

Nemanja B. Todorović^{1,2}, Mladena N. Lalić Popović^{1,2}

¹ Department of Pharmacy, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia

² Center for Medical and Pharmaceutical Investigations and Quality Control (CEMPhIC), Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia

INTRODUCTION

Per- and polyfluoroalkyl substances (PFAS), including perfluorooctanoic acid (PFOA), attract the attention of the general and scientific public due to their potential for bioaccumulation and the manifestation of serious toxic effects. Particular concern exists in cases of their presence in products that are applied daily. PFAS have effects in various technological processes, and although their use is being reduced or even completely banned, they can still be present in various categories of products of general use.

AIM

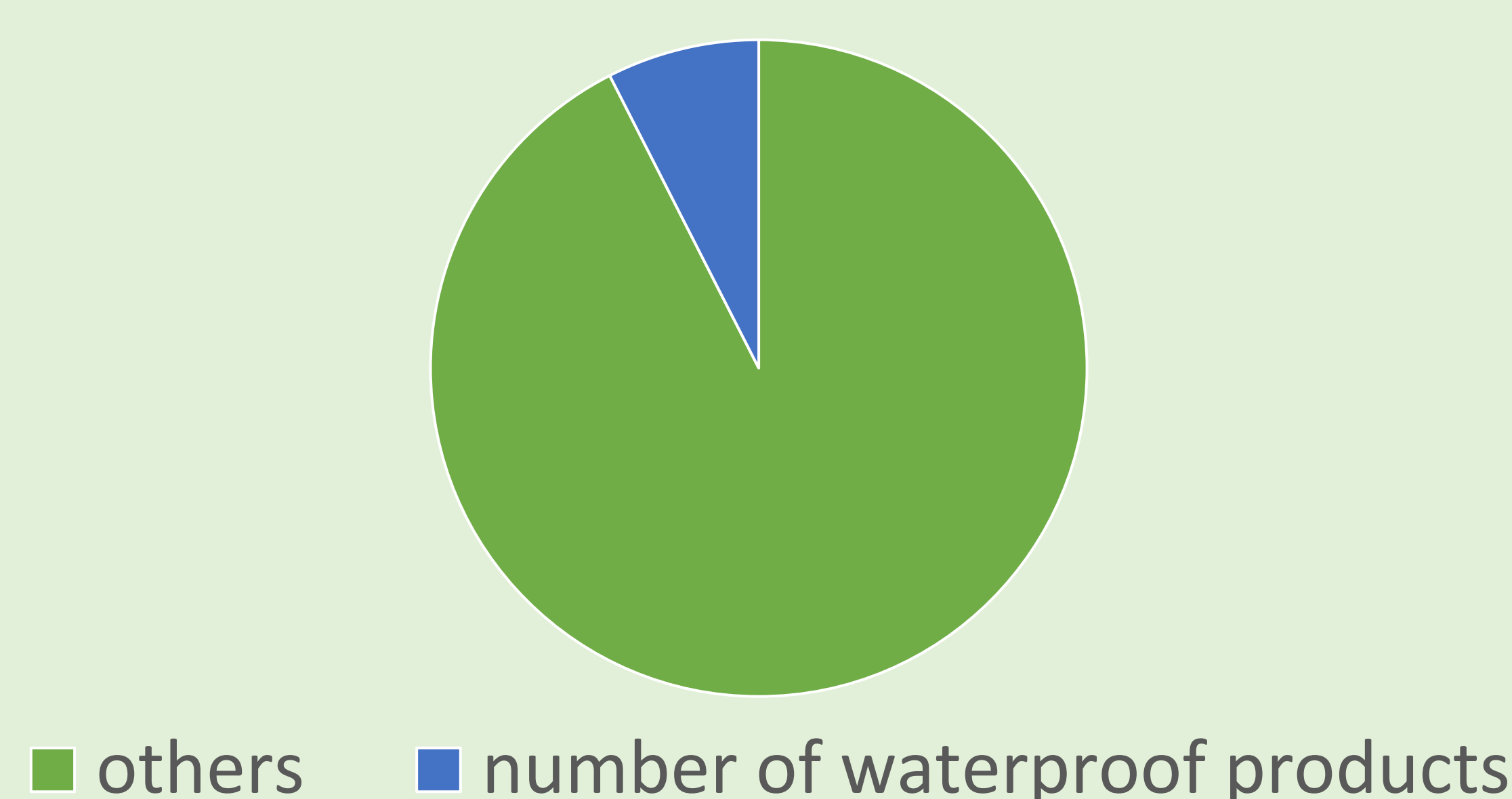
The aim of the work was to determine the presence of compounds with fluorine on product declarations of decorative cosmetic preparations available on the market of the Republic of Serbia.

