

## PRODUCT: PURE NATURAL VANILLA EXTRACT (10-FOLD & 20-FOLD CONCENTRATES)

### PRODUCT IDENTIFICATION & BOTANICAL SOURCE

Botanical Name:	Vanilla planifolia
Plant Part Used:	Cured Seed Pods (Beans)
Geographical Origin:	Idukki, Kerala, India
Process Description:	Multi-fold extraction of cured vanilla beans using food-grade aqueous ethanol, concentrated under low-temperature vacuum distillation to achieve 10X and 20X concentration thresholds. Contains no added sugars, corn syrup, or artificial colorants.

### REGULATORY IDENTIFIERS & CROSS-REFERENCES:

CAS Number:	8024-06-4	FEMA Number:	3105
EINECS Number:	283-521-8	CoE Number:	474
US FDA Status:	21 CFR 169.181 / 182	EU Status:	Natural Flavoring
HS Tariff Code:	3301.90.33	Dietary suitability:	Kosher & Halal

### PHYSICAL-CHEMICAL & CHROMATOGRAPHIC PROPERTIES

Test Parameter	10-FOLD SPECIFICATION	20-FOLD SPECIFICATION
Appearance:	Dark, viscous brown liquid	Dense, deep brown/black liquid
Odor & Taste:	Intense, sweet, balsamic	Hyper-concentrated balsamic vanilla
Specific Gravity (25°C):	1.030 – 1.090 g/cm <sup>3</sup>	1.120 – 1.190 g/cm <sup>3</sup>
Refractive Index (20°C):	1.380 – 1.420	1.430 – 1.480
Alcohol Content (% v/v):	Min 35.0%	Min 35.0%

### AUTHENTICITY ASSAY (HPLC MARKER COMPOUNDS)

Test Parameter	10-FOLD SPECIFICATION	20-FOLD SPECIFICATION
Vanillin Content (w/v):	Min 1.0% (≥ 10.0 g/L)	Min 2.0% (≥ 20.0 g/L)
p-Hydroxybenzaldehyde:	100 – 1,500 mg/L	200 – 3,000 mg/L
Vanillic Acid:	100 – 1,200 mg/L	200 – 2,400 mg/L
p-Hydroxybenzoic Acid:	20 – 300 mg/L	40 – 600 mg/L

**Note:** The structural profile ratios of all four markers remain unmanipulated and naturally proportional, verifying absolute protection against synthetic vanillin fraud.

### AUTHENTICITY ASSAY (HPLC MARKER COMPOUNDS)

Organism	Specification Limit	Method
Total Plate Count (TPC):	≤ 500 CFU/g	ISO 4833
Yeast & Mold:	≤ 20 CFU/g	ISO 21527
Enterobacteriaceae:	Absent in 1 g	ISO 21528
Escherichia coli:	Absent in 10 g	ISO 16649
Salmonella spp.:	Absent in 25 g	ISO 6579

**DISCLAIMER:** The information contained in this document is accurate to the best of our knowledge. It is the user's responsibility to verify safety and regulatory metrics for their specific localized downstream food matrices.

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### PURITY & CHEMICAL CONTAMINANTS (GLOBAL COMPLIANCE)

Contaminant	Specification Limit	Regulatory Reference
Heavy Metals (Total):	≤ 5.0 ppm	USP <2232>
- Lead (Pb):	≤ 0.5 ppm	EU 2023/915 / US FDA
- Arsenic (As):	≤ 0.5 ppm	FDA Action Levels
- Cadmium (Cd):	≤ 0.2 ppm	EU 2023/915
- Mercury (Hg):	≤ 0.05 ppm	Global Baseline
Residual Solvents:	Meets Ethanol/Water limits	Directive 2009/32/EC
Pesticide Residues:	Complies with EP/USP/EU MRLs	Gas Chromatography
Mycotoxins (Aflatoxins):	B1 ≤ 2.0 ppb; Total ≤ 4.0 ppb	Strict EU Limit
Ochratoxin A:	≤ 15.0 ppb	Strict EU Limit

### GLOBAL COMPLIANCE & DIETARY DECLARATIONS

Natural Status:	100% Pure Natural Flavoring Extract. Conforms directly to US FDA 21 CFR 169 (Standards of Identity), EU Regulation (EC) No 1334/2008 (Article 16), Health Canada FDR, and ANZ Food Standards Code.
Allergen Matrix:	Free from all major global allergens (US FALCPA, EU 1169/2011, and FSANZ). Zero presence of Gluten, Nuts, Soy, Dairy, or added Sulphites.
GMO & Irradiation Status:	Non-GMO Project verified standard. Product and raw material have not been irradiated or treated with Ethylene Oxide (EtO).
Dietary Certification:	Kosher Certified: Yes   Halal Certified: Yes Vegan & Vegetarian Suitable: Yes

### PACKAGING, STORAGE, & SHELF LIFE

Packaging:	Food-grade, high-barrier UN-approved HDPE containers. Purged with dry Nitrogen gas to protect profile top-notes.
Storage Conditions:	Store in original sealed containers between 15°C and 25°C. Keep away from direct UV light, heat, and moisture.
Shelf Life:	24 Months from manufacturing date. Due to high organic load associated with multi-folds, sediment re-incorporation via agitation is recommended prior to production use.