

Bio-Spirulinapulver



What Is Organic Spirulina Powder?

Organic Spirulina — cultivated in closed-loop zertifiziert biologisch freshwater systems and processed at every stage with bioactive preservation in mind — delivers one of the world's most nutrient-dense superfoods in two complementary formats designed to meet both formulation and consumer-facing requirements.

The Nutritional Power of Spirulina:

Arthrospira platensis stands at the intersection of high-protein plant nutrition, potent antioxidant chemistry, and clinically studied immune support. Its primary bioactive compounds — phycocyanin (a biliprotein pigment with demonstrated NK cell activation and COX-2 inhibition), complete protein (PDCAAS 0.92, containing all 9 essential amino acids), highly bioerhältlich iron (ferrous form, 12× more bioerhältlich than spinach with co-present vitamin C), and bioactive vitamin B12 (adenosylcobalamin form, suitable for vegans) — position spirulina as a uniquely multifunctional ingredient for immune, energy, detox, and sports nutrition categories.

Organic Spirulina Powder — Cold-Dispersible Formulation Grade:

Produced by cultivating zertifiziert biologisch A. platensis in closed freshwater systems, harvesting at peak potency, and low-temperature spray-drying at <40°C to preserve thermolabile phycocyanin, the Pulver delivers protein ≥60%, phycocyanin ≥15% (spectrophotometric A615/A652), iron ≥80 mg/100g, vitamin B12 ≥150 µg/100g, GLA ≥1%, chlorophyll a ≥10%, and ORAC ≥24,000 µmol TE/g. With D90 ≤50 µm and ≥85% cold-water solubility, it integrates seamlessly into smoothies, RTD beverages, functional

bars, capsules, and cosmetic formulations. A deodorized option is erhältlich for flavor-sensitive applications.

Organic Spirulina Tablets — Whole-Food Convenience Format:

Compressed from the same zertifiziert biologisch spirulina Pulver without binders or fillers, the tablet format provides identical nutritional integrity in a convenient, portable form. Customizable at 250 mg, 500 mg, or 1000 mg per tablet, with optional enteric coating for delayed release or vegan B12 enhancement, tablets are suited for direct supplement sale, private label, immune support protocols, and daily wellness routines. Protein content mirrors the Pulver at 60–70% dry weight.

Both formats support immune defense through phycocyanin-mediated NK cell activation (45% increase, Front. Immunol. 2022); energy metabolism through mitochondrial ATP support and lactate reduction; detoxification through chlorophyll-mediated heavy metal chelation and hepatic glutathione elevation (+30%); and cardiovascular health through GLA and antioxidant activity. Certified USDA/EU Organic, Non-GMO Project Verified, Kosher, Halal, and ISO 22000/HACCP compliant. Probe (1 kg) to bulk (25 kg+) erhältlich. Lieferzeit: 10–20 Tage.

Physical & Chemical Specifications

Spezifikationsvergleich

Parameter	Spirulina Powder	Spirulina Tablets
Lateinische Bezeichnung	Arthrospira platensis	Arthrospira platensis
Quelle	100% organic spirulina, whole biomass	100% organic spirulina (compressed powder)
Processing	Cultivation → Harvest → Spray-drying <40°C	Same powder → Tablet compression (no binders/fillers)
Tablet Size	—	250 mg, 500 mg, or 1000 mg (customizable)
Protein	≥60% (dry basis)	60–70% (dry basis)
Phycocyanin	≥15% (spectrophotometric A615/A652)	≥15% (same source material)
Iron	≥80 mg/100g (ferrous form)	≥80 mg/100g
Vitamin B12	≥150 µg/100g (adenosylcobalamin)	≥150 µg/100g (optional B12 enrichment available)
GLA (Omega-6)	≥1%	≥1%

Parameter	Spirulina Powder	Spirulina Tablets
Chlorophyll a	≥10%	≥10%
ORAC	≥24,000 μmol TE/g	≥24,000 μmol TE/g
Aussehen	Deep blue-green powder	Deep green, round or oval tablets
Geschmacksprofil	Mild marine, earthy	Mild spirulina (minimal when swallowed)
Löslichkeit	≥85% (cold water)	N/A (tablet format)
Particle Size (D90)	≤50 μm	N/A
Feuchtigkeit	≤5%	≤5%
Binders/Fillers	None	None
Enteric Coating Option	—	Available (delayed-release)
PDCAAS	0.92	0.92
Haltbarkeit	24–36 months	24–36 months
Empfohlene Lagerung	Cool, dry, <25°C, away from light	Cool, dry, <25°C, away from light

Wichtige bioaktive Verbindungen

Verbindung	Rolle	Value
Phycocyanin	Antioxidant, anti-inflammatory, NK cell activation, COX-2 inhibition	≥15%
Complete Protein (PDCAAS 0.92)	All 9 essential amino acids; 6g EAA per 10g serving	≥60%
Iron (Ferrous Form)	Bioavailable iron; 12× higher than spinach	≥80 mg/100g
Vitamin B12 (Adenosylcobalamin)	Active form; vegan-suitable; supports energy metabolism	≥150 μg/100g
GLA (Gamma-Linolenic Acid)	Omega-6; anti-inflammatory prostaglandin precursor	≥1%
Chlorophyll a	Heavy metal chelation, antioxidant, natural green colorant	≥10%
ORAC	Total antioxidant capacity	≥24,000 μmol TE/g

Microbiological & Contaminant Standards

Test	Standard	Methode
Total Plate Count (TPC)	<5,000 CFU/g	ISO 4833
Yeast & Mold	<100 CFU/g	ISO 21527
Salmonella	Not detected / 25g	ISO 6579
E. coli	Not detected / 25g	ISO 16649
Coliforms	<10 CFU/g	ISO 4832
Lead (Pb)	<0.1 ppm	ICP-MS (USP <232>)
Cadmium (Cd)	<0.05 ppm	ICP-MS
Arsenic (As)	<0.5 ppm	ICP-MS
Mercury (Hg)	<0.1 ppm	ICP-MS
Microcystin (Algal Toxin)	<1 µg/g	HPLC-MS
Pesticide Residues	Not detected (500+ screened)	GC-MS / LC-MS
Aflatoxin B1	<1 ppb	ELISA / HPLC

Alle Chargen werden in akkreditierten Drittlaboren getestet. Das Analysezertifikat (COA) ist auf Anfrage erhältlich.

Zertifizierungen

Zertifizierung	Spirulina Powder	Spirulina Tablets
USDA Organic	Certified	Certified
EU Organic (EC 834/2007)	Certified	Certified
COR (Canada Organic)	Certified	Certified
Non-GMO Project Verified	Verified	Verified
Vegan	Certified	Certified
Gluten-Free	Certified	Certified
Allergen-Free	14 EU allergens absent	14 EU allergens absent
Kosher	Certified	Certified
Halal	Certified	Certified
ISO 22000 / HACCP	Compliant	Compliant

Phycocyanin content validated by spectrophotometric method (A615/A652). Protein digestibility reported as PDCAAS 0.92. ORAC measured by Brunswick Labs ISO 23349

protocol.

Anwendungen

Anwendungsmatrix

Anwendung	Spirulina Powder	Spirulina Tablets
Green smoothies / RTD beverages	Primary (1–3% w/w)	—
Functional bars / energy snacks	Primary (3–8% w/w)	—
Capsules / tablet supplements	Primary (500–2000 mg/day)	Primary (same dose range)
Sports nutrition (protein shakes)	Primary (5–10g/serving)	Secondary
Daily wellness supplement	Secondary	Primary (convenient, portable)
Detox / cleanse formulas	Primary	Primary
Immune support formulas	Primary	Primary
Natural colorant (blue-green)	Primary (0.5–2% in formulas)	—
Cosmetics / topical serums	Primary (0.5–5%)	—
Baby nutrition fortification	Primary (2–5%)	—
Aquaculture / poultry feed	Primary (1–3% of feed)	—

Recommended Usage Levels

Format	Category	Usage Level
Powder	Beverage / smoothie	1–3 g per serving
Powder	Functional bar / snack	3–8% (w/w)
Powder	Capsule / supplement	500–2000 mg/day
Powder	Cosmetic formula	0.5–5%
Tablets	Daily supplement	1–3 g/day (2–6 × 500 mg)
Tablets	Immune / detox protocol	Per label claim

Key Health Benefits (Clinically Referenced)

Benefit	Mechanism	Evidence
Immune Activation	Phycocyanin: +45% NK cell activity; macrophage phagocytosis upregulation; Th1/Th2 balance	Front. Immunol. 2022
Energy & Performance	Mitochondrial ATP production; lactate reduction in exercise	Sports nutrition studies
Detoxification	Chlorophyll chelates Pb, Cd; hepatic glutathione +30%	In vivo studies
Iron Bioavailability	Ferrous form + co-present vitamin C; 12× vs spinach	Comparative absorption data
Antioxidant Defense	Phycocyanin radical scavenging: 4× vitamin C; ORAC ≥24,000	In vitro / clinical
Cardiovascular Health	GLA anti-inflammatory prostaglandin pathway; lipid modulation	Nutritional biochemistry
Vegan B12	Adenosylcobalamin (active form); supports neurological health	Vegan nutrition guidelines

Natural Colorant Guide

Anwendung	Color	Stability Notes
Cold beverages / smoothies	Vivid blue-green	Phycocyanin is heat-sensitive; add during cold-fill stage
Functional bars / snacks (no bake)	Vivid blue-green	Stable at ambient temperature
Confectionery / icing	Blue-green to green	Avoid >60°C processing
Cosmetics (serum, mask)	Blue-green	Stable in aqueous formulations

FAQ

Q: What is the difference between spirulina powder and spirulina tablets?

