



SUBSTRATE ANALYSIS

Client: Waste Resolution Technologies (Pty) Ltd

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Sample Description:

Sample 1 Chicken Abbatoir hydolysate (top fraction)

Sample 2 Chicken Abbatoir hydolysate (bottom fraction)

Total Chemical Analysis of Substrate

Sample	Prot (%)	N (%)	P (%)	K (%)	Ca (%)	Mg (%)	S (%)	Na (%)
Sample 1	5.688	0.91	0.018	1.276	0.006	0.002	0.155	0.030
Sample 2	6.125	0.98	0.027	1.270	0.039	0.011	0.154	0.030

Sample	Cu ppm	Fe ppm	Zn ppm	Mn ppm	Mo ppm	B ppm
Sample 1	0.46	13.84	7.52	0.07	0.76	1.68
Sample 2	1.22	25.61	7.25	2.32	0.49	2.32

KEY

ppm = mg/L

"3.1E+2" = "310"

"3.1E-2" = "0.31"

Heavy Metal Analysis of Substrate

Element	Sample 1	Sample 2					
	ppm						
Ag - Silver	< 0.01	0.03					
Al - Aluminium	27.93	17.42					
Ba - Barium	0.6	0.147					
Be - Beryllium	0.019	0.049					
Cd - Cadmium	0.03	0.032					
Co - Cobalt	0.081	0.062					
Cr - Chromium	2.372	2.646					
Li - Lithium	0.068	0.048					
Ni - Nickel	0.562	0.437					
Pb - Lead	<0.01	0.058					
Sb - Antimony	<0.01	<0.01					
Se - Selenium	0.851	1.206					
Sr - Strontium	1.387	0.384					
Tl - Thallium	<0.01	<0.01					
V - Vanadium	0.234	0.207					

Comments

Microbiological Tests

Test/s required: Total plate count

Dilution Series	Sample 1	Sample 2	Colony forming units (CFU) per ml					
Undiluted	0	0						
1.00E+03	0	0						
1.00E+06	0	0						
1.00E+09	0	0						
1.00E+12	0	0						
Average	0	0						

Comments

No colony forming microbes were detected on total plate count agar. No bacterial or fungal contaminants detected in the samples.

With regards to bacteria and fungal species the samples can be regarded as biologically safe.