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D E C I S I O N
of 9 April 2003

Case Number: T 0960/98 - 3.3.7

Application Number: 91310301.6

Publication Number: 0485212

IPC: A61K 7/08

Language of the proceedings: EN

Title of invention:
Detergent composition

Patentee:
UNILEVER PLC, et al

Opponents:
01: L'OREAL
02: KPSS-Kao Professional Salon Services GmbH
03: Henkel Kommanditgesellschaft auf Aktien
04: Johnson & Johnson Consumer Products, Inc.
05: Colgate-Palmolive Company

Headword:
-

Relevant legal provisions:
EPC Art. 83, 111(2)

Keyword:
"Sufficiency of disclosure - yes"

Decisions cited:
T 0219/83, T 0805/93, T 0225/93, T 0256/87, T 0378/97, T 0439/98, T 0492/92, T 0245/98

Catchword:
-

Case Number: T 0960/98 - 3.3.7

D E C I S I O N
of the Technical Board of Appeal 3.3.7
of 9 April 2003

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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 23 July 1998 revoking European patent No. 0 485 212 pursuant to Article 102(1) EPC.**

Composition of the Board:

Chairman: R. E. Teschemacher
Members: B. J. M. Struif
P. A. Gryczka

Summary of Facts and Submissions

I. The mention of the grant of European patent No. 0 485 212 with respect to European patent application No. 91 310 301.6 filed on 7 November 1991 was published on 19 July 1995, on the basis of twenty-two claims. Independent claims 1 and 20 read as follows:

" 1. A detergent composition in the form of an aqueous liquid of viscosity in the range from 10,000 to 1,000 mPas at 10 sec^{-1} shear rate, comprising:

A - foaming detergent active which is a mixture of:

A1 - at least 5% by weight of the composition of a non-soap anionic detergent which is selected from alkyl ether sulphates, acyl isethionates, alkyl glycerol ether sulphonates, acyl glutamates, acyl peptides, sarcosinates, ester carboxylic acids, α-olefin sulphonates, sulphosuccinates, alkyl benzene sulphonates, amides of N-methyl taurine and α-sulpho fatty acids;

A2 - at least 1% by weight of the composition of amphoteric detergent selected from betaines, sulphobetaines and amidobetaines; and

B - a skin emollient material.

"20. A detergent composition in the form of an aqueous liquid of viscosity in the range from 10,000 to 1,000 mPas at 10 sec^{-1} shear rate, containing:

A) 3 to 40% of detergent composed of

A1) at least 2% of C_8-C_{22} acyl isethionate

A2) at least 1% of amphoteric detergent selected from betaines, sulphobetaines and amidobetaines;

B) 0.1 to 10% of a skin emollient material, wherein the weight ratio of acyl isethionate (A1) to detergent (A2) is from 10:1 to 1:4 and the detergent actives present in the composition form a clear solution in distilled water at the same concentrations.

Claims 2 to 19 and 21 to 22 were dependent claims.

II. Five notices of opposition were filed against the granted patent, in which the revocation of the patent in its entirety was requested on the grounds of Articles 100(a) and (b) EPC with respect to lack of novelty, inventive step and sufficient disclosure. The oppositions were *inter alia* supported by the following documents:

D13: Cosmetic & Toiletries, vol. 101, July 1986 - Bath Products Documentary, pages 86-87, 89-91, 94, 97, 100

D14: Cosmetic & Toiletries, vol. 104, December 1989 - Bath Products Formulary, pages 83, 86-87

D15: WO-A-92/06669

D16: EP-A-0 473 508

D17: WO-A-90/13283

D21: K. Schrader, Grundlagen und Rezepturen der Kosmetika, 2. Auflage, 1989, Hüthig Verlag, pages 615-616, 707, 714, 719-721

D22: Kosmetik Modell-Rezepturen, Henkel, 1979, pages 182, 189, 200, 246, 260, 263, 275, 282, 283, 285

D25: Merkblatt Lumorol K 5019

D26: US-A-4 668 422

D27: US-A-3 964 500

D31: Recipe for the product Polykur Creme Shampoos, Henkel Cosmetic Düsseldorf

D33: EP-A-0 288 919

D35: US-A-4 329 334

D311: DE-A-30 33 929

D314: Kosmetik-Jahrbuch 1980, Verlag für chemische Industrie, H. Ziolkowsky KG, Augsburg, pages 41, 52

D315: Kosmetik-Jahrbuch 1986, Badekosmetik, Verlag für chemische Industrie, H. Ziolkowsky KG, Augsburg, page 218

D318: H.P. Fiedler, Lexikon der Hilfsstoffe für Pharmazie, Kosmetik und angrenzende Gebiete, Editio Contor Aulendorf, 3. Auflage, 1989, pages 1121, 1165, 1203, 1216-1217, 1242-1243

D319: Hugo Janistyn, Handbuch der Kosmetika und Riechstoffe, I. Band: Die kosmetischen Grundstoffe, Dr. Alfred Hüthig Verlag, Heidelberg, 3. Auflage, 1978, pages 624, 869-870

D41: Cosmetic & Toiletries, vol. 100, March 1985 - Shampoo Documentary, page 83

D42: Cosmetic & Toiletries, vol. 103, March 1988 - Shampoo Documentary, pages 99, 105-107, 113

D51: Formulating Shower Gels by Michele Brassard, Cosmetics and Toiletries, vol. 104, no. 12, December 1989, pages 53-59

D58: US-A-3 928 251

D510: US-A-4 075 131

D514: Personal Care Products, Moisturizing Bath Foam E-101, PPG/Mazer

III. In a decision posted on 23 July 1998, the opposition division revoked the patent. That decision was based on a main request and eleven auxiliary requests:

Claim 1 of the second auxiliary request read as follows:

"A detergent composition in the form of an aqueous liquid of viscosity in the range from 10,000 to 1,000 mPas at 10 sec^{-1} shear rate, comprising:

A - up to 40% of foaming detergent active which is a mixture of:

A1 - at least 5% by weight of the composition of a non-soap anionic detergent which is selected from alkyl ether sulphates, acyl isethionates, alkyl glycerol ether sulphonates, acyl glutamates, acyl peptides, sarcosinates, ester carboxylic acids, α-olefin sulphonates, sulphosuccinates, alkyl benzene sulphonates, amides of N-methyl taurine and α-sulpho fatty acids, with the proviso that said anionic detergent includes at least 2% by weight of the composition of C_8-C_{22} fatty acyl isethionate, and

A2 - from 1 to 15 % by weight of the composition of amphoteric detergent selected from betaines and amidobetaines;

B - up to 10% of a skin emollient material, which is a mixture of:

B3- from 0.5 to 8 % by weight of the composition of a C_2-C_6 polyol, and

- other skill emollient material; and

C - opacifier or pearlescer;

wherein the weight ratio of total anionic detergent (A1) to second detergent (A2) is within the range of 10:1 to 1:10, and wherein the weight ratio of acyl isethionate to detergent (A2) is from 10:1 to 1:4 and the detergent actives present in the composition form a clear solution in distilled water at the same concentrations."

Claim 1 of all further auxiliary requests included the following features:

- "an aqueous liquid of viscosity in the range from 10,000 to 1,000 mPas at 10 sec^{-1} shear rate,"
- "the detergent actives present in the composition form a clear solution in distilled water at the same concentrations."

The decision can be summarized as follows:

(a) Claim 1 of the main request and first auxiliary request failed to meet the requirements of Article 123(2) EPC.

(b) The subject-matter of the second auxiliary request was in compliance with the requirements of Article 123(2) EPC.

(c) The subject-matter of the second auxiliary request and of all further auxiliary requests concerned a liquid composition having a specific viscosity range and forming a clear solution. The patent in

suit did however not mention the temperature, the apparatus and the operation method for measuring the viscosity and clarity. Since it was generally known that the values of viscosity depended on these measuring conditions and since the viscosity was critical for the invention, the patent in suit did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a skilled person. Similar arguments applied for measuring the clarity of the solution.

