

SAFETY DATA SHEET

1. Identification

Product identifier	FireDefender® Blue Banded FS II Wood
Other means of identification	None.
Recommended use	Not available.
Recommended restrictions	Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Manufacturer/Importer/Supplier/Distributor information

Company name	Georgia-Pacific Gypsum LLC		
Address	133 Peachtree Street, NE Atlanta, GA 30303		
Telephone	Technical Information	800.225.6119	
	(M)SDS Request	404.652.5119	
E-mail	MSDSREQ@GAPAC.COM		
Emergency phone number	Chemtrec - Emergency	800.424.9300	

2. Hazard(s) identification

Emergency overview	This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous by downstream activities such as cutting, sanding, or otherwise working with this product that generate large amount of dusts. Those hazards associated with large amount of dusts are described below.	
Physical hazards	Not classified.	
Health hazards	Skin irritation	Category 2
	Eye irritation	Category 2A
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Carcinogenicity	Category 1A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, repeated exposure	Category 1 (lung)
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		

Signal word

Danger

Hazard statement

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause cancer. Causes damage to organs (lung) through prolonged or repeated exposure.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

Response	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. If exposed or concerned: Get medical advice/attention. Specific treatment (see section 4 on the SDS).
Storage	Store away from incompatible materials (see Section 10 of the SDS).
Disposal	Dispose of contents/container in accordance with applicable regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
PERLITE		93763-70-3	40 - 70
SODIUM SILICATE		1344-09-8	3 - < 11
WOOD/WOOD DUST		Not Assigned	2 - < 4
SUCROSE		57-50-1	1 - < 2
CELLULOSE		9004-34-6	0.5 - < 2
CALCIUM SULFATE DIHYDRATE		10101-41-4	10 - 30
DIATOMACEOUS EARTH	DIATOMACEOUS EARTH	68855-54-9	< 7
CRYSTALLINE SILICA (QUARTZ)		14808-60-7	< 6
SILICA, CRISTOBALITE		14464-46-1	< 5

The specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Coughing. Discomfort in the chest. Difficulty in breathing. Shortness of breath. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Firefighters should wear full protective clothing including self contained breathing apparatus.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid inhalation of dust from the spilled material. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Use personal protection recommended in Section 8. Keep unnecessary personnel away.
Methods and materials for containment and cleaning up	Minimize dust generation. Sweep up or gather material and place in an appropriate container for disposal. Utilize wet methods, if appropriate, to minimize dust. For waste disposal, see section 13 of the SDS.
Environmental precautions	Keep out of drains, sewers, ditches, and waterways.

7. Handling and storage

Precautions for safe handling	Provide appropriate exhaust ventilation at places where dust is formed. Minimize dust generation and accumulation. Do not breathe dust. Do not get this material in contact with eyes. Do not taste or swallow. Avoid prolonged exposure. Observe good industrial hygiene practices. Use only in well-ventilated areas. Wear appropriate NIOSH/MSHA 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.
Conditions for safe storage, including any incompatibilities	Store level and keep dry. Dewpoint or other conditions causing the presence of moisture can damage the product during storage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

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

Components	Type	Value
DIATOMACEOUS EARTH (CAS 68855-54-9)	TWA	1.1 mg/m3

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

Components	Type	Value	Form
PERLITE (CAS 93763-70-3)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
CALCIUM SULFATE DIHYDRATE (CAS 10101-41-4)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
CELLULOSE (CAS 9004-34-6)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
CRYSTALLINE SILICA (QUARTZ) (CAS 14808-60-7)	PEL	0.05 mg/m3	
SILICA, CRISTOBALITE (CAS 14464-46-1)	PEL	0.05 mg/m3	
SUCROSE (CAS 57-50-1)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

ACGIH

Components	Type	Value	Form
PERLITE (CAS 93763-70-3)	TWA	3 mg/m3	Respirable particles.
WOOD/WOOD DUST	TWA	1 mg/m3	Inhalable fraction.

US ACGIH Threshold Limit Values: Time Weighted Average (TWA): mg/m3, non-standard units

Components	Type	Value	Form
CALCIUM SULFATE DIHYDRATE (CAS 10101-41-4)	TWA	10 mg/m3	Inhalable fraction.
CELLULOSE (CAS 9004-34-6)	TWA	10 mg/m3	
CRYSTALLINE SILICA (QUARTZ) (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
PERLITE (CAS 93763-70-3)	TWA	10 mg/m3	Inhalable particles.
SILICA, CRISTOBALITE (CAS 14464-46-1)	TWA	0.025 mg/m3	Respirable fraction.
SUCROSE (CAS 57-50-1)	TWA	10 mg/m3	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
CALCIUM SULFATE DIHYDRATE (CAS 10101-41-4)	TWA	5 mg/m3	Respirable.
CELLULOSE (CAS 9004-34-6)	TWA	10 mg/m3 5 mg/m3	Total Respirable.
CRYSTALLINE SILICA (QUARTZ) (CAS 14808-60-7)	TWA	10 mg/m3 0.05 mg/m3	Total Respirable dust.
DIATOMACEOUS EARTH (CAS 68855-54-9)	TWA	6 mg/m3	
PERLITE (CAS 93763-70-3)	TWA	5 mg/m3	Respirable.
SUCROSE (CAS 57-50-1)	TWA	10 mg/m3 5 mg/m3	Total Respirable.
WOOD/WOOD DUST	TWA	10 mg/m3 1 mg/m3	Total Dust.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

Appropriate engineering controls

When sawing, sanding, drilling, or routing this product, provide local and general exhaust ventilation to keep airborne dust concentrations below exposure limits.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles). Ensure compliance with OSHA's PPE standard (29 CFR 1910.132 and .133) for eye and face protection. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin protection**Hand protection**

For prolonged or repeated skin contact use suitable protective gloves.

