

Certificate of Analysis

Date of Testing: 2025-04-23 18:10:48
 Date of Next Testing: 2029-04-22 18:10:48
 Product Name: (S,S)-(+)-2,3-Butanediol
 CAS Number: 19132-06-0
 Specifications & Purity: $\geq 97\%$ (GC)
 Lot #: D2507712
 SKU #: S160997
 Version: 0
 Analysis #: 484743
 Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(GC)	97-100 (%)	99.94 %
Refractive index n _{20/D}	1.43-1.434	1.43
Specific Rotation [α] _{20/D} (c=Neat)	12-14 (°)	12.02°
Appearance (S160997)	Colorless to light yellow liquid	Colorless to light yellow liquid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager