



Certificate of Analysis

Thiamine HCl USP

Catalog Number: TH1002
Lot Number: 1026601
CAS Number: 67-03-8
Molecular Formula: $C_{12}H_{17}ClN_4OS \cdot HCl$
Molecular Weight: 337.27
Storage: 15°C – 30°C
Date of Manufacture: December 16, 2015
Retest Date: December 15, 2018

Test	Specification	Result
Appearance	White crystalline powder	Conforms
Assay	98.5% to 102.0%	99.0%
Identification	To meet requirements	Conforms
Appearance of Solution (5%)	To meet requirements	Conforms
pH (5%)	2.7 to 3.4	3.1
Moisture (LOD)	≤ 5.0%	1.90%
Residue on Ignition	≤ 0.10%	0.05%
Sulfate	≤ 0.03%	< 0.03%
Chromatographic Impurity	≤ 1.0%	< 0.10%
Related Substance	To meet requirements	Conforms
Limit of Nitrate	To meet requirements	Conforms
Residual Solvents		
Ethanol	≤ 0.5%	< 0.5%
Methanol	≤ 0.5%	< 0.3%
Heavy Metals	≤ 10ppm	< 10ppm
Arsenic	≤ 2ppm	< 1ppm
Cadmium	≤ 1ppm	< 0.3ppm
Lead	≤ 2ppm	< 0.5ppm
Mercury	≤ 0.1ppm	< 0.1ppm
Total Plate Count	≤ 1,000cfu/g	< 1,000cfu/g
Yeast & Mold	≤ 100cfu/g	< 100cfu/g
Coliforms	≤ 10cfu/g	< 10cfu/g
<i>E. coli</i>	Negative	Negative
<i>Salmonella</i>	Negative	Negative
<i>S. aureus</i>	Negative	Negative
This lot meets the specifications for USP38.		

Approved by:

John Grubb, PhD
Gojira Fine Chemicals, LLC

Date: October 26, 2016

For research purposes only. Not for drug or clinical use in humans or human food additive use.



Gojira Fine Chemicals, LLC

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