METHODS

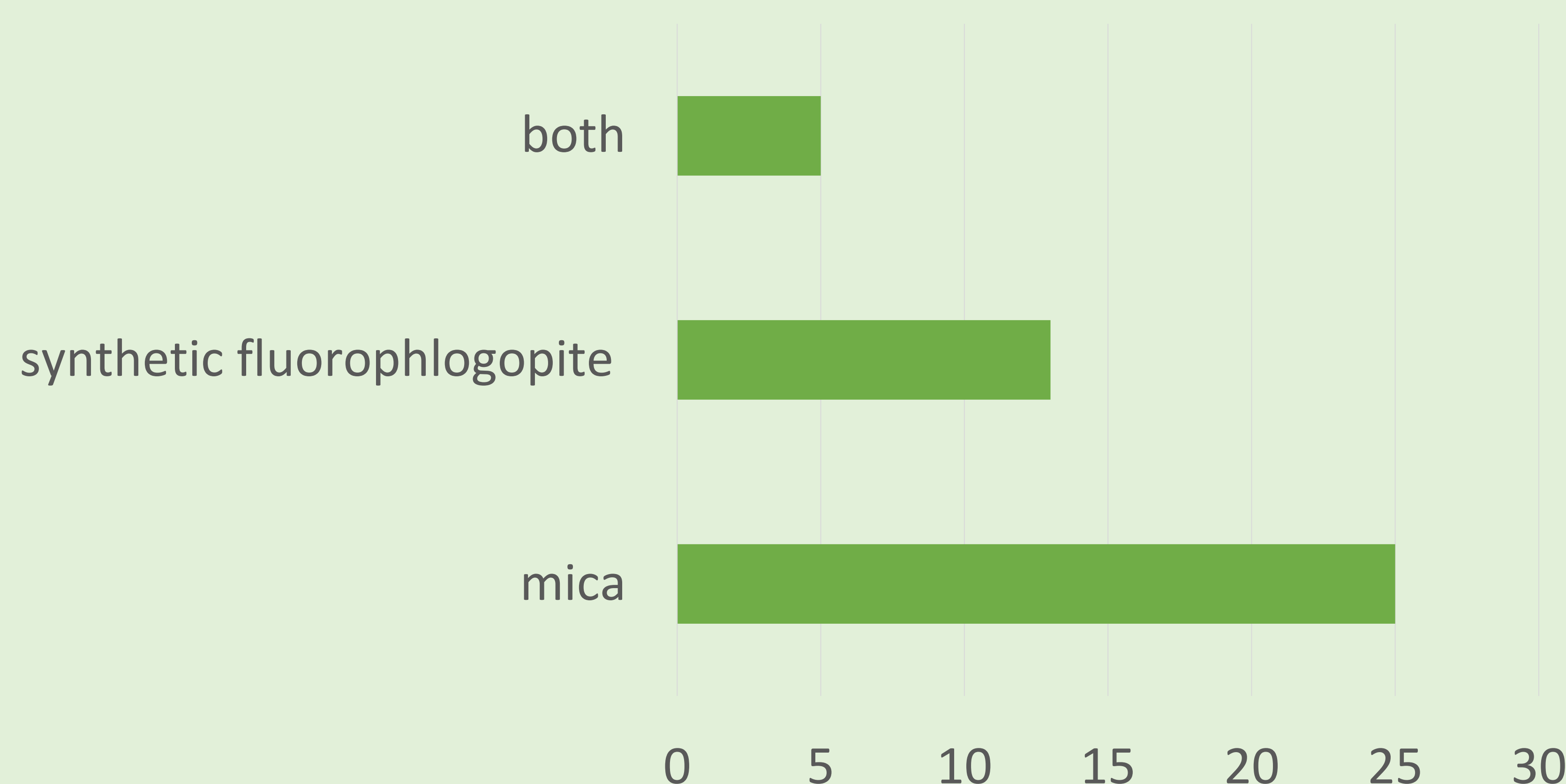
Two official websites of large pharmacy chains available for ordering products by customers were analyzed. Using the filter, the products that are marked as waterproof were selected and their qualitative composition was determined based on the declaration.

