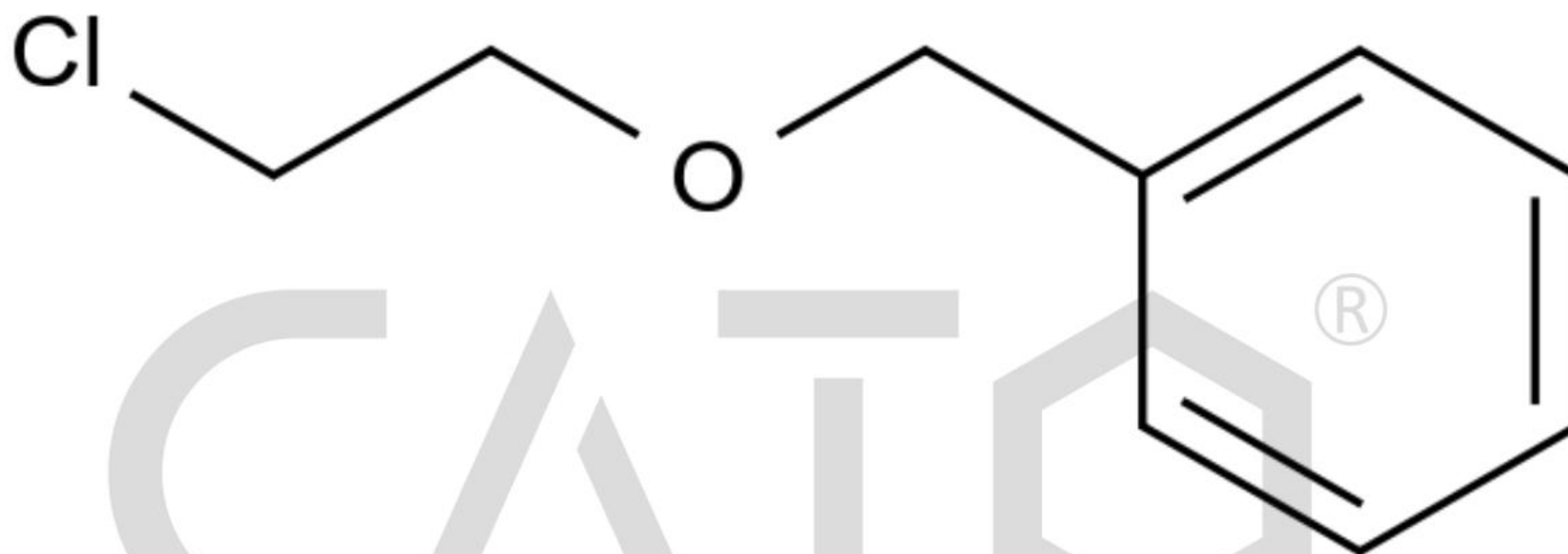


Certificate of Analysis

Reference Material & Standard

Product Name:	Umeclidinium impurity 22	Catalogue Number:	C4X-133922
Synonyms:	N/A	Lot Number:	1126-RG-0062
CAS Number:	17229-17-3	Expiry Date:	Nov 27, 2029
Molecular Formula:	C ₉ H ₁₁ ClO	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	170.64	Shipping Condition:	Shipping at Room Temperature
Solubility:	Acetonitrile		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Colourless Liquid
Identification	GCMS&IR&UV&HNMR	Confirmed
Purity	HPLC	99.865%
Water Content	Karl Fischer	0.3946%
Assay		99.5%

Comment:

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

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

Water Content is considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Yuki

Reviewed by:

Ko

Approved by General Manager:

David

Date: Nov 28, 2025

Date: Nov 28, 2025

Date: Nov 28, 2025



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