

Certificate of Analysis

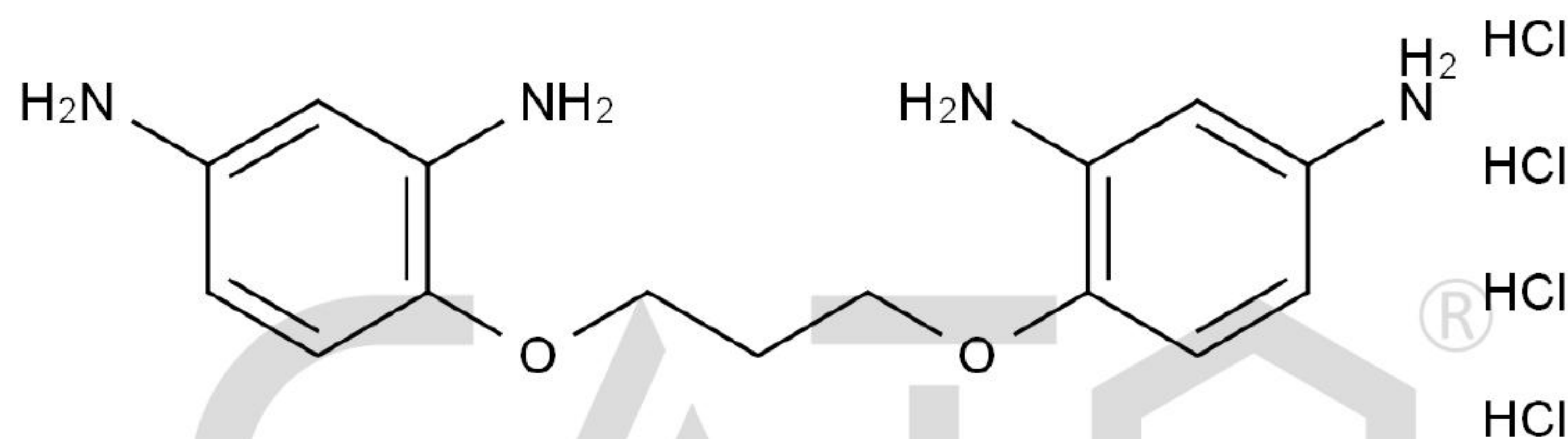
Reference Material & Standard

Product Name:	4,4'-(Propane-1,3-diylbis(oxy))bis(benzene-1,3-diamine) tetrahydrochloride	Catalogue Number:	CCHM703286
Synonyms:	N/A	Lot Number:	1118-RG-0037
CAS Number:	74918-21-1	Expiry Date:	Nov 17, 2029
Molecular Formula:	C ₁₅ H ₂₀ N ₄ O ₂ 4*HCl	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	288.34 4*36.46	Shipping Condition:	Shipping at Room Temperature

Warning:



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Black Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	98.101%
Water Content	Karl Fischer	1.0490%
Assay		97.1%
Uncertainty		±0.4%

Comment:

1. 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.

2. The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

Prepared by:

Lisa

Reviewed by:

Hinlam

Approved by General Manager:

David

Date: Nov 18, 2025

Date: Nov 18, 2025

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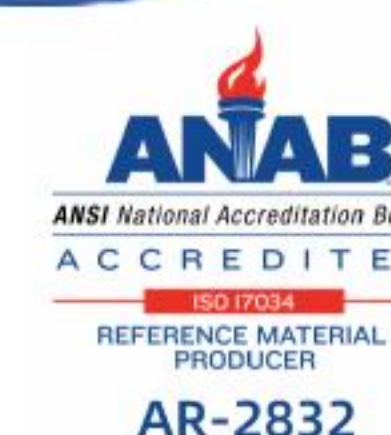
Add: 3rd Floor, Building B, No.179, Guangpu Rd East, Huangpu District, Guangzhou, China

Tel: +86-20-81960175

Email: supports@cato-chem.com

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

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