

COMMISSIONER'S DECISION

Breadth of Claims (Sec. 36)

Dishwashing Detergent

A claim to a detergent composition was refused for failure to include a pH controlling agent. It was held that while the presence of the agent is helpful in hard water, its presence was not essential. The scope of monopoly need not be limited by unessential elements, nor to preferred embodiments.

Rejection- reversed.

This decision deals with a request for review by the Commissioner of Patents of the Examiner's Final Action dated July 3, 1974, on application 113,881 (134-3). The application was filed on May 26, 1971, in the name of Peter L. Dawson et al and is entitled "Liquid Detergents."

The application relates to a dishwashing composition which facilitates the removal of food soil from aluminum or aluminium surfaces. The invention provides a hand dishwashing composition which, during the detergency step of the washing-up process, deposits a temporary protective film upon an aluminum or alloy surface, which film is not removed during the usual manual drying.

In the Final Action the examiner refused claim 1 as not being in compliance with Section 36(2) of the Patent Act.

In that action the examiner stated (in part):

According to Section 36(2) of the Patent Act, the scope of a monopoly is defined by the claims of the specification and must be found in the language of the claims and not elsewhere. Limitations from the disclosure cannot be read into the claims and if any exist, they must be stated in the claims. If the language of the claim defines an invention that includes that which is useless or inoperative, the claim fails. This is true even if the disclosure teaches "definite limitations" "as in the disclosure of the present specification". It is what the language of the claim means to one skilled in the art that counts, not what one skilled in the art would know he must do in order to carry out the claimed invention. It is described on page 8, lines 17-21 that the dishwashing composition of the present invention comprises a surface active organic phosphorus compound, a solubilizer and a "pH controller". The solubilizer is

signified to be of a specific nature (page 13, lines 2-4) and concentration (page 11, line 22, page 14, line 21) and the pH controller is essential to be effective in the specified range of 3.5 - 6.5 (see page 13, lines 11 to 29). Furthermore, the specific "ratio" of the solubilizer to anti-resoiling agent is emphasized on page 14, lines 24-30 and the weight ratio of the anionic synthetic detergent to the anti-resoiling agent "requires care" as clearly stated on page 15, lines 1-10. Claim 1, in its present form, includes all possible weight ranges of the ingredients including ranges that have neither utility for the disclosed use nor support in the disclosure.

The applicant's argument that he is entitled to patent protection for the broadest concept of the invention is correct, providing that the claim is restricted to at least include the "broadest" ranges for the ingredients described in the disclosure. Applicant's argument that the pH controller is not an essential ingredient (referring to the specification-passage bridging pages 3 and 4) is not well founded. It is clearly stated on page 8, lines 17-21 and page 13, lines 11 to 13 that when "phosphate" is used, a pH controller effective in the pH range at 3.5 - 6.5 "is essential" for the anti-resoiling and foam performance in hard water.

In his response dated January 3, 1975, to the Final Action the applicant states (in part):

...

The Examiner has objected that limitations to the invention, allegedly found in the disclosure, are not found in the claims, and consequently, that the claims do not comply with Section 36(2) of the Patent Act. According to the Examiner, the failure to limit the claims in the manner suggested by the Examiner has resulted in the inclusion in the claims of compositions which are useless or inoperative. More specifically, the Examiner has objected that the specific nature and concentration of the solubilizer used is not included in the claims, that the ratios of the solubilizer to the anti-resoiling agent and of the anionic synthetic detergent to the anti-resoiling agent are not included in Claim 1, and that the composition as claimed in Claim 1 does not include a pH controller. The Examiner's objections can be summarized in a statement from the final action, which is as follows:

"Claim 1 in its present form, includes all possible weight ranges of the ingredients including ranges that have neither utility for the disclosed use nor support in the disclosure."

...

