

## Certificate of Analysis

Date of Testing: 2023-10-25 14:05:59  
 Date of Next Testing: 2026-10-24 14:05:59  
 Product Name: **1-butyl-3-vinylimidazolium tetrafluoroborate**  
 CAS Number: 1033461-44-7  
 Specifications & Purity:  $\geq 99\%$   
 Lot #: J2317057  
 SKU #: **M302109**  
 Version: **0**  
 Analysis #: **185566**  
 Storage Temperature: Room temperature, Desiccated

| Parameter                 | Limit Values                                | Result                                      |
|---------------------------|---------------------------------------------|---------------------------------------------|
| Purity(HPLC)              | 99-100 (%)                                  | 99.77100 %                                  |
| Appearance (M302109Form)  | Liquid                                      | Liquid                                      |
| Proton NMR spectrum       | Conforms to Structure                       | Conforms to Structure                       |
| Appearance (M302109Color) | Colorless to Pale yellow to Brownish Yellow | Colorless to Pale yellow to Brownish Yellow |
| Fluorine NMR Spectrum     | Conforms to Structure                       | Conforms to Structure                       |



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