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# Principles for the safety evaluation of cosmetic powders

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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).