



Applications or Usages of Pro-Tex 1405M (distilled monoglyceride)

Anti-staling, emulsifying, softening, texture, shelf-life

Monoglycerides or Monoacylglycerols are variously produced by biological or industrial chemical processes. Pro-Tex 1405MS was produced by biological processes, by enzymatic hydrolysis of triglycerides by the action of lipoprotein lipase, using the commercial raw materials of palm oil.

Applications of Pro-tex™ 1045MS		Benefits	Suggested Dosages
Protein Beverage		Stabilize the fat and protein, prevent separation, and sedimentation.	0.05 to 0.1%
Ice cream		Avoid forming larger ice crystals, Improve mouth feel, and provide creamy texture	0.1 to 0.2%
Bakeries	Bread	Improve crumb softness, reduce staling rate, inhibit starch retrogradation	0.3 to 0.8% of flour
	Cakes	Improve volume, improve texture, and prolong shelf-life	3 to 10% of the oil
	Biscuits	Improve process properties, prevent oil separating out, and make dough easy coming off the modules	1.5 to 2% of the fat
Oil and fats	Margarine	Adjust the fat crystals, impart fine and stable water dispersion in fat.	
	Shortening	Adjust the fat crystals, and improve its shortening function property	
	Peanut butter	Improve stabilization	0.1 to 0.2%
Coffee whitener		Improved whitening effect	
Confectioneries, toffees		Reduce stickiness and sugar crystallization	1.5 to 2.0% of oil
Chewing gums		Improve texture, soften gum basis	0.3 to 0.5%
Meat products		Help fat disperse, combines water and starch, prevent starch retrogradation	0.1 to 1.0%
Edible anti foaming agents		Decrease or inhibiting foaming	0.1 to 1.0%
Granular potato products		Ensure uniformity, improve texture	0.1 to 1.0%starch

Monoglyceride is a glyceride in which each glycerol molecule has formed an ester bond with exactly one fatty acid molecule. The more formally correct terms in modern convention are **monoacylglycerol**. Any monoacylglycerol is either a 1-



Profood International, Inc.

monoacylglycerol or a 2-monoacylglycerol, depending on the position of the ester bond on the glycerol moiety.

Monoacylglycerols are useful as [emulsifiers](#), helping to mix ingredients such as [oily materials and water](#) that otherwise would blend poorly. Applications can be found in the table above.