


1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Identifier	BrockFill
1.1.1. Chemical Name	Not applicable
1.1.2. Synonyms	None
1.2. Product Use	Synthetic Turf Infill
1.3. Company	Brock International 3090 Sterling Circle, Suite 102 Boulder, CO 80301 Phone: (303) 544-5800 FAX (866) 850-9421
1.4. Emergency Number	FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC – Day or Night (800) 424-9300

2. HAZARDS IDENTIFICATION

NOTE: BrockFill presents limited hazards in its solid form. Wood dust is not used in the production of BrockFill, nor is inhalable wood dust expected to be generated during normal use of the product. Small quantities of wood dust may be generated during the installation of BrockFill. Best Management Practices (BMPs) should be implemented to control fugitive wood dust during product installation.

2.1. Classification	OSHA Hazard Communication Standard 29 CFR 1910.1200 (2012)
2.2. Label Elements	
2.2.1. Signal Word	WARNING
2.2.2. Hazard Pictogram	
2.2.3. Hazard Statements	May cause irritation if inhaled. May cause irritation if in eyes.
2.2.4. Precautionary Statements	<u>Prevention Statements</u> P261: Avoid breathing dust, fume, gas, mist, vapors, spray. P280: Wear protective gloves, protective clothing, eye protection, face protection. <u>Response Statements</u> P305/P351/P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337/P313: If eye irritation persists: Get medical attention. <u>Disposal Statement</u> P501 Dispose of in accordance with federal, state, and local regulations.
2.3. Appearance and Odor (Color/Form/Odor)	Light to medium colored wood. No odor.

2. HAZARDS IDENTIFICATION

- 2.4. OSHA Status This product is nonhazardous. Exposure to wood dust during installation of BrockFill is a potential health problem.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS Number</u>	<u>% by Weight</u>
Wood (Loblolly Pine)	None	100%

4. FIRST AID MEASURES

- 4.1. Description of First Aid Measures
- 4.1.1. Eye Contact Flush with copious amounts of water for at least 10 minutes or use an eye wash solution. If irritation persists, seek medical attention.
- 4.1.2. Skin Contact Wash with soap and water and remove contaminated clothing. If irritation or dermatitis occurs, seek medical attention.
- 4.1.3. Inhalation Remove to fresh air or ventilated area. If persistent irritation, sever coughing, or breathing difficulties occur, seek medical attention.
- 4.1.4. Ingestion Rinse mouth thoroughly with water. Do not ingest water or induce vomiting. No harmful effects, if there is discomfort or irritation, seek medical attention.
- 4.2. Most Important Symptoms and Effects, Both Acute and Delayed
- 4.2.1. Eye Contact, Short Term Irritation
- 4.2.2. Skin Contact, Short Term Potential irritation or dermatitis
- 4.2.3. Inhalation, Short Term Irritation
- 4.2.4. Single Ingestion None
- 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
- 4.3.1. Advice to Doctors None
- 4.3.2. Antidote Not applicable.

5. FIRE FIGHTING MEASURES

- 5.1. Extinguishing Media Water, Carbon Dioxide, Dry Chemical (Monoammonium Phosphate), Sand
- 5.1.1. Recommended Water
- 5.2. Special Hazards None
- 5.2.1. Unusual Fire and Explosion Hazards None
- 5.2.2. Hazardous Products of Combustion Carbon Monoxide (CO)
- 5.3. Fire Fighting Equipment No special equipment needed.
- 5.4. Flash Point None

5. FIRE FIGHTING MEASURES

5.5. Autoignition Temperature 400°F - 500°F (200°C - 260°C)

6. ACCIDENTAL RELEASE MEASURES

6.1. Environmental Precautions

6.1.1. Small Quantities

6.1.2. Large Quantities

Low Environmental Hazard

Minimize Spread. Keep out of drains, sewers, ditches, and waterways.

6.2. Methods for Cleaning Up

6.2.1. Small Quantities

Sweep or vacuum for recovery and disposal. Use appropriate personal protection equipment to minimize the potential exposure to fugitive wood dust during cleanup.

