



Commentary

Opinion of the Scientific Committee on consumer safety (SCCS) – Final opinion on the safety of fragrance ingredient Acetylated Vetiver Oil (AVO) - (Vetiveria zizanioides root extract acetylated) - Submission III



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ABSTRACT

On the basis of the safety assessment carried out using a conservative approach, the SCCS considers the use of Acetylated Vetiver Oil (AVO) with 1% alpha-tocopherol as a fragrance ingredient in cosmetic leave-on and rinse-off type products safe at the concentrations proposed by IFRA.

Acetylated Vetiver Oil (AVO) contains some constituents that belong to the chemical group of aldehydes and ketones that are known to be reactive towards biological entities, such as DNA and proteins. However, the overall health risk of such components is likely to be negligible at the concentrations intended to be used in cosmetics products.

The SCCS has noted that Acetylated Vetiver Oil (AVO) is a moderate skin sensitiser in test animals. Considering the results of the HRIPT study and the fact that AVO has been used for years in cosmetics without evidence of sensitising potential, it is unlikely that AVO would be causing contact allergy in humans.

Inhalation toxicity of Acetylated Vetiver Oil (AVO) was not assessed in this Opinion because no data were provided. Assessment of the inhalation risk would be needed if Acetylated Vetiver Oil (AVO) was intended to be used in sprayable products.

According to the Applicant Vetiver oil is produced for the fragrance industry by distillation of fresh or dried roots of *Vetiveria* (*Chrysopogon*) *zizanioides* originating from different geographical

areas. The Vetiver oil is then subject to further processing to obtain Acetylated Vetiver Oil (AVO) (CAS No 84082-84-8, EINECS No 282-031-1).

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Submission I on Vetiveryl acetate (AVO) was transmitted in 2005 by The European Flavour & Fragrance Association.

The Scientific Committee on Consumer Products (SCCP) adopted at its 7th plenary meeting held on the 28 of March 2006 the opinion (SCCP/0984/06)² on Vetiveryl acetate (sensitisation only) with the following conclusion:

“The SCCP is of the opinion that the information submitted is inadequate to assess the safe use of the substance.

Before any further consideration, the following information is required:

- Characterisation of the test substance; clarification on purity and impurities;
- Data on sensitisation conforming to modern standards and guidelines;
- Appropriate information on all relevant toxicological endpoints as required to assess the safe use of the substance when used in cosmetic products.”

Submission II on Vetiveryl acetate was received in June 2013 from the International Fragrance Association (IFRA).

In December 2014, the Scientific Committee on Consumer Safety (SCCS) adopted an opinion on Vetiveryl acetate (SCCS/1541/14).³ During the commenting period IFRA sent an updated dossier in which it was raised the necessity to modify the initial request on this substance, such as the identification/name of the substance and its use concentration in different cosmetic product types. The SCCS considered the request appropriate in order to finalize the opinion focusing on the substance Acetylated Vetiver Oil (AVO).

IFRA recommends a safe concentration limit for Acetylated Vetiver Oil (AVO) when it is used in the specific categories of cosmetic products as reported in the Table below:

Product type	% Acetylated Vetiver Oil (AVO) in consumer product
Hydroalcoholic-based fragrances (e.g. Eau de Toilette, Perfume, Aftershave, Cologne)	0.90
Deodorants	0.05
Make up products (e.g. eye make-up, make-up remover, liquid foundation, mascara, eyeliner, lipstick)	0.05
Face cream	0.10

Hand cream	0.10
Body lotion	0.10
Hair styling	0.10
Bath cleansing products (e.g. soaps, shower gel, rinse-off conditioner, shampoo)	0.20

On the basis of the safety assessment carried out using a conservative approach, the SCCS considers the use of Acetylated Vetiver Oil (AVO) with 1% alpha-tocopherol as a fragrance ingredient in cosmetic leave-on and rinse-off type products safe at the concentrations proposed by IFRA.

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Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Reference

https://ec.europa.eu/health/sites/health/files/scientific_committees/consumer_safety/docs/sccs_o_221.pdf.

² http://ec.europa.eu/health/ph_risk/committees/04_sccp/docs/sccp_o_054.pdf.

³ http://ec.europa.eu/health/scientific_committees/consumer_safety/docs/sccs_o_167.pdf.