



MYTHBUSTING  
with  
CRODA



Joseph Peak,  
Research Team Leader

## Mythbusting with Croda

"Clean" sunscreens, "coral safe" and environmental impact explained.

### Myth #1

Mineral/inorganic UV filters are better because natural means safer

The derivation of an ingredient tells you nothing about its safety. Natural ingredients **can** be harmful. This myth comes from a narrative of chemical phobia that is now common on social media. In the case of mineral/inorganic UV filters they tick both boxes, **safety, and naturalness**.

### Myth #2

TiO<sub>2</sub> and ZnO are not biodegradable and therefore not safe for the environment

Biodegradable means to be able to decay naturally and without harming the environment. Biodegradability is a measure of how quickly organic carbons are degraded in the eco-system, and when there are no organic carbons (for examples with minerals such as TiO<sub>2</sub> and ZnO) such measurement is not relevant. So, TiO<sub>2</sub> and ZnO cannot biodegrade as they are inert minerals, and they already occur naturally in the environment.

### Myth #3

Sunscreen is a major cause of coral bleaching

This is one of the biggest myths about sunscreens and it is very widely perpetuated by the media. The truth is that there is actually no direct evidence that sunscreens cause coral bleaching in the wild. In our industry there is concern that this claim is distracting from the real cause of coral bleaching which is climate change and has the potential to undermine sun protection products in general.

### Myth #4

Silica coated TiO<sub>2</sub> is harmful

This myth comes from confusion around the different types of silica. There is proposed draft legislation to prohibit ingredients silica (nano) and hydrated silica (nano) in EU cosmetics. Silica coated TiO<sub>2</sub> however is not impacted as the silica is precipitated onto the core TiO<sub>2</sub> and is chemically bound to the surface of the particles. Also, silica is an SCCS approved coating.