

16671.

Revital-Eyes

BOTANICAL EXTRACTS



VEGAN



COSMOS



IN VIVO



IN VITRO



CHINA



ISO 16128



THE FEATURES.

Revital-Eyes is a water-soluble ingredient developed by Active Concepts to provide conditioning and rejuvenating benefits to cosmetic and personal care formulations. This unique combination of *Lactobacillus* ferment lysate, *Camellia sinensis* leaf extract, *Punica granatum* extract, *Lactobacillus* ferment, and caffeine offers a plethora of nutritional benefits to nourish and revitalize the skin surrounding the eyes. This ingredient can help improve skin density and decrease the appearance of under-eye bags and dark circles.

Water & Lactobacillus Ferment Lysate & Camellia Sinensis Leaf Extract & Punica Granatum Extract & Lactobacillus Ferment & Caffeine

Actions

Revitalizing
Improves Skin Density
Decreases Under-Eye Bags & Dark Circles
Nourishing

TECHNICAL DATA SHEET.

THE REGULATION.

INCI. Water & Lactobacillus Ferment Lysate & Camellia Sinensis Leaf Extract & Punica Granatum Extract & Lactobacillus Ferment & Caffeine

CAS. 7732-18-5 & 68333-16-4 & 84650-60-2 & 84961-57-9 & 1686112-36-6 (OR) 68333-16-4 & 58-08-2

EINECS. 231-791-2 & N/A & 283-519-7 & 284-646-0 & N/A (OR) N/A & 200-362-1

EUROPE. Compliant

USA. Compliant

CHINA. Compliant

THE SPECIFICATION.

Origin. Botanical & Bacteria

Natural Antimicrobial. Lactobacillus Ferment

Preservatives. None

Solvents Used. Water

Soluble/Miscible. Water Soluble

Appearance. Slightly Hazy Liquid, Amber to Red

Use Level. 1 - 10 %



THE STORY.

Eyes are one of the first areas of noticeable aging, succumbing to wrinkles, puffiness, and dark circles. Collagen degradation, photo-exposure, environmental pollutants, and even blinking and smiling can affect the sensitive skin around the eyes, accelerating the aging process. In the wake of these stressors, dark circles remain, and fine lines greatly detract from the overall appearance of the skin and face. With the area around the eyes constantly under siege, it is essential to take extra care in protecting and nurturing this sensitive skin.

The skin under the eyes is very thin, approximately ten times thinner than other areas of the face, and is further thinned during the aging process due to loss of collagen, elastin, and hyaluronic acid⁵. As we age, the collagen responsible for upholding the integrity of our skin begins to breakdown, causing the skin to sag and easily affecting the sensitive skin around the eyes. When both genetics and environmental pollutants are contributing to the aging of the eye area, it is important to employ appropriate measures to combat these variables.

Using bioactive extracts or phytochemicals from botanicals offers two purposes: care of the body and as ingredients to influence the biological functions of the skin⁴. Active Concepts harnesses the power of the nutrient-rich bioactive compounds from botanical sources, such as *Camellia sinensis* leaf extract, *Punica granatum* extract, and caffeine (*Coffea arabica*), in the development of Revital-Eyes. This ingredient is an all-inclusive complex of probiotics and botanicals to help reduce signs of aging around the eyes, including the appearance of wrinkles, puffiness, and dark circles while toning the skin for a more youthful and rejuvenated look.

THE SCIENCE.

Camellia sinensis, or tea plant, contains a wide spectrum of biological activities capable of imparting antioxidant, photoprotective, anti-cellulite, anti-aging, and skin microcirculation properties that help to improve the condition of skin and hair¹. In the deeper layers of the skin, *Camellia sinensis* polyphenols exhibit potent protective effects against UV radiation and affect the activity of numerous enzymes that have a destructive effect on cellular cement lipids such as hyaluronic acid, elastin, and collagen¹. By inhibiting lipoxygenase, metalloproteinase, hyaluronidase, and collagenase, *Camellia sinensis* and its extracts can significantly delay the signs of skin aging¹. It can also be noted that *Camellia sinensis* polyphenols possess anti-inflammatory activity, which help to improve skin microcirculation¹. This specific action can be correlated to the radical scavenging effects of *Camellia sinensis* polyphenols, aiding the deceleration of inflammatory processes that disturb microcirculation and protect intracellular cement lipids¹.

Extracts from *Punica granatum*, or pomegranate, have been reported to exhibit potent antimicrobial and antioxidant activity³. Such health-promoting properties can be correlated to the fruit's polyphenolic compounds and tannins³. One specific polyphenolic compound in *Punica granatum* extract is punicalagins, which were demonstrated as an active melanin inhibitor³. Punicalagins have aided *Punica granatum* in its potential use as a cosmetic skin lightening agent³. A research study identified the ability of *Punica granatum* extract to inhibit melanin production in melanocytes, and attributed this effect to the present punicalagins³.

