

- SALICYLIC ACID

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SKRIPSI

DEWI RATNAWATI

**PENGARUH DMF TERHADAP PERSENTASE
N-METILSALISILAMIDA HASIL SINTESIS DARI
ASAM SALISILAT MELALUI PEMBENTUKAN
SALISILOIL KLORIDA**



**FAKULTAS FARMASI UNIVERSITAS AIRLANGGA
BAGIAN KIMIA FARMASI
SURABAYA**

2004



LEMBAR PENGESAHAN

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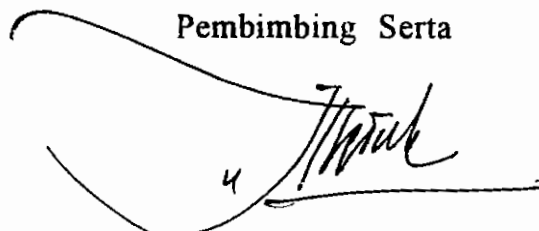
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ABSTRACT

Influence of DMF to *N*-methylsalicylamide synthesis result from salicylic acid through the formation of salicyloil chloride

The aim of this research is to know the influence of DMF to the synthesis of *N*-methylsalicylamide from salicylic acid through the formation of salicyloil chloride. The synthesis of *N*-methylsalicylamide is done by refluxing salicylic acid and thionyl chloride with or without addition of DMF at 55 °C for 6 hours. The product of the reaction (salicyloil chloride) was tested by TLC method (eluent hexane : ethyl acetate = 2 : 1). Then, the salicyloil chloride was reacted with methylamine by adding the crude salicyloil chloride to the methylamine dropwise for 30 minutes. The mixture was washed with sodium hydrogen carbonate 0.5 N solution. The product was recrystallized from acetone-cold water to give white crystals.

The crystals soluble in ethanol, diethyl ether, ethyl acetate, hexane, boiled water, chloroform, acetone, and methanol; not soluble in water at room temperature. The obtained compound is *N*-methylsalicylamide (melting point : 82 °C). Reaction with DMF catalyst gave 25,6% yield, while without catalyst the yield was only 7,9%. The research show that addition of DMF catalyst results in improvement of the reaction yield.

In order to get *N*-methylsalicylamide through the formation of salicyloil chloride, the addition of DMF is required. Besides, the synthesis needs an optimum condition (temperature, time) to get maximum result.

Key word : DMF, *N*-methylsalicylamide, salicylic acid, salicyloil chloride, thionyl chloride, methylamine.