

SIFAT FISIKOKIMIA MINYAK KAYU PUTIH
JENIS *Asteromyrtus brasii*
(*Physico-Chemical Properties of Cajuput Oil's from Asteromyrtus brasii*)

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ABSTRACT

Asteromyrtus brasii, is one of the cajuput oil tree species in Wasur National Park, Meranke, Papua. However, the information on the chemical compound and physical properties (qualities) of cajuput oil produced from this species is still limited. This research aimed to measure the chemical compound and physical properties of cajuput oil distilled from the leaves of *A. brasii* trees which grow at the Wasur National Park. Chemical compound analysis is using Gas Chromatography and Mass Spectrometer method (GC-MS method). The analysis on the physical properties was applied to the cajuput oil distilled using steam method. The distillation lasted for 4-5 hours, and every interval of 30 minutes the distilled cajuput oil collected cumulatively and the total collected oil was examined for the yield and physico-chemical properties. The qualities of the overall cajuput oil from *A. brasii*- tree leaves couldn't satisfy the standard (SNI 06-3954-2006) because of the specific gravity is below 0.9 and optical rotation of 9.8. Analysis result with GC-MS show there are 29 peak, with 5 of the them has the higher intensity identified as 1,8 cineole (34,88% concentration), Trans-Beta-Ionon-5,6-Epoxide (21,26%), Formamide (CAS) Methanamide (11,20%), Acetic acid (CAS) Ethylic acid (8,14%) and Alpha pinene (4,39%).

Keywords: *Asteromyrtus brasii*, chemical compound and physical properties, cajuput oil qualities

ABSTRAK

Asteromyrtus brasii merupakan salah jenis tumbuhan penghasil kayu putih yang banyak ditemukan di Taman Nasional (TN) Wasur, Merauke, Papua. Namun demikian, informasi mengenai kandungan kimia dan sifat fisik (kualitas) minyak kayu putih yang dihasilkan dari spesies tersebut masih terbatas. Penelitian ini bertujuan untuk melihat kandungan kimia dan sifat fisik minyak kayu putih yang disuling daridaun *A. brasii* yang tumbuh di TN Wasur. Analisis kandungan kimia minyak atsiri dilakukan pada sampel daun dengan metode *Gas Chromatography* dan *Mass Spectrometer* (metode GC-MS). Analisis sifat fisik dilakukan pada minyak kayu putih yang diperoleh melalui penyulingan daun *A. brasii* dengan metode uap. Kualitas minyak kayu putih dari jenis *A. brasii* tidak memenuhi persyaratan kualitas minyak kayu putih menurut SNI 06-3954-2006 karena memiliki berat jenis kurang dari 0,9 dan putaran optik 9,8. Hasil analisis dengan GC-MS menunjukkan ada 29 puncak, 5 puncak dengan intensitas tinggi diidentifikasi sebagai senyawa 1,8 cineole (kelimpahan 34,88%), Trans-Beta-Ionon-5,6-Epoxide (21,26%), Formamide (CAS) Methanamide (11,20%), Acetic acid (CAS) Ethylic acid (8,14%) dan Alpha pinene (4,39%).

Kata kunci: *Asteromyrtus brasii*, kandungan kimia, sifat fisik, kualitas minyak kayu putih