Sports for Nature

scails of change

SUNSCREEN GUIDE

PROTECTING YOUR SKIN AND NATURE

August 2026

Why this guide ?

The need for sun protection on the water

Sails of Change is an international sailing team based in Brittany, France. We compete in high-performance inshore and offshore racing, and sun protection is critical — our sailors spend long hours exposed to intense UV and reflected light in often harsh conditions. We are a member of Sports for Nature, and our team mission is to ***reconcile performance with the preservation of nature.*** Finding a sunscreen with the lightest possible environmental impact was an obvious action to take.

It turned out to be harder than we expected.

When we first decided to switch sunscreens, we thought it would be quick and straightforward. Instead, we found ourselves overwhelmed — by complex chemical terminology, unclear labelling, widespread greenwashing, and the reality that skin types and tolerances make one-size-fits-all recommendations impossible. What started as a small team action became a deep dive: speaking with scientists, testing products with our sailors, and ultimately developing this guide.

This is not an endorsement of any brand. It is a practical resource we are sharing openly, in the hope that others can navigate this subject far more quickly than we did. While written specifically for sunscreen, the information applies equally to all personal care products that have a route into our waterways — shampoos, soaps, moisturisers — and the basic principle is this: ***how can we ensure, at the product design phase, that what we put on our skin is also safe for the lakes, rivers and oceans where it will eventually end up?***

Sun Cream : Quick Start Guide

🌍 *Protect your skin*
🌊 *Preserve your playground*

🥇 *QUICK WIN*

Choose a certified organic, mineral filter sunscreen that is minimum SPF 30 and water resistant.

✅ *RECOMMENDED*

- SPF 30 to 50 (or greater) and water-resistant
- Non-nano mineral/natural filters (titanium dioxide / zinc oxide)
- Certified by Cosmos, Ecocert, Nature & Progrès, Protect Land & Sea, Nordic Swan Ecolabel etc.
- Cream or stick formats (AVOID Aerosols or Sprays)
- Fragrance-free

❌ *TO AVOID*

- Oxybenzone, octinoxate, octocrylene as a priority
- Other chemicals on the list of ingredients of concern (slide 5)
- Microplastics
- Sprays and aerosols

👉 *SUN-SAFE HABITS*

- Wear UPF-rated sun-protective clothing whenever possible
- Apply sunscreen 15-30 minutes before entering the water
- Reapply every 2 hours
- Check the expiration date and period after opening (PAO) before use

⚠️ *PLEASE NOTE*

- “Reef-safe”, “Ocean Friendly”, “Coral Safe” and “Ocean Respect” are not regulated certifications, you should always check the ingredient list.

Why take action?

Sun protection is essential for athletes, but it also has a real environmental impact. Product choice and how you apply it really matters for you, and the environment.

You sail? Your sunscreen does too.

Each year, **4000 to 14 000 tonnes of sunscreen**[1] are released into oceans through swimming, showering, and wastewater[2] . **The cumulative impact is significant and avoidable**. UV filters - and other chemicals - in sunscreens can be :

- found in coastal waters and lakes[3]
- detected in sediments, marine organisms and wastewater (including after treatment)[2]
- persistent in the environment[4]
- ingredients can contribute to degradation of aquatic ecosystems and hormonal disruption in marine wildlife [1234]

Sun protection: essential for all ages[5]

- Our sun tolerance is limited, and UV-related damage accumulates throughout our lives.
- Early-life exposure plays a major role in the subsequent development of skin cancer,
- Incorrect application (using too little) significantly reduces the actual level of protection.

How we apply sunscreen matters

A substantial amount of sunscreen can wash off in the water reducing its sun protection efficiency and increasing marine pollution.

👉 Chose a water resistant* certified sunscreen & apply it 20-30mins before entering the water

* ⚠️ PFAS free

Source : [1 Hodges, A. et al (2025);] [2 Labille, J. et al. (2020);] [3Kroll et al. (2025),] [4EPA (2026)] [5Arcagy (2026)]

Understanding sunscreen filters

There are two types of filters:

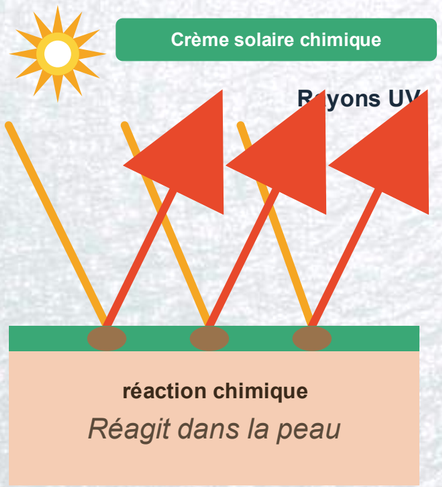
- Organic (chemical) filters
- Inorganic (mineral/natural – zinc and titanium) filters

✅ *Key point*

Both types are equally effective against UV rays even if they are chemically different.

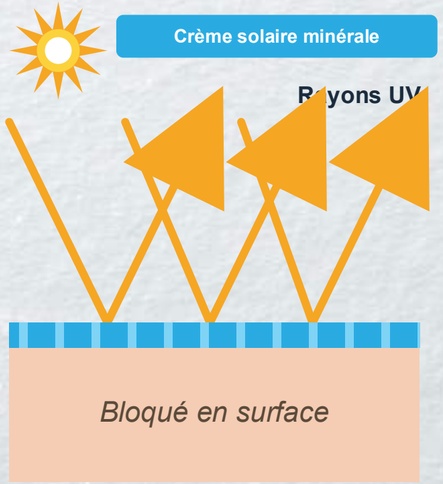
⚠️ *Chemical (organic) filters*

- Not organic despite the name, organic is a chemistry term to refer to the presence of carbon atoms in the molecule
- Takes effect 20 to 30 minutes after application
- Absorbed into the skin
- May cause allergic reactions
- Some are suspected endocrine disruptors
- Can have 3-8 different UV filters => cocktail effect



⚠️ *Inorganic (mineral/natural) filters*

- Suitable for organic use and very well tolerated
- Takes effect almost immediately upon application
- Do not penetrate the epidermis
- Forms a protective film on the skin to block UV rays*
- May have a thicker texture and may leave a white cast
- May contain nanoparticles



*The diagrams used show the traditional model. Current research shows that mineral filters absorb more UV than they reflect — but the key difference remains: mineral filters act at the skin surface, chemical filters penetrate it.[6]

Ingredients to avoid

Category	Main concern	Ingredients to avoid
❌ Chemical UV filters of concern	Toxic to marine life; endocrine disrupter effects	Avobenzone, Benzophenones (BP-1, BP-2, BP-8), Homosalate, Oxybenzone / Benzophenone-3 (BP-3), Octinoxate (EHMC), Octisalate, Octocrylene, 4-MBC, Butyloctyl salicylate
❌ Microplastics	Solid plastic particles; target of EU 2023 microplastics legislation; health & environment risks[7]	Nylon, Polyethylene, Polypropylene, Polyester-7, Acrylates Copolymer, Microbeads
❌ Silicones & related polymers	Not classified as microplastics, but flagged for environmental persistence and accumulation in waterways	Cyclopentasiloxane, Cyclomethicone, Dimethicone
❌ Other	May become photocarcinogenic when exposed to UV light	Retinyl palmitate
❌ PFAS - "Forever chemicals"	Extremely persistent; do not break down in the environment and bioaccumulate in aquatic life	PFAS are rarely easy to identify. Opt for products that clearly state 'PFAS-free' or look out for the terms 'fluoro' or 'perfluoro': PTFE, Perfluorodecalin, Perfluorononyl Dimethicone, Polyperfluoromethylisopropyl Ether, Perfluorohexane.
❌ Preservatives & irritants	Linked to skin irritation, allergic reactions, or formaldehyde release	Parabens, Phthalates, Methylisothiazolinone, Sodium lauryl and laureth sulfate, Formaldehyde, Diazolidinyl urea, Quaternium-15, DMDM hydantoin, Hydroxymethylglycinate, Fragrance
⚠️ Nano-particles*	The environmental impact of nano-particles is still debated, especially for aquatic organisms 👉 Non-nano forms are preferable	Zinc Oxide (nano) and Titanium Dioxide (nano). The SCCS** advises NOT to use these nano-particles in spray products due to carcinogenic risks from inhaling. [5]

**Nano-filters have the advantage of enabling the formulation of more transparent creams, which are therefore more readily accepted by consumers.

**EU Scientific Committee of Consumer Safety

Products meeting the criteria

No sunscreen is completely impact-free. The goal is therefore to minimize risks and find the best balance between skin protection and environmental preservation. To help you make an informed choice, we have selected four products that meet the criteria recommended in this guide and that have been tested by our team. This list is not exhaustive and is provided for informational purposes only. Other products may also meet these same criteria.

Best Practice Criteria	***Greenbush***	***Stream2Sea***	***Jeewin***	***Suntribe***
Mineral filters (ZnO or TiO_2)	✅	✅	✅	✅
Nanoparticle **free**	✅	✅	✅	✅
Fragrance **free**	✅	✅	✅	✅
Synthetic polymers / microplastics **free**	✅	✅	✅	✅
No potentially irritating ingredients	✅	✅	✅	✅
Water Resistance and Sports Use	✅Good	✅ Good	✅ Very Good	✅ Good Water Resistance, Variable Performance for Sports Use
Sailors' Feedback	✅Good but thick texture	✅✅ Easy Application with Minimal White Residue	✅ Good Protection and Water Resistance, but Leaves White Residue	✅ Adequate Protection, Appreciated Skin-Tone Tint.

Other promising brands :

- Badger
- ThinkSport
- Raw elements

Sailor testimonies

“I spend long hours at sea, whether surfing or out on a boat, but with JEEWIN’s water-resistant SPF50 mineral sun cream and their SPF50+ sticks, I don’t get sunburnt. Also it washes off quite easily - which isn’t always the case with some water-resistant mineral sunscreens.”

Gregory Gendron, maxi-trimaran sailor

« I’d like to keep testing these products, but so far the results have been quite positive. The Stream2Sea face balm leaves less white residue than the other sunscreens I’ve tried and is very easy to apply. And the Suntribe balm’s skin-tone tint is really good! The balm is a bit solid at first - and the product can be a bit difficult to sccop out - but it softens with use. »

Noé Delpech, TF35 sailor

« Among the various products tested, I preferred the Jeewin sunscreen. Its thicker texture gives me a better sense of coverage, and the white residue does not bother me when practicing sports. However, I’m not a fan of the green color of the Jeewin stick. I prefer a skin-tone or white tint. »

Adrien Mestre, TF35 sailor

« I mainly rely on sun-protective clothing and use sunscreen only sparingly. However, I did try the Suntribe Cocoa Tint balm. It can be a little difficult to scoop out at first, but its skin-tone color gives a subtle tanned look, which I find quite appealing. The level of protection seemed good enough to me. »

Jules Bidegaray, TF35 sailor

FAQs from Athletes

1. Do all sunscreens pollute?

👉 Yes, currently no sunscreen is completely impact-free. Try to :
✅ Reduce environmental impact
✅ Choose the least controversial formulations
✅ Adopt good usage practices

2. What is the best sunscreen?

👉 There is no single “best” sunscreen for everyone. A good choice should ideally be:
✅ Free from ingredients on the "avoid" list
✅ Made with mineral UV filters & water resistant
✅ Free from microplastics and added fragrances

3. Does “Reef Safe” mean that a product is safe for aquatic environments?

❌ No.
⚠️ “Reef Safe” is a marketing claim, not a regulated certification.
⚠️ Always check the ingredients and the overall formulation.

4. Do chemical UV filters protect better than mineral UV filters?

👉 No. Both can provide effective sun protection.
✅ Mineral filters are generally considered a simpler and less controversial option from an environmental and health perspective.

5. Are Nano and Non-Nano Filters Equally Safe?

👉 Yes, both are considered safe for human health.
✅ Non-nano filters are recommended as a precautionary approach for environmental reasons.

6. Which Sunscreen Formats Should You Choose?

✅ Prefer creams and sticks.
⚠️ Sprays can lead to product dispersion and inhalation.

7. Is an Expired Sunscreen Still Effective?

👉 Not always. Heat exposure and the passage of time can reduce its effectiveness.
✅ Follow the expiration date and the recommended period after opening.
✅ If the product develops an unusual smell, color, or texture, replace it.

