

New restrictions on the use of certain flavouring substances

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EU limits use of flavouring substances 2-phenylcrotonaldehyde, 5-methyl-2-phenylhex-2-enal, and 4-methyl-2-phenylpent-2-enal

Commission Regulation (EU) [2024/238](#) of 15 January 2024 amending Annex I to Regulation (EC) No 1334/2008 of the European Parliament and of the Council as regards the introduction of restrictions on the use of certain flavouring substances

Update

The European Commission has introduced limits on use of the flavouring substances 2-phenylcrotonaldehyde, 5-methyl-2-phenylhex-2-enal, and 4-methyl-2-phenylpent-2-enal pending further evaluations by EFSA regarding the safety of these substances for human consumption.

What is changing?

Regulation (EC) [1334/2008](#) (Annex I) lists flavouring substances that are authorised for use in foods in the European Union and, where necessary, restrictions on their use. There are currently no restrictions of use for the following three substances:

- 2-Phenylcrotonaldehyde (FL-No. 05.062)
- 5-Methyl-2-phenylhex-2-enal (FL-No. 05.099)
- 4-Methyl-2-phenylpent-2-enal (FL-No. 05.100).

The European Commission restricts current use of these flavourings in each category of foods to the quantities specified in the latest consolidated version of Regulation 1334/2008 (Annex I, Part A, Section 2, Table 1).

Why?

[EFSA's \(2022\)](#) evaluation was inconclusive regarding a possible link between these substances and aneugenicity. (Aneugenicity is a substance's ability to cause cells to have an abnormal number of chromosomes.) Some interested companies have agreed to give EFSA additional data to enable further studies. While awaiting further evaluation, the Commission wants to ensure use of the substances is not increased.

Timeline

The new restrictions apply from **5 February 2024**.

What are the major implications for exporting countries?

As the restrictions reflect current use of the flavourings, this Regulation should not affect existing trade.

Recommended Actions

Exporters of foods containing the flavourings 2-phenylcrotonaldehyde, 5-methyl-2-phenylhex-2-enal, and 4-methyl-2-phenylpent-2-enal should comply with currently authorised quantities of these flavourings in food manufacturing.

Background

Regulation [1334/2008](#) prohibits the addition of certain natural undesirable substances to food. It also lays down maximum levels for certain substances that are naturally present in flavourings, and in food ingredients with flavouring properties, but which may raise concern for human health. The Regulation defines different types of flavourings, and lists the substances for which evaluation and approval is required.

The Union list of flavouring substances approved for use in and on foods (Regulation [872/2012](#)) was adopted in 2012. The substances 2-phenylcrotonaldehyde, 5-methyl-2-phenylhex-2-enal, and 4-methyl-2-phenylpent-2-enal were included in the Union list of flavouring substances on the condition that safety data was submitted to address EFSA's concerns.

When EFSA evaluates flavouring substances, it allocates them a unique identification number called an FL-number. FL comes from "FLAVIS", the EU's flavouring information system. The FL-number is not used for labelling purposes ([European Commission 2012](#)).

Resources

EFSA (2022) [Scientific opinion on Flavouring group evaluation 216 revision 2 \(FGE.216Rev2\): consideration of the genotoxicity potential of \$\alpha,\beta\$ -unsaturated 2-phenylalkenals from subgroup 3.3 of FGE.19](#). EFSA Journal, 20(8): 7420.

European Commission (2012) [FAQ – Food – EU adopts list of approved flavouring substances](#)

Regulation (EC) [1334/2008](#)

Commission Implementing Regulation (EU) [872/2012](#)

Sources

Regulation [2024/238](#) as regards the introduction of restrictions on the use of certain flavouring substances

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