IV. On 24 September 1998 the patentee (appellant) filed a notice of appeal against the above decision with simultaneous payment of the prescribed appeal fee. The statement setting out the grounds of appeal was filed on 27 November 1998. With that statement the appellant filed a new main request and ten auxiliary requests and submitted an experimental report.

The new main request corresponded to the version of the second auxilary request underlying the decision under appeal.

V. In a communication of 27 November 2002, the board addressed sufficiency of disclosure as point of discussion during the oral proceedings.

VI. By letter of 3 March 2003, the appellant submitted new first and second auxiliary requests and requested that the ten previous auxiliary requests should be renumbered as the third auxiliary request onward.

VII. Oral proceedings were held on 3 April 2003 in the absence of the respondent 05 (opponent 05) who had informed the board by letter of 14 March 2003 that he would not be attending the oral proceedings. The oral proceedings were continued without him (Rule 71(2) EPC).

VIII. During the oral proceedings respondent 01 (opponent 01) raised objections under Articles 123(2) and (3) and 84 EPC with respect to claim 1 of the main request for the first time. Respondent 04 (opponent 04) announced also that he had objections under Article 84 EPC.

The appellant argued that no objections had been raised in the written appeal proceedings with regard to Articles 123(2) and 84 EPC and that he was therefore not in a position to fully address those fundamental objections at these oral proceedings.

IX. The appellant argued in substance on the objections under Article 100(b) EPC as follows:

(a) As regards the viscosity, the skilled person had no problems in preparing compositions falling within the claims. The viscosity range as claimed had the purpose to specify the consistency of a liquid detergent composition, which was neither too thick (10000 mPa) nor would flow easily (1000 mPa) and thus covered viscosities normally used in shampoos or bath gels. Apparatus for measuring viscosity were known in the art. Since the viscosity as claimed was quoted at a fixed shear rate and no spindle size had been quoted, the skilled person understood that no Brookfield type apparatus was intended to be used. Since the claimed subject-matter referred to a personal wash composition only the temperature, at which a personal wash composition was poured from its container, was really relevant. Thus, it was reasonable to consider temperatures for measuring viscosity between 20 to 25°C, in particular at a temperature of 25°C. Furthermore, many published documents quoted viscosities without specifying any measurement temperature.

In a test report, the viscosity of three formulations falling within the scope of claim 1 and some commercial products had been measured at temperatures between 15 to 30°C by using three different commercially available viscosimeters. The results showed that the measured viscosities in the relevant range of 20 to 25°C did not vary to a large extent. Furthermore, the type of apparatus to measure the viscosity did not influence the result of measurement considerably.

(b) The other objected term was that the composition formed a "clear solution" in destilled water. Whether a solution of a personal washing product was clear could be judged by the naked eye or by suitable equipment well known in the art. A lot of the cited prior art documents referred to "clear" solutions without quoting measuring methods, temperatures or specific apparatus.

(c) Whether the skilled person could identify the exact limits of the viscosity range and of a clear solution was a question of clarity under Article 84 EPC but not of sufficiency under Article 83 EPC. The case law of the boards of appeal made a clear distinction between these independent requirements of the EPC.

(d) Furthermore, the objected features had less significance for novelty and inventive step and were not alone crucial for a distinction over the prior art.

(e) The skilled person had no difficulty to prepare the compositions within the ambit of the claims by mixing together the listed ingredients of example 5I as shown by the appellant's test

report. The onus of proof that the claimed subject-matter could not be reproduced, rested with the opponents.

X. The arguments of the respondents 02 to 05 regarding sufficiency of disclosure can be summarized as follows:

(a) Since the viscosity of a solution depended on its temperature, the method of measurement and the apparatus used, and since none of these conditions were specified in the patent in suit, the skilled person was unable to determine whether a composition was within the scope of the claims. The viscosity was not only influenced by the temperature at which the final product was dispensed from a container but also by the temperature at which it was produced by mixing the ingredients together. Thus, the viscosity at different temperatures could be considered and the measurements could therefore be done within a broad temperature range, although a temperature range of 15 to 30°C might be realistic. The fixed shear rate was no reason to exclude a Brookfield measurement.

According to D17, the viscosity range of detergent compositions for personal washing could also be broader than the claimed one. That some prior art documents did not quote measuring conditions for viscosity, was no reason that the requirements of the claimed subject-matter under Article 83 EPC had been met.

(b) In the examples of the patent specification, the amount of the ingredients appeared to refer to the active amount thereof whilst from the appellant's test report it could be derived that the amounts were those of a commercial mixture. Furthermore,

in these tests the salt content was different from example 5I of the patent in suit. If the appellant's experiments had been carried out at viscosities corresponding to the upper and lower limit of the claimed range, then the viscosity values at different temperatures would have been outside the claimed range if measured at different temperatures. Furthermore, the appellant's test data showed that the viscosity measurement varied considerably and also provided values outside the claimed range. If the salt content was needed to ensure an approriate viscosity then an essential feature was missing from claim 1 of all requests.

(c) Whether the requirement of a "clear solution in destilled water" was met, could only be answered by testing the solutions with an adequate method. Since no information in that respect was provided by the patent in suit, the skilled person had no guidance to determine whether he worked within the scope of claim 1 or not. Furthermore, the claimed compositions contained ingredients like salts or the poorly soluble fatty acyl isethionate which influenced considerably the clarity. A high amount of a poorly soluble substance would not provide a clear solution.

(d) The reproduction of one example was not sufficient to ensure that the claimed subject-matter could be reproduced within the ambit of the claim. Further reference was made to the established case law of the boards of appeal.

XI. Respondent 01 did not address objections under Article 100(b) EPC and argued that in this specific case the question of viscosity and clarity of the solution was rather related to the issue of inventive step.

XII. The appellant requested that the patent be maintained on the basis of the main request, or, alternatively, on one of the twelve auxiliary requests. If the board concluded that the requirements of sufficiency of disclosure were met, he requested that the case be remitted to the opposition division to consider the outstanding questions of novelty and inventive step.

XIII. The respondents requested that the appeal be dismissed. In the case that the requirements of Article 83 EPC were considered to be met, respondent 04 requested that the case be remitted to the opposition division for consideration of the formal allowability of the claims, novelty and inventive step.

XIV. Further oral proceedings were held on 9 April 2003 for the announcement of the decision.

Reasons for the Decision

1. The appeal is admissible

Admissibility of the main request

2. The opposition division was of the opinion that the second auxiliary request underlying the decision under appeal corresponding to the subject-matter of the present main request was in compliance with the requirements of Article 123(2) EPC. Respondent 01 and 04 raised objections under Articles 123(2) and (3) and 84 EPC with respect to claim 1 of the main request for the first time in the appeal procedure at the oral proceedings.

2.1 Since the only issue raised by the parties during the written appeal procedure was sufficiency of disclosure, the board addressed that issue as the only point of discussion for the oral proceedings in its communication of 27 November 2002. Consequently, neither the appellant and the other parties, nor the board were prepared for a discussion of the other objections during the oral proceedings.

2.2 The board therefore decided not to deal with the further objections in these appeal proceedings.

Sufficiency of disclosure (main request)

3. Claim 1 of the main request refers to a detergent composition which comprises (A) up to 40% of a foaming detergent active of a specific mixture of (A1) at least 5% by weight of the composition of a specific non-soap anionic detergent and (A2) from 1 to 15% by weight of a specific amphoteric detergent in combination with B) up to 10% by weight of a skin emollient material. The composition is furthermore characterized by the following features:

(a) "an aqueous liquid of viscosity in the range from 10,000 to 1,000 mPas at 10 sec^{-1} shear rate,"

(b) "the detergent actives present in the composition form a clear solution in distilled water at the same concentrations."

3.1 Having regard to the viscosity, the feature (a) was part of granted claims 1 and 20. Feature (b) was part of independent claim 20 as granted. Since clarity is not an opposition ground, those features cannot be objected to under Article 84 EPC in opposition proceedings (Case Law of the Boards of Appeal of the EPO, 4th edition 2001, VII.C.10.2).

