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# Datasheet for the decision of 15 July 2014

**Case Number:** T 0593/11 - 3.3.09

**Application Number:** 97943165.7

**Publication Number:** 0956774

**IPC:** A23D9/007

**Language of the proceedings:** EN

**Title of invention:**
EDIBLE FATS CONTAINING ARACHIDONIC ACID AND FOODS CONTAINING THE SAME

**Patent Proprietors:**
Suntory Holdings Limited
NIPPON SUISAN KAISHA, LTD.

**Opponents:**
Martek Bioscience Corp.
DSM IP Assets B.V.

**Headword:**

**Relevant legal provisions:**
EPC Art. 54, 56, 83, 123(2)

**Keyword:**
Amendments - added subject-matter (no)
Sufficiency of disclosure - (yes)
Novelty - auxiliary request (yes)
Inventive step - auxiliary request (yes)

**Decisions cited:**
T 0607/08, T 1540/08, T 0716/10

**Catchword:**

Europäisches Patentamt
European Patent Office
Office européen des brevets

**Beschwerdekammern**
**Boards of Appeal**
**Chambres de recours**

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**Case Number: T 0593/11 - 3.3.09**

# D E C I S I O N
# of Technical Board of Appeal 3.3.09
# of 15 July 2014

| | |
|---|---|
| **Appellant:** (Patent Proprietor 1) | Suntory Holdings Limited<br>1-40, Dojimahama 2-chome<br>Kita-ku, Osaka-shi<br>Osaka 530-8203 (JP) |
| **Appellant:** (Patent Proprietor 2) | NIPPON SUISAN KAISHA, LTD.<br>6-2, Otemachi 2-chome,<br>Chiyoda-ku<br>Tokyo 100 (JP) |
| **Representative:** | Stoner, Gerard Patrick<br>Mewburn Ellis LLP<br>33 Gutter Lane<br>London<br>EC2V 8AS (GB) |
| **Appellant:** (Opponent 1) | Martek Bioscience Corp.<br>6480 Dobbin Rd.<br>Columbia MD 21045 (US) |
| **Representative:** | Mercer, Christopher Paul<br>Carpmaels & Ransford LLP<br>One Southampton Row<br>London<br>WC1B 5HA (GB) |
| **Party as of right:** (Opponent 2) | DSM IP Assets B.V.<br>Het Overloon 1<br>6411 TE Heerlen (NL) |
| **Representative:** | Elkenbracht, Johan Christiaan<br>DSM Intellectual Property<br>P.O. Box 4<br>6100 AA Echt (NL) |

**Decision under appeal:** **Interlocutory decision of the Opposition Division of the European Patent Office posted on 29 December 2010 concerning maintenance of the European Patent No. 0956774 in amended form.**

**Composition of the Board:**

**Chairman** W. Sieber
**Members:** W. Ehrenreich
K. Garnett

## Summary of Facts and Submissions

I. This decision concerns the appeals filed by the joint proprietors and by opponent I respectively against the interlocutory decision of the opposition division that the European patent No. 0 956 774 as amended meets the requirements of the EPC.

II. In their notices of opposition opponents I and II had requested revocation of the patent on the grounds that the claimed subject-matter was not novel and not based on an inventive step (Article 100 (a) EPC) and that the invention was insufficiently disclosed (Article 100 (b) EPC).

III. During the opposition proceedings, *inter alia* the following documents were cited:

D1 S. Shimizu et al., "Production of Dietary and Pharmacologically Important Polyunsaturated Fatty Acids by Microbiological Processes", Comments Agric. & Food Chemistry 1990, Vol. 2, No. 3, pp. 211-235;
D2 EP 0 957 173 A1;
D5 JP 64-38007 (translation into English;
D21 Declaration of Mr. Fujikawa.

IV. In its decision announced orally on 14 October 2010 and issued in writing on 29 December 2010 the opposition division rejected the proprietors' main request for lack of sufficiency of disclosure with regard to claims relating to the content of 24,25-methylenecholest-5-en-3β-ol (hereinafter: 24,25-M) of not more than 0.3% by weight. Basically it was argued that (i) the measurement of the sterol 24,25-M was not a trivial analytical method, (ii) the method disclosed in the

patent specification using the column Ulbon HR-1 could not distinguish the sterols 24,25-M and ergosta-5,25-dien-3β-ol (hereinafter: E-5,25), and (iii) there was no other reliable analytical method for measuring the sterol 24,25-M at the time of the priority date.

However, the opposition division maintained the patent based on auxiliary request 2 as filed during the oral proceedings, which request no longer contained claims relating to the content of the sterol 24,25-M. The request consisted of three claims, claims 1 and 3 reading as follows:

"1. Arachidonic acid-containing edible oil originating in microorganisms belonging to the subgenus *Mortierella* of the genus *Mortierella* and being capable of producing arachidonic acid, containing not more than 0.5% by weight of unsaponifiable matters and 20% by weight or more of arachidonic acid."

"3. Use of the arachidonic acid-containing edible oil according to claims 1 or 2 as an ingredient in foods, formula for premature infants, or infant formula."

In the opposition division's view, the subject-matter of auxiliary request 2 was novel over D5 and was also based on an inventive step when taking D1 as the closest prior art.

Concerning novelty, the opposition division held that D5 did not unambiguously disclose an oil comprising unsaponifiables in an amount of not more than 0.5% by weight. The wording "no other impurities are found" disclosed on pages 4 and 5 of D5, taken in context with the isolation of a triglyceride fraction via silica gel chromatography of a cell extract derived from a

filamentous fungus of the genus *Mortierella*, could not be read as stand-alone statement but had to be considered in conjunction with the method of its detection. According to the declaration D21, thin layer chromatography was not a reliable method to measure amounts in the order of 1% or less.

When taking D1 as the closest prior art for the assessment of an inventive step, the problem to be solved was considered to be the provision of an arachidonic acid (ARA)-rich microbial oil with reduced levels of unsaponifiables, which was thus more acceptable for use in food. Because D5 only taught an additional purification step without defining the "what" and "how much" of such a step, the prior art was void of any indication to reduce the level of unsaponifiables, i.e. from 0.64% mentioned in Table IV of D1 to not more than 0.5% as claimed. A combination of D1 with D5 could thus not render the claimed subject-matter obvious.

V. On 24 February 2011 opponent I filed a notice of appeal against the decision together with the grounds of appeal. The objection of lack of novelty of the subject-matter of claim 1 of auxiliary request 2 as maintained by the opposition division vis à vis D5 was maintained. Furthermore, an objection under Article 123(2) EPC was raised against claim 3.

VI. On 7 March 2011 the proprietors filed a notice of appeal against the decision. The grounds of appeal were filed on 9 May 2011 including a primary set of requests (including claims relating to the content of sterol 24,25M) and a secondary set of requests (no claims relating to the content of the sterol 24,25M). Further documents were also filed, including:

D22 Declaration of Kengo Akimoto;
D23 Second declaration of Shigeaki Fujikawa.

VII. With its letter dated 20 April 2012 opponent I provided arguments relating to the proprietors' new requests submitted with its grounds of appeal.

Concerning the objection of lack of sufficiency of disclosure relating to the proprietors' primary set of requests, opponent I argued that a proper determination of the sterol 24,25-M by the method referred to in paragraph [0046] of the patent was not possible. In this context reference was also made to the decisions T 1540/08 and T 716/10.

Concerning the objections of lack of novelty and lack of inventive step in view of documents D1 and D5, opponent I mainly referred to its submissions made in the opposition proceedings. Detailed argument concerning inventive step starting from D1 as closest prior art was provided only with respect to claim 1 of auxiliary request 2, which claim included the feature that the 24,25-M content of the claimed edible oil is not more than 0.3% by weight.

VIII. With its letter dated 20 April 2012, opponent II responded to the proprietors' grounds of appeal.

With respect to insufficiency of disclosure concerning the determination of the sterol 24,25-M, opponent II also made reference to the above decisions cited by opponent I.

