Egg Yolk Lecithin LPL-20S

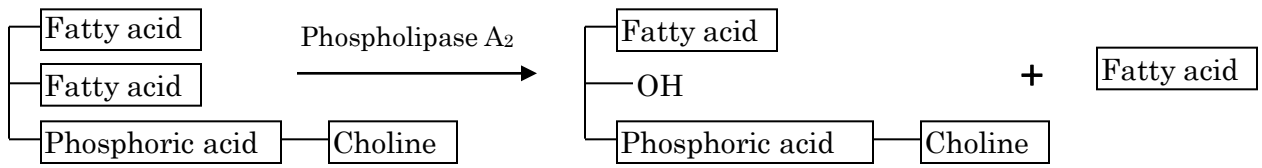
Enzymatically Decomposed Egg Yolk Oil

Kewpie Corporation

"Egg Yolk Lecithin LPL-20S" is an enzymatically treated egg yolk oil extracted from enzymatically hydrolyzed (with phospholipase A_2) egg yolk which contains lecithin (PC=phosphatidylcholine). LPL-20S contains lysolecithin (LPC=lysophosphatidyl-choline) abundantly and processed foods containing LPL-20S will have high nutritional value and be easily digested and absorbed by the intestine. Enzyme being used in the hydrolysis of egg yolk is finally inactivated completely and LPL-20S has no residue of enzyme.

WHAT IS LYSOLECITHIN ?

After oral intake of egg yolk, the lecithin or phosphatidylcholine (PC) in the egg yolk is enzymatically hydrolyzed into lysolecithin in the small intestines and then digested. Therefore, lysolecithin may be considered a better source of the phospho-lipid concerning human absorption. The following describes the formation of LPC from PC.



PC LPC

Lysolecithin has a hydroxyl group in the ß position rather than a fatty acid. Compared with lecithin, lysolecithin can form a more stable O/W emulsion due to its higher hydrophilic properties. Generally, its stability as an emulsifier in low pH area or under existence of salt is superior to other emulsifiers (like sucrose fatty acid ester and glycerin fatty acid ester). Lysolecithin tend to form a complex with amylose in starch, of all egg yolk lysolecithin shows outstanding anti-aging effect of starch and improves quality of foods.

EXCELLENT FEATURES OF Egg Yolk Lecithin LPL-20S

- LPL-20S shows excellent stability in its emulsifying power against acid or salt.
- LPL-20S is easily combined with amylose in starch and displays anti-aging effect on starch.

U S E

LPL-20S is an ideal functional material for various emulsion foods and for foods containing starch.

A TYPICAL COMPOSITION OF NUTRIMENTS (per 100 g)

Calories	913	kcal
Protein	0	g
Fat	97	g
Carbohydrate	0	g
Sodium	206	mg

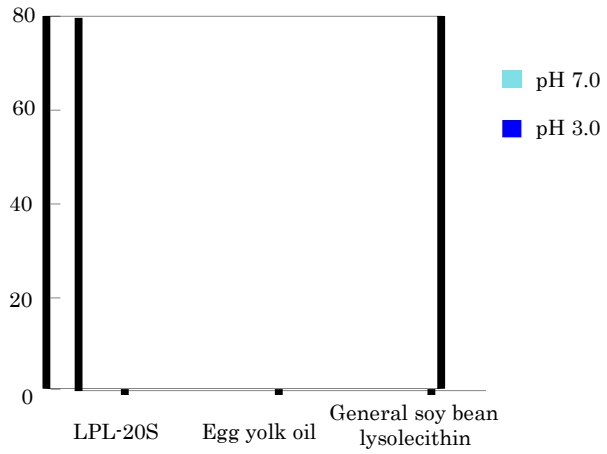
SPECIFICATIONS AND A TYPICAL ANALYSIS

	Specifications	Analysis
Description	Light orange-yellow viscous liquid, having a slight, characteristic odor.	Passed
Acid Value	NMT 40	24
Iodine Value	65 ～ 85	73
Peroxide Value	NMT 5meq/kg	0 meq/kg
Heavy Metals	NMT 10μg/g	NMT 10μg/g
Arsenic	NMT 1.5μg/g	NMT 1.5μg/g
Insoluble Matters with Acetone	NLT 20%	26%
Loss on Drying	NMT 5.0%	1.4%
Aerobic plate counts	NMT 1,000/g	NMT 10/g

THE STABILITY TEST OF EMULSION (Salad oil : water : emulsifier = 50:50:0.2)

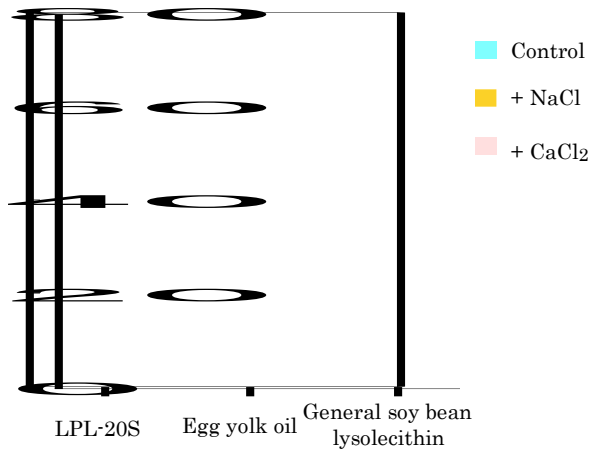
Stability of emulsion at different pH

(after standing for 1 hour at 80ºC)



Stability of emulsion under adding of salt

(pH 7.0, after standing for 1 hour at 80ºC)



STORAGE AND EXPIRY

Storage : Store below 10ºC

During the storage some oil separation may be seen but it does not mean any deterioration in quality. In such case please use after stirring it well to make the contents even.

Expiry : 12 months from the manufacturing date. (unopened, below 10℃)

※1 months =30days

PACKING

1kg (in poly bottle/inner carton) × 10 = 1 carton

15kg (in poly bag) × 1 = 1 can

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2018.06