



Natural
Astaxanthin,
Reinvented

axabio[®]

Product Portfolio

Who we are

axabio® is a Belgian biotechnology company revolutionizing the production of natural astaxanthin. Utilizing patented closed photobioreactor technology, we cultivate *Haematococcus pluvialis* microalgae in a controlled, contamination-free environment. Our AI-optimized systems ensure consistent light exposure and nutrient delivery, maximizing astaxanthin stability, bioavailability, and purity.

Our extraction process employs supercritical CO₂, a solvent-free method that preserves the integrity of astaxanthin without chemical residues. This results in a product of exceptional purity and stability, suitable for various applications in nutraceuticals, cosmetics, and functional foods.


Committed to sustainability, our operations are powered entirely by renewable energy sources. Our closed-loop system minimizes water usage and incorporates CO₂ capture technology, reducing our environmental footprint. This leads us to being the first B-corp certified astaxanthin producer in the world.

axabio's products meet the highest quality standards, holding certifications including FSSC 22000, Halal, Kosher, Vegan, and Non-GMO. We also comply with the European Union's Novel Food regulations, ensuring our astaxanthin is safe and approved for consumption.

Feature	USP axabio
Bio-availability	Natural structure preserved: 44% less processing stress than batch reactor systems.
Purity	The only generation with 0% Heavy Metal and problematic Solvent Contamination.
Eco-Footprint	37% more energy efficient and 60x more water efficient than industry benchmarks.
Stability	Optimized Molecular Protection: 35% More Stable Ester Profile than comparable indoor systems.

axabio®





Three raw materials:
one science-backed
antioxidant.

Oleoresin – axapure 5,
10 & 15

Lipid-soluble extracts
(5 %, 10% & 15% astaxan-
anthin) for softgels,
capsules, gummies,
oil-based cosmetics,
pet products, and
lipid-rich foods.

CWD Powder – axafine
2.5 & 5

Cold-water-dispersible
(2.5 % or 5% astaxan-
thin) for hardcaps,
sachets, beauty shots,
functional beverages,
pet products, and wa-
ter-based cosmetics.

Microcapsules - axapearls 5

Premium slow release free-flowing
powder (5% astaxanthin) for
capsules, food, and drink applications.

Oleoresin

axapure Natural Astaxanthin
Oleoresin (5 %, 10 % & 15 %)

axabio®'s axapure oleoresins are lipid-based astaxanthin extracts designed for softgels, capsules, oil-based cosmetics, or lipid-rich functional foods. Extracted from our astaxanthin rich *Haematococcus pluvialis* microalgae using supercritical CO₂ (sCO₂) technology, a clean solvent-free method, these oleoresins guarantee the integrity and potency of astaxanthin, while ensuring clean-label compliance. axapure® is natural in taste and odor, ensuring compatibility with both nutraceutical and cosmetic applications.

Standardization is done with MCT oil derived from coconut. Our use of MCT oil is a mark of premium quality. It ensures the greatest stability, a clean taste and color, and bioavailability for the final product, avoiding the potential rancidity issues associated with other oils. We are one of the few players offering axapure 15, which is the pure extract, to which no oil has been added.

Three concentrations are available:

- axapure 5: 5 % natural astaxanthin (50 mg/g)
- axapure 10: 10 % natural astaxanthin (100 mg/g)
- axapure 15: 15 % natural astaxanthin (150mg/g)



Formulation Highlights

- **Dosage flexibility:** The 5%, 10% and 15% concentrations allow for precise dosing in various product forms.
- **Compatibility:** The oleoresins are compatible with lipid-based formulations, ensuring seamless integration into existing products.
- **Stability:** The product's stability ensures a shelf life of up to 24 months when stored under recommended conditions.
- The EU recommended daily dose is 8 mg of astaxanthin per day.

Key Applications

- **Softgels and capsules:** Ideal for incorporation into dietary supplements, providing antioxidant support.
- **Gummies:** Compatible with pectin or gelatin bases. Maintains color and stability through manufacturing.
- **Topical skincare products:** Enhances skin texture, reduces fine lines, and offers robust defense against oxidative stress.
- **Functional foods:** Suitable for inclusion in high-fat food matrices, such as chocolates and nut butters, to deliver health benefits.
- **Pet nutrition:** Can be added to pet food formulations to support overall health and vitality in animals.



