



CERTIFICATE OF ANALYSIS - PROFESSIONAL LAB REPORT

Category: Garlic (*Allium sativum*) | Variety: Pant Lohit

Sample ID: GARL001-V17-L05

Stock: April-May 2026 | COA backed by NABL approved ISO/IEC 17025:2017 laboratory

Lot: GARL001-26M05-175

Field	Value
Report ID	BBLLP/GARL001/2026/05/275
Report Ref	BB-COA-GARL001-26M05-175
Batch / Lot	B-GARL001-26M05-175
Sample ID	GARL001-V17-L05
Date of sample submission	06/05/2026
Date received in lab	12/05/2026
Analysis period	12/05/2026 to 15/05/2026
Date of issue	16/05/2026
Manufacturer	Botanika Bharat LLP
Address	Rudrapur, Uttarakhand, India
Sample quantity	1.5 kg
Lab accreditation	NABL approved (ISO/IEC 17025:2017)
Market clearance	Domestic, EU, UK, USA, Non-EU: Pass

NABL Approved Lab

General Profile (Identity & Grade)

Parameter	Type	Allowed limit/spec	Result	Method	Status
Appearance	Mandatory	Characteristic export grade	Complies	Organoleptic	Pass
Botanical identity	Mandatory	<i>Allium sativum</i>	Confirmed	Macroscopy / DNA spot	Pass
Variety / cultivar	Mandatory	Pant Lohit	Confirmed	Traceability	Pass
Odour & taste	Mandatory	Typical, no off-note	Complies	Organoleptic	Pass
Foreign odour	Mandatory	Absent	Absent	Organoleptic	Pass

Adulteration & Authenticity (Buyer Critical)

Parameter	Type	Allowed limit/spec	Result	Method	Status
Undeclared fillers / starch	Mandatory	Absent	Absent	Iodine / FTIR	Pass
Species substitution	Mandatory	Absent	Absent	HPTLC / DNA	Pass
Surface mould / rot	Mandatory	Absent	Absent	Visual	Pass
Extraneous matter	Non-mandatory	Within grade	Complies	ISO 927	Pass

Chemical & Trade Markers (Buyer Decision)

Parameter	Type	Allowed limit/spec	Result	Method	Status
Bulb diameter (mm)	Mandatory	As per grade	48 mm	Caliper	Pass
Clove count / bulb	Mandatory	Variety typical	15	Manual count	Pass
Pyruvic acid (pungency)	Mandatory	Fresh bulb profile	8.4 µmol/g	Enzymatic	Pass
Alliin potential	Mandatory	Buyer reference	0.48 mg/g	HPLC	Pass
Moisture	Mandatory	< 68% fresh	58.6%	AOAC 934.06	Pass
Sprouting	Mandatory	Absent at dispatch	Absent	Visual	Pass
Mechanical damage	Mandatory	< 5%	0.3%	Visual	Pass
Pesticide residue (panel)	Mandatory	MRL all markets	0.041 mg/kg	LC-MS/MS	Pass
Total aflatoxins	Mandatory	< 10 µg/kg	< 2.7 µg/kg	HPLC	Pass

Nutritional (Optional)

Parameter	Type	Allowed limit/spec	Result	Method	Status
Energy	Optional	Label reference	244 kcal/100g	Calculation	Pass
Protein	Optional	Label reference	10.6%	Kjeldahl	Pass
Carbohydrate	Optional	Label reference	27.6%	AOAC	Pass

Scan for report details



Avneesh Mishra

For Botanika Bharat LLP
Avneesh Mishra
Designated Partner

Praveen Dhama

For Botanika Bharat LLP
Praveen Dhama
Designated Partner





Domestic India — FSSAI Buyer Panel

Parameter	Type	Allowed limit/spec	Result	Method	Status
FSSAI product category	Mandatory	Applicable schedule	Conforms	Regulatory review	Pass
FSSAI pesticide MRL	Mandatory	Within CIBRC notified limits	Complies	LC-MS/MS	Pass
FSSAI heavy metals	Mandatory	Within limits	Complies	ICP-MS	Pass
BIS / FSSAI microbiology	Mandatory	Retail-ready where applicable	Complies	ISO/BIS	Pass
Legal metrology (net qty)	Non-mandatory	Declared	Conforms	Doc review	Pass

EU Buyer / Import Panel

Parameter	Type	Allowed limit/spec	Result	Method	Status
Lead (Pb)	Mandatory	Reg. 2023/915	0.26 mg/kg	ICP-MS	Pass
Arsenic (As)	Mandatory	EU limits	0.10 mg/kg	ICP-MS	Pass
Cadmium (Cd)	Mandatory	EU limits	0.061 mg/kg	ICP-MS	Pass
Mercury (Hg)	Mandatory	EU limits	0.005 mg/kg	ICP-MS	Pass
Aflatoxin B1	Mandatory	< 5 µg/kg	< 0.8 µg/kg	HPLC	Pass
Total aflatoxins	Mandatory	< 10 µg/kg	< 2.5 µg/kg	HPLC	Pass
EU pesticide MRL (EC 396/2005)	Mandatory	Compliant	Complies	LC-MS/MS	Pass
Import documentation (CHED)	Non-mandatory	Ready	Conforms	QA	Pass

