



SCIENCE TECHNICS SDN BHD

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Product Description and Specification

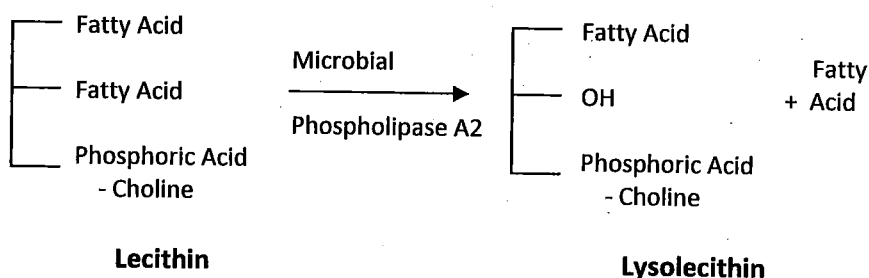
LECIPLUS ST

Description

Leciplus is an enzymatically modified lecithin based emulsifier.

Lecithin is a good water-in-oil emulsifier with limited value as a oil-in-water emulsifier.

Treatment of lecithin with a microbial Phospholipase A2 enzyme converts it into lysolecithin.



The removal of a fatty acid from lecithin makes lysolecithin more hydrophilic. This hydrophilic property imparts superior emulsifying properties to lysolecithin especially in oil-in-water emulsions. This property makes Leciplus a preferable emulsifier for a wide range of food applications.

Additionally lysolecithin produces a chemical complex with amylose starch chains. During aging of baked goods (eg cakes) the amylose chains form a helix and the water binding capacity is lost. Lysolecithin forms a complex with the amylose in starch and this complex blocks the developments of the helix. Thus the water binding capacity is retained and the baked goods remain soft.

Lysolecithin interacts with the gluten in wheat to form a lipoprotein complex. This lipoprotein complex increases the flexibility and elasticity of the gluten network. This has benefits such as improved gas-retaining capacity to give better volumes as well as impart resistance against mechanical stress eg. during extrusion.

Specification	Appearance	:	The product is a free flowing beige coloured spray dried product.
	Solubility	:	The product is soluble in water.
	Moisture	:	Leciplus contains a maximum of 14% moisture.
	pH of 10% solution	:	Range of 6.0 – 8.0
	Conversion of lecithin to lysolecithin	:	Min 80% Obtained by calculation from amount of sodium hydroxide used to maintain pH

Heavy Metal Content Leciplus complies with Malaysian Food Laws with respect to heavy metals. Typical analysis is :

Heavy Metal Limits

Lead	Max 0.5 mg/kg
Arsenic	Max 1 mg/kg
Cadmium	Max 1 mg/kg
Mercury	Max 0.05 mg/kg

Storage Leciplus should be stored in a cool dry place.

The product is best used within one year of production.

Storage under direct sunlight or in hot rooms or warehouses may result in a shorter shelf life.

Packaging Leciplus is available in 10kg plastic-lined carton boxes.

Application Leciplus may be used for improved production of cakes. Please see separate sheet for this application.

Leciplus also reduces batter viscosity in production of doughnuts and waffles.

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