RESULTS

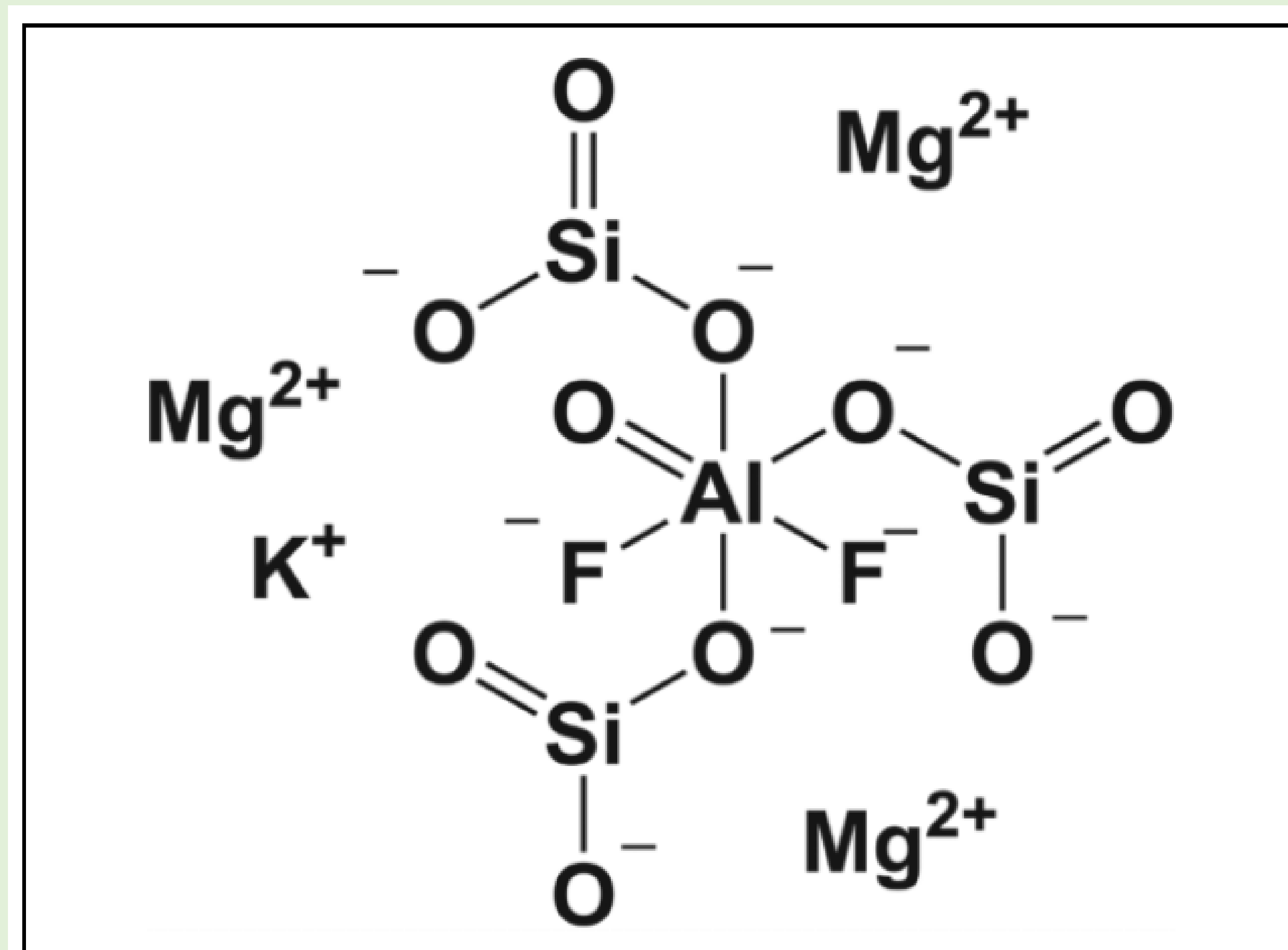
Out of a total of 1213 products from the mascara, eye pencil, eyeliner, eye shadow and eyebrow pencil groups, 91 products are marked as waterproof. No product has declared PFAS. However, 13 products contain synthetic fluorophlogopite (synthetic mica) and 25 contain mica (five products contain both ingredients). Although mica does not contain fluorine, and synthetic fluorophlogopite does not belong to the PFAS group, for etymological reasons there may be confusion in product selection and concern by manufacturers. Synthetic fluorophlogopite is used as a filler or viscosity modifier and according to current practice and in the applied concentrations is considered a completely safe ingredient in cosmetic products.



Picture 1. Number of waterproof products



Picture 1. Number of products with selected ingredients



Picture 1. Structure of synthetic fluorophlogopite (Ref: Becker LC, Bergfeld WF, Belsito DV, Hill RA, Klaassen CD, Liebler DC, Marks Jr JG, Shank RC, Slaga TJ, Snyder PW, Andersen FA. Safety assessment of synthetic Fluorophlogopite as used in cosmetics. International journal of toxicology. 2015 ;34(3_suppl):43S-52S.)

CONCLUSION

It is necessary for health professionals to be educated and ready to give adequate and scientifically based advice to the users of their services.

ACKNOWLEDGMENT

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