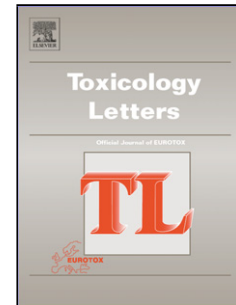


Accepted Manuscript

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PII: S0378-4274(18)31750-8
DOI: <https://doi.org/10.1016/j.toxlet.2018.08.011>
Reference: TOXLET 10299

To appear in: *Toxicology Letters*

Received date: 28-4-2018
Revised date: 13-8-2018
Accepted date: 16-8-2018

Please cite this article as: Steiling W, Almeida JF, Assaf Vandecasteele H, Gilpin S, Kawamoto T, O’Keeffe L, Pappa G, Rettinger K, Rothe H, Bowden AM, Principles for the safety evaluation of cosmetic powders, *Toxicology Letters* (2018), <https://doi.org/10.1016/j.toxlet.2018.08.011>

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Principles for the safety evaluation of cosmetic powders

W. Steiling^{a*}, J.F. Almeida^b, H. Assaf Vandecasteele^c, S. Gilpin^d, T. Kawamoto^e, L. O’Keeffe^f, G. Pappa^g, K. Rettinger^h, H. Rotheⁱ, A.M. Bowden^j

^aHenkel AG & Co KGaA, Henkelstr. 67, D-40191 Düsseldorf, Germany

^bCosmetics Europe-The Personal Care Association Avenue Herrmann-Debroux 40, 1160 Brussels, Belgium

^cL’Oreal, Campus Charles Zviak RIO, 9 rue Pierre Dreyfus 92110 Clichy, France,

^dThe Estée Lauder Companies Inc., Research and Development, 155 Pinelawn Rd., Suite 300S, Melville, NY 11363

^eKao Germany GmbH, Pfungstädter Str. 98-100, D-64297 Darmstadt, Germany

^fProcter & Gamble, Whitehall Lane, Egham, Surrey TW20 9NW, UK

^gBeiersdorf AG, Unnastrasse 48, D-20245 Hamburg, Germany

^hIKW, The German Cosmetic, Toiletry, Perfumery and Detergent Association, Frankfurt, Germany

ⁱCoty, Berliner Allee 65, D-64274 Darmstadt, Germany,

^jSafety and Environmental Assurance Centre, Unilever, Colworth Science Park, Sharnbrook, Bedfordshire, MK44 1LQ, UK

* Corresponding author: email: dwsTOX@t-online.de, Tel.: +49 152 08741016

Highlights:

- Sprayed particles tend to become bigger after spraying by aggregation/agglomeration
- Inhalation exposure to cosmetic powders during intended use is limited
- Safety of airborne particles depends on the aerodynamic diameter of the particles
- Safety assessment of powder products depends on the robustness of exposure data

Abstract

Consumer exposure to cosmetic (personal care) products is mostly by dermal contact, however additional considerations with regards to potential inhalation exposure from some cosmetics, such as sprays and powders, may be needed for a robust and reliable safety assessment.

To get a deeper understanding of the exposure to airborne particles and droplets during product application, a team of international experts was founded under the umbrella of the European Association of the Cosmetic Industry “Cosmetics Europe” (CE) in Brussels. This expert team has worked out a pragmatic strategy how small and medium sized enterprises (SMEs), but also relevant authorities, could handle the safety evaluation of cosmetic powder products. Sufficient information on the aerodynamic diameter of sprayed droplets and here specifically of airborne particles is essential in addition to knowing the exposure after typical product application. The current article is focused on the determination of inhalation exposure to solids, and the derivation of safe exposure levels for cosmetic powder products found in the market. The principles described herein are very similar to spray products as published earlier and should be applied in a similar way (Steiling et al., 2014).

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