

A2 BACTERIOLOGICAL EXAMINATION OF SOME PACKAGED WATER PRODUCED IN MINNA METROPOLIS

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INTRODUCTION

Water is very fundamental to life. It is essential for every biological function and the supply of adequate and safe water for various uses is a basic need for every community no matter its size and its stage of development [1].

Safe water means different things to different peoples. Home owners are primarily concerned with domestic water problems related to colour, order, taste and safety of family health, as well as cost of soap, detergents, "softening" or other treatment required for improving the water quality.

Chemists and engineers working for industry are concerned with the purity of water as it relates to scale distribution and pipe corrosion [2].

MATERIALS AND METHODS

Collection of water samples followed by inoculation, characterization and identification of isolates tests carried out includes total bacterial count, confirmation test for coliform and physico-chemical analysis of water samples.

RESULTS AND DISCUSSION

The result of the investigation revealed that pH ranged from 7,1 – 7,6 Turbidity 0 – 3, free chlorine and residual chlorine 0.1 all through the samples. Four microorganisms were isolated. These include *Klebsiella pneumoniae*, *Bacillus subtilis*, *Streptococcus faecalis* and *Pseudomonas aeruginosa*

Table 1. Physico-chemical Analysis of some Packaged Water samples in Minna Metropolis

S/N	Parameters	Samples					WHO/STD
		W1	W2	W3	W4	Wc	
1.	pH	7.1	7.2	7.6	7.2	7.0	6.5 – 8.5
2.	Turbidity (FTU)	0	0	0	3	0	5.0
3.	Free chlorine	0.1	0.1	0.1	0.1	0.3	0.2 – 0.5
4.	Residual chlorine	0.1	0.1	0.1	0.1	0.3	0.2 – 0.5
5.	Taste	U0	U0	U0	U0	U0	U0
6.	Colour	0	0	0	0	0	0
7.	Odour	0D	0D	0D	0D	0D	0D
	Total hardness as (CaCO₃) mg/g	127	146	139	140	150	150.0
	Suspended solids mg/l	0	0	0	0	0	25.0

Key:

WHO/STD = World Health Organization Standard U0 = Unobjectionable
 OD = Odourless W1 = Kpan kingy
 W2 = Barkinsale W3 = Chanchaga
 W4 = Tunga

REFERENCES

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