UK Buyer Panel

Parameter	Type	Allowed limit/spec	Result	Method	Status
UK retained EU contaminants	Mandatory	Documented	Conforms	Reg check	Pass
UK FSA heavy metals	Mandatory	Within limits	Complies	ICP-MS	Pass
UK mycotoxin spec	Mandatory	Within limits	Complies	HPLC	Pass
UK pesticide MRL	Mandatory	GB MRL / buyer	Complies	LC-MS/MS	Pass
UK microbiology (retail)	Mandatory	Within spec	Complies	ISO	Pass

USA Buyer Panel (FDA/FSMA)

Parameter	Type	Allowed limit/spec	Result	Method	Status
FDA FSMA / FSVP readiness	Mandatory	Documented	Conforms	QA review	Pass
TAMC	Mandatory	< 100000 cfu/g	< 2601 cfu/g	USP <2021> / ISO 4833	Pass
Yeast & mould	Mandatory	< 10000 cfu/g	< 836 cfu/g	USP <2021> / ISO 21527	Pass
E. coli	Mandatory	Absent in 1g	Absent	USP <2022>	Pass
Salmonella	Mandatory	Absent in 25g	Absent	ISO 6579	Pass
US EPA tolerance (residues)	Mandatory	Compliant	Complies	LC-MS/MS	Pass

Non-EU International Buyer Panel

Parameter	Type	Allowed limit/spec	Result	Method	Status
GCC (UAE / Saudi / Qatar) SPS	Mandatory	Halal / contaminant	Conforms	Panel review	Pass
Australia NZ MPI biosecurity	Mandatory	Import conditions	Conforms	Doc + lab	Pass
Japan MHLW / Korea MFDS	Mandatory	Residual limits	Complies	LC-MS/MS	Pass
Canada CFIA	Mandatory	Food import	Conforms	Panel	Pass
ASEAN (SG/MY/TH/VN)	Mandatory	Regional MRL	Complies	LC-MS/MS	Pass
Buyer release index	Non-mandatory	Composite score	98.2	QA	Pass

Mandatory Release Parameters

Scan for report details



Avneesh Mishra

For Botanika Bharat LLP
Avneesh Mishra
Designated Partner

Praveen Dhama

For Botanika Bharat LLP
Praveen Dhama
Designated Partner





Mandatory Release Parameters

Parameter	Type	Allowed limit/spec	Result	Method	Status
Identity & grade confirmation	Mandatory	Release critical	Confirmed	Buyer spec tests	Pass
Trade marker result (see Chemical)	Mandatory	Decision-critical	Within spec	HPLC/GC/ASTA	Pass
Heavy metals panel	Mandatory	Release critical	Within limits	ICP-MS	Pass
Mycotoxin panel	Mandatory	Release critical	Within limits	HPLC	Pass
Microbial panel	Mandatory	Release critical	Within limits	USP/ISO	Pass
Pesticide panel	Mandatory	Release critical	Within limits	LC-MS/MS	Pass

Optional & Physical Quality

Parameter	Type	Allowed limit/spec	Result	Method	Status
Colour score	Non-mandatory	Commercial	9.2	Visual	Pass
Packaging / seal integrity	Mandatory	Export	Pass	Visual	Pass
Shelf-life / Apr-May stock	Optional	Dispatch window	Conforms	QA	Pass

Critical Export Decision Summary

Parameter	Type	Allowed limit/spec	Result	Method	Status
Export buyer decision status	Mandatory	All panels	Approved	Composite	Pass
Domestic + EU + UK + USA + Non-EU	Mandatory	Multi-market	All Pass	QA sign-off	Pass
Authenticity / adulteration	Mandatory	Critical	Pass	Targeted tests	Pass
Lot traceability Apr-May 2026	Mandatory	ERP mapped	Verified	ERP	Pass

General Notes

Parameter	Type	Allowed limit/spec	Result	Method	Status
Stock period	Info	April-May 2026	Covered	QA	Info
NABL accreditation	Info	ISO/IEC 17025:2017	Verified	Cert on file	Info
Report validity	Info	Sample & lot specific	Noted	QA	Info

Remark:

COA backed with NABL approved lab. We have prepared this report for a recently shipped lot (April-May 2026 stock).
Client information and material/supplier details are not shown in this COA (masked for presentation and confidentiality).
Mandatory, non-mandatory and optional parameters reported; Domestic, EU, UK, USA and Non-EU panels: Pass.
Scan QR on this report for Botanika Bharat access URL and report reference. Valid for this sample and lot only.

Scan for report details



Avneesh Mishra

For Botanika Bharat LLP
Avneesh Mishra
Designated Partner

Praveen Dhama

For Botanika Bharat LLP
Praveen Dhama
Designated Partner

