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## AHA EXTRACT 44 GLYCERIN

Mixed Fruit Extracts with 44% AHAs

Ref.: AHA44G

### ► DEFINITION

A.H.A. EXTRACT<sup>®</sup> 44 GLYCERIN is a mix of fresh fruits extracts (Lemon, Bilberry, Apple, Sugar cane and Grape) with a complementary blend of alpha-hydroxy-acids (Citric, Lactic, Glycolic, Malic and Tartaric), also called fruit acids. It is a standardized extract with a 44 % AHAs content in water and vegetal glycerin and no preservative.



### ► COSMETIC PROPERTIES

The cutaneous ageing process is linked to a transformation of the connective tissue and a decrease in cell regeneration ability. This process is associated with corneous cell aggregation and a decreasing quality of the hydrolipidic film.



AHAs (alpha hydroxy acids) have been shown to improve the appearance of the skin by enhancing smoothness, luminosity and tone and also demonstrate exfoliating and moisturizing activity. On penetrating the stratum corneum, AHAs initially diminish corneocyte cohesion, readily detectable by desquamation.



The desquamation process is linked to the removal of isolated corneocytes and cell clumps in the stratum corneum. In a well-balanced epidermis, the proliferation of basal cells exactly compensates the desquamation of superficial corneous cells. This maintains the thickness and the protection function of the stratum corneum. Dysfunction of the desquamation and adhesion mechanisms implies several cutaneous problems, such as thickening of the corneous layer, and induces abnormal corneocytes retention.



The process of regeneration starts in the basal layer where cell division occurs. Some cells (about 50%) migrate towards superficial layers for differentiating. During their migration they flatten, dry and constitute the corneous cells which are piled as in a brick wall with a mortar constituted by the lipidic and proteic intercorneocyte structure. The degradation of this mortar leads to desquamation, a process associated with a complex phenomenon which involves extracellular glycoproteins, lipids and cytokines, and lytic enzymes. Studies have shown that AHAs in topical treatments reduce the thickness of a hyperkeratotic stratum corneum by decreasing corneocytes cohesion.



AHAs also have an impressive moisturizing effect which has to be due to their ability to fix water. This moisturizing property helps improve the keratolytic effect of a product. When the stratum corneum becomes hydrated, the distance between corneocytes is increased and consequently cohesion decreases.

The benefits of AHAs are also evident in hair care products. They improve hair shine by helping to repair damaged hair through a smoothing effect which makes combining easier. Greasy hair is improved because AHAs reduce sebum secretion and deliver better moisturization to the scalp, strengthening the shaft.

Fruits also bring a toning and stimulant touch and extra-moisturization, a benefit of using an extract derived from a mix of plants rather than just one active ingredient.

### ► SPECIFICATIONS

Appearance	Limpid liquid
Colour	Pale yellow to yellow
Odour	Characteristic

Density at 20°C	1.150 - 1.250
Dry residue (100°C for 30 min)	> 11 % w/w
pH (10% solution in water)	0.8 - 2.8
Solubility	In water and hydroalcoholic solutions
Pesticides	< 0.3 ppm
Heavy metals	< 10 ppm
Lactic acid	Min. 13 %
Citric acid	Min. 13 %
Glycolic acid	Min. 10 %
Malic acid	Min. 4 %
Tartaric acid	Min. 4 %
Total germs	< 100 cfu/g
Yeasts and moulds	< 10 cfu/g
Pathogenic germs	Absence

### ► TOXICITY DATA

Not considered as toxic (DL 50 oral/rats > 10g /kg)  
 Not irritant for the skin (10 % in water).  
 Irritant for the eyes  
 Not sensitising

### ► SUGGESTED DOSAGE

2 - 4 % in shampoos, hair rinses, hair masks, shower gels, bubble baths, moisturizers, regenerating and anti-ageing preparations, complexion-clearing products, cleansers, toners.

4 - 8 % in peeling creams, lotions and gels.

### ► PRODUCT IDENTIFICATION

INCI Name (EU)	INCI Name (US)	CAS no.	EC no.
Aqua	Water	7732-18-5	231-791-2
Glycerin	Glycerin	56-81-5	200-289-5
Citric Acid	Citric Acid	77-92-9	201-069-1
Lactic Acid	Lactic Acid	50-21-5	200-018-0
Glycolic Acid	Glycolic Acid	79-14-1	201-180-5
Malic Acid	Malic Acid	97-67-6	202-601-5
Tartaric Acid	Tartaric Acid	87-69-4	201-766-0
Citrus Limon Fruit Extract	Citrus Limon (Lemon) Fruit Extract	84929-31-7	284-515-8
Pyrus Malus Fruit Extract	Pyrus Malus (Apple) Fruit Extract	85251-63-4	286-475-7
Saccharum Officinarum Extract	Saccharum Officinarum (Sugar Cane) Extract	91722-22-4	294-424-5
Vaccinium Myrtillus Fruit Extract	Vaccinium Myrtillus Extract	84082-34-8	281-983-5
Vitis Vinifera Fruit Extract	Vitis Vinifera (Grape) Fruit Extract	84929-27-1	284-511-6

Customs tariff (EU): 1302197000

### ► STORAGE

Keep in the original tightly-closed container, at room temperature (20°C), protected from light, heat and moisture.



UPDATED 19 MAY 2022