CERTIFICATE OF ANALYSIS

Product Description INDOLE-3-BUTYRIC ACID; IBA

Product Number I538

Lot Number04A53805Storage Temperature $2-6^{\circ}$ CMolecular Weight203.24Formula $C_{12}H_{13}NO_2$ CAS Number133-32-4

Physiochemical Specifications:

TEST	SPECIFICATION	RESULTS
Solubility	Soluble in KOH	Complies
pH ¹ (0.01 g/L)	9.25-10.25	957
Physical Appearance	2159-60 (Lion Yellow)	2158-60 (Cream)
Color*	2156-60 to 2160-60	
Texture	Powder	Powder
Solution Appearance	Clear, colorless	Clear, colorless
Average Time to Dissolve	Within 1 min	Within 1 min
Precipitation Formation	None	None
Content (HPLC)	Minimum 98.0%	98.8%
Melting Point	122-124° C	123-123.5° C
Loss on Drying	0.5%	0.15%
Residue After Ignition	0.1%	0.02%

^{*} Product color based upon comparisons between sample and standardized color wheel (Benjamin Moore® Color PreviewTM).

Biological Testing:

TEST SPECIFICATION	PLANT CELL LINE	RESULTS
Supports and/or facilitates plant	Boston Fern	Passes—supported plant growth
growth and/or shoot proliferation		and/or shoot proliferation with no
in two or more plant tissue		morphological aberrations to
cultures		plants
	Hosta	Passes—supported plant growth
		and/or shoot proliferation with no
		morphological aberrations to
		plants

The material described in this certificate was manufactured in the United State of America and is of synthetic nature. No animal or plant components were used in the manufacture of this product.

Phyto Technology Laboratories, LLC provides the above information intended to be used only as a guide to the appropriate handling of this material by a properly trained person. Phyto Technology Laboratories shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.

Recommended Shelf Life Date: April 2009

Amy M. Brooks

Quality Assurance Manager



Dedicated to Growth

PhytoTechnology Laboratories, LLC

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¹ pH is dependent on the type and amount of solvent used.