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D E C I S I O N
of 19 October 2000

Case Number: T 0765/96 - 3.3.2

Application Number: 90203209.3

Publication Number: 0432835

IPC: A23L 1/05

Language of the proceedings: EN

Title of invention:

Fluid composition

Patentee:

UNILEVER N.V., et al

Opponent:

Hercules Incorporated

Headword:

Fluid composition/UNILVER

Relevant legal provisions:

EPC Art. 54, 111, 138(1), 139

EPC R. 87, 57a

Keyword:

"Main request - novelty - no"

"First auxiliary request - novelty -yes"

"Remittal to the first instance"

Decisions cited:

T 0550/88

Catchword:

-



Case Number: T 0765/96 - 3.3.2

D E C I S I O N
of the Technical Board of Appeal 3.3.2
of 19 October 2000

Appellant: UNILEVER N.V.
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 29 July 1996
revoking European patent No. 0 432 835 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: C. Germinario
Members: U. Oswald
R. E. Teschemacher

Summary of Facts and Submissions

- I. European patent No. 0 432 835, based on application No. 90 203 209.3 was granted with a set of eleven claims for the contracting states AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL and SE

Claim 1 as granted reads as follows:

"A process for preparing a fluid composition containing a chemically setting gelling agent, wherein a liquid containing the gelling agent is chemically set, whilst subjecting said liquid to sufficient shear to obtain a substantially less rigid composition than would have been obtained by chemically setting the liquid under quiescent conditions, wherein the composition comprises at least 75 wt% of the liquid and wherein either (a) the gelling agent comprises a gelling agent selected from the group consisting of pectin, iota-carrageenan, kappa-carrageenan, furcelleran and mixtures thereof, or (b) the gelling agent is alginate and the liquid containing the gelling agent is set at a temperature above 30°C."

- II. Opposition was filed by the Respondent (Opponent) alleging lack of both novelty and inventive step under Article 100(a) EPC as well as insufficiency of disclosure under Article 100(b) EPC.

The following documents were cited during the opposition proceedings:

- (1) US-A-2859115

(2) GB-A-1525123

(3) GB-A-2048642

(4) US-A-3804951

(5) EP-A-0271132

(6) EP-A-0011891

(7) GB-A-2035360

III. The Opposition Division decision of 25 June 1996, posted on 29 July 1996, revoked the patent under Article 102(1) EPC. The decision was based on the set of claims as granted.

The Opposition Division took the view that the process according to claim 1 lacked novelty in the light of Example 1 of document (4).

More particularly it was held that Example 1 clearly indicated that the liquid containing 98.9% weight parts of water, kappa-carrageenan and potassium citrate was subjected to stirring and agitation in order to obtain an elastic interrupted gel having an extremely high viscosity and that accordingly the liquid was also chemically set. In the absence of any definition of what was meant by "sufficient shear" in claim 1, the Opposition Division concluded that the process of Example 1 of document (4) led to the same "substantially less rigid composition" as required by claim 1.

IV. The Appellant (Proprietor Unilever N.V.) lodged an appeal against the said decision. In response to the grounds of appeal the Respondent inter alia referred to document (7) and raised an objection for lack of novelty of claim 8 as granted.

Oral proceedings took place on 6 August 1999 during which for the first time the Respondent referred to document

(8) EP-A-0355908 cited under Article 54(3) EPC in the European search report.

Since document (8) was only discussed before the Examining Division but was not referred to by the parties in the opposition and appeal proceedings, the Appellant requested that the case be remitted to the first instance if the Board considered this prior art relevant to the novelty of the subject-matter of the patent in suit. After deliberation by the Board the Chairman announced that the proceedings were to be continued in writing.

V. In a communication dated 28 September 1999, the Board indicated inter alia that Example 4 in document (8) appeared to be prejudicial to the novelty of each of the product claims on file, except for those of the contracting state DK. In response the Appellant filed on 8 December 1999 a new main request and five auxiliary requests, each request including a separate set of claims for the contracting state Denmark DK.

Claim 7 of the main request for the contracting states other than DK reads as follows:

"Fluid composition containing a chemically setting gelling agent, at least part of which gelling agent has been chemically set, wherein the chemically set gelling agent is predominantly present as microgels having a mean equivalent diameter of less than 100 micrometer, preferably of less than 50 micrometer, wherein either (a) the chemically setting gelling agent comprises pectin, and/or (b) the microgels are irregularly shaped."

