NATURE SCIENCE TECHNOLOGIES

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QUALITY SPECIFICATION

Biotin

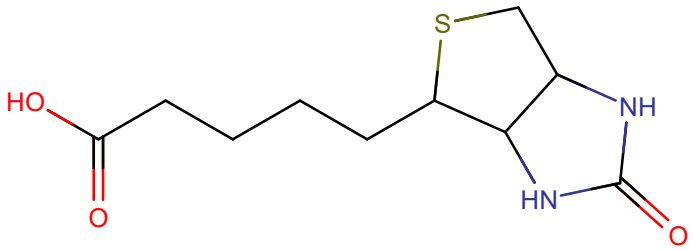
Catalog No.: NST-12-8

CAS No.: 58-85-5

Molecular formula: $C_{10}H_{16}N_2O_3S$

MW: 244.31

Shelf life: 24 months



No.	Parameter	Specification	Methods
1.	Appearance	Powder	Visual
2.	Color	White	Visual
3.	Identification	Conforms	TLC&NMR
4.	Assay	97.5%–102.0%	HPLC
5.	Clarity and color of solution	Solution clarity and the samples should be light in color standard	Visual
6.	Loss on drying	≤0.2 %	USP <731>
7.	Residue on ignition	≤0.1 %	USP <281>
8.	Specific rotation	+89.0° to +93.0°	USP <781>
9.	Melting point	229.0 °C – 232.0 °C	USP <741>
10.	Individual impurity	≤1.0 %	HPLC
11.	Total impurities	≤2.0 %	HPLC
12.	Heavy Metals	≤10 ppm	ICP-MS

13.	Lead	≤2 ppm	ICP-MS
14.	Arsenic	≤1 ppm	ICP-MS
15.	TPC	$<10^3$ CFU/g	USP <2021>
16.	TYMC	$<10^2$ CFU/g	USP <2021>
17.	*Escherichia Coli*	Absent	USP <2022>
18.	*Salmonella*	Absent	USP <2022>

Storage: store in a cool and dry place, keep away from strong light and heat

Stability: 24 months when properly stored