Evergreen BioCarbon

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Description: Evergreen BioCarbon is produced from virgin wood feedstock of yellow pine sourced from the southeastern US and is composed of >80% fixed carbon. BioCarbon is very porous with abundant internal surface area and high adsorption capacity. BioCarbon has undetectable amounts of live microorganisms due to production temperatures >800° C. As an agricultural amendment or remediation media, it can provide benefits in the soil for >100 years because it resists decay. BioCarbon is also called Activated Biochar. See www.EvergreenBioCarbon.com

Benefits: Some of the potential benefits of Evergreen BioCarbon include:

- High adsorption capacity
- High carbon content
- Long half-life (100s of years)
- High water-holding capacity
- High nutrient retention capacity
- High pesticide retention capacity
- Improvement of soil quality and water retention
- Increased beneficial microbes by providing substrate and refugia
- Increased Cation Exchange Capacity (CEC)
- Can enhance crop growth with less agronomic inputs

The Smart Group's Evergreen BioCarbon

Evergreen BioCarbon is not only good for soil and crops, but it is also good for the planet because it: 1) is natural, USDA Certified Biobased, and derived from plant biomass that could otherwise be wasted in a landfill, and 2) reduces and sequesters greenhouse gases.

USDA CERTIFIED BIOBASED PRODUCT
PRODUCT 97%
FP

Evergreen BioCarbon

Documented Uses:

Evergreen Biocarbon is used as a soil amendment by municipalities, landscapers and homeowners.

Evergreen Biocarbon has been in use since 2014 as Biofiltration media and Microbial substrate and sorbent in NPDES permitted wastewater treatment facilities.

Sorbent for Industrial Contaminants: Color, Gases, Hydrocarbons, Metals, Nutrients, Odors, Organic acids, Organochlorines, Oxygen consuming compounds (BOD/COD), PAHs, PCBs, Pesticides, TSS, and Volatile Organics. Data available on request.

Specifications:

Properties of Evergreen BioCarbon

Property	Unit	Value
Bulk Density	lb/cu ft	13.7
Moisture	% dry mass	45%
pH	units (as received)	8.9
Particle Size Dist	< 0.5 mm	31%
Particle Size Dist	0.5-1 mm	37%
Particle Size Dist	1-2 mm	22%
Particle Size Dist	2-4 mm	5%
Particle Size Dist	> 4 mm	5%
Organic Carbon	% dry mass	87.5
H:C	Molar ratio	0.25
Surface Area	m^2/g dry (Butane Act.)	491
Electrical Conduct.	dS/m (EC20 w/w)	0.993
Cation Exch. Cap. (CEC)	meq/100 g	69.2
Potassium (Avail.)	mg/kg	5154
Phosphorus (Avail.)	mg/kg	730
Org. Nitrogen	mg/kg	6290
Total Ash	% dry mass	< 10%
Volatile Matter (950°C)	% dry mass	90%