6.2.2. Large Quantities

Use appropriate personal protection equipment to minimize exposure to fugitive wood dust during cleanup. Dry land disposal is acceptable in most states.

7. HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Store in a well-ventilated, cool, dry place away from open flame. Keep away from ignition sources. Avoid eye contact. Use appropriate personal protection equipment to minimize the potential exposure to fugitive wood dust during installation of BrockFill.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Airborne Exposure Limits

Component
Nuisance Dust

Exposure Guidelines

OSHA PEL-TWA: 15 mg/m³ as Total Dust as Particles Not Otherwise Regulated (PNOR)
OSHA PEW-TWA: 5 mg/m³ as Respirable Dust Fraction PNOR

Wood Dust (CA)

Cal/OSHA PEL-TWA: 2 mg/m³
Cal/OSHA STEL: 5 mg/m³

8.2. Engineering Controls

If necessary, use dust control best management practices (BMPs) such as wetting during installation of BrockFill. If the product is to be installed indoors, provide local exhaust ventilation to reduce exposure to dust.

8.3. Recommendations for Personal Protective Equipment

8.3.1. Eye Protection

Approved goggles or tight-fitting safety glasses are recommended when excessive exposure to dust may occur (during

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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| 8.3.2. Skin Protection | installation) and when eye irritation may occur. |
| 8.3.3. Respiratory Protection | Cloth, canvas, or leather work gloves are recommended to minimize potential irritation during installation.
Use filtering face piece respirator ("dust mask") tested and approved under appropriate government standards such as NIOSH (USA), CSA (Canada), CEN (EU), or JIS (Japan) where exposure limits may be exceeded. |

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

9. PHYSICAL AND CHEMICAL PROPERTIES

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|---|--|
| 9.1. Color/Color Range: | Light to medium colored wood particles. |
| 9.2. Odor: | None |
| 9.3. Form: | Solid |
| 9.4. Physical Form Changes | |
| 9.4.1. Melting Point: | Not applicable |
| 9.4.2. Boiling Point: | Not applicable |
| 9.4.3. Flash Point: | Not applicable |
| 9.5. Explosive Properties: | Product is not explosive, but airborne wood dust has the potential to be explosive. 40,000 mg/m ³ is often used as the lower explosive limit (LEL) for wood dust. |
| 9.6. Auto Ignition Temperature: | 400°F - 500°F (200°C - 260°C) |
| 9.7. Self-Accelerating Decomposition Temperature: | Not applicable |
| 9.8. Oxidizing Properties: | None |
| 9.9. Specific Gravity: | 0.5 (Dry) to 1.04 (Fully Saturated) |
| 9.10. Vapor Pressure: | Not applicable |
| 9.11. Vapor Density: | Not applicable |
| 9.12. Evaporation Rate: | Not applicable |
| 9.13. Dynamic Viscosity: | Not applicable |
| 9.14. Kinematic Viscosity: | Not applicable |

9. PHYSICAL AND CHEMICAL PROPERTIES

9.15. Solid Density:	35 lbs/ft ³ (570 kg/m ³)
9.16. Bulk Density:	17 lbs/ft ³ (280 kg/m ³)
9.17. Solubility:	< 0.1%
9.18. pH:	Not applicable
9.19. Partition Coefficient:	Not applicable

10. STABILITY AND REACTIVITY

10.1. Reactivity	Nonreactive under standard conditions.
10.2. Stability	Stable under standard conditions.
10.3. Possibility of Hazardous Reactions	Unlikely under standard conditions.
10.4. Incompatible Materials	Avoid contact with oxidizing agents.
10.5. Hazardous Decomposition	Thermal degradation of wood products can produce irritating to toxic fumes and gases, including carbon monoxide (CO) and polycyclic aromatic hydrocarbons (PAHs).

