BIOSCIENCE PTY LTD ABN: 26 547 517 746
488 NICHOLSON ROAD, FORRESTDALE WA 6112
PO BOX 5466 CANNING VALE SOUTH WA 6155
PHONE (08) 9397 2446, FAX (08) 9397 2447
EMAIL bioscience@biosciencewa.com
WEB www.biosciencewa.com

ANALYSIS REPORT

CLIENT:	Eclipse Soils	REPORT NO:	2026_0778
TEST REQUEST:	AS 4454-2012 Test Methods B-G, I-J(1)	LAB SAMPLE ID:	2026_0778
ADDRESS:	40 Subiaco Square Rd, Subiaco WA	DATE RECEIVED:	8/07/2026
CLIENT SAMPLE ID:	Blowable Aquamor Mulch ES978	DATE TESTED:	8/07/26-11/08/26
SAMPLING LOCATION:	Abercrombie	DATE REPORTED:	11/08/2026

TEST RESULTS

Analyte	Result	Unit	AS4454 Compliance Requirement	
			Raw mulch	Pasteurized product
Electrical Conductivity	0.15	mS/cm	≤10	≤10
pH(H_2O)	5.7		> 5	>5
pH($CaCl_2$)	4.5			
Ammonium-N (in extract)	<0.02	mg/L	NA	NA
Ammonium-N (dry weight)	<0.1	mg/kg		
Nitrate-N (in extract)	0.04	mg/L		
Nitrate-N ($_{dry}$ weight)	0.22	mg/kg	NR	NR
Total N (dry weight)	0.067	%	≥ 0.8(2)	≥ 0.8(2)
Phosphate-P (in extract)	0.08	mg/L	≤ 5(3)	≤ 5(3), <1(4)
Phosphate-P (dry weight)	0.43	mg/kg		
Total P (dry weight)	0.0017	%	≤ 0.1(3)	≤ 0.1(3)
Carbon (dry weight)	43.7	%	≥ 20	≥ 20
C:N Ratio	650			
Organic Matter (dry weight)	75.2	%		
Calcium (dry weight)	1,600	mg/kg		
Magnesium (dry weight)	310	mg/kg		
Sodium (dry weight)	110	mg/kg	NR	< 10 000
Potassium (dry weight)	200	mg/kg		
Chemical Contaminants(5)				
Arsenic	<2	mg/kg	≤ 20	≤ 20
Cadmium	<0.1	mg/kg	≤ 1	≤ 1
Chromium	1.3	mg/kg	≤ 100	≤ 100
Copper	<1	mg/kg	≤ 150(6)	≤ 150(6)
Lead	<1	mg/kg	≤ 150	≤ 150
Mercury	<0.02	mg/kg	≤ 1	≤ 1
Nickel	<1	mg/kg	≤ 60	≤ 60
Zinc	<5	mg/kg	≤ 300(6)	≤ 300(6)

This report is not to be reproduced, except in full, without the approval of Bioscience Pty Ltd.

BIOSCIENCE PTY LTD ABN: 26 547 517 746
488 NICHOLSON ROAD, FORRESTDALE WA 6112
PO BOX 5466 CANNING VALE SOUTH WA 6155
PHONE (08) 9397 2446, FAX (08) 9397 2447
EMAIL bioscience@biosciencewa.com
WEB www.biosciencewa.com

TEST RESULTS

Analyte	Result	Unit	AS4454 Compliance Requirement	
			Raw mulch	Pasteurized product
Phytotoxicity	104.7	Growth Index %	NR	NR
Apparent Density	0.37	kg/L		
Dry Bulk Density	0.27	kg/L		
Moisture content (as received)	39.6	%	NR	25-81.2(7)
Particle Size Grading				
• > 16mm	49.9	%		
• > 5mm to < 16mm	48.4	%		
• < 5mm	1.7	%		
Physical Contaminants				
• glass, metal and hard plastic > 2mm	0	%	≤ 0.5	≤ 0.5
• light plastic, plastic film > 5mm	0	%	≤ 0.05	≤ 0.05
• stones and clods of clay >5mm	4.65	%	≤ 5	≤ 5

