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**Datasheet for the decision
of 3 May 2011**

Case Number: T 0589/09 - 3.3.06

Application Number: 99961040.5

Publication Number: 1141221

IPC: C11D 17/00

Language of the proceedings: EN

Title of invention:

Structured liquid detergent composition

Patentees:

Unilever N.V., et al

Opponents:

The Procter & Gamble Company
Henkel AG & Co. KGaA
Huntsman International LLC

Headword:

Sugar containing structured composition/UNILEVER

Relevant legal provisions:

EPC Art. 54(1)(2), 56, 83, 84, 123(2)

Relevant legal provisions (EPC 1973):

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Keyword:

"Added subject-matter (no)"

"Compliance with the requirements of Art. 84 EPC - not to be
contested in opposition appeal proceedings"

"Sufficiency of disclosure (yes)"

"Novelty (yes)"

"Inventive step (yes)"

Decisions cited:

T 1459/05, T 0939/92, T 0694/92, T 0583/93, T 1051/97,
T 0097/00

Catchword:

-



Case Number: T 0589/09 - 3.3.06

D E C I S I O N
of the Technical Board of Appeal 3.3.06
of 3 May 2011

Appellants:
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Decision under appeal: Interlocutory decision of the Opposition Division of the European Patent Office posted 19 January 2009 concerning maintenance of the European patent No. 1141221 in amended form (Art. 101(3)(a) EPC).

Composition of the Board:

Chairman: P.-P. Bracke
Members: L. Li Voti
J. Geschwind

Summary of Facts and Submissions

- I. The present appeal is from the decision of the Opposition Division to maintain in amended form the European patent no. 1 141 221, concerning a structured liquid detergent composition.
- II. In their notices of opposition the Opponents sought revocation of the patent on the grounds of Articles 100(a), (b) and (c) EPC.

The following documents were referred to *inter alia* during opposition:

- (3): WO91/09107;
- (4): EP-A-346995;
- (18): Mr. Clapperton's declaration;
- (19): DE-A-2748212;
- (20): WO95/06107;
- (22): "An Integrated Optical Sensor for measuring Glucose Concentration" by Y. Liu et al.; Appl. Phys. B54, 18-23 (1992).

The Patent Proprietors submitted as main request a set of eleven claims containing the following independent claim 1 and modified pages 2, 9 to 11, 13, 16, 17 and 23 of the description:

"1. An aqueous liquid detergent composition having a physical form selected from the group consisting of liquids, pourable gels and non-pourable gels, said composition comprising surfactant, electrolyte and water, which composition is structured with a lamellar phase formed of at least some of the surfactant and at

least some of the water, the lamellar structure comprising lamellar droplets, the lamellar droplets being dispersed in an aqueous continuous phase, characterised in that the $D_{v,90}$ of the lamellar droplets is less than 2 μm , the composition being substantially clear at 25°C and having an optical transmissivity of at least 5% through a path length of 1cm at 25°C, and wherein the refractive index of the aqueous phase is increased by a sugar dissolved therein."

Claims 2 to 10 of this request refer to particular embodiments of the detergent composition of claim 1 whilst claim 11 relates to a process for the preparation of such a detergent composition.

III. As regards the Patent Proprietors' main request, the Opposition Division found in its decision that:

- the claims complied with the requirements of Articles 123(2) and (3) EPC;
- the feature of claim 1 "wherein the refractive index of the aqueous phase is increased by a sugar dissolved therein" was already part of granted claim 4 which depended on granted claim 1; therefore, the clarity of the term "sugar" contained within this feature could not be objected to during opposition;
- the invention was sufficiently disclosed;
- the claimed subject-matter was novel and involved an inventive step over the cited documents.

IV. Appeals were filed against this decision by Opponents 01 and 02 (hereinafter Appellants 01 and 02).

Moreover, Appellant 02 submitted with letter of 18 May 2009 a further document

(23): EP-A-786516.

The Respondents (Patent Proprietors) submitted further sets of amended claims as auxiliary requests with the letters of 25 September 2009 and 1 April 2011, respectively, and announced with the letter of 1 April 2011 that it would not be represented at the oral proceedings.

The Appellants 01 and 02 and Opponent 04, which is party as of right to the proceedings under Article 107 EPC, announced that they would not be represented at the oral proceedings with the letters of 10 March 2011, 19 April 2011 and 23 November 2010, respectively.

Oral proceedings were held on 3 May 2011 in the absence of the duly summoned parties.

V. As regards claim 1 according to the main request the Appellants submitted in writing that

- the original specification did not contain support for a composition comprising only undissolved electrolytes as encompassed by claim 1 and for a composition having an optical transmissivity of at least 5% without indication of the wavelength used

for its measurement; therefore, claim 1 would contravene the requirements of Article 123(2) EPC;

- claim 1 would contravene the requirements of Article 84 EPC insofar as the wording "wherein the refractive index of the aqueous phase is increased by a sugar dissolved therein" contained the unclear term "sugar" and defined the invention by a result to be achieved; in fact, even though the disputed wording was already contained in a granted claim dependent on granted claim 1, it would be necessary to consider the clarity of the added technical feature in a case where this feature was used in order to distinguish the claimed subject-matter from the state of the art, as decided in case T 1459/05;
- the patent in suit would not teach how to obtain a composition which was substantially clear by using any amount of sugar and electrolyte; moreover, the patent in suit would not teach how to adapt the composition of comparative example [#] of the patent in suit, which composition fell within the scope of the invention, in order to obtain a substantially clear composition; therefore, the claimed invention would not be sufficiently disclosed;
- since the term "sugar" in claim 1 would not be clearly defined in the patent in suit, it should be given the broadest possible interpretation; in the light of paragraph 94 of the patent in suit it would be clear that this term does not include only mono- and disaccharides but it would include

also oligosaccharides; therefore, the compositions disclosed in documents (3) and (4) disclosing polymers containing oligosaccharide units would detract from the novelty of claim 1;

- the patent in suit itself would show that not all sugar and electrolyte concentrations were capable of providing a composition which was substantially clear and had an optical transmissivity of at least 5%; therefore, this alleged technical effect would not be achieved across the whole scope of claim 1;
- since the alleged technical effect would not be achieved over the whole area claimed, the technical problem underlying the invention had to be formulated starting from document (3) as the provision of an alternative detergent composition (see also T 939/92; T 694/92, T 583/93, T 1051/97 and T 97/00); the claimed subject-matter thus would lack an inventive step over document (3) in combination with documents (19) or (20), taking into account if necessary documents (4) or (23);
- moreover, even if the alleged technical effect would be considered to have been achieved over the entire scope of the claim, it would have been obvious for the skilled person to add a sugar to a composition known from document (3) for raising the refractive index of the aqueous phase and improving thereby the clarity of the composition; therefore, the claimed subject-matter would lack an inventive step in the light of document (3) in combination with document (20) or common general

knowledge, taking into account if necessary of documents (18) or (22).

The party as of right did not submit any argument.

VI. The Respondents submitted in writing that

- claim 1 would comply with the requirements of Article 123(2)EPC;
- the feature of claim 1 contested as to its clarity derived from granted claim 4 which was dependent on granted claim 1; therefore, the clarity of the claim could not be contested under such circumstances;
- the claimed invention would be sufficiently disclosed;
- the claimed subject-matter would be novel and inventive over the cited prior art.

VII. The Appellants requested that the decision under appeal be set aside and that the patent be revoked.

VIII. The Respondents requested that the appeals be dismissed or the patent be maintained on the basis of the first auxiliary request submitted with the letter dated 25 September 2009 or on the basis of the second or third auxiliary requests submitted with letter of 1 April 2011.

Reasons for the Decision

1. Respondents' main request

1.1 *Article 123(2) EPC*

1.1.1 Claim 1 requires the generic presence of electrolyte in the claimed composition.

The description of the original specification discloses that it is preferred for the aqueous continuous phase to contain dissolved electrolytes, which are ionic water-soluble materials (see page 37, lines 16 to 19 of the published WO 00/36079).

However, the description explains also that not all the electrolyte present is necessarily dissolved but may be suspended when the total electrolyte concentration of the liquid is higher than the solubility limit of the electrolyte (page 37, lines 19 to 23). Therefore, it is also possible to use mixtures of electrolytes, some of them being dissolved in the aqueous phase and other ones suspended as solid phase (see page 37, lines 24 to 27).

Therefore, there is an explicit support in the original specification for the presence in the claimed composition of electrolyte dissolved in the aqueous phase or dissolved in the aqueous phase and suspended as solid phase.

This was not contested by the Appellants.

1.1.2 The Board remarks that at least a portion of the electrolytes present must be necessarily dissolved in the aqueous phase because of their inherent properties as water-soluble ionic salts; therefore, the possibility of having a composition comprising only undissolved electrolytes addressed to by the Appellants in their objections as to added subject-matter (see point V above) would not be considered by the skilled person to be part of the subject-matter of claim 1.

1.1.3 The original specification discloses that the compositions of the invention must be substantially clear and must have an optical transmissivity of preferably at least 5% through a path length of 1cm at 25°C without specifying the wavelength used for its measurement (see page 7, lines 26 to 29). It is clear from the passage on page 8, lines 6 to 7, of the description that this technical feature applies to all the aspects of the invention.

A suitable wavelength for the measurement of the optical transmissivity is indicated only in the passage on page 8, lines 1 to 4 with regard to **possible** methods of measurements.

Therefore, the Board finds that the original specification contains support for the above mentioned feature of claim 1 without indication of the wavelength used for its measurement.

1.1.4 The Board concludes that claim 1 complies with the requirements of Article 123(2) EPC.

1.2 *Article 84 EPC*

1.2.1 It is established jurisprudence of the Boards of Appeal of the EPO that the non-compliance with the requirements of Article 84 EPC, which is not a ground for opposition, can be contested in opposition appeal proceedings only if it arises from amendments to the patent (see Case Law of the Boards of Appeal of the EPO, 6th edition (2010), paragraphs VII.D.4.1.4 and VII.D.4.2).

The alleged unclarity arises in the present case from the incorporation of the technical feature of granted claim 4, which was dependent on granted claim 1, into independent claim 1.

However, the Board remarks that the incorporated feature of granted claim 4 does not interact with the other features of claim 1 in a way that modifies the original meaning of the combination of features of granted claims 1 and 4.

Therefore, the alleged unclarity existed already in the granted claims and does not arise from an amendment to the patent.

1.2.2 The Appellants supported their objection against the clarity of claim 1 on the decision T 1459/05, also cited in paragraph VII.D.4.2 of the Case Law cited above.

In this decision, the Board in charge confirmed that according to the established jurisprudence of the Boards of Appeal of the EPO clarity of a claim cannot

be contested in opposition appeal proceedings if the alleged unclarity arises from the combined features of an independent granted claim with those of a granted claim dependent on it (see point 4.3.2 of the reasons). However, the Board in charge of the case decided as an exception not to follow the established jurisprudence since the feature introduced into claim 1 in that specific case was so unclear that it would have not been possible for the skilled person to understand how the claimed subject-matter had been limited by the added feature with regard to the cited prior art (point 4.3.4 of the reasons) and an examination of novelty and inventive step of the modified subject-matter would have been extremely difficult or might have not led to a meaningful result (point 4.3.5 of the reasons).

In the present case the alleged unclarity concerns the wording "wherein the refractive index of the aqueous phase is increased by a sugar dissolved therein", which contains the allegedly unclear term "sugar" and tries to define the claimed subject-matter by a result to be achieved.

As regards the term "sugar", it cannot be disputed that this term was well known to the skilled person and that the skilled person would have had no difficulty in identifying compounds potentially falling within this class. The only problem arising from the use of this term in claim 1 thus concerns the exact delimitation conferred to the claimed subject-matter since, for example, other documents of the prior art such as document (20) gives to the term "sugar", for the scope of the specifically claimed invention, the meaning "mono- and disaccharides and derivatives thereof or

degraded starch or chemically modified water-soluble degraded starch" (page 2, lines 23 to 25), i.e. a meaning possibly broader than what it would be understood normally by the skilled person.

The description of the patent in suit identifies monosaccharides, disaccharides and glucose syrups which can comprise mono, di- and polysaccharides as suitable sugars (see paragraph 94). Moreover, the following paragraph 95 of the patent as amended specifies that polysaccharides can also be useful as additional components.

Therefore, it is clear in the light of the description that the term "sugar" does not include polysaccharides and, in the absence of any specific indication in the description like in document (20), does not include either saccharide derivatives.

As regards the oligosaccharides, the description does not exclude explicitly these compounds; therefore, they have to be considered as part of claim 1 insofar as they would be considered to be "sugars" by a skilled person.

From the above discussion of the term "sugar" it is evident that in the present case the added wording is not so unclear that it would not be possible for the skilled person to understand how the claimed subject-matter has been limited by the added feature with regard to the cited prior art and that examination of novelty and inventive step of the modified subject-matter would not be possible without difficulty.

Finally, the wording of claim 1, though being formulated as the result to be achieved by the addition of sugar to the aqueous phase, requires simply the presence of sugar in the aqueous phase and reports the known effect of increase of the refractive index, which occurs when sugar is dissolved in an aqueous phase, which effect belonged to the common general knowledge at the priority date of the patent in suit, as accepted by all parties and shown by documents (18) and (22). Therefore, this type of formulation would not cause any additional unclarity that could not be overcome by a sound reading of the claim.

As a consequence, the present case is not comparable to that decided upon in T 1459/05.

1.2.3 The Board concludes that in the present case there is no reason to depart from the established jurisprudence of the Boards of Appeal of the EPO and the compliance of claim 1 with the requirements of Article 84 EPC cannot be contested.

1.3 *Sufficiency of disclosure*

1.3.1 It has not been disputed that it was well known to the skilled person, at the priority date of the patent in suit, how to prepare a structured composition comprising surfactant, water and electrolyte and lamellar droplets (see paragraphs 3 to 9 of the patent in suit). Moreover, the description describes extensively how to achieve the required lamellar droplet size, how the clarity and the optical transmissivity of the composition can be increased and how a composition as claimed can be prepared (see

paragraphs 55, 85, 86, 92, 98, 113, 136 to 140 and examples 5, 16 to 19, A5, 20, 21 and 23).

The Board remarks in this respect that the requirement of the invention that the composition is substantially clear means, according to the description, that the composition has an optical transmissivity of at least 5% through a path length of 1 cm at 25° C (see paragraph 17 of the patent in suit). Therefore, independently on any possible subjective judgement upon the clarity of a composition, the invention concerns compositions having an optical transmissivity of at least 5% as evidenced by the composition of the invention reported in example 23 of the patent in suit showing an optical transmissivity of only 8.3%.

1.3.2 The examples of the patent in suit show that amounts of sugar of up to 50% (see, for example, examples A5, 20 and 21) are compatible with the other components and still lead to compositions having a lamellar phase. Furthermore, it has also been shown that relatively low amounts of sugar and electrolytes are sufficient for obtaining a composition as claimed (see e.g. example 16 relating to a composition containing only 10% glucose and 10% electrolyte).

Therefore, it would have been clear to the skilled person that compositions according to the invention can also be obtained with minor amounts of sugar by using his knowledge about structured liquid detergent compositions and the teaching of the patent in suit.

Since the skilled person knew how to prepare structured lamellar compositions, it knew also that it was

necessary to select sufficient electrolyte, depending on the other components of the composition, in order to obtain a lamellar structure (see paragraphs 1 and 115).

No evidence to the contrary was submitted by the Appellants.

1.3.3 The comparative example [#] of the patent in suit, addressed to by the Appellants, concerns an unstable composition which shows phase separation. Therefore, such a composition cannot be considered to be a structured composition having lamellar droplets dispersed in an aqueous continuous phase and the lamellar droplet size and optical transmissivity required in claim 1. This composition contains a relatively small amount of sugar and a much higher amount of polysaccharides, which are only optional components of the invention which increase the viscosity of the total system as specified in paragraph 95.

Moreover, this example is comparative of example 22, wherein the amount of polysaccharides in the composition was reduced and that of sugar increased, this modification resulting in a stable composition having good optical transmissivity. Therefore, if the skilled person would decide to introduce polysaccharides as additional components, he would be taught by these examples of the description to control their amount in relation to the essential sugar component and that a composition according to the invention can be obtained by higher ratios of sugar to polysaccharides.

1.3.4 Therefore, the Board concludes that the description contains sufficient information enabling the skilled person to perform the invention across its whole scope.

1.4 Novelty

1.4.1 Claim 1 relates to a structured aqueous detergent composition comprising *inter alia* sugar.

As already explained in point 1.2.2 above, the term "sugar" includes monosaccharides, disaccharides as well as the oligosaccharides considered by the skilled person to be sugars but not saccharide derivatives or polysaccharides.

1.4.2 Both documents (3) and (4) disclose structured aqueous detergent compositions which comprise a deflocculating polymer having a hydrophilic backbone and at least one side chain (see document (3), page 7, lines 15 to 27; page 10, lines 31 to 38; and document (4), page 6, line 55 to page 7, line 2).

