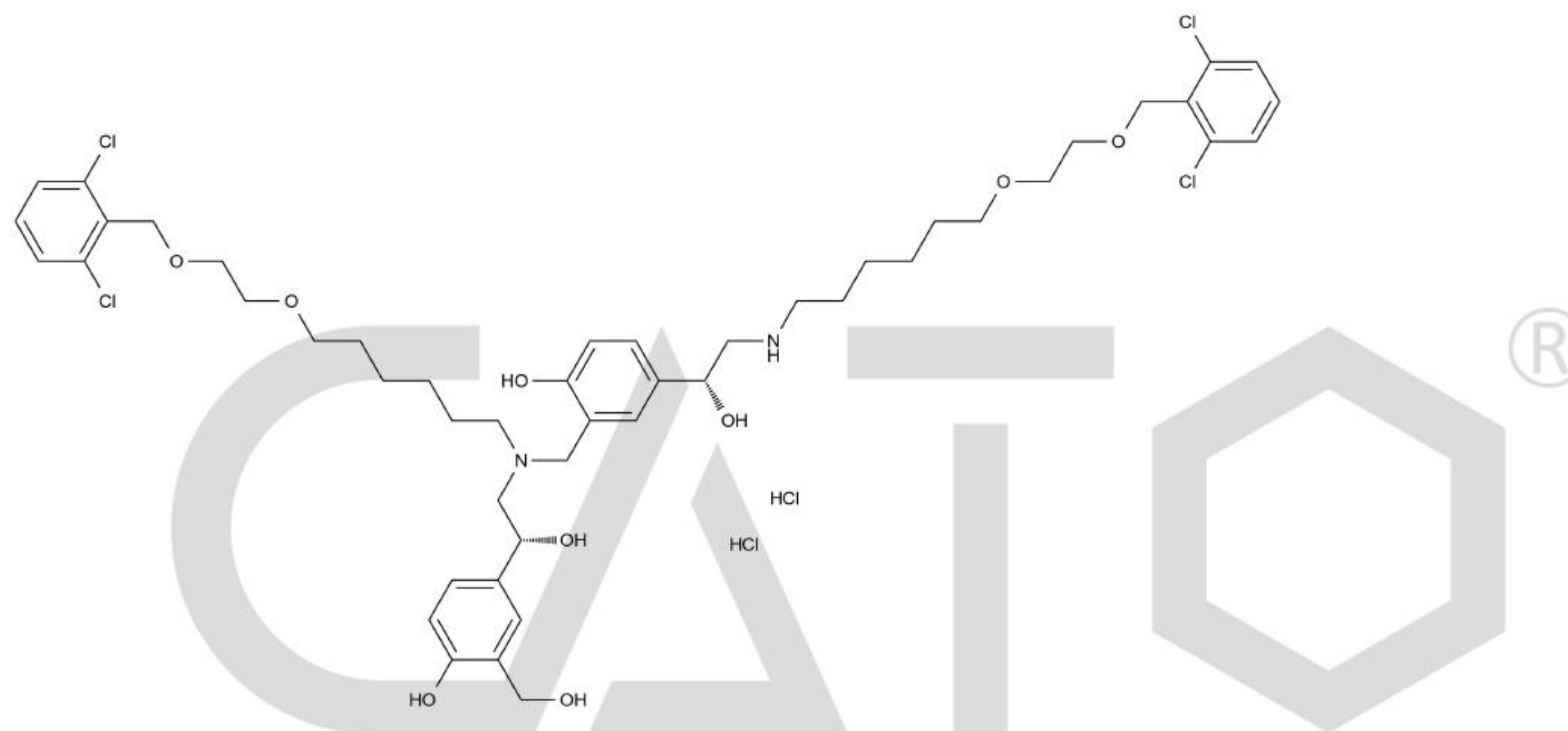


Certificate of Analysis

Reference Material & Standard

Product Name:	Vilanterol Impurity 47	Catalogue Number:	C4X-193547
Synonyms:	N/A	Lot Number:	0130-RH-0043
CAS Number:	2762285-55-0(free base)	Expiry Date:	Sep 16, 2029
Molecular Formula:	C ₄₈ H ₆₄ Cl ₄ N ₂ O ₉ 2*HCl	Storage:	-20°C±5°C Protected from light and Sealed
Molecular Weight:	954.84 2*36.46	Shipping Condition:	Shipping with Ice Packs

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Pale Yellow Gel
Identification	LCMS&UV&HNMR	Confirmed
Purity	HPLC	98.586%
Water Content	Karl Fischer	3.88%
Residual Solvents	NMR	Not detected in NMR
Assay		94.8%

Comment:

The calculation of the mass balance method follows the formula (calculated on the non-dried basis):

Assay (%) = (100%-Water Content-Residual Solvents) * Purity HPLC (%) / 100%

Water Content and Residual Solvents are considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Reviewed by:

Approved by General Manager:

Date: Feb 02, 2026

Date: Feb 02, 2026

Date: Feb 02, 2026



Add: 3rd Floor, Building B, No.179, Guangpu Rd East, Huangpu District, Guangzhou, China

Tel: +86-20-81960175

Email: supports@cato-chem.com

Web: <https://www.cato-chem.com>

