

TEGO® PEP TECHNOLOGY

# THE PEPTIDE MATRIX

Helical conformation to maintain a more youthful looking skin



Aging is a natural process of human life but can be exacerbated by various intrinsic and extrinsic stress factors. These factors are accompanied by structural and functional changes that can impact the visual appearance of one's skin and hair. But with Evonik's peptide technologies, brands can reinforce and revitalize healthy looking skin and hair to deliver the performance consumers are seeking.

## BENEFITS AT A GLANCE

- Solutions for healthy skin and hair appearance
- Boosting effects, with use of innate molecule sequences of polypeptides
- Useful for all skin types
- Offers support for aging hair

## THE SCIENCE

### The Skin

Physiological fatigue of skin is caused by intrinsic and extrinsic stressors at the biological level. These factors can cause a decrease in fibroblasts, yielding fewer ECM components of collagen, elastin, and glycosaminoglycans. This cascades by further influencing the signs of aging like wrinkles, sagging skin, skin tone, and rough skin texture.

### The Hair

Physiological fatigue of hair is also caused by intrinsic and extrinsic stressors in the biological and non-biological level of the hair. These factors can cause a decrease in the melanocyte function, weathering of the hair shaft,

premature graying, decrease in hair production, split ends, rough texture, hair loss, and photoaged hair.

## CONSUMER INSIGHTS

### Ageless Beauty

Aging remains to be an essential concern in Beauty & Personal Care, even as it evolves from fixing problems to revitalizing younger and healthy-looking skin and hair – with the technology of peptides.

### Inherently Inspired Beauty

Natural inspired solutions are one of the top claims in Beauty & Personal Care. Biomimetic peptide technologies offer a natural-like story through quality-controlled synthetic peptides that mimic the activities of innate-to-nature molecules. They provide natural brands an opportunity to use "naturally inspired" peptides/ingredients to make pro-aging claims.

### Self-Care Beauty

Consumers are overwhelmed by the effects of daily stressors. Multifunctional peptides that reinforce and rebalance the skin and hair complex while also soothing aggravated stressors are highly sought out by consumers.

## APPLICATIONS

- Skin care (e.g. Treatment Mask, Color cosmetics, Bath and Shower, Deodorants, and Sun Care)
- Hair care (e.g. Treatment mask, boosters, Serums)

## SOLUTIONS TO BOOST THE SKIN & HAIR MATRIX FOR TIMELESS BEAUTY

Skin Care	<p><b>TEGO® PEP 4-Vitality</b>  <b>Energize skin integrity to renew healthy appearance</b></p> <ul style="list-style-type: none"> <li>• Enhanced fibroblast functionality in aged populations</li> <li>• Drive collagen production to reinforce skin structure</li> <li>• Respond to stressors that lead to premature aging</li> </ul> <p><b>INCI:</b> Tetrapeptide-61</p>	<p><b>TEGO® PEP 4-17</b>  <b>The ECM boosting peptide</b></p> <ul style="list-style-type: none"> <li>• Superior collagen, hyaluronic and fibronectin boosting activity</li> <li>• Increase in skin elasticity and skin smoothness</li> <li>• Accelerates wound healing, indicating improved cellular turnover and skin regeneration</li> <li>• Peptide sequence is based on skin's own structure</li> </ul> <p><b>INCI:</b> Tetrapeptide-21; Glycerin; Butylene Glycol; Aqua</p>
	<p><b>TEGO® PEP 4-Even</b>  <b>Balancing skin tone</b></p> <ul style="list-style-type: none"> <li>• Enriching for all skin types</li> <li>• Visibly diminish hyperchromatic spots</li> <li>• Reduces acne lesions</li> <li>• Provides significant anti-inflammatory effect</li> </ul> <p><b>INCI:</b> Tetrapeptide-30; Glycerin; Aqua</p>	<p><b>TEGO® PEP 3-Recover</b>  <b>The renewal peptide for skin wellness</b></p> <ul style="list-style-type: none"> <li>• Supportive of collagen and elastin production</li> <li>• Increase in fibroblast activity</li> <li>• Reduction of inflammatory response</li> <li>• Trigger therapeutic care of skin</li> </ul> <p><b>INCI:</b> Copper Tripeptide-1 (China IECIC listed)</p>
	<p><b>TEGO® PEP UP</b>  <b>Biomimetic peptide supporting the skin by defying gravity</b></p> <ul style="list-style-type: none"> <li>• Facial contouring and wrinkle appearance improvement</li> <li>• Boosting of collagen and related ECM markers</li> </ul> <p><b>INCI:</b> Tetrapeptide-4; Glycerin (China IECIC listed)</p>	
Hair Care	<p><b>TEGO® PEP 3-Boost</b>  <b>Boost hair life cycle</b></p> <ul style="list-style-type: none"> <li>• Increase proliferation of dermal papilla cells (DPC)</li> <li>• Reduces apoptosis in DPCs</li> <li>• Elongation of hair follicle</li> </ul> <p><b>INCI:</b> Copper Tripeptide-34</p>	

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