Appeal decision

Appeal No. 2011-14812

Luxembourg	
Appellant	EURO-CELTIQUE SA
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The case of appeal against the examiner's decision of refusal of Japanese Patent Application No. 2004-129590, entitled "A package containing dry liposome pharmaceutical composition containing iodophor and a method for applying said composition" (the application published on December 9, 2004, Japanese Unexamined Patent Application Publication No. 2004-346064) has resulted in the following appeal decision:

Conclusion

The appeal of the case was groundless.

Reason

1. History of the procedures

The application was filed on April 26, 2004 (priority claim under the Paris Convention: May 19, 2003, European Patent Office), and despite the written amendment and the written opinion having been submitted on November 15, 2010 in response to a notice of reasons for refusal, a decision for refusal was issued on March 3, 2011.

For this, an appeal against an examiner's decision of refusal was requested on July 8, 2011, and a written amendment (form) of the grounds of the appeal was

submitted on September 8, 2011.

2. The Invention

The inventions according to Claims 1 to 17 of the present application are as specified by the matters described in Claims 1 to 17 according to the scope of claims for patent of the written amendment dated November 15, 2010, and the invention relating to Claim 1 (hereinafter referred to as the "Invention") among them is as follows:

"[Claim 1] A storage stable package comprising a dry liposome pharmaceutical composition containing iodophor, in a plastic material, paper or cardboard package."

3. Cited Document

In National Publication of International Patent Application No. 2002-516265, which is a publication before the priority date for the Invention (Cited Document A3 in the original decision, hereinafter referred to as "Cited Document 1"), and in Japanese Unexamined Patent Application Publication No. H10-109938 (Cited Document A7 in the same, hereinafter referred to as "Cited Document 2"), cited in the reasons for refusal of the examiner's decision of the original decision, the following technical matters are described. Here, underlines were added by the body.

[Cited Document 1]

(a) "[Claim 1] A process for the manufacture of <u>a pharmaceutical preparation for the application of anti-inflammatory</u>, especially antiseptic agents and/or agents which promote the healing of wounds to the upper respiratory tract and/or the ear, characterized in that the preparation contains at least one of said agents combined with a particulate carrier." ([Claim 1] of [Claims for the Patent])
(b) "[0017]

A presently highly preferred use of <u>the liposome preparations</u> of the invention is in the local <u>treatment</u> of <u>infections</u> of the nose, mouth and throat, <u>especially when the</u> <u>liposome preparations contain povidone iodine</u>. Also in this indication, <u>the</u> <u>antiseptic preparations of the invention</u>, <u>especially those containing PVP iodine</u>, have the great advantage of not causing resistance and lead to much fewer allergic reactions, while permitting a very cost-efficient therapy with a broad spectrum of effect. <u>A povidone iodine liposome preparation according to this invention is e.g.</u> <u>effective against viruses</u>, <u>such as herpes simplex</u>. This effect is not provided by antibiotic agents. Further, a liposome preparation of a microbicidal agent such as povidone iodine provides protracted release of the agent from liposomes in the nasal or oral mucosa. This leads to extended effect of the antimicrobial substance, and thus less frequent application, as compared with the customary antiseptic solution preparations.

[0018]

<u>The invention is also useful in the treatment of infectious diseases or for</u> <u>alleviation of diseases such as HIV infections which are accompanied by</u> <u>opportunistic infections.</u> Also patients having a suppressed immune system, for example, after organ transplants, can be treated according to the invention. In particular, acute and chronical laryngopharyngitis and angina can be treated with the povidone iodine preparation according to the invention.

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<u>Preparations according to the invention can take a variety of forms</u>, which are suitable for administration via the upper respiratory tract and the ear, <u>including</u> <u>pharmaceutically acceptable solid or liquid formulations</u>. <u>Preparations according to</u> <u>the invention can</u> therefore be in the form of (powder) aerosol or in the form of a compacted solid medicament reservoir, preferably a ring tablet, more preferably <u>a</u> <u>gelatin capsule</u>, a powder, a spray, an emulsion, dispersion, a suspension or a solution containing the carrier and agent or agents. <u>They can be in the form of a gel, or some</u> <u>other semi-solid</u>, viscous or solid application form, e.g., for application in the mouth <u>cavity</u>." ([0017] to [0018])

(c) "[0022] More specific <u>formulations</u> are notable from the embodiment examples. The features and advantages of the invention will become notable in more detail from the ensuing description of preferred embodiments. <u>In these embodiments which</u> <u>include a best mode, povidone iodine is exemplified as an antiseptic agent and</u> <u>liposomes are chosen as the carrier</u>. ...

