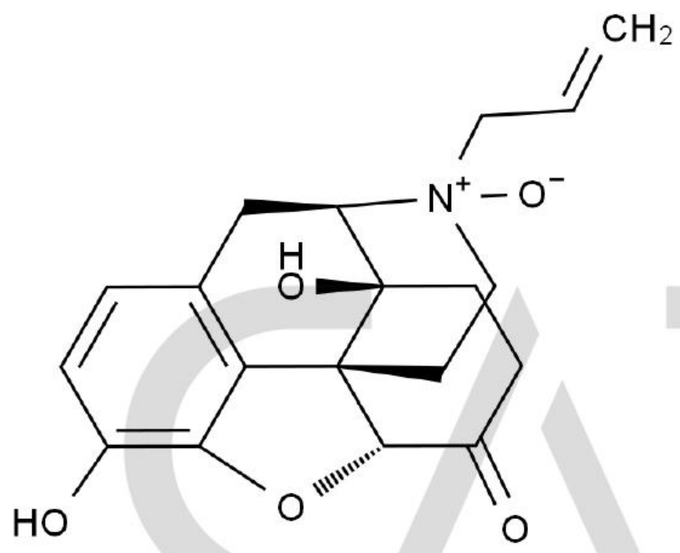
Certificate of Analysis

Reference Material & Standard

Product Name:	Naloxone Impurity 9	**Catalogue Number:**	C4X-14939
Synonyms:	N/A	**Lot Number:**	0828-RH-0053
CAS Number:	112242-14-5	**Expiry Date:**	Oct 11, 2030
Molecular Formula:	$C_{19}H_{21}NO_5$	**Storage:**	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	343.37	**Shipping Condition:**	Shipping at Room Temperature

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	99.081%
Loss on Drying	TGA	0.37%
Assay	Mass Balance	98.7%

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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 HPLC (%) /100%*
Loss on Drying is considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by: Date: Oct 13, 2026

Reviewed by: Date: Oct 14, 2026

Approved by General Manager: Date: Oct 14, 2026

CATO Research Chemicals Inc.