

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Launceston City Council on the 29 July, 2020 - Lab Job No. J6492.

Analysis requested by Rachael Eberhardt.

PO Box 396 LAUNCESTON TAS 7250

		Product Name:	Sample 1	Guideline
		Product Type:	OPF-25-20 28/01/2020	
		Manufacturing Site:	Compost	
		Manufactured Date:	LCC	AS4454:2012
		Test Code:	28/01/2020	Mature
		Standard Applicable:	CA-PACK-011	Compost
			AS4454:2012	
Parameter	Method Reference	J6492/1		
Bulk Density (kg/L)	AS4454:2012 Appendix J	0.4		..
Moisture Content (%)	AS4454:2012 Appendix I	41		> 25
pH	AS4454:2012 Appendix B	7.94		> 5
Electrical Conductivity (dS/m)		3.08		< 10
Total Organic Carbon (%)		16.6		≥ 20
Total Carbon (%)	AS4454:2012 Appendix C	19.4		..
Total Nitrogen (%)		1.51		≥ 0.8 ^{see note 7}
Carbon/Nitrogen Ratio	Calculation - Total Organic Carbon/Total Nitrogen	11.0		..
Estimated Organic Matter (% OM)	Calculation - Total Organic Carbon x 1.7	28.2		..
Ammonium Nitrogen (mg/L N)		4.2		< 100
Ammonium Nitrogen (mg/kg N)		21.1		..
Nitrate Nitrogen (mg/L N)	AS4454:2012 Appendix B	65.1		..
Nitrate Nitrogen (mg/kg N)		326		≥ 10 ^{see note 7}
Phosphate Phosphorus (mg/L P)		6.9		≤ 5 ^{see note 7}
Phosphate Phosphorus (mg/kg P)		34.4		..
Ammonium/Nitrate Ratio	Calculation - Ammonium/Nitrate	0.1		< 0.5
Nitrogen Drawdown Index (NDI ₁₅₀)	AS4454:2012 Appendix O	0.8		> 0.5
Total Calcium (%)		1.96		..
Total Magnesium (%)		0.66		..
Total Potassium (%)	AS4454:2012 Appendix D	0.77		..
Total Sodium (%)		0.22		< 1 Na
Total Sulphur (%)		0.15		..
Total Phosphorus (%)	AS4454:2012 Appendix D	0.27		≤ 0.1 P ^{see note 10}
Total Zinc (mg/kg)		174		< 300 Zn
Total Manganese (mg/kg)		560		..
Total Iron (mg/kg)		20,033		..
Total Copper (mg/kg)	AS4454:2012 Appendix D	58		< 150 Cu
Total Boron (mg/kg)		19		< 100 B
Total Silicon (mg/kg)		1,281		..
Total Aluminium (mg/kg)		12,075		..
Total Molybdenum (mg/kg)		1.05		..
Total Cobalt (mg/kg)	AS4454:2012 Appendix D	8.93		..
Total Selenium (mg/kg)		<1		< 5 Se
Total Cadmium (mg/kg)		<0.5		< 1 Cd
Total Lead (mg/kg)		40.2		< 150 Pb
Total Arsenic (mg/kg)		6.3		< 20 As
Total Chromium (mg/kg)	AS4454:2012 Appendix D	22.7		< 100 Cr
Total Nickel (mg/kg)		25.4		< 60 Ni
Total Mercury (mg/kg)		<0.1		< 1 Hg
Total Silver (mg/kg)		<1		..

AS4454:2012 COMPOSTS, SOIL CONDITIONERS AND MULCHES REPORT

1 sample supplied by Launceston City Council on the 29 July, 2020 - Lab Job No. J6492.

Analysis requested by Rachael Eberhardt.