An objection under Article 123(2) EPC to the use claims of the primary and secondary set of requests related to

the use of the ARA-containing edible oil "as an ingredient" in foods.

Opponent II also raised an objection of lack of novelty over D2, but did not provide arguments against inventive step.

IX. In a communication dated 23 May 2014 the board provided its preliminary opinion on essential issues of the case. The following points, as far as they are relevant to this decision, were raised:

Sufficiency of disclosure

The opponents' argument that the content of 24,25-M could not properly be determined because the column ULBON HR-1 mentioned in paragraph [0046] of the patent specification was not able to separate 24,25-M from the sterol E5,25 was not convincing. The amount of 24,25-M in the claim was defined as 0.3% by weight or less. Thus, assuming that the column ULBON HR-1 measured the combined content of the sterols 24,25-M and E5,25, a peak indicating 0.3% by weight would automatically represent an amount of 24,25-M below 0.3% by weight, a value which was within the claimed range.

The relevance of the opponents' arguments with respect to the decisions T 1540/08 and T 0716/10 was questioned.

Novelty

The disclosure on page 5 of D5 that the oil of fraction (1) had "no other impurities" as shown by thin layer chromatography (TLC) had to be considered in the light of the declaration D22, which stated in points (6) and

(7) that the TLC-method was not very sensitive for the detection of small amounts of impurities. Thus doubts existed that D5 unambiguously anticipated the claimed oil.

Concerning novelty over D1, the question as to whether the impurity analysis given in the upper part of Table IV of D1 and the fatty acid profile given in the lower part of this table belonged to the same edible oil had to be considered in conjunction with the text passages on page 220, last full paragraph, page 223, first paragraph, and figure 3b on page 222 of D1.

Inventive step

It seemed that D1 represented the closest prior art.

X. The proprietors responded by letter dated 13 June 2014 and filed new sets of claims for:

- a main request and auxiliary requests 1 to 6 (including claims relating to the content of the sterol 24,25M); and
- a main request A and auxiliary requests 1A to 4A (no claims relating to the content of 24,25M);

and provided further arguments in favour of sufficiency of disclosure and novelty over D1 and D5.

XI. By their respective letters, both dated 9 July 2014, opponents I and II announced that they would not attend the oral proceedings scheduled for 15 July 2014. No further arguments were provided.

XII. During the oral proceedings, which were held on 15 July 2014 and at which only the proprietors were

represented, the subject-matter of the main request (amended version) and of auxiliary requests 1 and 2 was discussed with regard to the provisions of Articles 123(2), 83, 54 and 56 EPC. After the board had announced the conclusion that the subject-matter of claim 1 of the main request and auxiliary request 1 was considered not to be based on an inventive step, but that inventive step of the subject-matter of claim 1 of auxiliary request 2 could be acknowledged, the proprietors withdrew their existing main request and auxiliary request 1 and made their auxiliary request 2 their main request. The proprietors also filed amended description pages adapted to the claims of auxiliary request 2.

Auxiliary request 2 (new main request) consists of eight claims, claims 1, 6 and 8 reading as follows:

"1. Arachidonic acid-containing edible oil originating in microorganisms containing not more than 0.8% by weight of unsaponifiable matters and 30% by weight or more of arachidonic acid, and wherein the content of 24,25-methylenecholest-5-en-3β-ol is not more than 0.3% by weight."

"6. Food including arachidonic acid-containing edible oil according to claim 1."

"8. Use of the arachidonic acid-containing edible oil according to any one of claims 1 to 5 as an ingredient in foods, formula for premature infants, or infant formula."

Claims 2 to 5 are directly or indirectly dependent on claim 1. Claim 7 concerns specific nutritional formulae containing the edible oil of claim 1.

XIII. The arguments of the parties, as far as they are relevant for the subject-matter of the claims of the proprietors' auxiliary request 2 dated 13 June 2014, and thus relevant to the present decision, are summarized in points XIV and XV below.

XIV. Arguments of opponents I and II provided in writing

Amendments

Amended claim 8 is directed to the use of the ARA-containing edible oil as an ingredient in foods. There is no basis in the application as filed for the wording "as an ingredient". This amendment thus contravenes Article 123(2) EPC.

Sufficiency of disclosure

In paragraph [0046] the patent specification specifically discloses the use of a ULBON HR-1 column as the technique for measuring the content of 24,25-M. It is, however, not possible by this technique to determine the content of 24,25-M properly because the peak referred to in the patent as including only 24,25-M actually also includes the sterol E-5,25. Therefore, the 24,25-M content measured by a ULBON HR-1 column is in reality the combined content of 24,25-M and E-5,25. Since the technique described in the patent cannot distinguish between 24,25-M and E-5,25 the skilled person cannot determine whether he has put the alleged invention into effect.

Novelty

No novelty objections were raised by the opponents in the appeal proceedings against the subject-matter of the claims according to auxiliary request 2, all these claims including - either literally or by back-reference - the feature relating to an upper limit for the content of the sterol 24,25-M.

In its letter dated 20 April 2012 opponent I only referred to its submissions made in the opposition proceedings regarding the disclosures in D1 and D5.

Inventive step

Inventive step of the subject-matter of claim 1 of auxiliary request 2, relating to an edible oil containing a limited amount of 24,25-M of not more than 0.3% by weight, should be denied when starting from D1 as the closest prior art.

The feature which distinguishes the claimed invention from that disclosed in D1 is the content of 24,25-M. However, the patent includes no evidence that this feature provides any technical effect. As submitted in connection with lack of sufficiency of disclosure, the technique for measuring the content of 24,25-M using a ULBON HR-1 column, as indicated in paragraph [0046] of the patent, measures the combined content of 24,25-M and E-5,25. Thus, no conclusions can be drawn from the respective data included in the examples of the patent, which means that no evidence of a technical effect caused by a reduction of 24,25-M has been provided.

XV. Arguments of the proprietors

Amendments

In lines 5 to 8 on page 6 of the application as filed it is disclosed that certain foods or food formulae, such as foods for premature infants or infant formula, contain the ARA-containing edible oil. Thus, there is a clear disclosure that the edible oil according to claim 1 is used "as an ingredient" in these food compositions.

Sufficiency of disclosure

The declaration D23 of Mr Fujikawa, who is a person with long experience of edible oil analysis, confirms from his own knowledge that the measurement of sterols in edible oils by various methods was a routine matter before the priority date. Based on the information available from the patent about the measurement of 24,25-M by a ULBON HR-1 column, a skilled person could thus have been done the measurement by more than one routine method, preferably by HPLC. Even if there were slight variations between different methods of measurement, this would not affect sufficiency but is an issue which should be considered under Article 84 EPC, which is not a ground of opposition.

Novelty

The results given in Table IV of D1 are based on oils obtained from the specific strain *Mortierella alpina* 1S4, which was not available to the public. This was not contested by the opponents. On the contrary, the opponents themselves have maintained in other opposition proceedings that *Mortierella alpina* 1S4 was

not available to the public. Thus, the oils originating from *Mortierella alpina* 1S4 as characterized in Table IV of D1 are not prior art.

As regards the triglyceride fraction (1) described in D5, which has "no other impurities" as shown by thin layer chromatography (TLC) (pages 4/5 bridging paragraph of D5), the declaration D22 of Mr. Akimoto confirms that the TLC method is not sensitive and cannot not detect levels of unsaponifiable matters below the presently claimed levels. Thus, D5 does not disclose that the oil of fraction (1) contains unsaponifiable matters within the claimed range of not more than 0.8% by weight.

Inventive step

The teaching of the patent is based on the observation that the existence of the sterol 24,25-M is a problem in edible oils originating from microorganisms. Thus the problem to be solved consists in the reduction of the amount of unusual sterols in order to make the edible oils more acceptable for food use.

A skilled person who was familiar with known oil-purification methods, such as steam distillation or column treatment, and who was faced with the disclosure of D1, would not get any information about the importance of the reduction of sterols from unsaponifiable matters in the oil. He would thus not be led to specifically reduce the 24,25-M content to a level as claimed in claim 1.

XVI. Opponent I requested in writing that the decision under appeal be set aside and the patent be revoked.

XVII. The proprietors requested in the oral proceedings that the decision under appeal be set aside and the patent be maintained on the basis of auxiliary request 2 as filed with the letter dated 13 June 2014.

## Reasons for the Decision

1. The appeals are admissible.

2. Amendments - Article 123(2) EPC

2.1 Claim 1 of auxiliary request 2 relates to an arachidonic acid-containing edible oil originating in microorganisms. The oil contains not more than 0.8% by weight of unsaponifiable matters, 30% by weight or more of arachidonic acid, and the content of the sterol 24,25M is not more than 0.3% by weight.

2.1.1 The arachidonic acid amount of "30% by weight or more" results from an amendment of claim 1 as originally filed, which referred to a content of "20% by weight or more of arachidonic acid".

The only explicit disclosure in the application as filed of an edible oil which contains 30% or more of arachidonic acid includes a reference basis. Thus it is disclosed in the second paragraph on page 6 of the description that the oil of this invention contains 20% by weight or more, preferably 30% by weight or more, of arachidonic acid based on the weight of the total fatty acid in the oil.

However, it appeared to be agreed by all concerned that the figure of 30% by weight of arachidonic acid in claim 1 was based on the total fatty acid content in the oil (the same applies for the figure of 20% by weight in claim 1 as filed and claim 1 as granted, respectively). The proprietors confirmed at the oral proceedings their belief that a person skilled in the art would equate the wording used in claim 1 of auxiliary request 2 with the "precise" definition used in the description. The board accepts this.

2.1.2 As regards the content of the sterol 24,25-M, this amendment is based on claim 3 as granted and claim 3 as filed, respectively.

2.1.3 Therefore the amendment to claim 1 complies with Article 123(2) EPC.

2.2 According to claim 8 of auxiliary request 2 the arachidonic acid-containing edible oil according to any of claims 1 to 5 is used as an ingredient in foods, formula for premature infants or infant formula. The feature "as an ingredient" was objected to by opponent I under Article 123(2) EPC.

2.2.1 The passage on page 6, lines 5 to 8 of the original description indicates: "Furthermore, this invention relates to foods such as formula for premature infants, infant formula, foods for infants and foods for pregnant women and nursing mothers, containing any of the above-mentioned edible oils". From this wording it is immediately evident that the edible oil is only part of the food, which thus includes more than the edible oil. It follows that the edible oil is used as an ingredient in food or certain food products.

2.2.2 Claims 7 and 8 as filed correspond to the above passage in the description. Claim 7 indicates that foods include the edible oil of any of the previous claims and claim 8 *inter alia* defines formulae for premature infants and infant formulae which include the edible oil. In both claims the wording "foods/formula for premature infants ... including arachidonic acid-containing edible oil" is used.

2.2.3 Therefore the use of the arachidonic acid-containing edible oil as an ingredient in foods/formula for premature infants, or infant formula according to claim 8 of auxiliary request 2, has a basis in the application as filed, in compliance with Article 123(2) EPC.

3. Sufficiency of disclosure - Article 83 EPC

3.1 The opponents' objections against sufficiency of disclosure of the invention were mainly based on the argument that the test method indicated in paragraph [0046] of the patent specification was unsuitable to determine the content of the sterol 24,25-M reliably because a ULBON HR-1 column could not separate the sterol 24,25-M from the sterol E5,25 (see point XIV above).

3.2 However, the board had indicated in its communication dated 23 May 2014 (point 4.2) that this objection appeared not to be tenable. The board pointed out that the fact that a ULBON HR-1 column determines the combined content of the sterols 24,25-M and E5,25 leads to a situation where a peak indicating 0.3% by weight of the sterol 24,25-M in reality represents an amount of less than 0.3% by weight for the sterol 24,25-M. The skilled person is therefore in a position to prepare an

arachidonic acid-containing edible oil originating in microorganism with the required amount of not more than 0.3% by weight of the sterol 24,25-M.

