Parabens used in cosmetics

→ WHAT ARE PARABENS?

Parabens are a group of chemicals that are widely used as preservatives in cosmetics and personal care products such as deodorants, shower gels and body creams. They effectively prevent the growth of microorganisms.

To evaluate if the way they are currently being used is safe, the Scientific Committee on Consumer Safety has repeatedly over the years reviewed the scientific data on potential health effects. Experimental studies in animals have shown that these parabens have generally low toxicity and that they don't cause cancers.

→ HORMONE-LIKE ACTIVITY

The main concern regarding parabens in cosmetics is the potential of some of them to act like hormones in the body, in particular like estrogens, the female sex hormone.

In laboratory test systems and in animals, some hormone-like activity has been demonstrated for parabens, but this activity is thousands to millions of times weaker than the activity of natural hormones. Those hormone-like properties seem to increase with the size of the paraben molecules. So far, other experimental investigations of the possible effects on reproduction of the use of parabens have been inconclusive and many of them had shortcomings that make their results difficult to interpret.

→ CURRENT LIMITS AND RECOMMENDATIONS

EU law allow the use of parabens in cosmetics, and one or several of them can be present in a given product. The maximum total concentration allowed in such consumer products is 8 g of parabens per kg of cosmetic product, with no single paraben having a higher concentration than 4 g/kg.

In a review of the most up-to-date scientific information, the SCCS confirmed that for the smaller paraben molecules (methyl-and ethyl paraben), this limit is considered safe.

For the longer paraben molecules (propyl- and butyl paraben) the Scientific Committee on Consumer Safety recommends to lower the limit to a maximum total concentration of 1.9 g/kg parabens.

For other, less used, parabens (isopropyl-, isobutyl-, and phenylparaben) only a very limited amount of information is available, and the potential risk could not be calculated.

→ ARE CHILDREN MORE VULNERABLE?

In 2011, the Danish government decided to ban the use of some parabens (propyl-, isopropyl-, butyl- and isobutyl-parabens) in personal care products intended for children up to three years old as a precautionary measure, as children might be especially vulnerable to hormone-like effects.

The Scientific Committee, in reviewing the argumentation of the Danish government, concluded that the potential increased sensitivity of children was already covered by the cautious approach chosen in its assessment of parabens. Therefore, it does not consider that the general use of paraben-containing cosmetic products is a health concern for children of any age group.

However, for very young children (under six month), the Committee could not exclude a risk when cosmetics are applied to the 'nappy area'. The skin in this area can become easily irritated, and irritated skin can let more things through. It is also possible that the the metabolism of young children might not yet be mature enough to quickly and effectively get rid of the parabens that enter the body.

While the committee considers that it has taken a cautious approach in its assessment, it calls for further research in order to reduce uncertainties and to more exactly evaluate the potential risk for children from parabens contained in different cosmetic products.

This fact sheet is based on the scientific opinions of the independent European Scientific Committee on Consumer Safety: "Opinion on parabens", adopted on 14 December 2010 and revision of 22 March 2011, and,"Clarification on Opinion SCCS/1348/10 in the light of the Danish clause of safeguard banning the use of parabens in cosmetic products intended for children under three years of age", adopted on 10 October 2011.

The detailed and nuanced view of the European Scientific Committee on Consumer Safety on this issue is available at:

http://ec.europa.eu/health/scientific_committees/consumer_safety/docs/sccs_o_041.pdf
http://ec.europa.eu/health/scientific_committees/consumer_safety/docs/sccs_o_069.pdf

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