# CERTIFICATE OF ANALYSIS

(Certificate No. KMV003044-01)

**Release Date:** 12/11/2024 **Re-test Date:** 11/11/2027

## Vortioxetine Impurity 3

## Identification

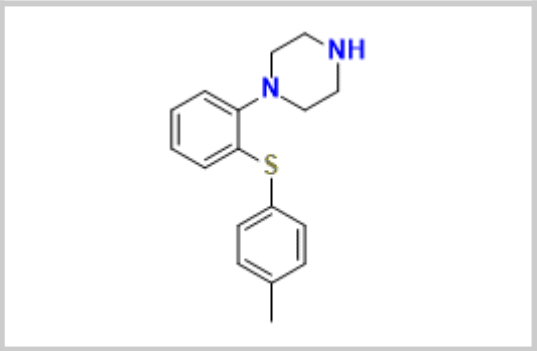
**Chemical Name** :
1-(2-(p-tolylthio)phenyl)piperazine ; 1-(2-(p-tolylthio)phenyl)piperazine

**CAT No.** : KMV003044

**CAS No.** : 508233-82-7

**Molecular Formula** : C17H20N2S

**Molecular Weight** : 284.4




## Analytical Information

| | | | |
|---|---|---|---|
| **Batch No.** | : V003044-091-027 | **Solubility** | : Methanol |
| **Description** | : Off White Solid | **Mass** | : Confirm |
| **HPLC Purity** | : 99.87 % | **IR** | : Confirm |
| **Weight Loss By TGA** | : 0.02 % | **1H NMR** | : Confirm |
| **% Potency** | : 99.85 % | | |

## Additional Information

**Long Term Storage** : Store at 2-8 deg. C for long term storage

**Shipping Condition** : Product is stable to be Shipped at Room Temperature

**% Potency =** [100 - 0.02(Weight Loss By TGA)] x [99.87(HPLC Purity)]/100 = 99.85 %

**Recommendation** : Released

| | Department | Name | Signature | Date |
|---|---|---|---|---|
| **Prepared By** | Analytical | Jignesh Patel | | 04/04/2025 |
| **Reviewed & Approved By** | Quality Control | Jatin Patel | | 04/04/2025 |

**Attachments** : COA, HPLC, MASS, 1HNMR, IR and TGA