DESCRIPTION
Due to their insolubility in water and lipids, phytosterols incorporation into foods and beverages formulations has been very challenging.

LIPOPHYTOL®-S is a dispersible form of soy sterols which has been microencapsulated to facilitate their incorporation in food matrices.

This unique delivery system increases soy phytosterols dispersibility in foods and beverages, thus providing a convenient way of introducing phytosterols into the human diet.

COMPOSITION
Soy phytosterols, maltodextrin and sucrose ester.

A NUTRITIONAL VIEW
High blood cholesterol level is the first risk factor for coronary heart disease. Studies have shown that a 10% decrease in blood cholesterol level can reduce the risk of cardiovascular disease by 19% to 54% depending on a person's age.

The cholesterol lowering effect of plant sterols is well documented in the literature. Consumption of 1.5 to 3 grams of plant sterols per day can lower LDL-Cholesterol by 8% to 15%.

The European Food Safety Authority (EFSA), has approved claims for plant sterols namely: i) “plant sterols have been shown to lower/reduce blood cholesterol” and ii) “plant sterols/stanols contribute to the maintenance of normal blood cholesterol levels”.

The U.S. Food and Drug Administration (FDA) approved the following claim for phytosterols: “foods containing at least 0.4 grams per serving of plant sterols, eaten twice a day with meals for a daily total intake of at least 0.8 grams, as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease”.

APPLICATIONS
EU has approved the use of phytosterols in yellow fat spreads, milk type products, yoghurt type products, soya drinks, rye bread and cheese type products. FDA has authorized the use of phytosterols in conventional foods and nutraceuticals.

References:
Investigating the Efficacy of LIPOPHYTOL®-S in Reducing Cholesterol

The efficacy of LIPOPHYTOL®-S in reducing cholesterol was demonstrated in a recent study conducted at the CTNS(1). In that study, 20 hamsters were fed a high fat diet for two weeks to establish hypercholesterolemia while 10 other hamsters (control group) were maintained under a normal diet. Ten hypercholesterolemic hamsters were maintained at the high fat (HF) diet group and the other 10 animals were switched to 1% LIPOPHYTOL®-S (LP-S) diet group for a period of 6 weeks.

Cholesterol absorption (calculated as the difference between ingested and excreted cholesterol) for control, HF and LIPOPHYTOL®-S groups.

Serum total, HDL and LDL/VLDL cholesterol for control, HF and LIPOPHYTOL®-S diets expressed in mg/dL.

Serum triglycerides (TGs) for control, HF and LIPOPHYTOL®-S diets expressed in mg/dL.

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(1) CTNS-Technological Centre of Nutrition and Health, Reus (Spain)