



EM POWDER (300)

Eggshell Membrane Powder

Kewpie Corporation

“EM POWDER (300)” is made from fresh eggshell membrane by our original technology and is a fine powder product used for foods and cosmetics as a raw material .

WHAT IS EGGSHELL MEMBRANE ?

Eggshell membrane is a thin membrane of about 70 μm and has outer and inner layer. Main component is fiber-like protein having mesh structure. This protein is stable against acid, alkaline and protease. It is not soluble in water. This is because amino acids of this protein contain substantial amount of cystine and desmosine which form solid molecular bridges between protein molecules . This is a typical character of keratin in general .

By our study it is confirmed that solubilized eggshell membrane has high affinity to fibroblasts of human dermis and accelerates reproduction of type collagen which plays an important role in maintaining skin's tissue structure and keeping firmness and freshness of the skin (this was reported at 64th Conference of the Japan Biochemical Society in 1991) .

EXCELLENT FEATURES OF EM POWDER (300)

EM POWDER (300) is stable against heat and acid and has moisture retaining property. It is rich of sulfur amino acid which being combined with ascorbic acid improves skin condition. It adsorbs metals and odor.

EM POWDER (300) is an excellent material particularly for various cosmetics .

A TYPICAL COMPOSITION OF AMINO ACIDS (g /100g)

L y s	H i s	A r g	T r p	A s p	T h r	S e r	G l u	P r o
3.4	3.9	6.3	2.9	7.3	5.1	5.0	10.5	7.3
G l y	A l a	C y s	V a l	M e t	I l e	L e u	T y r	P h e
5.5	2.5	9.2	6.0	3.8	3.2	4.8	2.3	1.8

A TYPICAL COMPOSITION OF NUTRIMENTS (per 100 g)

* Calories	401 kcal
Protein	92.4 g
Fat	0.2 g
** Carbohydrate	0 g
Sodium	23.7 mg
Water	5.7 g
Ash	1.7 g

* : The value of calories is calculated based on the conversion factor of egg in fifth edition of standard tables of food composition in Japan.

** : The content of carbohydrate is determined by Bertrand's method.

U S E

EM POWDER (300) is an ideal material for cosmetics as well as for various processed foods .

SPECIFICATIONS AND A TYPICAL ANALYSIS

< for general uses >

	Specifications	Analysis
Description	White to faint grey powder, having slight characteristic odor.	Passed
Identification	The solution that is the dispersion of 0.1 g of the sample in 10 mL of water shows purple color when it is heated for 3 minutes with 1 mL of Ninhydrin reagent.	Positive
Loss on Drying	NMT 10.0 %	4.5 %
Nitrogen	NLT 14.0 %	16.3 %
Heavy Metals	NMT 50 ppm	NMT 50 ppm
Arsenic	NMT 2 ppm	NMT 2 ppm
Aerobic plate counts	NMT 3,000/g	NMT 10/g
Particle Size	More than 90% of the sample has to be passed through 70 mesh sieve. (guaranteed)	Passed

< for food uses >

	Specifications	Analysis
Description	White to faint grey powder, having slight characteristic odor.	Passed
Moisture	NMT 10.0 %	4.5 %
Crude Protein	NLT 85.0 %	* 101.9 %
Crude Fat	NMT 1.0 %	NMT 0.1 %
Ash	NMT 5.0 %	2.7 %
Heavy Metals	NMT 50 ppm	NMT 50 ppm
Arsenic	NMT 2 ppm	NMT 2 ppm
Aerobic plate counts	NMT 3,000/g	NMT 10/g
Coliforms	Negative/0.1 g	Negative/0.1g
Particle Size	More than 90% of the sample has to be passed through 70 mesh sieve. (guaranteed)	Passed

* : Multiplication of 6.25 to the content of nitrogen

COMPOSITION

Ingredient Name	INCI Name	Composition
Egg Shell Membrane Powder	Egg Shell Membrane Powder	100 %

SAFETY

Acute oral toxicity in rats (LD₅₀) : more than 10g/kg.

Primary skin irritation test : Negative

STORAGE AND EXPIRY

Storage : Store at ordinary temperature and keep it away from direct sunlight, high temperature and high humidity.

Expiry : 2 years from manufacturing date. (unopened, at ordinary temperature)

PACKING

5 kg (in aluminum pouch) × 2 = 1 carton



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