

## CERTIFICATE OF ANALYSIS

Product Description POLYVINYLPIRROLIDONE, PVP-40  
Product Number P728  
Lot Number ATR0728018  
Storage Temperature Room Temperature  
Molecular Weight 40,000 Avg.  
Formula  $(C_6H_9NO)_n$   
CAS Number 9003-39-8

### Physiochemical Specifications:

TEST	SPECIFICATION	RESULTS
Solubility	Soluble in Water @ 10 mg/mL	Passes
pH	Under Development	4.1
Physical Appearance Color* Texture	PM-1 to PM-4 Fine to Crystalline Powder	PM-4 White Fine Powder
Solution Appearance Clarity Color	Clear Colorless	Clear Colorless
Average Time to Dissolve	For Information Only (Approx. 5 min)	5 min
Insolubles	None	Passes
FTIR	Conforms to Structure	Passes
K-Value	27.0-32.0	29.6

\* 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
This product is commonly used as an anti-oxidant. This product is tested with two or more tissue cultured plant lines to ensure no phytotoxic impurities that would cause morphological aberrations to plants.	Sugar Cane	Passes
	Tobacco Callus	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.

Date of Release: 2-January-2019

Recommended Shelf Life Date: January 2027



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