

Technical Data Sheet

DHA

(1,3-Dihydroxyacetone)

Brief introduction:

The active ingredient in DHA is dihydroxyacetone, a safe sun-free tanning product obtained from glycerin fermentation

It has the following characteristics:

- ④ It reacts with the free amino groups of keratin in the stratum corneum of the epidermis to achieve a staining effect, similar to the Maillard reaction. At the same time, it protects the delicate skin from UV rays while avoiding sun exposure
- ④ It is a safe skin colorant
- ④ It is also suitable for the application of hair coloring products as an alternative to chemical hair dyes

Hence , Tanbest® DHA can be recommended for tanning, hair coloring, etc.

Compose:

INCI Name: Dihydroxyacetone

CAS No. : 96-26-4

EC No. : 202-494-5

specification

index	standard
appearance	White to off-white powder
content	98.0 - 102%
Identification (Infrared)	accord with
Solution appearance (10%; water).	72 hours transparent without cloudiness
Solution color	Clear, colorless
Appearance and color of the solution (25%, water)	≤ 50 Hazen
moisture content	$\leq 0.5\%$
pH (5%)	3 - 6
Glycerol (TLC)	$\leq 0.5\%$
Protein (colorimetric)	$\leq 0.1\%$
iron	≤ 20 ppm
Sulphate ash (600°C)	$\leq 0.1\%$
Volatile substances	$\leq 0.5\%$
lead	≤ 10 mg/kg
arsenic	≤ 3 mg/kg
mercury	≤ 1 mg/kg

cadmium	$\leq 5 \text{ mg/kg}$
Total number of colonies	$\leq 100 \text{ cfu/g}$
Mold & yeast	$\leq 100 \text{ cfu/g}$
Heat-resistant coliforms	not be detected
Pseudomonas aeruginosa	not be detected
Staphylococcus aureus	not be detected
Candida albicans	not be detected
salmonella	not be detected

Apply:

Facial, body care, scalp and hair products: waters, lotions, creams, serums and detergents, etc.

Suggested dosage:

1-30% Max (please refer to local regulations).

How to Use:

- ⌚ Post-production stage ($<40^{\circ} \text{ C}$) is added. Water-soluble, can be dissolved with an appropriate amount of water in advance.
- ⌚ Can be used with all organic sunscreens that do not contain amino substances
- ⌚ Prevent contact with oxides such as α -hydroxy acids, iron oxides, zinc oxide or titanium dioxide, phosphate esters and their salts-
- ⌚ Avoid using large amounts of gel-forming agents (e.g., carbobo, xanthan gum) or large amounts of ethanol

⊗ Emulsifiers: Since non-ionic emulsifiers can improve the stability of DHA, it is recommended to use non-ionic emulsifiers. Ionic emulsifiers should be used sparingly.

⊗ It is not recommended to use buffer solutions to stabilize pH.

⊗ Saturated solubility of DHA in water:

87.51 g/100 g water at 20°C

110.21 g/100 g water at 25°C

129.26 g/100 g water at 30°C

157.36 g/100 g water at 35°C

Storage conditions:

Keep cool and dry at 2-8°C to prevent moisture absorption.

Retention period:

2 years

Packaging:

25Kg, as requested

Version: Version 1.0

Company name: Gree Industry CO., LTD