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Statement of EECDRG on the proposed Harmonised classification and labelling of 2-octyl-2H-isothiazol-3-one (OIT; octhilineone)/ Specific concentration limit for Skin sensitisation

The European Environmental and Contact Dermatitis Research Group (EECDRG) is a scientific group founded in 1984 and focussing on various aspects of contact dermatitis, with 21 members from 13 countries.

The CLH report submitted by the UK Competent Authority proposes that OIT should be classified as a Skin Sensitiser 1A with a special concentration limit of 0.005% (50 ppm).

- (1) We agree on the classification of OIT as Skin sens. 1A, H317.
- (2) We also agree that the specific concentration limit should not be higher than the proposed 0.005%, but our concern is that it is not low enough to protect workers and consumers from skin sensitisation.
- (3) The submitted CLH report does not comprise any clinical data or recent experimental non-human data on cross-reactivity between OIT, methylisothiazolinone (MIT) and benzisothiazolinone (BIT) in a modified local lymph node assay. These should be taken into account.

Exposure to low OIT concentrations

The literature on OIT allergy in clinical patients is not very wide, because before the on-going MIT allergy epidemic contact allergy to OIT was not particularly common. There are, however, two case reports that imply that concentrations lower than the proposed limit of 50 ppm may sensitise:

In a recent French-Belgian case report, a 89-year-old woman had wide-spread dermatitis on skin areas that corresponded contact areas of a new leather armchair. Clinical investigations revealed OIT contact allergy and a leather sample of the chair contained **28 ppm** OIT in chemical analysis. The patient tested negatively to MIT and BIT (1).

In a series of 8 OIT-allergic patients from a Finnish occupational clinic, one patient was a sewing machine operator who had handled OIT-containing textiles and developed hand dermatitis (2). Four textile samples from the workplace contained **2, 10, 40 and 50 ppm OIT** in chemical analysis.

In February 2018 in the REACH Committee, the EU member states voted to approve a harmonised classification of MIT as a skin sensitiser with a special concentration limit of 0.0015% of MIT.

The mixture of chloromethylisothiazolinone (CMIT) and MIT 3:1 (CAS 55965-84-9) has a harmonised classification and labelling as a skin sensitiser I with a specific concentration limit of 0.0015%.

Our proposition for point 2 in page 1:

Based on scientific data, we propose that OIT would get the same specific concentration limit, 0.0015%, as MIT.

Cross-reactivity between OIT and MIT

A recent Danish study indicated cross-reactivity between OIT, MIT and BIT in a modified local lymph node assay (3). Three clinical studies analysing patterns of concomitant reactions to OIT and MIT in patch-tested patients supported the cross-reactivity between OIT and MIT (4-6).

MIT-sensitised patients need to be warned about the possibility to develop allergic contact dermatitis from OIT-containing products. Especially patients with extreme allergic patch test reactions to MIT are at risk (6). At the moment contact allergy to MIT in the European population is alarmingly prevalent (3). Skin sensitization (delayed type cell-mediated contact allergy) is a life-long state. Although the MIT epidemic has started to wane in some countries (7), sensitised individuals continue living with the vulnerability to react not only to MIT but also to OIT for the rest of their lives i.e. in some cases the next 90 years, if the sensitisation has happened in early childhood. Majority of these skin sensitisations could have been avoided, if the European Commission had taken seriously the first warnings of the imminent epidemic and acted appropriately.

The very least that can be done for these affected persons is to help them to avoid skin contact with OIT by labelling the allergen at very low concentrations in chemical products.

If the specific concentration limit lower than 0.005% cannot be accepted, we propose that at least the limit for labelling of OIT in chemical products would be 0.00015% to protect thousands of MIT-allergic individuals in the European population.

on behalf of the EECDRG,



Kristiina Aalto-Korte, EECDRG Chair

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