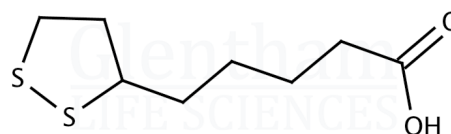


Certificate of Analysis

Product Name	DL-alpha-Lipoic acid, USP grade
Glentham Code	GK1941
CAS Number	1077-28-7
EINECS	214-071-2
MDL Number	MFCD00005474
Batch Number	689PRB
Molecular Weight	206.33
Molecular Formula	$C_8H_{14}O_2S_2$
Storage Temp.	+4°C



Property	Specification	Batch 689PRB
Physical Description	Pale yellow to dark yellow powder	Yellow powder
Identification	A, B, according to USP	Conforms
Residue on Ignition	≤ 0.1%	0.03%
Heavy Metals	≤ 10ppm	Conforms
Any Individual Impurity	≤ 0.1%	0.07%
Total Impurities	≤ 2.0%	0.09%
Chromatographic Purity	To pass test	Conforms
Melting Point	60.0 - 62.0 °C	62.0 °C
Specific Optical Rotation ([α] _{20/D})	-1.0 - +1.0 ° (c=5, ethanol)	Conforms
Loss on Drying	≤ 0.2% (40°C, 3h)	Conforms
Assay	99.0 - 101.0 % (dried basis)	99.4%
Pharmacopoeia Specification(s)	USP	Conforms

Specification Version	v1.0
Manufacture Date	2021-06-15
Re-Test Date	2030-01-11

Glentham Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check www.glentham.com or contact us using the details above for the current version of this document.

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