

**ANALYSIS OF TOTAL MERCURY AND METHYL
MERCURY IN MARINE WATER AND FRESH WATER FISH
SPECIES**

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ABSTRACT

Total mercury and Methyl mercury analysis done by using Cold Vapor Atomic Absorption Spectrometer and Gas Chromatography Cold Vapor Atomic Fluorescence Spectrometer with limit of quantification of 10 ng/g and 0.64 ng/g. Certified reference material and laboratory control spike for total mercury meets a good recovery in average of 98% and 86% and for methyl mercury certified reference material and laboratory control spike of 99% and 97%. Total and Methyl mercury in fresh and marine water fish is species purchased from supermarket in Malaysia was determined. Marine water fish have average of total and methyl mercury of 107 ug/kg and 93 ug/kg. On the other hand, concentration of total and methyl mercury for fresh water is only 34.6 ug/kg and 28.7 ug/kg. The result of marine water fish several times higher than fresh water fish. Ratio of methyl mercury to total mercury also have been examined and found that the average ratio of methyl mercury to total mercury for both fresh and marine water is 84% .

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