For example, formula (III) on page 12 of document (3) shows that the unit (z), which is necessarily present, comprises a side chain $-R^1-R^2$, wherein R^1 represents $-\text{CH}_2\text{O}-$ or $-\text{O}-$ and R^2 represents $-\text{CH}_2\text{COO}^-\text{Na}^+$, $-\text{C}_3\text{H}_6\text{N}^+(\text{CH}_3)_3\text{Cl}^-$ or $\text{C}_3\text{H}_6\text{ON}^+(\text{CH}_3)_3\text{Cl}^-$ (see page 12, lines 21 to 24 in combination with page 10, line 3).

Moreover, the polymers of formulae (IV) and (V) on pages 9 and 10 of document (4) contain the essential units (z) with a side chain $R^1-R^2-R^3-R^4$, wherein R^1 represents $-\text{CO}-\text{O}-$, $-\text{O}-$, $-\text{O}-\text{CO}-$, $-\text{CH}_2-$, $-\text{CO}-\text{NH}-$ or is absent;

R^2 represents from 1 to 50 independently selected alkyleneoxy groups, preferably ethylene oxide or propylene oxide groups, or is absent, provided that when R^3 is absent and R^4 represents hydrogen or contains no more than 4 carbon atoms, then R^2 must contain an alkyleneoxy group with at least 3 carbon atoms;
 R^3 represents a phenylene linkage, or is absent;
 R^4 represents hydrogen or a C_{1-24} alkyl or C_{2-24} alkenyl group, with the provisos that

a) when R^1 represents $-O-CO-$, R^2 and R^3 must be absent and R^4 must contain at least 5 carbon atoms;

b) when R^2 is absent, R^4 is not hydrogen and when R^3 is absent, then R^4 must contain at least 5 carbon atoms (see page 10, lines 1 to 5 and 41 in combination with page 7, lines 31 and 34 to 44).

Therefore, even though the hydrophilic backbone of such deflocculating polymers may comprise sugar units, they must also comprise a side chain and are therefore to be considered as sugar derivatives, as indicated explicitly in document (4): "hydrophobically modified polydextran and lipoheteropolysaccharides" (see page 10, lines 8 to 9).

The Board thus finds that these polymers are not encompassed by the scope of claim 1 of the patent in suit.

1.4.3 The Board concludes that already on these grounds the claimed subject-matter is novel over the cited prior art.

1.5 *Inventive step*

1.5.1 The present invention concerns aqueous liquid detergent compositions which contain sufficient detergent-active material and, optionally, sufficiently dissolved electrolyte to result in a lamellar structure (paragraph 1 of the patent in suit).

The description of the patent in suit explains that physically stable aqueous liquid detergent compositions containing surfactants, water and electrolyte and structured with a lamellar droplet phase were known in the prior art (see paragraphs 3 to 5, 7 to 9).

However, lamellar phases, especially those containing lamellar droplets, caused the resultant liquid product to be turbid and there was a need for substantially clear lamellar-structured detergent liquids (paragraph 11).

Therefore, according to the description, the technical problem underlying the invention is considered to be the provision of a structured aqueous liquid detergent composition containing lamellar droplets and being substantially clear, which means an optical transmissivity of at least 5% through a path length of 1 cm at 25°C (see point 1.3.1 above).

1.5.2 All parties chose document (3) as the closest prior art. The Board has no reason to depart from this finding and takes also document (3) as the most suitable starting document for evaluating inventive step.

Document (3) discloses aqueous liquid detergent compositions structured with a lamellar droplet phase and comprising surfactant, water and electrolyte (see page 1, lines 4 to 11).

The compositions of document (3) can have at least 50% of the lamellar droplets with a diameter especially preferred of less than 0.1 or 0.07 μm (page 4, lines 10 to 14). Therefore, according to the Appellants, it would be reasonable to assume that at least 90% of the lamellar droplets of these compositions have a size of less than 2 μm as required by the value of $D_{v,90}$ in claim 1 of the patent in suit.

As regards the optical transmissivity of these compositions, document (3) teaches that the presence of small droplets causes an increase of the refractive index of the lamellar droplets so that the disclosed compositions have preferably a refractive index difference with respect to the aqueous phase of more than 0.02 (see page 5, lines 11 to 25).

This means that compositions with smaller droplet size are less clear than compositions with greater droplet size.

