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**Datasheet for the decision
of 19 July 2021**

Case Number: T 1580/18 - 3.3.06

Application Number: 10831234.9

Publication Number: 2501266

IPC: A47K10/16, D21H19/14,
D21H21/14, D21H19/18

Language of the proceedings: EN

Title of invention:

TISSUE PRODUCTS INCLUDING A TEMPERATURE CHANGE COMPOSITION
CONTAINING PHASE CHANGE COMPONENTS WITHIN A NON-INTERFERING
MOLECULAR SCAFFOLD

Patent Proprietor:

Kimberly-Clark Worldwide, Inc.

Opponent:

Essity Hygiene and Health Aktiebolag

Headword:

Cooling tissue/Kimberly-Clark

Relevant legal provisions:

EPC Art. 83, 56

Keyword:

Sufficiency of disclosure - (yes)

Inventive step - (yes)

Decisions cited:

T 1321/04

Catchword:



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Case Number: T 1580/18 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 19 July 2021

Appellant: Essity Hygiene and Health Aktiebolag
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Decision under appeal: **Interlocutory decision of the Opposition**
Division of the European Patent Office posted on
20 April 2018 concerning maintenance of the
European Patent No. 2501266 in amended form.

Composition of the Board:

Chairman J.-M. Schwaller
Members: S. Arrojo
R. Cramer

Summary of Facts and Submissions

- I. The present appeal was filed by the opponent against the decision of the opposition division to maintain European patent No. 2 501 266 on the basis of the main request filed with letter dated 12 June 2017.
- II. In its statement of grounds of appeal, the opponent (now appellant) maintained in particular its objections raised under Articles 83 and 56 EPC.
- III. In its reply, the patent proprietor (also respondent) requested to dismiss the appeal or, as an auxiliary measure, to maintain the patent on the basis of one of auxiliary requests 1-7 filed during opposition with letter dated 12 June 2017.
- IV. In a communication under Article 15(1) RPBA, the board expressed its preliminary opinion that the subject-matter of claim 1 of the main and first to third auxiliary requests did not involve an inventive step in view of document D7 (US 2007/0124869 A1), that claim 1 of auxiliary request 4 did not involve an inventive step in view of D7 combined with document D11 (US 2008/0188560 A1), but that the claims of auxiliary request 5 appeared to meet the requirements of the EPC.
- V. In a letter dated 18 June 2021, the appellant submitted additional arguments against the allowability of the claims of auxiliary request 5.
- VI. At the oral proceedings, which took place on 19 July 2021, the patent proprietor withdrew the main request and auxiliary requests 1 to 4, effectively

making auxiliary request 5 its main request, claim 1 of which reading as follows:

"1. A dry substrate comprising:

a first web comprised of fibers, the web including a first side and a second side; and

a temperature change composition present on at least the first side of the web, the temperature change composition comprising:

a phase change component that undergoes a phase change at a temperature from about 20°C to about 35°C, the phase change component having a heat of fusion of at least about 100 J/g and being present on the web such that the web has a heat absorption factor of at least about 500 J/m², the phase change component present in an amount between 50% by weight of the temperature change composition and about 99.9% by weight of the temperature change composition, and

a non-interfering molecular scaffold present in an amount between about 1% by weight of the temperature change composition and 50% by weight of the temperature change composition;

wherein the non-interfering molecular scaffold comprises at least two of a crystalline diluent, a polymer and a block copolymer, wherein:

the crystalline diluent is selected from fatty alcohols and fatty acids, the fatty alcohols and fatty acids having a chain length from 6 to about 50 carbon atoms, such as a chain length from 10 to about 30 carbon atoms;

the polymer is selected from polyethylene, poly C₁₀₋₃₀ alkyl acrylate, C₈₋₂₂ alkyl acrylates/methacrylic acid crosspolymer, C₈₋₂₂ alkyl acrylate/butyl dimethicone methacrylate copolymer, and mixtures thereof;

the block copolymer is selected from polystyrene-poly(ethylenepropylene) diblock copolymers, polystyrene-poly(ethylene-butylene)polystyrene triblock copolymers, polystyrene-poly(ethylene-butylene-styrene)polystyrene(S-EB/S-S) triblock copolymers, maleic anhydride-grafted polystyrene-poly(ethylene-butylene)-polystyrene triblock copolymers, maleic anhydride-grafted polystyrene-poly(ethylene-butylene-styrene)-polystyrene triblock copolymers, polystyrene-polybutadiene-poly(styrene-butadiene)-polybutadiene block copolymers, hydrogenated radial block copolymers, and mixtures thereof."

