



CERTIFICADO DE ANÁLISIS (COA)

Producto: Cloruro de Colina
CAS N°: 67- 48 - 1

CERTIFICATE OF ANALYSIS

Product Name Choline Chloride
Lot Number 120211229
Product Code CC120
CAS 67-48-1
Batch Quantity 660Kgs
MFG.Date DEC.25,2021
EXP.Date DEC.24,2023
Standard USP
Country of Origin China
ID CC20211229v2

Items of Analysis	Specification	Results
Identification A&B	Positive reaction	Conforms
Appearance	Colorless or white crystals or crystalline powder	Conforms
Assay(calculated on the anhydrous basis)	99.0-100.5%	99.2%
pH(1 in 10)	4.0-7.0	5.32
Water	≤0.5%	0.25%
Residue on ignition	≤0.05%	0.02%
Heavy metals	NMT 10ppm	<10ppm
Arsenic (As)	NMT 2ppm	<2ppm
Lead (Pb)	NMT 0.3ppm	<0.3ppm
Limit of Total Amines	NMT 10µg/g	<10µg/g
1,4-Dioxane	NMT 10µg/g	<10µg/g
Chromatographic purity		
Individual impurities	NMT 0.3%	Conforms
Total impurities	NMT 2.0%	Conforms
Microbial		
Total Plate Count	≤1000CFU/g	<1000CFU/g
Yeast and Mold	≤100CFU/g	<100CFU/g
E.Coli	Negative	Negative
Salmonella	Negative	Negative
Staphylococcus aureus	Negative	Negative
Particle size		
Through 20 Mesh	100%	100%

Meets the current USP prior to conditioning.

Storage: Preserve in well-closed containers

Packing: 20Kgs paper drum with double inner



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