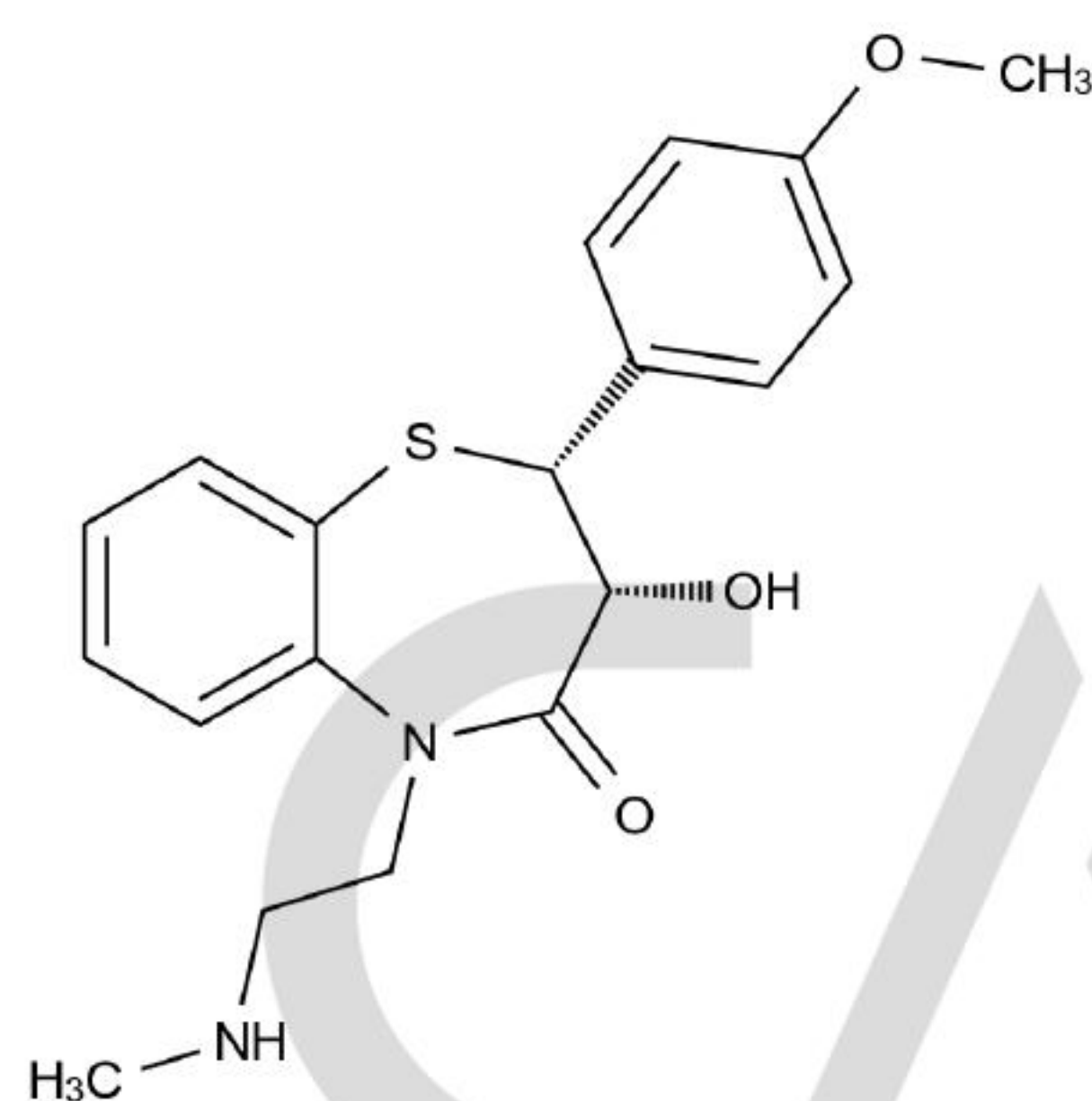


Certificate of Analysis

Reference Material & Standard

Product Name:	Diltiazem Impurity 11	Catalogue Number:	C4X-136811
Synonyms:	N/A	Lot Number:	0809-RD-0017
CAS Number:	81353-09-5	Expiry Date:	Sep 06, 2023
Molecular Formula:	C ₁₉ H ₂₂ N ₂ O ₃ S	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	358.45	Shipping Condition:	Shipping at Room Temperature

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Off-White Solid
Identification	LCMS&IR&UV&HNMR	Confirmed
Purity	HPLC	98.18%
Loss on Drying	TGA	0.6118%
Assay		97.6%

Comment:

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

Assay (%) = (100% - Loss on Drying) * Purity HPLC (%) / 100%

Loss on Drying is considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Hin Lam

Reviewed by:

Cady

Approved by General Manager:

David

Date: Sep 07, 2021

Date: Aug 12, 2022

Date: Aug 12, 2022

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