DECISION
of 12 April 2005

Case Number: T 0061/03 - 3.3.4
Application Number: 97946055.7
Publication Number: 1032712
IPC: C13F 3/00
Language of the proceedings: EN

Title of invention:
Process and means for improving beverages in general by adding sweetening at the moment of consumption

Applicant:
B. MA SNC Di Cafano Giuseppe e Raffaele

Opponent:
-

Headword:
Process and means for improving beverages/B. MA SNC di CAFANO

Relevant legal provisions:
EPC Art. 83, 84, 123(2)
EPC R. 29(1), 35(12)

Keyword:
"Main request - sufficiency of disclosure (no)"
"Auxiliary request - added subject-matter (yes)"

Decisions cited:
G 0011/91, G 0002/95, T 0500/01, T 0260/85

Catchword:
-
Case Number: T 0061/03 - 3.3.4

**DECISION**
of the Technical Board of Appeal 3.3.4
of 12 April 2005

**Appellant:** B. MA SNC Di Cafano Giuseppe e Raffaele
Via Murat, 84
I-20159 Milano (IT)

**Representative:** Mocchetti, Ilio G.
Via Aldrovandi, 7
I-20129 Milano (IT)

**Decision under appeal:** Decision of the Examining Division of the European Patent Office posted 3 September 2002 refusing European application No. 97946055.7 pursuant to Article 97(1) EPC.

**Composition of the Board:**
Chairwoman: U. M. Kinkeldey
Members: R. E. Gramaglia
R. Moufang
Summary of Facts and Submissions

I. The appeal is against the decision of the Examining Division to refuse Euro/PCT application 97946055.7 published as WO 99/25879.

II. Claim 1 as subject to the decision of the Examining Division read:

"1. Process for additivizing beverages in general with one or another of several additives providing aromas, flavours, colouring, substances such as energisers, vitamins, by said beverages being sweetened at the moment of consumption, characterized in that the atomized additives are associated to an individual portion of sweetener, atomization being associated to encapsulation so as to surround each molecule of atomized additive with neutral and soluble molecules and therefore to cause release of the additives in the beverage only when their molecules dissolve on coming in contact with the liquid."

III. Although the decision contained further "comments non constituting reasons for a refusal" concerning novelty, inventive step and a further sufficiency objection, the ground of refusal was lack of sufficiency of disclosure of claim 1 (Article 83 EPC). The Examining Division took the view that the application did not disclose a method "to surround each molecule of atomized additive by neutral and soluble molecules" and therefore did not enable the skilled person to reduce the claimed invention into practice without needing to practice inventive skills.
Furthermore, in the section "comments non constituting reasons for a refusal" the Examining Division expressed its opinion that a technical expression contained in patent applications should be given the very defined meaning used in the art for describing an entity so that ambiguities or misunderstandings were avoided. Accordingly, a molecule of atomized additive was understood to mean a molecule in the scientific sense.

IV. In response to the summons to oral proceedings which were accompanied by a communication of the Board pursuant to Article 11(1) of the RPBA, the Appellant filed with letter of 4 February 2005 a main request and an auxiliary request. The Appellant informed the Board that it would not be represented during the oral proceedings.

Claim 1 of the main request read:

"1. Process for additivizing beverages in general with one or another of several additives providing aromas, flavours, colouring, substances such as energisers, vitamins, by said beverages being sweetened at the moment of consumption, characterized in that the atomized additives are associated to an individual portion of sweetener, atomization being associated to encapsulation so as to surround each molecule of atomized additive with neutral and soluble molecules such as starch and gum Arabic for example, and therefore to cause release of the additives in the beverage only when their molecules dissolve on coming in contact with the liquid."
Claim 1 of the auxiliary request read:

"1. Process for additivizing beverages in general with one or another of several additives providing aromas, flavours, colouring, substances such as energisers, vitamins, said beverages being sweetened at the moment of consumption, characterized in that the atomized additives are associated to an individual portion of sweetener, atomization being associated to encapsulation with neutral and soluble molecules such as starch and gum Arabic for example, and therefore causing release of the additives in the beverage only when their molecules dissolve on coming in contact with the liquid."

