



## Lichens - medicines from symbiotic communities

### CERIVIKEHL® and USNEABASAN®

Lichens are special in many respects. It is a fungus (mycobiont) that lives in symbiosis with a partner that can photosynthesise (photobiont). This is often an alga, but it can also be cyanobacteria. The fungus is responsible for the morphological structure, the photosynthetic partner provides energy for both in the form of carbohydrates. Lichens are named after the mycobiont and belong to the kingdom of fungi. They contain a wealth of secondary metabolites which have a variety of medicinal effects.

SANUM offers two preparations made from lichens for therapy: CERIVIKEHL® (*Cetraria islandica*) and USNEABASAN® (*Usnea barbata*).

*Cetraria islandica*, or Iceland moss, was first described in 1803, but has been used in folk medicine for much longer. Important ingredients are lichestic acid, protolichestic acid, fumaric protocetraric acid, protocetraric acid and usnic acid. These substances give the Iceland moss antimicrobial, antioxidant, anticarcinogenic and antidiabetic properties. *Cetraria islandica* is traditionally used to treat complaints in the intestinal and respiratory tract. (Sánchez M, 2022).

Experience has shown that CERIVIKEHL® is used in SANUM therapy particularly for respiratory diseases such as bronchitis, dry cough, laryngitis and sinusitis. Due to the bitter substances it contains, CERIVIKEHL® has also proved effective for patients with loss of appetite.

USNEABASAN® contains an extract from the beard lichen (*Usnea barbata*) or old man's beard, as it is commonly known. The first records of its medicinal use date back to 101 BC in China. In SANUM therapy, one of the main areas of application is in the head area, namely for congestive headaches or sunstroke. In addition, USNEABASAN® is also part of the SANUM detoxification cure, as it supports the elimination of heavy metals.

However, a literature search on *Usnea barbata* shows that the beard lichen has a much broader range of medical applications. The medically significant ingredients include usnic acid, norstictic acid, atranorin, chloratranorin, barbatic acid, lobaric acid and salicic acid. Various studies have demonstrated an anti-inflammatory, antimicrobial, antioxidant, cytotoxic (anti-tumour) and UVB radiation-protective effect. Of particular interest is the described effect of usnic acid against protozoa such as *Leishmania* spp.; this was confirmed in vitro and in vivo in an experimentally induced skin leishmaniasis (Žugic A., 2018) or in an infection with toxoplasma (Si K, 2016). *Usnea barbata* has also proven itself in veterinary medicine, where it is used, for example, as a preventative against bacteria, trichomonads and coccidia in cattle udder infections and pigeons (Buhner, 2006; Prateeksha, 2016).

### Trading forms



CERIVIKEHL® Mother Tincture

30 ml Bottle

Dosage

Adults and adolescents from 12 years:

acute: up to 6x 5 drops daily

chronic: 1-3x 5 drops daily.

USNEABASAN® Mother Tincture

30 ml Bottle

Dosage

Adults and adolescents from 12 years:

acute: up to 6x 5 drops daily

chronic: 1-3x 5 drops daily.

For further product information, please refer to the instructions for use.