One preferred method for producing the invention's liposomes can generally be described as follows: ...

[0023]

An aqueous system is prepared from electrolyte components and the (one or more) active agents to be incorporated in <u>the liposome preparation</u>. Such an aqueous system can e.g. comprise 10 mmol/l sodium hydrogen phosphate and 0.9 % sodium chloride, at pH 7.4; the aqueous system will further comprise at least the desired amount of the active agent, <u>which in the embodiment examples is povidone iodine</u>. Often, the aqueous system will comprise an excess amount of agent or agents. The liposomes are generally formed by agitating said aqueous system in the presence

of said film formed by the lipid components. At this stage, further additives can be added to improve liposome formation; e.g. sodium cholate can be added. ... Generally, the raw liposome dispersion will be washed, e.g. with electrolyte solution as used in preparing the above-described solution of the active agent. [0024]

When <u>liposomes</u> with the required size distribution <u>have been obtained and</u> <u>washed</u>, they can be <u>redispersed in an electrolyte solution</u> as already described, often also comprising sugars such as saccharose or a suitable sugar substitute. <u>The</u> <u>dispersion can be freeze-dried</u>, and it can be lyophilized. <u>It can, prior to use, be</u> <u>reconstituted by addition of water and suitable mechanical agitation at the transition</u> <u>temperature of the lipid component</u>, which for hydrogenated soy bean lecithin is e.g. 55°C. ..." ([0022] to [0024])

(d) "[0027]

Embodiment Example II

In a 2000 ml flask provided with glass beads to increase surface area, 173 mg hydrogenated soy bean lecithin and 90 mg disodium succinate were dissolved in approximately 60 ml of a methanol/chloroform mix in a 2:1 ratio. The solvent was removed under vacuum until a film was formed.

4 g PVP iodine (containing about 10% available iodine) were dissolved in 40 ml of the sodium chloride buffer solution described in Embodiment Example I, and were added to the lipid film in the flask. The flask was then shaken until the film dissolved and liposomes were formed.

The product was centrifuged and the supernatant liquid was discarded.

<u>To the thus produced liposome pellet, further sodium chloride buffer solution</u> was added ad 40 ml, and the centrifuging step was repeated. The supernatant was again discarded. At this stage, <u>the washing step could be repeated where necessary</u>. [0028]

<u>After the final centrifuging and decanting step, sodium chloride buffer solution</u> was again <u>added</u> to the precipitated liposomes ad 40 ml. <u>The homogenous</u> <u>dispersion was then distributed into vials</u>, each vial containing about 2 ml liposome dispersion, and the vials were then subjected to a freeze-drying step. <u>This produced</u> <u>approximately 200 mg freeze-dried solids per vial.</u>

<u>From the freeze-dried solids of Examples</u> I and <u>II, further preparations were</u> <u>made as described in subsequent Embodiment Examples and Test Reports</u>.

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[0029]

Embodiment Example III

<u>A hydrophilic (O/W) cream was prepared from 10 g hydrogenated soy bean</u> <u>lecithin/PVP iodine liposomes as described in Embodiment Example II</u>; these were mixed with 4 g Polysorbate 40 (TM), 8 g cetylstearyl alcohol, 8 g glycerol, 24 g white vaseline, and water ad 100 g.

