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Chapter 13 - Thymol

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Abstract

Thymol (2-isopropyl-5-methylphenol) is a phenolic monoterpene compound that is isomeric with carvacrol and is mainly found in the essential oil of plants (Trachyspermum ammi, Ocimum, Origanum, and Monarda). Thymol oil is a volatile oil used as a stabilizer in pharmaceutical preparations, which are mainly derived from hydride of *p*-cymene after aromization of γ -terpinene to *p*-cymene. The extraction and isolation of thymol is done using green solvents by pressure liquid extraction and super critical fluid extraction under different conditions. Thymol has revealed various biological properties such as immunomodulatory, antifungal, antibacterial, antioxidant, antinociceptive, and antiinflammatory, which shows a significant increase in the proliferation of splenocytes and has proved to be a good mitogen. Thymol improves metabolism rate during digestion, which attenuates respiratory problems and inhibits menstrual cramping. Commercial products currently using thymol include Cool Mint antiseptic mouthwash, Thymovar for veterinary medicine, and Astrigum gum paint.

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