

Certificate of Analysis

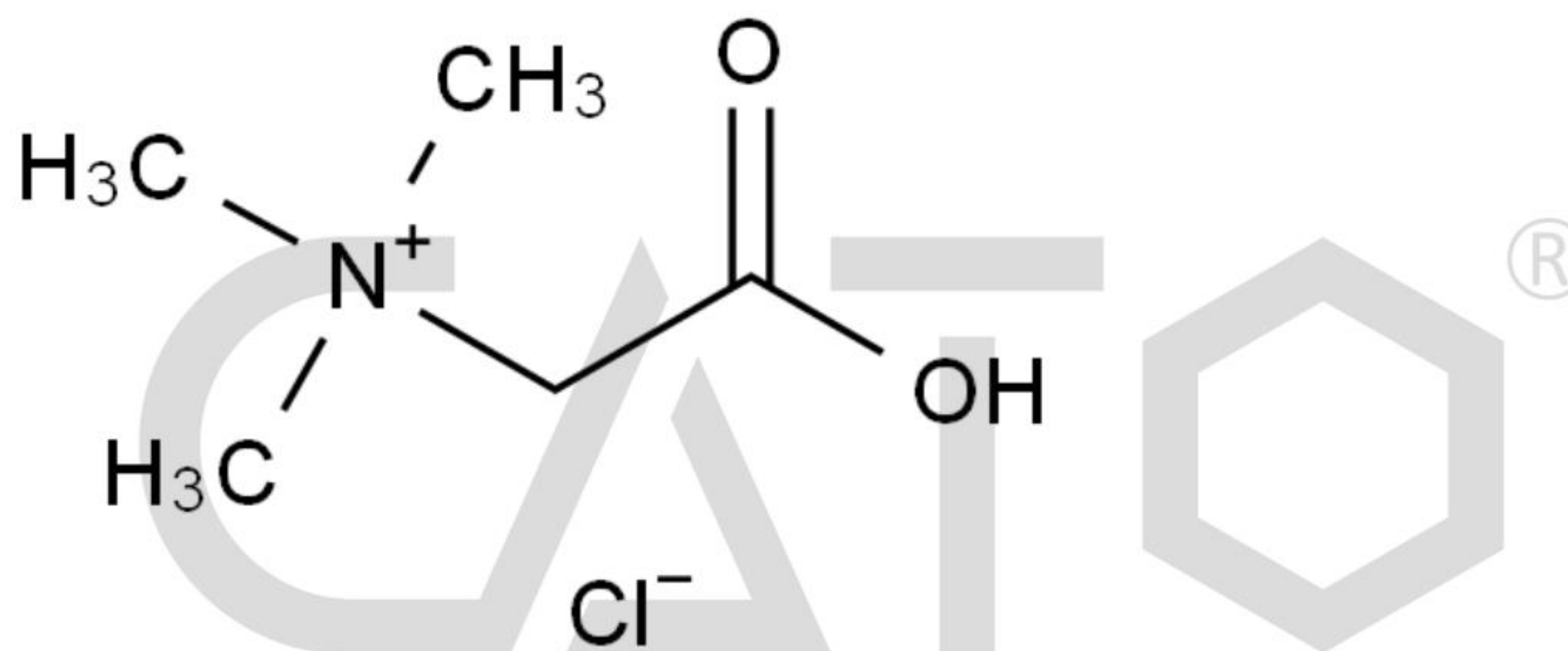
Reference Material & Standard

Product Name:	Betaine Hydrochloride	Catalogue Number:	CCPE902063
Synonyms:	N/A	Lot Number:	1218-RG-0040
CAS Number:	590-46-5	Expiry Date:	Dec 21, 2029
Molecular Formula:	C ₅ H ₁₂ NO ₂ Cl	Storage:	Room Temp Protected from light and Sealed
Molecular Weight:	118.15 35.45	Shipping Condition:	Shipping at Room Temperature

Warning:



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&HNMR	Confirmed
Purity	ELSD	99.9%
Assay	qNMR	99.3%
Uncertainty		±0.4%

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:

Nice

Reviewed by:

Lisa

Approved by General Manager:

David

Date: Dec 22, 2025

Date: Dec 22, 2025

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