

# CERTIFICATE OF ANALYSIS

Product Description      GLUTHATHIONE (REDUCED)  
Product Number          G3399  
Lot Number                12J3399002  
Storage Temperature      2 to 6°C  
Molecular Weight        307.33  
Formula                    C<sub>10</sub>H<sub>17</sub>N<sub>3</sub>O<sub>6</sub>S  
CAS Number                70-18-8

## Physiochemical Specifications:

TEST	SPECIFICATION	RESULTS
Solubility	Soluble in water @ 10 mg/mL	Passes
pH	Under Development	3.08
Physical Appearance		
Color*	Under Development	RM-31 White
Texture	Fine Powder	Fine Powder
Solution Appearance		
Clarity	Clear	Clear
Color	Colorless	Colorless
Average Time to Dissolve	Within 5 min	Passes
Insolubles	None	Passes
Purity	Minimum 98.0%	99.04%
Loss on Drying	For Information Only	0.6628%

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

## Biological Testing:

Test Concentration: 50 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	Carrot Callus	Passes
	Achimenes	Passes

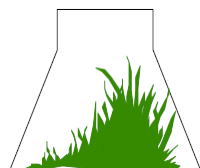
The material described in this certificate was manufactured in the United States of America and is synthetic in nature. No animal- or plant-derived components were used in the manufacture of this product.

**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: September 2017



Gary Seckinger, Ph.D.



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