Estragole

Summary of Health Effects
Estragole causes cancer in animals and may cause cancer in humans.

How is estragole used?
Estragole is used as a flavor additive in foods, and as a fragrance in cleaning agents and cosmetic products.\(^1\)

Low levels of estragole occur naturally in many herbs (e.g. basil, anise, fennel).\(^1\)

Toxicity: What are its health effects?
California Environmental Protection Agency’s Reproductive and Cancer Hazard Assessment section found convincing evidence for carcinogenicity, which was based on mouse studies that resulted in liver cancer.\(^{1,2}\) While estragole has not been tested in rats, two substances that are closely-related to estragole (safrole and methyleugenol) were tested and caused cancer.\(^1\)

Estragole is listed as a carcinogen on California’s Proposition 65 list.\(^3\)

Exposure: How can a person come in contact with it?
A person can come in contact with estragole by swallowing it, breathing it in, or from skin contact.\(^1\)

The 2014 National Health and Nutrition Examination Survey (NHANES) report did not include data for estragole.

References


This fact sheet is for the Chemical Disclosure Program for Children’s Products.

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