

PRO POWDER

Enzymatically hydrolysed Raw Material
for Fertilizer & Biostimulant Formulations

- ✓ Concentrated protein hydrolysate designed as a reliable, high-quality raw material for modern fertilizer and biostimulant formulations.
- ✓ Using pharma-based processing, proteins are carefully hydrolyzed with enzymes, filtered and gently spray-dried to yield a fine, free-flowing powder.
- ✓ Combines high active content with excellent stability and easy handling, making it suitable for both water soluble and solid blends.

Gentle enzymatic hydrolysis

- Low process temperature preserves natural L-amino acids and bioactive compounds.
- No racemization, no unwanted by-products; environmentally safe.
- Final drying step yields >95% dry matter for a stable, long-lasting product.
- Fully compliant with EU Regulations 834/2007 & 889/2008.



Provides energy for plants

Functional benefits for the formulators

- Excellent chelating effect for micronutrients.
- Improves nutrient stability, uptake and translocation within the plant.
- Activates key photosynthetic enzymes (Rubisco, PEPCase) to enhance nutrient assimilation.
- 100% water-soluble for maximum flexibility.
- Highly compatible in tank-mixes.
- Supports stress tolerance and plant recovery through bioavailable free L-amino acids and secondary metabolites.
- Concentrated powder reduces application rates and simplifies logistics.

Content

- Protein: 80% (w/w)
- Organic matter: >80% (w/w)

- Ash: <11% (w/w)
- Moisture: <5% (w/w)
- pH: 5.0 – 7.0
- Bulk density: ~600 kg/m³

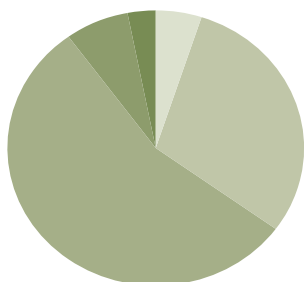
Balanced molecular profile

- Full spectrum of essential AAs
- >150 biologically active metabolites

- Total AAs: 60%
- Free AAs: 45%
- Total Nitrogen (N): 11.4%
- Organic Carbon (C): 37.5%

Optimum molecular weight

- *Highest portion of biologically active AAs and small peptides content*
- *>90% of all AAs in the product are 3.000 Daltons or less*



1 - 1.000 1.000 - 3.000 3.000 - 8.000 8.000 - 15.000 >15.000

Usage

- ✓ Designed for use in fertilizer and biostimulant formulations where a stable and concentrated source of amino acids and peptides is required.
- ✓ Completely water-soluble; equally suited for solid mixtures (powders, granules) and water soluble formulations.

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Most balanced distribution of all essential L-form AAs

Enzymatic Hydrolysis	ASP	SER	GLU	GLY	HIS	ARG
	THR	ALA	PRO	CIS	TYR	VAL
	MET	LYS	ILE	LEU	PHE	TRP

L-amino acids ✓

Natural form used by plants for protein synthesis and metabolism.

Chemical Hydrolysis	GLY	TYR	SER	HIS	ARG	GLU
	MET	CIS	ALA	PHE	THR	PRO
	VAL	ASP	LYS	LEU	TRP	ILE

D- / L-amino acid ratio c. 50/50 ✗

D-AAs not directly usable; in excess may inhibit growth.

FREE L-form Amino Acids (g/kg)

Alanine	50.6
Arginine	7.2
Aspartic Acid	18.3
Cystine	0.5
Glutamic acid	36.5
Glycine	25.2
Histidine	14.7
Hydroxyproline	0.3
IsoLeucine	26.0
Leucine	49.7
Lysine	44.1
Methionine	13.5
Phenylalanine	23.8
Proline	23.4
Serine	25.6
Taurine	3.0
Threonine	20.3
Tryptophane	5.17
Tyrosine	13.2
Valine	34.4

Application

- Apply 2 up to 4 times of 50–200 g/ 100 l/water during the crop cycle during critical periods.
- Advised to Formulate accordingly.

Safety

The product is produced in conformity with EU Directives 837/2007 and 889/2008 and is therefore permitted for ecological growing.



- ✓ Premium-quality inputs from pharma-heritage technology.
- ✓ Differentiation: Unique immune metabolites and bioactivity unmatched in the market.
- ✓ Cost-efficiency: Lower application rates with higher impact.
- ✓ Scalable & reliable supply.