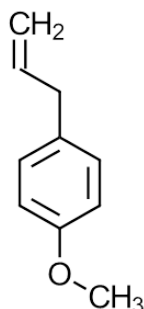


CAS 140-67-0

Estragole

C₁₀H₁₂O



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

1. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) Reproductive and Cancer Hazard Assessment Section (1999). *Evidence on the carcinogenicity of estragole*. Retrieved from oehha.ca.gov/media/downloads/crn/estragf.pdf
2. U.S. Department of Health and Human Services, National Toxicology Program (2011). *Technical report on the 3-month toxicity studies of estragole: Toxicity report series number 82*. Retrieved from ntp.niehs.nih.gov/ntp/htdocs/st_rpts/tox082.pdf
3. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment. *List of chemicals known to the state to cause cancer or reproductive toxicity*. Retrieved May 25, 2018, from oehha.ca.gov/proposition-65/proposition-65-list