Embodiment Example IV

<u>An amphiphilic cream was prepared from 10 g hydrogenated soy bean</u> <u>lecithin/povidone iodine liposomes as described in Embodiment Example II;</u> 7.5 g medium chain length triglyceride, 7 g polyoxyethyleneglycerol monostearate, 6 g cetylstearyl alcohol, 8 g propylene glycol, 25 g white vaseline, and water ad 100 g. [0030]

Embodiment Example V

<u>A hydrophilic ointment which can be rinsed off with water was prepared using</u> <u>10 g of liposomal PVP iodine as described in Embodiment Example II</u>, 55 g Macrogol 400 (TM), 25 g Macrogol 4000 (TM), <u>and water</u> ad 100 g. <u>Embodiment Example VI</u>

<u>A hydrogel was prepared from 4 g liposomal PVP iodine as described in</u> <u>Embodiment Example II</u>, 0.5 g Carbopol 980 NF (TM), sodium hydroxide ad pH 7, <u>and water ad 100 g</u>.

Further modifications of the above-described embodiments are envisaged. ..." ([0027] to [0030])

[Cited Document 2]

(e) "[0007] Use of povidone-iodine is most popular and effective as the principal ingredient of the anti-infective against STD relating, for example, to HIV, chlamydia, gonococcus, treponema pallidum or herpes simplex, as has been mentioned above. While povidone-iodine itself can be effectively preserved for a long period unless it is exposed to radiations such as UV-rays, it must be diluted in water to alleviate its stimulant nature. <u>1% aqueous solution of povidone-iodine is supplied</u> as the anti-infective is modified and inactivated in a month even at a temperature of 50°C. So far as the aqueous solution of povidone-iodine is supplied along the current route of distribution, the desired efficacy of this solution cannot be expected when it attains to the user.

[0008] In order to solve the problems described above, <u>it is a principal object of the</u> <u>invention to prevent infection such as to HIV</u>, chlamydia, gonococcus, treponema pallidum or <u>herpes simplex</u> and to provide a novel device for that <u>comprising a pair of</u> containers separately filled with a principal ingredient and a base, respectively, but integrally assembled so as to facilitate mixing of said principal ingredient and said base with each other when actually used.

[0009]

[Means for Solving the Problems] To achieve the above object, by an anti-infective against STD relating, for example, to HIV, chlamydia, gonococcus, treponema pallidum, or herpes simplex, it is characterized in that <u>povidone-iodine</u> in the form of solution or <u>powder is used as a principal ingredient</u> and a high viscosity solution of polymer is used as a base."

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[0012] When povidone-iodine in the form of solution is used as the principal ingredient, said inner container is preferably made of light-shielded and colored glass. When povidone-iodine in the form of powder is used as the principal ingredient, on the other hand, said inner container is not limited to said glass container and may be made of synthetic resin.

[0013]

[Embodiments of the Invention] Since povidone-iodine is soluble in water or ethanol, 1 to 10% of povidone-iodine as solute may be solved in water or ethanol as solvent to obtain the desired principal ingredient. <u>The solution of povidone-iodine used as the</u> <u>principal ingredient is readily affected by radiation such as sun-beam and must be</u> <u>preserved within the light-shielded and colored inner container exclusively provided</u> <u>for the principal ingredient</u>. ...

[0014] It is also possible to use povidone-iodine in the form of powder as the principal ingredient. In this case, the powder of povidone-iodine is mixed with the other powder of high water-solubility; for example, powder of sucrose, glucose, lactose, fructose, calcium phosphate, maltose, or polyethyleneglycol (having a molecular weight of 4000 to 6000). Povidone-iodine in the form of powder differs from povidone-iodine in the form of solution in that the former is not inactivated by radiation such as sun-beam and therefore the inner container for the principal ingredient is neither required to be light-shielded and colored nor limited to the container made of glass." ([0007] to [0014])

(f) "... <u>the anti-infective using povidone-iodine as the principal ingredient is inevitably</u> <u>modified and inactivated approximately one month after the principal ingredient is</u> <u>mixed with the base</u>. The device according to the invention comprises the inner container filled with <u>povidone-iodine</u> in the form of 5 to 10% aqueous or ethanol solution or <u>in the form of powder as the principal ingredient</u> and the outer soft container filled with <u>aqueous solution</u> of hydroxypropylcellulose and hydroxyethylcellulose as the base so that, <u>immediately before the anti-infective is</u> <u>actually used</u>, these principal ingredient and the base may be mixed with each other. <u>In this way, the device according to the invention allows the anti-infective to be</u> <u>effectively preserved for a long period and thereby to be effectively used when it is</u> <u>desired to use the anti-infective</u>." ([0047])

4. The invention described in Cited Document 1

Cited Document 1 describes a pharmaceutical preparation that is a composition containing liposomes that is a particulate carrier and povidone iodine that is an antiseptic agent for application to the upper respiratory tract and/or the ear (indicated item (a) and [0022] of (c) in "3." described above), and the pharmaceutical preparation is a pharmaceutically acceptable solid or liquid formulation, and can take a variety of forms such as a gelatin capsule, a powder, a spray, an emulsion, a dispersion, a suspension or a solution ([0018] of (b) in the same).

