

## MATERIAL SAFETY DATA SHEET

**SECTION I – IDENTIFICATION**

<b>Product identifier</b> Wakefield Biochar Soil Conditioner (1.5 qt, 1 Gallon, 1 CF, 2 CY Supersack): made from carbonized Southern Yellow Pine. Manufactured using continuous flow pyrolysis system to heat the feedstock to >700 degrees Celsius in a low oxygen environment.	
<b>Product Use</b> Soil Conditioner, Soil Remediation, Manufacturing Ingredient	
<b>Provider</b> Wakefield Agricultural Carbon LLC	
<b>Address</b> 1826 Clay Road	
<b>City</b> Valdosta	<b>State</b> Georgia
<b>Zip code</b> 31601	<b>Emergency Telephone</b> (573) 479-0468
<b>Date prepared</b> November 4, 2022	
<b>Prepared by</b> Thomas Marrero	<b>Phone</b> (573) 479-0468

**SECTION II – HAZARD IDENTIFICATION**

<p><b>Hazard Classification of Wakefield Biochar Soil Conditioner:</b></p> <ul style="list-style-type: none"> <li>• Flammable Wood – Category 5</li> <li>• Aspiration Hazard – Category 4</li> <li>• Carcinogenicity – Category 5</li> <li>• Specific Target Organ Toxicity (Repeated Exposure) – Category 5</li> <li>• Specific Target Organ Toxicity (Single Exposure) – Category 5</li> <li>• Skin Irritation – Category 5</li> <li>• Eye Irritation – Category 5</li> <li>• Chronic Aquatic Toxicity – Category 5</li> </ul> <p>Where the category numbers refer to how severe the hazard is with 1 being the most hazardous and 5 being the least hazardous.</p>
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**SECTION III – COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredients	%	ACGIH TLV-TWA	ACGIH STEL	OSHA PEL
Wood Based Carbon	85 -95%	10 mg/m3	15 mg/m3	5 mg/m3
Wood Based Ash	5%	Not listed		
Moisture Content	3 - 55%	Not listed		

**SECTION IV – FIRST-AID MEASURES****OVER EXPOSURE**

Page 2 of 3 Exposure to biochar should not present a health hazard. Carbon dust in excessive amounts when handling may produce an allergenic response in sensitive individuals.

<b>Skin Contact</b>	Prolonged contact with skin may result in slight irritation/redness in sensitive individuals. Should be remediated by rinsing thoroughly. Seek medical attention if persists.
<b>Eye Contact</b>	May irritate the eyes and cause watering and redness in sensitive individuals. Rinse thoroughly with plenty of water to remove foreign bodies. Seek medical attention if persists.
<b>Inhalation</b>	Inhalation of dust may irritate nose, throat, and lungs. May aggravate pre-existing conditions. Remove affected person to fresh air. Seek medical attention if persists.

**SECTION V – FIRE-FIGHTING MEASURES**

<b>Flammable</b> _X_ yes    ___ no	<b>If yes, under what conditions?</b> Near direct flame or when exposed to extreme temperatures (>700°C).	
<b>Means of Extinction</b> Water, carbon dioxide, dry chemical, or chemical foam		
<b>Autoignition Temperature</b> >700 °C	<b>Explosion Data – Sensitivity to Impact</b> NA	<b>Explosion Data – Sensitivity to Static Discharge</b> Fine dust particle above 0.140 g/l in the presence of an ignition source presents dust explosion hazard.
<b>NFPA</b> Use water to cool exposed containers and remove from path of fire if safe to do so. Wear self-contained breathing apparatus with full face mask and protective clothing.		

**SECTION VI – ACCIDENTAL RELEASE MEASURES**

<b>Leak and Spill Procedures</b>	Ensure area is well ventilated. Vacuum or sweep material and dispose of in suitable container according to local disposal guidelines.
<b>Cautions</b>	Avoid creating dust and be cautious of smoldering. May smolder if exposed to heat over 550 degrees Celsius.

**SECTION VII – HANDLING AND STORAGE**

<b>Handling Procedures</b>	Avoid dust release during storage or handling.
<b>Storage Requirements</b>	Store below 80C and keep covered to limit dust. Do not store with oxidizing agents.

**SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION**

Gloves: gloves are recommended to reduce skin contact, particularly in sensitive individuals. Respirator: If dust is excessive during handling, Wear a NIOSH/OSHA approved particle respirator (p100). Eye: Wear safety glasses with side shields. Ventilation: When possible exhaust ventilation should be used.
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**SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b> Solid, particle size 0.1 – 2mm	<b>Appearance</b> Black carbonaceous material	<b>Odor</b> none
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pH 8 – 9	Boiling Point/Range NA	Melting/Freezing Point NA
Vapor Pressure (mmHg) NA	Solubility INSOLUBLE IN WATER	

**SECTION X – STABILITY AND REACTIVITY**

Chemical Stability <input checked="" type="checkbox"/> _yes <input type="checkbox"/> _no	If no, under which conditions?
Incompatibility with Other Substances <input checked="" type="checkbox"/> _yes <input type="checkbox"/> _no	If yes, which ones? Strong Oxidizers and open flames
Hazardous Decomposition Products Combustion of product produces carbon monoxide and hydrocarbons and organic acids.	

**SECTION XI – TOXICOLOGICAL INFORMATION**

DATA NOT AVAILABLE

**SECTION XII – ECOLOGICAL INFORMATION**

DATA NOT AVAILABLE

**SECTION XIII – DISPOSAL CONSIDERATIONS****Waste Disposal**

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

**SECTION XIV – TRANSPORT INFORMATION**

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

**SECTION XV – REGULATORY INFORMATION**

No additional information

**SECTION XVI – OTHER INFORMATION****Additional Information:**

The above information is your notice as to the Right-to-Know listings of the stated products. The information contained herein is based on data available at this time and is believed to be accurate to the best of our knowledge. As of November 3, 2016, this is the most up to date information Wakefield Agricultural Carbon LLC can give. Wakefield Agricultural Carbon LLC will do everything in its power to ensure that updated versions of this MSDS is distributed to the appropriate customers but ultimately the responsibility of obtaining up to date SDS belongs to the user. Since information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, no responsibility is assumed for the results or damage of its use.