Before closing the debate, the requests from the parties were the following:

The appellant requested to set aside the decision under appeal and to revoke the patent in its entirety.

The respondent requested to maintain the patent on the basis of the claims of auxiliary request 5 filed with letter dated 12 June 2017, or, as an auxiliary measure, of one of auxiliary requests 6 or 7 filed with letter dated 12 June 2017.

Reasons for the Decision

1. Auxiliary request 5 - Sufficiency of disclosure

The requirements of Article 83 EPC are met for the following reasons:

- 1.1 The appellant argued that when a term used in the claims was given a special meaning in the description, this had to be taken into account for assessing compliance with Article 83 EPC (reference was made to

T 1321/04). Since the term "*non-interfering molecular scaffold*" (from now on "NIMS") had no generally accepted meaning, it had to be interpreted in the light of par. [0053] of the description, which indicated that the feature NIMS was "defined as any ingredient that can be combined with the phase change component such that the mixture retains at least 75% of the enthalpy of the pure phase change component". Consequently, to comply with the requirements of Article 83 EPC, the patent had to include enough information to reproduce the effect described in par. [0053]. Since the only example falling within the scope of claim 1 (i.e. example 14) did not provide this effect (see composition 2 of annex 1), and considering that the patent did not include any guidance as to the criteria to select two NIMS which were capable of retaining 75% of the enthalpy of the pure phase change component, the invention was insufficiently disclosed.

Furthermore, claim 1 was also defined in terms of other broad functional features such as "temperature change composition" or "phase change component", whose functions had to be reproduced in order to meet the requirements of Article 83 EPC. The examples in the patent were however limited to a single phase change component (stearyl heptanoate), so it was not apparent how this limited information could be used to carry out the invention throughout the entire scope of claim 1. Although claim 9 defined a number of possible phase change components, the list was so broad that it encompassed substances (e.g. oil, lower fatty acids, lower fatty acid esters, lower primary halides, etc.) that would not be capable of providing the defined "phase change" function. This was also apparent in view of document D1 (WO 2009/144596 A1), which indicated (page 15, line 29 - page 16, line 6) that when a

cooling composition included ingredients which were miscible with the phase change component, the heat of fusion could be affected in a non-predictable way. In particular, adding significant amounts of hydrophobic components such as octadecane or ceresin wax would make the phase change component miscible, which would significantly reduce the heat of fusion and the resulting cooling effect of the composition. Consequently, since the combination of claims 1 and 9 encompassed non-working embodiments, the invention was not reproducible throughout the entire scope of protection.

- 1.2 The board does not agree with this argumentation for the following reasons:

A claim might be construed in the light of the description in order to clarify the meaning of an otherwise obscure feature or to confirm the most obvious interpretation in case of ambiguity (see Case Law of the Boards of Appeal, 9th Ed. 2019 (CLBoA) II.A. 6.3.3). It was the latter circumstance which was applicable in case T 1321/04 (cited by the opponent), in which the feature "predetermined value" was interpreted in the light of the description in order to confirm the most obvious interpretation (a preselected constant value rather than a variable value measured during the process). In the present case, while the feature "non-interfering molecular scaffold" or NIMS has no generally accepted meaning, claim 1 explicitly associates it with a list of compounds and/or compositions, so there is no reason to consult the description in order to clarify it. It is also established case law that an objection of insufficiency of disclosure should not be based on an argument that the patent does not enable a skilled person to achieve

a technical effect which is not defined in the claims (CLBoA II.C.3.2, 2nd par.) and that the content of the description should not be relied on to read into a claim an implicit restrictive feature not suggested by the explicit wording of the claim (see CLBoA II.A. 6.3.4). Thus, since "the invention" pursuant to Article 83 EPC is not explicitly or implicitly limited by the content of par. [0053] of the patent, the alleged lack of information to reproduce the effect described therein cannot lead to a problem of insufficiency of disclosure.