Claim 1 of the two sets of claims of the first auxiliary request is the same for all designated contracting states and reads as follows:

"A process for preparing a fluid composition containing a chemically setting gelling agent, wherein a liquid containing the gelling agent is chemically set by combining two separate streams, one containing the gelling agent and another containing the cation, whilst subjecting said liquid to sufficient shear to obtain a substantially less rigid composition than would have been obtained by chemically setting the liquid under quiescent conditions, wherein the composition comprises at least 75 wt% of the liquid and wherein either (a) the gelling agent comprises a gelling agent selected from the group consisting of pectin, iota-carrageenan, kappa-carrageenan, furcellaran and mixtures thereof, or (b) the gelling agent is alginate and the liquid containing the gelling agent is set at a temperature above 30°C."

Claim 7 of the first auxiliary request for the contracting states other than DK reads as follows:

"Fluid composition containing a chemically setting

gelling agent, at least part of which gelling agent has been chemically set, wherein the chemically set gelling agent is predominantly present as microgels having a mean equivalent diameter of less than 100 micrometer, preferably of less than 50 micrometer, wherein the chemically setting gelling agent comprises pectin."

Claim 7 of the first auxiliary request for the contracting state DK reads as follows:

"Fluid composition containing a chemically setting gelling agent, at least part of which gelling agent has been chemically set, wherein the chemically set gelling agent is predominantly present as microgels having a mean equivalent diameter of less than 100 micrometer, preferably of less than 50 micrometer, wherein the chemically setting gelling agent comprises a gelling agent selected from the group consisting of pectin, iota-carrageenan, furcelleran and mixtures thereof."

Claim 10 of the two sets of claims of the first auxiliary request is the same for all designated contracting states and reads as follows:

"10. Process for preparing a spread containing from 5 to 60 wt.% fat, including the admixture of fat with the fluid composition according to any of claims 7-9."

VI. The Appellant submitted that the current interpretation of Article 54(3) EPC was that national rights of earlier date had no effect on the patentability of European patents since they were not comprised in the state of the art.

Regarding the disclosure of the prior art, the Appellant argued inter alia that according to the method of the patent in suit gelation started immediately upon the combination of the gelling agent and the cation and that neither of documents (4) and (8) disclosed the chemical setting of a gel by combining two separate streams whilst applying shear, and hence novelty of the process claims containing such setting of a gel was given.

Document (8) exclusively concerned thermally reversible gels and therefore neither the indication of pectin in a list of gelling agents was sufficient information to disclose its use to obtain a chemically set gel nor the reference to the optional use of ion sources such as salts in the composition of document (8) disclosed pectin in combination with a salt which allowed chemical setting of the gel. Moreover, since there was no disclosure in document (8) of a chemically set gelling agent present in the form of microgels irregularly shaped, the fluid composition of the patent in suit was clearly novel over this prior art.

VII. Document (8) clearly disclosed that examples of gelling polysaccharides capable of forming reversible gels were agar, carrageenan, furcelleran, gellan and pectin and that the microgels of its fluid composition might be of a spherical or irregular shape. The mere fact that no specific example in document (8) made use of pectin did not preclude this prior art constituting an anticipatory document. As a consequence, in the Respondents view, at least claim 7 of the main request and first auxiliary requests, claims 1 and 8 of the second and third auxiliary request and claim 1 of the fifth auxiliary request all lacked novelty in the light

of the disclosure of document (8).

The Respondent submitted that the worked examples of the patent in suit did not show that gelification took place immediately after mixing the gelling agent and the cation and that therefore the process claims of each request had to be construed as encompassing the possibility of combining the streams of gelling agent and cation and only subsequently chemically setting the combined stream whilst subjecting it to shear. Accordingly, the process claims of the various requests lacked novelty with respect to both document (4) and document (8).

In order to show lack of novelty of the claimed process, the Respondent sought to introduce two further documents US-A-3185576 and US-A-3978243 into the appeal proceedings.

The Respondent contested these arguments and inter alia took the view that the filing of a separate set of claims for the contracting state Denmark DK was unjustified since document (8) had a Danish equivalent and Danish law had a provision which corresponded to Article 54(3) EPC.

