The document provides detailed information about Celergen, a proprietary marine-derived dietary supplement for cellular regeneration and rejuvenation, highlighting its benefits for health, particularly in treating osteoarthritis, improving physical performance, and combating oxidative stress and aging.

BIODNA Cellular Marine Complex Overview

The section discusses the benefits and applications of BIODNA Cellular Marine Complex, particularly for osteoarthritis and physical performance.

- BIODNA Cellular Marine Complex is derived from salmon and herring milt uses special deep-sea fish from France, and contains 45-50% DNA and 42-45% protein. processed through enzymatic digestion.
- In a study of 2960 osteoarthritis patients, 89.5% experienced pain relief after one month of treatment with 400mg daily.
- The same study showed an 83.6% improvement in physical performance among participants.
- A comparison study indicated that pain was reduced by 39% with BIODNA Cellular Marine Complex, versus 35% with diclofenac (*a nonsteroidal anti-inflammatory drug (NSAID) used to treat mild-to-moderate pain, and helps to relieve symptoms of arthritis (eg, osteoarthritis or rheumatoid arthritis), such as inflammation, swelling, stiffness, and joint pain*).
- The complex also exhibits antioxidant properties, protecting cells from oxidative stress and cellular aging.
- It is well-tolerated by the body, even at high doses, and has healing and immuno-stimulating properties.

Benefits of BioDNA Cellular Marine Complex

- The BioDNA Cellular Marine Complex decreases physical fatigue by up to 100% in individuals over 15 years old.
- It improves stamina during exercise and recuperation, with significant results observed in athletes.
- Mental fatigue is reduced by up to 100%, enhancing mood and cognitive functions.
- The complex shows a 83.6% improvement in osteoarthritis symptoms after 30 days of use.
- Back pain reduction was noted in 39.6% of participants after 40 days of treatment.
- It has antioxidant properties that protect against free radicals, maximizing cell life and fighting aging.

- The complex can increase intelligence quotient (I.Q.) in individuals aged 8 to 14 with an I.Q. higher than 40.
- Gum tissue tonicity improves significantly, with treatment success rates reported in 70% of cases.

PEPTIDE E COLLAGEN

Sustainable Marine-Derived PEPTIDE E COLLAGEN

PEPTIDE E COLLAGEN is a sustainable marine-derived ingredient with a high protein content and specific amino acid distribution.

- PEPTIDE E COLLAGEN is extracted from marine by-products, promoting sustainable use of marine resources.
- The average molecular mass of PEPTIDE E COLLAGEN is 3,600 Da, making it easily digestible and soluble.
- It contains over 90% proteins (collagen and elastin) and has a standard amino acid distribution, with glycine at 19.70%.

Evaluation of PEPTIDE E COLLAGEN Effects & Benefits

Skin

PEPTIDE E COLLAGEN enhances skin hydration, reduces wrinkles, and promotes overall skin health through oral supplementation.

- PEPTIDE E COLLAGEN consists of high-quality marine collagen and elastin polypeptides, mimicking the dermis composition.
- The study involved 43 women aged 40-55 with crow’s-feet, assessing skin conditions at day 0, 28, and 84.
- PEPTIDE E COLLAGEN showed a 57% of participants experienced decrease in micro relief furrow depth and 71% experienced a 10% reduction in deep wrinkles after 28 days.
- The placebo group exhibited a 28% increase in deep wrinkles for 82% of subjects at 28 days and a 51% increase for 88% at 84 days, highlighting PEPTIDE E COLLAGEN's protective effect.
- PEPTIDE E COLLAGEN showed an average 8% increase in skin hydration across the epidermis and dermis layers, stimulates the biosynthesis of dermal constituents, improving skin suppleness and tensile strength.

- PEPTIDE E COLLAGEN showed no side effects and demonstrated antioxidant properties, contributing to its anti-aging effects.
- Overall, PEPTIDE E COLLAGEN offers a comprehensive anti-aging solution with significant clinical backing for anti-aging, anti-wrinkle, and moisturizing formulations to prevent skin aging.

Bones and Joints

PEPTIDE E COLLAGEN is a **Type I Fish-Sourced Hydrolyzed Collagen** from fish, like saithe and haddock, featuring a triple-helix structure that enhances solubility and digestibility. This hydrolyzed collagen is obtained through enzymatic hydrolysis, ensuring complete dissolution for effective use.

- **Joint Health**

  PEPTIDE E COLLAGEN is easily absorbed and effective in low doses for arthritis.
- **Osteoarthritis Treatment**

  PEPTIDE E COLLAGEN reduces pain in Osteoarthritis, which affects over 60% of individuals over 60, with women three times more likely to be affected.
- **Arthritis**

  PEPTIDE E COLLAGEN shows benefits for Rheumatoid arthritis, which is a chronic autoimmune disease causing joint damage.
- **Osteoporosis**

  PEPTIDE E COLLAGEN (with Calcitonin, a hormone naturally produced by the thyroid gland) can improve bone health in Osteoporosis, which is bone deterioration.
- **Cartilage**

  Peptide E Collagen enhances cartilage metabolism and reduces pain by reforming collagen fibers, while its combination with chondroitin sulfate and glucosamine improves cellular development and provides anti-inflammatory effects.