The board is further convinced that the skilled person would also find no major difficulty in identifying substances having a cooling effect as a result of a phase change and having a melting temperature within the range defined in claim 1, particularly considering that the patent discloses a number of such phase change components (see e.g. claim 5). Even though the broad groups defined in claim 9 encompass embodiments which, in view of the information on pages 15-16 of D1, might not provide the desired cooling effect, these are excluded by the requirement in claim 1 that the web should have a heat absorption factor of at least 500 J/m^2 . In any case, a skilled person in the field of cosmetics would not require any inventive skills or an undue burden to identify and discard combinations which are clearly not suitable to act as a cooling composition.

The board therefore considers that the invention is sufficiently disclosed for being reproduced by the skilled person.

2. Auxiliary request 5 - Inventive step

The requirements of Article 56 EPC are met for the following reasons:

2.1 Closest prior art

2.1.1 There is agreement that document D7 represents the closest prior art, because it resembles the invention both in terms of its technical features and of the problem being solved.

D7 discloses in particular (claims 15-16; par.[0009] and [0012]) a fibrous substrate imparting a sense of freshness when the product contacts the skin, including 0.1- 20 g/m² of a cooling composition comprising a fatty acid ester (from a C₁₀₋₁₄ acid and a C₁₀₋₁₄ alcohol) such as lauryl laureate, having a melting point ranging from 20°C to 37°C. According to a preferred embodiment (claim 17), the cooling composition includes at least 60% of the ester with the remainder (i.e. 40%) being selected from solvents, fatty acid esters, fatty alcohols or mineral oils.

According to exhibit E8, the heat of fusion of lauryl laureate is 60.70 kJ/mol or 164.7 J/g. Since the cooling composition includes at least 60% of the ester, the heat absorption factor will be between 9.88 J/m² (when the agent's content is 0.1 g/m²) and 1976.4 J/m² (when the agent's content is 20 g/m²).

2.1.2 The appellant argued that the only differentiating feature of claim 1 with respect to D7 was that the substrate comprised at least two different NIMS, with one of them being a polymer or a block copolymer falling within the lists defined in claim 1 at issue.

The respondent argued that there were additional differentiating features, such as the heat absorption factor of at least 500 J/m^2 , the presence of a fatty alcohol or a phase change component having a heat of fusion of at least 100 J/g , because all these features were presented in D7 only as one of several alternatives, so that multiple selections were required in order to contemplate them.

2.1.3 It will be assumed for the sake of the argument (in the appellant's favour), that claim 1 differs from D7 only in that the non-interfering molecular scaffold includes two different substances, one of them being a polymer or a block copolymer taken from the lists defined in claim 1.

2.2 Problem solved by the invention

2.2.1 Example 14 of the patent in suit relates to a composition including two different non-interfering molecular scaffold components (stearyl alcohol and polyethylene) and therefore falls within the scope of claim 1. According to the patent (par. [0090]), the tissue coated with this composition was found to provide a satisfying cooling effect while preventing skin irritation, in particular giving rise to lower TEWL or redness scores and lower dropout rates when compared to similar tests performed with stearyl heptanoate (i.e. the phase change component) at 100% or at a 90:10 weight ratio with cosmetic wax.

2.2.2 The appellant argued that example 14 only concerned specific components at relatively high concentrations, which could not plausibly demonstrate that the effect of preventing irritation would take place throughout the entire claimed range. In particular, it was not

plausible following a balance of probabilities that this effect would take place for all the substances defined in the claims at concentrations of the scaffold as low as 1 wt.% (as defined in claim 1). In any case, document D7 already provided the effects of cooling (see par. [0015]) and of preventing irritation using fatty alcohols (see par. [0005] and claim 17), so there was no evidence on file to support the argument that the subject-matter of claim 1 would give rise to any specific technical effect or improvement in terms of cooling and/or lower irritation with respect to the tissues in D7. Consequently, the only problem solved by the invention was the provision of an alternative substrate.

