

Gojira Fine Chemicals, LLC

Quality Products & Services Meeting Customer Needs

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Certificate of Analysis

D,L-Dithiothreitol

 Catalog Number:
 DT1001

 Lot Number:
 0921602

 CAS Number:
 3483-12-3

Synonym(s): threo-1,4-Dimercapto-2,3-butanediol, Cleland's reagent, DTT

 $\begin{tabular}{lll} \mbox{Molecular Formula:} & $C_4\mbox{H}_{10}\mbox{O}_2\mbox{S}_2$ \\ \mbox{Molecular Weight:} & 154.25 \\ \mbox{Storage:} & 2^{\circ}\mbox{C} - 8^{\circ}\mbox{C} \\ \end{tabular}$

Date of Manufacture: January 2, 2015 Retest Date: January 1, 2018

Test	Specification	Result
Appearance	White powder	Conforms
Assay	≥ 99.0%	99.29%
Identification (IR)	To match reference spectrum	TBD
Identification (TLC)	To match reference spectrum	Conforms
Melting Point	38°C – 44°C	42°C – 44°C
Solubility (5%)	Clear & colorless	Conforms
pH (0.1M, H ₂ O)	4.0 – 6.0	TBD
UV Absorbance (0.1M, H ₂ O)		
A280	≤ 0.1	TBD
A500	≤ 0.05	TBD
Moisture (LOD)	≤ 0.5%	TBD
Impurities (UV Absorbance)	≤ 0.4%	0.1%
Heavy Metals	≤ 5mg/kg	< 5mg/kg

Date: September 21, 2016

TBD: Tests to be performed at Gojira.

Approved by:

John Grubb

John Grubb, PhD

Gojira Fine Chemicals, LLC

Quality Manager

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