

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2025-04-10 10:14:30

Date of Next Testing: 2028-04-09 10:14:30

Product Name: (2R,3R)-(-)-2,3-Butanediol

CAS Number: 24347-58-8

Specifications & Purity: $\geq 97\%$

Lot #: D2501072

SKU #: R470710

Version: 1

Analysis #: 496824

Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(GC)	97-100 (%)	99.20 %
Specific Rotation [a] _D 20/D(c=Neat)	-14~-12 (°)	-12.46 °
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Appearance(R470710)	Colorless to Yellow Liquid	Colorless to Yellow Liquid
GC-MS for identification	Conforms	Conforms

A handwritten signature in black ink that reads "John Su".

John Su
QA & QC Manager