

# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Material name</b>	<b>Paper Faced Gypsum Panels</b>
<b>Product use</b>	Products accommodate wide range of wall, floor and ceiling applications and soffit treatments.
<b>Product list</b>	See Product List found in Section 16
<b>Manufacturer information</b>	Georgia-Pacific Gypsum LLC Georgia-Pacific Gypsum II LLC 133 Peachtree Street, NE Atlanta, GA 3030 MSDS Request 404.652.5119 Technical Information 800.225.6119 Chemtrec - Emergency 800.424.9300

## 2. Hazards Identification

<b>Emergency overview</b>	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.
<b>Potential health effects</b>	
<b>Eyes</b>	Dust may cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
<b>Skin</b>	Dust and glass fibers may produce itching, rash, and redness. Handling can cause dry skin.
<b>Inhalation</b>	Dusts of this product may cause irritation to the nose, throat, or respiratory tract.
<b>Ingestion</b>	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/Wt
GYPSUM (CALCIUM SULFATE, DIHYDRATE)	10101-41-4	60 - 100
VERMICULITE (NON-ASBESTOS CONTAINING)****	1318-00-9	1 - 3
BORIC ACID**	10043-35-3	0.1 - 1
CONTINUOUS FILAMENT GLASS FIBERS***	65997-17-3	0.1 - 1
CRYSTALLINE SILICA (QUARTZ)*	14808-60-7	1 - 5

<b>Composition comments</b>	** Found in products in List B, C and F, Section 16 of this MSDS. *** Found in products in List C, D, E and F, Section 16 of this MSDS. **** Found in products in List E and F, Section 16 of this MSDS.
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Gypsum (calcium sulfate, dihydrate) contains naturally occurring silica crystalline (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.

## 4. First Aid Measures

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

## 5. Fire Fighting Measures

<b>Flammable properties</b>	Not flammable by OSHA/WHMIS criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Fire fighting equipment/instructions</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Explosion data</b>	
<b>Sensitivity to static discharge</b>	Not applicable.
<b>Sensitivity to mechanical impact</b>	Not applicable.
<b>Hazardous combustion products</b>	May include, and are not limited to: calcium oxide and sulfur dioxide.

## 6. Accidental Release Measures

<b>Personal precautions</b>	Use personal protection recommended in Section 8. Keep unnecessary personnel away from the release.
<b>Environmental precautions</b>	Keep out of drains, sewers, ditches, and waterways.
<b>Methods for containment</b>	Contain the spill, then place in a suitable container. Minimize dust generation.
<b>Methods for cleaning up</b>	Sweep up or gather material and place in appropriate container for disposal. Utilize wet methods, if appropriate, to minimize dust.

## 7. Handling and Storage

<b>Handling</b>	Avoid contact with skin and eyes. Use only in well-ventilated areas. Handle and open container with care. Wear appropriate NIOSH approved dust mask or filtering facepiece if dust is generated. Do not eat or drink while using the product. Wash hands before eating, drinking, or smoking.
<b>Storage</b>	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

### Occupational exposure limits

<b>ACGIH Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
CRYSTALLINE SILICA (QUARTZ)* (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	(Respirable fraction)
GYPSUM (CALCIUM SULFATE, DIHYDRATE) (CAS 10101-41-4)	TWA	10 mg/m <sup>3</sup>	(Inhalable fraction)
<b>US ACGIH Threshold Limit Values: Short Term Exposure Limit (STEL): mg/m<sup>3</sup></b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
BORIC ACID** (CAS 10043-35-3)	STEL	6 mg/m <sup>3</sup>	Inhalable fraction.
<b>US ACGIH Threshold Limit Values: Time Weighted Average (TWA): mg/m<sup>3</sup>, non-standard units</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
BORIC ACID** (CAS 10043-35-3)	TWA	2 mg/m <sup>3</sup>	Inhalable fraction.
<b>U.S. - OSHA Components</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	<b>Form</b>
GYPSUM (CALCIUM SULFATE, DIHYDRATE) (CAS 10101-41-4)	TWA	5 mg/m <sup>3</sup>	(Respirable fraction)
		15 mg/m <sup>3</sup>	(Total dust)

**US OSHA Table Z-3: Calculated Time Weighted Average (TWA) (mg/m3)**

Components	Type	Value	Form
CRYSTALLINE SILICA (QUARTZ)* (CAS 14808-60-7)	TWA	10 mg/m3	Total dust.