Also, Cited Document 1 describes that, regarding the preparation of the pharmaceutical preparation, a liposome dispersion is formed by agitating an aqueous system prepared from electrolyte components and the active agents (povidone iodide) to be incorporated in the liposome preparation, in the presence of said film formed by the lipid components, and the obtained raw liposome dispersion is further washed with electrolyte solution as used in preparing the above-described solution of the active agent, then redispersed in an electrolyte solution and can be freeze-dried, and also describes that, "It can, prior to use, be reconstituted by addition of water and suitable mechanical agitation at the transition temperature of the lipid component, which for hydrogenated soy bean lecithin is e.g. 55°C.", namely, a pharmaceutical preparation is prepared as a freeze-dried liposome preparation, and can be reconstituted by addition of water when it is used (preparation in use) ([0023] to [0024] of (c) in the same).

Moreover, Cited Document 1 describes in specific Embodiment Example II that the sodium chloride buffer solution in which PVP iodine (as is clear from the description that "<u>povidone iodine</u>, also known as polyvidone iodine or <u>PVP-iodine</u>; i.e. the poly (1-vinyl-2-pyrrolidin-2-one)-iodine complex" in lines 10 to 12 of [0001] of Cited Document 1 (underlines were added by the body), is synonymous with "povidone iodine") was dissolved was added to the film obtained using hydrogenated soy bean lecithin which is a lipid, and the mixture was shaken to form liposomes, and washed with the buffer solution, then the buffer solution was further added to form a homogenous dispersion, and the homogenous dispersion was distributed into vials and subjected to a freeze-drying step, to obtain freeze-dried solids ((d) in the same). Furthermore, it is described in Embodiment Examples III to VI that a variety of forms of pharmaceutical preparations containing water were prepared by adding water and various preparation components, using the dried PVP iodine liposome obtained in Embodiment Example II (left in the same).

According to the description of Cited Document 1 as described above, it is acknowledged that Cited Document 1 describes the following invention.

"A freeze-dried liposome solid comprising liposomes which is a particulate carrier and povidone iodine, reconstituted as a pharmaceutical preparation for the application to the upper respiratory tract and/or the ear, by addition of water when it is used." (hereinafter referred to as the "Invention of Cited Document 1").

5. Comparison/judgment

Here, the Invention in a case where the package is made of a plastic material and the Invention of Cited Document 1 are compared.

First, in the specification, there is the following description (i) to (iii), relating to "dry liposome pharmaceutical composition" of the Invention.

(i) "Preferably the iodophor is PVP-iodine.", "The dry composition can subsequently be transformed (reconstituted) into an applicable preparation." (both in [0039])
(ii) "Such liposomal preparations are then dried, e.g. lyophilized, to give the dry composition, which is subsequently packaged for storage. Before use the dry compositions are mixed with a suitable pharmaceutical medium to form the applicable preparation. Such applicable preparations comprise gel-like formulations with medium or high viscosity, emulsions, dispersions, suspensions, solutions, ointments, waxes, sprays, lotions, etc." ([0062])

(iii) "media consist of ... water, ... and optionally usual auxiliary compounds. The pharmaceutically acceptable medium usually comprises all other ingredients necessary to result in the final applicable preparation upon mixing with the dry liposome composition. Alternatively all ingredients may be present in the dry composition and the applicable preparation is obtained solely by mixing with water, or some other liquid." ([0072])

First, as is clear from the description of indicated description (i) of the specification described above, "povidone iodine" in the Invention of Cited Document 1 corresponds to "iodophor" in the Invention. Moreover, according to the

description of indicated description (i) to (iii) described above, "a dry liposome pharmaceutical composition containing iodophor" in the Invention is mixed with a suitable pharmaceutical medium such as water to reconstitute the applicable preparation, and thus it can be said that "a freeze-dried liposome solid comprising liposomes which is a particulate carrier and povidone iodine, reconstituted as a pharmaceutical preparation for the application to the upper respiratory tract and/or the ear, by addition of water when it is used" of the Invention of Cited Document 1 corresponds to "a dry liposome pharmaceutical composition containing iodophor" in the Invention.

