

Certificate of Analysis

Date of Testing: 2022-09-09 12:17:23
 Date of Next Testing: 2026-09-08 12:17:23
 Product Name: **1-Butanol**
 CAS Number: 71-36-3
 Specifications & Purity: Guaranteed Reagent
 Lot #: I2203154
 SKU #: **B400251**
Analysis: **125248**
 Storage Temperature: Argon charged, Desiccated

Parameter	Limit Values	Result
Assay (C ₄ H ₁₀ O)	99.8-100 (%)	99.88700 %
Density (20°C)	0.808-0.811 (g/ml)	0.81 g/ml
Evaporation Residue	0-0.001 (%)	0.00 %
Water by Karl Fischer	0-0.1 (%)	0.02 %
Acidity(as H ⁺)	≤0.0005 (mmol/g)	0.00000 %
Carbonly compounds (As CO)	≤0.02 (%)	0.01800 %
Esters(As CH ₃ COOC ₄ H ₉)	≤0.1 (%)	0.00000 %
Iron(Fe)	0-0.00005 (%)	0.00 %
Refractive index n ₂₀ /D	1.3980 - 1.4000	1.40
Chloride (Cl ⁻)	0-0.35 (%)	0.00 %
Sulfate(SO ₄ ²⁻)	0-0.04 (%)	0.00 %
Ignition Residue (as sulfate)	0-0.1 (%)	0.00 %
pH(50g/L solution , 25°C)	4.0-7.0	6.32000
Salicylic acid(HOC ₆ H ₄ (OOH)	0-0.1 (%)	0.00 %
Color test (APHA)	0-10	0.00
Unsaturated compounds(Br)	≤0.005 (%)	0.00400 %
Appearance (B400251)	Colorless Liquid	Colorless liquid
Readily carbonizable substance	pass	Pass



ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

A handwritten signature in black ink that reads "John Su".

John Su
QA & QC Manager