

Key Issues to Inspire Debate At Sunscreen Symposium

In my previous column I promised to cover SPF boosters, quenchers and ingredients that affect the stability and effectiveness of sunscreens. These topics require more serious consideration than a short bimonthly column, so I will probably tackle this in a scientific publication first and then summarize the findings in future columns. For now, I will highlight an interesting development that is gaining traction in the field of sunscreens and skin care.

An organism that was first identified by NASA in the late 1990s is being used as a sunscreen booster, in anti-aging products and in skin care products. *Bacillus Lysate* (BL), which does not contain any live bacteria, was discovered by NASA's Jet Propulsion Laboratory (JPL) in Southern California and survived the cosmic radiation and extreme temperatures for 18 months in space outside the International Space Station. This resilient microbe termed extremophile (an organism that can thrive under extreme conditions), is resistant to hydrogen peroxide and ultraviolet, infrared and gamma radiation. The NASA team patented the bacterium and licensed the



Out of this world! The International Space Station conducted encouraging research on *Bacillus Lysate*.

organism to Delavie Sciences based in Worcester, MA. Delavie chemists conducted their own research and determined that the organism's ability to absorb solar radiation, most notably UVB, UVA, HEV and IR radiation, could be most valuable in sunscreens, anti-aging products and skin care products in general. These specific solar rays are linked to sun damage, wrinkles and ultimately, skin cancer. Products containing BL can enhance the effectiveness of sunscreen products. NASA released a press article earlier this month highlighting these findings and the impact this ingredient may have on the sunscreen industry. Other space-based innovations that made significant impacts in the consumer market include the introduction of the Tempur-Pedic mattress and superior reflecting sunglasses.

WAITING ON THE FINAL ORDER

In other developments, the US regulation of sunscreen products is still on

hold with no apparent finalization of the new 2021 Proposed Order (PO) for sunscreens. Both the Personal Care Products Council (PCPC) and the Public Access to Sunscreens (PASS) Coalition requested meetings with the FDA to inquire about recent developments in sunscreen regulations.

The Final Order, when published, will probably be subdivided into SPF labelling and testing issues first, whereas Ingredient testing and finalization of the GRASE status of UV filters will be postponed to a later date. We are all anxious to see which, if any, of the organic chemical absorbing UV filters will survive and be designated as GRASE UV filters, especially the approval status of the European TEA, Bemotrizinol (BEMT), as a new UV filter.

This month, the Florida Sunscreen Symposium will be held in Orlando from September 13-15 and all eyes will be on the FDA and industry speakers. Attendees hope to hear more news on the Final Sta-

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tus of all sunscreen regulations.

The PASS Coalition submitted an agenda for a meeting with the FDA to inquire about the finalization of the Final Order, and to report on the latest data for the risk of skin cancer and the importance of access to sunscreens. Regardless of the content of the Final Order, it is critical to communicate positively about the importance of sunscreens as a preservative tool. We are trying to avoid the chaos that occurred a couple of years ago after the publication of the 2021 Proposed Order where consumers were left debating whether only zinc oxide and titanium dioxide are GRASE items and all the other organic absorbing UV filters were not GRASE (Generally Recognized As Safe and Effective). Consumers were left wondering if most sunscreens on the market, that



The sunscreen industry returns to Walt Disney World in Orlando, FL.

are not mineral based, were safe and effective to use. The FDA quickly clarified that all sunscreens are safe and effective to use. Unfortunately, this did not quell the unrest and uncertainty on which

sunscreens were safe to use. When the Final Order is published, it will clearly state what UV filters can or cannot be used in the future.

Other issues that affect sunscreens include Hawaii's stalled attempts to ban UV filters and Congress' lack of involvement with the FDA relating to the Final Monograph on sunscreens. Some good news is that there's progress in sunscreens in school and workplace/sun safety. Unfortunately, with the exception of BEMT, there has been no progress on the approval of new, effective and safe UV filters. Finally, there is growing momentum for a debate on whether sunscreens should be classified as drugs or cosmetics. Hopefully, these and other topics of interest in sunscreens will be debated at the Sunscreen Symposium. See you there! ■



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