3.3 The opponents did not provide any arguments against the board's view and the board sees no reason to deviate from the opinion expressed in its communication that the invention is sufficiently disclosed.

3.4 In any event, the board accepts the information provided in the declaration D23 that it would have been possible , e.g. by GC or HPLC, to isolate and identify the sterol 24,25-M. This was pointed out in the communication of the board and not challenged by the opponents. Thus, although the ULBON HR-1 column used according to paragraph [0046] of the patent specification cannot perfectly separate 24,25-M from E5,25, the skilled person would be able to fully characterise the sterol 24,25-M.

3.5 The opponents also did not provide arguments against the board's view expressed in point 4.3 of its communication that the relevance of the decisions T 1540/08 and T 716/10 for sufficiency of disclosure is questionable because these decisions relate to the ratio of the peak area of 24,25-M to the sum of the peak areas of all sterols, which is in contrast to the present case, wherein the content of 24,25-M is based on the total edible oil. The board thus also maintains its view in this respect.

3.6 The claimed invention is therefore sufficiently disclosed.

4. Novelty

4.1 Initially the opponents raised novelty attacks based on documents D1, D2 and D5.

4.2 However, none of these documents expressly and unambiguously discloses an edible oil originating in microorganisms having the combination of features of claim 1 of auxiliary request 2, namely:

- a content of unsaponifiables of not more than 0.8% by weight;
- an arachidonic acid content of 30% by weight or more; and
- a content of the sterol 24,25-M of not more than 0.3% by weight.

In particular the content of the sterol 24,25-M is not disclosed in the documents cited.

4.3 Thus, the oil according to claims 1 to 5, the food products according to claims 6 and 7 including the oil of claim 1, and the use of the oil according to claim 8 are novel over the cited prior art.

5. Inventive step

5.1 The invention concerns an arachidonic acid-containing edible oil originating from microorganisms, in particular those belonging to the genus *Mortierella*, but contains little unsaponifiable matter. The oil is suitable as an ingredient in foods or food products, in particular infant formulae (patent specification, paragraph [0001]). In paragraph [0010] it is pointed out that it is desirable to remove as far as possible those substances which have not been recognized as food components or of which structures remain unknown from the arachidonic acid-containing oil. Therefore, the

amount of unsaponifiable matter should be low and, above all, the oil should contain the smallest possible amount of sterols with cyclopropane structure.

5.2 The closest prior art is represented by D1. This document is concerned with the production of edible ARA-containing oils suitable as feed supplements, and which are obtained from microorganisms belonging to the subgenus *Mortierella* (cf. the section "Introduction" at pages 211/212 and the section "Arachidonic Acid", pages 219 to 223, and Table IV at page 224). D1 thus lies in the same technical field as the patent.

5.2.1 In the second paragraph on page 220 it is mentioned that 22.5 g/l of mycelia (dry weight) containing 44.0% by weight of lipids and 31.0% of ARA, based on the total fatty acids, was produced by *Mortierella alpina* 1S-4 in a 2,000-litre fermentor under the conditions of intermittent feeding of glucose and 10 days cultivation at 28°C. In the subsequent paragraph (beginning on page 220 and continuing on page 223) it is stated that the ARA-containing lipids could be obtained as an oil from the mycelia of *M. alpina* 1S-4 with good recovery by successive steps, including purification steps such as extraction with n-hexane, centrifugation, decolorization and deodorization with active charcoal. With respect to the purified oils, reference is made to Table IV on page 224, which, in the upper part, indicates *inter alia* 0.64% unsaponifiable matter.

5.2.2 With regard to the above disclosure in D1 the proprietors argued that the strain *Mortierella alpina* 1S-4 cultivated under the above mentioned conditions and producing the above purified oil was not available to the public at the priority date. In fact, said the proprietors, the opponents themselves have maintained

in other opposition proceedings that *Mortierella alpina* 1S-4 was not available to the public at this date. Thus, the results depicted in Table IV constituted a non-enabling disclosure and were therefore irrelevant. The proprietors further contested that a direct link exists between the data presented in the upper part of Table IV and the fatty acid profile of the oils of type I and type II presented in the lower part of the table.

