



CPSP® 90



Soluble fish protein concentrate

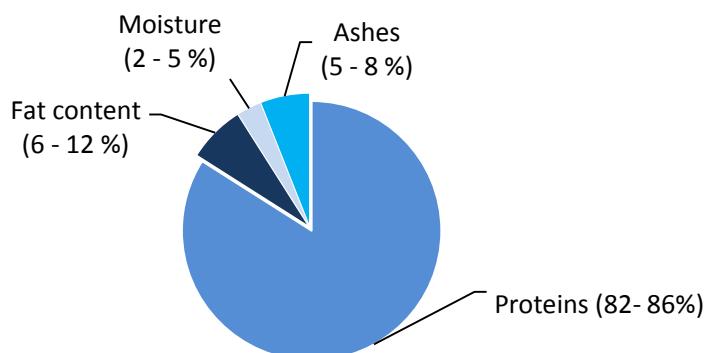
CPSP® 90 is a fish protein hydrolysate obtained by a unique process designed by Copalis. Fresh fish by-products are hydrolyzed using non GMO/natural enzymes. The hydrolysate is then flash-pasteurized and spray-dried. Raw material is daily collected in the best conditions of freshness to qualitatively and quantitatively preserve the raw material amino acids and avoid lipid oxidation. Antioxidant and anticaking agents are added to ensure the stability of the finished product.

Physical characteristics

- Appearance: Powder
- Odor : Fish
- Color : Beige
- Particle size : 500 µm
- Solubility in water : 80 %

