

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-09-06 17:42:39
 Date of Next Testing: 2027-09-05 17:42:39
 Product Name: **(R)-1-Boc-3-methylpiperazine**
 CAS Number: 163765-44-4
 Specifications & Purity: $\geq 98\%$
 Lot #: H2325244
 SKU #: **B123470**
 Version: **1**
 Analysis #: **257677**
 Storage Temperature: Room temperature, Argon charged

Parameter	Limit Values	Result
Purity(GC)	98-100 (%)	99.66700 %
Melting point	40-47 (°C)	46.82000 °C
Specific Rotation $[\alpha]_{20/D}(c=1 \text{ in CHCL}_3)$	14-18 (°)	17.98000 °
Appearance (B123470)	White to pale cream crystals or powder	White to pale cream crystals or powder
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager