FICHA TÉCNICA

Keratina Hidrolizada

Hydrolyzed keratin

Identification	INCI Name	CAS #		EINECS #
	Hydrolyzed keratin	69430-36-0		274-001-1
	Composition %	Liquid P212084	Liquid P212085	Powder P112016
	Aqua	to 100	to 100	to 100
	Hydrolyzed keratin	20.0 - 23.0	20.0 - 23.0	> 93.0
	Potassium sorbate	< 1	-	-
	Phenoxyethanol	< 1	< 1	-
	Methylparaben	-	< 1	-
	Ethylparaben	-	< 1	-

Description

Partial keratin hydrolysate obtained by enzymatic hydrolysis of virgin European wool, with food grade proteases at low temperature. Optimum average molecular weight of 3000 Daltons provides high substantivity and stability. Powder type is obtained by spray-dry process.

Appearance

Liquid: clear amber-brown solution.

Powder: light-yellow powder with low characteristic odour.

Available types	Liquid	Powder	Analytical methods
Product code	P212085 & P112016 P212084		
Specifications			
Residue on drying	20.0 - 23.0%	> 93.0%	18h, 105 °C
Nitrogen content	2.1 - 2.7%	11.0 – 13.0% (on dry matter)	Kjeldahl
Protein content	12.5 - 17.0%	68.5 – 81.5% (on dry matter)	Kjeldahl
Ash	< 5.0%	< 20.0%	6h, 600 °C
pH	5.0 - 6.0	5.0 - 6.0 (10% water soln.)	Potentiometry
Microbial count	< 100 cfu/g	< 500 cfu/g	MM02
Mould and yeast	< 10 cfu/g	< 10 cfu/g	MM02
Typical data			
Molecular weight	Abt. 3000 Da		Gel filtration chromat.

Preservatives

Liquid: parabens and phenoxyethanol (code P212085) or potassium sorbate and phenoxyethanol (code P212084).
Powder: preservatives free.

Miscibility and compatibility

Full water solubility in a wide pH range. Compatible with ionic and nonionic surfactant solutions. Soluble in propylene glycol and its aqueous solutions. Soluble in ethanol up to 60° vol.

Solubility

The solubility in hydro-alcoholic mixtures is indicated in the table below (20°C, pH 7):

KELIWOOL % w/w EtOH/Water V/V

LiquidPowder10/9025/7550/5060/4070/30

10.2++++ +

2.50.5++++ + ; +/-

5 1 + + + ; -

102++++ ;+/- + ; -

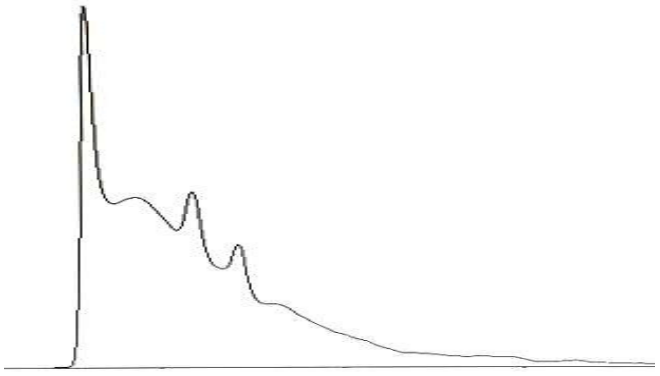
(+ clear solution, +/- slight opalescence, - cloudiness)

Typical aminoacid composition (g/100g)

ASP + ASN 8.0		GLU + GLN	13.4	VAL	5.4
LEU 8.5		ILE	2.9	PHE	3.0
TYR 2.6		TRP	-	PRO	7.0
MET -		1/2CYS	6.8	LYS	2.7
ARG 6.8		HIS	0.2	GLY	9.5
ALA 6.0		SER	10.8	THR	6.4

Typical molecular weight distribution

The average molecular weight is about 3000 Daltons. A typical molecular weight distribution of the protein fraction is shown below:



Gel Filtration Chromatography

Cosmetic properties	Protecting agent against surfactant irritancy in shampoos, it provides body and elasticity to the hair, luster and nice feel after use. Helps restoring hair keratin from damages caused by severe treatments as waving and dyeing. Suggested also in nail care products.
Available technical documentation	KELIWOOL safety and applicative dossier includes the following technical documentation, available upon request: Safety tests: - Primary skin irritation - Skin Irritant Potential Cytotoxicity in vitro Test Efficacy tests: - Hair substantivity - Foaming properties - Hair color protection - Hair strength test - Hair combability test - Hair protection from heat damage MSDS
Uses and suggested doses	Liquid Powder 1 - 5 % 0.1 - 2.0% Shampoos 1 - 3% 0.1 - 2.0% Hair conditioners 2 - 10% 0.2 - 3.0% Hair treatment 3 - 5% 0.1 - 3.0% Nail products
Storage and stability	The product has to be stored at a temperature not higher than 20°C. Store the powder type in well closed original packages protected from humidity. In original unopened packages and suitable storage conditions, the solution type is stable for at least 9 months; the powder type is stable for at least one year.
Non-warranty	The information and recommendations in this data sheet are to the best of our knowledge reliable. Users should however make their own tests to determine the suitability of this product for their own particular purpose and to avoid the infringement of any patent.