

CONTACT DERMATITIS AND OCCUPATIONAL DERMATOSES

## OCCURRENCE OF METHYLISOTHIAZOLINONE IN COSMETICS IN TUNISIA

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Introduction: Methylisothiazolinone (MIT), a widely used allergen, was elected allergen of the year in 2013, and banned from cosmetics in the European Union.

Objective: To examine the current frequency of MI in a large array of cosmetics.

Materials and Methods: The ingredient lists of cosmetics were screened for the presence of MIT in three different super-markets and two pharmacies (May-September 2018).

Results: In total, the labels of 870 products were checked. The investigation showed that 118 (13.5%) cosmetics were preserved with MIT (within in the mixture MCI/MI: 83%): 103 products for adults (12%) and 15 cosmetic baby products (2%). Of these, 30, 5% were domestically produced in Tunisia, and 69, 5% were international brands produced outside of Tunisia. The majority of products were found in supermarkets (62.7%) versus (41.5%) in pharmacies. 56% of them were rinse-off products and 44% leave-on products. MI in the mixture MCI/MI was more often labelled on cosmetics (83%) than MI alone (16%). Only 5 products contained MCI alone. Shampoo was the product category with the highest percentage of MIT (33.8%), followed by shower gel (18, 6%), sun screen (6%), soap (4, 2%) and wet wipes (4, 2%). Some cosmetic products were MIT-free such as tooth-paste and aftershave. The ingredient lists were also analyzed for other allergens: fragrance, formaldehyde (FM), decyl glucoside (DG) and parabens. Fragrance allergens were the most prevalent allergen 66%. Parabens in 99 products, DG in 57 products, and FM and FM-releasers was found in 32 products. Only 22 products were free of all screened allergens.

Conclusion: Our study has shown a high frequency of MIT found in a large variety of cosmetics products especially in leave-on products. Dermatologists should be aware of the fact that cosmetics constitute an important source of allergens especially MIT.





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