Therefore, the two inventions coincide on "a dry liposome pharmaceutical composition containing iodophor (reconstituted as a pharmaceutical preparation by addition of water when it is used)."

Also, in the case of a pharmaceutical composition to reconstitute the applicable preparation when it is used, the pharmaceutical composition is naturally stored in some kind of package (container) until it is used, and thus the two are different in the following point.

<The different feature>

While it is specified in the Invention that the dry liposome pharmaceutical composition is contained (stored) (A) "in a plastic material package" and in (B) "a storage stable package," such specification is not contained in the Invention of Cited Document 1.

Therefore, this different feature will be examined as follows.

(1) (A)

In Cited Document 1, there is no description for a package storing a freeze-dried liposome solid (dry liposome pharmaceutical composition) containing povidone iodine (iodophor) of the Invention of Cited Document 1.

However, the freeze-dried liposome solid containing povidone iodine of the Invention of Cited Document 1 is also stored in some kind of package until it is used. In Cited Document 2 which discloses a povidone iodine agent reconstituted by preserving and mixing a povidone iodine principal ingredient and a base when it is used (preparation in use), the agent being used for treatment of infection of herpes simplex, HIV, or the like, the same as the pharmaceutical composition of the Invention of Cited Document 1, it is described that the solution of povidone-iodine is readily affected by radiation such as sun-beam, and is modified and inactivated while being preserved, and the desired efficacy cannot be expected ([0007] and [0013] of (e) in "3." described above), and therefore, it must be preserved within the light-shielded and colored inner container exclusively provided for the principal ingredient ([0013] of the same), and meanwhile, povidone-iodine in the form of powder is not inactivated by radiation and therefore the inner container for the principal ingredient is neither required to be light-shielded and colored nor limited to the container made of glass ([0014] of the same), and may be made of synthetic resin ([0012] of the same). In addition, it is also described that, in the device of Cited Document 2, povidone-iodine in the form of powder and aqueous solution may be mixed with each other, immediately before the agent is actually used, and thus the agent is allowed to be effectively preserved for a long period and thereby to be effectively used ((f) in "3." described above).

Moreover, a person skilled in the art who finds the above description of Cited Document 2 can expect that the freeze-dried liposome solid containing povidone iodine of the Invention of Cited Document 1 has no problem of inactivation of povidone iodine, generated during storage in a solution state like povidone-iodine in the form of solution, since povidone iodine is contained in a dry state as a liposome preparation, and also can recognize from Cited Document 2 that a container made of synthetic resin can be used as a storage container until it is used, and the solid can be preserved for a long period since it is not a solution state. Furthermore, it is the common general knowledge that "synthetic resin" described in Cited Document 2 corresponds to "plastic" (if necessary, see the section of "Plastics" at page 943 to 944 of "Encyclopaedia Chimica 7", edited by Editing Committee for Encyclopaedia Chimica, published by Kyoritsu Shuppan Co., Ltd., received by the JPO Industrial Property Library on March 20, 1979).

Therefore, it is not acknowledged that a special creativity is necessary for a person skilled in the art to define that a liposome pharmaceutical composition containing povidone iodine of the Invention of Cited Document 1 used by being reconstituted when it is used (preparation in use) is stored "in a plastic material package" that are the specified matters of the Invention pointed out as (A), by taking into consideration the findings of Cited Document 2 referring to an agent containing povidone iodine reconstituted when it is used (preparation in use) as well.

The appellant alleges in the grounds of the appeal (see the written amendment (form)) that "Cited Document A3 (Note for the body; Cited Document 1 in the appeal

decision) does not even suggest storing for a long period by putting ... a preparation containing povidone iodine ... in a plastic material, paper or cardboard package. In other words, a problem to be solved of ... Cited Document A3 is different from that of the Invention." (lines 16 to 20 at page 3).

