

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-04-06 16:58:19  
Date of Next Testing: 2026-04-05 16:58:19  
Product Name: **Ethyl (S)-1-Boc-4-oxopiperidine-2-carboxylate**  
CAS Number: 180854-44-8  
Specifications & Purity: 95%  
Lot #: C23231211  
SKU #: **E168045**  
**Analysis:** **173126**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(NMR)	95-100 (%)	96.15 %
Specific Rotation [α] <sub>20</sub> /D(c=0.5 in CHCL <sub>3</sub> )	-15--9 (°)	-9.21 °
Appearance (E168045)	Colorless to Yellow to Tan Viscous Liquid	Colorless to Yellow to Tan Viscous Liquid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager