

SPF BOOSTING

# OCEANBOOST™ UV

High-Purity Bioactive  
SPF Booster



COSMOS  
APPROVED



OCEANBOOST™ UV is the world’s first circular Fucoidan upcycled from invasive Sargassum. With strong bioactive UV boosting effects starting from 0.1%, it bridges biotechnology and environmental regeneration by transforming an ecological burden into a high-purity bioactive.



INCI: FUCOIDAN | COSMOS APPROVED  
 APPEARANCE: OFF-WHITE POWDER  
 ODOUR: NEUTRAL, NO OCEANIC NOTES

**360° BIOLOGICAL PROTECTION**

UV filters act as optical or physical shields, but they only work as long as the film remains perfect. In vitro, OCEANBOOST™ provides upstream bioactive defense that addresses the inflammaging cascade triggered by UV exposure. By modulating the skin’s stress response at the sensory and genomic levels, it transforms a standard sunscreen into a high-performance photo-protective treatment.

**STRATEGIC INCLUSION LEVELS**

**0.1% | High-Efficiency Bioactive Support:**  
 Even at a low dosage, OCEANBOOST™ UV delivers a significant 27.7% boost in SPF. This in vivo result validates that the "neuro-soothing" TRPV1 effects seen in vitro immediately calm the skin’s inflammatory response to UV exposure.

**1.0% | Peak Biological Synergy:**  
 At 1% OCEANBOOST™ UV, the strong modulation of sensory (TRPV1), genomic (AP-1), and pigment/recovery pathways seen in vitro translates into a powerful 64.2% boost in SPF value. This result seems to stem from the synergy of these pathways, unlocking the full potential of OCEANBOOST™ UV’s upstream bioactive defense.

Selected for suncare, OCEANBOOST™ UV is the dedicated grade for bioactive SPF boosting that provides bioactive defense through novel upstream pathways, with in vivo data confirming its ability to significantly boost SPF performance from 0.1%.

This grade provides a COSMOS-approved, sustainable, circular, and accessible solution for brands looking to integrate advanced biological photoprotection into suncare formulations and boost their SPF that do not compromise on efficacy.

**TRPV1 | Sensory Shield:** Antagonizes the TRPV1 "heat-sensor" to silence neurogenic inflammation and the immediate redness of a UVB burn.

**AP-1 | Genomic Guard:** Inhibits the AP-1 pathway to reduce the production of collagen-degrading enzymes (MMPs), a primary driver of visible signs of photoaging.

**Melanin | Pigment Stop-Gap:** Performs on par with industry benchmarks like Kojic Acid in inhibiting melanin production, preventing UVA-induced hyperpigmentation before it begins.

**Wound Repair | Recovery Engine:** Accelerates keratinocyte migration and barrier restoration, helping the skin repair micro-lesions caused by UV exposure.

**This multi-pathway approach elevates suncare by combining surface-level UV filtering with biological defense.**

**FROM PATHWAY TO PERFORMANCE: IN VIVO RESULTS**

In a 5-subject in vivo screening conducted according to ISO 24444:2019 standards, OCEANBOOST™ UV demonstrated a clear, dose-dependent increase in SPF performance.

**DEEP SEA DEFENSE AUGMENTED SPF WITH OCEANBOOST™ UV C080126CMD**

Parsol MCX	Ethylhexyl Methoxycinnamate	4%
BergaSun EHS	Ethylhexyl Salicylate	3%
Parsol DHHB	Diethylamino hydroxybenzoyl hexyl benzoate	2.5%
Parsol HS	Phenylbenzimidazole Sulfonic Acid	1.5%
Parsol Shield	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	1.5%

	MEAN SPF	SPF BOOST	95% CONFIDENCE INTERVAL
Control	23.5	-	20.8 - 26.4
+0.1% OCEANBOOST™ UV	30.0	<b>+27.7%</b>	26.0 - 34.0
<b>+1% OCEANBOOST™ UV</b>	<b>38.6</b>	<b>+64.2%</b>	<b>32.9 - 44.3</b>

**ORIGIN<sup>BY</sup>OCEAN** is a Finnish based innovative biotech company dedicated to transform invasive ocean overgrowth into high-performance, bio-based ingredients for cosmetics, personal care, and beyond. By leveraging regenerative innovation, the company delivers scalable, sustainable alternatives to fossil-derived chemicals—proving that ocean restoration can be a commercially viable and competitive advantage.

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