Chem-Impex International, Inc.

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Certificate of Analysis

| Catalogue Number Lot Number | 12408 001529-504026 |
|--------------------------------|---|
| Product | N^{α} -Boc-L-lysine methyl ester hydrochloride |
| | Boc-L-lysine methyl ester hydrochloride |
| CAS Number | 55757-60-3, 99532-86-2 |
| Molecular Formula | $C_{12}H_{24}N_2O_4{\cdot}HCl$ |
| Molecular Weight | 296.83 |
| Appearance | White solid (hygroscopic) |
| Solubility | Clear, colorless to slightly colored solution (5% in methanol) |
| Water Content (Karl Fisher) | 0.6% |
| TLC System | Chloroform/Methanol/Acetic acid 32% (5:3:1): > 99% Chloroform/Methanol/Acetic acid/Water (70:42:0.5:10): > 99% Identification: conforms to standard |
| Optical Rotation | [a] _D ²⁵ = -18.7° (C=1 in MeOH) |
| Titration | 11.0% (Chloride content: 0.1 M AgNO3) |
| Purity by TLC | >99% |
| Storage | Store at \leq -15 °C |
| Remarks | See material safety data sheet for additional information |
| | For laboratory use only |
| | |

The foregoing is a copy of the Certificate of Analysis as provided by our supplier

litumer.

Bala Kumar Quality Control Manager