

## Certificate of Analysis

Date of Testing: 2023-04-13 15:57:38  
Date of Next Testing: 2027-04-12 15:57:38  
Product Name: **Butyl Ricinoleate**  
CAS Number: 151-13-3  
Specifications & Purity: >74.0%(GC)  
Lot #: D2304468  
SKU #: **B153076**  
Analysis: **197999**

Parameter	Limit Values	Result
Density (20°C)	0.905-0.91	0.91
Refractive index n <sub>20</sub> /D	1.458-1.462	1.46
Purity(GC)	74-100 (%)	78.87%
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager