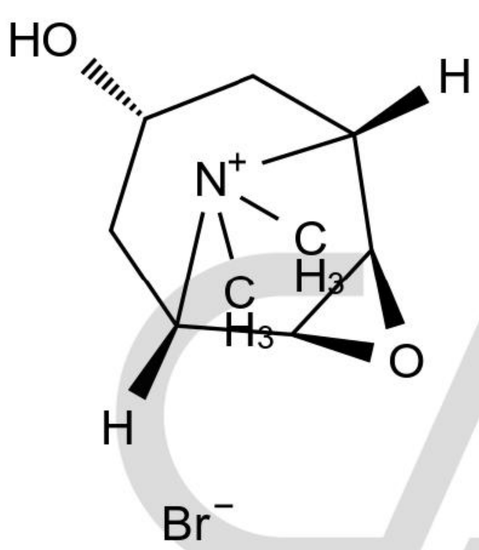
Certificate of Analysis

Reference Material & Standard

Product Name:	Tiotropium EP Impurity G	**Catalogue Number:**	C4X-17647
Synonyms:	N/A	**Lot Number:**	0908-RH-0055
CAS Number:	1508-46-9	**Expiry Date:**	Sep 09, 2030
Molecular Formula:	$C_9H_{16}NO_2$ Br	**Storage:**	-20°C±5°C Protected from light and Sealed
Molecular Weight:	170.23 79.90	**Shipping Condition:**	Shipping with Ice Packs

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&HNMR	Confirmed
Purity	ELSD	100.000%
Loss on Drying	TGA	0.0200%
Assay		99.98%

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Comment:

The calculation of the mass balance method follows the formula (calculated on the non-dried basis):
*Assay (%) = (100%-Loss on Drying) * Purity ELSD (%) /100%*
Loss on Drying is considered as absolute effect, ELSD purity is considered as relative effect.

Signature:

Prepared by: Alice Date: Sep 10, 2026

Reviewed by: Koi Date: Sep 10, 2026

Approved by General Manager: David Date: Sep 10, 2026

CATO Research Chemicals Inc.