

CERTIFICATE OF ANALYSIS

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1. Identification

Catalogue Number: S199985 CAS Number: 1508-46-9

Synonym: (1R,2R,4S,5S)-rel-7-Hydroxy-9,9-dimethyl-3-

Oxa-9-azoniatricyclo[3.3.1.02,4]nonane bromide; N-Methylscopinium Bromide (7CI); 3-Oxa-9-azatricyclo[3.3.1.02,4]nonane, 3oxa-9-azoniatricyclo[3.3.1.02,4]nonane deriv.; BEA 2180 Alcohol; Methscopinium Bromide;

N-Methylscopine Bromide; Tiotropium EP

Impurity G;

Structure:

Product:

Me Me Br

Molecular Formula:

 $C_9H_{16}NO_2 \bullet Br$ Molecular weight: 170.23 + 79.90

Source of Product:

Synthetic **Solubility:**

DMSO (Slightly), Methanol (Slightly), Water (Slightly)

Lot 11-CNN-164-1

TI-CIVIN-104-1

Shipping This Product Is Stable To Be **Condition:** Shipped At Room Temperature

Scopine Methobromide

Purity: 97%

Storage Condition: -20°C

2. Warning

Warning 1: Warning 2: Warning 3:

3. Analytical Information

Tests: Specifications: Results:

Appearance White to Off-White Solid White to Off-White Solid

NMR Conforms to Structure Conforms

HPLC Purity Report Result 98.64% (ELSD)

Elemental Analysis Conforms %C: 43.16, %H: 6.29, %N: 5.36

MS Conforms to Structure Conforms

Additional Information: N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of \pm 2%. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed By Sarbjeet Kaur

Reviewed By

Toni Rantanen

C of A Approved **Test Date** Ву Chanell Chu

12/1/2023

Retest Date

11/29/2027