



**PATENTS ACT 1977**

PROCEEDINGS

Application under Section 72 of the Patents Act 1977  
to revoke UK Patent No. GB 2 468 836 B

BETWEEN

Phyto Holdings Limited

Claimant

and

Citrox Biosciences Limited

Defendant

HEARING OFFICER

Stephen Probert

For the claimant: Mr Dominic Elsworth of Hargreaves Elsworth

For the defendant: Mr Richard Bizley & Dr Magda Dineva of Avidity IP

Hearing date: 13 December 2017

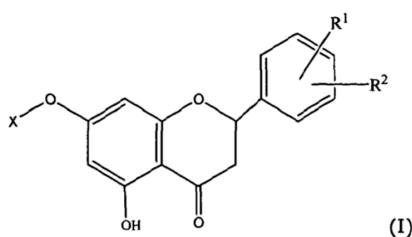
**DECISION**

1. This decision concerns an application for revocation by Phyto Holdings Limited (“the claimant”) of granted patent GB2468836B (“the patent”) in the name of Citrox Biosciences Limited (“the defendant”). The patent relates to a method of sterilising surfaces using a fine aerial dispersion (‘mist’) of a composition containing certain flavonoids. The surfaces may typically be those found in eg. hospitals, ambulances, kitchens etc..
2. The claimant has requested that the patent be revoked on the grounds that the invention claimed is not new, and/or does not involve an inventive step, and that the specification does not disclose the invention clearly enough and completely enough for it to be performed by a person skilled in the art. (Sections 72(1)(a) & 72(1)(c) respectively.)
3. The claimant has provided a number of witness statements, and supplied several documents in support of its application for revocation. The defendant has not filed any evidence, but did provide comments specifically addressing the evidence filed by the claimant. Both sides provided written skeleton arguments in advance of the hearing. Shortly before the hearing, the claimant informed the Office that it was waiving its right to be heard, and was content to rely on the papers on the official file. The hearing therefore went ahead with only the defendant present.

## **The patent**

4. The patent has one claim (claim 1) that is clearly independent and which defines the chemical formula of a compound. Claim 2 to 10 and 19 to 21 are dependent on claim 1, and specify alternative details regarding the elements of the compound. The other claims relate to specific applications of the method - eg. sterilising medical equipment, ambulances, operating theatres etc.. Claim 1 is as follows:

1. A method of sterilising surfaces by employing a fine aerial dispersion of powder or microdroplets ("misting") which employs a compound of the Formula (I):



wherein R<sup>1</sup> is hydroxyl or methoxyl and R<sup>2</sup> is hydrogen, hydroxyl or methyl and X is hydrogen or a saccharide.

5. The defendant (patentee) acknowledged from the outset of proceedings (ie. in their counter-statement) that compounds according to Formula I were known in the art prior to the filing date. The battleground of the dispute has been largely drawn up around the single word in parenthesis in claim 1 - ie. 'misting'. The defendant admits that the prior art refers to use of the compound by 'dipping, spraying and fogging', but maintains that none of these are 'misting'. Moreover, the defendant denies that these are equivalent or that the skilled person would consider them to be equivalent.
6. I indicated to the parties when setting out the timetable for these proceedings that this appeared to me to be the central question in this case.

### **What is a mist?**

7. The patent does not provide much help on this point. The majority of the description is taken up with a discussion of the chemical composition of the compound. I could only find two passages in the patent that could help me to understand what the patentee meant by the word 'misting'. The first is at lines 24-28 of page 5:-

"If external surfaces of enclosed spaces, such as ambulances, operating theatres, wards, kitchens (and even mortuaries) and so on are to be treated, it is particularly suitable to do so by "misting". In this a fine aerial dispersion of powder or microdroplets of composition are dispersed within the enclosed space."

8. The second passage is at lines 22 & 23 of page 10:-

"A commercial hand held misting device is used to direct mist at the surfaces in an ambulance and to the air space."

9. I do not have significant expertise in the matter of fogs and/or mists. Until this case was allocated to me, I would have used the words 'fog' and 'mist' more or less

interchangeably, assuming them to be synonyms. I was therefore relying on the evidence presented by the parties to enlighten me, and in particular to establish whether the person skilled in the art would recognise a significant difference between the terms 'fogging', 'spraying' and 'misting'.

### ***The evidence***

10. The claimant provided four witness statements — two each by Mr Ted Dicken and Mr Andrew Ripley. Although the defendant has criticised several aspects of the claimant's evidence - in writing during the proceedings and also during oral submissions at the hearing - they have presented no evidence to counter it. Neither has there been any request to cross examine Messrs Dicken and/or Ripley.

