

RELEASE OF “SPECIFICATIONS FOR GREEN CHEMISTRY ALTERNATIVES TO SILICONE CHEMISTRY FOR COSMETICS & PERSONAL CARE PRODUCTS”

Started in 2005, the Green Chemistry & Commerce Council (GC3) is a business-to-business collaborative that drives large scale commercial adoption of safer, sustainable, high-performing chemical solutions by fostering value chain collaboration, cultivating first-movers, convening industry decision-makers to secure major commitments, and creating a supportive policy environment.

Background

The EU restriction of some ingredients commonly used in cosmetic and personal care products inspired the GC3 to collaborate on safer, more sustainable alternatives with supplier and formulator members, including creating a specifications document for the industry.

Restricted ingredients include cyclic siloxanes Octamethylcyclotetrasiloxane (D4) and Decamethylcyclopentasiloxane (D5) in wash-off cosmetic products, along with a pending proposal by the European Chemicals Agency to include Dodecamethylcyclohexasiloxane (D6) and to expand restrictions to leave-on cosmetic products.

The GC3 supports companies seeking alternatives to silicone chemistries, while recognizing the challenges in the inconsistencies of their environmental assessment and regulation. This specifications document addresses the market pressure to identify alternatives to silicone chemistries, and, consistent with the mission of the GC3, encourages safer, more sustainable chemistries.

Purpose & Scope

This specification document’s scope includes all silicone chemistries relevant to cosmetic and personal care products.

Within this document, chemical suppliers and manufacturers will find:

- Performance attributes, defined as the capability to meet the desired function(s) in the application
- 14 safety and environmental attributes, with 8 recommended for early assessment through no to low-cost modeling
- Recommended test methods for all 14 safety and environmental attributes

The GC3 intends for these items and this document as a whole to serve all chemical manufacturers, from startups to global corporations, who can:

- Better understand cosmetic and personal care product manufacturers’ priorities
- Identify current applications and functions of silicone chemistries
- Develop testing strategies to evaluate safer, more sustainable alternatives
- Assess safety and environmental parameters with suggested test methods

The GC3 also aims for product manufacturers to share these materials with chemical suppliers to encourage innovation and development of silicone chemistry alternatives.

Through dialogue and market action, and with the aid of collaborative resources like this specifications document, the GC3 envisions a global economy where all chemicals, materials and products are safe and sustainable at creation, disposal, and reuse.