

ACB FRUIT MIX

Natural + Efficacious + Multi-Functional + Great for Problem Skin



Tomorrow's Vision... *Today!*[®]

ACB FRUIT MIX

Technical Information:



Product Code: 20343

INCI Name: Water & Saccharum Officinarum (Sugar Cane) Extract & Vaccinium Myrtillus Fruit/ Leaf Extract & Citrus Aurantium Dulcis (Orange) Fruit Extract & Acer Saccharum (Sugar Maple) Extract & Citrus Medica Limonum (Lemon) Fruit Extract

INCI Status: Approved

Suggested Use Levels: 1.0 – 10.0%

Suggested Applications: Exfoliation, Problem Skin

Solubility: Water Soluble

NATURAL MOVEMENT + MARKET SHIFT



AHA's in History

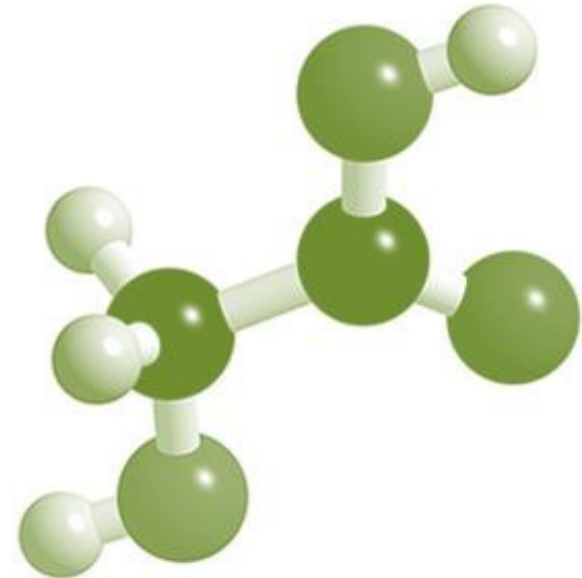
- Alpha Hydroxy Acids (AHA's) use dates back to pre-recorded history
- Cleopatra bathed in milk to leave her skin smooth and soft
- Natural extracts like sugar cane, bilberry, sugar maple, orange and lemon are all excellent sources of alpha hydroxyl acids

ALPHA HYDROXY ACID SOURCES



ACB Fruit Mix

- Sugar Cane → Glycolic Acid
- Billberry → Lactic Acid
- Sugar Maple → Tartaric and Malic Acids
- Orange → Citric Acid
- Lemon → Citric Acid



ALPHA HYDROXY ACIDS + COSMETICS



Benefits

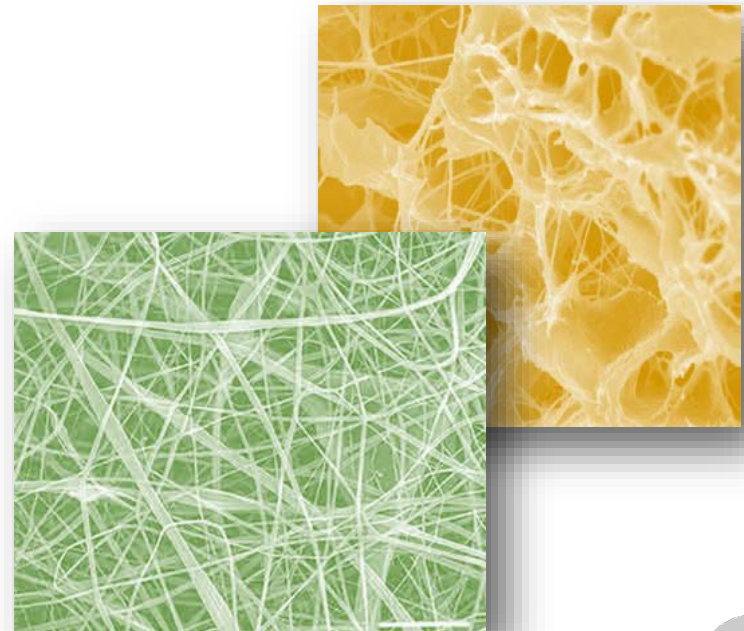
- Allows for instantly perceivable benefits → Consumer perception of performance is **key** in the personal care industry
- Use in modern cosmetics has allowed for the creation of the mass-tige market (mass market with prestige appeal)
- Dubbed the miracle anti-aging ingredient in the 1990's
- Keratolytic activity exfoliates the skin
 - ✓ Smoother, softer skin
 - ✓ Promotes absorption of other actives in regimine

ALPHA HYDROXY ACIDS + BLENDS



Why use an AHA Blend?

