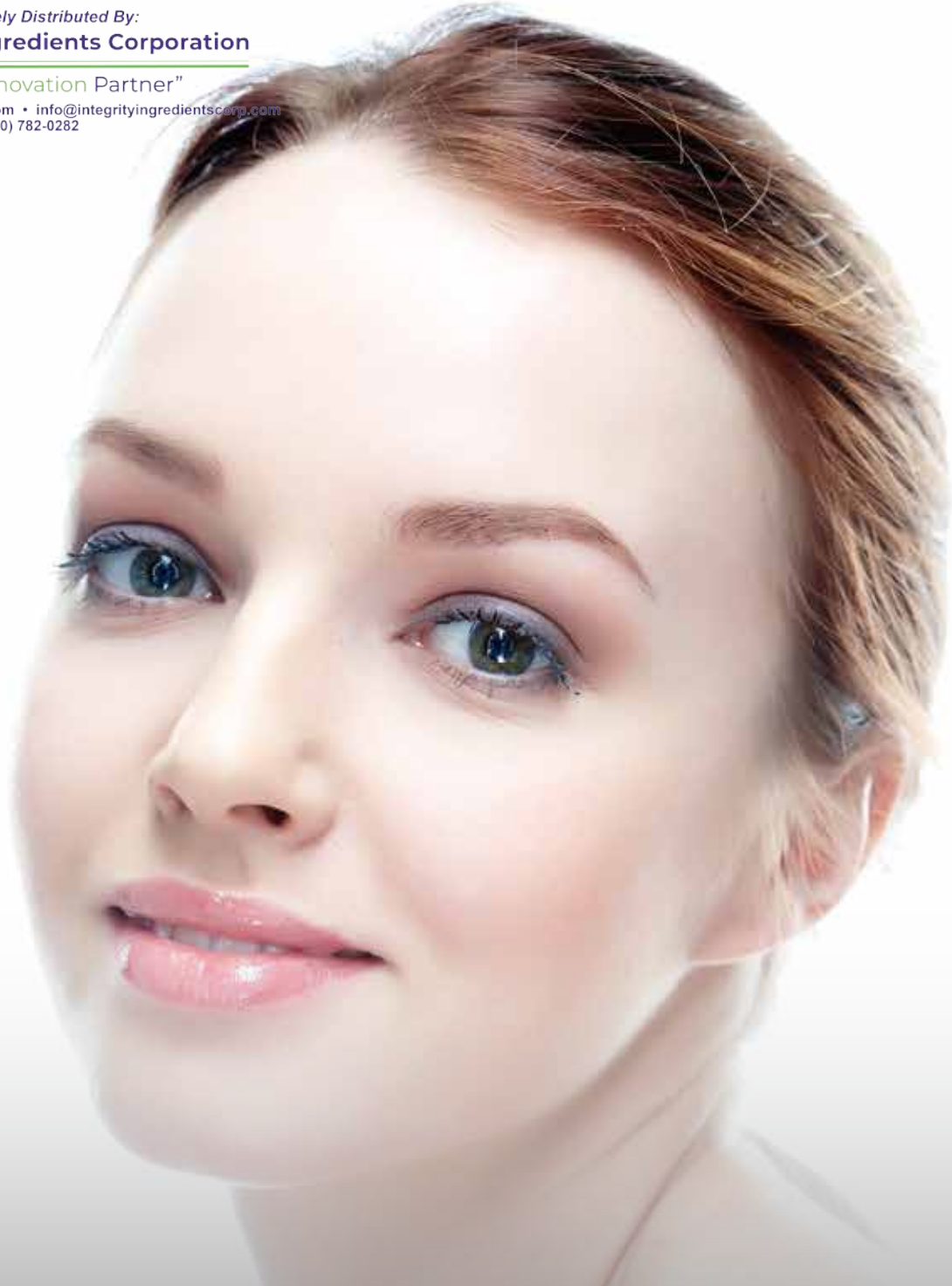


Exclusively Distributed By:

 Integrity Ingredients Corporation

"Your Innovation Partner"

www.integrityingredientscorp.com • info@integrityingredientscorp.com
(310) 782-0282



HydraFix-Pro

HydraFix-Pro protects skin from damages induced by heat, UV, irritants and dehydration, and improves overall skin condition through long-term moisturization.

