

## Certificate of Analysis

Date of Testing: 2023-06-08 16:16:43  
Date of Next Testing: 2025-06-07 16:16:43  
Product Name: **N-Heptafluorobutyrylimidazole**  
CAS Number: 32477-35-3  
Specifications & Purity: 97%  
Lot #: F2302224  
SKU #: **H121495**  
**Analysis: 238174**  
Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Refractive index n <sub>20</sub> /D	1.384-1.387	1.39
Density (20°C)	1.583-1.587	1.58
Purity(GC)	97-100 (%)	99.18 %
Purity(Nonaqueous Titration)	96.5-103.5 (%)	101.85 %
Appearance (H121495)	Colorless to Yellow to Dark Red Liquid or Solid	Colorless to Yellow to Dark Red Liquid or Solid
Infrared spectrum	Conforms to Structure	Conforms to Structure
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager