SAFETY DATA SHEET



1. Identification

Product identifier FireDefender® White Banded FS II MDF

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 nameGeorgia-Pacific Gypsum LLCAddress133 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

Serious eye damage Category 1
Sensitization, respiratory Category 1
Sensitization, skin Category 1A
Carcinogenicity Category 1A

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Specific target organ toxicity, repeated Category 1 (lung)

exposure

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 damage. 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.

Material name: FireDefender® White Banded FS II MDF

5295 Version #: 04 Revision date: November-06-2018 Issue date: May-20-2015

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and Response

easy to do. Continue rinsing, Immediately call a poison center/doctor. 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. 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	30 - 60
CALCIUM SULFATE DIHYDRAT	E	10101-41-4	15 - 40
PORTLAND CEMENT		65997-15-1	7 - 13
CRYSTALLINE SILICA (QUARTZ	<u>Z</u>)*	14808-60-7	1 - 5
WOOD/WOOD DUST		Not Assigned	1 - 5
CELLULOSE		9004-34-6	0.5 - 1.5
METHYLENE BISPHENYL ISOCYANATE (MDI)		101-68-8	0.1 - 1
UREA, POYLMER WITH FORMALDEHYDE		9011-05-6	0.1 - 1

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

Composition comments

*The weight percent for crystalline silica represents total crystalline silica and not the respirable fraction. Jobsite air monitoring should be conducted to determine actual exposure when permissible exposure limits may be exceeded.

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 immediately.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important

symptoms/effects, acute and

delayed

Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. 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

During fire, gases hazardous to health may be formed.

the chemical

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 methodsUse 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

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Co Components	ontaminants (29 CFR 1910.1000) 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	Respirable dust.
METHYLENE BISPHENYL ISOCYANATE (MDI) (CAS 101-68-8)	Ceiling	0.2 mg/m3	
,		0.02 ppm	
PORTLAND CEMENT (CAS 65997-15-1)	PEL	5 mg/m3	Respirable fraction.
,		15 mg/m3	Total dust.
US. OSHA Table Z-3 (29 CFR 1910.10	000)		
Components	Туре	Value	Form
PERLITE (CAS 93763-70-3)	TWA	5 mg/m3	Respirable fraction.
,		15 mg/m3	Total dust.
WOOD/WOOD DUST	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
ACGIH			
Components	Туре	Value	Form
PERLITE (CAS 93763-70-3)	TWA	3 mg/m3	Respirable particles.

Material name: FireDefender® White Banded FS II MDF

SDS US

ACGIH Components	Type	Value	Form
WOOD/WOOD DUST	TWA	1 mg/m3	Inhalable fraction.
US. ACGIH Threshold Limit		3	
Components	Туре	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
METHYLENE BISPHENYL ISOCYANATE (MDI) (CAS 101-68-8)	TWA	0.005 ppm	
PERLITE (CAS 93763-70-3)	TWA	10 mg/m3	Inhalable particles.
PORTLAND CEMENT (CAS 65997-15-1)	TWA	1 mg/m3	Respirable fraction.
US. NIOSH: Pocket Guide to	Chemical Hazards		
Components	Туре	Value	Form
CALCIUM SULFATE DIHYDRATE (CAS 10101-41-4)	TWA	5 mg/m3	Respirable.
,		10 mg/m3	Total
CELLULOSE (CAS 9004-34-6)	TWA	5 mg/m3	Respirable.
	T14/4	10 mg/m3	Total
CRYSTALLINE SILICA (QUARTZ)* (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.
METHYLENE BISPHENYL ISOCYANATE (MDI) (CAS 101-68-8)	Ceiling	0.2 mg/m3	
		0.02 ppm	
	TWA	0.05 mg/m3	
	T\\/A	0.005 ppm	Doenirable
DEDLITE (CAC	TWA	5 mg/m3	Respirable. Total
93763-70-3)	Τ\Λ/Λ	10 mg/m3	
PERLITE (CAS 93763-70-3) PORTLAND CEMENT (CAS 65997-15-1)	TWA	5 mg/m3	Respirable.
93763-70-3) PORTLAND CEMENT (CAS	TWA		

Bio

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 Grey
Odor Odorless
Odor threshold Not available.

pH 7 - 9

Melting point/freezing point 2642 °F (1450 °C) estimated

Initial boiling point and boiling Not applicable.

range

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 Not available.

(n-octanol/water)

Auto-ignition temperatureNot applicable.Decomposition temperatureNot available.ViscosityNot applicable.

Other information

Explosive properties Not explosive.

Flammability Not applicable.

Oxidizing properties Not oxidizing.

10. Stability and reactivity

ReactivityThe 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.

