

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 2 June 2016**

Case Number: T 0180/13 - 3.3.07

Application Number: 03718677.2

Publication Number: 1480615

IPC: A61K9/00, A61K31/485

Language of the proceedings: EN

Title of invention:
FORMOTEROL SUPERFINE FORMULATION

Patent Proprietor:
CHIESI FARMACEUTICI S.p.A.

Opponent:
NORTON HEALTHCARE LIMITED

Relevant legal provisions:
EPC Art. 54, 111(1)

Keyword:
Novelty - implicit disclosure (no)
Appeal decision - remittal to the department of first instance
(yes)

Decisions cited:
T 1523/07



Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 0180/13 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 2 June 2016

Appellant: CHIESI FARMACEUTICI S.p.A.
(Patent Proprietor) Via Palermo, 26/A
43100 Parma (IT)

Representative: Dempster, Robert Charles
Maschio & Soames IP Limited
30 Carlton Crescent
Southampton SO15 2EW (GB)

Respondent: NORTON HEALTHCARE LIMITED
(Opponent) Regent House
5-7 Broadhurst Gardens
Swiss Cottage
London NW6 3RZ (GB)

Representative: D Young & Co LLP
120 Holborn
London EC1N 2DY (GB)

Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 27 November
2012 revoking European patent No. 1480615
pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman J. Riolo
Members: A. Usuelli
D. T. Keeling

Summary of Facts and Submissions

- I. European patent No. 1 480 615, based on European application 03718677.2, was granted on the basis of 13 claims.
- II. The patent was opposed under Article 100(a), (b) and (c) EPC on the grounds that its subject-matter lacked novelty and inventive step, it was not sufficiently disclosed and it extended beyond the content of the application as filed. The following documents, were among those cited during the first-instance proceedings:
- D1: WO 01/89480
D1a: EP 1 157 689
D2: British Pharmacopoeia, 2002, pages 700-705
D3: WO 00/51591
D5: Pharmaceutical Inhalation Aerosol Technology, 1995, pages 175-177
- III. By decision posted on 27 November 2012 the patent was revoked. The decision was based on the patent as granted as main request and on two auxiliary requests.

Claim 1 of the granted patent read as follows:

"1. A pharmaceutical aerosol formulation to be administered by a pressurized metered dose inhalers which comprises an active ingredient selected from formoterol or a stereoisomer, physiologically acceptable salt and solvate thereof, in a solution of a liquefied HFA propellant, ethanol as co-solvent, characterized in that ethanol is in anhydrous form, in a concentration comprised between 10% and 20% w/w, and

the amount of residual water is less than 1500 ppm on the total weight of the formulation".

The subject-matter of claim 1 of the auxiliary requests related to a pharmaceutical aerosol formulation for pressurized metered dose inhalers consisting of a solution of liquefied HFA containing formoterol, beclomethasone dipropionate (BDP), anhydrous ethanol and hydrochloric acid.

IV. The decision of the opposition division can be summarised as follows:

- (a) The formulation disclosed in example 5 of document D1 was novelty destroying for the subject-matter of claim 1 of the patent. No mention was made of the presence of water in this example. The skilled person would have realised that this example related to a dry composition, possibly containing only small amounts of water as impurity. Therefore, the feature of claim 1 relating to the residual amount of water could not establish novelty over D1.
- (b) Document D1a was the closest prior art for the assessment of inventive step of claim 1 of auxiliary request 1. The claimed formulation differed from the formulation of example 5 of D1a in the presence of BDP. The closest prior art already suggested to combine formoterol with steroids, such as BDP. Hence, the subject-matter of claim 1 was not inventive.

The same conclusion was drawn starting from example 6 of D1a. In that case the distinguishing feature of the formulation of claim 1 was represented by

the absence of isopropyl myristate (IPM). However, according to the teaching of D1a the presence of IPM was entirely optional. Hence, removing this substance from the composition of example 6 of D1a did not involve any inventive step.

(c) Claim 1 of auxiliary request 2 was not inventive for the same reasons as set out in respect of claim 1 of auxiliary request 1.

V. The patent proprietor (appellant) filed an appeal against that decision. With the statement setting out the grounds of appeal filed on 3 April 2013 it submitted two auxiliary requests and requested the rejection of the opposition or the maintenance of the patent in accordance with these auxiliary requests.

Two additional sets of claims as auxiliary requests 3 and 4 were submitted with letter of 29 April 2016.