Other

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).

Thermal hazards

Not applicable.

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 to remove contaminants. Keep away from food and drink.

9. Physical and chemical properties

Appearance	Composite core door panel
Physical state	Solid.
Form	Solid.
Color	Blue
Odor	Odorless
Odor threshold	Not available.
pH	7 - 9
Melting point/freezing point	2777.52 °F (1525.29 °C) estimated
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
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.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not available.
Viscosity	Not applicable.

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	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
Incompatible materials	Acids.
Hazardous decomposition products	May include and are not limited to: calcium oxide and sulfur dioxide.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Coughing. Discomfort in the chest. Difficulty in breathing. Shortness of breath. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects**Acute toxicity**

Components	Species	Test Results
CALCIUM SULFATE DIHYDRATE (CAS 10101-41-4)		
<u>Acute</u>		
Oral		
LD50	Rat	> 1581 mg/kg
DIATOMACEOUS EARTH (CAS 68855-54-9)		
<u>Acute</u>		
Oral		
LD50	Mouse	> 15000 mg/kg
	Rat	> 22500 mg/kg
SODIUM SILICATE (CAS 1344-09-8)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	4640.0001 mg/kg
Oral		
LD50	Mouse	1100 mg/kg
	Rat	1153 mg/kg
		1.1 g/kg
SUCROSE (CAS 57-50-1)		
<u>Acute</u>		
Oral		
LD50	Rat	29700 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	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.	
	Wood dust generated from sawing, sanding or machining this product may cause nasal dryness, irritation, coughing and sinusitis. The International Agency for Research on Cancer (IARC), and National Toxicology Program (NTP) classifies wood dust as a carcinogen. This classification is based on the increased occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. The evaluation noted insufficient evidence to associate cancers of the oropharynx, hypopharynx, lung, lymphatic and hematopoietic systems, stomach, colon, or rectum with exposure to wood dust.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
CRYSTALLINE SILICA (QUARTZ) (CAS 14808-60-7)	1 Carcinogenic to humans.	
DIATOMACEOUS EARTH (CAS 68855-54-9)	3 Not classifiable as to carcinogenicity to humans.	
SILICA, CRISTOBALITE (CAS 14464-46-1)	1 Carcinogenic to humans.	
WOOD/WOOD DUST (CAS Not Assigned)	1 Carcinogenic to humans.	

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

CRYSTALLINE SILICA (QUARTZ) (CAS 14808-60-7)	Known To Be Human Carcinogen.
DIATOMACEOUS EARTH (CAS 68855-54-9)	Known To Be Human Carcinogen.
WOOD/WOOD DUST (CAS Not Assigned)	Known To Be Human Carcinogen.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Causes damage to organs (lung) through prolonged or repeated exposure.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity The product is 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 DIHYDRATE (CAS 10101-41-4)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) > 1970 mg/l, 96 hours
CRYSTALLINE SILICA (QUARTZ) (CAS 14808-60-7)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Zebra danio (<i>Danio rerio</i>) > 10000 mg/l, 96 Hours OECD SIDS
SODIUM SILICATE (CAS 1344-09-8)		
Aquatic		
Crustacea	EC50	Water flea (<i>Ceriodaphnia dubia</i>) 0.28 - 0.57 mg/l, 48 hours
Fish	LC50	Western mosquitofish (<i>Gambusia affinis</i>) 1800 mg/l, 96 hours

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

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
SUCROSE	-3.7

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable 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	Not available.

14. Transport information**DOT**

Not regulated as dangerous goods.

Transport in bulk according to Not available.

Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

US federal regulations

This product is not hazardous in the form in which it is sold and shipped by the manufacturer. However, the large amount of dusts generated by downstream activities such as cutting, sanding, or otherwise working with this product is considered hazardous and is regulated under the Hazard Communication Standard 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

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

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

CRYSTALLINE SILICA (QUARTZ) (CAS 14808-60-7)
SILICA, CRISTOBALITE (CAS 14464-46-1)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

CRYSTALLINE SILICA (QUARTZ) (CAS 14808-60-7)	Listed: October 1, 1988
WOOD/WOOD DUST (CAS Not Assigned)	Listed: December 18, 2009

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
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)

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, including date of preparation or last revision

Issue date May-20-2015

Revision date May-21-2017

Version # 03

HMIS® ratings

Health: 3*
Flammability: 1
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 1
Instability: 0

Disclaimer

This SDS is intended to quickly provide useful information to the user(s) of this material or product. It is not intended to serve as a comprehensive discussion of all possible risks or hazards, and it assumes a reasonable use of the product. The information contained in this SDS is believed to be accurate as of the date of preparation of this SDS and has been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. The user or handler (or their employer) should consider the specific conditions in which this material will be used, handled, or stored and determine what specific safety or other precautions are required. Employers should ensure that their employees, agents, contractors, and customers who will use the product receive adequate warnings and safe handling procedures, including a current SDS. Product users or handlers (or their employer) who are unsure of what specific precautions are required should consult their employer, product supplier, or safety or health professionals before handling or working with this product. Please notify us immediately if you believe this SDS or other safety and health information about this product is inaccurate or incomplete.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.