However, generally in the medicinal field, it is merely a known problem to obtain a preparation having more excellent storage stability, and it is natural that it is preferred to be stored while maintaining the effectiveness as long as possible until it is used, also for a medicine that can be prepared when it is used, which "can be reconstituted by addition of water when it is used" ((c) of [0024] in "3." described above), in Cited Document 1, and thus the appellant's allegation is improper.

(2) (B)

First, in the specification, there is the following description (iv) to (vi), regarding "storage stable package" of the Invention as the matter specifying the invention. (underlines were added by the body.)

(iv) "[0003]

<u>Commercially available iodophor pharmaceutical preparations often have an</u> <u>inherent limitation of a sharp fall in titratable iodine content with subsequent loss in</u> <u>germicidal potency in storage</u>. ... This <u>degradation of the iodophor compound and</u> <u>loss in titratable iodine content results in a lowered potency of pharmaceutical dosage</u> <u>forms</u> containing these compounds and thereby limits the use of these agents for germicidal use.

[0004]

It is known that <u>when an iodophor compound is dissolved in aqueous or</u> <u>hydro-organic solvent</u>, the level of titratable iodine will gradually decrease in the course of time, and that there will be an increase in the acidity of the iodophor solution. ... <u>there is a catalytic conversion of</u> available germicidal iodine to iodide <u>ion over the course of time, resulting in a loss of germicidal potency</u> as well as an increase in the solubilization of elemental iodine in its free form, thereby increasing the potential for irritation and toxicity.

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[0009]

For medicinal use, <u>iodophor solutions</u>, notably <u>povidone-iodine</u>, <u>have been</u> <u>packaged in soft plastic material bottles or containers with douching</u>, which can be used for various medicinal purposes. However, <u>a problem that has been encountered</u> with such-packaged iodophor solutions is that elemental iodine (equilibrium iodine) has leached into and even through the packaging material. This has resulted in a loss of active iodine and in a decrease in stability of the iodophor solution contained within the packaging, and has also made it difficult to handle such packaging, since elemental iodine which has leached therethrough causes staining and irritation if touched. Elemental iodine not only reacts with the packaging material but also with other reactive ingredients, e.g. unsaturated compounds, of the iodophor preparation, resulting in a loss of stability.

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[0011]

Patent Document 2 discloses a method to minimize loss of iodine from an iodophor solution, notably polyvinylpyrrolidone iodophor, which is stored within a packaging, by providing a certain minimal level of additional iodide, in addition to the iodophor solution, which prevents or minimizes leaching of iodine through the packaging itself. The separate introduction of additional iodide, above and apart from the iodide already present in the noted iodophor solution, reduces the leaching of any elemental iodine from the iodophor solution through the packaging. [0012]

Patent Document 3 discloses storage stable PVP-I solutions useful for ophthalmic preparations containing an alkanizing agent, which however have to be packaged in glass bottles. <u>Glass bottles are disadvantageous with regard to easy breaking and causing dangerous splinters</u>.

...

[0016]

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There is still a need of storage stable iodophor containing preparations <u>which do</u> <u>not necessarily need the addition of special stabilizers</u> such as iodide salts, iodate salts, or alkanizing agents and <u>can be stored for years</u>, e.g. two years or even longer, <u>in</u> <u>plastic material bottles and containers or even in paper or cardboard packages</u>, <u>without encountering the above-discussed leaching problems</u>, and without having to <u>use glass as a packaging material</u>.

...

[Problem to be Solved by the Invention] [0017]

<u>The present invention has been conceived in order to solve the above problem</u>, and <u>an object of the present invention is to provide a dry liposome pharmaceutical</u> <u>composition containing iodophor having excellent storage stability that can be stored</u> for years, in plastic material bottles and containers or even in paper or cardboard packages.

[0018]

<u>To attain the above problem, the invention of claim 1 provides a storage stable</u> package comprising a dry liposome pharmaceutical composition containing iodophor, in a plastic material, paper or cardboard package.

