

### **Biochar Blend for Cactus & Succulents**

#### **Section I- Product and Company Identification**

Product Name: Biochar Blend for Cactus & Succulents

#### Recommended Use: Soil Additive

| Manufacturer                     | Customer Service: (229) 278-2488        |
|----------------------------------|---|
| Wakefield Biochar                | Monday- Friday 8am-5pm EST              |
| 1826 Clay Road                   |   |
| Valdosta, Ga 31601               | Emergency Contact:                      |
| Email: info@wakefieldbiochar.com | National Poison Control: 1-800-222-1222 |

#### **Section II- Hazard Identification**

Hazard Classification of Biochar Blend for Cactus & Succulents:

Flammable Wood – Category 5

Aspiration Hazard – Category 4

Carcinogenicity - Category 5

Skin Irritation – Category 5

Eye Irritation – Category 5

Chronic Aquatic Toxicity – Category 4

Specific Target Organ Toxicity (Single Exposure) – Category 5

Specific Target Organ Toxicity (Repeated Exposure) – Category 5

# NOTE: Category numbers indicate hazard severity, with 1 being most hazardous and 5 being least hazardous.

Section III - Composition/Information on Ingredients

| Ingredients                 | Concentration | CAS Number |
|-----------------------------|---------------|------------|
| Biochar (Wood-Based Carbon) | 14.4%         | 7440-44-0  |



| Plant-Based/wood-Based Compost | 45.0% | 68439-86-1        |
|--------------------------------|-------|-------------------|
| Coarse Sand                    | 25.0% | 14808-60-1        |
| Pumice                         | 15.0% | 1332-09-8         |
| CarbonBoost™*                  | 0.6%  | Proprietary Blend |

\*CarbonBoost<sup>™</sup> includes:

*Rhizophagus intraradices* (135 propagules/qt): Mycorrhizal fungi to improve root colonization and nutrient uptake.

*Bacillus amyloliquefaciens* (18 million CFU/qt, CAS 68038-58-0): Probiotic bacteria for healthier plant growth.

*Bacillus megaterium* (18 million CFU/qt, CAS 68038-62-0): Probiotic bacteria to support soil and plant health.

#### **Section IV: First-Aid Measures**

**Effects of Overexposure.** Exposure to biochar, compost, and microbial dust may cause skin, eye, or respiratory irritation, as well as allergenic responses or asthma.

**Medical Conditions Prone to Aggravation.** Individuals with asthma, bronchitis, or allergies may need to avoid further exposure to carbon or microbial dust.

**Inhalation.** Remove to fresh air. If symptoms persist, such as wheezing or breathing difficulty, seek medical advice.

**Eye Contact.** Flush with water to remove dust particles. If irritation persists, seek medical attention.

**Skin Contact.** Wash thoroughly with soap and water. If rash or persistent irritation occurs, seek medical advice.

**PPE Recommendations.** Use a P100 respirator to protect against microbial spores. Wear gloves and eye protection to minimize contact with biochar dust.

#### **Section V: Fire-Fighting Measures**

**Flammability.** Product is flammable near direct flame or at temperatures >700°C. Autoignition temperature: >700°C.

**Unusual Fire and Explosion Hazards.** Fine dust dispersed in air can create a potential dust explosion hazard. Minimum explosible concentration: 0.140 g/l.

Extinguishing Media. Water spray.



**Fire-Fighting Equipment.** Use full protective gear and SCBA with a full-face mask in positive pressure mode. Cool exposed containers with water and remove if safe to do so.

#### Section VI: Accidental Release Measures

**Leak and Spill Procedures.** Ensure the area is well-ventilated. Use a vacuum with a HEPA filter or wet methods to avoid dispersing microbial dust into the air.

Cautions. Avoid creating dust. Biochar may smolder if exposed to heat over 550°C.

Handle spills carefully to prevent airborne release of microbial spores or bacilli.

#### Section VII: Handling and Storage

Handling Procedures. Avoid dust release during handling.

**Storage Requirements.** Store below 80°C. Keep covered to limit dust. Avoid storing with oxidizing agents.

#### Section VIII: Exposure Controls/ Personal Protection

Gloves. Required to minimize skin contact with microbial components.

**Respirator.** Use a NIOSH/OSHA-approved particle respirator (P100) if dust levels are excessive.

Eye Protection. Wear safety glasses with side shields.

Ventilation. Utilize exhaust ventilation where possible.

#### **Section IX: Physical and Chemical Properties**

| <b>Physical State:</b><br>Solid, particle size 0.1-2mm | Appearance:<br>Black carbonaceous<br>material | <b>Odor:</b><br>None                     |
|--|---|--|
| Melting Point/Range:                                   | <b>Boiling Point/Range:</b> N/A               | Flammability:                            |
| <b>pH:</b><br>8-9                                      | <b>Vapor Pressure:</b><br>N/A                 | <b>Solubility:</b><br>Insoluble in water |
| Lower/Upper Explosion Limit:                           | Flash Point:                                  | Auto-Ignition Temperature:               |



| N/A                        | N/A                   | N/A                        |
|----------------------------|-----------------------|----------------------------|
| Decomposition Temperature: | Kinematic             | Partition Coefficient N-   |
|                            | Viscosity:            | Octanol/Water (Log Value): |
|                            |                       |                            |
| N/A                        | N/A                   | N/A                        |
| Density and/or relative    | <b>Relative Vapor</b> | Particle Characteristics:  |
| Density:                   | Density:              |                            |
|                            |                       |                            |
| N/A                        | N/A                   | N/A                        |

#### **Section X: Stability and Reactivity**

Reactivity: Contact with strong oxidizers may result in fire.

Chemical Stability: Stable in closed containers at room temperature.

Conditions to Avoid: Incompatible materials, combustible materials.

Incompatible Materials: Strong oxidizers, sparks, heat, flame.

Hazardous Decomposition Products: Carbon oxides (CO, CO<sub>2</sub>).

#### Section XI: Toxicological Information

Potential respiratory allergens may be present due to microbial components in CarbonBoost<sup>™</sup>. Inhalation of microbial dust may cause allergic reactions or respiratory irritation in sensitive individuals.

#### Section XII: Ecological Information

CarbonBoost<sup>™</sup> includes live microorganisms (bacilli and mycorrhizae) which may influence local soil microbiomes if released in large quantities. There are no known significant negative environmental impacts, but careful handling is recommended to prevent unintended microbial release.

#### Section XIII: Disposal Considerations



Sweep or vacuum product. Incinerate or dispose of in accordance with all federal, state, and local regulations.

#### Section XIV: Transportation Information

Always ensure the load is covered to prevent dust loss. Wear proper PPE when tipping or unloading. Biochar is hygroscopic and can absorb liquids and gases.

#### Section XV: Regulatory Information:

No additional information is available at this time.

#### **Section XVI: Other Information**

This document was prepared on March 6, 2025. It includes references to OSHA guidelines, manufacturer information, and other trusted sources. The intended use for this product is as a soil amendment.

The information provided in this Safety Data Sheet is based on available data and believed to be accurate as of the creation date. However, no warranty, express or implied, is made regarding its accuracy, completeness, or suitability for any particular purpose. The user is responsible for ensuring compliance with applicable laws and regulations.

Marrero, PhD

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