3.2 According to Article 83 EPC, the European patent application must disclose the invention in a manner sufficiently clear and complete for it to be carried out by the skilled person. The essence of the respondents' arguments regarding lack of disclosure is that the detergent composition could not be reproduced because the patent specification did not disclose how to measure the viscosity and the clarity of the solution, since the temperature, the apparatus and the operation method had not been specified and because none of the examples of the patent specification provided any data with respect to those parameters.

3.2.1 With respect to sufficiency of disclosure, the relevant question is whether the patent in suit provides sufficient information which enables the skilled person when taking into account common general technical knowledge to reproduce the claimed detergent compositions.

3.2.2 According to the patent in suit, liquid detergent compositions are suitable for personal washing and include shower gels and bath foams (page 2, lines 3 to 5). For use, such products must be dispensed or poured from a container so that the skilled person has already a good idea of the consistency that such products must have.

There has been no dispute between the parties that the ingredients of the liquid detergent composition are sufficiently specified in the claims and the description of the patent in suit (compare page 2, lines 39 to page 3, line 54). In order to control the viscosity of the composition other materials can be incorporated in the compositions such as electrolytes or thickening agents or both (page 3, lines 56 and 57). In that context, the compositions are specified to have a viscosity of 1000 to 10000 mPa at a shear rate of 10

sec^{-1}, more preferably 2000 to 8000 mPas (page 3, line 56 to page 4, line 1). The patent in suit further discloses that the compositions are prepared by simply mixing their constituents with water. It is generally desirable that thickening occurs after most of the mixing has taken place (page 4, lines 42 to 44).

3.2.3 The respondents argued that it was necessary to indicate the measuring conditions, the apparatus and the temperature for measuring viscosity in order to reproduce a composition within the ambit of the claims.

3.2.4 As regards the conditions and apparatus for measuring viscosity, the patent in suit already provides some guidance since it refers to a fixed shear rate of 10 sec^{-1} at which the viscosity is measured. The shear rate is on the one hand a precise measuring condition and on the other hand a hint to rotational viscosimeters excluding those viscosimeters by which viscosity cannot be measured at such a low fixed shear rate.

3.3 In the absence of further specific indications, the claim implies that the skilled person will choose those measuring methods and apparatus, which according to the guidance given in the patent in suit are available to him and are most appropriate to meet their needs in the determination of viscosities (compare T 378/97 of 6 June 2000, not published in OJ EPO, point 2.4.1). In this respect the respondents have not shown that is was an undue burden for the skilled person to choose an appropriate method or apparatus when measuring viscosity of detergent compositions taking into account the guidance of the patent specification.

3.4 The respondents 2 to 5 had argued that it was necessary to indicate the viscosity measuring temperature since it considerably affected the results of the viscosity measurement as had been demonstrated by tests of the appellant himself.

3.4.1 It is common general knowledge that the temperature used to measure the viscosity influences the measured results. According to D318 the temperature must always be stated when measuring viscosity. That the measuring temperature is an important feature, when determining viscosity, has been undisputed.

In the absence of temperature indications, it can be accepted that the skilled person will rely on those temperature conditions under which viscosities of the relevant liquid detergent compositions are normally measured.

3.4.2 A survey of suitable temperatures is provided by the numerous documents cited in these opposition proceedings. As far as specific temperatures are mentioned, the prior art documents mostly quote room temperature (D14, pages 83 and 84; D35, column 7, lines 38 to 46, examples), 20°C (D25; D33, page 5 lines 25 to 26; D311, page 12, table right column; D319, page 1243; D319, page 1243), 22°C (D510, columns 9 and 10, table, footnote 3)) and 25°C (D15 page 11 and 12 bridging paragraph; D16, examples 3 and 4; D17, page 13, lines 1 to 6, D58, column 4, lines 30 to 31 and column 5, example IV). Since room temperature can normally be associated with temperatures between 20 and 25°C, it can be gathered from these documents that the skilled person will normally concentrate on a measuring temperature between 20 to 25°C as appropriate.