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[0035]

According to the invention, <u>the above problems of the prior art are overcome by</u> providing, a dry particulate iodophor containing composition, especially a lyophilized or freeze-dried composition, and providing a package comprising said dry composition in a plastic, paper or cardboard bottle, sachet, tube or container.

(v) "[0038]

... The plastic material may be of such a nature that it really reacts with, or gets stained by, elemental iodine or, iodine leaches through it under storage conditions. In some preferred embodiments the material would not be suitable for packaging iodophor containing preparations, unless the preparations are dry. [0039]

... It is <u>one aspect of the present invention</u> to provide a method of <u>stabilizing</u> a particulate iodophor containing preparation <u>for storage in plastic</u>, <u>paper and cardboard</u> <u>packages</u>, <u>preferably in plastic bottles or containers</u>, <u>by providing the same in the</u> <u>form of a dry particulate iodophor containing composition</u>. The dry composition can subsequently be transformed (reconstituted) into an applicable preparation."</u>

(vi) "[0049]

In the specification, "storage stable" means that substantially there is no loss of titratable iodine, no decomposition of the composition caused by the reaction of elemental iodine with other ingredients of the composition, no reaction of elemental iodine with the packaging material, and no leaching of elemental iodine through the packaging material, when stored for years in a package that keeps the composition dry at normal storing conditions."

Moreover, according to indicated description of (iv) described above, it is known that, conventionally in the pharmaceutical preparation obtained by dissolving an iodophor compound in aqueous or hydro-organic solvent, the level of titratable iodine will gradually decrease, resulting in lowering of germicidal potency ([0004]), and there was a problem that when iodophor solutions, notably povidone-iodine, have been packaged in soft plastic material, elemental iodine has leached into the packaging material and has resulted in a loss of active iodine, and elemental iodine reacts with the packaging material and other reactive ingredients of the iodophor preparation, resulting in a decrease in stability of the iodophor solution contained within the packaging ([0009]), and also considering the description of the general explanation indicated in (iv) described above, it can be tentatively understood that, in the Invention, "storage stable" means that problems of loss of titratable iodine, decomposition of the composition caused by the reaction of elemental iodine with other ingredients, and reaction of elemental iodine with the packaging material and a problem of leaching of elemental iodine through the packaging material, which are problems caused in the conventional iodophor solution, are not caused when the composition is stored for years at normal storing conditions.

Here, the problems of the loss of active iodine and storage stability when using a soft plastic material, which are caused in the conventional iodophor solution, as described above, are solved in the Invention by "stabilizing a particulate iodophor containing preparation for storage in ... packages by providing the same in form of a dry particulate" ([0039] of (v) described above), and in the Invention, an iodophor containing preparation is provided in form of a dry particulate, whereby the problem of storage stability is solved. Moreover, when an iodophor containing preparation is provided in form of a dry particulate, a material constituting the package may be the material that "would not be suitable for packaging iodophor containing preparations, unless the preparations are dry," and may be the material "The plastic material may be of such a nature that it really reacts with, or gets stained by, elemental iodine or, iodine leaches through it under storage conditions" in the Invention ([0038] of the same). On the other hand, it is clear that "a freeze-dried liposome solid comprising liposomes that is a particulate carrier and povidone iodine" of the Invention of Cited Document 1 corresponds to "a dry particulate iodophor containing composition, especially a lyophilized or freeze-dried composition" ([0035] of (iv) described above) described in the specification, it can be said that "a freeze-dried liposome solid comprising liposomes which is a particulate carrier and povidone iodine" of the Invention of Cited Document 1 satisfies the matter specifying the invention of "storage stable" in the Invention, and it does not depend on the material of package for storage. Therefore, even when "a freeze-dried liposome solid comprising liposomes that is a particulate carrier and povidone iodine" of the Invention of Cited

Document 1 is stored in a plastic package, the packaged solid can be said to be "storage stable," and this is also clear from the description of Cited Document 2, as described in the examination of (A) in (1).

Here, for the matter specifying the invention of "storage stable" in the Invention, no specific test results are shown in the specification and drawings, and thus to what extent the problems of the prior art problems described in (iv) are solved by the constitution of the Invention cannot be specifically identified from the specification and drawings.

Therefore, (B) substantially cannot be said to be the different feature.

