

CERTIFICATE OF ANALYSIS

PRODUCT DESCRIPTION

Product Name	Black Pepper Extract	Nature of product	Powder
Botanical Name	<i>Piper nigrum</i>	Origin	India
Part Used	Fruit	Solvents Used	Hydroalcoholic
Batch No.	HN/BPE/2023083061	Manufacturing Date	Aug-23
Quantity	25 Kg	Expiry date	July-26

TESTING PARAMETERS

PHYSICAL PARAMETERS

<u>Items</u>	<u>Specification</u>	<u>Method</u>	<u>Results</u>
Color	Off White	Organoleptic	Complies
Odour	Characteristic	Organoleptic	Complies
Taste	Natural	Organoleptic	Complies
Solubility	Soluble in water	In House	Complies
Appearance	Fine Powder	Organoleptic	Complies

ANALYTICAL QUALITY

Identification	Identical to <i>R.S.</i> sample	TLC	Complies
Sieve analysis	90% through 80 mesh	Sieve	Complies
Moisture (w/w)	< 10.0%	In House	4.10%
Ash (w/w)	< 5.0%	In House	2.17%
Acid insoluble ash(w/w)	< 2.4%	In House	1.04%
Bulk Density	40-80 g/100mL	In House	Complies
Active Component-Assay (Piperine)	5%	HPLC-MS	5.15%

HEAVY METALS

Arsenic	Max 1.1 ppm	ICP-OES	B.L.Q
Cadmium	Max 1.0 ppm	ICP-OES	B.L.Q
Lead	Max 2.5 ppm	ICP-OES	B.L.Q
Mercury	Max 0.1 ppm	ICP-OES	B.L.Q

CONTAMINANTS

Aflatoxin B1	≤2ppb	EASI-CHE-SOP-18	Complies
Aflatoxin B2	≤2ppb	EASI-CHE-SOP-18	Complies
Aflatoxin G1	≤2ppb	EASI-CHE-SOP-18	Complies
Aflatoxin G2	≤2ppb	EASI-CHE-SOP-18	Complies
Ethylene Oxide	≤0.01mg/kg	EKA-CHE-SOP-053(By GC-MS)	Complies
Pesticides Residues	Organic Requirements	EKA-CHE-SOP-030(By LC-MSMS&GC-MSMS)	Complies



Think Extract Think Herbo Nutra

MICROBIOLOGICAL PARAMETERS			
Total Plate count /g	<10000 CFU/g	ISO 4833-1-2013	<1000 CFU/g
Yeast & Molds /g	<100 CFU/g	ISO 21527-2:2008	<100 CFU/g
Coliform/g	<10 CFU/g	ISO 4832:2006	<10 CFU/g
Escherichia coli /25g	Negative	ISO 16649-2-2001	Negative
Salmonella /25g	Negative	ISO 6579-1:2017/AMD 1:2020	Negative

Note: B.L.Q – Below Limit of Quantification, Limit of Quantification: 0.05mg/kg for Heavy Metals

Packing and Storage	Store in sealed containers at cool & dry place to protect from light, moisture and pest infestation.
Appearance	This is a natural product and there may be color variations from lot to lot due to crop fluctuations from harvest to harvest.
Shelf Life	36 months under the above condition, and in its original package.

PREPARED BY	APPROVED BY
(QC/QA Executive)	(QC/QA Head)

Version:5