

DHA (dihydroxyacetone) Spray Tanning

What is DHA?

DHA (dihydroxyacetone) is an active ingredient in many sunless tanning products. DHA reacts with proteins in the outer layer of the skin to cause the skin to darken.

Another compound, docosahexaenoic acid, is an omega-3 fatty acid found in fish oil and is also commonly called “DHA”. This can lead to confusion and the mistaken claim that the DHA in spray tan products is a dietary supplement. These two ingredients are not the same.

Is DHA safe?

Studies have shown that DHA can cause DNA damage or mutations in bacteria and skin cells, although it did not cause cancer when tested on the skin of lab animals. There are insufficient studies to determine the risk of cancer in humans.

Is DHA approved by the FDA?

The U.S. Food and Drug Administration has approved DHA as a color additive in cosmetics—including sunless tanning products—on the external parts of the body. It is not permitted for use in the area of the eyes (eyebrows, eyelids, the eyeballs, or the soft tissue below the eye) or on the lips or areas of the body covered by mucous membranes - the mouth, the throat, the lungs, or the genital area.

The FDA has not approved the use of DHA as an all-over spray. When used as an all-over spray, it may be difficult to avoid exposure to the area of the eyes, lips, or mucous membranes, or even internally through the nose or mouth.

Does the “tan” from sunless tanners provide protection from the sun or other sources of ultraviolet (UV) radiation?

No. The skin coloring from sunless tanners is not effective protection from the sun or other sources of UV radiation. Always use sunscreen with a sun protection factor (SPF) of 15 or higher to reduce the risks of skin aging, skin cancer, and other harmful effects of the sun.

How can consumers reduce their risk of unsafe exposure to DHA?

- Use cream or lotion formulations. Avoid applying it in the areas of the eyes, lips, nose, and genitals and wash your hands carefully after applying these products.
- If you choose to use a spray or mist product:
 - Wear goggles to protect your eyes.
 - Wear lip balm to protect your lips.
 - Wear nose plugs and a mouth filter to keep it out of your nose, mouth, and lungs. Wear undergarments to protect your genital area.
 - Make sure you have good ventilation.

How can workers reduce their risk when applying a DHA-containing product?

- Wear goggles to protect the area of your eyes.
- Wear an N-95 mask to protect your lips, mouth, and lungs.
- Always wash your hands carefully after applying the product.
- Ensure that your workplace is well-ventilated.