- 2.2.3 The board agrees with the appellant in that there is no evidence that the non-interfering molecular scaffold mixture defined in claim 1 would provide an improvement in terms of cooling and/or skin irritation when compared to the tissues containing fatty alcohols as described in D7. However, the results obtained in example 14 of the patent at least demonstrate that the combination of NIMS defined in claim 1 does not represent a general arbitrary alternative, but one in which both a cooling effect and a limited irritation are obtained.

Concerning the question of whether a single example suffices to demonstrate that the cooling and the limited irritation effects would be obtained throughout the entire breadth of the claim, the board notes that the appellant has not filed any counter-evidence to support its argument. More particularly, while it is true that a NIMS concentration as low as 1 wt.% would arguably have a correspondingly small effect in terms of limiting irritation, there is no evidence on file to

conclude that this effect would not be present at all or that it would be negligible. There is also no evidence that using other substances/amounts defined in the claims but different from those in example 14 would render the cooling or the limited irritation effects negligible. Thus, following the balance of probabilities, the board concludes that the invention successfully solves the problem of providing an alternative substrate having a cooling effect while preventing or limiting skin irritation.

2.3 Obviousness

2.3.1 The appellant argued that starting from document D7 as closest prior art, the addition of a polymer falling within the scope of claim 1 was obvious in view of document D11. This document, like D7, related to cooling compositions and explicitly taught (par. [0020]) the use of acrylate/C₁₀-C₃₀ alkyl acrylate cross-linked copolymers as emulsifier to encapsulate the phase change component, which corresponded to the idea proposed by the opposed patent (see par. [0053]). While claim 1 did not explicitly define acrylate/C₁₀-C₃₀ alkyl acrylate cross-linked copolymers, these were encompassed by the groups defined therein. In any case, even if the polymers defined in claim 1 and in D11 were considered to be different, the structural differences would be so small that it would be trivial for the skilled person to contemplate compositions falling within the scope of protection.

2.3.2 The board does not agree with this argumentation for the following reasons:

Document D11 does not establish any link between the polymers in par. [0020] and the effect of limiting

irritation. The polymer proposed in this document is merely said to represent a suitable emulsifier, with no further indication that this substance could also be considered as an alternative ingredient to limit the irritation caused by the phase change component in the cooling composition. Consequently, the board concludes that when starting from D7 as closest prior art, the skilled person would have no incentive to contemplate adding the polymer in par. [0020] of D11 for the purpose of providing an alternative having a cooling effect while limiting skin irritation.

Furthermore, the board also notes that, as argued by the respondent, the copolymer described in D11 (i.e. a C₁₀₋₃₀ acrylate/alkyl acrylate cross-linked copolymer) does not appear to fall within the scope of protection. On the one hand, the poly C₁₀₋₃₀ alkyl acrylate in claim 1 is not defined as a cross-linked copolymer (i.e. it is thus assumed to be a non cross-linked homopolymer), on the other hand, the only cross-linked copolymer defined in claim 1 is the C₈₋₂₂ alkyl acrylates/methacrylic acid crosspolymer, which is not anticipated by the copolymer defined in par. [0020] of D11. In particular, the term "acrylate" does not encompass methacrylates (both the opposed patent and D11 clearly differentiate acrylates from alkyl acrylates such as methacrylate), and even if methacrylates were regarded as a form of acrylates, the C₈₋₂₂ alkyl acrylates/methacrylic acid crosspolymer defined in claim 1 would represent a specific form of the copolymer in D11, both in terms of the length of the alkyl acrylate (C₈₋₂₂ vs C₁₀₋₃₀) and because the methacrylate sub-group would be a more restricted form of the general group of acrylates. Consequently, document D11 is not considered to disclose a polymer or copolymer falling within the list of claim 1, so even if a combination of D7 and D11

were contemplated, the skilled person would not arrive at the claimed invention.

The subject-matter of claim 1 at issue, and by the same token that of claims 2 to 11, which depend thereon, is thus considered to be inventive within the meaning of Article 56 EPC.

3. Since none of the objections raised by the appellant is considered to be convincing, the patent is to be maintained on the basis of the claims according to auxiliary request 5.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to maintain the patent on the basis of the claims of auxiliary request 5 filed with the letter of 12 June 2017, and a description to be adapted.

The Registrar:

The Chairman:



A. Pinna

J.-M. Schwaller

Decision electronically authenticated