

Organic Soy Protein Powder



What is Organic Soy Protein Powder?

Organic soy protein is extracted from certified organic non-GMO soybeans using aqueous extraction and membrane filtration technology. Organic Way offers three functional grades — each optimized for different application requirements:

- **Organic Soy Protein Concentrate (65-70%):** Retains the soy fiber fraction; higher in dietary fiber (4-7%) and natural isoflavones. Ideal for bakery, meat analogues, and fiber-enriched applications.
- **Organic Soy Protein Isolate ($\geq 90\%$):** Further processed through membrane filtration to remove most carbohydrates and fat. Near-neutral flavor; preferred for sports nutrition, clinical nutrition, and clear-label applications.
- **Organic Soy Protein Hydrolyzed ($\geq 85\%$):** Pre-enzyme-treated (protease hydrolysis) for reduced antigenicity, improved solubility, and faster amino acid absorption. Preferred for hypoallergenic infant formulas (under applicable regulations) and medical nutrition.

Why Soy Protein Remains the Reference Standard

- **PDCAAS of 1.0** — only single-source plant protein achieving maximum score; no blending required
- **Complete EAA profile** — all nine essential amino acids in adequate proportions; methionine is NOT limiting
- **Isoflavone content (genistein, daidzein)** — naturally occurring bioactives; unique to soy
- **Exceptional emulsification and texturization** — 7S globulin for meat analogues, tofu, dairy alternatives
- **Heat stability** — maintains functional properties through extrusion, baking, and UHT processing

Critical Labeling Note — Allergen & Isoflavone Disclosure Soy is a **Big 9 major allergen** and must be declared on all finished product labels (US: 21 CFR §101.4; EU: EU FIC 1169/2011). Under US NLEA, isoflavone content must be disclosed on nutrition labels when making protein claims with soy ingredients.

Production & Quality Assurance

1. Organic farm sourcing (USDA NOP / EU 834/2007) — documented non-GMO seed stock
2. Incoming testing: pesticide residues, mycotoxins (aflatoxin B1 < 4 µg/kg), heavy metals
3. Aqueous extraction at controlled temperature (≤45°C) — no hexane used
4. Membrane filtration → spray drying
5. Lot-specific COA: protein, moisture, fat, ash, microbiology, heavy metals
6. Third-party verification (SGS / Eurofins) available on request

Technical Specifications

Three-Grade Comparison

Parameter	Concentrate	Isolate	Hydrolyzed	Test Method
Protein (dry basis)	65-70%	≥ 90.0%	≥ 85.0%	Kjeldahl / Dumas
Moisture	≤ 8.0%	≤ 7.0%	≤ 6.0%	AOAC 930.15
Fat	≤ 1.5%	≤ 1.0%	≤ 1.0%	Soxhlet

Parameter	Concentrate	Isolate	Hydrolyzed	Test Method
Ash	≤ 6.0%	≤ 5.0%	≤ 5.0%	AOAC 942.05
Fiber	4-7%	≤ 1.0%	≤ 1.0%	AOAC 985.29
Carbohydrates	≤ 12.0%	≤ 2.0%	≤ 4.0%	By difference
Sodium	≤ 100mg/100g	≤ 50mg/100g	≤ 500mg/100g*	ICP-MS
Genistein + Daidzein	40-80mg/100g	60-120mg/100g	30-60mg/100g	HPLC
pH (10% solution)	6.5-7.5	6.5-7.5	5.5-6.5	pH meter
Particle Size	100-200 mesh	100-200 mesh	100-200 mesh	Sieve
Color	Light beige	White	White	Visual
Solubility	≥ 70%	≥ 90%	≥ 95%	NSI method

*Hydrolyzed grade: sodium elevated due to pH adjustment during enzymatic hydrolysis.

Microbiological Specifications

Parameter	Specification	Test Method
Total Plate Count	≤ 10,000 CFU/g	ISO 4833
Yeast & Mold	≤ 100 CFU/g	ISO 21527
Coliform	≤ 10 CFU/g	ISO 4832

Parameter	Specification	Test Method
<i>E. coli</i>	Negative/25g	ISO 16654
<i>Salmonella</i>	Negative/25g	ISO 6579

Heavy Metals & Contaminants

Parameter	Specification	Standard
Lead (Pb)	≤ 0.5 mg/kg	Prop 65 / EU 2021/1323
Arsenic (As)	≤ 0.3 mg/kg	Prop 65
Cadmium (Cd)	≤ 0.1 mg/kg	EU Regulation
Mercury (Hg)	≤ 0.05 mg/kg	Prop 65
Aflatoxin B1	≤ 4 µg/kg	EU 2023/915
Pesticide Residues	ND (per EC 396/2005)	GC-MS/MS

