

## Polvere di spirulina biologica



### What Is Organic Spirulina Powder?

Organic Spirulina — cultivated in closed-loop certificato biologico 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 biodisponibile iron (ferrous form, 12× more biodisponibile 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 certificato biologico A. platensis in closed freshwater systems, harvesting at peak potency, and low-temperature spray-drying at <40°C to preserve thermolabile phycocyanin, the polvere 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 disponibile for flavor-sensitive applications.

### Organic Spirulina Tablets — Whole-Food Convenience Format:

Compressed from the same certificato biologico spirulina polvere 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 polvere 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. Campione (1 kg) to bulk (25 kg+) disponibile. Tempi di consegna: 10–20 giorni.

## Physical & Chemical Specifications

### Confronto delle specifiche

| Parametro     | Spirulina Powder                           | Spirulina Tablets                                     |
|---------------|--------------------------------------------|-------------------------------------------------------|
| Nome latino   | Arthrospira platensis                      | Arthrospira platensis                                 |
| Fonte         | 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%                                                   |
| Chlorophyll a | ≥10%                                       | ≥10%                                                  |
| ORAC          | ≥24,000 µmol TE/g                          | ≥24,000 µmol TE/g                                     |

| Parametro               | Spirulina Powder                  | Spirulina Tablets                       |
|-------------------------|-----------------------------------|-----------------------------------------|
| Aspetto                 | Deep blue-green powder            | Deep green, round or oval tablets       |
| Profilo aromatico       | Mild marine, earthy               | Mild spirulina (minimal when swallowed) |
| Solubilità              | ≥85% (cold water)                 | N/A (tablet format)                     |
| Particle Size (D90)     | ≤50 µm                            | N/A                                     |
| Umidità                 | ≤5%                               | ≤5%                                     |
| Binders/Fillers         | None                              | None                                    |
| Enteric Coating Option  | —                                 | Available (delayed-release)             |
| PDCAAS                  | 0.92                              | 0.92                                    |
| Durata di conservazione | 24-36 months                      | 24-36 months                            |
| Stoccaggio consigliato  | Cool, dry, <25°C, away from light | Cool, dry, <25°C, away from light       |

## Composti bioattivi chiave

| Composto                        | Ruolo                                                                | 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     | Metodo   |
|-------------------------|--------------|----------|
| Total Plate Count (TPC) | <5,000 CFU/g | ISO 4833 |

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

Tutti i lotti sono testati presso laboratori terzi accreditati. Il Certificato di Analisi (COA) è disponibile su richiesta.

## Certificazioni

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

## Applicazioni

### Matrice applicativa

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

### Recommended Usage Levels

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

### Key Health Benefits (Clinically Referenced)

| Benefit | Mechanism | Evidence |
|---------|-----------|----------|
|---------|-----------|----------|

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

## Natural Colorant Guide

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



## Specifiche di confezionamento

| Parametro            | 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)        |

## Condizioni di stoccaggio

| Condition | Requirement |
|-----------|-------------|
|-----------|-------------|



|                                |                                                          |
|--------------------------------|----------------------------------------------------------|
| <b>Temperature</b>             | Below 25°C                                               |
| <b>Humidity</b>                | Below 50% RH                                             |
| <b>Light</b>                   | Away from direct sunlight (photosensitive — phycocyanin) |
| <b>Container</b>               | Original sealed packaging                                |
| <b>Durata di conservazione</b> | 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://it.organic-way.com/prodotti/compresse-di-spirulina-biologica-copy/>