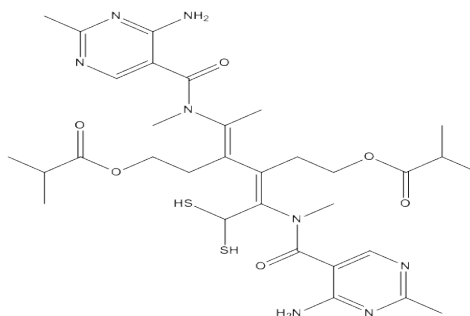


## Certificate Of Analysis

**Name:** Sulbutiamine  
**CAS No.:** 3286-46-2  
**Cat No.:** A821472  
**Molecular Formula:** C32H46N8O6S2  
**Molecular Weight:** 702.89  
**Batch No.:** S05042021  
**Mfg.Date:** 2021.04.05  
**Exp.Date:** 2023.04.04



Items	Specifications	Results
<b>Appearance</b>	White to pale yellow crystalline powder	White crystalline powder
<b>Solubility</b>	Soluble in ethanol; Very slightly soluble in water	conforms
<b>Water</b>	NMT1.0%	0.41%
<b>Sulfate</b>	NMT0.02%	Conforms
<b>Chloride</b>	NMT0.02%	Conforms
<b>Residue on Ignition</b>	NMT 0.10%	0.05%
<b>Residual Solvents</b>	Ethanol NMT0.5%	0.23%
	Methylene chloride NMT0.06%	0.021%
<b>Heavy metals</b>	NMT20ppm	Conforms
<b>VB1</b>	NMT0.1%	N/D
<b>Purity (HPLC)</b>	NLT 98.0%	99.1%
<b>Total impurities(HPIC)</b>	NMT2.0%	0.86%
<b>Assay (anhydride)</b>	98.0%- 102.0%	99.0%
<b>Conclusion</b>	The product tested complies with the specifications.	