INFLUENCE OF FATTY ACID COMPOSITION ON MELTING BEHAVIOUR FOR SELECTED VEGETABLE OIL AND FISH OIL

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ABSTRACT

INFLUENCE OF FATTY ACID COMPOSITION ON MELTING BEHAVIOUR FOR SELECTED VEGETABLE OIL AND FISH OIL

Vegetable and fish oils are an essential nutrient and an important energy source providing of 9 kcal/g oils in diet are available to the body as fatty acid, which are excellent sources of dietary calorie intake. Fatty acid can be classified into saturated (SFA), monounsaturated (MUFA) and polyunsaturated (PUFA) fatty acid. The enthalpy and melting characteristics (onset melting temperature, peak melting temperature, endset melting temperature and enthalpy of melting) of selected vegetable and fish oils were experimentally determined within a temperature range - 60 and 40 °C using Differential Scanning Calorimeter (DSC). The data obtained have correlated with their fatty acid composition. The physicochemical of oils under studies have also determined in order to compared their based on the peroxide value, saponification value and acid value. The studied also showed that vegetable oils have good fatty acid composition and high potential to be developed into food formulation.