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Determinating Patchouli Alcohol of Patchouli Oil Using Distillation Technique

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Abstract: Essential oil, also known as ethereal oil or volatile oil is widely needed in daily life. A kind of essential oil is patchouli oil. In the international trade market, patchouli is traded in the form of oil and known as “patchouli oil”. Amongst various essential oils in Indonesia, patchouli oil is being a belle. Every year, more than 45% of foreign exchange gained from essential oils is from patchouli oil. In the term of patchouli oil, Indonesia plays a quiet significant role, approximately 90% of world’s demands for patchouli oil is met by Indonesia. This study was aimed at knowing how to treat the material and find out the appropriate distillation pressure to generate patchouli oil containing high patchouli alcohol and high yield. The method used was steam distillation which spent 6 hours long, with the operational pressure of 0,1; 0,2; 0,3; 0,4; 0,5 kg/cm², using patchouli leaves with three treatments are fresh leaves, aerated leaves and burned leaves in the oven. This study’s results concluded that: the best result was obtained from the burned leaves in the oven where the pressure was 0.4 kg/cm², yield 2%, containing patchouli alcohol 40.06% and specific gravity was 0.961. The treatment to materials and stem pressure are not significantly affecting the specific gravity of essential oil. The organoleptic test results showed that it produced various colors from light yellow until tawny and all of them have the typical smell of patchouli oil.

Keywords : Patchouli alcohol, Steam Distillation, Yield.

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