# Hyabest®(S) LF5-A Hyaluronic Acid

## **Kewpie Corporation**

Hyabest<sup>®</sup> (S) LF5-A is hyaluronic acid for food use, produced by fermentation and refined to high purity. It has high stability and suitable for making various foods, and dietary supplements.

#### WHAT IS HYALURONIC ACID?

- Hyaluronic acid is one of the acidic mucopolysaccharides naturally existing in large quantity in vitreous humor, serum, skin, chicken comb, shark's fin and whale cartilage.
- The excellent water-holding capacity of hyaluronic acid improves physical property of foods and helps skin retain moisture.
  Number of new products are expected to be launched into the market toward the future, utilizing such advantageous property of hyaluronic acid.
  Those will include dietary skin-care products.

### EXCELLENT FEATURES OF Hyabest®(S) LF5-A

This is high purity hyaluronic acid which is produced by fermentation method (non-animal source) and its excellent water holding capacity helps various foods improving their physical property.

This is also an ideal material of dietary supplements to supply hyaluronic acid of which natural synthesis in the body decreases by aging.

#### USE

Hyabest<sup>®</sup>(S) LF5-A is an ideal material for nutritional drinks or dietary supplements and for improving physical properties of various foods. It can be used for making tablet products or granules.

\* Average molecular weight is not more than 50,000 and its solution has low viscosity

#### SPECIFICATIONS AND A TYPICAL ANALYSIS

	Specifications	Analysis
Description	White powder.	Passed
Identification (1)	To 10mL of a sample solution (1 in 1,000) add 2 to 3 drops of a solution of cetylpyridinium chloride (1 in 20): a white turbidity is produced.	Positive
(2)	To 1 mL of a sample solution (1 in 10,000) add 6 mL of sulfuric acid and heat it in a water bath for 10 minuets. After cooling, add 0.2mL of carbazole TS, allow to stand: a red to red-purple color develops.	Positive
pН	$2.5 \sim 3.5$	3.2
Heavy Metals	NMT 20µg/g	NMT 20µg/g
Arsenic	NMT 1.5µg/g	NMT 1.5µg/g
Hemolytic Streptococcus	Negative	Negative
Hemolysis	A red blood corpuscle is precipitated and the top of the solution is clear. (Negative)	Passed
Clarity of solution	Clear (1%,660nm : NLT95%)	Passed
Loss on Drying	NMT 10.0%	2.7%
Crude Fat	NMT 0.2%	NMT 0.1%
Residue on Ignition	NMT 3.0%	1.0%
Assay (as Glucuronic Acid)	47.0 ~ 53.0 %	51.9%
Hyaluronic Acid	NLT 95%	100%
Kinematic Viscosity	$1.2\sim3.5~\mathrm{mm^2/s}$	1.4mm <sup>2</sup> /s
Aerobic plate counts	NMT 300/g	NMT 20/g
Coliforms	Negative	Negative
Mold and Yeast	NMT 100/g	NMT 50/g

◆ : Hyaluronic Acid content (%) (As hyaluronic acid and/or salts of hyaluronic acid : dry basis ) = 100 − Protein content (%) − Crude Fat content (%)

#### STORAGE AND EXPIRY

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

high temperature and high humidity.

Expiry: 36 months from manufacturing date. (unopened, at ordinary temperature)

%1 months = 30 days

#### PACKING

100 g (in aluminum pouch)  $\times$  1  $\sim$  10 = 1 carton 1 kg (in aluminum pouch)  $\times$  1  $\sim$  10 = 1 carton

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