Certifications



Cold-Water Dispersible Powder

axafine® Cold-Water Dispersible Astaxanthin Powder (2.5% & 5%)

axabio®'s axafine is a cold-water dispersible (CWD) astaxanthin powder designed for use in hardcaps, sachets, beauty shots, functional beverages, pet products, and water-based cosmetics. Derived from our microalgae *Haematococcus pluvialis*, axafine® combines the antioxidant power of natural astaxanthin with the convenience of instant water dispersibility.

We use a proprietary emulsification and drying process, ensuring enhanced stability, dispersibility, and bioavailability. The powder dissolves in less than 5 seconds and is entirely free from solvents, or synthetic additives.

The standard concentrations are:

- axafine 2.5: 2.5 % natural astaxanthin (25 mg/g)
- axapure 5: 5 % natural astaxanthin (50 mg/g)



Formulation Highlights

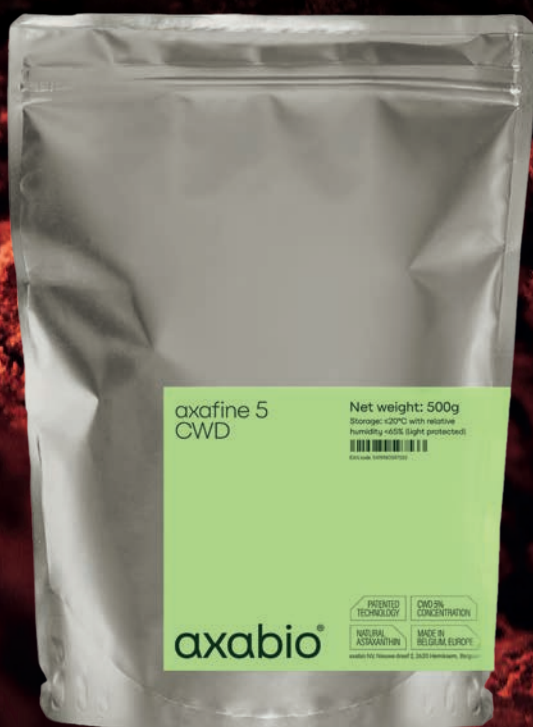
- **Instant dispersion:** Disperses in < 5 seconds in water (tested at 20 °C, pH 3–7). No heating required.
- **Stability:** The product's stability ensures a shelf life of up to 24 months when stored under recommended conditions.
- **Clean label ready:** Contains no artificial carriers, preservatives, or solvents. Created for protection and stability.

Certifications



Key Applications

- **Hardcaps:** Fits perfectly into a hardcapsule supplement.
- **Functional beverages & shots:** Easily disperses in clear or flavored drinks.
- **Stick Packs & sachets:** Ideal for daily-dose formats with controlled antioxidant content and natural flavor profile.
- **Water-based skincare:** Used in masks, gels, and serums where oil-based actives are incompatible.
- **Pet nutrition:** Can be added to pet food formulations to support overall health and vitality in animals.



Microcapsules

axapearls Microencapsulated Astaxanthin (5%)

axabio®'s axapearls is a premium microencapsulated astaxanthin powder designed for use in food, beverages, and supplements. Derived from our microalgae *Haematococcus pluvialis*, axapearls leverages NIVERSYS' N-PEARLS™ technology, a revolutionary ingredient delivery system. This state-of-the-art process creates a 50-micron, free-flowing powder that locks in the nutrient, secures it during food processing and storage, and provides a controlled release in the small intestine.

The standard concentration is:

- axapearls 5: 5% natural astaxanthin (50 mg/g).



Formulation Highlights

- **Enhanced Stability:** Features mechanical and thermal stability. It shields astaxanthin from heat, light, and oxygen, preserving its antioxidant power and extending shelf life.
- **Controlled Release:** Controlled release mechanisms in the gastric tract help the body absorb astaxanthin more efficiently, maximizing its health benefits.
- **Prevents Cross-link Reactions:** The technology prevents cross-link reactions, enabling new formulations and innovative combinations.

