

Many species of *Thymus* have been widely used in Algerian folk medicine as astringent, expectorant and cicatrising agents. This study was designed to investigate for the first time the essential oil of the aerial parts of wild growing *Thymus algeriensis* endemic in North Africa. The volatile oil obtained by hydrodistillation was characterized by the physico-chemical properties, GC and GC/MS techniques. The yield of the oil was 1.13% (w/w), based on dry weight. Fifty-five components, representing 94.3% of the total oil, were identified. The oil was distinguished by its high content of oxygenated monoterpenes (79.5%) and was found to possess the following major components: linalool (47.3%), thymol (29.2%) and p-cymene (6.8%). Furthermore, the oil was tested for antimicrobial activity against four bacteria, two fungi and two yeasts. This oil exhibited a significant in vitro antimicrobial activity against *Bacillus subtilis* (MIC = 0.5 μ L/mL), as well as against all yeast and all filamentous fungi tested (MIC = 0.5 and 1.0 μ L/mL). © 2006 Elsevier Ltd. All rights reserved