

**ABSTRACT****COMPARISON OF DESTRUCTIVE ACIDS ON WET ASHING METHOD FOR LEAD ANALYSIS IN CANNED JUICE**

The objective of the study was to compare the different combinations of destructive acids on wet ashing method lead analysis in canned juice by Flame Atomic Absorption Spectrophotometer (FAAS). Two combination destructive acids, i.e. nitric acid ( $\text{HNO}_3$ ) : sulfuric acid ( $\text{H}_2\text{SO}_4$ ) (2 : 1) and nitric acid ( $\text{HNO}_3$ ) : hydrochloric acid ( $\text{HCl}$ ) (1 : 3) were used in this study and compared in terms of accuracy and precision for digestion of a branded canned juice (X). Precision of the method achieved by  $\text{HNO}_3$  :  $\text{H}_2\text{SO}_4$  (2 : 1) digestion was found to be 9.43 %, whereas the accuracy was  $(96.89 \pm 8.57)$  %. The precision and accuracy of  $\text{HNO}_3$  :  $\text{HCl}$  (1 : 3) digestion could not be determined, since lead found in solution was below the limit of detection. Due to its precision and accuracy, the  $\text{HNO}_3$  :  $\text{H}_2\text{SO}_4$  (2 : 1) digestion method is suitable for the determination of lead in canned juice by FAAS.

Keywords : Lead, Wet ashing, Destructive acids, Canned juice, FAAS

