

## Certificate of Analysis

Date of Testing: 2022-09-08 19:58:10  
Date of Next Testing: 2026-09-07 19:58:10  
Product Name: **1-Butyl-3-methylimidazolium Trifluoromethanesulfonate**  
CAS Number: 174899-66-2  
Specifications & Purity: 97%  
Lot #: I2203060  
SKU #: **B111364**  
Analysis: **110251**

Parameter	Limit Values	Result
Refractive index n <sub>20</sub> /D	1.437-1.442	1.44
Water by Karl Fischer	0-1 (%)	0.28 %
Density (20°C)	1.3-1.311	1.31
Purity(HPLC)	97-100 (%)	99.16400 %
Appearance (B111364)	colorless to brown liquid	colorless to brown liquid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager