

## Certificate of Analysis

Date of Testing: 2023-05-26 15:12:36  
Date of Next Testing: 2027-05-25 15:12:36  
Product Name: **n-Butanol**  
CAS Number: 71-36-3  
Specifications & Purity: Analytical Reagent,99%  
Lot #: E2317046  
SKU #: **B111571**  
**Analysis:** **228258**  
Storage Temperature: Desiccated

Parameter	Limit Values	Result
Color test (APHA)	0-10 (APHA)	8.00 APHA
Carbonly compounds	0-0.02 (%)	0.01 %
Density (20°C)	0.808-0.811 (g/ml)	0.81 g/ml
Iron(Fe)	0-0.5 (ppm)	0.07 ppm
Esters(As CH <sub>3</sub> COOC <sub>4</sub> H <sub>9</sub> )	0-0.1 (%)	0.05 %
Evaporation Residue	0-0.001 (%)	0.00 %
Assay	99-100 (%)	99.69 %
Unsaturated compounds(Br)	0-0.005 (%)	0.00 %
Water by Karl Fischer	0-0.2 (%)	0.04 %
Acidity(as H <sup>+</sup> )	0-0.005 (μmol/g)	0.00 μmol/g
Appearance (B111571)	Colorless liquid	Colorless liquid
Readily carbonizable substance	pass	Pass



John Su  
QA & QC Manager