

CERTIFICATE OF ANALYSIS

N-ACETYL-L-CYSTEINE (FERMENTATION) USP

Batch	Manufacturer	Manufactured	Expiration	Quantity
C103-202404407F	CNS89 - 35ERFX	05/04/2024	04/04/2027	1.000 Kg
CAS No:	616-91-1			
Appearance	White crystals or crystalline powder		Conforms	
Soluble	Freely soluble in water and alcohol		Conforms	
Insoluble	insoluble in chloride and in ether		Conforms	
Identification	Infrared Absorption		Conforms	
Assay	98.0 to 102.0% (calculated on the dried basis)		100.5%	
Specific rotation $[\alpha]_D^{25}$	+21.0° to +27.0°		+23.3°	
pH	2.0 to 2.8		2.2	
Loss on drying	Not more than 1.0 %		0.10%	
Residue on ignition	Not more than 0.5%		0.05%	
Heavy metals (Pb)	Not more than 0.001%		<0.001%	
Lead	Not more than 3ppm		<3ppm	
Arsenic (As ₂ O ₃)	Not more than 1ppm		<1ppm	
Cadmium	Not more than 1ppm		<1ppm	
Mercury (Hg)	Not more than 0.1ppm		<0.1ppm	
Residual solvents	Meets the requirements		Meet the requirements	
Particle size	Not less than 90% pass 20 Mesh		Conforms	
Total plate count	Less than 1000 cfu/g		Conforms	
Yeast and Molds	Less than 100 cfu/g		Conforms	
Coliforms	Less than 100 cfu/g		Conforms	

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E.Coli		Negative	Negative	
Salmonella		Negative	Negative	
Pseudomonas		Negative	Negative	
S.Aureus		Negative	Negative	