

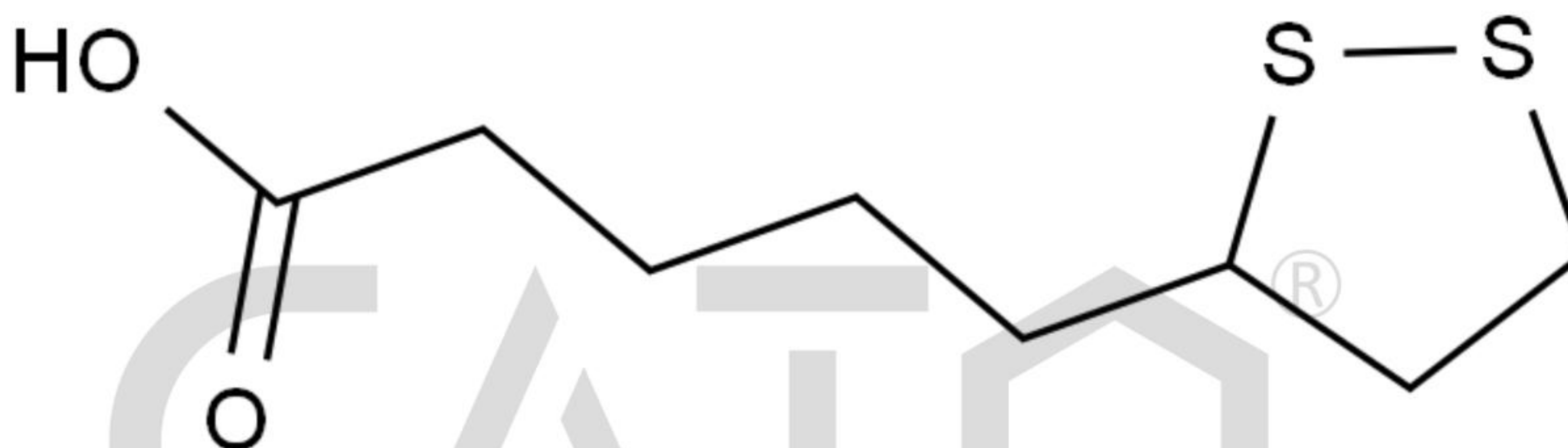
Certificate of Analysis

Reference Material & Standard

Product Name:	Lipoic Acid	Catalogue Number:	CCPE900187
Synonyms:	N/A	Lot Number:	1-F-26F-1
CAS Number:	62-46-4	Expiry Date:	Aug 29, 2027
Molecular Formula:	C ₈ H ₁₄ O ₂ S ₂	Storage:	Room Temp Protected from light and Sealed
Molecular Weight:	206.33	Warning:	



Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Yellow Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	98.6582%
Water Content	Karl Fischer	0.2910%
Assay		98.4%
Uncertainty		±2.0%

Comment:

1. The calculation of the 100% method follows the formula (calculated on the non-dried basis):

Assay (%) = (100% - Water Content) * Purity HPLC (%) / 100%

Water Content is considered as absolute effect, HPLC purity is considered as relative effect.

2. 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:

Hinlam

Approved by General Manager:

David

Date: Aug 31, 2023

Date: Aug 31, 2023

Date: Aug 31, 2023