3.4.3 D51 deals generally with the formulation of shower gels and was issued from the laboratories of respondent 05. As regards viscosity, it is stated that "shower gels are generally free-flowing liquids that exhibit standing viscosities from 3000 to 7000 cps. The ideal product viscosity depends on several factors, including consumer practices and packaging dispensing requirements." The stated viscosity range is indicated without any measuring method, any measuring apparatus and any measuring temperature. Furthermore, a lot of prior art documents do not mention any specific temperatures (compare D21, pages 615, 616 and 721; D26, column 3, lines 28 to 32; D27, examples 4 to 6; D31, D514, page 1347). Thus, the fact that the patent in suit does not refer to specific details of the appartus and temperature for measuring viscosity is not unusual in the field of liquid personal washing compositions. One reasonable explanation is that the skilled person is aware of suitable temperatures at which viscosity is normally measured.

3.4.4 The respondents 02 to 05 did not argue that the skilled person had difficulties in measuring the viscosity but that in the absence of measuring conditions it was not possible to establish the limits of the claimed viscosity range. The skilled person had consequently no guidance in the patent in suit to determine whether he worked within the scope of claim 1. The objections regarding the details lacking in the patent specification concern therefore more the determination of the limits of protection and not the possibility for the skilled person to reproduce the claimed compositions. Varying results which will be obtained when using different temperatures or different measuring methods do not, necessarily disable a person skilled in the art to carry out the invention (compare T 378/97, *supra*, point 2.4.1; Article 83 EPC) but in the present case are rather related to the question

whether the invention is correctly defined in accordance with Article 84 EPC. This view is confirmed by the decision T 245/98 of 11 October 2001 (not published in OJ EPO, point 2.1) accepting sufficiency of disclosure for a detergent composition which specifies the viscosity of a component, without stating the measuring conditions, in particular the temperature. Since Article 84 is not a ground of opposition, the board has no power to decide on this issue in view of the fact that the claims as granted remain unamended in this respect which approach is in line with the decisions cited above.

3.5 Respondent 01 has reproduced example 4 of EP-B-0 435 608 by using a Haake VT550 viscosimeter and determining a viscosity of the composition at a shear rate of 10 s^{-1} to be 7500 mPas without stating the measuring temperature. Such a viscosity was regarded as typical for shower gels and bath foams. Although respondent 01 did not repeat an example of the patent in suit, he was able to prepare a composition which is clear and which has a viscosity within the claimed range although no hint was given to the measuring method and temperature in the patent in suit (declaration submitted by letter dated 24 June 1998).

3.5.1 Respondent 02 had no difficulty in measuring several of prior art shampoo compositions at 10 sec^{-1} shear rates at a temperature of 20 and 30°C. The viscosities were measured within the claimed range without stating the measuring apparatus (see notice of opposition dated 19 April 1996).

3.5.2 From the above it follows that the respondents had no difficulties in preparing compositions and measuring their viscosities at varying conditions. These compositions meet the viscosity requirements of the claimed subject-matter.

3.5.3 Furthermore, in the appellant's test report three samples have been prepared by using the components as specified in example 5I of the patent in suit. Sample 1 replicates the composition of example 5I. Samples 2 and 3 are characterized by different ratios of anionic to amphoteric detergent (A1:A2) and isethionate to amphoteric detergent within the claimed range. Furthermore, the viscosity of some commercial detergent composition has been measured. According to example 5I of the patent in suit the following foam detergents are used: 5% by weight of sodium cocoyl isethionate, 2% by weight of sodium lauryl ether sulfate (SLES) and 8% of coconut amido propyl betaine (CAPB).

According to claim 1 as granted, component A refers to foaming detergent **active** by specifiying the percentages of components (A1) and (A2) (emphasis added). Thus, it is appearant, that the claimed percentages refer to the pure and active form of the compositions. There is no hint in the examples of the patent in suit that percentages of the chemical ingredients should not rely on the active form. This view is confirmed by the appellant's test report stating that sample 1 replicates example 5I in the contested patent, in terms of the **active** ingredients (emphasis added). That SLES, sodium cocoyl isethionate and CAPB are used in form of trade products which contain a certain percentage of the active ingredient does not change the effective amount of the active ingredient used in sample 1. Thus, the respondents' argument, that the skilled person does not know how to reproduce example 5I in that respect cannot be accepted.