8. I Sail on a Lake, Far from Coral Reefs. Does It Still Matter?

👉 Yes. Environmental concerns are not limited to coral reefs.
⚠️ Extra care is particularly important in closed or semi-enclosed environments, such as lakes, where substances may disperse less quickly than in the ocean.

9. I Don’t Go into the Water. Does My Choice Still Matter?

👉 Yes, it does.
⚠️ Some sunscreen is washed off during showering. Wastewater treatment plants do not completely remove all of these substances, which may then end up in natural environments or in reused water (ex: agricultural irrigation).

Future Outlook

Nowadays, the aim is often to choose products that are “less harmful” to the environment. But what if we go beyond being ‘less bad’ to actively good for the environment ? And what is the path to getting there?

🏛️ *Legislation to guide consumer choice*

For scientists, research and innovation aren't enough: without a clear regulatory framework, consumers remain unable to navigate the multitude of products on the market. Science has to be translated into actionable policy.

👉 Official standards and labels would help consumers make safer and surer choices. Current applicable legislation is summerised in Annex 1.

🔬 *Going beyond "less bad"*

Scientists are already demonstrating what is possible. Stream2Sea’s sun cream actively contributes to the health of coral reefs — tested and found to be non-toxic to coral larvae by Durham University. The start-up Soliome, winner of the Ray of Hope Award, draws inspiration from the natural UV protection provided by the human eye to create a biomimetic organic formula with molecules that are too large to penetrate the skin, and that is biodegradable. It’s not our current recommendation (we’re recommending mineral filters), but it’s a promising approach which could lead to safer organic (carbon based) filters in the near future.

👉 These inspiring innovations show a path towards actively beneficial sunscreens. As a key sunscreen market, sport can play a role in encouraging uptake of sunscreens that are positive for people and planet.

Disclaimer

This guide has been developed to help the Sails of Change Sailing Team identify sunscreens that may be safer for both personal use and the marine environment. It does not constitute a commercial endorsement of any product, manufacturer, or brand and we are not sponsored by the brands mentioned. The information provided is intended for general educational and informational purposes only and should not be considered medical, dermatological, or professional advice. Individuals should consult a qualified healthcare professional before making decisions based on their personal health circumstances, skin type, allergies, or sensitivities.

Every reasonable effort has been made to ensure the scientific accuracy of this guide as of July 2026. We are grateful to Miss Anneliese Hodge, PhD Researcher, and Dr. Jerome Labille for their review of its scientific content. Their review should not be interpreted as an endorsement of any brands or products mentioned in this guide.

In some areas, comprehensive data and long-term studies remain limited, and certain conclusions cannot yet be drawn with complete certainty. Where evidence is incomplete or inconclusive, we have adopted a precautionary approach, favouring caution until further research becomes available. This guide reflects our best interpretation of the evidence available at the time of publication and will be reviewed and updated as new scientific findings emerge.

Sails of Change accepts no liability for decisions made or outcomes arising from the use of this guide.

Sources

This guide is based on scientific research, data provided by public authorities and information from independent organisations.

References

[1] Hodges, A. et al (2025) Ecotoxicological effects of sunscreen derived organic and inorganic UV filters on marine organisms: A critical review

[2] Labille, J. et al. (2020) Assessing Sunscreen Lifecycle to Minimize Environmental Risk Posed by Nanoparticulate UV-Filters – A Review for Safer-by-Design Products

[3] Kroll et al. (2025) Organic UV-filters and freshwater organisms : data gaps impede a robust retrospective environmental risk assessment

[4] EPA (2026) UV Filters in Sunscreens and Aquatic Environmental Health

[5] Arcagery (2026) Info Cancer

[6] Cole, C. et. al (2015) Metal oxide sunscreens protect skin by absorption, not by reflection or scattering

[7] Thomas, N.M. et al. (2026) Microplastics in cosmetics and their impact on human health

General information sources

NOAA – Sunscreen Chemicals and Marine Life

EWG (Environmental Working Group)

Hugo Clement Report (French journalist)