Certifications



Key Applications:

- **Powder Capsules:** With its premium flowability and small intestine release, it's the perfect ingredient for premium caps.
- **Food & Dairy:** Can be integrated into dairy products, ice cream, chocolate, and plant-based analog foods.
- **Juices & Smoothies:** Enables the enrichment of a wide range of juices.
- **Sports Nutrition & Health Bars:** Perfect for enhanced fitness products and fast, healthy treats.
- **Sachets:** Ideal for new supplement forms and convenient, on-the-go nutrition packaging.



Biomass

axabio[®] algal biomass

axabio[®]'s freeze-dried algal biomass is a natural, unprocessed form of *Haematococcus pluvialis*, standardized to contain at least 2.5% natural astaxanthin. This whole-food ingredient is rich in lipids, proteins, fibers and antioxidant carotenoids, and is ideal for brands seeking a raw, natural, minimal-process format that fits both cost-sensitive and clean-label positioning.

The biomass consists of aplanospores, the most astaxanthin-concentrated life stage of the microalgae and is suitable for encapsulation, tablets, or blending into powdered formulations. It is produced under HACCP-compliant, EU food-grade conditions of FSSC 22000 and contains no additives, no solvents, no animal ingredients, and no allergens. The standard concentration varies between 2.5 and 5.5% depending on the batch.



Key Applications:

- **Functional blends:** Can be integrated into powdered superfood formulas, sports recovery drinks, or green blends where a nutrient-dense red pigment is desired.
- **Pet nutrition:** Used in immune-support formulas and coat-enhancing supplements in natural animal nutrition.

Formulation Highlights

- **Dosing:** Typical astaxanthin content ranges from 2.5 to 5.5% – actual dosage should comply with local regulatory frameworks.
- **Storage:** Store sealed in a cool, dry, and dark place ($\leq 8^{\circ}\text{C}$). Once opened, use content the same day to preserve potency.
- **Stability:** Shelf life of 12 months in original unopened laminated aluminum pouch under protected atmosphere.

Certifications



Softgels

axagels Vegan Astaxanthin Softgels (8 mg)

axabio® offers fully finished, ready-to-market softgels that deliver 8 mg of natural astaxanthin per capsule, formulated with MCT oil and vitamin E (D- α -tocopherol) to enhance bioavailability and oxidative stability.

These softgels are produced using our high-purity axapure 10 oleoresin as the active ingredient and are encapsulated in vegan, carrageenan-free softgels. Available both in bulk and finished packaging. They provide brands with a frictionless go-to-market path, no formulation guesswork, zero production delays and low MOQ.

Formulation Highlights

- **Astaxanthin:** 8mg natural astaxanthin per softgel (from axapure 10)
- **Carrier oils:** MCT oil from coconut + 2 mg D- α -tocopherol per softgel
- **Shell:** Vegan & Carrageenan-free (modified starch & glycerol)
- **Shelf life:** 24 months (15–25°C)
- **100 % Made in Europe**
- **EFSA health claim:** Vitamin E contributes to the protection of cells from oxidative stress.

Available in two formats

- Bottled softgels

Bottle of 30 vegan softgels

Labels available blank or axabio®-branded

Best suited for brands wanting a plug-and-play retail SKU, either for DTC or physical distribution.

- Bulk softgels

Orders can be made starting from 49 000 softgels

Best suited for private-label and contract manufacturers who want to control packaging and branding without production overhead.

Certifications



Gummies

axagums Vegan Astaxanthin Gummies (4 mg)

axabio® offers fully finished, ready-to-market gummies that deliver 4 mg of natural astaxanthin per unit. Formulated with our high-purity axapure 10 oleoresin, these vegan, sugar-free gummies feature a soft, chewable pectin base and a delicious natural cherry-lemon flavor.

They provide brands with a frictionless go-to-market path, no formulation guesswork, zero production delays, and low MOQ. Available both in bulk and finished packaging.

Formulation Highlights

- **Astaxanthin:** 4 mg natural astaxanthin per gummy (from axapure 10).
- **Base:** Vegan (pectin) and sugar-free (sweetened with maltitol and sorbitol).
- **Sensory Profile:** Deep red color from natural anthocyanins with a mild, sweet cherry-lemon aroma.
- **Coating:** Plant-based anti-stick coating including rapeseed oil, starch, carnauba wax, and MCT oil.
- **Weight:** 3 g per gummy.
- **Shelf Life:** 18 months when stored appropriately between 15-25°C.
- **Origin:** 100% Made in Europe.
- **EFSA health claim:** Vitamin E contributes to the protection of cells from oxidative stress.

