







Natural Moisture and Regeneration

As the largest human organ, the skin fulfils a wide variety of different functions: sensory function, mechanical protection, barrier function, protection against UV light and temperature regulation. In order for the skin to perform these important tasks, an external and internal supply of nutrients, trace elements and skin-conditioning substances are necessary. Frequent washing and disinfecting puts a strain on the skin's protective function. Botanica has developed a purely natural HYDRepair® Fruit Bio Complex which optimally supports moisturizing and regenerating cosmetic formulations.

Botanica GmbH • Industrie Nord • 5643 Sins • Switzerland • www.botanica.ch • +41 41 757 00 00







Composition

Organic Avocado Extract: moisturizing, wound healing

Avocado is rich in monounsaturated fatty acids, carotenoids, of which mostly lutein, as well as other related carotenoids, vitamins A and E, various phospholipids and glycolipids. Previous evidence demonstrated the individual wound healing activity of these substances. In the avocado fruit, these substances act synergistically to improve collagen formation and epithelization (overgrowth of the wound with epithelial cells), along with an additional moisturizing effect [1].

Organic Cranberry Extract: antioxidant, wound healing

Cranberries are an abundant source of various polyphenols, including leucoanthocyanins, anthocyanidin, flavonoids, cyanidin, peonidin and quercetin [2]. Phenolic compounds are well-known for their antioxidant, anti-inflammatory and antimicrobial effects. Recent findings suggest that the observed wound healing effect of cranberry can be linked to these substances [2].

Organic Sempervivum Juice: wound healing, cell regenerating

Houseleek (*Sempervivum tectorum*) contains polyphenols, tannins, proanthocyanidins and a high variety of flavonoids, which have been shown to have antioxidant, anti-inflammatory and antimicrobial effects [3,4,5]. An *in vitro* scratch assay performed on human keratinocytes confirms showed a wound healing and cell regenerating activity of the organic Sempervivum juice similar to the activity of organic Aloe Vera juice, which was tested for comparison [6].

Organic Glycerin: hydrating

Glycerin is a natural component of animal and vegetable fats and oils. It is used for various functions in cosmetics, mainly as a moisturizer [7].

Additional Information

Botanica Product Number: P-00025823, see specification

Organic & Natural Cosmetic: compliant, see specification

Vegan: compliant, see specification

Origin: 100% natural, 100% organic, free from coconut & palm oil

Extraction Process: Maceration, without addition of water

Botanica GmbH • Industrie Nord • 5643 Sins • Switzerland • www.botanica.ch • +41 41 757 00 00







PRODUCT INFORMATION

Bibliography

[1] Nayak, B. S., Raju, S. S., & Chalapathi Rao, A. V. (2008). Wound healing activity of *Persea americana* (avocado) fruit: a preclinical study on rats. Journal of Wound Care, 17(3), 123–125.

[2] Shivananda Nayak, B., Dan Ramdath, D., Marshall, J.R., Isitor, G., Xue, S., and Shi, J. (2011). Wound-healing Properties of the Oils of Vitis vinifera and Vaccinium macrocarpon. Phytotherapy Research *25*, 1201–1208.

[3] Alberti Á, Szőke É, Kéry Á, (2007). Evaluation of phenolic compounds in *Sempervivum tectorum* L. Planta Med, 73 – P 272.

[4] Cushnie T.P. and Lamb A.J. (2005) Antimicrobial activity of flavonoids. International Journal of Antimicrobial Agents 26(5):343-356.

[5] Kumar S. and Pandey A.K. (2013) Chemistry and Biological Activities of Flavonoids: An Overview, The Scientific World Journal Article ID 162750 http://dx.doi.org/10.1155/2013/162750.

[6] Botanica Internal Documentation: Sempervivum Bio Juice (CH) P-00002997.

[7] Becker, L.C., Bergfeld, W.F., Belsito, D.V., Hill, R.A., Klaassen, C.D., Liebler, D.C., Marks, J.G., Shank, R.C., Slaga, T.J., Snyder, P.W., et al. (2019). Safety Assessment of Glycerin as Used in Cosmetics. International Journal of Toxicology 38, 6S-22S.

Author: OH, LS Date: 03.05.2021 Number: 01

Version: 02 Source pictures:

AdobeStock_205096327 AdobeStock_315072173 AdobeStock_279824857 AdobeStock_269036262

Botanica GmbH • Industrie Nord • 5643 Sins • Switzerland • www.botanica.ch • +41 41 757 00 00