The appellant alleges in the written amendment (form) of the grounds of the demand of the request for appeal that "Even though there is a suggestion of Cited Document A7 (Note for the body; Cited Document 2 in the appeal decision) that it is possible to preserve povidone iodine powder in a container made of synthetic resin, it cannot be conclude that the dry liposome preparation containing iodophor having different properties from povidone iodine powder can be preserved in a package formed from a plastic material, paper, or cardboard. ... the preparation described in Cited Document A7 which is a preparation having viscosity and the dry liposome preparation are also different in their properties, and thus the storage conditions and the like are also different, and it is considered that the preparation described in Cited Document A7 cannot be preserved in a package formed, for example, from paper or cardboard." (lines 25 to 35 on page 3)

However, a person skilled in the art who finds the description of Cited Document 2 can recognize that, in the freeze-dried liposome solid containing povidone iodine of the Invention of Cited Document 1, povidone iodine in the preparation is present in a dry state, unlike the case of a povidone iodine solution, and thus the freeze-dried liposome solid has no problem of inactivation as when present in the form of solution, and can be preserved for a long period, as is described in (1). Also, there is no common general knowledge that iodophor is in a dry liposome form, thereby losing storage stability unlike the case of povidone iodine powder described in Cited Document 2, and thus the appellant's allegation cannot be adopted.

(3) Effect of the Invention

The specification describes the effect of the Invention that "The present invention can provide a package containing pharmaceutically acceptably carrier preparation containing a particulate iodophor, that can be stably stored for years, and the composition has an excellent effect that it can be reconstituted with the addition of an appropriate liquid medium to give an applicable preparation." ([0036]). In addition, according to the Invention, as described in the indicated description (iv) to (vi) in (2) described above, a plastic material that "may be of such a nature that it really reacts with, or gets stained by, elemental iodine, or iodine leaches through it under storage conditions," which has a problem in use in the case of the conventional iodophor solution, can also be used ([0036] of (v) described above), and a disadvantageous problem with regard to easy breaking and causing dangerous splinters caused in the case of glass bottles ([0012] of (i) of the same) can also be avoided.

Therefore, considering first for the effect of storage stability, this effect is exhibited by providing an iodophor containing preparation in form of a dry particulate, and also is exhibited by the freeze-dried liposome solid containing povidone iodine of the Invention of Cited Document 1, and it is as already described in (2) that this effect of storage stability can be also expected in the case of storing in the plastic package. Also, according to the findings of Cited Document 2, it is as already described in (1) that the freeze-dried liposome solid containing povidone iodine of the Invention of Cited Document 1 stored in dry can be expected to be stably stored for years in a synthetic resin container as well as the povidone iodine containing agent of Cited Document 2. Therefore, the effect of storage stability is merely an effect within the scope that can be expected by a person skilled in the art from Cited Documents 1 and 2.

Also, as to the effect of being capable of being reconstituted to give an applicable preparation, the composition of the Invention of Cited Document 1 can also be reconstituted with the addition of an appropriate liquid medium to give an applicable preparation, and thus the effect of the Invention in this regard is merely an effect already exhibited in Cited Document 1.

Furthermore, it is natural that the agent container is desired to be hardly damaged and to have good handling properties, and it is obvious to a person skilled in the art in the Invention of Cited Document 1 that, when the package for storage is made of synthetic resin, the disadvantage in the case of using glass bottles can be avoided.

Accordingly, the effect of the Invention is merely an effect within the scope that can be expected by a person skilled in the art from Cited Documents 1 and 2 and the technical common knowledge.

Therefore, the Invention could be easily made by a person skilled in the art based on the inventions described in Cited Document 1 and Cited Document 2.

6. Conclusion

As described above, the invention according to Claim 1 of this application could be easily made by a person skilled in the art, and the appellant should not be granted a patent for the Invention under the provisions of Article 29(2) of the Patent Act.

Therefore, this application should be rejected without going into details of other claimed inventions.

The appeal decision shall be made as described in the conclusion.

October 18, 2013

Chief administrative judge: KAWAKAMI, Yoshihide Administrative judge: FUCHINO, Ruka Administrative judge: AMANO, Takako