VI. The opponent (respondent) replied to the proprietor's appeal with letter of 6 August 2013.

VII. Oral proceedings were held on 2 June 2016.

VIII. As far as relevant for the present decision, the appellant's arguments can be summarised as follows:

(a) Example 5 of document D1 did not provide a direct and unambiguous disclosure of a formoterol formulation in HFA in which the residual amount of water was less than 1500 ppm. Although in the document it was stated that humidity could be detrimental to the stability of formoterol, no indication was given as to the residual amount of water contained in the formulations. Furthermore,

in the absence of any specific indication it could not be assumed that the ethanol used in the formulation was necessarily absolute ethanol. Usually, when absolute ethanol was used, this was explicitly stated such as in example 1 of D3. Document D2 indicated that also ethanol with a degree of purity of only 96% complied with the requirements of the European Pharmacopoeia. Additionally, in the formulation of example 5 there was also hydrochloric acid, which could contain between 200 and 300 ppm of water. Finally, also the atmosphere of the environment was a potential source of water. Document D1 did not provide any specific indication to undertake particular measures in order to have a residual amount of water below 1500 ppm. Document D5 generically suggested to manufacture the formulations for metered dose inhalers in conditions of low humidity. However, it did not indicate to maintain the residual amount of water below 1500 ppm. Hence, it could not be considered that the explicit disclosure of D1, necessarily implied that in the formulation of example 5 the amount of water was below 1500 ppm.

- (b) If the main request was found to be novel, the case should be remitted to the the opposition division for further prosecution. Indeed during the first-instance proceedings the inventive step of the main request was not discussed. The opposition division decided that the auxiliary requests were not inventive. However, the subject-matter of these requests was very different compared to the subject-matter of the main request. Hence, the arguments on inventive step developed during the

first-instance proceedings did not apply to the main request.

IX. As far as relevant for the present decision, the respondent's arguments can be summarised as follows:

(a) Example 5 of document D1 did not provide any explicit information as to the residual amount of water in the formoterol formulation. However, on page 4 of this document it was clearly stated that humidity could be detrimental to the stability of this active ingredient. Furthermore, it was stated in document D5 that water can play a destructive role in metered dose inhaler formulations. A person skilled would have understood that the general teaching of D5 applied in particular to formulation containing drugs sensible to the presence of water such as formoterol. He would have therefore realised that the formulation of example 5 of D1 was prepared using anhydrous components and working in anhydrous conditions. Document D2 indicated that in the context of pharmaceutical preparations, the term "ethanol" was used as synonymous of "absolute alcohol" which may contain up to 600 ppm of water. Hence, even in the absence of any specific indication, the skilled person would have assumed that the ethanol used in the preparation of the formulation of example 5 was essentially free of water contamination. Thus, the disclosure of example 5 of D1 anticipated the subject-matter of the main request.

(b) There was no need to remit the case to the first-instance if the main request was found novel since the subject-matter of this request did not involve any particular technical difficulty and the

parties were prepared to discuss the requirements of inventive step.

- X. The appellant requested that the decision under appeal be set aside and the patent maintained as granted (main request) or that the case be remitted to the the opposition division for further prosecution, or, in the alternative, that the patent be maintained on the basis of the claims of the 1st or 2nd auxiliary request, as filed with the grounds of appeal on 3 April 2013, or on the basis of the claims of the 3rd or 4th auxiliary request, as filed by letter of 29 April 2016.
- XI. The respondent requested that the appeal be dismissed.

Reasons for the Decision

Main request (granted patent)

1. Novelty

In the appealed decision the opposition division came to the conclusion that the subject-matter of claim 1 of the patent was anticipated by the disclosure of example 5 of document D1.

- 1.1 This example relates to an aerosol formulation for pressurized metered dose inhalers prepared by dissolving formoterol fumarate in a solution of HFA 134a containing 12% w/w ethanol. The formulation furthermore contains hydrochloric acid to adjust the pH of the solution between 3.0 and 3.5.

The sole issue in dispute between the parties concerns the question as to whether the amount of residual water

in this formulation is less than 1500 ppm on the total weight of the formulation, as required by claim 1 of the patent in suit.

1.2 Neither example 5 nor the remaining parts of document D1 provides explicit information as to the amount of residual water contained in the formoterol formulations disclosed in this document. Hence, the question arises as to whether this information is implicitly disclosed in D1. In deciding what the skilled person would consider implied by the disclosure of D1 also the common general knowledge in the technical field of the invention must be taken into account.

