

NORVELL[®]

skin solutions, llc

The Technology “Inside” Our Solution - The Story of DHA

At Norvell[®] we are a “true manufacturer” of all the products we sell. The term “true manufacturer” means we manufacture (create) and control the production and formulation from the beginning to the very end of our product, made right in our own facility located at 115 Edgewood St., Alexandria, TN. 37012.

DHA

Dihydroxyacetone (DHA) was first used as an active ingredient during research on the treatment of diabetics, some of whom tolerated DHA better than glucose. However, in 1957 the tanning properties of DHA were discovered in a children’s hospital. DHA was administered orally as a treatment for a childhood glycogen storage disease. However, some children were drooling and spitting up the mixture when the doctor noticed brown spots developing on the skin. The doctor experimented by rubbing the mixture on her own skin and she tanned as well. The first scientific papers on DHA were published in 1960. Since these studies, DHA’s physicochemical properties, tanning mechanics and skin tolerance have been further explored, resulting in an improved method of application, and a more uniform and natural-looking tan.

True Manufacturer A manufacturer that controls the production and formulation of their product from the beginning concept, through research and development, to the final filling and shipping to the distributor or salon.

Dihydroxyacetone C₃H₆O₃ (also known as DHA) is a simple carbohydrate (a triose) with formula that is primarily used as an ingredient in sunless tanning products. It is often derived from plant sources such as sugar beets and sugar cane, and by the fermentation of glycerin. Chemical compound shown in FIG. 1.

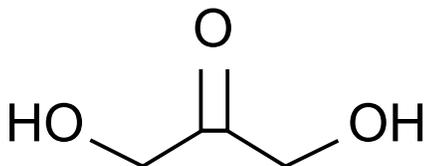


FIG. 1

THE FDA AND DHA

DHA is listed in the regulations as a color additive for use in imparting color to the human body. However, its use in cosmetics--including sunless “tanning” products--is restricted to external application (21 CFR 73.2150). According to the CFR, “externally applied” cosmetics are those “applied only to external parts of the body and not to the lips or any body surface covered by mucous membrane” (21 CFR 70.3v).

It has been a common ingredient in most sunless tanning lotions for many years. DHA has not been specifically evaluated for use in spray-on tanning systems. However, this lack of evaluation should not be considered a negative statement of great concern. For additional information concerning the FDA’s position on DHA in sunless tanners visit www.fda.gov/Cosmetics/ProductandIngredientSafety

IMPORTANT NOTE: Some people expect a sunless tan to provide UV protection. Many clients get a false sense of security having a darker complexion. It is our jobs to make the clients aware of the facts. However, unlike melanin pigments, the DHA-derived polymers do not absorb significant amounts of UV light, and therefore, cannot protect against UVB radiation. For this reason the FDA requires all sunless solution

manufactures to carry the following warning statement on all sunless tanning products:

Warning--This product does not contain a sunscreen and does not protect against sunburn. Repeated exposure of unprotected skin while tanning may increase the risk of skin aging, skin cancer and other harmful effects to the skin even if you do not burn.” (Title 21 of the Code of Federal Regulations, Section 740.19)

Norvell Sunless Spray Solutions contain no known toxins or allergens. However, as with ANY substance, repeated exposure to, or inhalation of, airborne matter may cause irritation or discomfort. Common sense tells us to recommend that people who will be using the product on a daily basis should wear some type of air filtering mask to reduce contact.

Customers should be advised to hold their breath when the product is applied near the mouth or nostrils and nose filters should be provided to clients to protect from unwanted overspray inhalation. Technicians need to remember to NOT spray directly into the area of the eyes or advise clients to wear eye protection such as VIEWkeepers® or WINK-EASE® (available online @ www.eyepro.net). Customers should be advised to apply a lip balm prior to tanning to avoid application of DHA to the lips, as lips will not show a color benefit from the application of DHA.

NOTE: Technician spray masks and Nose Filters for client use are readily available for salon purchase from the Norvell ProStore website www.NorvellProStore.com

THE BROWNING ACTION

DHA does not make your skin or your skin cells darker in pigmentation. DHA reacts solely with the **stratum corneum** (see FIG. 2 No.1) level of the skin. Within this level you will find the body's acid mantle (The skin's natural protective barrier). The **acid mantle** stores your natural body oils, DHA reacts to the free amino's stored within these oils. When the reaction occurs, the acids turn a slight rusty brown color and continues to darken for up to 16-18 hours (depending on the individual). These natural oils within the body (called sebum) are created by your sebaceous glands (see FIG. 2 No.2). **Sebum** is made up of fat lipids that burst open and then are released through the sebaceous gland. These glands produce the oils through our hair follicles to prevent your body from dehydration. This is the reason your mother always told you to brush your hair 100 strokes before bed. Doing this would distribute these natural oils throughout your hair and make it shine and naturally healthy.

