

Taking the sting out of mildness testing

FOR FORMULATORS & BEAUTY BRANDS



91%

Is the number of consumers in developed countries who report that their skin experiences uncomfortable symptoms like tightness, dryness, itching, burning or redness.

SOURCE: LANCOME

37%

Consumers who avoid daily life skincare products due to skin reactions.

Naldi et al (2014), JAMA Dermatol, 150(2): 154-162.

1 in 5



respondents said that when they were buying colour cosmetics, the product feature of 'not tested on animals, cruelty-free and / or 100% vegan' influenced their decision to buy.

SOURCE: EUROMONITOR'S LIFESTYLES AND BEAUTY SURVEY 2019

69%

of companies we surveyed want to see new *in vitro* efficacy tests for mildness to skin, as they compete to meet consumer demand for ever milder products which have not been tested using animals or animal products.



2 YEARS

Is the time it took to complete groundbreaking research on a new predictive animal-free mildness test, and validate it against human patch tests.

Working with Innovate UK

Comparing the mildness of: 3 face mask formulations

In vitro irritancy classification

	B>	A>	C
ET50 Score	12.86	14.42	>48

The higher the ET50 score, the milder the product.

In vivo clinical results

	B>	A>	C
Irritation score	11	5	2

The lower the irritation score, the milder the product.

Having first used surfactants to understand the correlation between *in vitro* and *in vivo* methods, face masks were tested next because they stay on the skin for longer than soaps or facial cleansers.

Face mask C was measured to be the mildest out of 3 already very mild formulations, with the *in vitro* data accurately predicting the rank order of human *in vivo* clinical scores in all studies. The research established that the XtraMild *in vitro* test detects subtle differences between a wide variety of ultra-mild ingredients and formulations, making it a useful pre-screen as well as providing credible and ethical scientific data for mildness claim support.

Using the XtraMild test to benchmark soaps and facial cleansers

Products above this line are classed as Non-irritant, the mildest classification available

These 2 products are from the same brand, but the soap is notably milder

This product is 8 times more expensive than its neighbour, but is equally ultra-mild

This media favourite claims its low PH levels make it milder than other soaps

- Highly sensitive results show micro differences in levels of mildness for the first time
- Mildness of soaps can be compared to facial cleansers, to reassure consumers who want less plastic packaging without affecting performance
- Mass market best-sellers can be compared to luxury brands
- Mildness of soap vs facial cleanser within the same brand family can be compared

XtraMild is relevant for many types of formulation



Further reading:

Download the full report or read the XtraMild info sheet

www.x-cellr8.com/mildness