- Alpha Hydroxy Acids function as a metabolic intermediate for a variety of biological pathways
- Anti-aging benefits
 - ✓ Collagen synthesis
 - ✓ Increased elasticity
 - ✓ Improves moisture levels

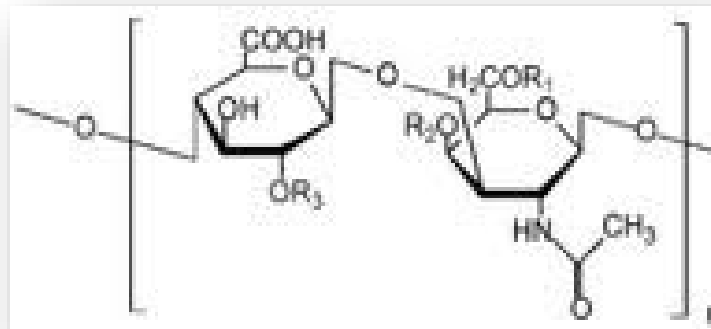


ALPHA HYDROXY ACIDS + BLENDS



More on AHA's

- Glycolic acid → Most keratolytic of all commonly used AHA's:
 - ✓ Allows for immediate softening and perceivable smoothing
 - ✓ Improves circulation to increase intracellular efficiency
 - ✓ Increases Collagen Type I, Glycosaminoglycan (GAG) and Hyaluronic Acid synthesis in the skin



References:

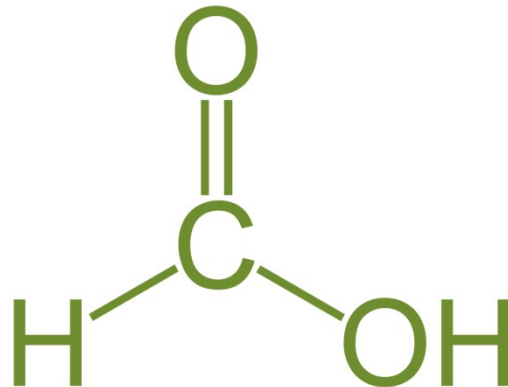
- 1) Guttman, C. Dermatologist Times 2000 Apr; 21 (4): 57-60
- 2) Cosmetic News 93: 382-385
- 3) Bernstein EF, et. al. Dermatol Surg. 2001 May; 27 (5): 429-33)

AHA's + COMMON MISCONCEPTIONS



Natural vs. Synthetic Glycolic Acid

- Common thought that all glycolic acid has a stinging effect
- Formic acid is a by-product of synthetic glycolic acid production
- Synthetic glycolic acid contains formic acid → Formic acid is known to sting the skin

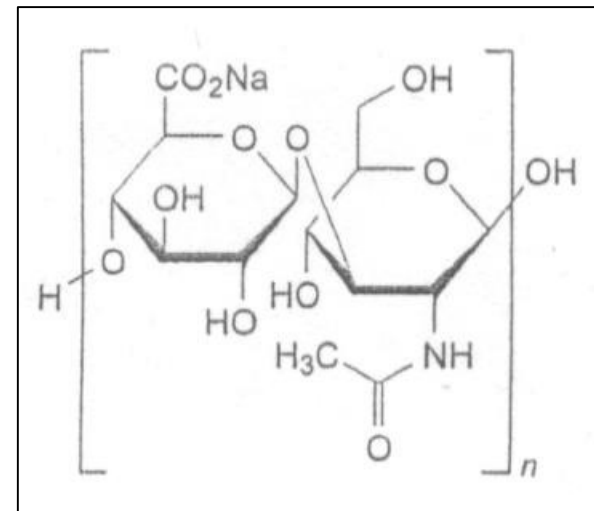


ALPHA HYDROXY ACIDS + BENEFITS



Benefits of Lactic Acid

- ✓ Effective moisturizer → A known humectant that increases the skin's water holding capacity
- ✓ Increases GAG synthesis
- ✓ Part of the skin's natural moisturizing factor
- ✓ Reverses cutaneous atrophy