3.5.4 The viscosities have been measured at 25°C by using three different commercially available viscosimeters, (Haake VT500, Haake RV 20 and Carri-Med) each fixed at a shear rate of 10 sec^{-1}. Measurements with the

viscosimeter Haake RV 20 were carried out additionally at 15, 20 and 30°. Furthermore, a Brookfield viscosimeter RVDV-I, spindle RV 5, at 50 rpm and 25°C has been used. Although the experimental results show that the measured values differ considerably depending on the apparatus and temperature used, all samples provide measured viscosities within the claimed range even if a Brookfield viscosimeter and temperatures of 15 and 30°C not specified in the cited literature as suitable are considered.

3.6 In principle, the considerations as outlined above with respect to the viscosity (see point 3.5) apply also when answering the question whether the skilled person is able to reproduce a liquid detergent composition wherein the detergent actives present in the composition form a clear solution in destilled water at the same concentrations. In the field of personal wash care, the term clear is used for transparent products in contrast to products which are coloured or pearlescent (see for example D13). Furthermore, the term "clear" is used without indicating any measuring conditions (see for example D22, D314, D15, D41 and D42).

It is not contested that the clarity of a solution can be evaluated by light transmittance. In this respect the clarity can be judged either by the naked eye or by common light transmission equipment. Commonly known equipment is available to the skilled person to determine whether a clear solution is formed in destilled water.

3.6.1 In the absence of any specific indication, the claim implies that any suitable method can be used to determine whether a clear solution is formed in line with T 439/98 of 17 October 2002 (not published in OJ EPO, point 1.1.4). The skilled person is able to choose

without undue burden suitable equipment and methods based on general knowledge available in the field of liquid detergent compositions for the determination of the clarity of the solution. Whereas it is true that there are no limits for the required degree of transmittance defined, the term gives the skilled person an idea of a specific group of products (see above point 3.6)

3.6.2 The respondents have argued that fatty acyl isethionate is known to be poorly soluble (patent in suit, page 4, line 26) so that within the claimed amounts of acyl isethionate products will be produced, which are not clear in destilled water.

3.6.3 In the appellant's test report, samples 4 to 6 were prepared by using the same amounts of foaming detergent actives A1 and A2 as specified in samples 1 to 3. In particular, the samples contain 2.67 to 5.72% by weight of sodium cocoyl isethionate. The transmittance was measured with a Hitaschi U-2000 Spectrometer at a wavelength of 400 nm at three different temperatures (15, 22 and 30°C) compared to destilled water having a transmittance of 100% and compared to "Neutralia shower gel", which is generally recognized as a clear product having a transmittance of 88.9 to 91.6. The transmittance of the three samples 4 to 6 were in a range of 84.4 to 91.3% and thus comparable with the clarity of the commercial product. The clarity was almost not influenced by the temperature. Thus, the appellant's test report convincingly shows that a clear liquid detergent composition containing an amount of acyl isethionate within the claimed range can be obtained.

3.7 The respondents did not show that they were unable to reproduce the examples of the patent in suit or to produce a liquid detergent composition within the ambit

of the claims. They have not shown that compositions prepared according to the conditions specified in the patent in suit were not clear or did not fulfill the required viscosity. The onus of proof in this respect lies however at the respondents (opponents), which they have failed to discharge (T 219/83, OJ EPO 1986, 211).

3.8 The parties have also relied on several decisions of the boards of appeal to which the following comments are added.

3.8.1 In T 805/93 of 20 February 1997 (not published in OJ EPO) a polyurethane adhesive was claimed which comprised the reaction product of a curative and a polyisocyanate and was characterized in that the viscosity of its starting components is under about 15000 mPas without giving the viscosity measuring temperature. T 805/93 was an *ex-parte* case and concerned Articles 83 and 84 EPC. The decision was mainly based on lack of clarity. Furthermore, the skilled person was not able to produce the claimed product because he could not choose the starting compounds which were essentially defined by their viscosity. The present case cannot be compared to this situation.