Indeed, stating the problem in this manner makes it obvious that there are at least three solutions to the problem:

1. The pH of the hard water can be adjusted to make the use of the desired surface active agents more practical, resulting in a more attractive and more efficient product;

2. The hard water can be softened, either temporarily or permanently, by any one of several available methods of water softening;
3. Careful and proper selection of the surface active agents will lessen the problems associated with the use of the composition of Claim 1 in hard water of certain pH levels.

Thus, as the problems associated with the use of the composition of Claim 1 in hard water of certain pH levels can be solved in several ways, the use of pH controller, and in particular the inclusion of a pH controller in the composition of Claim 1, is not essential to the proper operation of the invention. Applicant, on Page 8, lines 11 to 13, has pointed out that the effect of the water hardness on the properties of the compositions of the invention can be reduced by the inclusion of a pH controller. The inclusion of this pH controller permits the use of the compositions of the invention in all varieties of domestic water supplies with equal success, and solves the problem of reduced efficiency that occurs when the compositions of the invention are used in hard water supplies of certain pH levels.

On Page 8, at line 22 et seq., Applicant has listed three classes from which the surface active agents should be selected. Applicant states on Page 9, lines 26 to 29, that the compounds of formula 1 are preferred because at least two terminal groups R1 and R2 are essential for the properties of anti-resoiling and foam performance in dishwashing operations carried out in all naturally occurring water. Thus, by proper selection of the anti-resoiling agent, the problems associated with the use of the compositions of the invention in hard water of certain pH levels can be overcome or lessened without the use of a pH controller. On Page 10, at lines 6 to 9, Applicant states that the compounds of formula 2 are successful in distilled or soft water but precipitate at all pH's in hard water. This precipitate is detrimental to the anti-resoiling and foaming properties. The fact that the precipitate is detrimental to the desired properties does not mean that the invention is useless in situations where this precipitation would occur. It merely means that the invention is less efficient in these circumstances than in other circumstances. The use of a pH controller, in a preferred embodiment of the invention, serves to improve the efficiency of the invention in circumstances where the efficiency would otherwise be lowered. Indeed, the compound presently being manufactured and successfully marketed by the Applicant in the United Kingdom does not include a pH controller.

The question to be considered is whether claim 1 satisfies the requirements of Section 36(2) of the Patent Act. That Section reads:

The specification shall end with a claim or claims stating distinctly and in explicit terms the things or combinations that the applicant regards as new and in which he claims an exclusive property or privilege.

The application relates to a dishwashing composition which facilitates the removal of food soil from aluminum or aluminium surfaces. The essential elements of claim 1 can be set out as being: "A foaming unbuil hand dishwashing

composition comprising an anionic synthetic detergent and an anti-resoiling agent...solubilized by a solubilizer...." The anti-resoiling agent and the solubilizer are selected from the classes of compounds set out in claim 1.

It is settled law that the scope of monopoly of an invention is defined by the claims of the specification and not elsewhere. Any limitations of the invention in the disclosure cannot be read into the claims, and if any exist they must be stated in the claims. On the other hand it is clear that the applicant is entitled, assuming there is no prior art, to the broadest concept of his invention, and he need not be restricted to a preferred embodiment.

It is observed that the specification defines suitable tests for determining the optimum proportions of the anionic synthetic detergent, the anti-resoiling agent in the form of a surface active organic phosphorous compound and a suitable solubilizer. In addition, it appears that a preferred embodiment of the invention, which comprises the addition of a pH controller to the above-described composition, is described, and the method of preparation of that embodiment is also set out.

The applicant states that: "... the present invention provides an unbuilt hand dishwashing composition of defined foam performance which comprises an anionic synthetic detergent and an anti-resoiling agent selected from the list herein, and a solubilizer as herein defined." These three elements are all contained in claim 1. Claim 1 also includes the necessary definitions of the anti-resoiling agents and the solubilizers.

It is observed from reading the specification, and claim 1, that sufficient solubilizer must be used to solubilize the anti-resoiling agent, as this is the prime function of the solubilizer. Therefore, the amount of solubilizer required in the composition of the invention as claimed in claim 1 is determined by the expression "solubilized by." The disclosure, at page 14, lines 24 to 30, merely teaches one skilled in the art, who wishes to make the composition of the invention, how much solubilizer he can expect to use.

