

**DETERMINATION OF HEAVY METAL (Cu, Pb, Ni) IN TALCUM
POWDER BY USING ATOMIC ABSORPTION SPECTROMETRY**

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ABSTRACT

DETERMINATION OF HEAVY METAL (Cu, Ni, Pb) IN TALCUM POWDER BY USING ATOMIC ABSORPTION SPECTROMETRY

In this study, the Atomic absorption spectrometry was used for the determination of heavy metal (copper, lead, nickel) in eight different types of medicated and non-medicated talcum powder. Before analysis, the samples were digested by using acid digestion method using HCl and HNO₃ to decompose a sample for release of the analyte and to destroy the sample matrix in solution. The concentration for copper, lead and nickel in non-medicated talcum powders were observed in the range of 0.046-0.085, 0.298-0.754 and 0.025-0.160 mg/L, respectively. Meanwhile, the concentration for copper, lead and nickel in medicated talcum powders were observed in the range of 0.048-0.053, 0.449-0.596 and 0.029-0.040 mg/L, respectively. The results revealed that the concentration of heavy metals in all samples were below the permissible limits and indicated that the concentration of heavy metals present in samples do not have potential risk to the consumers. However, the continuous use of low concentration of heavy metal in the products may risk the human health due to their accumulation in the human body.