V. Oral proceedings were held on 12 April 2005 in the absence of the Appellant.

VI. The Appellant's arguments, submitted in writing, and relevant for this decision can be summarised as follows:

Main Request

- It is the general understanding of the skilled person that "atomization" means "dispersal of a solid or liquid in a gaseous phase in the form of minute particles or droplets" and that "molecule" means "the minimum part of a chemically defined substance that may be free in the gaseous state". Therefore, "encapsulation so as to surround each molecule of atomized additive with neutral and soluble molecules" was the only possible phrase for indicating "association of an individual portion of sweetener and additives by means of
atomization stabilised by encapsulation". Any other interpretation, such as the one that had led the Examining Division to find claim 1 contrary to the requirements of Article 83 EPC, was not permitted by the state of technical knowledge at the relevant date.

− The Examining Division had interpreted "to surround" being equivalent to "to coat", thereby finding that the appellant had not solved that problem. However, the notion "to surround" in no way signified that each molecule of additive had to be surrounded by a capsule, but rather that all the molecules of additive were comprised inside one or more capsules.

Auxiliary request

− The wording "so as to surround each molecule of atomized additive" had no limiting effect on the subject matter of the claim and could therefore be deleted from claim 1 of the main request.

− The Italian wording "per circondare" in claim 39 of the priority document underlying the present application merely reflected a purpose or aim whereas "so as to surround" meant that this purpose or aim was achieved. Therefore, "to surround each molecule of atomized additive" was not an essential characteristic of the invention. Hence, its deletion from the wording of claim 1 did not contravene the requirements of Article 123(2) EPC.
VII. The Appellant requests that the decision under appeal be set aside and a patent be granted on the basis of a main request containing claim 1 as filed with letter of 4 February 2005 or on the basis of an auxiliary request containing amended claim 1 filed with the same letter.

Reasons for the Decision

1. The appeal is admissible.

Main request

Added subject-matter - Article 123(2) EPC

2. Claim 1 of the main request is identical to claim 1 as subject to the decision under appeal, but for the additional exemplification of the "neutral and soluble molecules" by the non-restricting feature "such as starch and gum Arabic for example".

3. Basis for this claim can be found in claims 1, 38 and 39 and at page 2, line 26, of the application as filed and inter alia the passage at page 3, lines 27 to 33 of the same stating that "The additives may be transferred to the sweetener directly by impregnation, mixing, in the form of a solution or by atomization. Atomization is advantageously associated to encapsulation so that each molecule of atomized additive is surrounded by other neutral and soluble molecules such as, for example, starch and gum Arabic. This is done so that the additive is only released in the beverage when the neutral molecule dissolves after making contact with the liquid."
Thus, claim 1 of the main request complies with the requirements of Article 123(2) EPC.

Interpretation of claim 1

4. Because of the different interpretations of the feature "atomization being associated to encapsulation so as to surround each molecule of atomized additive with neutral and soluble molecules" in the context of "characterized in that the atomized additives are associated to an individual portion of sweetener" given by the Examining Division in their decision and by the Appellant, an assessment of this feature by the Board seems appropriate before deciding whether or not the invention in claim 1 satisfies the requirements of sufficiency of disclosure.

4.1 Contrary to the opinion of the Examining Division, which had given each term in the expression defining the feature its scientifically recognised meaning, the Appellant contended that, in view of the fact that (i) "atomization" means "dispersal of a solid or liquid in a gaseous phase in the form of minute particles or droplets" and (ii) that "molecule" means "the minimum part of a chemically defined substance that may be free in the gaseous state", the above feature could only mean "association of an individual portion of sweetener and additives by means of atomization stabilised by encapsulation".

