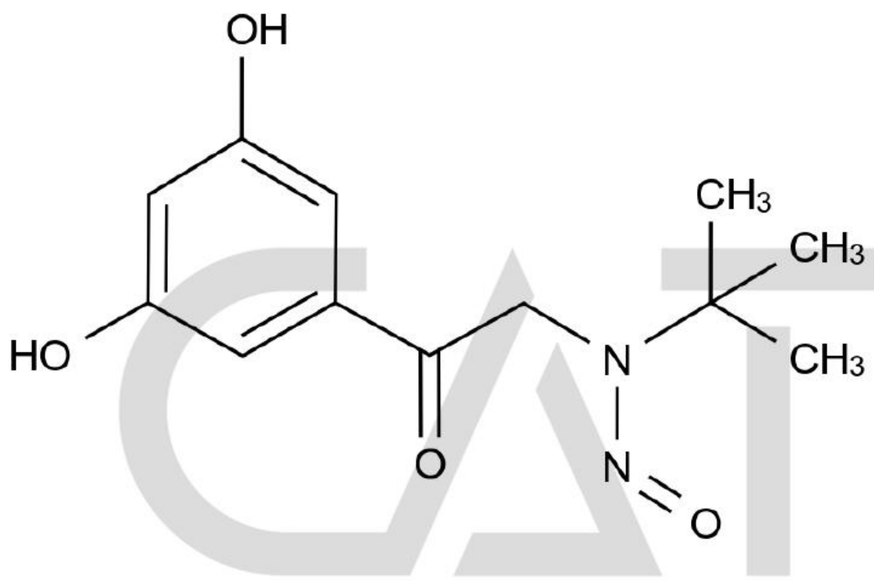
Certificate of Analysis

Reference Material & Standard

Product Name:	Terbutaline Impurity 93	**Catalogue Number:**	C4X-118393
Synonyms:	N/A	**Lot Number:**	1108-RH-0093
CAS Number:	N/A	**Expiry Date:**	Nov 07, 2028
Molecular Formula:	$C_{12}H_{16}N_2O_4$	**Storage:**	-20°C±5°C Protected from light and Sealed
Molecular Weight:	252.27	**Shipping Condition:**	Shipping with Ice Packs

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Brown Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	96.8212%
Water Content	Karl Fischer	2.895%
Residual Solvents	NMR	0.16% acetonitrile
Assay	Mass Balance	93.9%

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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: Date: Nov 10, 2026

Reviewed by: Date: Nov 10, 2026

Approved by General Manager: Date: Nov 10, 2026

CATO Research Chemicals Inc.