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

11.1. Likely Routes of Exposure	The likely routes of exposure during product use are skin contact and eye contact. The potential of exposure to fugitive wood dust is possible during product installation. The most likely route of exposure to potential fugitive wood dust is inhalation.
11.2. Potential Health Effects	
11.2.1. Eye Contact, Short Term	Irritation
11.2.2. Skin Contact, Short Term	Potential irritation or dermatitis
11.2.3. Inhalation, Short Term	Irritation
11.2.4. Single Ingestion	Unlikely to produce toxic effects

Data obtained on product and components are summarized below:

11.3. Acute Oral Toxicity	The product does not produce acute oral toxicity.
11.4. Acute Dermal Toxicity	Exposure to the product can produce acute dermatitis to sensitive individuals.
11.5. Acute Inhalation Toxicity	Exposure to fugitive wood dust can produce irritation or asthma to sensitive individuals.

11.6. Skin Irritation	Exposure to the product may produce irritation or dermatitis to sensitive individuals.
11.7. Eye Irritation	Eye contact with the product or with fugitive wood dust can lead to eye irritation.
11.8. Skin Sensitization	Exposure to the product and fugitive wood dust can lead to sensitization in certain individuals.
11.9. Genotoxicity	The product does not exhibit genotoxicity.
11.10. Carcinogenicity	The product is not carcinogenic. Inhalable wood dust can be carcinogenic.
11.11. Reproductive/Developmental Toxicity	The product does not exhibit reproductive or developmental toxicity.

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

12.1. Aquatic Toxicity, Fish	No data available.
12.2. Aquatic Toxicity, Invertebrates	No data available.
12.3. Aquatic Toxicity, Algae/Aquatic Plants	No data available.
12.4. Soil Organism Toxicity, Microorganisms	No data available.
12.5. Avian Toxicity	No data available.
12.6. Bioaccumulation	The product does not bioaccumulate.
12.7. Dissipation	
12.7.1. Soil	The product biodegrades in soil.
12.7.2. Water, Aerobic	The product biodegrades in water.

13. DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods	
13.1.1. Product	The product is not classified as a Federal or California hazardous waste. Dispose of according to local, state, and federal regulations. Recycle if possible.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Mode: (Air, Land, Water) This product is not regulated as a hazardous material by the US DOT. The product is not listed as a hazardous material in the Canadian Transportation of Dangerous Goods (TDG) regulations. The product is not regulated as a hazardous material by IMDG or IATA regulations concerning the transport of hazardous materials.

15. REGULATORY INFORMATION

TSCA	Not applicable
CERLCA	Not applicable
RCRA	Not applicable
OSHA	Wood products are not hazardous under the criteria of the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. However, fugitive wood dust generated during installation of the product may be considered hazardous. No fugitive wood dust is anticipated to be generated during the normal use of the product.
CA Prop 65	Solid wood products are not listed. No exposure to fugitive wood dust is expected during the normal use of the product. However, exposure to fugitive wood dust during installation may of BrockFill may occur. Wood dust is a listed Prop 65 substance.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.

Follow all local/state/national/international regulations.

Please consult supplier if further information is needed.

Significant changes since the last revision.

	Health	Flammability	Instability	Additional Markings	
NFPA	1	1	0	0	
0 = Minimal Hazard, 1 = Slight Hazard, 2 = Moderate Hazard, 3 = Severe Hazard, 4 = Extreme Hazard					

Full denomination of most frequently used acronyms. BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), I.M. (intramuscular), I.P. (intraperitoneal), I.V. (intravenous), Koc (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), LOEC (Lowest Observed Effect Concentration), LOEL (Lowest Observed Effect Level), MEL (Maximum Exposure limit), MTD (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Adverse Effect Level), NOEC (No Observed Effect Concentration), NOEL (No Observed Effect Level), OEL (Occupational

Exposure Limit), PEL (Permissible Exposure Limit), PII (Primary Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), STOT SE (Specific Target Organ Toxicity, Single Exposure), STOT RE (Specific Target Organ Toxicity, Repeated Exposure), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

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