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**Chemical Composition and Antimicrobial Activity of *Salvia Officinalis* Essential Oils**

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**EXTENDED ABSTRACT**

The microbes' diseases are one of the health problems for many countries. The aim of this study was to investigate the chemical components, antimicrobial activity of essential oils from dry leaves of *Salvia officinalis* L. (sage). The oil was obtained by steam distillation and analyzed by gas chromatography-mass spectrometer (GC-MS). The antimicrobial assay of the oils was evaluated against four microbes (three bacteria and one fungus) namely; *Escherichia coli*, *Klebsiella pneumoniae*, *Staphylococcus aureus* and *Candida albicans* by disc diffusion method. The chemical composition analysis of the essential oils by GC-MS led to the identification of 48 components, and the dominant compounds were: Eucalyptol (30.56%), (+)-2-Bornanone (13.59%), (IR)-2,6,6-Trimethylbicyclo (3.1.1) hept-2-e (7.02%) and camphene (6.96%). In the antimicrobial activity test, the oil showed moderate to good activities against tested microorganisms. The antimicrobial activity of the oils against bacteria was far higher than against fungus. In conclusion the *S. officinalis* essential oil showed potential antimicrobial activity. The research may warrant further work to determine the bioactive compound(s).

**Keywords:** *Salvia officinalis*, steam distillation, Essential oil, Chemical composition, Antimicrobial activity.