



Certificate of Analysis

Product Name:	Sulbutiamine	Batch Number:	Varies
CAS No.	3286-46-2	Manufacture Date:	Varies
Molecular Formula:	C₃₂H₄₆N₈O₆S₂	Expiry Date:	Varies

IDENTIFICATION		SPECIFICATION		RESULT
Purity (HPLC)		≥ 98.0%		98.9 - 99.1%
Assay (anhydride)		98% - 102%		99.2 - 99.9%
Physical	Appearance	White or pale yellowish crystalline powder		Complies
	Solubility	Soluble in ethanol. Very slightly soluble in water		Complies
	Melting point	≥ 135°C		Complies
	Water	≤ 1%		0.33 - 0.55%
	Clarity and color of solution	Colorless or slightly yellow clear solution		Complies
	Chloride	≤ 0.018 - 0.02%		Complies
	Sulfate	≤ 0.17 - 0.02%		Complies
	Residue on ignition	≤ 0.10%		0.02 - 0.04%
	Residual solvents	Ethanol Ethyl acetate Methylene Chloride	≤ 0.5% ≤ 0.5% ≤ 0.06 - 0.1%	Complies
	Related substances	VB1 Total impurity	≤ 0.10% ≤ 2%	Complies
Chemical	Heavy metals	≤ 10 ppm		Complies
	Pyridin	≤ 500 ppm		Complies
	Thiamine Disulfide	≤ 1.0%		0.04 - 0.05%
Microbial	Total Plate Count	≤ 1000 cfu/g		Complies
	Yeast & Mold	≤ 100 cfu/g		Complies
	E. coli, Salmonella, Staphylococcus, Pseudomonas, Candida, Clostridia	Negative		Complies
Else	Storage condition	Sealed, kept in shady and dry place		
	Shelf life	Two years		