1.3 In this respect it is observed that document D1 reports on page 4 (lines 11 to 13) that it is well known that humidity can be detrimental to the stability of formoterol during storage. Furthermore, document D5, a technical book which can be considered to illustrate the common general knowledge in the field of pharmaceutical aerosol technology, recommends operating in conditions of low humidity during the manufacture of metered dose inhalers (page 176, 2nd full paragraph).

1.4 In view of this, the skilled person would have understood that the formulation of example 5 of D1 was certainly prepared with a view to maintaining the amount of residual water under control.

Yet, D1 fails to provide any more specific information as to the maximum amount of water that can be tolerated in the formoterol formulations. There is also no indication in D1 that for the preparation of the formulation of example 5 starting materials in anhydrous form should be used. Indeed, both ethanol and hydrochloric acid, which are present in the formulation

of example 5, may contain variable amounts of water. Document D1 does not indicate that these substances should be used in anhydrous form or that they should be dried before use. In this respect the Board does not agree with the respondent that the term "ethanol" used in D1 is to be considered a synonym of "absolute ethanol". Quite to the contrary, it appears that usually when an anhydrous form of ethanol is used, this is explicitly stated (see example 1 of D3).

- 1.5 According to the respondent, absolute ethanol may contain up to 600 ppm of water. It is however undisputed that other types of ethanol containing higher amounts of water can be used for pharmaceutical preparations.

As to hydrochloric acid, the appellant explained during the oral proceedings, that this substance may contain from 200 to 300 ppm of water. This statement was not contested by the respondent.

Besides the components of the composition, also the environment is a potential source of water that can be taken up by the formulation. However, no information is given in document D1 as to the necessity of operating in a dry atmosphere.

- 1.6 It follows from the above considerations that the amount of water contained in the formulation of example 5 may depend on various factors. Although document D1 conveys the general idea of avoiding conditions of high humidity in the preparation of the formoterol formulations, it does not provide any more precise information that could make possible a quantitative estimate of the residual water contained in the formulations disclosed therein.

1.7 According to the established case law of the Boards of Appeal, for concluding lack of novelty, there must be a direct and unambiguous disclosure, either explicit or implicit, in the state of the art which would inevitably lead the skilled person to subject-matter falling within the scope of what is claimed.

As explained above, it is not disputed in the present case that the prior art does not explicitly disclose an amount of residual water less than 1500 ppm on the total weight of the formulation.

In the Board's view, in the present case also an implicit disclosure is to be ruled out. As pointed out in the Board's decision T 1523/07 "implicit disclosure" means disclosure which any person skilled in the art would objectively consider as necessarily implied in the explicit content (point 2.4 of the reasons, not published in OJ EPO).

In the light of the considerations set out in paragraphs 1.4 to 1.6 above, the information explicitly disclosed in D1 does not necessarily imply that in the formulation of example 5 the residual amount of water is less than 1500 ppm. Thus, the disclosure of D1 would not inevitably lead the skilled person to a formoterol formulation falling within the scope of claim 1 of the patent.

It follows that document D1 does not anticipate the subject-matter of claim 1 of the main request.

Remittal

2. The opposition division decided that the subject-matter of claim 1 of the granted patent did not meet the requirements of Article 54 EPC and that the two auxiliary requests pending before it were not inventive.

2.1 The subject-matter of the two auxiliary requests decided on by the opposition division was substantially different from the subject-matter of the granted patent particularly in consideration of the fact that they related to a formulation containing as active ingredient also BDP in addition to formoterol (see point III above).

In the assessment of inventive step in relation to these requests, the opposition division did not consider the relevance of the feature concerning the residual amount of water in that it was not regarded as a distinguishing feature over the prior art (see point IV (b) above).

2.2 It follows from the above that the considerations made during the first-instance proceedings in relation to the question whether the claims of the auxiliary requests involved an inventive step may no longer be relevant in the context of deciding whether the claims of the granted patent involve an inventive step. Hence, to establish whether the patent meets the requirements of Article 56 EPC a completely new assessment would be required. The respondent argued that the subject-matter of claim 1 did not involve any particular technical difficulty and that the parties would be in a position to deal with the requirement of inventive step.

However, this cannot be assessed in the absence of any submission of the parties.

- 2.3 While pursuant to Article 111(1) EPC the Board of Appeal may exercise any power within the competence of the department which was responsible for the decision under appeal, in the light of the observations set out in the previous paragraph, the Board considers it appropriate in the present case to allow the request of the appellant to remit the case to the opposition division so that the outstanding issues may be properly examined by two instances.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division for further prosecution.

The Registrar:

The Chairman:



S. Fabiani

J. Riolo

Decision electronically authenticated