**US OSHA Table Z-3: Calculated Time Weighted Average (TWA) (Non-standard unit)**

Components	Type	Value	Form
CRYSTALLINE SILICA (QUARTZ)* (CAS 14808-60-7)	TWA	3.3 mg/m3	(Respirable fraction)

**Exposure guidelines**

\*Exposure limits for CRYSTALLINE SILICA - The US OSHA exposure limits 8 hour TWA 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.

**US ACGIH Threshold Limit Values: Short Term Exposure Limit (STEL): mg/m3**

BORIC ACID\*\* (CAS 10043-35-3)

US ACGIH Threshold Limit Values: Short Term Exposure Limit (STEL): mg/m3

**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**

<b>Appearance</b>	Paper faced gypsum boards
<b>Color</b>	Facing color varies
<b>Form</b>	Solid
<b>Odor</b>	Odorless
<b>Odor threshold</b>	Not available.
<b>pH</b>	7
<b>Melting point/Freezing point</b>	Not applicable
<b>Boiling point</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	Not available
<b>Flammability</b>	Not flammable
<b>Flammability limits in air, upper, % by volume</b>	Not applicable
<b>Flammability limits in air, lower, % by volume</b>	Not applicable
<b>Vapor pressure</b>	Not applicable
<b>Vapor density</b>	Not applicable
<b>Specific gravity</b>	2.2 - 2.4

<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Solubility (water)</b>	0.2 % @ 22°C
<b>Auto-ignition temperature</b>	Not applicable

## 10. Chemical Stability & Reactivity Information

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

## 11. Toxicological Information

<b>Routes of exposure</b>	Skin contact. Eye contact. Inhalation.
<b>Toxicological information</b>	No toxicological data available for this product. Toxicological information for components of this product is listed below.

### Toxicological information (Ingredients)

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

Toxicology Data - Selected LD50s and LC50s

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

#### BORIC ACID\*\* (CAS # 10043-35-3)

Toxicology Data - Selected LD50s and LC50s

Oral LD50 Rat: 2660 mg/kg  
Dermal LD50 Rabbit: 2000 mg/kg  
Inhalation LC50 Rat: 0.16 mg/l/4h  
Oral LD50 Chicken: 2.95 g/kg  
Oral LD50 Dog: 2000 mg/kg  
Oral LD50 Mouse: 3450 mg/kg  
Inhalation LC50 Rat: 0.002 mg/l  
Dermal LD50 Rabbit: 2000 mg/kg  
Other LD50 Guinea pig: 1200 mg/kg  
Other LD50 Mouse: 1240 mg/kg  
Other LD50 Rat: 1330 mg/kg

<b>Sensitization</b>	Not expected to be hazardous by OSHA/WHMIS criteria.
<b>Chronic effects</b>	Not expected to be hazardous by OSHA/WHMIS criteria.
<b>Carcinogenicity</b>	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) IARC Monographs: Overall evaluation 1 Volume 68, Volume 100C

<b>Mutagenicity</b>	Not expected to be hazardous by OSHA/WHMIS criteria.
<b>Reproductive effects</b>	Not expected to be hazardous by OSHA/WHMIS criteria.
<b>Teratogenicity</b>	Not expected to be hazardous by OSHA/WHMIS criteria.
<b>Synergistic materials</b>	Not available.

