

(54) Title  
**OINTMENT FOR SKIN TREATMENT, AND METHOD OF ITS MANUFACTURE**

(51) International Patent Classification(s)  
**A61K 36/14** (2006.01)                      **A61K 36/38** (2006.01)  
**A61K 31/015** (2006.01)                      **A61K 36/68** (2006.01)  
**A61K 36/28** (2006.01)                      **A61P 17/00** (2006.01)  
**A61K 36/30** (2006.01)

(21) Application No: **2013201965**                      (22) Date of Filing: **2013.03.26**

(30) Priority Data

(31) Number                      (32) Date                      (33) Country  
**P-2012-40**                      **2012.03.27**                      **ME**

(43) Publication Date: **2013.10.17**

(43) Publication Journal Date: **2013.10.17**

(44) Accepted Journal Date: **2015.02.05**

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**Abstract**

**OINTMENT FOR SKIN TREATMENT, AND METHOD OF ITS  
MANUFACTURE**

An ointment for topical skin treatment comprises an extract of juniper berries, *Juniperus comm. fruct.*, in a fatty base, and may further comprise *Symphytum off.*, *Calendula off.*, *Plantago lanceolata*, *Matricaria chamomilla*, *Equiseti herba*, and/or *Hypericum perforatum*.

**OINTMENT FOR SKIN TREATMENT, AND METHOD OF ITS  
MANUFACTURE**

The present invention relates to an ointment effective in the treatment of the skin, such as  
5 burns and psoriasis.

The treatment of wounds and other damages to the epidermis is conceivably the oldest  
medicinal activity of mankind. Nevertheless, so far no broadly effective treatment has  
been found. Some proposals have been made on the basis of herbal extracts (one example  
10 is EP 0 967 988 B1), but have proven to be of limited potential. Other proposals based on  
synthetic medicaments have adverse side effects, some of which may be severe. Thus, in  
recent years, the demand for a purely natural medicament has increased.

The present invention aims at overcoming the drawbacks of the prior art, and at  
15 providing an ointment that has a broader scope of indications and/or is more effective.

In this regard, the invention provides an ointment for skin treatment comprising extracts  
of at least juniper berries in a fatty base, a method of manufacturing the ointment and a  
composition mainly consisting of lipophilic extracts of juniper berries and several other  
20 ingredients.

In the present application, treatment is to be understood as topical treatment. The extracts  
are made by admixing the ingredients to a fatty base, prolonged heating and subsequent  
filtering, and are therefore considered to be lipophilic; a detailed chemical analysis is not  
25 available.

The inventor has found that the ointment is effective in the treatment of burns including  
sunburns, herpes-induced lesions, neurodermitis, psoriasis, acne, insect bites or stings,  
hematomas, bacterially or virally infected lesions of the skin and mucous membranes,  
30 and fungal lesions.

According to a first example, 832 g of suet were mixed with 125 g each of juniper berries (*Juniperus comm. fruct.*), roots of *Symphytum off.*, flowers of *Calendula off.*, leaves of *Plantago lanceolata*, and flowers of *Matricaria chamomilla*, each of these ingredients in macerated dried form. These ingredients form a first group. The proportion by weight was thus 8.6 % for each of the five ingredients and 57 % for the suet as the fatty base. In general, the weight proportion of each of the ingredients may be 6.5 % to 9.5 %, or more generally 5-10 %. Accordingly, the percentage by weight of the fatty base may range from 50 % to 60 % or even to 65 %.

According to a second example, the final ointment contains an additional 40 g of beeswax, or more generally 30-100 g corresponding to 2 - 3.5 % or -7 % by weight of the mixture.

In either case, the suet is heated to 150°C-200°C and held at this temperature for 5 minutes. The ingredients are then added to the heated fat and left to simmer for about an hour. Thereafter, the pot is left to cool for about 24 hrs. Then, the mixture is heated again to become just flowable (about 30-40°C), and filtered by pressing it through a silk cloth. In the second example, the beeswax is then added and the mixture is again heated (to about 60-100°C) and stirred to homogenize. In either case, the filtrate is then cooled and stored in the cool.