Available in two formats

- Bottled gummies

Orders starting from 650 bottles. Best suited for brands wanting a plug-and-play retail SKU, either for DTC or physical distribution.

- Bulk gummies

Orders starting from 40 000 gummies. Best suited for private-label and contract manufacturers who want to control packaging and branding without production overhead.

Certifications





Liquid Capsules

axacaps Vegan Astaxanthin Capsules (8 mg)

axabio® offers fully finished, ready-to-market capsules that deliver 8 mg of natural astaxanthin per unit. Formulated with MCT oil from coconut and vitamin E (D- α -tocopherol) to enhance bioavailability and oxidative stability, these capsules are produced using our high-purity axapure 10 oleoresin as the active ingredient.

They provide brands with a frictionless go-to-market path, no formulation guesswork, zero production delays, and low MOQ. Available both in bulk and finished packaging.

Formulation Highlights

- **Astaxanthin:** 8 mg natural astaxanthin per capsule (from axapure 10).
- **Carrier Oils:** MCT oil from coconut + 2 mg D- α -tocopherol (Vitamin E) per capsule .
- **Shell:** Vegan HPMC capsule.
- **Shelf Life:** 24 months (15-25°C).
- **Origin:** 100% Made in Europe.
- **EFSA Health Claim:** Vitamin E contributes to the protection of cells from oxidative stress.

Available in two formats

- **Bottled capsules**

Orders starting from 1650 bottles. Best suited for brands wanting a plug-and-play retail SKU, either for DTC or physical distribution

- **Bulk capsules**

Orders starting from 50 000 capsules. Best suited for private-label and contract manufacturers who want to control packaging and branding without production overhead.

Certifications



Synergistic Blends

axafocus Brain Health Blend

axabio® offers a fully finished, ready-to-market synergistic blend formulated specifically for cognitive support. Encapsulated in vegan HPMC capsules, axafocus delivers 8 mg of natural astaxanthin, 275 mg of DHA, and 110 mg of EPA per serving.

By combining our high-purity axapure 10 oleoresin with premium VivoMega Premium Algae oil, this product provides brands with a frictionless go-to-market path, zero production delays, and no formulation guesswork. Available both in bulk and finished packaging.

Formulation Highlights

- **Astaxanthin:** 8 mg natural astaxanthin per capsule (from axapure 10)
- **Omega-3 (Algal):** 275 mg DHA and 110 mg EPA per capsule, from vegan VivoMega Premium Algae oil.
- **Capsule Shell:** Vegan HPMC capsule.
- **Origin:** 100% Made in Europe.
- **EFSA Health Claims:**
 - **Brain Health:** DHA contributes to the maintenance of normal brain function (beneficial effect obtained with a daily intake of 250 mg of DHA).
 - **Vision:** DHA contributes to the maintenance of normal vision (beneficial effect obtained with a daily intake of 250 mg of DHA).
 - **Heart Health:** EPA and DHA contribute to the normal function of the heart (beneficial effect obtained with a daily intake of 250 mg of EPA and DHA).

Available in two formats

- Bottled capsules

Orders starting from 1650 bottles. Best suited for brands wanting a plug-and-play retail SKU, either for DTC or physical distribution.

- Bulk capsules

Orders starting from 50 000 capsules. Best suited for private-label and contract manufacturers who want to control packaging and branding without production overhead.

Certifications



Health benefits of astaxanthin

Skin Health



Photoprotection



Muscle Recovery



Endurance



Brain Health



Stress Regulation



Eye Health



Longevity



Gut Health



Anti-inflammation



Digestion



Immunity



Cardiovascular



Cholesterol



Fat Metabolism



Joint Health



Kidney Health



Fertility



Women's health



Contact & Legal

Axabio NV
BE1011997238
Nieuwe Dreef 2, 2620 Hemiksem, Belgium
Email: contact@axabio.com
Phone: +32 498 58 66 80
www.axabio.com

axabio[®]

"All prices are indicative, ex-works Belgium, exclusive of VAT and may change without notice. Astaxanthin is not intended to diagnose, treat, cure or prevent any disease. EU Regulation 1924/2006 applies to all health claims."