Reference:

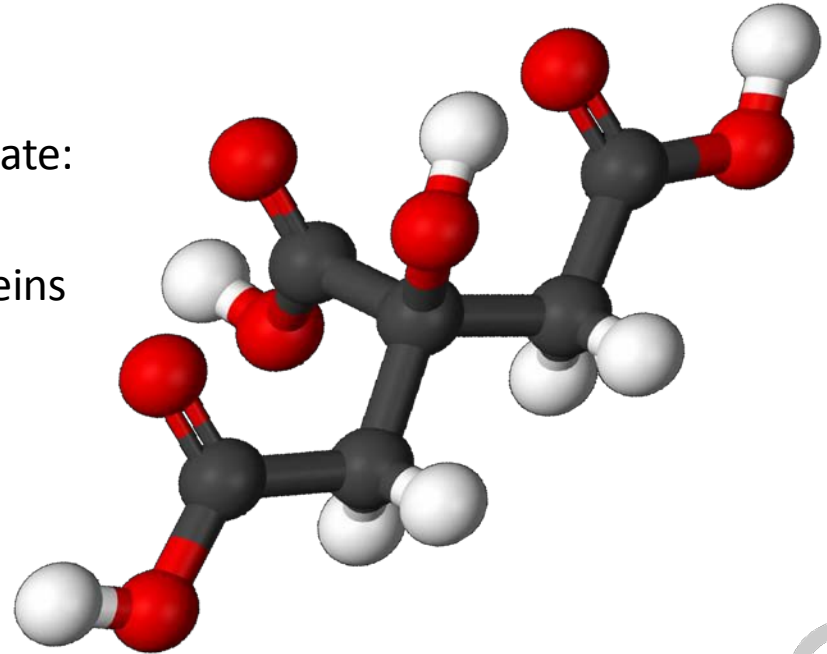
Midleton, J.D. Development of a skin cream designed to reduce dry and flaky skin. J. Soc. Cosmet. Chem. 25, 519-534 (1974)© 1974 Society of Cosmetic Chemists of Great Britain.

ALPHA HYDROXY ACIDS + BENEFITS



Benefits of Citric Acid

- ✓ Increases permeability
- ✓ Stimulates collagen synthesis
- ✓ Krebs/ Citric acid cycle intermediate:
 - Vital for ATP production
 - Creation of Structural proteins

