

CERTIFICATE OF ANALYSIS

Product Description PUTRESCINE DIHYDROCHLORIDE
1,4-BUTANEDIAMINE DIHYDROCHLORIDE
Product Number P733
Lot Number 07B73304
Storage Temperature Room Temperature
Molecular Weight 161.1
Formula $C_4H_{12}N_2 \cdot 2HCl$
CAS Number 333-93-7

Physiochemical Specifications:

TEST	SPECIFICATION	RESULTS
Solubility	Soluble in Water	Passes
pH (0.10 g/L)	Under Development	5.53
Physical Appearance Color*	RM-31 (Brilliant White) RM-1 to RM-3	RM-1 (Super White)
Texture	Fine to Crystalline Powder, may have some larger clumps	Crystalline Powder
Solution Appearance Clarity Color	Clear Colorless	Clear Colorless
Average Time to Dissolve	Within 2 min	Passes
Precipitation Formation	None	Passes
Purity	Minimum 98%	98.78%

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

Biological Testing:

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	Syngonium	Passes
	African Violet	Passes

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

PhytoTechnology Laboratories® provides the above information intended to be used only as a guide to the appropriate handling of this material by a properly trained person. PhytoTechnology 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: February 2015



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