4.2 For the purpose mentioned in point 4 above it is of assistance to turn to Article 84 EPC. This Article in combination with Rule 29(1) EPC stipulates the
requirements that the claims shall be clear and define the matter for which protection is sought in terms of the technical features of the invention. These requirements serve the purpose of ensuring that the public is not left in doubt as to which subject matter is covered by a particular claim and which is not. In the context of Article 84 EPC, the meaning of a term or expression used in a feature of a claim depends in particular on the definition thereof generally accepted by those skilled in the relevant art, as established by Rule 35(12), last sentence, EPC requiring in general terms that use should be made of the technical terms generally accepted in the field in question. Accordingly, it is an accepted principle that each claim should normally be read giving the words the meaning and scope which they generally have in the relevant art. Nevertheless, a patent application, being a legal document, may be its own dictionary and may define technical terms and determine how a skilled person has to interpret a specific term when used in the description or the claims. If it is intended to use a word which is known in the art to define a specific subject-matter to define a different matter, the description may give this word a special, overriding meaning by explicit definition (see e.g. T 500/01 of 12 November 2003, point 6).

4.3 It needs to be established what was, at the relevant date of the application, the understanding of the skilled person working in the relevant technical field of beverage additives, a branch of applied chemistry, of the term "molecule" in the expression "each molecule of atomized additive".
4.4 The Appellant has proposed a definition of "molecule" being "the minimum part of a chemically defined substance that may be free in the gaseous state". The Board agrees that this is a possible scientific definition of the notion "molecule" which would be adopted by a skilled person working in applied chemistry. That such generally accepted chemical meaning of the term "molecule" is to be applied when interpreting the claims is also not contradicted by a deviant definition in the description of the application. The meaning of the notion offered by the Appellant also does not contradict the meaning of the term "molecule" in the context of neutral and soluble molecules such as, for example, starch and gum Arabic.

4.5 The Board therefore concludes that the term "molecule" as used in the application is to be understood as to have the generally accepted meaning in the field of chemistry.

4.6 The Appellant has furthermore argued that in view of the definition of "atomization" being "dispersal of a solid or liquid in a gaseous phase in the form of minute particles or droplets" the expression "atomization being associated to encapsulation so as to surround each molecule of atomized additive with neutral and soluble molecules" does not require each separate molecule to be surrounded (coated) by neutral and soluble molecules (capsule), but rather that all the molecules of additive were comprised inside one or more capsules, thereby implying that the molecules of atomized additive could very well be associated in minute particles or droplets. In an attempt to support this argument, the Appellant referred to an example:
"If a number of hencoops each contains a number of hens, the hencoops clearly surround all the hens to keep them in; it does not however mean that each hen must be coated to prevent it from leaving the hencoop". Accordingly, in the view of the Appellant, the wording "to surround each molecule of atomized additive with neutral and soluble molecules" should be read as "to surround the atomized additive with neutral and soluble molecules", thereby bearing in mind the particle or droplet nature of the atomized additive.

5. Whilst the Board is not convinced by the "hencoop"-interpretation presented by the Appellant since it appears to deprive the term "each" in the wording of the feature from any technical meaning, it will nevertheless examine in the light of both interpretations of the feature whether or not the subject-matter of the claim under consideration fulfils the requirement of Article 83 EPC.

Sufficiency of disclosure - Article 83 EPC

6. Since the feature "atomization being associated to encapsulation so as to surround each molecule of atomized additive with neutral and soluble molecules" has been introduced by the Appellant to delimit the invention from the prior art cited by the Examining Division, it is an essential technical feature of the claimed invention. Article 83 EPC requires that, in terms of all its features, the skilled person must be given sufficient technical advice in the specification as to how to carry out the invention and over the whole breadth of the claim, unless the technique in question is so trivial that a skilled person can carry it out
merely on the basis of its common general knowledge. This is what the established case law of the Boards of Appeal requires.

6.1 The application as filed does not disclose a single example of a method for encapsulating each molecule of atomized additive with neutral and soluble molecules, neither in the more restrictive and physico-chemical interpretation that the Examining Division has adhered to, nor in the interpretation of the Appellant. It therefore needs to be established whether the relevant skilled person nonetheless was in a position, taking into account its general technical knowledge, to work the invention as claimed.

