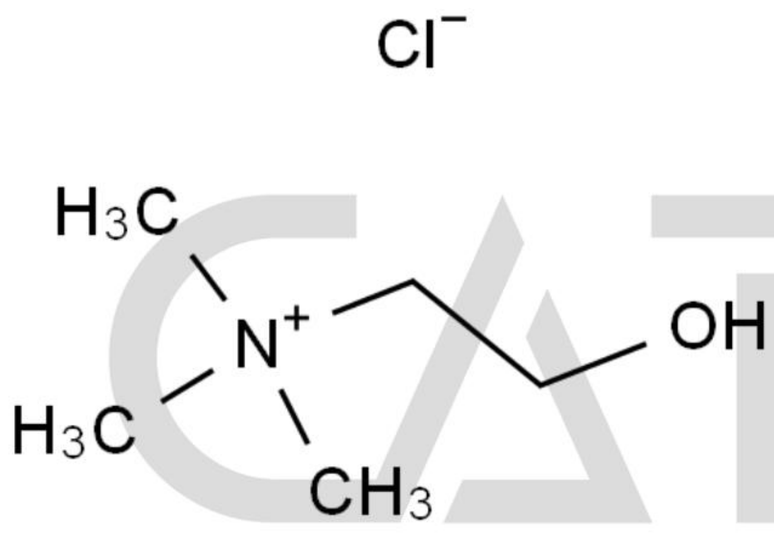
Certificate of Analysis

Reference Material & Standard

Product Name:	Choline Chloride	**Catalogue Number:**	CCAD300667
Synonyms:	N/A	**Lot Number:**	0906-RF-0115
CAS Number:	67-48-1	**Expiry Date:**	Nov 08, 2030
Molecular Formula:	$C_5H_{14}NO\ Cl$	**Storage:**	Room Temp Protected from light and Sealed
Molecular Weight:	104.17 35.45	**Shipping Condition:**	Shipping at Room Temperature
		Warning:	

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Colourless Melting Solid
Identification	LCMS&HNMR	Confirmed
Purity	ELSD	100.0%
Assay	qNMR	81.2%
Uncertainty		±3.1%

CATO Research Chemicals Inc.

Comment:

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 Date: Nov 09, 2026

Reviewed by: Hinlam Date: Nov 09, 2026

Approved by General Manager: David Date: Nov 09, 2026

CATO Research Chemicals Inc.