



Official EADV Press Conference

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“The ban on the use of methylisothiazolinone needs to be extended!”

Methylisothiazolinone (MI) is widely used as a preservative in cosmetics. It is a biocide belonging to the group of isothiazolinones and prevents the formation of microorganisms. As such it is cytotoxic. Despite this, it has been used in many body and facial care products in recent decades.

Until early 2000, MI was used in a mixture with methylchloroisothiazolinone (MCI). After severe allergic reactions had been observed since the late 1980s, several attempts were made to improve the situation. MI on its own was then used in cosmetics to replace the MCI/MI mixture, since it was thought to be less allergenic. The problem, however, is that MI on its own is less active, meaning that higher concentrations need to be used. MI concentrations were completely unregulated until 2005, when a maximum permitted concentration of 100 ppm was finally introduced. Yet many severe contact allergies were still being seen. Two multicentre studies, comprising 8,680 and 7,874 patients in Belgium and France, respectively, clearly showed the rise in contact allergy caused by MI, with a spectacular sensitization rate of ~ 6.0% in 2012, even increasing to 7.0% in 2013 [1]. Later on, considerably higher frequencies were reported in the literature, leading to a worldwide epidemic.

This led to a ban in leave-on cosmetics of the MCI/MI mixture in July 2015 and of MI in February 2017. One might think that this was a real breakthrough in the eyes of dermatologists, but experts believe that these measures were still not sufficient. “The ban on the use of methylisothiazolinone needed to be extended, with stricter regulations on the use of this agent in rinse-off products”, stated Professor An Goossens, Leuven, Belgium, at the EADV congress in Geneva today.

At present, MCI/MI may be used at a maximum concentration of 15 ppm, and MI alone at a maximum concentration of 100 ppm in rinse-off products. “However, this cannot be considered safe for the consumer as far as the induction of contact allergy is concerned”.

One study [2] published in May this year has shown that clinically relevant MI contact allergy remains prevalent across European countries. Eleven European dermatology departments from

eight European countries prospectively collected data between 1 May and 31 October 2015 among consecutive patients who had positive patch test reactions to MI. MI contact allergy was relevant mainly because of exposure to cosmetic products, even when only rinse-off cosmetic products containing MI or MCI/MI were used. That MI can be a problem in rinse-off products was also shown in another study [3] published in the British Journal of Dermatology two years ago, in which ten out of ten MI-allergic subjects developed positive reactions to the soap at 100 ppm and seven out of nine reacted to the 50 ppm soap during 21 days of application. No reactivity was seen to the soap without MI. Moreover, when subjects frequently have skin contact with rinse-off products, such as, for example, hairdressers exposed to hair-care products, or nurses to liquid soaps containing MI, then such products become “leave-on products!

This clearly demonstrates that the upper limit of 100 ppm for MI concentration in rinse-off products is much too high. “We dermatologists believe that the maximum concentration should not be higher than 15 ppm for rinse-off cosmetic products, because higher MI concentrations do harm people. This maximum concentration has recently been agreed upon in the EU in July 2017, which will be implemented from April 2018 on”, Professor Goossens reports. Moreover, its inclusion in toys for children below 3 years of age will be banned.

The issue is not confined to cosmetic products, since there are also problems with MI in many water-based household and other products, such as detergents, paints, glues, air fresheners, or ironing water, which frequently give rise to air-borne (sometimes generalized) allergic reactions in sensitized subjects. Not only those exposed in an occupational context, but also customers with airborne contact to detergents, paints, glues, ... in their homes or work sites are concerned. Many of such cases have been described in the scientific European literature, with the first documented cases of paint-related MI allergy in the United States recently published in the journal “Dermatitis” [4].

“Although the frequency of MI-allergic cases seem to have decreased recently, in our view, it is important to declare MI as well as all isothiazolinones in all products, not only in cosmetics, but also in products such as paints. It has recently been decided that these products will indeed have a warning regarding the sensitization potential, if the MI concentration is 15 ppm, and will be labelled to contain MI if the concentration is above 1,5 ppm”, said Professor Goossens.”

[1] Aerts O, Goossens A, Giordano-Labadie F et al. Contact allergy caused by methylisothiazolinone: the Belgian-French experience. *Eur J Dermatol.* 2015 May-Jun; 25(3): 228-33

[2] Schwensen JF, Uter W, Bruze M et al. The epidemic of methylisothiazolinone: a European prospective study. *Contact Dermatitis.* 2017 May; 76(5): 272-279.

[3] Yazar K, Lundov MD, Faurschou A et al. Methylisothiazolinone in rinse-off products causes allergic contact dermatitis: a repeated open-application study. *Br J Dermatol.* 2015 Jul; 173(1): 115-22.

[4] Goodier MC1, Ljungberg L, Persson C et al. Allergic Contact Dermatitis From Methylisothiazolinone in Residential Wall Paint. *Dermatitis.* 2017 Jul/Aug; 28(4): 284-287.

About EADV

Founded in 1987, EADV is a non-profit association whose vision is to be the premier European Dermato-Venereology Society, with the key aims of improving the quality of patient care, providing continuing medical education (CME) for all Dermato-Venereologists in Europe, and advocacy on behalf of the specialty and patients.

The membership concept has been widened to include all areas of Europe and elsewhere, and to develop alliances and affiliations with other organisations.

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