Analysis: Sample was processed and sampled in accordance with AS 4454-2012 Standards. Electrical conductivity, pH, Ammonium-N, Nitrate-N and Phosphate-P AS 4454-2012 Appendix B. Total Calcium Carbonate AS 445402012 Appendix H. Total N, Carbon, C:N Ratio calculation, Organic Matter calculation AS 4454-2012 Appendix C. Total P, calcium, magnesium, sodium, potassium, arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc AS 4454-2012 Appendix D. Apparent density and bulk density calculation AS 4454-2012 Appendix J. Wettability AS 4454-2012 Appendix E. Moisture content AS 4454-2012 Appendix I. Particle size grading AS 4454-2012 Appendix G. Physical Contamination AS 4454-2012 Appendix I. Nitrogen Drawdown Index AS 4454-2012 Appendix O. Plant growth test (Bioassay) AS 4454-2012 Appendix N alternate bioassay as per TMECC 05.05-B *In-Vitro Germination and Root Elongation* (2001). Compliance requirements for AS 4454 Mulch is $pH_{(H_2O)}$, $pH_{(CaCl_2)}$ have been provided as per client request, in accordance to AS 4454-2012 Appendix B. Pathogen indicators (Salmonella. E. coli and Faecal Coliforms) tested by EUROFINS using Method PM 4.2A, PM 4.6 respectively).

* If the concentration of nitrate is >200 mg/L and/or the concentration of ammonium is >50 mg/L the NDI test method is not valid.

** If the concentration of both ammonium and nitrates is below 100 mg/kg dry weight, the ammonium : nitrate ratio is not valid.

(1) Appendix D includes the following parameters not tested by Bioscience Pty. Ltd.: boron, selenium, molybdenum, organohalides, chlorinated organic pesticides (OCPs), polychlorinated biphenyls (PCBs), and pathogens (Salmonella, Escherichia coli, Faecal Coliforms).

(2) If a contribution to plant nutrition is claimed.

(3) For products that claim to be for P-sensitive plants.

(4) If applied to sandy soils.

(5) Where there are no currently applicable federal and state or territory provisions for composts, soil conditioners and mulches, products shall comply with the list of chemical contaminant upper limit values and labelling provisions as listed here. Note: non-conformance with this Standard does not indicate that the product may not otherwise be suitable for a range of specified applications that comply with other state or territory government regulations, guidelines or specified end user requirements. (From AS 4454-2012 Clause 2.1).

(6) A product that contains levels of total copper between 100-150 mg/kg and/or total zinc between 200-300 mg/kg (dry weight), whilst not exceeding the limit values, shall provide a warning label in accordance with the labelling requirements of Clause 5.3 of AS 4454-2012.

(7) Maximum = % OM + 6, when OM > 40%; maximum = % OM + 10 when OM < 40%.

(8) As per Zucconi et al (1981, 1985) GI values <50% indicate high phytotoxicity, 50-80% indicate moderate phytotoxicity, >80% indicate absence of phytotoxicity, >100% indicates phytonutrient/phytostimulation.

Classification as either raw mulch or pasteurised product depends on the material type and if the sample has undergone pasteurisation (that is, a process whereby organic materials are treated to significantly reduce the numbers of plant and animal pathogens and plant propagules – Clause 1.5.13). Raw mulch is defined as mulch from a single known plant material type that, by virtue of the nature and source of the material, embodies minimal risk of plant propagules, pathogens and other contaminants (Clause 1.5.9).

These results reflect our findings for the received sample only.

Tested by: SM JK BM Date: 11/08/2026

This report is not to be reproduced, except in full, without the approval of Bioscience Pty Ltd.