Antioxidant Activity of PEPTIDE E COLLAGEN

PEPTIDE E COLLAGEN demonstrated significant antioxidant activity, delaying β-carotene bleaching by 80% to 75% after one hour[1].

[1] β-carotene bleaching assay is a method scientists use to test antioxidant power. In this test β-carotene (a natural orange pigment) fades (or "bleaches") when exposed to oxidative stress (free radicals). If a substance slows down this fading, it shows antioxidant potential — it's protecting the β-carotene from damage.

HYDRO-MN PEPTIDE

Hydro MN Peptide is derived from special fish, involving cleaning, hydrolization, and filtration processes.

- PEPTIDE-M and PEPTIDE-N are both developed sustainably from marine resources, ensuring environmental respect.
- Both peptides are soluble in water, enhancing their bioavailability for oral cosmetics.
- The high safety level of these marine bioactives makes them attractive for chronic health issues.

PEPTIDE-M

PEPTIDE-M is a marine cartilage extract containing 60-70% hydrolyzed collagen and 35-40% chondroitin sulfate.

- Clinical studies show PEPTIDE-M improves skin thickness, elasticity, and reduces wrinkles, with epidermal thickness increasing from 0.11 to 0.29mm.
- PEPTIDE-M provides a natural source of chondroitin, glucosamine, and collagen, which are beneficial for joint health.
- Research indicates that PEPTIDE-M can reduce pain and improve joint mobility, making it suitable for long-term use.
- PEPTIDE-M has been proven effective in treating photoaging, with significant improvements in skin texture and moisture retention.

PEPTIDE-N

PEPTIDE-N, another marine peptide, is derived from codfish and has glycemic index-reducing properties.

- A clinical study showed that PEPTIDE-N significantly lowers blood glucose response, with a p-value of 0.0052.
- Supplementation of 1-2% PEPTIDE-N can reduce the glycemic index of high-GI foods by 30-50%.
- PEPTIDE-N promotes satiety (feeling “enough”) by increasing plasma PYY levels (the “fullness” hormone) and decreasing ghrelin levels (the “hunger” hormone).

Safety Data Sheets for Celergen Products

This section provides the Material Safety Data Sheets (MSDS) for various Celergen products, Bio DNA Cellular Marine Complex, Peptide E Collagen and Hydro MN Peptide, detailing their composition, handling, and safety measures.

- All products are not classified as dangerous and have low toxicity, with skin and eye effects being non-irritating.
- The Bio DNA Cellular Marine Complex contains fish peptide extract and is stable at temperatures below 50°C, with a pH of 5.5-7.5.
- Peptide E Collagen consists of fish hydrolyzed collagen and marine elastin, stable at temperatures below 15°C, with a pH of 5.5 ± 1.
- Hydro MN Peptide is made from marine protein hydrolysate, stable at room temperature, with a pH of 6.5 ± 1.
- All products should be stored in original packaging, sheltered from light and temperature, and are considered dietetic products.

Certification and Compliance Overview for Swiss Caps

The section details various certifications and compliance documents for Swiss Caps and its products.

- Swiss Caps AG and Swiss Caps GmbH have established an Environmental Management System compliant with ISO 14001:2005.
- The company holds a Certificate of GMP Compliance, allowing the manufacture and distribution of medicinal products, excluding sterile products.
- Swiss Caps AG is subject to regular inspections.
- The Health Certificate from the Canton of St. Gall confirms compliance with Swiss Federal Food Regulations for safe human consumption.
- Celergen products are certified "halal" by the Institut Musulman de la Mosquée de Paris, ensuring adherence to Islamic requirements.
- Active ingredients in Celergen, such as Bio DNA Cellular Marine Complex and Peptide E Collagen, are produced under strict hygiene regulations (EC No 852/2004).
- The raw materials for these active ingredients are sourced from specific fish in the Atlantic north Zone FAO 27.
- The certifications and compliance documents emphasize the company's commitment to quality, safety, and regulatory adherence in food and pharmaceutical products.

Export Documentation for Celergen Capsules

This section provides detailed export documentation for Celergen capsules, including compliance, certifications, and destination information.

- The product Celergen capsules is a food supplement exported from Switzerland.
- The products are compliant with Swiss legal requirements and can be freely sold in Switzerland.
- The capsules are confirmed to be fit for human consumption and not harmful to health.
- A quality assurance system is implemented by the manufacturer, Swiss Caps AG.
- The export documentation includes a GMP certificate from Swiss Caps AG, located in Kirchberg, Switzerland.
- The official food law enforcement authority in Geneva certifies compliance with Swiss food law.