

## ABSTRAK

Reaksi esterifikasi antara asam stearat dengan metanol dan 2-propanol menggunakan katalis 1,2-dimetil-1,1,2,2-tetrafenildisilana sulfonat telah menghasilkan metil stearat dan isopropil stearat. Reaksi esterifikasi dilakukan dalam reaktor *stainless steel* pada suhu 100°C selama 10 jam dengan rasio mol asam stearat : alkohol = 1 : 6 dan jumlah katalis 4 %. Pengujian hasil esterifikasi dilakukan dengan spektroskopi FT-IR, Kromatografi Gas, dan spektroskopi <sup>1</sup>H-NMR. Data yang diperoleh membuktikan bahwa metil stearat dan isopropil stearat telah terbentuk dengan yield masing-masing 86,1 % dan 67,5 %.

**1,2-DIMETHYL-1,1,2,2-TETRAPHENYLDISILANE  
SULFONATE CATALYZING ESTERIFICATION  
REACTION OF STEARIC ACID WITH  
METHANOL AND 2-PROPANOL**

**ABSTRACT**

Esterification reaction between stearic acid with methanol and 2-propanol using 1,2-dimethyl-1,1,2,2-tetraphenyldisilane sulfonate as catalyst have gave methyl stearate and isopropyl stearate. Esterification reaction was carried in stainless steel reactor at 100°C for 10 hours with 1 : 6 molar ratio of oil to alcohol and 4 wt% catalyst. Product of esterification was characterized by FT-IR, gas chromatography, and nuclear magnetic resonance. The results showed that methyl stearate and isopropyl stearate have been made with yield 86.1 % and 67.5 %.