Caffeine (*Coffea arabica*) is a well-known chemical compound, or alkaloid, that has a stimulating action on the central nervous system (CNS) and metabolism². This alkaloid has been used in various cosmetic products to help treat cellulitis and local fat, dark under-eye circles, and eye puffiness and tiredness appearance². It has been researched and promoted that caffeine can help firm the skin, increase elasticity, and decrease cellulite². In conjunction with skin care, caffeine is used in hair care products targeted to stimulate hair growth and reduce hair loss². Caffeine has even demonstrated antioxidant and anti-inflammatory effects².

The following efficacy tests provide evidence of Revital-Eyes' ability to improve skin density and decrease the appearance of under-eye bags and dark circles, as well as diminish wrinkles and expression lines when used consistently.

THE BENEFITS.

Skin

- Antimicrobial** Challenge Test
- Anti-aging** In Vivo Efficacy
- Skin density** High Resolution Ultrasound Skin Imaging Assay
- Anti-inflammation** IL-6 ELISA



- Antioxidant** ORAC Assay
- Pro-aging** Reactive Oxygen Species Scavenging Assay
- Moisturizing & Hydrating** Moisturization Assay



THE EFFICACY.

In Vivo Efficacy.

An *in vivo* study was conducted over a period of three weeks to evaluate the effect of Revital-Eyes on under-eye bags and dark circles. 10 M/F subjects between the ages of 23-45 participated in the study. Following initial measurements, all subjects were asked to apply a 5% solution of Revital-Eyes to the right periorbital area twice a day for three weeks. Photographs were taken immediately after application of test materials and then weekly for three weeks. Results indicate that this material is capable of significantly decreasing the appearance of under-eye bags and dark circles. In addition, wrinkles and expression lines were also diminished with consistent product use.



Figure 1. Before and after images of subject #1 following application of a Revital-Eyes solution.



Figure 2. Before and after images of subject #2 following application of a Revital-Eyes solution.

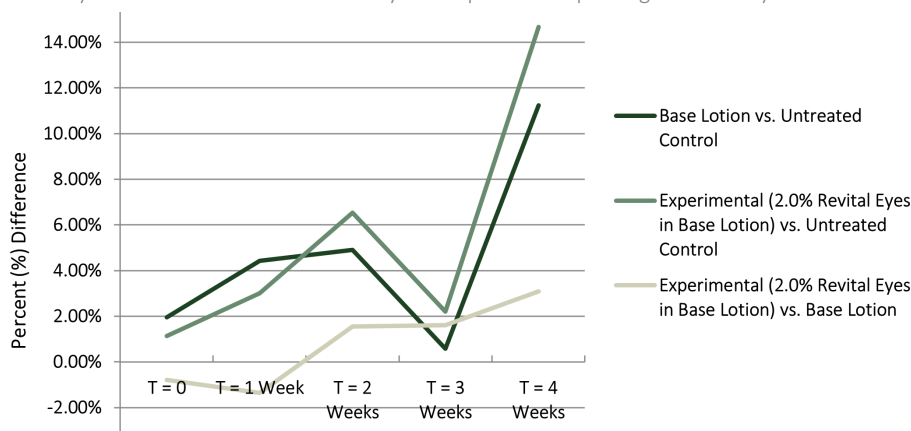
Exhibited anti-aging by decreasing under eye bags & dark circles (tested at 5%)

Anti-aging.

Anti-wrinkle & lifting properties

High Resolution Ultrasound Skin Imaging Assay.

An *in vivo* study was conducted over a period of four weeks to evaluate the effect on skin density of Revital-Eyes. 10 M/F volunteers between the ages of 23 and 45 and who were known to be free of any skin pathologies participated in this study. The Dermalab ultrasound probe was used to determine the skin density of the subject's volar forearms. Baseline elasticity readings were taken on day one of the study. Results indicate that Revital-Eyes is capable of improving skin density when used at recommended use levels.



Improved skin density by 14.66% after 4 weeks compared to untreated control (tested at 2%)

Skin density.

Strong & healthy-looking skin

References:

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- Ribeiro, Ana Sofia, et al. "Main benefits and applicability of plant extracts in skin care products." *Cosmetics* 2.2 (2015): 48-65.
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Active Concepts LLC
Lincolnton, NC- USA
Tel +1 704-276-7100
info@activeconceptsllc.com

Active Concepts SRL
Bareggio, (Milano) ITALY
Tel +39 02 90360719
info@activeconcepts.it

Active Concepts LLC, Asia
Kaohsiung, Taiwan
Tel + 886 73599900
info-asia@activeconceptsllc.com.tw

Website
www.activeconceptsllc.com

Social Media
@activeconceptsglobal