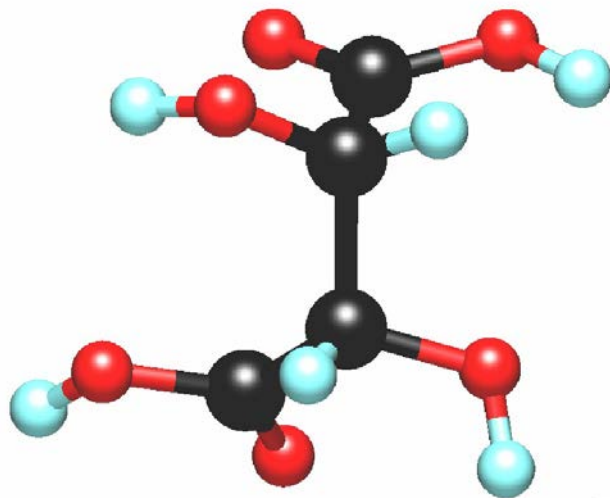


ALPHA HYDROXY ACIDS + BENEFITS

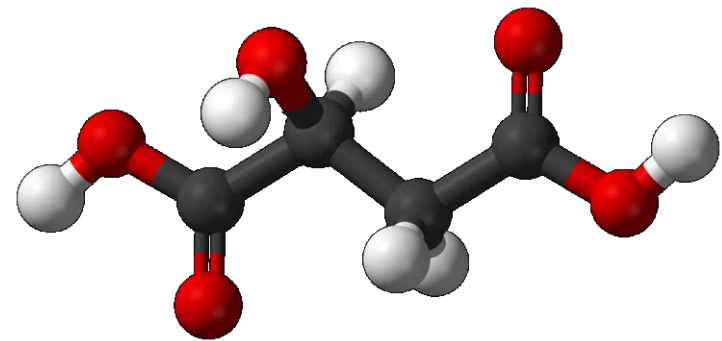


Benefits of Tartaric + Malic Acids

- ✓ Improve skin's elasticity
- ✓ Enhance tone



Tartaric Acid



Malic Acid

THERAPEUTIC INDEX

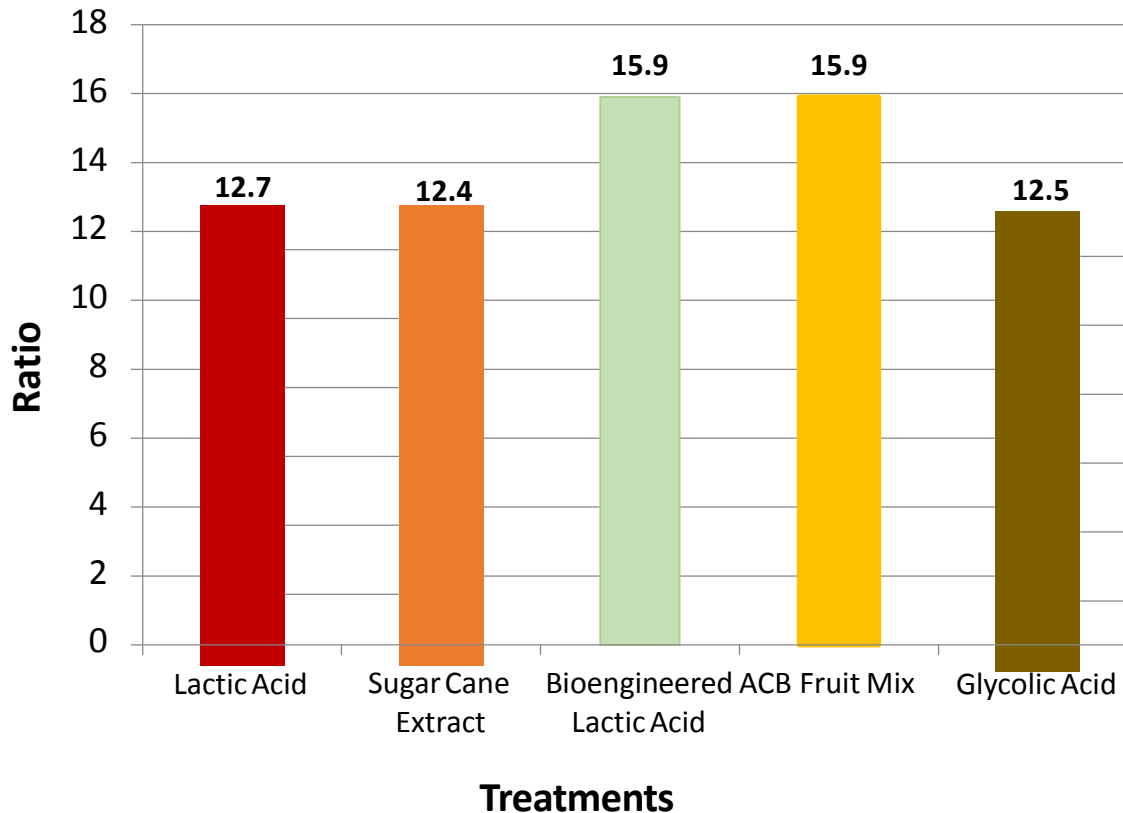


What is the Therapeutic Index?