VIII. In the communication dated 28 September 1999, the Board had indicated that the parties and the subject of the proceedings regarding patentability of the claimed subject matter remained the same and that accordingly it could not be expected that the Appellant's request for further oral proceedings would be allowed.

IX. The Appellant requested that the decision under appeal be set aside and that the patent be maintained either on the

basis of the main request or on the basis of one of the five auxiliary requests filed on 8 December 1999.

In case in which not all the requests could be considered to be novel over any of the documents cited, further oral proceedings were requested.

The Respondents requested that the appeal be dismissed.

As an auxiliary request further oral proceedings were requested.

Reasons for the Decision

1. The appeal is admissible.
2. *Main request for contracting states other than DK*
 - 2.1 *Amendments*

Claim 7 of this request comprises the broadest scope of protection and is based on claims 10 and 11 originally filed in combination with page 7, lines 9 to 23, of the description originally filed and corresponds to claim 8 as granted. Accordingly the requirements of Article 123 EPC are fulfilled.

2.2 *Novelty*

Document (8) relates to liquid-based compositions comprising at least one gelling polysaccharide capable of forming a reversible gel. Examples of such gelling

polysaccharides are agar, carrageenan, furcelleran, gellan and pectin. The gelling polysaccharides are predominantly present in the composition as microgels having a mean equivalent diameter of less than 100 micrometer, preferably of less than 50 micrometer. According to Figures 1 and 2, the microgels of the composition are of a spherical or irregular shape. The composition can also contain materials which have the effect of modifying the gel-melting and setting temperature, for example ion sources such as salts, which have a strong influence on the gel-melting and setting point (see particularly page 2, lines 1/2, 4/5 and 14/15, page 4, lines 8/9, page 5, lines 44 to 47, as well as Figures 1 and 2).

Example 4 on pages 7/8 specifies components and a formulation according to the general teaching of document (8) referred to above. The liquid based composition of said example contains 1.3% carrageenan (kappa /iota carrageenan 70/30), 0.41% sodium chloride, 1.05% potassium sorbate and the balance deionised water. The carrageenan and the salts are dissolved in the deionised water at 80°C and then heated to 95°C. Subsequently the solution is cooled while applying shear in order to produce a thick pumpable liquid.

- 2.3 Even when taking into account the Appellant's submission that gel formation in a chemical setting process is extremely sensitive to the type of ingredients and relationship of the amounts of each of the components, particularly the cation and gelling-agent content present in the mixture to be gelled, the Board is convinced that in the final product of said Example 4 of document (8)

with 1.05% potassium sorbate in the formulation, **at least part** of the gelling agent has been chemically set as required for the product of claim 7 of the main request.

- 2.4 On page 6, line 56, of document (8) it is clearly indicated that "the invention is further illustrated by means of the following examples". Accordingly, since the invention of document (8) clearly relates to liquid-based compositions with the gelling agent predominantly being present in the composition as microgels having a mean equivalent diameter of less than 100 microns (see claim 1), the Board is convinced that the final product of Example 4 of document (8) also contains the size of microgels as required for the product of claim 7 of the main request.

It is also demonstrated by Figures 1 and 2 of document (8) that it is not possible to distinguish the microgels of claim 7 from those disclosed in document (8) by a vague term such as "irregularly shaped".

Moreover, in the absence of any clear definition of the expression "at least part of which gelling agent has been chemically set" in claim 7, the chemically set "part" of the gelling agent cannot be accepted as a feature delimiting the claimed product over the prior art disclosure.

In the light of these facts the Board can only conclude that at least for alternative "(b)" the subject matter of claim 7 of the main request for the contracting states other than DK lacks novelty over the disclosure of document (8).

2.5 Since at least one claim of the main request does not fulfil the requirements of the EPC the whole request, including the set of claims for DK, must fail.

3. *Auxiliary request 1 for contracting state DK*

3.1 Admission into the proceedings

The present sets of claims for the contracting state Denmark DK were filed in response to an objection under Article 54(3) EPC raised for the first time during the appeal proceedings. In the circumstances of the present case, the filing of such requests containing separate claims for the contracting states other than DK, which by means of amendments are deemed to be delimited over the state of the art under Articles 54(3) and (4) EPC, namely document (8) and claims for DK, which by other amendments are deemed to be delimited over each of the other prior art under Articles 54(1) and (2) EPC, can be regarded as admissible under Rules 87 and 57a EPC.

