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**Datasheet for the decision  
of 14 October 2015**

**Case Number:** T 1227/13 - 3.3.06

**Application Number:** 05790693.5

**Publication Number:** 1814974

**IPC:** C11D17/00, C11D3/40, C11D17/06,  
C11D3/12, C11D3/37

**Language of the proceedings:** EN

**Title of invention:**  
LAUNDRY TREATMENT COMPOSITIONS

**Patent Proprietors:**  
Unilever PLC  
Unilever N.V.

**Opponent:**  
The Procter & Gamble Company

**Headword:**  
Hydrophobic dye granules/UNILEVER

**Relevant legal provisions:**  
EPC Art. 84

**Keyword:**  
Claims - clarity after amendment (no)

**Decisions cited:**  
T 1129/97, G 0003/14

**Catchword:**



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Case Number: T 1227/13 - 3.3.06

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.06**  
**of 14 October 2015**

**Appellant:** The Procter & Gamble Company  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
28 March 2013 concerning maintenance of the  
European Patent No. 1814974 in amended form.**

**Composition of the Board:**

**Chairman**            B. Czech  
**Members:**            E. Bendl  
                              S. Fernández de Córdoba

## Summary of Facts and Submissions

I. The appeal by the opponent lies against the interlocutory decision of the opposition division concerning maintenance of European patent No. 1 814 974 in amended form.

II. In the appealed decision the opposition division concluded that the subject-matter of claim 1 according to the then pending second auxiliary request met the requirements of the EPC.

III. Said claim reads as follows (amendment compared to claim 18 as granted highlighted by the board):

*"1. A method of granulation comprising the steps of:  
(i) dissolving between 0.0001 to 1% wt % of a dye in 5 to 40 wt% of a non-ionic surfactant [sic], that dye having a solubility in the non-ionic surfactant of at least 0.1 wt %;  
(ii) mixing the dye and non-ionic surfactant solution with between 20 to 90 wt% of a solid carrier; and,  
(iii) granulating the resultant mixture from step (ii),  
**wherein the dye is a hydrophobic dye.**"*

IV. In its statement of grounds of appeal, the appellant (opponent) argued that the opposition division was wrong in its conclusions, *inter alia* because claim 1 held allowable lacked clarity (Article 84 EPC) having regard to the expression "*hydrophobic dye*" comprised therein.

V. In its reply, the respondent (patent proprietors) rebutted the appellant's objections and defended the patent in the amended form held allowable by the opposition division (main request), referring to

paragraph [0020] thereof as regards the objection under Article 84 EPC. It nevertheless submitted a further amended claim request as (first) auxiliary request.

VI. The parties were summoned to oral proceedings. In its communication pursuant to Article 15(1) RPBA, the board indicated *inter alia* that the clarity objection raised by the appellant would need to be addressed.

VII. In its reply to this communication, the appellant maintained said clarity objection and extended it to the claim according to the respondent's auxiliary request. With said reply it also filed document D32: Kirk Othmer, Encyclopedia of Chemical Technology, 4<sup>th</sup> edition, volume 8, pages 542 to 546, 1993.

VIII. With its letter of 3 September 2015, the respondent filed two amended claims 1 as new first and second auxiliary requests, respectively, but only submitted that these claims met the requirements of Article 123(2) and (3) EPC.

Both of these two new claims 1 also contain the expression "*hydrophobic dye*".

IX. Oral proceedings took place on 14 October 2015. The debate focused on the clarity of the feature "*hydrophobic dye*" (all requests). Taking into account the wording of the claims as such, but also, *arguendo*, the contents of the description. It was acknowledged by the parties that any finding of the board with regard to the clarity of the feature "*hydrophobic dye*" would apply to all claim requests at issue.

X. The appellant requested that the decision under appeal be set aside and the patent be revoked.

The respondent requested that the appeal be dismissed (main request) or, in the alternative, that the patent be maintained on the basis of claim 1 according to one of the first or second auxiliary requests, both filed with letter of 3 September 2015.

XI. The arguments of the appellant of relevance here, i.e. regarding clarity of the expression "*hydrophobic dye*", can be summarised as follows:

- The wording of a claim had to be clear *per se*. In this respect, reference was made to T 1129/97 (OJ 2002, 273).
- However, the insertion of the expression "*hydrophobic dye*", taken from the description, rendered claim 1 (all requests) unclear. The term "*hydrophobic*" was a relative one, and there was no generally recognised cut-off point defining the boundary between dye molecules to be considered as "*hydrophobic*" and those which were not. In this connection, reference was also made to D32 to illustrate common general knowledge in the field of dyes.
- Even if a narrower interpretation of claim 1 in the light of the description, in particular of paragraph [0020], were to be adopted, the clarity objection raised would not be overcome, since in paragraph [0020], "*hydrophobic dye*" was *inter alia* defined as meaning "*devoid of polar solubilizing groups*", i.e. by another relative expression adding another layer of lack of clarity. The fact that some dyes were exemplified in the patent did also not amount to a clear definition of a "*hydrophobic dye*".
- The objection raised applied to all the claim requests of the respondent.

