

## CERTIFICATE OF ANALYSIS

<b>Product Name</b>	Black Pepper Extract	<b>Batch Size</b>	180 kg
<b>Product Spec</b>	Piperine $\geq 10\%$	<b>Batch Number</b>	YOUTH 20240613
<b>Botanical Latin Name</b>	<i>Piper nigrum L.</i>	<b>Plant Part</b>	Fruit
<b>MFG. Date</b>	2024.06.13	<b>Retest Date</b>	2026.06.12

ITEM	SPECIFICATION	RESULT	TEST METHOD
<b>Physical Description</b>			
Appearance	Light Yellow Powder	Conforms	Visual
Odor	Unique smell of black pepper	Conforms	Organoleptic
Taste	Unique taste of black pepper	Conforms	Olfactory
Bulk Density	Slack Density	0.47g/ml	USP616
	Tight Density	0.69g/ml	USP616
Particle Size	95% Through 80 Mesh	Conforms	CP2015
<b>Chemical Tests</b>			
Piperine	$\geq 10.0\%$	10.11%	HPLC
Moisture	$\leq 5.0\%$	1.01%	CP2015 (105 °C, 4 h)
Ash	$\leq 5.0\%$	0.22%	CP2015
Total Heavy Metals	<10 ppm	Conforms	CP2015
<b>Microbiology Control</b>			
Aerobic Bacterial Count	$\leq 1,000$ CFU/g	Conforms	GB4789.2
Yeast	$\leq 100$ CFU/g	Conforms	GB4789.15
Mold	$\leq 100$ CFU/g	Conforms	GB4789.15
Escherichia Coli	<3.0MPN/g	Conforms	GB4789.38
Salmonella	Not Detected	Conforms	GB4789.4
Staphylococcus Aureus	Not Detected	Conforms	GB4789.10
<b>Conclusion</b>	<b>Conforms to Specification</b>		

**Storage:** Store in tightly sealed and preferably full containers in cool, dry and ventilated area.

**Shelf Life:** 24 months when properly stored.

**Status:** Natural; Non-Irradiation.

QC MANAGER: Feng Li

ANALYST: Guo Shan

