**PRODUCTION OF LIQUID AIR FRESHENER FROM LOCAL PLANT MATERIAL (LEMON GRASS) AND ITS ANTIMICROBIAL EFFECT ON ATMOSPHERIC ORGANISM.**

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# ABSTRACT

The atmosphere of our country is always polluted by industrial, domestic and environmental waste. Although many environmental agencies like Enugu state waste management agency (ESWAMA) have been given the order to maintain the environment, the mixing up of populated gases and good ones are yet to be controlled. This has led so many individuals, groups and companies into production of deodorant both liquid and solid forms, but few or none of these producers has actually monitored the antimicrobial effect of their deodorant on atmospheric organisms. This research work looked into producing liquid deodorants and its antimicrobial effect on microorganisms isolated from the atmosphere. Prepared petri dishes of corresponding media where exposed to the atmosphere for bacterial (Nutrient Agar) and fungal (Sarbouraud Dextrose Agar) isolation. Gram staining and various biochemical tests were carried out on the bacterial isolates for proper identification; microscopic identification of the fungal isolates was done as well. Liquid air freshener was produced, in addition with other constituents, the antimicrobial effect of the air freshener and one of the major active ingredients (lemon grass – *Cymbopogon citrates*) on isolates was carried out using dilution method. The growth of some of the isolates was inhibited, why some where resistant to the product. *Cymbopogon citrates* has some antimicrobial properties and also a good source of fragrance as proven by this research work.

**Keywords:** Liquid air freshener, Lemongrass plant, Lemongrass oil, antimicrobial, and atmospheric organisms