Ardex Analytical Laboratories

Plot 44, Pharma City, Genome Valley, Hyderabad 500078, India
NABL accredited testing laboratory · Certificate TC-91142 · Scope: chemical & microbiological

CERTIFICATE OF ANALYSIS

COA/2026/AX-11482

Issued 03 August 2026 · Revision 00

PRODUCT	**Ascorbic Acid IP / BP, fine crystalline powder**	BATCH / LOT NO.	**AX-2606-0184**
GRADE / SPEC	**Pharmacopoeial grade (IP 2022 / BP 2024)**	SPECIFICATION REF.	**SPEC-ASC-014 Rev 6**
BATCH SIZE	**1 250 kg (25 drums)**	MANUFACTURED	**18 June 2026**
SAMPLE RECEIVED	**24 July 2026**	RETEST / EXPIRY	**17 June 2029**
ANALYSIS PERIOD	**24 – 31 July 2026**	CUSTOMER	**Vireo Pharmaceuticals Ltd, Vadodara**

TEST RESULTS

#	TEST PARAMETER	METHOD	SPECIFICATION	RESULT	VERDICT
1	Description	Visual	White to very pale yellow crystalline powder	**Complies**	PASS
2	Identification (IR absorption)	IP 2.4.6	Conforms to reference spectrum	**Conforms**	PASS
3	Assay (on dried basis)	Titrimetry	99.0 % – 100.5 %	**99.74 %**	PASS
4	Specific optical rotation	IP 2.4.22	+20.5° to +21.5°	**+21.02°**	PASS
5	Loss on drying	IP 2.4.19	Not more than 0.40 % w/w	**0.11 % w/w**	PASS
6	Sulphated ash	IP 2.3.18	Not more than 0.10 % w/w	**0.03 % w/w**	PASS
7	Heavy metals (as Pb)	ICP-MS	Not more than 10 ppm	**< 2 ppm**	PASS
8	Residual solvents — methanol	GC headspace	Not more than 3 000 ppm	**410 ppm**	PASS
9	Bulk density	USP <616>	0.70 – 0.95 g/mL	**0.68 g/mL**	FAIL
10	Total aerobic microbial count	IP 2.2.9	Not more than 1 000 cfu/g	**40 cfu/g**	PASS

RELEASED WITH CONCESSION

The batch meets every pharmacopoeial requirement of SPEC-ASC-014 Rev 6. Bulk density falls marginally below the internal handling range and is released under approved concession CN-2026-071, which restricts the batch to direct-compression lines only.

REMARKS

· Sample drawn from 5 drums per the √n+1 sampling plan and composited before testing.
· Analysis performed on qualified instruments within their calibration validity.
· Concession CN-2026-071 authorised by Quality Assurance on 01 August 2026.

S. Pillai

Sneha Pillai
Analyst, Wet Chemistry
31 July 2026

R. Bhatt

Rahul Bhatt
Section Head, Quality Control
01 August 2026

M. Varghese

Dr. Mary Varghese
Head of Quality Assurance
03 August 2026

This certificate relates only to the sample tested and to the batch identified above. It may not be reproduced except in full without the written approval of the laboratory. Retained samples are held for 12 months from the date of issue.