# SUBACUTE EFFECTS OF A FOOD FLAVOUR ON FISH MODEL

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## Abstract

Modern food industry widely uses a variety of flavour and fragrance materials. One of the most used compound group, the aldehydes. The benzaldehyde, also known as artificial almond oil, is one of the most commonly used flavouring in food industry. Toxicological effects of this compound are well known, a lot of information can be found in the literature.
4-ethylbenzaldehyde is also a member of aldehyde group, the physical properties are similar with benzaldehyde, also has almond scent. Unlike benzaldehyde, according to its chemical safety sheet it has no chemical safety assessment. Until now, only one experiment can be found of its effects on vertebrates. This compound can be also found at the group of flavours and fragrances.
The aim of this study was to examine the subacute DNA damaging and histopathological effects of EBA. Genotoxic effects of EBA in zebrafish were evaluated by using micronucleus assay. Significant increase in the micronucleus frequency had been described for all the tested concentrations. Histopatoogical alterations were found in the liver of the treated fish group with 11 mg/L EBA, but only at the end of the 21 day experiment.

*Key words: 4-ethylbenzaldehyde; flavours; genotoxicity; zebrafish*

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