



CERTIFICADO DE ANÁLISIS (COA)

Producto: 2-Pirrolidone

CAS N°: 616-45-5

Certificate Of Analysis

Product Name: **2-Pyrrolidone**

CAS No. : 616-45-5

Lot Number: 20211025

Mfg Date: Oct. 25th, 2021

Expiry Date: Oct. 24th, 2023

Grade:Pharma. Grade

Molecular Formula: C₄H₇NO

Packing: 200kg/PE Plastic Drum

Analysis item	Result of test	Specification
Appearance	Conforms	Colorless liquid
Purity	99.50%	99.50%MIN
Chroma	9 APHA	10MAX
Water	0.035%	0.3%MAX
Density	1.11g/ml	1.110-1.112g/ml
Refractive index	1.484	1.484-1.485
Melting Point	Approx. 25°C	Conform
Boiling Point	Approx. 245°C	Conform
Alkalinity	Not more than 8.0ml of 0,02M hydrochloric acid	Conform
Sulphate Ash	≅ 0.1%	0.05%
Impurity A	≅ 0.1%	0.05%
Impurity B	≅ 0.1%	0.04%
Impurity C	≅ 0.1%	0.033%
Unidentified Impurities	≅ 0.1%	0.04%
Total Impurities	≅ 0.3%	0.184
Heavy Metals	≅ 10ppm	< 10ppm

Conclusion:Conform with the specification.

El presente documento es copia fiel del original.