Section I- Product and Company Identification

Product Name: CarbonMicro®

Current Commercial Grade: CarbonMicro® 50

Recommended Use: Pigment, Filler, Soil Additive, other

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

Section II- Hazard Identification

Classification of the substance or mixture:

- The product is classified as non-hazardous under the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

GHS label elements:

- Pictogram:

- Signal Word: Warning
- Hazard Statements: H333 (May be harmful if inhaled)
- Precautionary Statements: None

Hazards not otherwise classified:

- The product may cause low to moderate respiratory irritation if handled in a way that generates airborne dust.

Section III - Composition/Information on Ingredients

Ingredients	Concentration	CAS Number
Biochar (Wood-Based Carbon)	95-100wt%	16291-96-6
Moisture (Water)	0-5wt%	7732-18-5

Section IV: First-Aid Measures

Description of necessary first-aid measures:

- Inhalation: Move to fresh air. If symptoms persist, seek medical attention
- Skin Contact: Wash with soap and water.
- Eye Contact: Rinse with plenty of water for up to 15 minutes. If irritation persists, seek medical attention.
- Ingestion: Not considered a route of exposure. If ingested, seek medical advice.

Most important symptoms/effects, acute and delayed:

- Slight irritation to the eyes or respiratory tract if dust is generated after drying.

Indication of immediate medical attention and special treatment needed:

- See Ingestion.

Section V: Fire-Fighting Measures

Suitable extinguishing media:

- Water spray, fog, foam, or dry chemical

Specific hazards arising from the chemical:

- Biochar is non-flammable per UN/DOT Test N.1. However, if it aerosolized, the biochar could become a combustible dust.

- In a fire, it may produce carbon monoxide (CO), carbon dioxide (CO2), and other combustion products.

Special protective equipment and precautions for fire-fighters:

- Wear self-contained breathing apparatus (SCBA) and full protective gear.

Section VI: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures:

- Personal Precautions: Use a NIOSH-approved air purifying respirator and gloves if the material becomes dusty; or voluntary use dust masks if exposures below OSHA permissible exposure limits and additional PPE desired.
- Emergency Procedures: None required.

Environmental precautions:

- Avoid runoff into waterways.

Methods and materials for containment and cleaning up:

- Sweep up or shovel bulk biochar and place it into a container for reuse or disposal. Use vacuum with hepa filtration. See Precautions when sweeping or shoveling biochar.

Section VII: Handling and Storage

Precautions for safe handling:

- Avoid generating dust.
- Ensure adequate ventilation, especially if the material is handled in an enclosed space (personnel exposures) and in the presence of a flame or ignition source (combustible dusts).
- Wash hands after handling.

Conditions for safe storage, including any incompatibilities:

- Store in a cool, dry, well-ventilated area.
- Store biochar in its original packaging and/or keep away from sources of ignition.

Section VIII: Exposure Controls/ Personal Protection

Control parameters:

- Occupational Exposure Limits: Not established for biochar.
- Recommended exposure limits:
- Particulates Not Otherwise Classified (PNOC):
- OSHA PEL: 15 mg/m³ (total dust); 5 mg/m³ (respirable fraction)
- ACGIH TLV: 10 mg/m³ (inhalable particles); 3 mg/m³ (respirable particles*) * typically < 10 µm particles.

Appropriate engineering controls:

- Use general or local exhaust ventilation to control airborne dust.

Individual protection measures, such as personal protective equipment (PPE):

- Eye/Face Protection: Safety glasses. Face-sealing safety glasses meeting ANSI Z78.1+D4/D5 or full-face air purifying respirator recommended for high dust exposures.
- Skin Protection: Gloves.

Respiratory Protection: A NIOSG-approved air purifying respirator recommended where exposures likely to exceed OSHA permissible exposure levels. Voluntary use of dust masks only recommended if exposures below OSHA PELs.

Section IX: Physical and Chemical Properties

- Appearance: Black powder.
- Odor: Earthy or slightly smoky.
- pH: 9.0-11.0, typically alkaline
- Melting point/freezing point: Not applicable.
- Initial boiling point and boiling range: Not applicable.

- Flash point: Not applicable.
- Evaporation rate: Not applicable.
- Flammability (solid, gas): Non-flammable (Not readily combustible)
- Upper/lower flammability or explosive limits: Not applicable.
- Vapor pressure: Not applicable.
- Vapor density: Not applicable.
- Relative density: 800-1000 lbs per cubic yard
- Solubility: Insoluble in water.
- Partition coefficient: n-octanol/water: Not applicable.
- Auto-ignition temperature: >400°C (when dry).
- Decomposition temperature: Not applicable.
- Viscosity: Not applicable.

Section X: Stability and Reactivity

Reactivity:

- Biochar can react with oxidizing agents when dry (e.g., oxygen, halogens, hydrogen peroxide, and perchlorates), .
- Spontaneous combustion is a potential hazard in improperly stored dry biochar.

Chemical Stability:

- Stable under recommended storage and handling conditions.

Possibility of hazardous reactions:

- None known.

Conditions to avoid:

- Drying out and becoming dusty.

Incompatible materials:

- Strong oxidizing agents.

Hazardous decomposition products:

- None under normal use. In a fire, carbon monoxide (CO) and carbon dioxide (CO2) may be produced.

Section XI: Toxicological Information

- Acute Toxicity: Not classified as toxic.
- Skin corrosion/irritation: Not a skin irritant.
- Serious eye damage/irritation: May cause slight eye irritation.
- Respiratory or skin sensitization: Not a sensitizer.
- Germ cell mutagenicity: Not mutagenic.
- Carcinogenicity: Not a carcinogen.
- Reproductive toxicity: Not a reproductive toxin.
- STOT-single exposure: May cause respiratory irritation if dust is inhaled.
- STOT-repeated exposure: Not expected to cause organ damage.
- Aspiration hazard: Not an aspiration hazard.

Section XII: Ecological Information

- Ecotoxicity: Biochar is not considered to be ecotoxic.
- Persistence and degradability: Non-biodegradable.
- Bioaccumulative potential: Does not bioaccumulate.
- Mobility in soil: Low mobility.

Section XIII: Disposal Considerations

Disposal Methods

- Dispose of in accordance with local, state, and federal regulations.

- It can often be used as a soil amendment or disposed of in a landfill.

Section XIV: Transportation Information

- UN number: Not regulated for transport.
- UN proper shipping name: Not applicable.
- Transport hazard class(es): Not applicable.
- Packing group: Not applicable.
- Environmental hazards: Not applicable.
- Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable.

Section XV: Regulatory Information:

No additional information is available at this time.

Section XVI: Other Information

- SDS Creation Date: 2/27/26
- Revision Date: 8/10/26
- Revision: 01
- Disclaimer: The information provided in this SDS is believed to be accurate and represents the best information currently available. The user is responsible for determining the suitability of the information for their particular application.

Thomas W. Marrero, PhD

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