XII. The arguments of the respondent of relevance here can be summarised as follows:

- The term "*hydrophobic dye*" was clear: Many "*solvent dyes*" and "*disperse dyes*" were "*hydrophobic dyes*" to be used according to claim 1. Moreover, a great number of specific examples of dyes that could be used as the "*hydrophobic dye*" were given in the description.
- As regards common general knowledge, reference was made to D32.
- Furthermore, the claims had to be interpreted in the light of paragraph [0020]. At least upon reading this paragraph, it became clear to the skilled person what was meant by "*hydrophobic dye*" and which dyes were suitable for being used in the method according to claim 1.
- Also the expression "*polar solubilizing group*" mentioned in paragraph [0020] was perfectly clear.
- Single hydroxy groups were not "*polar solubilizing groups*". However, a phenolic hydroxy group or a greater number of hydroxy groups on a molecule could lead to increased solubility of the dye molecule. In such cases, hydroxy groups might be considered to be "*polar solubilizing groups*". All this was known by the skilled person.

### **Reasons for the Decision**

*Main request - Clarity - Claim 1*

1. Claim 1 according to the main request is directed to a method of granulation, and differs from the independent method claim 18 as granted in that it additionally contains the appended feature "*wherein the dye is a*

*hydrophobic dye*".

This feature does not stem from a claim dependent on method claim 18 as granted (there are none), but was taken from the description. Clarity issues arising from the incorporation of this feature are thus to be considered by the board (see also G 3/14 of 24 March 2015, Order and Reasons, point 54). This was not in dispute.

2. According to the jurisprudence of the boards of appeal, a claim lacks clarity if the exact distinctions which delimit the scope of protection cannot be learnt from it. In the present case, the board is convinced that a lack of clarity arises from the amendment consisting of the incorporation of said feature into claim 1 at issue for the following reasons.
  - 2.1 On the one hand, it was not shown that the expression "*hydrophobic dye*" was established terminology in the art of dye compositions. Hence, it has no well-known and defined meaning in this technical field.
  - 2.2 On the other hand, the board accepts that in the context of dyes the term hydrophobic has no absolute, but merely a relative meaning. A reference would thus be needed to determine whether a given dye, in comparison to the reference, was hydrophobic or hydrophilic. Such a reference is, however, missing in claim 1. Hence, the skilled person is not in a position to know, or only in clear-cut cases, whether or not using a given dye falls within the ambit of claim 1, i.e. whether said dye is to be considered as hydrophobic or not. Absent such a reference, making a clear distinction is, for instance, not possible when the dye molecule has several substituent groups, some



of them being hydrophilic and some hydrophobic. Claim 1 contains no further indications regarding a particular degree of overall hydrophobicity required for the purpose of the invention.

3. As regards the argument of the respondent, that the description had to be taken into account when interpreting claim 1, the board observes the following:

3.1 According to the jurisprudence of the Boards of Appeal, (see e.g. T 1129/97, Reasons, point 2.1.2), a claim must be clear in itself when read by the person skilled in the art, without any reference to the content of the description.

3.2 The board sees no reason to take another stance in the present case, i.e. for acknowledging a need to construe the meaning of a feature extracted from the description, incorporated into the claim in post-grant proceedings despite giving rise to clarity objections, but supposed to provide a more precise definition of the invention.

4. For the sake of completeness, the board nevertheless indicates (*arguendo*) the reasons for which it came to the conclusion that claim 1 would lack clarity even if it were to be construed in the light of the description as suggested by the respondent.

4.1 Paragraph [0020] of the patent, invoked by the respondent, reads as follows (emphasis added by the board):

*"Hydrophobic dyes are defined as organic compounds with a maximum extinction coefficient greater than 1000 L/mol/cm in the wavelength range of 400 to 750 nm and*

that are uncharged in aqueous solution at a pH in the range from 7 to 11. **The hydrophobic dyes are devoid of polar solubilizing groups.** In particular the hydrophobic dye does not contain any sulphonic acid, carboxylic acid, or quaternary ammonium groups. The dye chromophore is preferably selected from the group comprising: azo; anthraquinone; phthalocyanine; benzodifuranes; quinophthalones; azothiophenes; azobenzothioazoles and, triphenylmethane chromophores. Most preferred are azo and anthraquinone dye chromophores."