The specification sets out three tests to assist in determining what constitutes a satisfactory composition of the invention. It is clear that the experiments of the present invention do not require the use of the inventive faculty, but merely enables a person skilled in the art to make the invention by performing simple experiments to obtain the desired results. The specification shows possible combinations of the detergents and the anti-resoiling agents of the invention, which provides further illustration of the best method of carrying the invention into practice. We are satisfied, therefore, that the applicant does not have to add to claim 1 the quantities of the ingredients concerned.

The next question to be considered is whether the pH controller is essential to the invention and should appear as an element in claim 1.

The specification, in our view, indicates the reason for using a pH controller in a preferred embodiment of the invention. The disclosure on page 13, line 13, reads: "Preferably the in-use pH's are 4.5 - 5.5 and pH controller, effective in the pH range 3.5 - 6.5 is essential for the anti-resoiling and foam performance in hard water." (emphasis added) It appears that the pH controller is to overcome one problem that arises in certain applications of the invention. This problem can be stated as follows: The use of certain anti-resoiling agents in naturally occurring hard water, of certain pH ranges, results in precipitation of the surface active anti-resoiling agents by the calcium and magnesium ions found in the hard water.

It is indicated, however, that the problem incurred by the use of the composition of claim 1 i.e. without a pH controller, only results in a reduced anti-resoiling effect, and not an elimination of the anti-resoiling effect, and reduced foaming of the detergent. The applicant points out on page 3, line 5, that the foaming of the dishwashing composition is a feature that is preferred by the user, but is not an essential feature of the dishwashing composition.

There are a number of solutions to the problem which is caused by using hard water. On page 8, lines 11 to 13 of the disclosure, the applicant states that: "The effect of the water hardness on the properties of the composition of the invention can be reduced by the inclusion of a pH controller." It is known that the pH of the hard water can be adjusted to make the use of the desired surface active agents more practical, resulting in a more attractive and most likely a more efficient product. The hard water can also be softened by any one of several available methods of water softener. In our view the use of a pH controller is to overcome one problem that arises in certain applications of the invention, i.e. in naturally occurring hard water.

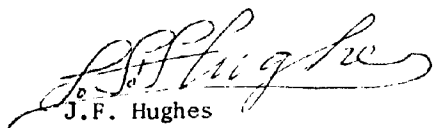
We are satisfied that claim 1 without a pH controller only results in a reduced anti-resoiling effect in some circumstances, and not in an elimination of the anti-resoiling effect. It may also effect the foaming qualities of the detergent. It has been clearly stated, however, that "the foaming of the dishwasher composition is a feature that is preferred by the user of the composition.

In summary the absence in claim 1 of a pH controller may reduce the effectiveness and the attractiveness of the product, but does not result in inutility of the invention. The scope of a monopoly should not be limited by an unessential element, nor by a preferred embodiment.

Notwithstanding the above, it is suggested that claim 1 could be amended to improve the wording of the claim without effecting the scope of monopoly. The suggestion is to amend claim 1 to read: "A foaming unbuilt hand dishwasher composition of suitable foam performance comprising ...." This falls in line with what the applicant states is his invention: "The present invention provides an unbuilt hand dishwashing composition of defined foam performance which comprises an amionic synthetic detergent and an anti-resoiling agent selected from the list herein and a solubilizer as herein defined." (emphasis added).

We are satisfied that a person skilled in the art would understand from the disclosure what a suitable foam performance consists of.

We recommend the Final Action be withdrawn.



J.F. Hughes  
Assistant Chairman  
Patent Appeal Board

I concur with the findings of the Patent Appeal Board and withdraw the Final Action. The application is returned to the examiner for resumption of prosecution.



J.A. Brown  
Acting Commissioner of Patents

✓  
  
Dated at Hull, Quebec  
this 15th. day of  
October, 1975