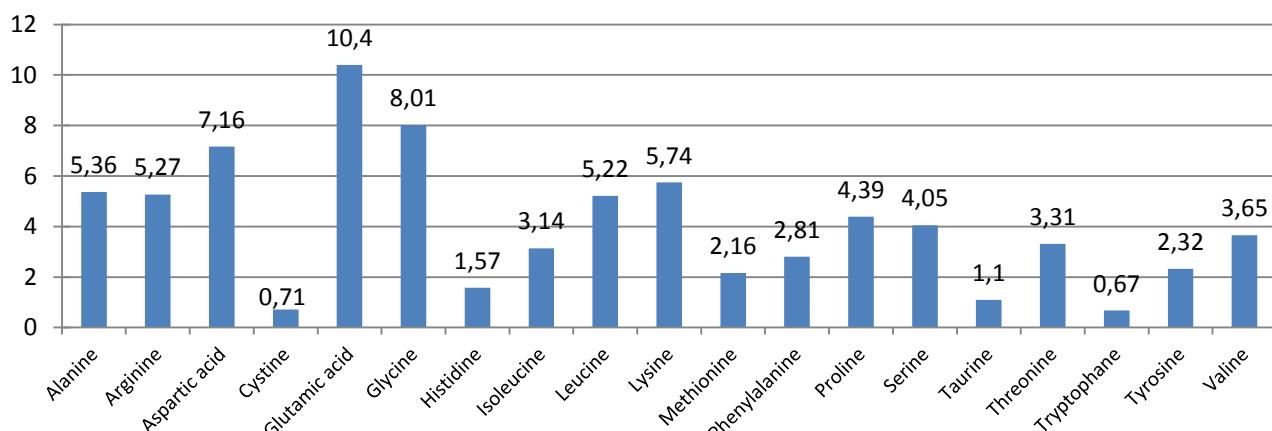
Analytical characteristics

Composition



Proteins

Amino-acids profile - % total amino acids

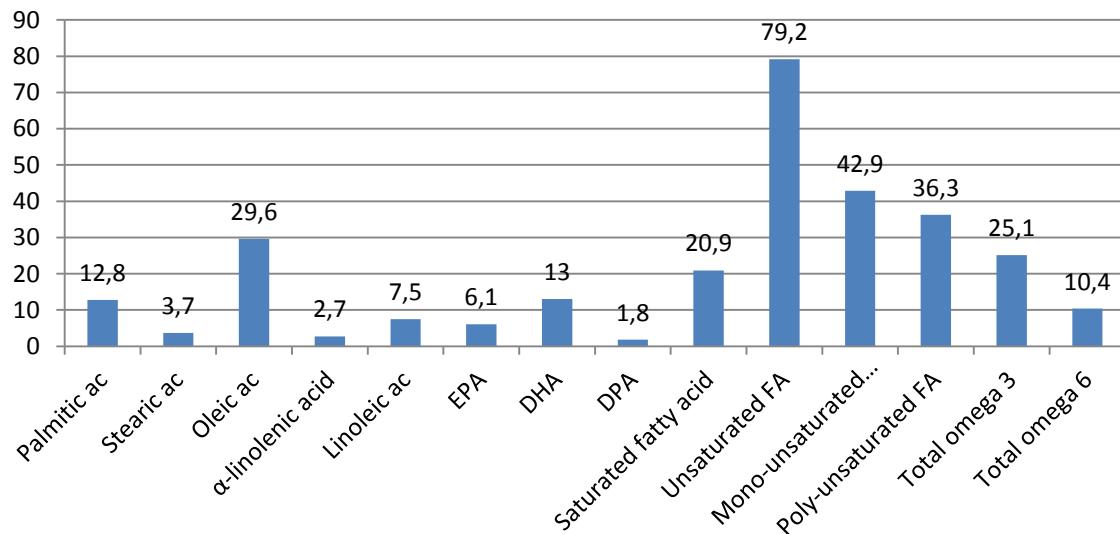


| Molecular weight distribution (% of peptides) | |
|---|---------|
| Average molecular weight | 3000 Da |
| < 500 Da | 25.9 % |
| < 2000 Da | 66.0 % |
| < 6000 Da | 96.6 % |
| > 6000 Da | 3.4 % |

| Chemical analysis | |
|--|----------------|
| Total of 5 biogenic amines (<i>putrescine, cadavérine, spermidine, spermine, histamine</i>) | ≤ 1 000 ppm |
| Histamine | ≤ 200 ppm |
| TVN | < 350 mg/100 g |
| Free amino acids | < 3.0 % |

▪ **Fat content**

Fatty acid profile - % of fatty acids



| Chemical analysis | |
|-------------------|-----------------------------|
| Peroxide value | < 10 meq O ₂ /kg |

▪ **Minerals**

| Minerals | |
|------------|--------|
| Calcium | 0.13 % |
| Phosphorus | 0.62 % |

Undesirable substances*

* Conform to EU legislation 2002/32/EC
and its amendments

| | |
|-------------------------------------|--------------|
| Arsenic (As) | < 25 ppm |
| Mercury (Hg) | < 0.5 ppm |
| Cadmium (Cd) | < 2.0 ppm |
| Lead (Pb) | < 10.0 ppm |
| Dioxins | < 1.25 ng/kg |
| Sum of dioxins and dioxin-like PCBs | < 4.0 ng/kg |
| Non-dioxin like PCBs | < 30.0 µg/kg |

Microbiological analysis*

*Control frequency and referred methods according to
European regulation 1069/2009/EC

| | |
|--------------------|-----------------|
| Total plate count | < 5 000 UFC / g |
| Enterobacteriaceae | < 10 UFC / g |
| Salmonella | Negative / 25 g |

Nutritional values

| | |
|----------------------|--------------|
| Pepsic digestibility | ≥ 95 % |
| Digestible energy | |
| • Pig | 5000 kcal/kg |
| Metabolisable energy | |
| • Piglet | 3380 kcal/kg |
| • Pig | 3710 kcal/kg |
| • Poultry | 3710 kcal/kg |
| • Salmonides | 3910 kcal/kg |

Uses

CPSP is a high quality product :

- In milk replacers
- In any young animal feeds
- Aquaculture
- Petfood
- Fermentation industry
- In soluble organic fertilizers

Additives

- Antioxidant : Termox RC1 2 000 ppm
 - BHA (E320)
 - Propyl gallate (E310)
 - Citric acid (E330)
 - Solvent (water)
- Anticaking
 - Talc (E560) 5 000 ppm

(SiO₂ ; MgO ; Al₂O₃ ; CaO)

- Enzymatic solution

Packaging

25 kg paper bag, big bag

Storage / Shelf life

Store in a dry and cool place
Shelf life : 12 months

Legal status

Raw material usable in ruminant animals feed according to European regulation 999/2001 amended transferred to French regulation according to 18 of July 2006 decree.

Feed material according to European regulation (EC) n°68/2013.

CPSP 90 is produced according to method n°7 from category 3 raw material in accordance with EC Regulation 142/2011.

Note

This technical paper has been drafted in order to help compounders in their work. This information here above reported is reliable but has only an indicative value. It cannot engage our company beyond guarantees mentioned in contracts.