

## Tin determination in canned foods

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**Abstract** The determination of tin in canned food became very important in the last decades since it gives important information about the contamination process helping to increase canned food quality and safety. The present work describes the validation of tin determination in canned foods by flame atomic absorption spectrometry (FAAS). Linearity domain of the concentration, limit of detection (LOD), limit of quantitation (LOQ), precision (by fidelity, repeatability and reproducibility), accuracy (by recovery tests) have been assessed as performance criteria. The obtained results indicate that the method is efficiently and properly implemented. The uncertainties for each concentration level have been also calculated and are considered as relevant ones for canned foods, drinks and baby food. The validated method was applied for tin concentration analysis in a wide range of canned foods from the local market. In all analysed samples tin concentrations were below the imposed limits, most of them being under the LOD.

*Keywords:* tin, flame atomic absorption spectrometry, method validation, uncertainty, canned foods

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