

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-11-05 16:27:27
Date of Next Testing: 2026-11-05 16:27:27
Product Name: **1-(o-Tolyl)piperazine**
CAS Number: 39512-51-1
Specifications & Purity: $\geq 97\%$
Lot #: B23081189
SKU #: **O138787**
Version: **0**
Analysis #: **430977**
Storage Temperature: Argon charged

| Parameter | Limit Values | Result |
|----------------------|--|--|
| Purity(GC) | 97-100 (%) | 99.60% |
| Melting point | 44-48 (°C) | 47.20000 °C |
| Appearance (O138787) | White to Light Yellow Powder or Crystals | White to Light Yellow Powder or Crystals |
| Proton NMR spectrum | Conforms to Structure | Conforms to Structure |

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

John Su
QA & QC Manager