate, to minimize dust.

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

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

ACGIH

Components

Components	Type	Value	Form
CRYSTALLINE SILICA (QUARTZ)* (14808-60-7)	TWA	0.025 mg/m ³	(Respirable fraction)
GYPSUM (CALCIUM SULFATE) (10101-41-4)	TWA	10 mg/m ³	Inhalable fraction.

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

Components

Components	Type	Value	Form
CRYSTALLINE SILICA (QUARTZ)* (14808-60-7)	TWA	0.1 mg/m ³	Respirable.
		3.3 mg/m ³	(Respirable fraction)
		10 mg/m ³	(Total dust)
		0.1 mg/m ³	Changed value
GYPSUM (CALCIUM SULFATE) (10101-41-4)	TWA	15 mg/m ³	Total dust.
		5 mg/m ³	Respirable fraction.

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.

*The weight percent for crystalline silica represents total crystalline silica and not the respirable fraction. Testing conducted by Georgia-Pacific did not detect respirable crystalline silica during activities associated with the normal use of this product; however, jobsite air monitoring should be conducted to determine actual exposure when permissible exposure limits may be exceeded.

**Found in products in List B, Section 16 of this MSDS.

Engineering controls

Score and snap method recommended. When using product, provide local and general exhaust ventilation to keep airborne dust concentrations below exposure limits. Use wet methods, if appropriate, to reduce the 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 is recommended 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	Gypsum boards
Color	Facing color varies
Form	Solid
Odor	Low odor
Odor threshold	Not available
pH	7
Freezing point	2642 °F (1450 °C) estimated
Boiling point	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability	Not flammable
Flammability limits in air, upper, % by volume	Not applicable
Flammability limits in air, lower, % by volume	Not applicable
Vapor pressure	0 hPa estimated Not applicable
Vapor density	Not applicable
Specific gravity	2.2 - 2.4 2.96 estimated
Partition coefficient (n-octanol/water)	Not available
Solubility (water)	0.2 % @ 22°C
Auto-ignition temperature	Not applicable

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions of reactivity	Contact with strong acids produces carbon dioxide.
Incompatible materials	Acids.
Hazardous decomposition products	May include and are not limited to: calcium oxide and sulfur dioxide.

11. Toxicological Information

Toxicological information	No toxicological data available for this product. Toxicological information for components of this product is listed below.
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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

Routes of exposure	Eyes, skin, respiratory system.
Sensitization	Not expected to be hazardous by OSHA/WHMIS criteria.

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

Carcinogenicity Not expected to be 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.

ACGIH Carcinogens

CRYSTALLINE SILICA (QUARTZ)* (CAS 14808-60-7) US ACGIH Threshold Limit Values: A2 carcinogen

IARC Monographs. Overall Evaluation of Carcinogenicity

CRYSTALLINE SILICA (QUARTZ)* (CAS 14808-60-7) 1 Volume 68, Volume 100C

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

13. Disposal Considerations

Disposal instructions 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 - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Section 313 hazardous chemical No

Canadian regulations

Canada WHMIS Ingredient Disclosure: Threshold limits

CRYSTALLINE SILICA (QUARTZ)* (CAS 14808-60-7) 1 %

WHMIS status Controlled

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

Country(s) or region	Inventory name	On inventory (yes/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

Product List A:

- Toughrock® Fireguard® Gypsum Board
 - Toughrock® Fireguard® Veneer Plaster Board
 - Toughrock® Fireguard® Backer Board
 - Toughrock® Fireguard® Soffit Board
 - Toughrock® Fireguard® Abuse-Guard Gypsum Board
 - Toughrock® Mold-Guard™ Type-X Gypsum Board
 - DensArmor Plus® Fireguard® High-Performance Interior Panel
 - DensArmor Plus® Fireguard® Abuse-Resistant Interior Panel
 - DensArmor Plus® Fireguard® Impact-Resistant Interior Panel
 - DensShield® Fireguard® Tile Backer
 - DensDeck®, DensDeck® Prime, and DensDeck®
 - DuraGuard Fireguard® Roof Board
 - DensGlass® Fireguard® Sheathing
- Product List B:
- Toughrock® Fireguard C™ Gypsum Board
 - DensArmor Plus® Fireguard C™ High-Performance Interior Panel

HMIS® ratings Health: 1
Flammability: 0
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 0
Instability: 0

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Effective Date 04-Apr-2012
Prepared by Georgia-Pacific LLC
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