

Publication in the Official Journal ~~Yes~~ / No

File Number: T 650/89 - 3.3.2

Application No.: 82 200 207.7

Publication No.: 0 059 997

Title of invention: Butter-flavoured fat or oil

Classification: A23D 5/00

D E C I S I O N
of 13 March 1992

Proprietor of the patent: The Procter and Gamble Company

Opponent: Unilever plc / Unilever N.V.

Headword: Flavoured oil/PROCTER

EPC Articles 54 and 56

Keyword: "Novelty (yes) - Inventive step (yes) - non-obvious modification of
the prior art"

Headnote

Summary of Facts and Submissions

I. European patent No. 0 059 997 was granted with six claims based on European patent application No. 82 200 207.7. Independent Claim 1 reads as follows:

"1. A butter-flavoured fat or oil comprising:

- (a) from 95% to 99.99% by weight of an edible triglyceride, and
- (b) from 0.01% to 5% by weight of a butter-flavour composition comprising:

- (1) from 10% to 95% by weight of (b) of an encapsulated butter-flavour composition comprising butyric acid, hexanoic acid and diacetyl in a water-soluble encapsulating agent,

characterised in that the butter-flavour composition (b) additionally comprises

- (2) from 5% to 90% by weight thereof of a non-encapsulated butter-flavour composition comprising the ingredients of (1) in an unencapsulated form wherein the butter-flavoured fat or oil contains unencapsulated no more than 8 ppm of butyric acid, 12 ppm of hexanoic acid and 12 ppm of diacetyl."

II. The Appellant filed a notice of opposition against the granted patent, requesting revocation on the grounds of lack of both novelty and inventive step. Four documents were filed of which only one:

- (1) EP-A-0 021 841

remains relevant to the present decision. The Opponent also filed a series of comparative tests based on the disclosure and examples of (1).

III. The Opposition Division rejected the opposition, being of the opinion that the subject-matter of the patent in suit was both novel and inventive vis-à-vis the closest prior art, document (1). It was the view of the division that the essential teaching of document (1) that the three butter-flavour components: butyric acid, hexanoic acid and diacetyl must be present in encapsulated form whereas the teaching of the patent in suit was that the said three components be present both in encapsulated and free form. Although the opponent had shown by means of comparative experiments based on the disclosure of (1) that, upon storage at 5°C, the said components leaked from dextrin based capsules the Opposition Division took the view that this did not affect the novelty and inventive step of the patent in suit.

IV. The Appellant, who is the Opponent, lodged an appeal against the said decision, seeking the revocation of Claims 1 to 3 of the patent in suit. The arguments of the Appellant in the Statement of Appeal and in the oral proceedings on 13 March 1992 may be summarised as follows.

The user of a product prepared according to document (1) would inevitably store it at least for a short period. The experiments filed on 16 April 1987 during the opposition procedure related to storage according to commercial practice at 5°C. The Appellant admitted at the oral proceedings that these experiments did not exactly reproduce the composition of Example 1 of (1) but argued that the proportions of the respective flavouring agents fell within the ranges claimed. However, it was argued that during storage the capsules of flavouring agents

would leak and that it would be obvious to one skilled in the art that such leakage would lead to a composition falling within the ambit of the patent in suit.

V. The Respondent argued that the problem associated with the compositions prepared according to (1) was that on preparation and also on opening a container after storage, the butter-flavour was not apparent. Inclusion of the small amounts of non-encapsulated flavour as specified in Claim 1 of the patent in suit solved this problem, the flavour being apparent under all conditions. It would not be obvious for the skilled person to compare by analysis the fresh product of document (1) with the same product after storage. The essential teaching of (1) is that the said flavouring ingredients are in encapsulated form to avoid offensive odours; the teaching of the patent in suit cannot be derived in an obvious manner from (1).

VI. The Appellant requests that the decision under appeal be set aside and that Claims 1 to 3 of the patent in suit be revoked.

The Respondent requests that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.
2. The patent in suit relates to butter-flavoured fat or oil.
 - 2.1 As recognised by the Opposition Division and the parties, the closest prior art is document (1) which relates to a flavour composition having a preferred use in butter flavoured oil or fat. The essential teaching of (1) is

that volatile malodorous flavour material is encapsulated; other less volatile materials may be present in the free non-encapsulated form (e.g. page 5, lines 6 to 18).