### ***Mr Ripley's evidence***

11. Mr Ripley is now a director of the claimant company, but from 2003 to 2013 he was employed by the defendant company as sales director. The key point I extracted from Mr Ripley's evidence is that while he was sales director for the defendant, they sold a range of products called the Citrox 14 range. These products used a natural biocide containing a mixture of flavonoids. Mr Ripley says that this is the compound referred to in the patent - ie. compound I. Mr Ripley says one method of application for these products was termed 'fogging'.
12. Mr Ripley has many years of experience in the technical field relating to the application of natural biocides, and considers himself to be skilled in the art. I accept this, but with the caveat that Mr Ripley has not been presented as an expert witness; he is the claimant's witness and therefore does not have the same duty to this tribunal that an expert witness would have.
13. Lastly, Mr Ripley also says that from 2004 to 2011, products from the Citrox 14 range were sold to a company called "Uncle Ted's Organics Ltd" for resale under the brand names Nvirox and Envirocyte.
14. Mr Bizley (representing the defendant at the hearing) was quite scathing about Mr Ripley's evidence, not least because Mr Ripley held a directorship of the defendant company at the time when the patent was granted. He clearly felt it was disingenuous of Mr Ripley, now that he is a director of the claimant company, to be leading the attack against the patent, and even giving personal evidence in support of that attack. He suggested that there was a credibility issue that I should take into account in relation to matters put forward by Mr Ripley.
15. Whether Mr Ripley still owes a fiduciary duty to the defendant (as suggested by Mr Bizley), and if so, whether that takes precedence over the fiduciary duty that he presumably now owes to the claimant, is not something that I need be concerned about here. Mr Ripley's evidence is what it is. If the defendant had concerns about the credibility of his evidence, that should have been tested by cross-examination. My duty, to the comptroller and the public at large, is to determine whether or not this patent is invalid, as asserted by the claimant.

### ***Mr Dicken's evidence***

16. Mr Dicken is the owner of "Uncle Ted's Organics Ltd". He confirms that his Nvirox and Envirocyte products were essentially the same product as CitroX 14W which he purchased from the defendant.
17. Mr Dicken personally performed the method of sterilising surfaces by 'fogging' enclosed spaces, namely poultry houses, with the Nvirox and Envirocyte products. Attached to his witness statement is a report from the Yorkshire Post dated October 2005 which refers to him using this method to sterilise poultry houses. (The report claims that it was 99.999% effective in destroying the potentially lethal H5N1 "avian" flu virus.)
18. Also attached to Mr Dicken's witness statement are two annexes which illustrate the Stihl Mistblower that he used to create a fog of Nvirox/Envirocyte in the poultry houses.
19. Lastly, Mr Dicken says that he recognises the terms 'fogging' and 'misting' as being synonymous.
20. Mr Bizley also questioned the weight that I should give to Mr Dicken's evidence. He said it was clear that CitroX (the defendant) was working with others to develop its products, and he hinted that Mr Dicken's company (Uncle Ted's Organics Ltd) could well have been one of those who had a "cosy business relationship" with the defendant. Consequently, Mr Bizley argued that whatever substance Mr Dicken used to treat his poultry houses, and however that substance was applied, this was not a public use, and was probably subject to an implied confidentiality, based upon mutual commercial gain.
21. I felt that Mr Bizley was beginning to stray into giving evidence himself on this matter. If there is any evidence of a confidentiality agreement (written or implied), between the defendant and Mr Dicken (or his company), then the defendant should have presented it at the correct time and in the correct way. On the basis of the evidence before me, I have no choice but to accept that Mr Dicken's evidence refers to a non-confidential use, in a public place.

### ***The Prior Art***

22. The claimant also relies on several prior art documents, most significantly to show that fogging and misting are considered as synonymous terms in the technical field.
23. WO 2009/007964 A2 was published on 15<sup>th</sup> January 2009, before the earliest date of the patent. This document describes the application of flavonoids onto the surfaces of plants to inhibit parasites and pathogens. The last paragraph on page 21 includes the following statement:-

Various formulations containing the compounds of the present invention, whether diluted or not, may be applied by conventional methods, ie. application methods (such as spraying, misting, atomising, dusting, granule application, submerged application and seeding box application), soil treatment (such as mixing or drenching), surface application (such as painting, dressing and covering) or dipping.

24. US 2008/0226495 A1 was published on 18<sup>th</sup> September 2008. It concerns a device for sanitising and disinfecting a space. It uses a vibratable ultrasonic head to form atomised micro-particles of liquid. Paragraph 12 says:-

It is important to note that the term “atomized fog” is intended to mean herein a virtually dry “mist” comprising micro-particles having just enough moisture to allow for adhesion of the particles to a surface, such as within an interior space, but to leave substantially no apparent residue. Such a mist has been found to feel dry, and not wet.

25. WO 2008/009956 A1 was published on 24<sup>th</sup> January 2008 and has been included to show that compounds according to formula I were known before the earliest date of the patent. As stated above, this fact is acknowledged by the defendant in their counter-statement and therefore I do not need to consider this particular piece of prior art in any detail.

