The use of enzymatically synthesized medium- and long-chain triacylglycerols (MLCT) oil blends in food application

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The potential use of medium- and long-chain triacylglycerols (MLCT) oil blends in food applications such as frying oil and salad dressings were investigated. The frying strength of palm-based MLCT oil with different antioxidants under deep frying conditions was assessed. Palm-based MLCT oil showed better thermalresistant oxidative strength than refined, bleached and deodorized (RBD) palm olein throughout the five consecutive days of frying. Sensory evaluation and rancidity assessment on fried chips showed no significant differences (P > 0.05) between chips fried in RBD palm olein and palm-based MLCT oil. MLCT-based salad dressings treated with different antioxidants showed similar rheological behaviors as compared to soybeanbased salad dressings. The overall quality of the physical appearance and organoleptic acceptability based on quantitative descriptive analysis showed no significant differences (P > 0.05) in all salad dressings. These findings indicated that MLCT-based oil blends can be used as healthy functional oil for daily consumption. © 2011.

Subject: Antioxidant; Frying oil; Medium- and long-chain triacylglycerols (MLCT); Rheological behavior; Salad dressing

Type: Article

Source title: International Food Research Journal

ISSN: 19854668

ISBN:

Publisher:

Year issue: 2011

Language: English