This appears to be contrary to the Appellants' opinion supported by document (18) (points 8 to 18) that the clarity of this kind of compositions should increase by reducing the droplet size.

In any case, the Board remarks that no evidence was submitted by the Appellants that the compositions of document (3) have necessarily a droplet size and an optical transmissivity as required in claim 1.

However, since the disclosure of document (3) differs clearly from the claimed subject-matter insofar as it does not contain a sugar (see point 1.4.2 above), it is not relevant in the present case to consider these other possible distinguishing features in the following discussion of inventive step.

1.5.3 In the light of the teaching of document (3), the technical problem underlying the invention can be formulated as the provision of a further structured aqueous liquid detergent composition containing lamellar droplets having improved clarity.

Examples 5, 16 to 19, A5, 20, 21 and 23 of the patent in suit show that the addition of a sugar provides structured aqueous liquid detergent composition containing lamellar droplets having higher optical transmissivity than compositions not containing the added sugar. Moreover, the examples show that the desired effect is obtained with high and low amounts of sugar (see examples 16, A5, 20 and 21).

In particular, the comparative example of example 20, concerning a composition containing similar components and prepared by shearing in a similar way as the composition of example I of document (3), shows a low optical transmissivity, whilst the addition of a sugar provides a drastic improvement from 1% to 43%; similar results are obtained by adding sugar to the comparative example of example 23 also concerning a composition similar to that of example I of document (3).

As regards the comparative example [#] of example 22, addressed to by the Appellants, this composition is not

a composition according to claim 1, as explained in point 1.3.3 above. Moreover, example 22 shows that by reducing the amount of polysaccharides and increasing the amount of sugar a stable composition having good optical transmissivity is obtained.

All the Appellants' allegations that high or low amounts of sugar would not be able to lead to the desired technical improvement have not been supported by any evidence and must be disregarded.

The Board thus has no reason to doubt that the technical problem mentioned above has been successfully solved by means of the subject-matter of claim 1.

Therefore, the present case is in agreement with the reasons of decisions T 939/92 (point 2.4.3), T 694/92 (point 6), T 583/93 (point 7.2), T 1051/97 (point 7.3) and T 97/00 (point 3.1.4), cited by the Appellants, according to which an alleged technical effect of a claimed invention has to be convincingly proven across the entire scope of the claims.

- 1.5.4 It is undisputed by the Respondents that it was known that the addition of sugar to water increases the refractive index of the aqueous phase and that the clarity of a liquid containing different phases can be improved by matching the refractive indices of the various phases (see, for example, documents (18) points 5 to 7 and (22) page 18, right column, figure 1).

However, it is also undisputed that the prior art was silent about the addition of a sugar to a structured composition containing lamellar droplets.

In fact, documents (19) (example VII), (20) (page 1, lines 20 to 22) and (23) (page 2, lines 5 to 7 and page 9, lines 56 to 57) only disclose the use of sugar in isotropic unstructured compositions.

Moreover, document (23) teaches that a sugar like glucose can be used as hydrotrope for improving the solubility of hydrophobically modified polymers contained in those compositions (page 9, line 56 to page 10, line 2). However, the use of hydrotropes in structured lamellar liquids was considered in the prior art to be counterproductive, since they increase the solubility of surfactants and inhibit the formation of the lamellar structure (see documents (23), page 2, lines 39 to 41 and document (4), page 15, lines 51 to 54).

Therefore, there was no hint for the skilled person in the prior art that sugar could be added or incorporated at low and high concentrations into a structured liquid composition containing lamellar droplets such as a composition according to document (3) without impairing the structured phase or inhibiting its formation.

As stated in document (18) (point 6): "Any chemist seeking to modify the refractive index of an aqueous phase would normally select a sugar...unless there were some strong reasons to avoid it, such as chemical incompatibility with other components".

The Board thus finds that the skilled person, even knowing that sugar could be suitable for increasing the refractive index of an aqueous phase, being aware of the fact that sugar can have a hydrotropic effect and that hydrotropes can affect and inhibit the formation of a lamellar phase, would have not selected sugar for trying to improve the clarity of the compositions of document (3) and solving therewith the technical problem underlying the invention.

1.5.5 Therefore, the Board concludes that the claimed subject-matter involves an inventive step.

Order

For these reasons it is decided that:

The appeals are dismissed.

The Registrar:

The Chairman:

D. Magliano

P.-P. Bracke