Certifications

Certification	Issuing Body	Scope
USDA Organic	USDA NOP (via accredited certifier)	Production + processing
EU Organic	EU Reg. (EC) No 834/2007	Import + sale in EU
Non-GMO Project Verified	Non-GMO Project	Raw material + finished product
Kosher	KSA / OU (lot-specific)	Processing facility

Certification	Issuing Body	Scope
Halal	IFANCA / MUI (lot-specific)	Processing facility
FSSC 22000	Bureau Veritas	Manufacturing facility

Applications & Formulation Guidance

Application	Recommended Grade	Typical Addition
Plant-Based Meat Analogues	Concentrate or Isolate	10-20% of blend
Sports Nutrition (shakes, bars, RTD)	Isolate	20-35g/serving
Tofu & Soy Dairy Alternatives	Concentrate or Isolate	8-15% of formula
Bakery (protein bread, crackers)	Concentrate	5-12% of flour weight
Infant / Medical Nutrition	Hydrolyzed	Per regulatory limit
Extruded Snacks	Isolate	8-15% of formula
Beverage Fortification	Isolate or Hydrolyzed	2-5% of formula
Animal Feed / Pet Food	Concentrate	5-15% of recipe

Formulation Notes:

Hydrolyzed grade: Trypsin inhibitor activity reduced by ~80%; NSI >95%; suitable for acid-sensitive applications

Allergen declaration required: Soy is a Big 9 allergen — must be declared per FDA/FSA regulations

Isoflavone disclosure (US): Under NLEA, isoflavone content must appear on nutrition facts when making protein claims with soy

Extrusion performance: Soy protein's 7S globulin provides excellent melt and texturization in high-moisture extrusion

FAQ

Q1: What is the difference between Organic Soy Protein Concentrate, Isolate, and Hydrolyzed?

A: All three are derived from certified organic non-GMO soybeans but differ in protein purity and processing:

Concentrate (65-70%): Retains the fiber fraction; higher isoflavones; cost-effective. Ideal for meat analogues, bakery, fiber-enriched products.

Isolate (≥90%): Additional membrane filtration removes most carbs and fat; highest purity; near-neutral flavor. Preferred for sports nutrition and clinical nutrition.

Hydrolyzed (≥85%): Pre-treated with protease enzymes; faster absorption; reduced antigenicity; NSI >95%. Used in hypoallergenic medical nutrition and specialized sports nutrition.

Q2: Is Organic Soy Protein a complete protein?

A: Yes. Organic soy protein achieves a **PDCAAS of 1.0** — the only single-source plant protein to do so. All nine essential amino acids are present in adequate proportions; methionine (1.3g/100g) is the highest of all plant proteins and is not limiting. No complementary protein pairing is required for adult EAA coverage.

Q3: How does soy allergen labeling affect my formulation choices?

A: Soy is a **Big 9 major food allergen** and must be declared on all finished product labels (US: 21 CFR §101.4; EU: EU FIC 1169/2011). If allergen-free positioning is required, organic pea, mung bean, sunflower, or fava bean proteins are recommended alternatives. The hydrolyzed grade has reduced antigenicity but is **not allergen-free** and still requires declaration.

Q4: What is the isoflavone content, and does it need to be declared on finished product labels

A: Organic soy protein contains 40-120mg/100g of total isoflavones (genistein + daidzein), with isolate having the highest concentration. Under US NLEA, isoflavone content must appear in the nutrition facts panel when making protein claims with soy ingredients. In the EU, isoflavone-containing products require

additional guidance for specific populations. Lot-specific isoflavone testing data is available on COA.

Q5: Is your Organic Soy Protein Prop 65 compliant for California market?

A: Yes. Third-party tested by SGS/Eurofins; meets Prop 65 thresholds for Pb, As, Cd, Hg. Additionally certified compliant with EU aflatoxin limits (AFB1 ≤ 4 µg/kg). Lot-specific certificates available on request.

Q6: What is the minimum order quantity (MOQ) and lead time?

A: Standard MOQ is 500kg per grade (25kg kraft bags). Blending multiple grades from 1,000kg. Production lead time: 10-14 business days from confirmed PO. Samples (500g per grade) available within 3-5 business days. Private-label packaging from 2,000kg.

Packing



Format	Net Weight	MOQ	Notes
Kraft paper bag (inner PE liner)	25 kg	500 kg	Standard B2B
White woven PP bag	25 kg	500 kg	Export
Fiber drum	25 kg	500 kg	Humid climates
Private-label retail	500g / 1kg / 5kg	2,000 kg	Amazon / retail

Storage Conditions: ≤24°C, RH ≤55%, away from direct sunlight. Shelf life: 24 months. After opening: reseal immediately; use within 2 months. Protect from strong odors.

For more information, please visit our website:

<https://www.organic-way.com/products/organic-soy-protein-powder/>