Material name: FireDefender® White Banded FS II MDF

SDS US

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.

Causes skin irritation. May cause an allergic skin reaction. Skin contact

Causes serious eye damage. Eye contact

Not applicable under normal conditions of use. May cause gastrointestinal irritation if ingested. Ingestion

Symptoms related to the physical, chemical and toxicological characteristics Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. 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 DIH	YDRATE (CAS 10101-41-4)	
<u>Acute</u>		
Oral		
LD50	Rat	> 1581 mg/kg
METHYLENE BISPHENY	L ISOCYANATE (MDI) (CAS 101-68-8)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 10000 mg/kg
Inhalation		
Vapor		
LC50		0.178 mg/l
Oral		
LD50	Rat	> 10000 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye

irritation

Causes serious eye damage.

Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Respiratory sensitization

May cause an allergic skin reaction. Skin sensitization

No data available to indicate product or any components present at greater than 0.1% are Germ cell mutagenicity

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.

METHYLENE BISPHENYL ISOCYANATE (MDI) (CAS 3 Not classifiable as to carcinogenicity to humans.

101-68-8)

WOOD/WOOD DUST (CAS Not Assigned)

Material name: FireDefender® White Banded FS II MDF

1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

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

US. National Toxicology Program (NTP) Report on Carcinogens

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

Not an aspiration hazard. **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

The product is not classified as environmentally hazardous. However, this does not exclude the **Ecotoxicity**

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Test Results Components

CALCIUM SULFATE DIHYDRATE (CAS 10101-41-4)

Aquatic

Acute

Fish LC50 Fathead minnow (Pimephales promelas) > 1970 mg/l, 96 hours

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

Aquatic

Acute

Fish LC50 Zebra danio (Danio rerio) > 10000 mg/l, 96 Hours OECD SIDS

METHYLENE BISPHENYL ISOCYANATE (MDI) (CAS 101-68-8)

Aquatic

Acute

LC50 Fish Fish > 1000 mg/kg, 14 days

Persistence and degradability

Bioaccumulative potential

No data is available on the degradability of this product.

No data available. Mobility in soil

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

Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, **Disposal instructions**

whether the product meets RCRA criteria for hazardous waste. Dispose of contents/container in

accordance with local/regional/national/international regulations.

Dispose in accordance with all applicable regulations. Local disposal 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.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Material name: FireDefender® White Banded FS II MDF

7/9 5295 Version #: 04 Revision date: November-06-2018 Issue date: May-20-2015

SDS US

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

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.

TSCA Chemical Action Plans, Chemicals of Concern

METHYLENE BISPHENYL ISOCYANATE (MDI) (CAS 101-68-8)

Methylene Diphenyl Diisocyanate (MDI) And Related Compounds

Action Plan [RIN 2070-ZA15]

CERCLA Hazardous Substance List (40 CFR 302.4)

METHYLENE BISPHENYL ISOCYANATE (MDI) (CAS

Listed.

101-68-8)

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

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

lung effects

immune system effects

kidney effects

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Yes

chemical

Skin corrosion or irritation

Classified hazard categories

Serious eye damage or eye irritation Respiratory or skin sensitization

Carcinogenicity

Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.	
METHYLENE BISPHENYL ISOCYANATE (MDI)	101-68-8	0.1 - 1	

Other federal regulations

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

METHYLENE BISPHENYL ISOCYANATE (MDI) (CAS 101-68-8)

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

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

California Proposition 65



WARNING: This product can expose you to chemicals including CRYSTALLINE SILICA (QUARTZ)*, which is

known to the State of California to cause cancer. For more information go

to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

CRYSTALLINE SILICA (QUARTZ)* (CAS Listed: October 1, 1988

14808-60-7)

FORMALDEHYDE (CAS 50-00-0) Listed: January 1, 1988 WOOD/WOOD DUST (CAS Not Assigned) Listed: December 18, 2009

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)

International Inventories

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

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

*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

May-20-2015 Issue date

Revision date November-06-2018

Version # 04

HMIS® ratings Health: 3*

Flammability: 1 Physical hazard: 0

NFPA ratings Health: 2

Flammability: 1 Instability: 0

This SDS is intended to quickly provide useful information to the user(s) of this material or product. Disclaimer

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.

Identification: Recommended restrictions **Revision information**

Hazard(s) identification: Response

Composition / Information on Ingredients: Disclosure Overrides Composition/information on ingredients: Composition comments Exposure controls/personal protection: Occupational exposure limits

Regulatory information: California Proposition 65 Regulatory information: US federal regulations

Material name: FireDefender® White Banded FS II MDF

5295 Version #: 04 Revision date: November-06-2018 Issue date: May-20-2015