

Organic Black Pepper Extract Powder



What is organic black pepper extract powder?

Organic Black Pepper Extract Powder is a premium nutraceutical ingredient derived from *Piper nigrum* L. through advanced supercritical CO₂ extraction. This process yields a concentrated piperine extract standardized to 95% minimum purity with no residual solvents. Clinically validated to enhance nutrient absorption by up to 2,000%, it serves as a potent bioavailability amplifier in health formulations.

Specifications

Parameter	Standard Extract	Ultra Pure Extract
Piperine Content	≥95%	≥98%
Extraction Method	Supercritical CO ₂	Fractionated CO ₂

Parameter	Standard Extract	Ultra Pure Extract
Appearance	Pale yellow powder	White crystalline
Particle Size (D90)	≤50μm	≤10μm
Solubility	Liposoluble	Water-dispersible
Residual Solvents	<1 ppm	Undetectable
Heavy Metals	Pb<0.1ppm, As<0.3ppm	Pb<0.05ppm, As<0.1ppm

Key Features & Benefits

1. Bioactivation Power

1. Increases curcumin absorption by 2,000% and resveratrol uptake by 154%
2. Inhibits metabolic enzymes (CYP3A4/P-gp) to prolong nutrient activity

2. Premium Extraction

1. Zero solvent residues (ethanol/hexane-free)
2. Non-GMO, gluten-free, vegan

3. Multi-Functionality

1. Natural preservative extends product shelf life
2. Masks bitter flavors at ≤0.01% dosage

4. Metabolic Enhancement

1. Activates thermogenic calorie-burning pathways

Applications

Industry	Implementation
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Dietary Supplements	Bioavailability booster in turmeric/iron formulas
Functional Foods	Protein powders, health bars, functional beverages
Cosmeceuticals	Anti-aging serums, hair growth formulations
Pharmaceuticals	Enteric-coated tablets, delayed-release capsules

Certifications & Quality Assurance

- **Organic Certifications:** USDA, EU, JAS
- **Safety Compliance:** GRAS Notice #1245, FDA cGMP, ISO 22000
- **Purity Verification:**
 - Heavy metals below pharmacopeia limits (ICP-MS)
 - 524-pesticide residue screen (EU MRL compliant)
 - Microbiology: TPC <1,000 CFU/g
- **Stability:** 36-month shelf life at room temperature

Why Choose Us?

1. Advanced Processing Expertise

1. Customizable purity (40-98%) and solubility profiles
2. Nanoencapsulation technology for water-based formulations

2. Supply Chain Integrity

1. Blockchain-tracked sourcing from certified farms
2. Ethically harvested raw materials

3. Technical Partnership

1. Clinical trial data for efficacy claims
2. Regulatory dossier support (DMF, TGA)

FAQs

Q: What is the recommended dosage?

A: 5-20mg per serving depending on the active compound being enhanced

Q: Does it interact with medications?

A: Inhibits CYP3A4 enzymes; contraindicated with calcium channel blockers, immunosuppressants, and certain chemotherapeutics

Q: Minimum order quantity for Ultra Pure grade?

A: 1kg for R&D, 25kg for production batches

Q: How does it perform in acidic drinks?

A: Standard version requires oil carriers; water-dispersible format maintains stability at pH 2.0-8.0

Packing



Want to learn more about this product or have any questions?

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