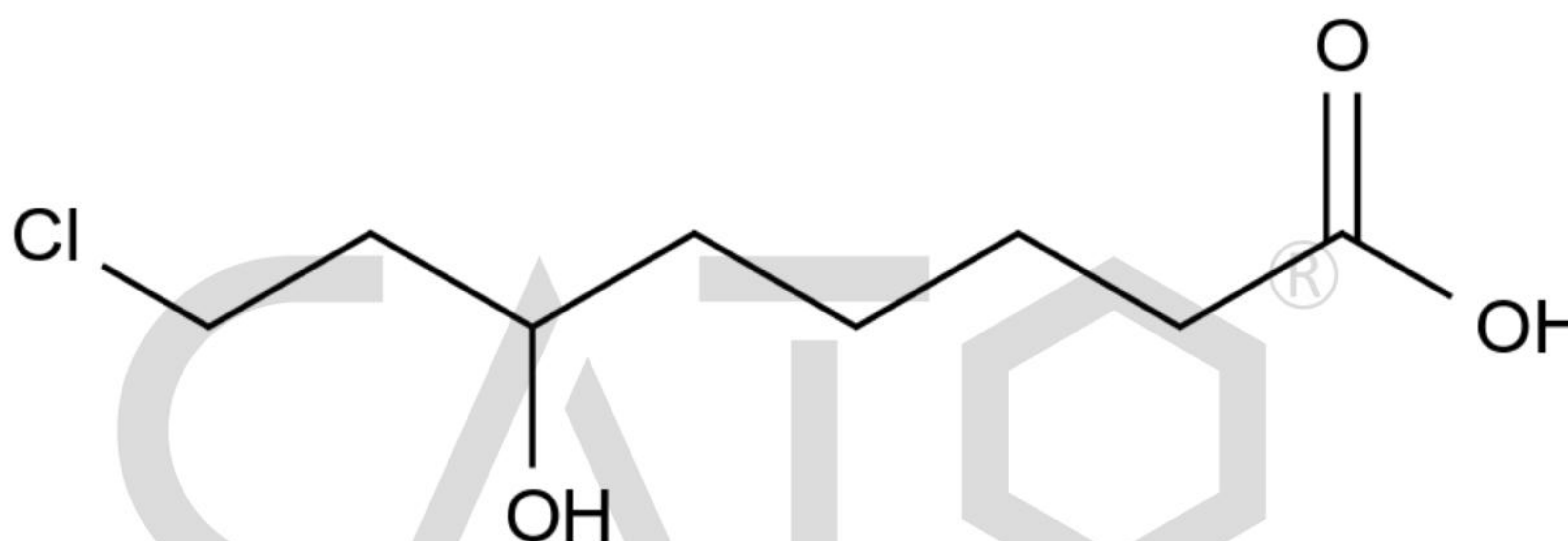


Certificate of Analysis

Reference Material & Standard

Product Name:	Thioctic acid Impurity 42	Catalogue Number:	C4X-152642
Synonyms:	N/A	Lot Number:	0909-RG-0087
CAS Number:	90435-60-2	Expiry Date:	May 23, 2028
Molecular Formula:	C ₈ H ₁₅ ClO ₃	Storage:	-20°C±5°C Protected from light and Sealed
Molecular Weight:	194.66		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White Solid
Identification	LCMS&HNMR	Confirmed
Purity	ELSD	99.0169%
Water Content	Karl Fischer	1.120%
Residual Solvents	NMR	0.49% acetonitrile
Assay		97.4%

Comment:

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

Assay (%) = (100% - Water Content - Residual Solvents) * Purity ELSD (%) / 100%

Water Content and Residual Solvents are considered as absolute effect, ELSD purity is considered as relative effect.

Signature:

Prepared by:

Lily

Reviewed by:

Hinlam

Approved by General Manager:

David

Date: Sep 10, 2025

Date: Sep 10, 2025

Date: Sep 10, 2025



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