

CRÉATIONS SOINS®

DEDRAFLOW®



» REPLACING SILICONES FOR 21 YEARS

D4 and D5 replacements tried and tested for over 20 years, only from The Innovation Company.

On January 10th 2018 Octamethylcyclotetrasiloxane (**D4**) and Decamethylcyclopentasiloxane (**D5**) were added to ECHA's restricted substances list, contained in Annex XVII of REACH. This means D4 and D5 have been identified as a **PBT** (persistent, bioaccumulative and toxic) substance and as a **vPvB** (very persistent and very bioaccumulative) substance, D5 fulfils the criteria to be identified as a **vPvB** substance and can no longer be used in wash-off products in a concentration equal to or greater than 0.1% after January 2020.

Our solution - our worldwide approved alternatives to silicone – our Dedraflow® series.

We have been producing silicone replacements for 21 years since D4 was banned by the FDA for cosmetic use in September 1997 due to bioaccumulation health issues.

Dedraflow® products are based on Hydrogenated Polyisobutene or mixtures of Hydrogenated Polyisobutene.

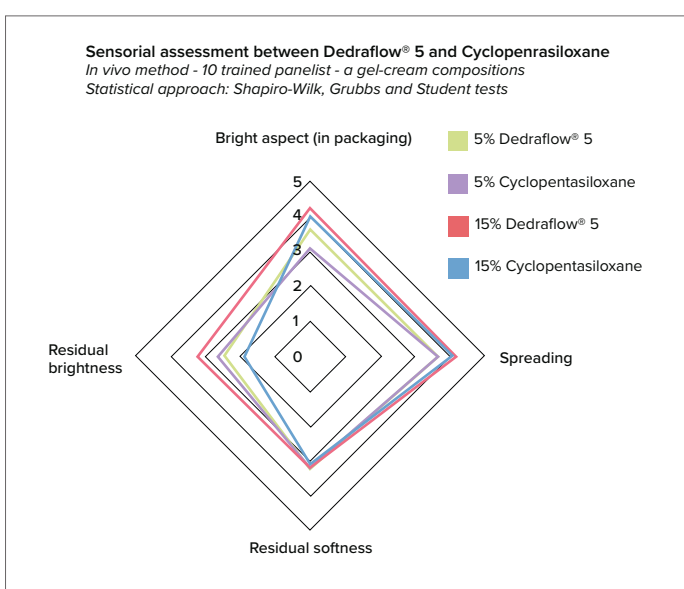
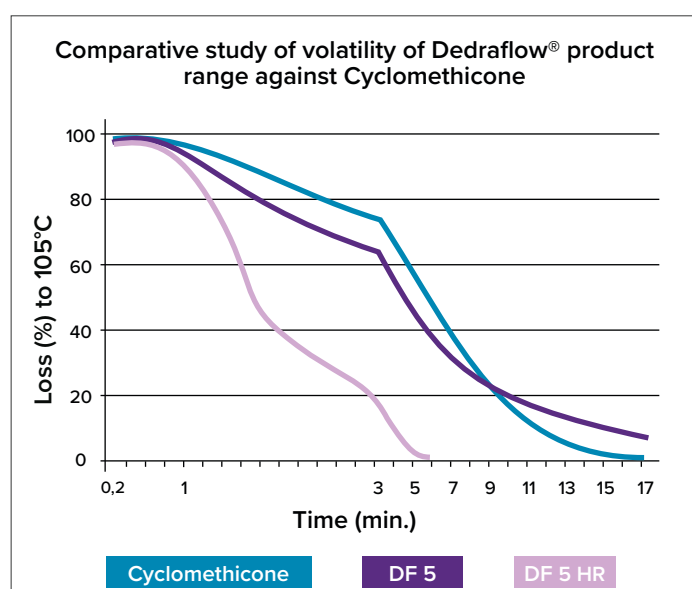
They offer 5 essential properites;

1. Ease of use
2. Photostable and prevent free radical formation
3. Safety as they are inert
4. Texture
5. Volatility

Dedraflow® products are ultra soft emollients with a wide range of sensorial perceptions and are compatible with most cosmetic ingredients. They offer the same volatility and texture as silicones, and offer photostability, increased safety, ease of use and they prevent the UV-light induced formation of free radicals in the formulation.

Dedraflow® products are ideal base materials for day care products as they are photostable and inert. Each grade of **Dedraflow®** are uniquely matched to the common silicone profiles of D4, D5 and Dimethicone types which offers a luxurious skin feel.

Dedraflow® 5 series increases the brightness of compositions and gives the same spreading and residual softness of D4 and D5. The volatility of **Dedraflow® 5** and **5.1** are identical and most similar to Cyclomethicone. They are ideal for application across the personal care field from skin care, to foundations and hair care products. **Dedraflow® 5.2, 5.3** and **5 HR** are the most volatile grades which are needed for non-transfer applications such as eyeliners and mascaras.



This study shows the following conclusions for gel-cream compositions:

- The sample with 15% of Dedraflow® 5 is significantly brighter (residual) compared to the others (t-test, $P < 0,05$)
- The panelists were unable to differentiate between the 4 samples in terms of residual softness (t-test, $P > 0,05$)
- The samples with Dedraflow® 5 are significantly brighter (in packaging) than samples with Cyclopentasiloxanes (t-test, $P < 0,05$)
- In terms of spreading, samples with 5% of Dedraflow® 5 and Cyclopentasiloxane are comparable (t-test, $P > 0,05$)

Since the panelists failed to make a difference between the samples with Dedraflow® 5 vs. Cyclopentasiloxane in terms of spreading, we can confirm that Dedraflow® 5 is a direct Cyclopentasiloxane substitute.

Aside from avoiding environmental concerns, Dedraflow® 5 increases the brightness of compositions and gives the same spreading and residual softness.

Delve into our expertise and innovations with over 2000 formulations.

Only from The Innovation Company.

For more information and formulations, contact us:

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