 READLINE

HydraFix-Pro

Ectoin

INCI Name

Ectoin

CAS

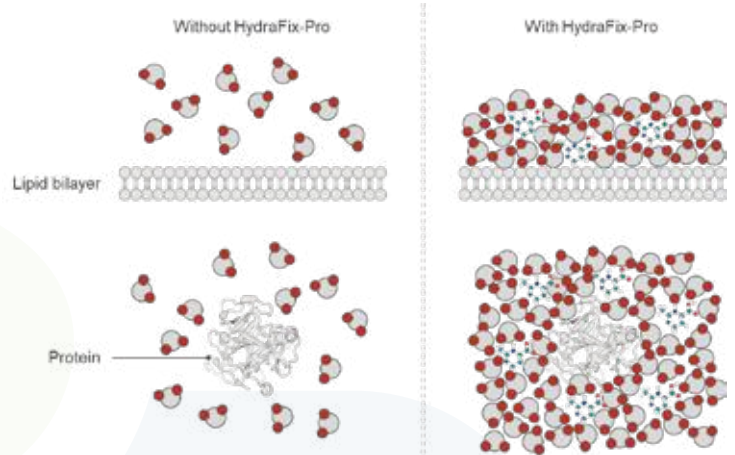
96702-03-3

Molecular Formula

$C_6H_{10}N_2O_2$

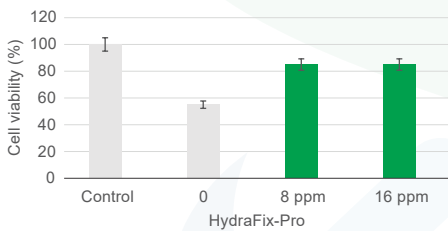
Product Information

HydraFix-Pro (Ectoin) is a cyclic amino acid derivative which is originally produced by halophilic bacteria living in extreme environments, as a survival strategy against highly-saline conditions. HydraFix-Pro stabilizes biomolecules such as proteins and lipids by forming complexes with water around biomolecules, and thus protects cells from inflammation caused by environmental stress factors like dehydration, UV radiation and pollutants etc. HydraFix-Pro also reduces UV-induced release of secondary messengers that activate an intracellular signaling cascade leading to inflammation.



Efficacy

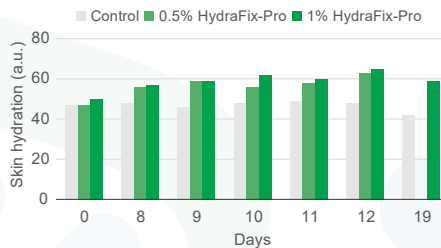
Cytoprotection effect of HydraFix-Pro under UV irradiation



Human skin fibroblast cells were irradiated by UV (365 nm, 22 J cm⁻²) and were treated with HydraFix-Pro (8 μg mL⁻¹ and 16 μg mL⁻¹). HydraFix-Pro protected cells against UV-induced damages and improved cell viability by stabilizing cellular membrane, reducing inflammation, and alleviating DNA damage.

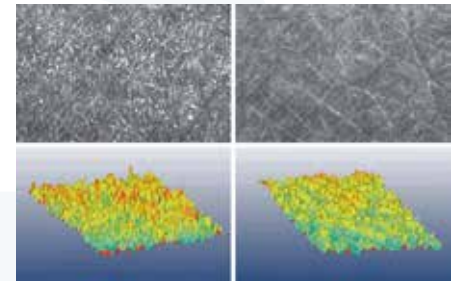
Reference: W. Cheng et al., *Appl. Sci.*, 2022, 12, 8531

Hydration effect of HydraFix-Pro



Five volunteers were treated with a cosmetic formulation containing 0, 0.5% and 1% HydraFix-Pro twice per day for 12 days. The skin hydration was determined by corneometry from Day 8 until Day 12 and finally measured at Day 19. HydraFix-Pro protected skin against dehydration and maintained skin moisture over a long period of time.

Reference: R. Graf et al., *Clin. Dermatol.*, 2008, 26, 326–333

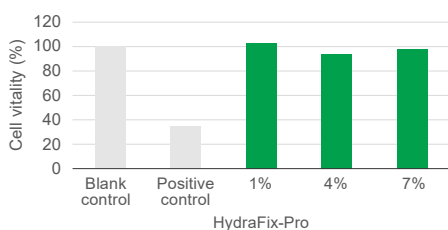


Skin surface was imaged by Visioscan before (left) and after (right) 4 weeks of treatment with a formulation with 2% HydraFix-Pro. HydraFix-Pro could reduce skin roughness and improve overall skin condition.

Reference: U. Heinrich et al., *Skin Pharmacol. Physiol.*, 2007, 20, 211–218

Safety

Safety test of HydraFix-Pro on a 3D skin model



HydraFix-Pro showed no toxicological potential in the tested concentrations applicable for cosmetic uses. HydraFix-Pro has been used in cosmetic and healthcare products for years, and no adverse effects have been reported in consumer feedbacks and clinical trials.

Formulation Guidelines

- **Recommended level of use:** 0.5–2 wt%
- HydraFix-Pro is highly soluble in water and is compatible with most of cosmetic active ingredients
- HydraFix-Pro can be added directly to aqueous phase prior to emulsification
- HydraFix-Pro should be added at the final stage of formation and processed below 45 °C

ABOUT US

READLINE is a bio-tech company focusing on developing and manufacturing active ingredients for cosmetics, nutritional supplements and pharmaceuticals in a green and sustainable manner. We are driven by a shared value to enable customer success with high quality green active ingredients, from making to using, from health to beauty.

Copyright © 2023 by Shenzhen Readline Biotech. Co. Ltd. All rights reserved.

This product information and all further technical advice are based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. No warranty or guarantee of product properties in the legal sense is intended or implied. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified and tested by qualified experts in the sole responsibility of a customer. This product information is not intended to provide legal or regulatory advice about product uses or claims in any jurisdiction and should not be relied upon for such guidance.

CONTACT US

- 🌐 www.szreadline.com
- ☎ +86 755 2665 9310
- ✉ sales@szreadline.com

