



Certificate of Analysis

D-(+)-Trehalose Dihydrate

Catalog Number: TD1001
Lot Number: 0109801
CAS Number: 6138-23-4
Synonym(s): α, α -Trehalose, α -D-Glucopyranosyl- α -D-glucopyranoside
Molecular Formula: $C_{12}H_{22}O_{11} \cdot 2H_2O$
Molecular Weight: 378.33
Storage: 15°C – 30°C
Date of Manufacture: July 7, 2017
Retest Date: July 6, 2022

Test	Specification	Result
Appearance	White crystalline powder	Conforms
Purity	$\geq 98.0\%$	99.6%
Identification	To match reference spectra	Conforms
Specific Rotation ($c=7$, H_2O)	+177.5 to +180.5°	180.41°
Turbidity of Solution (30%)	≤ 0.050	0.00
Solubility (50mg/mL, H_2O)	Clear & colorless	Conforms
pH (30%)	4.5 – 6.5	5.55
Coloration of Solution (30%)	≤ 0.10	0.00
Moisture (LOD)	$\leq 1.5\%$	0.2%
Moisture (KF)	8.8 – 9.7%	9.5%
Residue on Ignition	$\leq 0.05\%$	< 0.05%
Heavy Metals (Pb)	$\leq 5ppm$	< 1ppm
Arsenic (as As_2O_3)	$\leq 1ppm$	0ppm
Viable Count	$\leq 300cfu/g$	0cfu/g
Coliforms	Negative	Conforms

Approved by:

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Date: January 10, 2018