PO Box 396 LAUNCESTON TAS 7250

Parameter		Method Reference	J6492/1	Guideline
Product Name:		OPF-25-20 28/01/2020	Sample 1	
Product Type:		Compost		
Manufacturing Site:		LCC		
Manufactured Date:		28/01/2020		
Test Code:		CA-PACK-011		
Standard Applicable:		AS4454:2012		AS4454:2012 Mature Compost
Polychlorinated Biphenyls (mg/kg)			Not detected	< 0.2
Organochlorine Pesticides - DDT, DDD, DDE (mg/kg)		Sub** - SGS Laboratories SE209705	Not detected	< 0.5
Organochlorine Pesticides - Other (mg/kg) ^{see note 9}			Not detected	< 0.02
Salmonella spp (Absent in 25 g)			Not detected	Absent in 25 g
E. coli (MPN/g DW)		Sub** - Symbio Laboratories B932720	9.2	< 100 MPN/g
Faecal Coliforms (MPN/g DW)			9.2	< 1000 MPN/g
Particle Size Grading > 16 mm Sieve (%)			Nil	... ^{see note 5}
Particle Size Grading 5–16 mm Sieve (%)		AS4454:2012 Appendix G	10.2	... ^{see note 5}
Particle Size Grading < 5 mm Sieve (%)			89.8	... ^{see note 5}
Plastics Light Flexible or film > 5 mm (%)			<0.01	≤ 0.05
Stones and Lumps of Clay > 5 mm (%)		AS4454:2012 Appendix I	4.83	≤ 5
Glass, metal and rigid plastics > 2 mm (%)			<0.01	≤ 0.5
Wettability (min)		AS4454:2012 Appendix E	1m 56s	<5
Plant Growth Test - Germination (%)		TMECC 05.05-B	90	> 90
Plant Growth Test - Root Elongation (%)			47	> 90
Oxygen Consumption Rate (mgO ₂ /Kg/min)			0.25	..
Specific Oxygen Uptake Rate (mgO ₂ /gVVS/hr)			0.10	≤ 1
Solvita Compost Maturity Index		Solvita NH3	4	..
		Solvita CO2	8	..
		Solvita Maturity Index	8	7 - 8
Viable Plant Propagules (7 days)		AS4454:2012 Appendix M	Nil	..
Viable Plant Propagules (21 days)		AS4454:2012 Appendix M	NA	Nil after 21 days

Notes:

- Methods from AS4454:2012 Composts, soil conditioners and mulches.
- Indicative guidelines are based on those in AS4454:2012 for raw mulches, pasteurized product, composted product, mature composts.
- Total Acid Extractable Nutrients indicate a store of nutrients.
- Conversions for 1 mg/kg = 1 ppm; 1 % = 10,000 ppm; kg/ha = mg/kg x 2.24.
- Coarse Mulch > 70% >16mm, Fine Mulch <20% >16mm and <20% <5mm, Soil Conditioner <20% >16mm.
- The chloride calculation of Cl mg/L = EC x 640 is considered an estimate, and most likely an over-estimate.
- Guide only to be used if a product claims to contribute to plant nutrition.
- The full test observes the potential growth of viable plant propagules in a 21 day test period. In order to pass there should be Nil after 21 days
- Other Organochlorines include: Aldrin, Dieldrin, Chlordane, Heptachlor, HCB, Lindane, BHC Other Organophosphorus include: Guthion, Bromophos-ethyl, Chlorpyrifos, Chlorpyrifos-methy, Diazinon, Dichlorvos, Dimethoate, Ethion, Fenitrothion, Malathion, Parathion, Ronnel.
- Guide only to be used if a product claims to be used for phosphorus sensitive plants. < 1 if applied to sandy soils
- Analysis conducted between sample arrival date and reporting date.
- This report is not to be reproduced except in full.
- Sub** - Analysis sub-contracted.
- All testing parameters have been facilitated by a NATA accredited laboratory.
- All services undertaken by EAL are covered by the EAL Laboratory Services Terms and Conditions. These Terms and Conditions are available on the EAL website: scu.edu.au/eal, or on request.

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