The constituents of *Juniperus comm.*,  $\alpha$ -pinene, sabinene,  $\alpha$ -cadinene,  $\alpha$ -terpinene,  $\gamma$ -terpinene, and  $\alpha$ -tujene (about 2.5 % ethereal oils), bring about the meritorious effect in combination with other ingredients of the first group. Juniper berries further contain invert sugar (33 %), resins (10 %), tannins (8 %), waxes, flavonoids, and juniperozide.

According to embodiments, ingredients of a second group are further added, namely *Equiseti herba* and/or *Hypericum perforatum*. Other constituents are not added, however.

The ointment is suitable for the treatment of skin and mucous skin (such as of nose, mouth, genital, and anal). In particular, the ointment is substantially free of heavy metals,

such as lead, cadmium, chromium, nickel, arsenic, and mercury. The ointment is usually slightly acidic (pH 4-5).

The fatty base is mainly (>50 % by weight) suet, i.e. bovine fat. If this is not available, a plant oil such as olive oil may additionally or alternatively be used.

It may be noted that ingredients of juniper berries are strictly required, and the best results are usually obtained with the extracts of the first group in combination with juniper.

#### 10 **Specific Details**

In the description provided herein, numerous specific details are set forth. However, it is understood that embodiments of the invention may be practiced without these specific details. In other instances, well-known methods, structures and techniques have not been shown in detail in order not to obscure an understanding of this description.

#### 15 **Terminology**

In describing the preferred embodiment of the invention illustrated in the drawings, specific terminology will be resorted to for the sake of clarity. However, the invention is not intended to be limited to the specific terms so selected, and it is to be understood that each specific term includes all technical equivalents which operate in a similar manner to accomplish a similar technical purpose.

#### **Different Instances of Objects**

As used herein, unless otherwise specified the use of the ordinal adjectives “first”, “second”, “third”, etc., to describe a common object, merely indicate that different instances of like objects are being referred to, and are not intended to imply that the objects so described must be in a given sequence, either temporally, spatially, in ranking, or in any other manner.

#### **Comprising and Including**

In the claims which follow and in the preceding description of the invention, except where the context requires otherwise due to express language or necessary implication,

the word “comprise” or variations such as “comprises” or “comprising” are used in an inclusive sense, i.e. to specify the presence of the stated features but not to preclude the presence or addition of further features in various embodiments of the invention.

Any one of the terms: including or which includes or that includes as used herein is also  
5 an open term that also means including at least the elements/features that follow the term, but not excluding others. Thus, including is synonymous with and means comprising.

### **Scope of Invention**

Thus, while there has been described what are believed to be the preferred embodiments of the invention, those skilled in the art will recognize that other and further  
10 modifications may be made thereto without departing from the spirit of the invention, and it is intended to claim all such changes and modifications as fall within the scope of the invention. For example, any formulas given above are merely representative of procedures that may be used. Functionality may be added or deleted from the block diagrams and operations may be interchanged among functional blocks. Steps may be  
15 added or deleted to methods described within the scope of the present invention.

Although the invention has been described with reference to specific examples, it will be appreciated by those skilled in the art that the invention may be embodied in many other forms.

