



EFSA: Safety of foods containing estragole

Background

The European Commission has mandated EFSA to conduct a scientific evaluation of the safety of fennel tea. With its call for data of 4 July 2023, EFSA is calling on food business operators, food authorities, research institutions and academia to submit data on the content of estragole, methyl eugenol and safrole in fennel tea, as well as in herbal infusions, spices, food supplements and other foods containing these substances.

Strategic evaluation

The evaluation in accordance with Article 8 of Regulation (EC) 1925/2006 is being conducted due to genotoxic properties of estragole, methyl eugenol and safrole demonstrated experimentally. Regulation (EC) No 1334/2008 on flavourings therefore has prohibited the addition of these substances to foods in isolated form already since 2011 and defines maximum levels for certain foods flavoured with preparations that naturally contain these substances.

As estragole is found in a vast number of food and medicinal plants, such as anise, basil, tarragon, fennel, star anise, nutmeg, pepper and many others, the possibility of further restrictions that go beyond those already laid down in the flavouring regulation cannot be ruled out in the medium term.

Analysis

PhytoLab has a method for determination of estragole, methyl eugenol and safrole in raw plant materials, extracts, flavourings, essential oils or finished products at its disposal, which has been accredited in accordance with Article 64 of the German Food and Feed Code (LFGB) with code number L 47.08-2. Values determined by this method meet the requirements of the EFSA call.

Toxicological issues

Even if a regulatory limit has not been specified, the question of what constitutes a safe estragole (methyl eugenol, safrole) content may arise in individual cases (e.g., baby food). At PhytoLab, experienced experts in questions of this nature are also at your service.

We would be delighted to draw up an offer for the analysis of estragole and more phenylpropanes in your botanicals or finished products.

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References:

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- Götz ME, Eisenreich A, Frenzel J, Sachse B, Schäfer B: Occurrence of Alkenylbenzenes in Plants: Flavourings and Possibly Toxic Plant Metabolites. *Plants* 2023, 12(11), 2075 || <https://doi.org/10.3390/plants12112075>