

SKIN AND HAIR RESTRUCTURANT, LENITIVE



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# OMEGABLUE®

BILBERRY SEED OIL

**OMEGABLUE®** leverages on the four decades' experience of Indena on bilberry *Vaccinum myrtillus* fruits. Extracted from the seeds of this unique berry, **OMEGABLUE®** has been developed as a topical **soothing agent for sensitive skin** and as a **skin and hair restructurant**.

## • • • • • OMEGABLUE® - ABOUT *Vaccinium myrtillus* L., A UNIQUE SOURCE

*Vaccinium myrtillus* L. is a small shrub growing on hilly heaths and underbush throughout Central and Northern Europe. It grows wild, pesticide free in the boreal uncontaminated Northern European forests and, differently from blueberries, its fruits are not produced in clusters, but only as single, or rarely, twin fruits.

Because of this morphological characteristic and their growing location, bilberry fruits are difficult to harvest. In fact, they need to be mostly hand-picked, as they are susceptible to mechanical damage from picking rakes.

Additionally, bilberry seeds are very small.



Cod. DPR 0175 - 10/2011  
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## • • • • • OMEGABLUE® - PROPERTIES

OMEGABLUE® provides a **soothing effect** and **improves skin hydration and integrity**.

It protects against acute and chronic skin damage. It contains sebum-like essential fatty acids forming a protective barrier from external agents and the extremely **light and silky touch** allows the realization of appealing formulations.

### EVALUATION DATA

OMEGABLUE® has been clinically tested on healthy volunteers to assess its barrier repairing properties after irritative damage induced by the detergent SLS (Sodium Lauryl Sulphate) in occlusion for 24 hours.

After three days of applications twice daily of an emulsion containing 2% of OMEGABLUE®, the lipidic barrier was completely recovered from the damage caused by SLS.<sup>1</sup>

ON HAIR: a second trial on hair fragility was conducted on natural human hair shafts. As hair fragility corresponds to a higher permeability of hair to liquids, normal hair and NH<sub>3</sub> damaged hair were treated by either a placebo conditioner or an OMEGABLUE® containing conditioner at 5%. The treated hair resulted 12% less damaged (absorption rate) compared to the placebo treated hair shafts.<sup>2</sup>

## • • • • • OMEGABLUE® - THE RATIONAL

Recent publications<sup>3</sup> identify bilberry as an optimal source of **α-linolenic acid (ALA)** and **linoleic acid (LA)**; compared to other sources of unsaturated fatty acids, bilberry seed oil has an optimal omega-6 / omega-3 ratio.

The ratio of polyunsaturated essential fatty acids has determined most of the biochemistry of our organism: genetically speaking, humans live in a nutritional environment which differs from that our genetic constitution was selected for;<sup>4</sup> in fact, our diet is currently biased toward inflammatory omega-6 fatty acids rather than anti-inflammatory omega-3 fatty acids.

OMEGABLUE®, with the **balanced ratio of its composition**, assures an appropriate reconstitution of the skin barrier and prevents the competition of omega-6 and omega-3 for the enzymatic substrates of our organism.

### CHARACTERISTICS

**INCI NAME** *Vaccinium myrtillus* seed oil

**CAS** 85681 - 87 - 4

**EINECS** 288 - 225 - 2

### APPLICATIONS

OMEGABLUE® fully qualifies as an ideal ingredient to prevent dryness, irritation, desquamation and other disorders caused by lipidic barrier damage.

It may be widely used in skin care as well as in hair care, ranging from **anti-ageing** and **restructurant products** to body lotions, with a specific claim in **baby care**. The severe SLS induced damage, in fact, is intended to mimic the diaper irritation, and the capacity to restore the lipidic barrier qualifies OMEGABLUE® as ideal emollient and soothing active ingredient for the delicate baby's skin.

Repair hair care products, as well as moisturizers or mild cleansers, are a part of the range as well.

**RECOMMENDED DOSAGE: 2-10%**

### References

<sup>1</sup> Indena, data on file ISPE 235/10/01.

<sup>2</sup> Indena, data on file ISPE 255/10/01-472/10.

<sup>3</sup> Bere E., *European Journal of Clinical Nutrition* (2007) **61**: 431-3

<sup>4</sup> Simophoulos, *Biomed pharmacother* (2002), **56**: 365-79

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