

## **Bisalen<sup>®</sup> Topical Ointment 30g**

Ginger plant with the scientific name of «**Zingiber officinale**», with general name of «ginger» has a precedence of many years in the Iranian, Chinese and Indian, and in the modern herbal medicine several compounds of it have been made for treatment. «Know.Tech.Pharm.» Pharmaceutical Co. specialized in formulation and production of herbal medicine, by using the effective ingredients in the rhizome of «ginger» has formulated and produced the herbal ointment namely «Bisalen».

### **Main components:**

The rhizome of «ginger» plant contains (1-4) % of volatile oil and oleoresin, and the most important components of its volatile oil are Zingiberene, Curcumene and Beta-bisabolene.

Among other important effective ingredients we might mention Gingerol and Shogaol.

### **Indications:**

Joints and muscles pain and inflammation comprising: rheumatic pains, arthritis, waist and neck disk pains, all types of pains and inflammations, Joints and muscles and the pains derived after hard activities

### **Administration & Dosage:**

3-5 times per day, each time one layer of the ointment should be rubbed on the painful place and be massed mildly. For each 5 sq.cm of the skin surface, equal to one finger point of the ointment should be used.

### **Side effects:**

By using the ointment topically no side effect has been reported, only in persons allergic to ginger some contact dermatitis at finger tips may occur.

### **Interactions:**

No interaction with other drugs has been reported when using ginger topically.

### **The usage in pregnancy and breast-feeding:**

No prohibition for topical usage during the pregnancy is mentioned, for long period usage during pregnancy, it is better to consult with your physician.

The topical usage of this ointment during the breast-feeding is permitted.

### **Storage condition:**

- Proper storage temperature is 4-25 ° C.
- Prevent it from freezing, high and low temperature.
- After each usage, close the cap well.

### **Packaging:**

This drug is presented in tubes of 30g Net weight and the leaflet is enclosed in the box.

### **Remarkable points:**

- This drug is only for usage on the skin (avoid eating it, using on or around eyes and vaginal).
- Please press the tube from downward to upward whenever you use the drug, otherwise the tube may break.
- Keep the drug away from reach of children.

**The name of «Bisalen» has been taken from one of main ingredients namely « Beta-bisabolene».**

# Bisalen<sup>®</sup> Topical Ointment 30g

## Specialized info:

The most important effective ingredients of the ginger rhizome are as follows:

-Volatile oils (1-4) % out of which the most important are: Zingiberene, Curcumene, Beta-bisabolene and Geranial.

-Aryl alkanes such as Gingerol and Shogaol

The most comprehensive studies have been focused out on Gingerol and Shogaol contained in ginger, and it has been indicated that these two compounds thru inhibit cyclooxygenase 2 and lipoxygenase cause the gathering of prostaglandins (particularly  $PG_{E2}$ ) and leukotrienes, therefore they result in anti-inflammatory effects.

The NSAID drugs used for decreasing the inflammation and relieving the inflammatory pains, they inhibit the both enzyme of cyclooxygenase 1 and 2 and considering that the cyclooxygenase 1 always exist in all the tissues, and the cyclooxygenase 2 is created during the inflammation, then inhibition of cyclooxygenase 1 causes some side effects that after using NSAID drugs are seen. Therefore, the selected inhibit cyclooxygenase 2 is a suitable choice for anti-inflammatory effects. According to a study published in NIH, the main components from the ginger rhizome such as Gingerol and Shogaol, thru the selected inhibit of cyclooxygenase 2, reveals a good anti-inflammation effect, without being created the side effects caused by the unselected in of cyclooxygenase 1.

when using the ginger compounds topically (such as Gingerol and Shogaol), because of having a suitable molecular weight (less than 300 Daltons) and a medium solubility in water and fat, they have a good penetrability in the skin and in «Bisalen» ointment, because of a good and quality formulation and are well absorbed by the skin, therefore the anti-inflammatory and anti-pain effects reveal a short time after use.

Some other ingredients existing in ginger rhizome also help its anti-inflammatory and anti-pain effects thru different mechanisms.

For any more info, you might refer to the site of our company: [www.ktp.co.ir](http://www.ktp.co.ir) or send your email to: [info@ktp.co.ir](mailto:info@ktp.co.ir) or call us at 88390745.

## References:

- 1-WHO Monograph
- 2-PDR 2010
- 3-Food and Chemical Toxicology 46(2008)409-420
- 4-Arch Iranian Med 2005;8(4):267-271
- 5-ARTHRITS &RHEUMATISM Vol.44, No.11, November 2001, pp2531-2538
- 6-International Journal of Chem Tech Research Vol.2, No.1, pp 700-705, Jan-Mar 2010
- 7-Planta Med 2007:1525-1530
- 8-Natural Medicines Comprehensive Database
- 9-Fitoterapia.2011 January 82(1):38-43
- 10- Iranian Herbal Pharmacope

The components of product: Effective materials of Ginger, vaseline, beeswax, lanoline, benzoic acid

**Know.Tech.Pharm. is a knowledge base company, specialized in formulation and production of herbal medicine, located in Tehran University Science and Technology Park.**