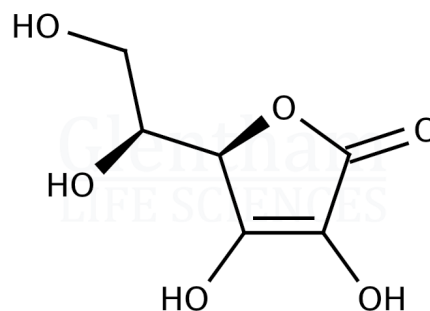


## Certificate of Analysis

Product Name	L-(+)-Ascorbic acid, 99.5%, BP, Ph. Eur., USP grade
Glentham Code	GV9871
CAS Number	50-81-7
EINECS	200-066-2
MDL Number	MFCD00064328
Batch Number	027VTD

Molecular Weight	176.12
Molecular Formula	$C_6H_8O_6$
Storage Temp.	+20°C



Property	Specification	Batch 027VTD
Physical Description	White or almost white crystalline powder, or colourless crystals	White crystalline powder
Identification	Conforms to latest BP, Ph. Eur., USP	Conforms
Solubility (5% in water)	Clear, colourless solution (colour $\leq$ BY7)	Conforms
pH (5% in water)	2.1 - 2.6	2.5
Melting Point	Approx. 190°C	190.2 °C
Specific Optical Rotation	+20.5 - +21.5 °	+21.4°
Impurity E	$\leq$ 0.2%	Conforms
Impurity C	$\leq$ 0.15%	Conforms
Impurity D	$\leq$ 0.15%	Conforms
Any Unspecified Impurity	$\leq$ 0.10%	Conforms
Total Impurities	$\leq$ 0.2% (excluding C and D)	Conforms
Copper (Cu)	$\leq$ 5ppm	$\leq$ 5ppm
Iron (Fe)	$\leq$ 2ppm	$\leq$ 2ppm
Heavy Metals	$\leq$ 10ppm	$\leq$ 5ppm
Arsenic (As)	$\leq$ 3ppm	$\leq$ 1ppm
Lead (Pb)	$\leq$ 2ppm	$\leq$ 2ppm
Mercury (Hg)	$\leq$ 1ppm	$\leq$ 0.1ppm
Sulphated Ash	$\leq$ 0.1%	Conforms
Loss on Drying	$\leq$ 0.2%	Conforms
Assay	99.5 - 100.5 % (C6H8O6, as-is basis)	99.9%
Pharmacopoeia Specification(s)	Conforms BP, Ph. Eur., USP	Conforms

Specification Version	v1.0
Manufacture Date	2022-03-06
Re-Test Date	2031-03-01

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](http://www.glentham.com) or contact us using the details above for the current version of this document.

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