

**ASSESSMENT OF SELECTED HEAVY METALS
CONCENTRATION IN CANNED TUNA**

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ABSTRACT

The presences of heavy metals in environment can cause danger to food and human health. Moreover, it can accumulate in aquatic animals such fish. The objective of this study was conducted to determine concentration of heavy metals (Pb, Cd, Zn, Fe) in canned tuna samples. In this study, three popular brands of canned tuna was purchased from local markets in Malaysia with three samples for each brand and were determine by using inductively coupled plasma-optical emission spectrometer (ICP-OES). The range obtained from the elements analysed in (mg/kg) as follow: 0.117 – 0.167 mg/kg, 0.0 – 0.05 mg/kg, 6.77 – 15.25 mg/kg, and 7.6 – 17.88 mg/kg for Pb, Cd, Zn, and Fe. Based on the data obtained, Zn and Cd were below permissible limits while of Pb and Fe was slightly increased (>0.02 mg/kg) and (>15.0 mg/kg) from the permissible limits level according to European Communities (Commission of European Communities, 2001), Turkish Food Codex and Food Additives and Contaminants (CCFAC, 2001). However, the concentration of heavy metals in all canned tuna is still low and will not give a harmful effect on human health.

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