- Walter Smith (VP of Estee Lauder) developed the therapeutic index
- AHA's have different properties which makes it difficult to standardize an evaluation of them
- Therapeutic Index measures the ration of cell renewal compared to skin irritation:
 - Not all acids will exfoliate equally
 - This is a useful tool for comparing the efficacy of natural AHA's to Synthetic AHA's
 - Allows for side-by-side comparison

ACB FRUIT MIX EFFICACY ASSAY RESULTS

Therapeutic Index of AHA's

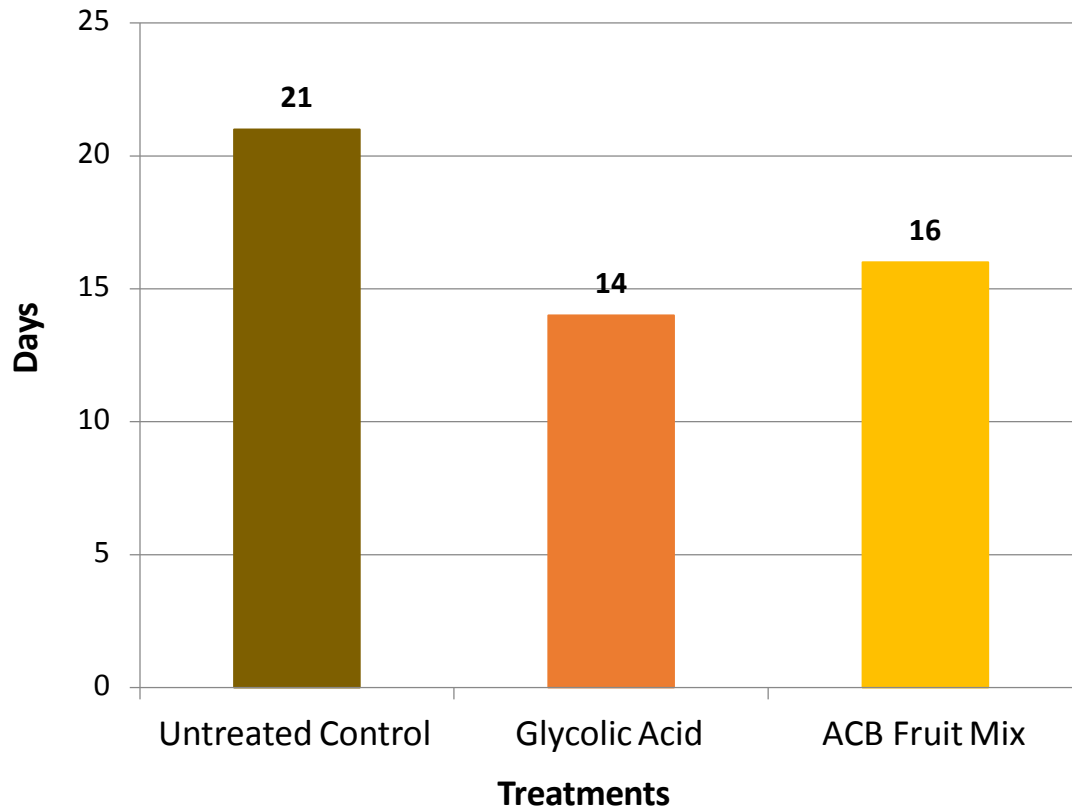


Results

- Results demonstrate that ACB Fruit Mix is more efficacious than synthetic Lactic Acid or synthetic Glycolic Acid.

ACB FRUIT MIX EFFICACY ASSAY RESULTS

in-vivo Dansyl Chloride Assay



Protocol

- This test allows us to visually determine the number of days required for complete exfoliation
- 12 m/f volunteers between the ages of 20 – 40 applied 5.0% ACB Fruit Mix to their volar forearm following by 5.0% Dansyl Chloride in petrolatum base for 24 hours
- A Quartz Mineral UV Lamp (long & short wave) was used to evaluate the rate of cellular renewal

FORMULATION GUIDANCE

ACB Fruit Mix



- Must pre-dilute or neutralize when using with Carbopol
- Recommend adding during the cooling phase after the emulsion has formed
- Ideal for use in non-ionic creams and emulsions



ACB FRUIT MIX

Technical Information:



Product Code: 20343

INCI Name: Water & Saccharum Officinarum (Sugar Cane) Extract & Vaccinium Myrtillus Fruit/ Leaf Extract & Citrus Aurantium Dulcis (Orange) Fruit Extract & Acer Saccharum (Sugar Maple) Extract & Citrus Medica Limonum (Lemon) Fruit Extract

INCI Status: Approved

Suggested Use Levels: 1.0 – 10.0%

Suggested Applications: Exfoliation, Problem Skin

Solubility: Water Soluble