

## **The Czech company has developed a sunscreen with a natural UV filter that does not burden the environment**

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**The Czech company Nafigate Cosmetics, together with scientists from Nafigate Corporation, has developed a sunscreen that uses a natural polymer to protect skin from the sun's UV radiation. Every year, up to 14,000 tons of tanning emulsions washed off the skin end up in the oceans. Mostly they are creams with chemical filters, which then harm the marine ecosystem. Expanding the use of a natural UV filter could solve this problem.**

This week, the cosmetics company Nafigate Cosmetics has presented a sunscreen, in which the natural P3HB polymer fulfils the role of a UV filter. The firm intends to help solve the problem of chemicals, which are being released from common sunscreens. *“Annually, approximately 14,000 tons of sunscreens get into the sea. Most of them uses chemical UV filters, which harm marine animals and plants. Hence, together with scientists from Nafigate Corporation and Brno University of Technology (BUT), we were wondering if there was any natural material that would protect the skin from the sun's UV radiation as efficiently as conventional filters,”* says Ondřej Mynář, director of Nafigate Cosmetics.

The natural polymer P3HB, which was used last year as an ecological replacement of microplastics in a shower peeling milk, proved to have suitable properties. *“We found out that the natural P3HB polymer protects the skin from both UVA and UVB rays, and also works right after application. At the same time, it is so-called biocompatible, which means that it harms neither the body nor nature,”* explains Ondřej Mynář when describing the properties of the substance. On the contrary, according to research studies, sunscreens based on chemical UV filters are harmful to humans and animals. A frequently used oxybenzone synthetic filter can cause allergic reactions and hormonal changes in humans, and even sex changes or genetic mutations in animals. Hawaii and Palau are the first countries that banned the use of chemical sunscreen products, primarily to protect coral reefs.

So far, the sunscreen with the natural UV filter can be purchased online in Nafigate Cosmetics and Lékarna.cz online stores. *“We are pleased to introduce a novelty from the laboratory of Czech scientists and a Czech cosmetics company to the Czech*

*market. Right now, it is the time when people are starting to buy sunscreens and we want to offer them an ecological option. It is not just about swimming in the sea, the natural filter is also more environmentally friendly to life in Czech ponds. The use of this sunscreen in the city also makes sense, as chemicals get into wastewater treatments,”* says Karel Klodner, director of the Lékarna.cz online store. Besides Nafigate Cosmetics, Nafigate Corporation and BUT, Chemservis was also involved in the cream development.

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