

CERTIFICATE OF ANALYSIS

1. Identification

Product Name

2-(1,1-Dimethylethyl)-1,2,3,4-tetrahydro-4,6,8-Isoquinolinetriol

Hemisulfate Hydrate

<u>Synonyms</u>

Terbutaline Sulfate Impurity B Hemisulfate Hydrate

<u>CAS Number</u> <u>Solubility</u>

N/A DMSO (Slightly), Water (Slightly)

Molecular Formula Source of Product

 $2(C_{13}H_{19}NO_3) \bullet H_2SO_4 \bullet x(H_2O)$ Synthetic

Molecular Weight Purity 2(237.30) + 98.07 + x(18.02) >95%

2. Warnings

Hygroscopic

3. Analytical Information

Specifications Tests Results Appearance Off-White to Pale Beige Solid Pale Yellow Solid Conforms to Structure Conforms **Elemental Analysis** Conforms %C: 48.63, %H: 7.51, %N: 4.40 **HPLC** Purity >95% 99.07% (200 nm) MS Conforms to Structure Conforms Water Content Report Result 9.7% by Karl Fischer

Structure

Shipping Condition

This Product Is Stable To Be Shipped At Room

Temperature

Long Term Storage Conditions

-20°C, Hygroscopic

Additional Information

N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed.

The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed by Reviewed by C of A Approved by Test Date Retest Date

R. Larij
Swathi reddy Toni Rantanen Chanell Chu

Product Quality Specialist Manager, Quality Assurance Quality Assurance Associate