A: Both formats are made from identical certified organic *Arthrospira platensis* — the difference is form, not quality. Powder is preferred for formulation flexibility: beverages, smoothies, capsule filling, functional foods, and cosmetics. Tablets are compressed from the same powder without binders or fillers, offering a convenient, portable, consumer-ready delivery format. Both deliver the same nutritional profile — protein ≥60%, phycocyanin ≥15%, iron ≥80 mg/100g.

Q: What makes the phycocyanin content significant?

A: Phycocyanin is spirulina's signature biliprotein — the blue pigment that gives spirulina its distinctive blue-green color and is responsible for many of its most studied bioactivities: free radical scavenging (4× more potent than vitamin C), COX-2 inhibition (anti-inflammatory), NK cell activation (+45%, *Front. Immunol.* 2022), and macrophage stimulation. ORGANICWAY's low-temperature spray-drying at <40°C preserves phycocyanin integrity, validated at ≥15% per batch.

Q: Is the vitamin B12 in spirulina bioavailable for vegans?

A: Yes. ORGANICWAY Organic Spirulina contains vitamin B12 in the adenosylcobalamin form — one of the two biologically active cobalamin forms that the human body utilizes directly. At ≥150 µg/100g, it provides meaningful B12 contribution for vegan and vegetarian formulations. For tablet format, additional B12 enrichment is available as a customization option.

Q: Is spirulina safe for gluten-free and allergen-sensitive consumers?

A: Yes. Spirulina is a microalgae with no botanical relation to gluten-containing grains. ORGANICWAY Organic Spirulina is certified Gluten-Free and processed in a facility free from the 14 major EU allergens (including wheat, soy, tree nuts, dairy, eggs, fish, and shellfish). Non-GMO Project Verified and USDA/EU Organic certified provide additional assurance of purity.

Q: Can spirulina powder be used as a natural colorant?

A: Yes. Phycocyanin — spirulina's primary pigment — provides a vivid, stable blue-green color in food and cosmetic applications. Important formulation note: phycocyanin is heat-sensitive. For colored beverages, confections, or functional foods, spirulina powder should be incorporated at the cold-fill or post-heat stage to preserve color intensity. Typical usage: 0.5–2% in beverages; 1–3% in bars and snacks.

Q: How does spirulina iron compare to conventional iron supplements?

A: ORGANICWAY Organic Spirulina delivers iron in the ferrous form, naturally accompanied by vitamin C present in the spirulina matrix, resulting in bioavailability 12 times higher than the iron in spinach. For clean-label iron fortification without synthetic iron salts, spirulina powder (≥80 mg Fe/100g) is an effective and consumer-friendly solution across beverages, functional foods, and supplement formats.

Q: What are the storage requirements and shelf life?

A: Both powder and tablets: store in a cool, dry environment below 25°C, away from direct light and moisture, in original sealed packaging. Shelf life: 24–36 months from production date. Powder is supplied in oxygen-barrier amber packaging; tablets in moisture-barrier containers. Specific bulk storage instructions are provided with each order.

Q: What are the MOQ, sample availability, and lead times?

A: Free samples (1 kg powder or equivalent tablets) are available via FEDEX, UPS, and EMS. Bulk MOQ: 25 kg per order (40 drums/pallet). Standard lead time: 10–20 business days from order confirmation. Tablets are available in custom sizes (250 mg, 500 mg, 1000 mg) with private label and enteric-coating options for bulk orders. Payment: T/T, L/C, D/P, D/A, MoneyGram, Western Union, credit card.

Packaging & Storage



Verpackungsspezifikationen

Parameter	Spirulina Powder	Spirulina Tablets
Standard Unit	25 kg/drum	25 kg/drum
Pallet Configuration	40 drums/pallet	40 drums/pallet
Carton Dimensions	40 × 40 × 60 cm	40 × 40 × 60 cm
Primary Packaging	Oxygen-barrier amber-colored bags	Moisture-barrier sealed containers
Inner Liner	Food-grade PE/foil laminate	Food-grade PE/foil laminate
Custom Packaging	Available on request	Available on request (private label)
Sample Pack	1 kg (free sample)	1 kg equivalent (free sample)

Lagerbedingungen

Condition	Requirement
Temperature	Below 25°C
Humidity	Below 50% RH
Light	Away from direct sunlight (photosensitive — phycocyanin)
Container	Original sealed packaging
Haltbarkeit	24–36 months from production date

Phycocyanin is photosensitive and thermolabile. Oxygen-barrier amber packaging for powder protects pigment integrity during storage and transit.

For more information, please visit our website:

<https://de.organic-way.com/produkte/bio-spirulina-tabletten-copy/>