TeraCeutic<sup>™</sup> Ferment



smoothness and resilience for the skin and hair

Actera

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Fruit Acid & Ferment Exfoliator

## Actera

**TeraCeutic Ferment** is an active ingredient for skin renewal, resurfacing, exfoliation, and brightening. It improves the overall smoothness and radiance of the skin by promoting an optimized cell turnover (desquamation).

Unlike traditional glycolic acid, AHAs, and BHAs, TeraCeutic Ferment is mild on the skin and can be formulated at higher pH.

#### **Physical Description**

White Powder

#### INCI

Saccharomyces Ferment (and) Vitis Vinifera (Grape) Fruit Extract (and) Arginine

#### **Applications**

- Complexion perfecting and anti-aging products
- Hair treatments

#### **Benefits**

- Less irritating, yet effective exfoliation
- Designed to be efficient at pH ranges that are more compatible with the skin and hair
- Reduces skin scaliness
- Improves the overall skin texture providing more smoothness and radiance
- Enhances hair bounce and elasticity for younger and healthier-looking hair

#### **Recommended Forms**

#### **Skin Care**

Water-based gels, serums, lotions, and gel-creams

#### **Hair Care**

Shampoos, pre-conditioners, hair fluids, and hair masks



# improves the overall skin texture for a smooth and radiant look

#### **Bioactive Rationale**

TeraCeutic Ferment is a 100% natural product from the fermentation of brewer's yeast and grape extract. It contains natural organic acids, including alpha- and betahydroxy acids (AHA and BHA) from the fruit. Arginine is added to restore skin amino acids while reducing irritation.

#### **Formulation Guidelines**

#### Suggested use level:

Skin care – 4.0 to 15.0% Hair care – 1.0% to 5.0%

#### Suggested pH range:

Skin care – 3.0 to 5.0 Hair care – 3.5 to 6.0

ferment & fruit acids combined for gentle and effective skin exfoliation

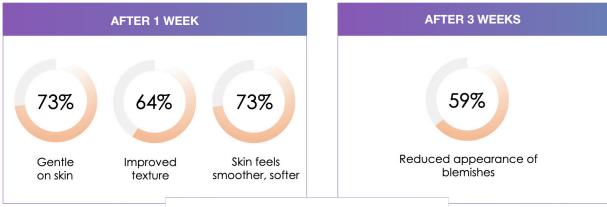


**TeraCeutic Ferment** is a powder material that can be conveniently added to the water phase of any cosmetic formulation. It readily dissolves with mixing at room temperature, though heat may be used to speed dissolution. At 7.5%, it readily dissolves in water resulting in a solution with pH 4.0. Glycols may help dissolve it when used at levels above 12%.

#### **Proven Results**

In a 6 week clinical study on 27 female volunteers age 19 – 45, a water-based serum containing 12% TeraCeutic Ferment was applied nightly. Skin smoothness, acne reduction, pore reduction, and overall impression of gentleness were assessed at 1, 3, and 6 week time points via instrumentation and self-assessment questionnaire. After just one week, a significant improvement in texture, acne, and pores was observed and characterized by Bio3D Structured Light and BioBlue Light scanners. A continued improvement was seen at 3 and 6 weeks and perception of gentleness was maintained.

#### **Self-Perception**



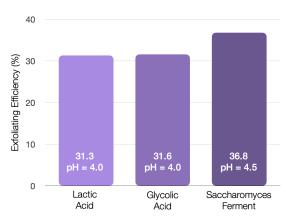
#### Perceptable Improvement in Just 1 Week



Visible reduction in acne area and severity in one week with continued improvement at 6 weeks



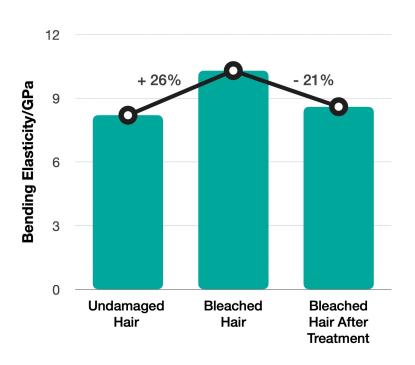
Visible reduction in number and severity of pores in one week with continued improvement at 6 weeks



Gel peels containing 7.5 wt.% active were applied to the forearm of five female subjects aged 40-50.

The area was rubbed for 30 s, rinsed, and patted dry. Skin surface scaliness was determined by D-Squame analysis before treatment and also 15 minutes after rinsing off.

## naturally enhances hair bounce and elasticity



Chemical procesing (e.g. bleaching), causes hair to become less elastic and break more easily. Therefore, bleached hair requires more force to bend compared to undamaged hair. After treating bleached hair fibers with TeraCeutic Ferment at 2.5% only once, a 21% recovery of natural bounce was observed.

All measurements were taken at 20°C, 65% humidity, using the system Dia-Stron. n=20 fibers, Caucasian hair.

#### **The Overnighter - Resurfacing Mask**

Gentle exfoliating gel-cream with fruit and ferment acids that balance skin smoothness and radiance at a higher pH.

| Phase | Ingredients (Trade Name)   | %wt/wt |
|-------|--|--------|
| А     | Water  | Q.S.   |
|       | <b>TeraGel</b> Solanum Tuberosum Pulp Extract, Furcellaria Lumbricalis Extract           | 2.0    |
| В     | Propanediol  | 10.0   |
|       | Glycerin   | 2.0    |
|       | <b>Glyoshield</b><br>Caprylyl Glyceryl Ether   | 0.5    |
|       | TeraCeutic Ferment Saccharomyces Ferment, Vitis Vinifera (Grape) Fruit Extract, Arginine | 7.5    |
|       | <b>TeraBiome</b> Glycolipids   | 1.0    |
|       | TeraGlyceryl Olive Olive Oil Polyglyceryl-6 Esters                                       | 2.0    |
|       | Glyceryl Stearate  | 1.5    |
|       | High Oleic Sunflower Oil   | 5.0    |
| С     | Sodium Hydroxide   | q.s.   |
|       | Total  | 100    |

#### Procedure:

- 1. Combine phase A and mix.
- 2. Add all the ingredients in phase B to phase A. Heat to 75°C.
- 3. Mix at 75°C until uniform. Once uniform, cool to room temperature with continued mixing.
- 4. Adjust pH with phase C to 4.0

#### **Physical Properties:**

Opaque, gel-cream pH: 4.0

24hr viscosity using spindle 3 at 3rpm = 14,439 cps

#### Stability:

Passed 3 months at RT & 40°C and 3 cycles F/T

