

ABSTRACT

THIN LAYER CHROMATOGRAPHY PROFILES FROM COLD FRACTIONATION PRODUCTS MIXTURE CPO (Crude Palm Oil) AND PKO (Palm Kernel Oil)

By

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Oil palm fruit processing industry produce crude palm oil (CPO) and palm kernel oil (PKO). Products derived oil palm fruit as an emulsifier and antimicrobial is a monoglycerides (MG) and diglycerides (DG). The research previously, reported that cold fractionation products mix CPO-PKO known to have antibacterial properties and good emulsifier. This study aims to determine the value of the yield, the pattern of separation and antimicrobial activity of compounds separate components. Identification technique have used the Thin Layer Chromatography (TLC) silica gel. The research methods have used single factor with three repetitions. The single factor used mixture of hexane, diethyl ether, and formic acid = 80:20:2 (v/v) 30 ml in the chamber. The observed distribution patterns based on the Rf value, the value of yield and antimicrobial activity test by the method agar diffusion on *Eschericia coli*, *Staphylococcus aureus*, and *Saccaromhyces cerevisiae*. The results purification of cold fractionation product mix CPO and PKO have produced five separate component fractions determined based on the value of Rf is monogliserydes (MG), dilgiserydes (DG), free faty acid (FFA/ALB), and trigliserydes (TG). The yield of fraction separate components MG, DG, ethyl ester (EE), FFA/ALB, and TG rest have produced by 24.75%, 24.89%, 12.45%, 24.63%, and 13.27%. The total yield combined of MG and DG have averaged of 49.65%. The highest composition MG-DG cold fractionation products (52.54%) with TG rest (12.48%).

Keywords: crude palm oil, fractionation, palm kernel oil, profiles, and thin layer chromatography.