- 4.1.1 The parties did not agree as regards the meaning of the expression "devoid of polar solubilizing groups". The appellant argued that it was not clear which substituent groups fell within this definition. As a specific example, it mentioned hydroxy groups, which are uncharged, but may be considered to be polar solubilizing groups, at least to a certain degree.
- 4.1.2 The respondents held that many of the dyes exemplified in the patent in suit contained hydroxy groups and that the skilled person would thus not consider a hydroxy group as a "polar solubilizing group" in the sense of paragraph [0020], despite a certain degree of polarity of this group. Nevertheless, the representative of the respondent conceded at the oral proceedings that the situation might be different for phenolic hydroxy groups or likewise, if a dye molecule comprised a plurality of hydroxy groups, they could *in toto* contribute to solubilise an otherwise insoluble dye molecule. This means that not only the (not further defined) polarity of the solubilizing group/s, but also its/their (not further defined) number may play a role as regards solubilisation of the dye molecule.

4.1.3 Thus, the board concludes that, at least with regard to hydroxy groups, it will not always be clear to the skilled person whether or not a given dye carrying hydroxy groups is to be considered as a "*hydrophobic dye*" within the meaning of the claim 1.

4.1.4 Therefore, even if claim 1 were to be interpreted taking the indications in paragraph [0020] as criteria to be fulfilled by a dye in order to qualify as a "*hydrophobic dye*", a lack of clarity would remain, if only due to the further unclear expression "*polar solubilizing groups*".

4.1.5 Thus, the board concludes that even taking into account the indication given in paragraph [0020], the expression "*hydrophobic dye*" would still lack the required clarity.

4.2 The respondent furthermore held that the hydrophobic dyes according to claim 1 were mainly "*found in the classes of solvent and disperse dyes*", as indicated in paragraph [0021]. Solvent dyes and disperse dyes were well known categories of dyes, as apparent from e.g. document D32, illustrating common general knowledge in the field. The wording of claim 1 could thus not be considered to be unclear.

4.2.1 The board does not accept this argument, since the definition of the dye in claim 1 at issue is broader than "*solvent and disperse dyes*".

4.2.2 But even considering, for the sake of argument only, that claim 1 had to be construed as being limited to a method only using dyes of said two categories, clarity would still be lacking as regards the term "*hydrophobic*" used in claim 1 for the following

reasons.

- 4.2.3 According to D32, page 546, fourth full paragraph, "solvent dyes" are "water-insoluble dyes", "devoid of polar solubilizing groups". For the board, D32 cannot contribute to clarify the term "*hydrophobic*" as used in claim 1 due to the lack of precision of the expression "*polar solubilizing groups*" addressed above. In other words, the skilled person does not get any teaching from D32 permitting him to ascertain in each case whether or not a given known solvent dye has the degree of hydrophobicity required for the purpose of the method according to claim 1.
- 4.2.4 In addition, the expression "water-insoluble", used in D32 for defining solvent dyes, is also a relative one, imposing no clearer boundary between dyes meeting and dyes not meeting the requirement concerning the degree of hydrophobicity, in particular in the absence of quantitative indications regarding the order of magnitude of the maximum solubility in water and the reference temperature.
- 4.2.5 Analogous considerations apply to the "*substantially water-insoluble*" "*disperse dyes*", referred to in D32 (page 546, the second full paragraph).
- 4.3 The respondent also pointed out the high number of specific dyes exemplified in the patent in suit as being suitable for carrying out the invention.

However, although each of the listed dyes may individually meet the criteria outlined in paragraph [0020], the list of dyes cannot, in the board's judgement, be equated, or at least not without undue burden, to a general definition of "*hydrophobic dyes*",

which would permit the skilled person to decide in every case whether or not the use of a given dye not appearing in the list falls within the ambit of claim 1.

- 4.4 In summary, even if the description of the patent in suit were to be taken into account in construing the meaning of claim 1, the clarity objection raised with respect to the expression "*hydrophobic dye*" would still not be fully overcome.

*Auxiliary requests 1 and 2 - Clarity - Claim 1*

5. The respective Claims 1 of the first and second auxiliary request likewise both contain the term "*hydrophobic dye*".

5.1 At the oral proceedings before the board, the respondent expressly conceded that the other amendments proposed by way of the two auxiliary requests have no bearing on the clarity issue addressed *supra*. Hence, it did not provide additional arguments, specific to the auxiliary requests, as regards this clarity issue.

5.2 Therefore, the reasons given with respect to the main request apply *mutatis mutandis* to the two auxiliary requests. Thus, claim 1 according to the first auxiliary request and claim 1 according to the second auxiliary request do not meet the clarity requirement of Article 84 EPC either.

*Conclusion*

6. None of the respondent's request is allowable.

**Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:



D. Magliano

B. Czech

Decision electronically authenticated