6.2 In view of the fact that, and as reiterated by the Appellant, atomization means "dispersal of a solid or liquid in a gaseous phase in the form of minute particles or droplets", the Board cannot agree that the common general knowledge of the relevant skilled person as defined in point 4.3 above is sufficient for him/her to device a technical experimental protocol providing technical details on how to encapsulate each individual molecule of atomized additive with neutral and soluble molecules, i.e. when taking the feature in the interpretation of the Examining Division. Rather, in the Board's judgement, such highly sophisticated and technically demanding chemistry goes far beyond the relevant skilled person's general knowledge. Accordingly, when taking the above feature in the interpretation of the Examining Division, the application does not fulfil the requirement of Article 83 EPC in relation to the subject-matter of claim 1 of the main request.
6.3 The Board furthermore judges that even if the essential technical feature were to be interpreted as the Appellant has done, this would not help the Appellant's case under Article 83 EPC. The Board accepts that in the technical field of applied chemistry techniques of atomization in general where known. However, the Board cannot credibly conceive that it was a matter of routine experimentation for the skilled person to carry out atomization associated to encapsulation, so as to surround the atomized additive with neutral and soluble molecules for each of the additives exemplified in the patent application, including a plethora of compounds of distinct and different character, such as, to name only a few, vitamins (being of very heterogeneous chemical character), alcoholics, flavours, energizers and mineral salts. Hence, also by interpreting the above critical feature in the way the Appellant argues, the Board must come to the conclusion that the application lacks sufficiency of disclosure for the claimed invention.

6.4 In view of the above, and in line with the established case law of the Boards of Appeal, the Board finds that neither the specification of the patent application nor the common general knowledge of the relevant skilled person enables the skilled person to carry out the invention in claim 1. Hence, claim 1 of the main request does not fulfil the requirement of Article 83 EPC and the request comprising this claim must be refused.
Auxiliary request

Added subject-matter - Article 123(2) EPC

7. Claim 1 of the auxiliary request is virtually identical to claim 1 of the main request but for the omission of the wording "so as to surround each molecule of atomized additive" in the wording "atomization being associated to encapsulation with neutral and soluble molecules". The general basis for the claim under Article 123(2) EPC is the same as for claim 1 of the main request (see point 3 above). It needs however to be established whether the claim including the omission of the said wording finds a basis in the application as filed for compliance with the requirements of Article 123(2) EPC.

8. The passage on page 3, lines 27-33 of the description of the application specifically states that "atomization is (...) associated to encapsulation so that each molecule of atomized additive is surrounded by other neutral and soluble molecules such as, for example, starch and gum arabic. This is done so that the additive is only released in the beverage when the neutral molecule dissolves after making contact with the liquid."

9. In the Board's opinion the application as originally filed specifically defines the encapsulation as to be one where each molecule of atomized additive is surrounded by neutral and soluble molecules (see point 4.7 above). Deletion of the wording "so as to surround each molecule of atomized additive" therefore generalises the specific definition given in the
description to a more general, previously not disclosed form of encapsulation, thereby omitting from the claim an essential characterising feature. The Board comes to the conclusion that the deletion of such a feature amounts to claiming subject matter which has previously not clearly and unambiguously been disclosed, and thus it goes against the requirements of Article 123(2) EPC.

10. In this context the Appellant has argued that the Italian wording "per circondare" in claim 39 of the priority document underlying the present application merely reflects a purpose or aim, whereas "so as to surround" means that this purpose or aim is achieved. Therefore, in the Appellant's view, "to surround each molecule of atomized additive" was not an essential characteristic of the invention, so that its deletion from the wording of claim 1 did not contravene the requirements of Article 123(2) EPC.

10.1 Article 123(2) EPC requires that the European patent application may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed. In the present case, the application as filed has been published as WO 99/25879 based on international patent application No. PCT/IT97/00295 which was filed in the English language. The only parts of a European application which determine the disclosure of the invention are the description, the claims and the drawings (see G 11/91, OJ EPO 1993, 125, reasons 1.4; G 2/95, OJ EPO 1996, 555, reasons 4). Accordingly, the priority documents underlying the patent application cannot be considered to be comprised in the "content of the application" for the purpose of Article 123(2) EPC (see G 2/95,
reasons 2; T 260/85, OJ EPO 1989, 105). Therefore, in
the context of the assessment of compliance with the
requirements of Article 123(2) EPC, this Appellant's
argument cannot assist its case. Thus, claim 1 of this
request violates the requirement of Article 123(2) EPC
and the request comprising this claim has also to be
refused.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:  The Chairwoman:

P. Cremona  U. Kinkeldey