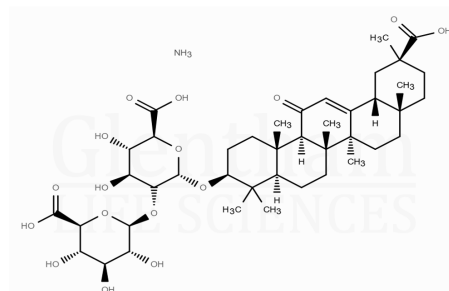


Certificate of Analysis

Product Name Glycyrrhizic acid ammonium salt
Glenthams Code GK2256
CAS Number 53956-04-0
EINECS 258-887-7
Numéro MDL MFCD00167400
PubChem SID 310274306
Batch Number 351LZO

Molecular Weight 839.96 (anhydrous)
Molecular Formula $C_{42}H_{62}O_{16} \cdot NH_3 \cdot xH_2O$
Storage Temp. +4°C



Property	Specification	Batch 351LZO
Physical Description	White or yellowish-white, hygroscopic powder	White hygroscopic powder
Identification	According to EP	Conforms
Appearance of Solution	According to EP	Conforms
Specific Optical Rotation	+49.0 - +54.0 °	+52.6°
Related Substances	18 α-glycyrrhizic acid: ≤ 10.0%	8.4%
	Impurity A: ≤ 5.0%	4.1%
	Any Other Impurity: ≤ 2.0%	≤ 2.0%
	Sum of Other Impurities: ≤ 7.0%	≤ 7.0%
Heavy Metals	≤ 20ppm	≤ 20ppm
Water	≤ 6.0%	3.7%
Sulphated Ash	≤ 0.2%	0.02%
Assay	98.0 - 102.0 % (anhydrous basis)	99.3%
Pharmacopoeia Specification(s)	EP	Conforms

Specification Version v1.1
Manufacture Date 2024-02-20
Re-Test Date 2032-05-29

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

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