When DHA is applied to the skin; a brown “tan” forms in about 4-6 hours and continues to darken for approximately 16-18 hours. The color of your sunless tan is completely individual. Nothing is absolute when it comes to the variations of skin types, coloration, how long it will last or how dark you can get. Every skin type is different and this is the reason we use averages. The color you achieve is a perfect blend of your natural skin tone along with the reaction of the DHA. The tan becomes water-resistant, however exposure to high levels of abrasive soaps, detergent filled body washes and the chlorine in swimming pools is discouraged. Exposure to such factors will expedite the natural process of exfoliation which takes on average 4-6 days. Always inform your clients that “*healthy skin always tans best*”! This will get them into positive practices to retain and effectively nurture their skin.

Acid Mantle A protectively oily layer on the skin's surface which functions to regulate moisture loss and retention as well as to protect the skin from environmental stress.

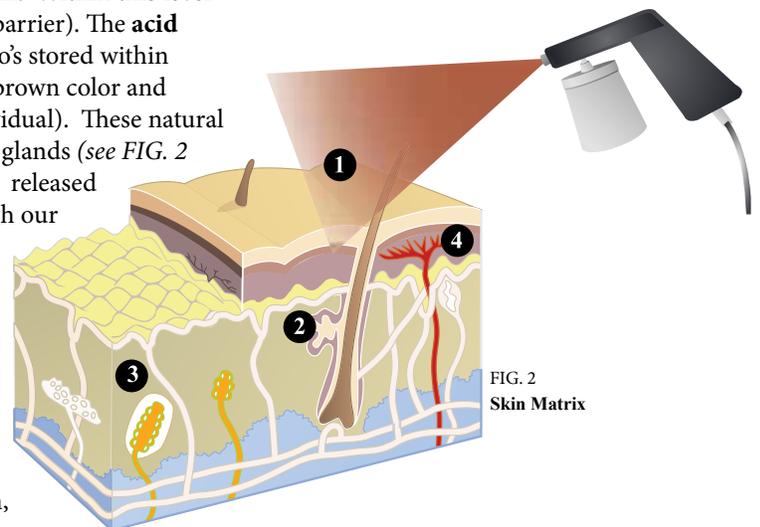


FIG. 2
Skin Matrix

- 1 Stratum Corneum** - The outermost layer of woven connective tissue. Collagen, Keratin and Elastin connect together.
- 2 Sebaceous Gland** - Responsible for creating sebum, the natural oils within the body.
- 3 Dermis** - Below the penetration levels of DHA.
- 4 Capillaries** - Nutrients flow through these with increased vascularity (circulation). Increased circulation aids in skin repair and rejuvenation.

MEDICAL CONCERNS ASSOCIATED WITH SPRAY TANNING THOSE AT RISK



NORVELL PREMIUM SUNLESS SOLUTION



Clients with health risks such as advanced allergies, pregnancy or diabetics should consult with their physician prior to any change in lifestyle. As the products themselves may not pose a health risk, Norvell® Skincare Solutions, LLC does not staff a physician nor recommend any treatment as such. Norvell® encourages you as a business owner to always keep your clients best interests in mind.

Q. Can a pregnant woman be safely sprayed?

A. Norvell Sunless Spray Solution is a non-toxic, and utilizes eco-certified natural DHA. We have NOT received information from any medical authority that would indicate detrimental effects to an expectant mother and we have not heard of anyone being advised not to tan by their physician. However, as you would before using ANY product, on an expectant mother, we recommend each customer consult with their personal physician before receiving a DHA tan application.

Q. Is a DHA spray tan safe for a diabetic person?

A. We have received no feedback from any medical authority that would indicate a risk to a diabetic person. However, as you would before using any product on a diabetic person, we recommend each customer consult their physician before receiving a DHA spray tan application.

Q. I have a client with Vitiligo, will the solution cause a change in the affected areas?

A. Yes. Norvell® Sunless Solution does work on the affected areas, however, it is important to remember the skin that is lighter “tans” and the unaffected skin areas also tan, therefore they will remain different colors. While both areas do achieve a sunless tan they will appear “two tones” when finished. Norvell® color is a blend of the natural skin color and the sunless color. Sunless color is not a “cover up”, but rather a blend.

Q. I have a client who has very sensitive skin, should they be concerned with a possible reaction to Norvell® solution?

A. If a client expresses concern over allergies or skin reactions to the solution we recommend the client first consult with their personal physician or dermatologist. Prior to the spray tanning session we also recommend a patch test before a full body spray session.

If you have any questions concerning the information above please contact:

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