

Sample Drop Off: 16 Chilvers Road
Thornleigh NSW 2120

Tel: 1300 30 40 80
Fax: 1300 64 46 89
Em: info@sesl.com.au
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Batch N°: 72135	Sample N°: 1	Date Received: 23/3/26	Report Status: Final
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Client Name: Gippsland Soil Solutions P/L	Project Name: Gippsland Soil Solutions
Client Contact: Jamie Marslen	SESL Quote N°:
Client Order N°:	Sample Name: Soil Improver
Address: PO Box 376	Description: Compost
Trafalgar VIC 3824	Test Type: 4454_CSC_LV11

Classification:	RECOMMENDATIONS
☒ Soil Conditioner ☐ Coarse Mulch ☐ Fine Mulch ☐ Vermicast	This soil improver sample was submitted for analysis of physical and chemical characteristics in accordance with the <i>Australian Standard 4454:2012 - Composts, mulches, and soil conditioners (AS4454)</i>. The sample passed all assessed criteria except for the Nitrogen Drawdown Index (NDI). The failure of the NDI is likely due to the low levels of nitrogen within this compost and incomplete composting. Apply urea at 300 g/m³ and continue composting operations to further mature the compost. Ensure compost moisture content is approximately 50-60%, and that compost is sufficiently aerated. Then retest NDI to determine maturity.
Process criteria: ☐ Raw Mulch ☐ Pasteurised ☒ Composted ☐ Mature Compost	Analysed by ALS Laboratory Group, NATA # 825, Report # ES2609308 Analysed by SESL Australia NATA #15633

Characteristic	Unit	Requirement	Result	Comments
pH (1:5) in water	pH units	≥ 5.0	7.4	Pass
Electrical Conductivity (1:5)	dS/m	≤ 10	2.02	Pass
Phosphate-P (soluble)	mgP/L	≤ 5.0	0.31	Suitable for sandy soils
Phosphate-P	mgP/kg	No requirement	1.5	-
Phosphorus (P) - Total	% dry wt	≤ 0.1 ¹	0.226	Unsuitable for P sensitive plants
Ammonium-N (NH ₄)	mg/L	<200	2	Pass
Ammonium-N (NH ₄)	mg/kg	No requirement	9.9	-
Nitrate-N (NO ₃)	mg/L	No requirement	0.049	-
Nitrate-N (NO ₃)	mg/kg	≥ 10 ^{2 3}	0.24	See Note 2
Plant Available N (NH ₄ + NO ₃)	mg/L	See Note 4 below	<5.0	See Note 4 below
Nitrogen (N) - Total	% dry wt	≥ 0.8 ²	1.31	Pass - see Note 2 below
Total Organic Carbon	% dry wt	≥ 20	31.7	Pass
Organic Matter	% dry wt	-	54	-
Carbon : Nitrogen Ratio	C : N	See Note 4	24	Level appropriate for application
Total CaCO ₃ Equivalent	% CaCO ₃	Report if pH > 8.0	-	See Table 3.2 for application rate
Wettability	min	< 5	1.88	Pass
Particle Size Grading >16mm	% Retained	≤ 20	<0.05	Pass
<5mm	% Passing	No requirement	91.38	No requirement for Soil Conditioner
Moisture content	%	25 - 60	49.7	Pass
Glass, metal, rigid plastics >2mm	% Retained	≤ 0.5	<0.05	Pass
Light plastic >5mm	% Retained	≤ 0.05	<0.05	Pass
Stones & lumps of clay ≥5mm	% Retained	≤ 5	1.46	Pass
Viable Plant Propagules	Detection	No requirement		No requirement
Pathogens - Faecal Coliforms	MPN/g (dry wt)	< 1000	-	Did not test
Pathogens - Salmonella sp.	Detection	Not detected / 50g	-	Did not test
Pathogens - E. Coli	MPN/g (dry wt)	No Requirement	-	No Requirement

Notes: 1. For products that claim to be for phosphorus-sensitive plants. No requirement otherwise. 3. No requirement for Raw Mulch or Pasteurised product.
2 If a contribution to plant nutrition is claimed. 4. Level appropriate for application specific products.

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Characteristic	Requirement	Result (%)	(Ca + Mg) : Na	Comments
Sodium (Na)	Na < 1.0%	0.187	Na low	Pass
Calcium (Ca)	or	2.38		Calcium and magnesium need to be reported only if sodium % is ≥ 1.0
Magnesium (Mg)	(Ca+Mg)/Na ≥ 7.5	0.366		

BIOLOGICAL STABILITY AND PLANT GROWTH TO DETERMINE COMPOST MATURITY

Group A: Biological Stability Testing	Unit	Requirement		Result	Comments
Solvita Compost Maturity Index	Index	Composted Product	Mature Compost	Solv. NH ₃ :	Did not test
		5 - 8	7 - 8	Solv. CO ₂ :	
Nitrogen Drawdown (NDI)	Index	> 0.2	> 0.5	Mat. Index: -	Fail
S.O.U.R.	mg O ₂ /g BVS/hr	< 3.0	≤ 1.0	-	Did not test
Carbon Dioxide Respiration	mg CO ₂ /g BVS/hr	≤ 12	≤ 8	-	Did not test
Dewar self heating test	°C above ambient	≤ 20°C	≤ 10°C	-	Did not test
Group B: Plant Growth Testing					
Bioassay (Toxicity)	mm root length	> 60	N/A	98	Pass
Solvita Ammonia	Solvita scale	≥ 4	≥ 5		Did not test
Volatile Fatty Acids	mol/g	< 1000	< 200		Did not test

UNRESTRICTED USE UPPER LIMITS FOR CHEMICAL CONTAMINANTS

Category	Element	Unrestricted Use Upper Limits	Results	Comments
Chemical Contaminants (mg/kg)	Arsenic (As)	20	5.7	Pass
	Cadmium (Cd)	1	0.3	Pass
	Boron (B)	100	18	Pass
	Chromium (Cr)	100	14.8	Pass
	Copper (Cu)	150	34.6	Pass
	Lead (Pb)	150	28.3	Pass
	Mercury (Hg)	1	<0.1	Pass
	Nickel (Ni)	60	10.6	Pass
	Selenium (Se)	5	<1	Pass
Organic Contaminants (mg/kg)	Zinc (Zn)	300	121	Pass
	DDT/DDD/DDE	0.5	<0.001	Pass
	Aldrin	0.02	<0.001	Pass
	Dieldrin	0.02	<0.001	Pass
	Chlordane	0.02	<0.001	Pass
	Heptachlor	0.02	<0.001	Pass
	HCB	0.02	<0.001	Pass
	gBHC (Lindane)	0.02	<0.0006	Pass
	BHC	0.02	<0.001	Pass
	PCBs	Not detected (<0.2)	<0.1	Pass

Consultant: Michael Fox

Authorised Signatory: Owen Guy

Date Report Generated
8/04/2026