### ***Novelty & Obviousness***

26. Although he was obliged to accept the claimant’s evidence as fact, Mr Bizley drew my attention to several passages in the evidence which he considered to be unclear. For example, Mr Dicken refers to Nvirox/Envirocyte as being ‘*essentially*’ the same product as that sold by the defendant. In other words, according to Mr Bizley, it was not *exactly* the same. And in the Yorkshire Post article, Nvirox is said to be a ‘derivative’ of Envirocyte. The same piece also refers to ‘further development’ that lead to Nvirox (“a 10-times stronger product”). Mr Bizley submitted that without knowing what the difference was, it was impossible to conclude that this was a novelty destroying prior use.
27. Mr Bizley also submitted that the technical information concerning the Stihl Mistblower (used by Mr Dicken to treat his poultry houses) did not specify the droplet sizes that it was capable of producing. On this basis, he argued that it might have been producing a fog rather than a mist.
28. I considered that there was some substance to Mr Bizley’s criticisms of the claimant’s evidence. However, I have to reach a decision on the basis of the evidence before me, and (even allowing for the deficiencies that Mr Bizley highlighted) the evidence all points in the same direction. Moreover, the patent specification does not give any indication of the droplet size that would be considered to constitute a mist as distinct from a fog - even assuming that there is a difference between a fog and a mist in this technical field.
29. Mr Bizley submitted that his client’s invention was the recognition that ‘misting’ a surface with the compound rather than spraying or fogging it produced a technically better result - eg. a cleaner surface, available for use in a shorter period of time. But if the patentee considered that it was important to distinguish between a mist and a fog (as Mr Bizley’s submission lead me to believe), then I would have expected to find something in the patent. But there is nothing. No discussion of the benefits of misting compared to spraying or fogging; and no mention of droplet size.
30. After giving the matter careful thought, I have reached the conclusion that the application by Mr Dicken of Nvirox and Envirocyte products using a Stihl Mistblower in (or before) October 2005 constituted a novelty destroying prior use (or anticipation) of the invention claimed in the patent.

31. This means that the patent is invalid, and must be revoked. In view of the evidence and submissions that have been presented on the matter of inventive step, I will simply say that if I had not found the patent to be lacking novelty, I would in any event have found that the claimed invention does not involve an inventive step.
32. Prima facie, it appeared to me that the issue of “fogging” versus “misting” was largely one of semantics. The evidence in these proceedings - eg. Mr Dicken’s evidence (including the technical information regarding the Stihl Mistblower that he used), and the prior art documents listed above all lead me inescapably to the conclusion that the person skilled in the art at the relevant date would not consider there to be any significant difference between the processes described as fogging and misting.
33. That means that at the earliest date of the patent, it was known that surfaces could be sterilised (or disinfected) by misting/fogging with flavonoids. Taken with the admission of the defendant that compounds (flavonoids) according to formula I were also known prior to the earliest date of the patent, I would have readily concluded that the claimed invention does not involve an inventive step. (In the circumstances, I do not think it is necessary to set out the structured steps of the Windsurfing/Pozzoli approach.)

#### ***Insufficiency - Section 72(1)(c)***

34. The claimant’s case on insufficiency is that the patent does not describe how to produce the required mist of micro-droplets in order to put the invention into operation. For example, the reader is not instructed as to what particle size distribution is required to form a ‘mist’. In view of the conclusion I have reached on novelty, and the conclusion that I would have reached on inventive step, I don’t think there is any need for me to deal with this ground. It is in many respects an alternative line of attack to novelty/inventive step. The claimant appears to have assumed that if they had not succeeded on novelty/obviousness (eg. if I had concluded that ‘misting’ was materially different from ‘fogging’), then the reader of the patent would not know how to produce a mist within the meaning of the claims. I think that was probably a safe assumption.

#### ***Order***

35. I have found that patent GB 2468836 B lacks novelty, and I order that it be revoked.

#### ***Costs***

36. The claimant’s application for revocation has been successful, and they are entitled to an award of costs. The parties have asked me to give them an opportunity to make submissions as to costs after I have reached a decision on the substantive issue(s). I will therefore allow a period of 14 days from the date of this decision for both parties to provide written submissions on the subject of costs.
37. In the hope that it will assist the parties, and save further expense, I will indicate here my preliminary view as to the appropriate costs award.
38. I am not aware of any circumstances in these proceedings that justify an award above the standard scale. The standard scale is set out in Tribunal Practice Notice (TPN) 2/2016; I would assess the various categories as follows:-

Preparing a statement and considering the other side's statement	£450
Preparing evidence and considering and commenting on the other side's evidence	£1,000
Preparing for and attending a hearing (eg. Preparing skeleton)	£450
Expenses (ie. official fees)	£400
<b>Total</b>	<b>£2,300</b>

39. In the event that no written submissions are received within 14 days of the date of this decision, this preliminary award becomes confirmed, and Citrox Biosciences Limited shall pay to Phyto Holdings Limited the sum of £2,300 within 28 days of the date of this decision.

***Appeal***

40. Any appeal must be lodged within 28 days after the date of this decision.

**Stephen Probert**  
Deputy Director, acting for the Comptroller