

BIOCHAR 'TOTALS' ANALYSIS REPORT

1 sample supplied by Macclesfield Community Association on the 3 March 2021. Lab Job No. K4205.

Analysis requested by Brian Lewis.

PO Box 535 MACCLESFIELD SA 5153

		Product Name: Product Type: Manufacturing Site: Manufactured Date: Application: Test Applicable:	Sample 1 MACCYBIOCHAR Biochar Mcclesfield Community Association 24/02/2021 .. SS-PACK-111
Parameter	Method Reference	K4205/1	
Bulk Density (kg/L)	AS4454:2012 Appendix J	0.22	
Moisture Content (%)	**Inhouse S2 (105°C)	63.1	
Volatile Matter (%)	Inhouse 750°C	85.1	
Ash Content (% ash)		14.9	
pH	Rayment & Lyons 2011 - 4A1 (1:5 Water)	10.05	
Electrical Conductivity (dS/m)	Rayment & Lyons 2011 - 3A1 (1:5 Water)	1.57	
Total Organic Carbon (%)	LECO Trumac Analyser - Inhouse S15b	82.4	
Total Carbon (%)	Inhouse S4a (LECO Trumac Analyser)	82.6	
Total Nitrogen (%)		0.45	
Acid Neutralising Capacity (% CaCO ₃)	AS4454:2012 Appendix H	11.06	
METALS			
Total Calcium (%)		3.55	
Total Magnesium (%)		0.54	
Total Potassium (%)	Rayment & Lyons 2011 - 17C1 Aqua Regia	0.55	
Total Sodium (%)		0.11	
Total Sulphur (%)		0.02	
Total Phosphorus (%)	Rayment & Lyons 2011 - 17C1 Aqua Regia	0.24	
Total Zinc (mg/kg)		201	
Total Manganese (mg/kg)		210	
Total Iron (mg/kg)		2,302	
Total Copper (mg/kg)		50	
Total Boron (mg/kg)		34.4	
Silicon (mg/kg)		895	
Total Aluminium (mg/kg)		1,333	
Total Molybdenum (mg/kg)		<1	
Total Cobalt (mg/kg)	Rayment & Lyons 2011 - 17C1 Aqua Regia	<1	
Total Selenium (mg/kg)		<1	
Total Cadmium (mg/kg)		<0.5	
Total Lead (mg/kg)		1.2	
Total Arsenic (mg/kg)		<2	
Total Chromium (mg/kg)		7.1	
Total Nickel (mg/kg)		1.6	
Total Mercury (mg/kg)		<0.1	
Total Silver (mg/kg)		<1	

Notes:

- All analysis is dry weight – Samples reported on an oven dried basis at 105°C (testing conducted on finely ground sample dried at 40°C).
- Methods from Rayment and Lyons, 2011. *Soil Chemical Methods - Australasia*. CSIRO Publishing: Collingwood.
- Total Acid Extractable Nutrients indicate a store of nutrients.
- Conversions for 1 mg/kg = 1 ppm; 1 % = 10,000 ppm
- Testing completed in a NATA accredited laboratory.
- Analysis conducted between sample arrival date and reporting date.
- This report is not to be reproduced except in full. Results only relate to the item tested.
- All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions (refer scu.edu.au/eal).
- This report was issued on 30/03/2021.

Quality Checked: Brian Smith
 Compost & Landscape Soils Co-ordinator