Example 1 of (1) describes the preparation of a butter flavoured oil in which butanoic acid, hexanoic acid and diacetyl are encapsulated in dextrin and added, together with other flavouring components (e.g. decanoic acid) which are not encapsulated, to a partially hydrogenated soya bean oil.

2.2 The disadvantage of the oil prepared according to (1) is that the butter-flavour is only apparent either in contact with moisture, e.g. in the mouth, or on heating, e.g. when potatoes are fried in the oil (patent in suit, column 3, lines 34 to 39). As the Respondent argued the butter-flavour is not noticeable when a can of oil is opened; this was not questioned by the Appellant at the oral proceedings.

2.3 Accordingly, starting from (1), the problem to be solved is to prepare an oil in which the butter-flavour is recognisable throughout its use.

2.4 The problem is solved by including in the flavoured fat or oil a small proportion, as defined by Claim 1 of the patent in suit, of the above mentioned volatile flavouring agents in non-encapsulated form, together with a major proportion of the said three materials in encapsulated form. Having regard to the examples appearing in the patent in suit and to the submissions of the parties, the Board is satisfied that the problem has indeed been solved.

3. In the experiments filed on 16 April 1987, referred to under IV above, the Appellant has shown that dextrin based capsules of butanoic acid, hexanoic acid and diacetyl in

considerably larger amounts than present in Example 1 of (1), leak upon storage in vegetable oil to release the free chemicals. It has not been shown that when a composition exactly in accordance with Example 1 of (1) is prepared, containing both the three above mentioned components in encapsulated form together with other less volatile components, a composition in accordance with Claim 1 of the patent in suit is inevitably obtained after a fixed period of storage. Accordingly, the Board agrees with the findings of the Opposition Division in respect of novelty.

4. It remains to consider whether or not Claim 1 satisfies the requirements of Article 56 in respect of inventive step.

4.1 The essential teaching of document (1) is that volatile malodorous components of a flavouring composition such as butanoic acid, hexanoic acid and diacetyl should be present in encapsulated form. On the other hand, according to the patent in suit, the said three components should be present both in encapsulated and free form.

4.2 It may well be that, as alleged in the declaration of Mr Vos submitted by the Appellant, capsules prepared in accordance with the process of (1) tend to leak on storage. What has to be decided is whether a person skilled in the art would have stored samples of such oil in the expectation that the butter-flavour would have been enhanced thereby (cf. T 256/84 of 11 September 1986, referred to by the Respondent and T 2/83, OJ EPO 1984, 265 mentioned therein).

4.3 According to the Respondent's submissions at the oral proceedings, samples of oil prepared according to (1) have little or no smell even after storage; this was not denied

by the Appellant. One skilled in the art would accordingly have considered the known composition containing encapsulated flavouring agent to be unsuitable for maintaining the butter-flavour on storage. There would thus have been no incentive for the skilled person to store samples of such oils and thereafter to measure the quantities therein of the amounts of the three essential flavour components which might have existed at a given moment in the free state.

4.4 However, even if one were to measure the amounts released of the said three components from the capsules, there is nothing in the experiments of the Appellant to show conclusively that, if one started with the composition of Example 1 of (1), a composition falling within the scope of Claim 1 of the patent in suit would inevitably be obtained in any fixed period of time. As acknowledged at the oral proceedings the experiment of the Appellant used considerably larger quantities of the said three encapsulated components than actually present in Example 1 of the patent in suit; it does not therefore constitute adequate evidence that a similar proportion would be released starting from a much lower amount of encapsulated material.

4.5 The Appellant referred in the course of the oral proceedings to a passage on page 3, lines 16 to 17 of (1). This suggests that low proportions of certain flavours may have a pleasant odour. This is a very general statement which no way specifically relates to the three flavour ingredients concerned in the patent in suit.

4.6 Consequently, the person skilled in the art was not in possession of any information as to how an authentic butter-flavour might be maintained on storage.

4.7 It follows from the preceding paragraphs that there is nothing in the prior art cited which foreshadows the solution embodied in Claim 1 of the patent in suit; an inventive step can thus be recognised.

4.8 The same must apply to dependent Claims 2 to 6.

5. Consequently, there are no grounds which prejudice the maintenance of the patent as granted.

Order

For these reasons, it is decided that:

The appeal is dismissed.

The Registrar

The Chairman

P. Martorana

A.J. Nuss