

# CERTIFICATE OF ANALYSIS

Product Description L-ALANINE  
Product Number A121  
Lot Number 99G12101  
Storage Temperature Room Temperature  
Molecular Weight 89.09  
Formula C<sub>3</sub>H<sub>7</sub>NO<sub>2</sub>  
CAS Number 56-41-7

## Physiochemical Specifications:

TEST	SPECIFICATION	RESULTS
Solubility	Soluble in Water @ 10 mg/mL	Passes
pH	Under Development	6.4
Physical Appearance Color* Texture	PM-1 to PM-4 Crystalline Powder	PM-4 White Crystalline Powder
Solution Appearance Clarity Color	Clear Colorless	Clear Colorless
Average Time to Dissolve	For Information Only (Approx. 5 min)	3 min
Insolubles	None	Passes
Purity	Minimum 99.0%	99.1%
Heavy Metals as Pb	For Information Only	10 ppm
FTIR	Conforms to Structure	Passes
Loss on Drying	For Information Only	0.14%

\* Product color based upon comparisons between sample and standardized color wheel (Benjamin Moore® Color Preview™).

## Biological Testing:

Test Concentration: 50.0 mg/L

TEST SPECIFICATION	PLANT CELL LINE	RESULTS
Supports and/or facilitates plant growth and/or shoot proliferation in two or more plant tissue cultured lines with no morphological aberrations to plants	Tobacco callus	Passes
	Sugar Cane	Passes

The material described in this certificate is synthetic. No animal- or plant-derived components were used in the manufacture of this product.

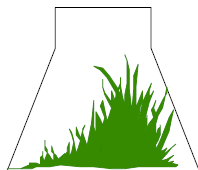
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Date of Release: 5-October-2018

Recommended Shelf Life Date: October-2023



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