



## **Physico-Chemical Analysis of Packaged Mineral Water Bottles Floating In And Around Central Karnataka**

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### **ABSTRACT**

*Water the natural resource for survival; occur in pure or impure form. Good health of humans depends upon the quality of water. Due to rapid urbanization and industrialization quality of drinking water is deteriorated by toxic substances, which are very dangerous to the health even though in small amount. Mineral water is the purified water in which required amount of minerals are added and are very beneficial to human body. These mineral water bottles are supposed to be manufactured and packed under good manufacturing practice. Different industries adopt different water purification such as Activated carbon filter, Reverse osmosis, UV treatment, Ozonisation thus making it accessible at economical prices to the common man. To assess the water quality of bottled drinking water floating in the south part of the country, the physico-chemical analysis was conducted. Parameters like pH, acidity, alkalinity, total dissolved solids, electrical conductivity, chloride, hardness, Calcium and Magnesium ( $\text{Ca}^{2+}$  &  $\text{Mg}^{2+}$ ), Sodium and Potassium ( $\text{Na}^+$  and  $\text{K}^+$ ), fluoride were analyzed. From the results it is evident that pH of 23% samples measured a pH less than 6.5. Approximately 15% of samples had absolutely no hardness. However the hardness measures of the remaining 85% of samples were within the limit. Alkalinities of 99% samples were within the desirable limit. The Total Dissolved Solids and Electrical Conductivity of all samples were within desirable limit. Acidity of all samples were within permissible limit. 100% samples were following under desirable limit for chloride and fluoride. It was a striking observation that same brands manufactured at different station differed in their physico chemical parameters. Water the natural resource for survival; occur in pure or impure form.*

**Keywords:** Bottled water, Mineral water, Chemical analysis.

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