

# Certificate of Analysis

**Product Name:** PNPG (Gus)  
**Cat #:** N-325  
**CAS #:** 10344-94-2  
**Lot #:** Lot Specific  
**Retest Date:** Lot Specific  
**Storage:<sup>†</sup>** Store desiccated at -20°C. Protect from light.

Test	Specs	Results
Color	slightly off-white to yellow	slightly off-white
Form	crystalline powder	crystalline powder
Color of Solution (1% in water)	almost colorless to slightly yellow	almost colorless
Turbidity (1% in water)	max. 4.0 NTU	0.3 NTU
Water Content (K. Fischer)	max. 6.5%	4.8%
Specific Optical Rotation [alpha]D (c = 1 in water, 20°C)	-112.0 to -108.0	-108.6
Purity (HPLC)	min. 98.0 area-%	98.6 area-%
Impurity (p-nitrophenol, HPLC)	max. 0.05%	0.01%
FT-IR Spectrum	corresponds to reference spectrum	corresponds

\* Gold Biotechnology, Inc. provides this Certificate of Analysis in good faith and to the best of its knowledge. It should not be substituted for the user's own raw material quality control. This material is for laboratory use only.

† Storage at listed temperature applies to retest date (if shown) or two years from purchase date. Check label for long term storage conditions, which may extend the product beyond the retest date and/or greater than two years from purchase.

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