### **Industrial Applicability**

20 It is apparent from the above, that the arrangements described are applicable to the therapeutic industries.

**The Claims Defining the Invention are as follows:**

1. An ointment for topical skin treatment, comprising an extract of juniper berries, *Juniperus comm. fruct.*, in a fatty base and further comprising at least one extract selected from a first group consisting of *Symphytum off.*, *Calendula off.*, *Plantago lanceolata* and *Matricaria chamomilla* wherein the first group consists of extracts from roots of *Symphytum off.*, flowers of *Calendula off.*, leaves of *Plantago lanceolata* and flowers of *Matricaria chamomilla*.
2. The ointment of claim 1, wherein the constituents of the ointment includes an effective amount of *Juniperus comm.*,  $\alpha$ -pinene, sabinene,  $\alpha$ -cadinene,  $\alpha$ -terpinene,  $\gamma$ -terpinene, and  $\alpha$ -tujene (preferably about 2.5 % ethereal oils), in combination with other ingredients of the first group.
3. The ointment of claim 1 or 2, comprising at least two extracts selected from the first group.
4. The ointment of claim 1 or 2, comprising at least three extracts selected from the first group.
5. The ointment of claim 1 or 2, comprising all four extracts constituting the first group.
6. The ointment of one of claims 1 to 5, further comprising at least one extract selected from a second group consisting of *Equiseti herba* and *Hypericum perforatum*.
7. The ointment of claim 6, comprising all six extracts constituting the first and second groups.
8. The ointment of one of claims 1 to 7, wherein the fatty base is mainly comprised of suet.

9. A process of manufacturing the ointment of any one of claims 1 to 8, comprising heating the fatty base to above 100°C, admixing the ingredients, and filtering the mixture to obtain the filtrate as the ointment.
10. The process of claim 9, wherein beeswax is added to the filtrate.
11. The process of claim 9 or 10, wherein the total amount of the admixed dried ingredients is substantially in the range of two thirds to one third of the mixture, and the amount of the fatty base is substantially in the range of one third to two thirds of the mixture.
12. The process of one of claims 9 to 11, wherein the mixture is heated to at least 150°C.
13. The process of claim 12, wherein the mixture is kept at substantially 150°C to 200°C for at least 1/2 hr.
14. The process of one of claims 9 to 13, wherein all four ingredients of the first group are used, and the amounts of the dried ingredients are each in the range of at least one eighth and at most one half of the total amount of the ingredients.
15. An effective composition suitable for the treatment of skin and mucous skin (such as of nose, mouth, genital, and anal) comprising lipophilic extracts of juniper berries, *Juniperus comm. fruct.*, *Symphytum off.*, *Calendula off.*, *Plantago lanceolata* and *Matricaria chamomilla*; and preferably further includes *Equiseti herba* and *Hypericum perforatum*.
16. A process of manufacturing the ointment for topical skin treatment, comprising an extract of juniper berries, *Juniperus comm. fruct.*, in a fatty base including the steps of:
  - a. providing a suet as a fatty base;
  - b. mixing into the suet each of juniper berries (*Juniperus comm. fruct.*), roots of *Symphytum off.*, flowers of *Calendula off.*, leaves of *Plantago lanceolata*, and flowers of *Matricaria chamomilla*, each of these ingredients in macerated dried form, wherein these ingredients form a first

- group, the proportion by weight was thus generally 5-10 % for each of the five ingredients and from 50 % to 60 % or even to 65 % for the suet as the
- c. heating the suet to 150°C-200°C and holding at this temperature for about 5 minutes;
  - d. adding the ingredients of the first group to the heated fat and simmer for about an hour;
  - e. allowing the mixture to cool for about 24 hrs.
  - f. reheating the mixture again to become just flowable (about 30-40°C);
  - g. filtering the mixture such as by pressing it through a silk cloth.  
and
  - h. cooling the filtrate and storing in the cool.
17. A process of manufacturing the ointment for topical skin treatment of claim 16, further including the steps of: the final ointment containing an additional beeswax, corresponding to 3.5 % or to 7 % by weight of the mixture; and as beeswax has been added the mixture is again heated (to about 60-100°C) and stirred to homogenize; and cooling the filtrate and storing in the cool.
18. An ointment for topical skin treatment, comprising an extract of juniper berries, *Juniperus comm. fruct.*, in a fatty base, in particular as obtainable from the process of any one of claims 9 to 14 or 16.