

## Cyclic Siloxanes in Cosmetics and as SVHC

### BACKGROUND

Cyclic siloxanes are used in cosmetics as well as in technical applications. They are also used as starting materials for anionically or cationically initiated ring-opening polymerization for the manufacture of silicones. In silicones, silicon-caoutchouc and finishing agents on silicone-basis, these cyclic siloxanes may therefore be present as unreacted monomers or also as auxiliary additives. However quite a significant amount of silicones are manufactured by polymerizing different silicone compounds as starting materials; correspondingly are not anticipated to contain residual cyclic siloxanes.

The two cyclic silicon-compounds D4 and D5 (chemically octamethylcyclotetrasiloxane and decamethylcyclopentasiloxane) are difficult to degrade (i.e. persistent) chemicals, that may accumulate in organisms. Due to these properties, the German Environment Agency (Umweltbundesamt, UBA) considers it reasonable to add D4 and D5 to the REACH candidate-list.

The evaluation is currently ongoing and it can be assumed that both substances will be suggested as SVHC next summer and get listed as SVHC in December. It is therefore anticipated that from that moment on the inform obligation according to Article 33 and the obligation to notify according to Article 7 will commence. However a ban

of these substances in products is not anticipated in the near future.

Especially D4 is found in various cosmetics and according to the amending Commission Regulation (EU) 2018/35 of 10 January 2018<sup>1</sup>, is banned in rinse-off and wash-off cosmetic products as of 31/01/2020. This is reasonable, since this application contributes quite significantly to the release of this difficult to degrade substance into the environment.

### RECOMMENDED ACTION

#### 1. Cosmetics, washing- and cleaning-agents

The compositions should be checked and adjusted. If the physical and technical properties of cyclic siloxanes are required for the use, the grace period until the beginning of 2020 may actually be needed to test substituting substances.

#### 2. Silicones

Concentrations of cyclic siloxanes in the different types of silicones/silicone-caoutchoucs and finishing agents for textiles and leather (alternative finishing agents to PFCs) are currently unknown. To be better prepared for regulatory changes we recommend getting a good understanding of what concentrations are actually present in your products by performing spot-checking.

<sup>1</sup> Commission Regulation (EU) 2018/35 of 10 January 2018 amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards octamethylcyclotetrasiloxane ('D4') and decamethylcyclopentasiloxane ('D5')  
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R0035&from=EN>

**FOR FURTHER INFORMATION, PLEASE CONTACT:**

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