## 12. Ecological Information

<b>Ecotoxicity</b>	Not considered to be harmful to aquatic life.
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### Ecotoxicological data

Components	Species	Test Results
BORIC ACID** (CAS 10043-35-3)		
Crustacea	EC50 Daphnia	766.5 mg/L, 48 Hours

Components	Species	Test Results
<b>Aquatic</b>		
Fish	LC50	Razorback sucker ( <i>Xyrauchen texanus</i> ) > 100 mg/l, 96 hours
GYPSUM (CALCIUM SULFATE, DIHYDRATE) (CAS 10101-41-4)		
Fish	LC50	Fish 2980 mg/l, 96 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**

BORIC ACID\*\* (CAS 10043-35-3) 1 %  
 CRYSTALLINE SILICA (QUARTZ)\* (CAS 14808-60-7) 1 %

**WHMIS status** Non-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
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® Veneer Plaster Base (Blueboard)
- ToughRock® Flexroc® Gypsum Board
- ToughRock® Mold-Guard™ Gypsum Board
- ToughRock® Basement Board® Gypsum Board
- ToughRock® Sound Deadening Gypsum Board
- ToughRock® Stretch 54® Gypsum Board
- ToughRock® SOFFIT Board
- Stretch54® Gypsum Board
- Water-Resistant Gypsum Board

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**Product list**

Product List B

- ToughRock® Gypsum Board
- Gypsum Veneer Plaster Base Panels
- Gypsum Wallboard

Product List C

- MH Ceiling Board
- ToughRock® Span 24® Lite-Weight Ceiling Board
- Span24® Ceiling Board
- ToughRock® Stretch 54® Lite-Weight Gypsum Board
- Stretch54® Lite-Weight Gypsum Board
- ToughRock® Lite-Weight Gypsum Board
- Lite-Weight Gypsum Board
- ToughRock® Fireguard X™ Gypsum Board
- F-R "X" Gypsum Fire-Resistant Panels
- Toughrock® Fireguard 45 Gypsum Board

Product List D

- ToughRock® Gypsum Sheathing
- ToughRock® MH Ceiling Board
- ToughRock® Span 24® Ceiling Board
- ToughRock® Fireguard X™ Gypsum Sheathing
- ToughRock® Fireguard X™ Stretch 54® Gypsum Board
- ToughRock® Fireguard X™ Mold-Guard™ Abuse-Resistant Gypsum
- ToughRock® Mold-Guard™ Lite-Weight Gypsum Board
- ComfortGuard® Sound-Deadening Gypsum Board
- ComfortGuard® IR Impact-Resistant Gypsum Board
- ComfortGuard® Mold-Resistant Gypsum Wallboard
- ComfortGuard® AR Abuse-Resistant Gypsum Board
- F-R "X" Stretch54® Gypsum Fire-Resistant Panels
- F-R "X" Gypsum Sheathing Panels
- Fire-Rated Structguard® Sheathing
- Fire-Rated Water-Resistant Gypsum Board
- Gypsum Sheathing Panels
- ToughRock® Fireguard X™ Veneer Plaster Board
- ToughRock® Fireguard X™ Soffit Board
- ToughRock® Fireguard X™ Abuse-Resistant Gypsum Board
- ToughRock® Fireguard X™ Mold-Guard™ Gypsum Board
- F-R "X" Gypsum Soffit Panels
- F-R "X" ComfortGuard® Mold-Resistant Gypsum Wallboard
- Gypsum Veneer Plaster Base Panels

Product List E

- ToughRock® Shaftliner
- Silentguard® Shaftliner
- ToughRock® Fireguard C® Soffit Board

**Product list**

ToughRock® Fireguard C® Stretch 54® Gypsum Board  
ToughRock® Lite-Weight Fire-Rated Gypsum Board  
F-R TG "C" Gypsum Fire-Resistant Panels  
F-R "C" Gypsum Soffit Panels

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Product List F

ToughRock® Fireguard C® Gypsum Board

**HMIS® ratings**

Health: 1  
Flammability: 0  
Physical hazard: 0

**NFPA ratings**

Health: 1  
Flammability: 0  
Instability: 0

**Disclaimer**

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