Having regard to the outcome of decision T 550/88 (OJ 1992, 117) clearly stating

- "that the effect of a prior national right upon a European patent is a matter purely for **national law**"

and that

- "the combined effect of Article 138 (1) and 139 EPC is to provide an additional possible ground of revocation under **national laws** based upon the existence of a prior national right which is not

available under Article 54 EPC",

the Respondent's argument that the amendments to the claims for the different contracting states are unjustified because of the fact that there exists a Danish application equivalent to document (8) must fail.

3.2 Amendments

Independent claim 1 can be derived from claims 1 and 2 originally filed in combination with page 4, line 28, up to page 5, line 2, of the description originally filed and claim 1 as granted in combination with page 3, lines 10 to 12, of the description as granted; dependent claims 2 to 6 correspond to dependent claims 3 and 4 and 6 to 8 as originally filed and dependent claims 2 and 3 and 5 to 7 as granted.

Independent product claim 7 is based on claims 10 and 11 originally filed and claim 8 as granted. Dependent claims 8 and 9 correspond to dependent claims 12 and 13 as originally filed and 9 and 10 as granted.

Process claim 10 corresponds to claim 14 originally filed and claim 11 as granted.

Accordingly, the requirements of Article 123(2) and (3) EPC are fulfilled.

3.3 Clarity of claim 1 and its interpretation

Regarding the Respondent's clarity objections to the process for preparing a fluid composition as set out in

claim 1, it is to be noted that combining two separate streams of different reactants whilst subjecting the liquid to sufficient shear to obtain a reaction product is a unit operation well known to those skilled in the field of process engineering. Moreover, dependent claim 5 originally filed and dependent claim 4 as granted relate to this process feature. In these circumstances the objection under Article 84 EPC regarding the amendments of claim 1 is not justified.

Furthermore, in the absence of experimental counter evidence it must be regarded credible on the basis of common general knowledge about the law of chemical equilibrium that gelation under conditions as required by claim 1 **at least starts upon combining** the cation and the gelling agent, and consequently the liquid containing the gelling agent at least begins to be chemically set when combined, even if such gelation is not expressly mentioned in the working examples.

Process claim 1 does not require completion of chemically setting immediately after mixing the gelling agent and the cation.

The Board sees no reason to give the wording of claim 1 an interpretation other than its normal understanding in the specific technical field.

3.4 Novelty

When deciding in the light of the facts on file on the question of novelty of the product of claim 7, it is to be noted that except for the deletion of the gelling

agent "kappa-carrageenan" and of the feature that " the microgels are irregularly shaped", claim 7 corresponds to claim 8 as granted.

In consideration of the specific wording of claim 7, namely

"Fluid composition **containing** a chemically setting gelling agent, , wherein the chemically setting gelling agent **comprises** a gelling agent selected from iota-carrageenan ... ",

document (7), in particular Example II which was already cited by the Respondent against the novelty of claim 8 as granted, remains relevant also for the novelty of claim 7 of the first auxiliary request for the contracting state DK.

3.5 According to said Example II carrageenan is used as gelling agent. Since it is, however, well known in the art that carrageenan must be regarded as a generic term of natural products and since document (7) does not disclose gelling agents other than carrageenan claim 7 of auxiliary request 1 for contracting state DK specifying iota-carrageenan is recognised novel.

3.6 The same reasoning applies to document (6), page 4, lines 33/34, in combination with claims 1 and 5 of this document.

Document (6) discloses in addition to carrageenan, gelatin, agar and alginate gelling agents, none of which is comprised in claim 7 as one of the obligatory components.

3.7 The other documents cited during the proceedings - documents (1) to (5) and the two documents US-A-3185576 and US-A-3978243 which the Respondent sought to introduce into the appeal proceedings do not disclose microgels having a mean equivalent diameter as claimed. In the light of these facts the novelty of claim 7 can be acknowledged.

3.8 In the light of the clear technical meaning of the wording of process claim 1 as set out under point 4.2 above, the prior art cited during the proceedings, although disclosing the possibility of carrying out gelification in a fluid composition by a continuous process (see for example document (7), page 1, lines 40 ff), cannot be construed as relating to a process for chemically setting a gelling agent under shear conditions with a cation by combining two separate streams, one containing the gelling agent and another containing the cation. The Respondent did not show such disclosure and did not prove that **in the process of the patent in suit as now claimed** chemically setting of the gelling agent does not start immediately after combining the two separate streams of the reactive components.

