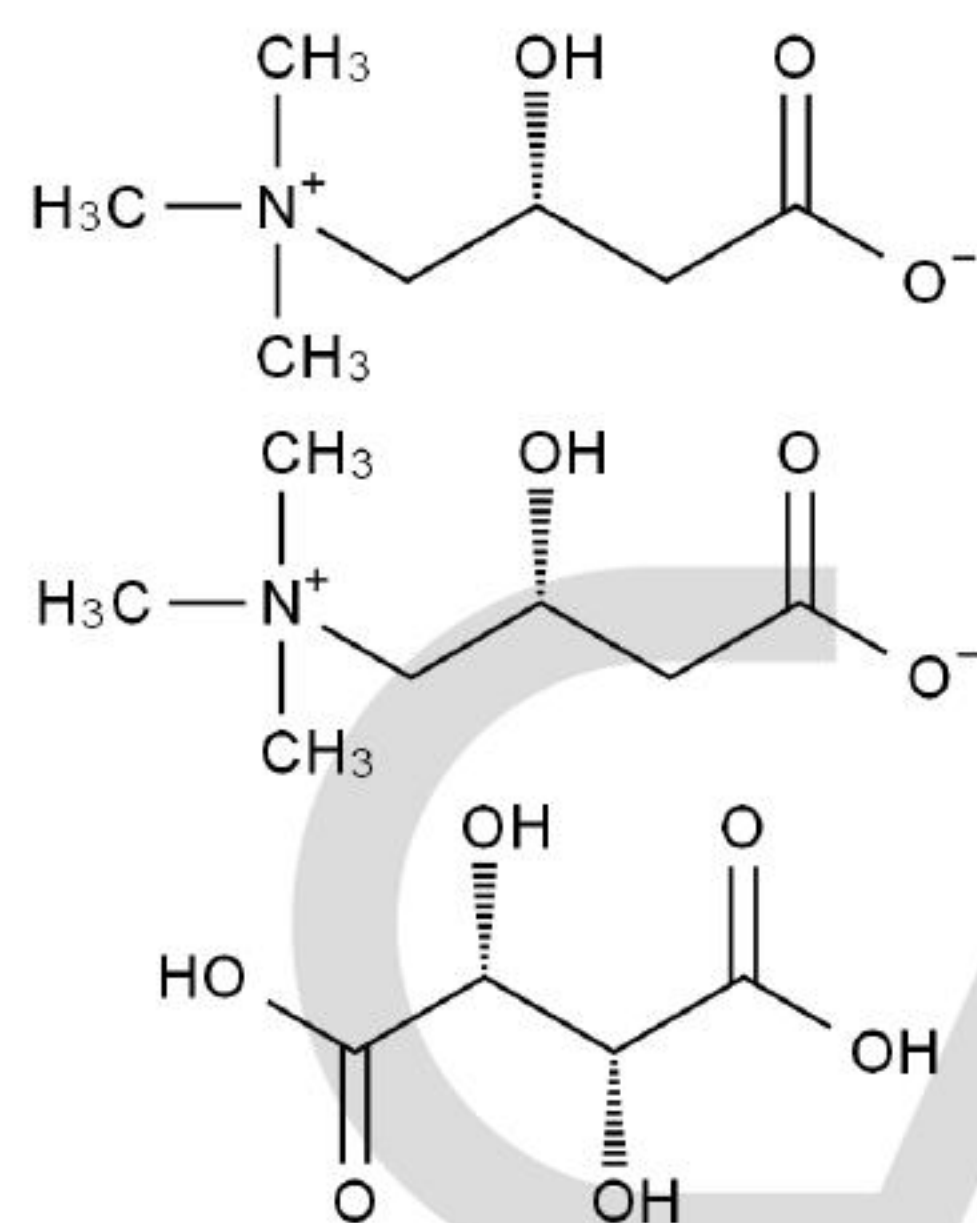


Certificate of Analysis

Reference Material & Standard

Product Name:	L-Carnitine L-Tartrate	Catalogue Number:	CCFD201073
Synonyms:	N/A	Lot Number:	0606-RD-0053
CAS Number:	36687-82-8	Expiry Date:	Jun 30, 2029
Molecular Formula:	2*C ₇ H ₁₅ NO ₃ C ₄ H ₆ O ₆	Storage:	-20°C±5°C Protected from light and Sealed
Molecular Weight:	2*161.20 150.09	Shipping Condition:	Shipping with Ice Packs

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&HNMR	Confirmed
Purity	ELSD	100.000%
Water Content	Karl Fischer	0.7464%
Assay		99.3%
Uncertainty		±0.2%

Comment:

- The calculation of the mass balance method follows the formula (calculated on the non-dried basis):

$$\text{Assay (\%)} = (100\% - \text{Water Content}) * \text{Purity ELSD (\%)} / 100\%$$

Water Content is considered as absolute effect, ELSD purity is considered as relative effect.
- 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:

Koi

Approved by General Manager:

David

Date: Jul 01, 2026

Date: Jul 01, 2026

Date: Jul 01, 2026



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