5.2.3 From the above the proprietors concluded that D1 did not provide a teaching before the priority date of how to apply a highly effective purification method in order to prepare an edible oil containing such a low amount of unsaponifiable matters as claimed in claim 1 of auxiliary request 2. The proprietors, consequently, saw the problem to be solved in the light of D1 in the provision of a more acceptable edible oil originating from microorganisms for food use, in particular where the amount of unsaponifiable matters including unfavourable amounts of sterols was considerably reduced.

5.3 As a solution to this problem the patent proposes an arachidonic acid-containing edible oil as indicated in claim 1, which is characterised by a content of unsaponifiable matters of not more than 0.8% by weight and a content of the sterol 24,25-M of not more than 0.3% by weight.

5.4 Inventive examples 1 to 4 of the patent demonstrate the preparation of edible oils originating from various *Mortierella* strains. The crude oil extract obtained after cultivation and extraction with hexane was subjected to column treatment and steam distillation. The results depicted in Tables 1 to 5 show that these

refinement steps lead to an edible oil which fulfils the requirements as to the content of unsaponifiable matters and 24,25-M according to claim 1, in contrast to the oils which were not subjected to the refinement step including column treatment and/or steam distillation. Thus, the board is satisfied that the problem has plausibly been solved.

5.5 The board accepts the argument of the proprietors that D1 contains a non-enabling disclosure with respect to the preparation of an oil from the strain *Mortierella alpina* 1S-4 and that therefore the results given in Table IV of D1 are not prior art and are thus irrelevant for the assessment of an inventive step. It is to be noted that the proprietors had already made this submission in the opposition proceedings and repeated it in their grounds of appeal and in their letter dated 13 June 2014, which submission was never contested by the opponents. Thus, D1 lacks an information accessible to a skilled person before the effective priority date of how to obtain a purified edible oil with a content of unsaponifiable matters in the claimed range. Because D1 is also silent on the content of sterols in the oil, let alone the sterol 24,25-M, the skilled person has no incentive to reduce the amount of unsaponifiable matter and to keep the content of 24,25-M as low as possible, as claimed in claim 1.

5.5.1 Opponent I argued that the desire to minimise the content of the sterol 24,25-M is driven by regulatory requirements wherein it is undesirable for a food component to contain components which have not been fully characterised.

However, no evidence has been provided for the allegation that it was a general wish in the prior art to purify edible oils from sterols like 24,25-M. The opponent's argument is therefore not persuasive.

5.5.2 The disclosure in D5, indicating in the paragraph bridging pages 4 and 5 that a triglyceride fraction (1) containing "no other impurities" can be obtained via silica gel chromatography of a cell extract originating in microorganisms of the genus *Mortierella,* taken in combination with D1, is also not prejudicial to inventive step. D5 is concerned with skin cosmetics containing an arachidonic acid-containing lipid (page 1, claims 1 to 3) and is thus unrelated to the specific nutritional requirements for edible oils. In fact, the document is silent as regards the content of the sterol 24,25-M.

5.6 The subject-matter of claim 1 and dependent claims 2 to 5 is therefore based on an inventive step. The same applies to claims 6 and 7 relating to food/food products including the oil of claim 1, and the use of the oil according to claim 8.

6. For the above reasons, the claims of auxiliary request 2 are allowable. It is thus not necessary to discuss the subsequent requests of the primary set or the requests of the secondary set.

**Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division with the order to maintain the patent on the basis of:

   (a) claims 1 to 8 according to auxiliary request 2 as filed with the proprietors' letter dated 13 June 2014;

   (b) the amended description pages numbered 3 to 11 as filed during the oral proceedings of 15 July 2014.

The Registrar: The Chairman:

M. Cañueto Carbajo W. Sieber

Decision electronically authenticated