The Respondent's reference to document US-A-3978243, column 3, lines 56 to 60, stating that the stabilised sour milk product is preheated to a temperature in the range 50°C to 80°C to avoid gelation as the two

components are mixed, must fail since the whole teaching of this prior art is to carry out specific measures in order to avoid gelification of the reactants which otherwise would take place.

Accordingly, the novelty of claim 1 can be acknowledged.

- 3.9 Process claim 10 includes the fluid composition of claim 7 which, as set out under point 4.4 above, can be regarded novel over the cited prior art.
- 3.10 Since in the European patent application published as document (8) the contracting state DK is not designated this document cannot be taken into account as prior art, and therefore the whole set of claims for DK can be regarded as novel in the light of the rest of the cited prior art.
4. *Auxiliary request 1 for contracting states other than DK*
- 4.1 Since the set of claims 1 to 10 of this request consists of the process claims 1 to 6 for DK and product claims 7 to 9 and the same process claim 10 including the product of claim 7, and since the product claims are more restricted than the product claims for the contracting state DK, it is in principle only necessary to discuss novelty of the claimed subject-matter in the light of the disclosure of document (8) under Article 54(3) EPC.
- 4.2 The disclosure of document (8) is analysed in detail under points 3.2 to 3.4 above for claim 7 of the main request.

In addition to 3.2 to 3.4 above, it is to be noted that document (8) does not contain any working example using pectin as gelling agent and indicates only that "the composition according to the invention **can contain** materials which have the effect of modifying the gel melting and setting temperature, for example ion sources such as salts, which have a strong influence on the gel melting and setting point", in other words, the general teaching of document (8) indicates only optionally the presence of ion sources. Moreover, document (8) contains both working examples with and without components capable of releasing metallic cations necessary for chemically setting at least part of the gelling agent.

- 4.3 Regarding the process for preparation of the liquid composition of document (8), it is clearly set out on page 7, lines 39 to 41, of this document that carrying out the process by continuously passing a (pre-heated) stream of gelling polysaccharide containing liquid through one or more cooling and shearing units is preferred. Document (8), however, does not teach combining two separate streams of the gelling agent and the cation in a manner as required by claim 1 of auxiliary request 1 for contracting states other than DK.

Accordingly, the whole set of claims for contracting states other than DK can be regarded as novel over the cited prior art.

5. Since the subject-matter of the claimed process of the only request forming a basis for the decision of the Opposition Division lacked novelty over at least one document, in the absence of auxiliary requests, the

Opposition Division correctly decided not to examine whether the requirements of Article 56 EPC have been met.

Since the matter of inventive step was also not dealt with in the proceedings before the Board, it appears appropriate for the Board to exercise its powers under Article 111 EPC and to remit the case to the Opposition Division, so as not to deprive the parties of two instances for completion of examination of the amended claims.

In these circumstances it does not appear appropriate to take a final decision on the relevance of the two new documents US-A-3185576 and US-A-3978243 for the assessment of inventive step.

6. Regarding the Respondent's request for further oral proceedings, it is to be noted that the Respondent, by submitting document (8) at a very late stage of the appeal proceedings, namely at the beginning of the oral proceedings before the Board, prevented the Board from taking a final decision in the present case and consequently caused the proceedings to be delayed and prosecuted in writing.

In this context the Respondent's attention is drawn to Article 116(1) EPC according to which "The European Patent Office may reject a request for further oral proceedings before the same department where the parties and the subject of the proceedings are the same" (see point VIII above).

Moreover, the new sets of claims now on file clearly

represent a reasonable reply of the Appellant to the content of document (8). These sets of claims forming a basis for this decision were filed on 8 December 1999 and both parties had ample opportunity to discuss the subject-matter of the new claims in written form. The present decision is not a final decision on the validity of the patent and there will be opportunity for both parties to have further oral proceedings before the first instance (see point 6 above). Therefore, it does not seem appropriate to hold further oral proceedings at the present stage before the Board.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to continue the proceedings on the basis of "Auxiliary Request 1" filed on 8 December 1999.

The Registrar:

The Chairman:

A. Townend

C. Germinario