3.8.2 In T 225/93 of 13 May 1997 (not published in OJ EPO, cited in Case Law of the Boards of Appeal, *supra*, II.A.4) the measuring method for determining the particle size and the specific surface of calcium carbonate had not been specified in the patent in suit and it could not be derived from the prior art, which specific measuring methods were suitable. However, in that case the specific surface particle size defined the starting material for a polyolefin moulding composition, which specific property was necessary to solve the problem posed, i.e. has a substantial influence on the corrosion of the production apparatus.

Thus, the uncertainty on the measuring method was directly connected with the question whether the problem was solved or not (point 2.1.3). Such a situation is not comparable to the viscosity of the liquid detergent composition of the patent in suit, wherein the only purpose of the viscosity is to specify the consistency of such a composition.

3.8.3 In decision T 256/87 of 26 July 1998 (not published in OJ EPO, cited in Case Law of the Boards of Appeal, *supra*, II.A.4) a liquid detergent composition was specified by the amount of enzyme-accessible calcium per kilo (EAC) of the detergent composition. The fact that no method for specifically determining EAC was described in the patent was not, in itself, prejudicial to the requirement of sufficiency of the description. It was only necessary that the skilled person reading the specification be put in a position of being able to carry out the invention in all its essential aspects knowing when he was working within the **forbidden area** of the claims (emphasis added by the board). Since that decision addresses Articles 84 and 83 EPC it appears that the concept of the "forbidden area" which is associated with the scope of the claims as argued by the respondents was rather related to the clarity of the claims within the meaning of Article 84 EPC.

3.8.4 T 378/97, *supra*, and T 439/98, *supra*, both issued in opposition proceedings, related to cases in which the conditions of the porosity measurement for defining the particle porosity were not described in the patent. In T 378/97 the board did not accept the respondent's argument that a skilled person could not - without a precise indication of the conditions of the porosity measurement - carry out the claimed process (point 2.4.1), because a skilled person could apply one of the known particle porosity measuring methods

(point 2.6). In T 439/98, the board indicated that "... the appellant's objection regards rather the scope of the value of porosity indicated in the claim and therefore the clarity of the claim than the possibility of reproducing the invention" (point 1.1.4).

3.8.5 In decision T 492/92 of 18 January 1996 (not published in OJ EPO, cited in Case Law of the Boards of Appeal, *supra*, II.A.4) the patent did not disclose a method for measuring the quantity of dissolved electrolyte of a detergent composition defined in the claims. The board was of the opinion that as long as appropriate analytical methods were available to the skilled person in the art, it was within their ordinary skill to select the appropriate one to meet their needs (point 3.3). Also in that case the skilled person could reproduce the claimed invention.

3.8.6 The decisions T 378/97, T 439/98, T 492/92, T 256/87 and T 245/98 make a clear distinction between the requirements of Articles 83 and 84 EPC. Objections relating to clarity of the claim do not put in question the enablement of the invention under Article 83 EPC. The absence of a specific measuring method in the patent in suit is, in itself, not prejudicial to sufficiency under Article 83 EPC. In the absence of any specific indications, the claims imply that any known method suitable for the determination of the parameters in question, can be used.

3.9 From the above it follows that when measuring the viscosity or the clarity of liquid detergent compositions, the skilled person can rely on general technical knowledge in respect of suitable measuring methods, apparatus and temperatures suitable to meet their needs. Since no proof has been provided by the respondents that the skilled person is unable to reproduce the liquid detergent compositions within the

ambit of the claims when using any appropriate measuring method, they have not shown that the claimed invention is insufficiently disclosed within the meaning of Article 100(b) EPC.

4. Since the decision under appeal has dealt only with the objection under Article 100(b) EPC and since remittal to the first instance was requested by the parties, the board excercises its power to remit the case for further prosecution with respect to the outstanding formal and substantive issues, to give the parties the opportunity to defend their case before two instances (Article 111(2) EPC).

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:

C. Eickhoff

R. Teschemacher