Annex 1 : Legislation

Framework	*What it does*	*Relevance to sunscreen*
EU Cosmetics Regulation 1223/2009	Approves/bans individual UV filters (Annex VI); governs labelling	4-MBC banned (Reg. 2024/996): sale ends May 2025, withdrawal by May 2026
EU Microplastics Restriction 2023/2055	REACH restriction on added microplastics	Leave-on cosmetics must reformulate by Oct 2029; warning label required from 2031
REACH (EU)	Controls/substitutes Substances of Very High Concern (SVHC)	Oxybenzone, octocrylene, 4-MBC flagged for endocrine disruption, persistence, toxicity
PFAS restrictions (EU, emerging)	Restricts persistent "forever chemicals"	Some UV filters/waterproofing agents behave like PFAS — avoid long-lasting film-formers
CLP Regulation (EU)	Hazard classification & labelling for chemical mixtures	Simpler, mineral-only, non-nano formulas reduce hazard classifications
EU Waste Framework Directive	Governs chemical waste & contaminated packaging	Sunscreen packaging is chemical waste — prefer recyclable
Water Framework Directive & Marine Strategy Framework Directive	Protect surface, coastal, and marine waters from chemical pollution	Sunscreen chemicals affect water quality, algae, fish & invertebrates
EU Chemicals Strategy for Sustainability (voluntary, not binding)	Promotes substitution of harmful chemicals	Recommends safe-by-design alternatives (e.g. non-nano zinc oxide)
Green Claims & Consumer Protection (EU)	Requires accurate, substantiated environmental claims	"Reef-safe" is unregulated — only trust verified certification

Annex 2 : Certification

⚠️ **PLEASE NOTE** “Reef-safe”, “Ocean Friendly”, “Coral Safe” and “Ocean Respect” are not official labels (they are not regulated)

Framework	***What it does***	***Relevance to sunscreen***
COSMOS Organic / COSMOS Natural	COSMOS-standard AISBL (certified via approved bodies such as Ecocert)	Verifies natural and/or organic cosmetic ingredients, sustainable sourcing, environmentally responsible manufacturing, biodiversity protection, and restrictions on petrochemical ingredients. Commonly used for natural mineral sunscreens.
Nature & Progrès	Nature & Progrès Association (France)	One of the strictest ecological cosmetic standards. Requires organic agricultural ingredients, prohibits many synthetic substances, includes biodiversity and packaging requirements, and covers sunscreen products.
Protect Land + Sea (PL+S)	Haereticus Environmental Laboratory (HEL)	Specifically designed for sunscreens and personal-care products. Confirms products are tested and free of environmentally harmful chemicals on the HEL List, including substances linked to coral reef and aquatic ecosystem damage.
Nordic Swan Ecolabel	Nordic Ecolabelling (official Nordic governments' ecolabel)	Includes sunscreens within its cosmetics standard. Sets stringent requirements on hazardous chemicals, endocrine disruptors, PFAS, ecotoxicity, biodegradability, renewable raw materials and packaging circularity.
EU Ecolabel	European Commission / National Competent Bodies	Covers sunscreen products and evaluates environmental impacts across the product life cycle. Requires low aquatic toxicity, biodegradable ingredients, restrictions on endocrine disruptors, PFAS, microplastics and certain UV filters, plus packaging requirements.
EWG VERIFIED®	Environmental Working Group (EWG)	Ingredient-safety and transparency program widely recognized in North America. Requires disclosure of ingredients and compliance with strict criteria on chemical safety and UVA/UVB performance. Useful as a consumer trust mark but not an eco-certification in the same sense as COSMOS or EU Ecolabel.

Sports for Nature

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Sports for Nature

Sports for Nature is a joint initiative of the International Union for Conservation of Nature (IUCN), International Olympic Committee (IOC), United Nations Environment Programme (UNEP), Secretariat of the Convention on Biological Diversity and Dona Bertarelli Philanthropy. It aims to deliver transformative action for nature through sports, by 2030 and beyond, enabling sports to champion nature and contribute to its protection and restoration. It provides a game plan for sports – at all levels – to accelerate and inspire others to take action for nature.

For more information and to find out abour becoming a member go to
www.sportsfornature.org

And remember...

Choose a certified organic, mineral filter sunscreen that is minimum SPF 30+ and water resistant.