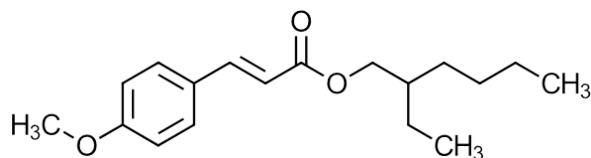


CAS 5466-77-3

# 2-Ethyl-Hexyl-4-Methoxycinnamate (Octinoxate)

C<sub>18</sub>H<sub>26</sub>O<sub>3</sub>



## Summary of Health Effects

2-ethyl-hexyl-4-methoxycinnamate (octinoxate) can affect how hormones act in the bodies of animals.

## How is octinoxate used?

Octinoxate is an ingredient in many common products, including cosmetics, sunscreen and skin and hair products.<sup>1</sup>

## Toxicity: What are its health effects?

Octinoxate is considered a category 1 endocrine disruptor by the European Union.<sup>2,3</sup>

It has been found to interfere with the hypothalamic-pituitary-thyroid axis in rats,

causing a dose-dependent reduction in thyroid hormones (T3 & T4) and thyrotropin (TSH) levels.<sup>4</sup>

## Exposure: How can a person come in contact with it?

A person can come in contact with octinoxate from skin contact.<sup>5</sup>

Octinoxate is listed as an ingredient in many products, including sun screen, hair products, and other cosmetics.<sup>1</sup>

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

## References

1. U.S. National Library of Medicine (2018). *Household products database; Octyl methoxycinnamate (CASRN: 005466-77-3)*. Retrieved November 9, 2018, from [hpd.nlm.nih.gov/cgi-bin/household/brands?tbl=chem&id=628](http://hpd.nlm.nih.gov/cgi-bin/household/brands?tbl=chem&id=628)
2. European Commission DG Environment (2002). *Endocrine disruptors: study on gathering information on 435 substances with insufficient data* (Final report (B4-3040/2001/325850/MAR/C2)). Retrieved from [ec.europa.eu/environment/chemicals/endocrine/pdf/bkh\\_report.pdf](http://ec.europa.eu/environment/chemicals/endocrine/pdf/bkh_report.pdf)
3. National Institute of Environmental Health Sciences (2018). *Health & Education – Environmental health topics – Environmental agents – Endocrine disruptors*. Retrieved November 9, 2018, from [www.niehs.nih.gov/health/topics/agents/endocrine/](http://www.niehs.nih.gov/health/topics/agents/endocrine/)
4. Klammer H., Schlecht, C., Wuttke, W., Schmutzler, C., Gotthardt, I., Kohrle, J., Jarry, H. (2007). Effects of a 5-day treatment with the UV-filter octyl-methoxycinnamate (OMC) on the function of the hypothalamo-pituitary-thyroid function in rats. *Toxicology*, 238(2-3), 192-9. Retrieved from [www.ncbi.nlm.nih.gov/pubmed/17651886](http://www.ncbi.nlm.nih.gov/pubmed/17651886)
5. U.S. National Library of Medicine (2006). *Hazardous Substance Database (HSDB) for octinoxate, (CASRN: 5466-77-3)*. Retrieved from [toxnet.nlm.nih.gov/newtoxnet/hsdb.htm](http://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm)