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**Datasheet for the decision
of 4 October 2023**

Case Number: T 0364/20 - 3.3.02

Application Number: 14865000.5

Publication Number: 3090026

IPC: C09D7/00, C07C9/15, C07C9/16,
C10G45/00, C10L1/16, C10G3/00

Language of the proceedings: EN

Title of invention:

COMPOSITION COMPRISING PARAFFIN FRACTIONS OBTAINED FORM
BIOLOGICAL RAW MATERIALS AND METHOD OF PRODUCING SAME

Patent Proprietor:

Neste Oyj

Opponent:

UPM-Kymmene Corporation

Headword:

NESTE / SOLVENT / ISOPARAFFIN FRACTION

Relevant legal provisions:

EPC Art. 54(2), 56, 111(1), 112(1) (a), 123(1)

EPC R. 79(1), 81(3), 116(1)

RPBA 2020 Art. 11, 12(2), 12(3), 12(4), 12(5), 13(1), 20(2)

Keyword:

Appeal case directed to requests on which decision was based (no)

Auxiliary requests - admissibly raised and maintained (yes)

Deviation from the Guidelines for Examination, Sections E-VI-2.1 and E-VI-2.2.2 (yes)

Master's thesis - availability to the public before priority date (yes)

Referral to the Enlarged Board of Appeal - (no)

Special reasons for remittal (no)

Inventive step - all claim requests (no)

Decisions cited:

G 0009/91, R 0006/19, T 0314/99, T 0012/07, T 1968/08,

T 1045/12, T 2385/12, T 0084/17, T 0966/17, T 1270/18,

T 1695/18, T 1776/18, T 2114/19, T 0221/20, T 0602/20,

T 0726/20, T 1800/20, T 0435/21, T 1214/21

Catchword:

To judge whether a claim request was admissibly raised in opposition proceedings within the meaning of Article 12(4) RPBA 2020, a board has to decide whether the opposition division should have admitted the claim request, had a decision on admittance been required. If so, the claim request was admissibly raised (reasons, point 7).

As a rule, claim requests filed in reply to the notice of opposition within the time limit set under Rule 79(1) EPC should have been admitted by the opposition division and were thus admissibly raised. Not admitting these claim requests and thus considering them not to have been admissibly raised must be limited to truly exceptional situations (reasons, points 7.1.2 and 7.1.3).

Whether or not a claim request filed after the expiry of the time limit set under Rule 79(1) EPC and before the expiry of the time limit set under Rule 116(1) EPC is to be considered filed in due time depends on whether this request was submitted in direct and timely response to a change to the subject of the proceedings introduced by the opponent or the opposition division. Opposition divisions have the discretion to not admit any late-filed claim request and therefore the board has the discretion to consider a late-filed claim request not to have been admissibly raised (reasons, points 7.2.4 and 7.2.6).

The criteria generally used by the boards of appeal when exercising their discretion to admit or not a party's submission in appeal under the Rules of Procedure 2020 may also be considered when deciding whether or not a late-filed claim request submitted after the expiry of the time limit set under Rule 79(1) EPC and before the expiry of the time limit set under Rule 116(1) EPC should have been admitted by the opposition division and was thus admissibly raised. However, when taking this decision, in view of the administrative character of opposition proceedings, these criteria should be used by the boards in a more lenient way than for a party's submission filed during appeal proceedings. In fact, to properly defend its patent, a patent proprietor must in principle be permitted to redefine its fallback positions in terms of auxiliary claim requests also at a late stage of opposition proceedings (reasons, points 7.2.7 and 7.2.10).



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Case Number: T 0364/20 - 3.3.02

D E C I S I O N
of Technical Board of Appeal 3.3.02
of 4 October 2023

Appellant: UPM-Kymmene Corporation
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Representative: Hoffmann Eitle
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Respondent: Neste Oyj
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted on 10 December 2019 rejecting the opposition filed against European patent No. 3090026 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman: M. O. Müller
Members: M. Maremonti
B. Burm-Herregodts

Summary of Facts and Submissions

I. The appeal lodged by the opponent ("appellant") lies from the decision of the opposition division to reject the opposition against European patent No. 3 090 026 ("the patent").

II. Claim 1 as granted reads as follows:

"1. A composition, comprising:

40-50 wt-% C14 paraffins, based on the total weight of the composition, and

35-45 wt-% C15 paraffins, based on the total weight of the composition,

wherein the C14 and C15 paraffins are produced from a biological raw material."

III. An opposition was filed invoking lack of inventive step under Article 100(a) EPC. The following documents were referred to, *inter alia*:

D4: Kanokporn Sinthavarayan, *"Fractionation and Characterization of Renewable Paraffinic Solvents"*, master's thesis, Aalto University, School of Chemical Technology, approved on 20 August 2013

D4-1: Result of a search query on D4 in the database of the Learning Centre of Aalto University

D6: The Constitution of Finland 11 June 1999 (731/1999)

D8: Declaration of Matti Raatikainen, Team Leader in the Service Point Team of Aalto University Learning Centre, dated 15 November 2019

D9: Letter from the Ministry of Education of Finland,
dated 28 January 2004

D9t: English translation of D9

D10: Declaration of Ms Kanokporn Sinthavarayan, author
of D4, dated 14 November 2019

D11: Evaluation and approval of D4 by Prof. Lehtonen
of Aalto University

IV. The opposition division came to the following
conclusions, *inter alia*.

- Document D4 did not constitute prior art within the meaning of Article 54(2) EPC.
- The ground for opposition under Article 100(a) EPC did not prejudice the maintenance of the patent as granted.

V. In its statement of grounds of appeal and subsequent letters, the appellant contested the reasoning of the opposition division on the public availability of D4. It corroborated its arguments by filing the following new items of evidence (denoted D12 and D13 by the appellant, new numeration by the board):

A012: Declaration by Ms E. Zitting, Head of Learning Services at Aalto University

A013: Degree Regulations of the School of Chemical Engineering of Aalto University

The appellant argued that the claimed subject-matter lacked inventive step in view of, *inter alia*, D4 taken as the closest prior art. It further contested the admittance of auxiliary requests 1 to 16 (see below) into the proceedings.

VI. In its reply to the statement of grounds of appeal and subsequent letters, the patent proprietor ("respondent") rebutted the arguments of the appellant and argued that the claimed subject-matter involved an inventive step. Moreover, the respondent maintained the sets of claims according to auxiliary requests 1 to 16 filed before the opposition division on 20 September 2019.

VII. The parties were summoned to oral proceedings as per their requests. In preparation for the oral proceedings, the board issued a communication under Article 15(1) RPBA 2020. In this communication, the board expressed, *inter alia*, the preliminary opinion that document D4 had been rendered public before the priority date of the patent and that the subject-matter of claim 1 as granted did not involve an inventive step starting from document D4 as the closest prior art.

VIII. Both parties replied to the board's communication and reiterated their arguments. The respondent also filed the following new item of evidence:

A014: Result of a search query on Prof. Lehtonen in the INSSI database of the Learning Centre of Aalto University:

https://web.lib.aalto.fi/en/oa/db/INSSI/?cmd=find&fld1=all&val1=&comb2=AND&fld2=supervisor&val2/2=lehtonen%2C+juha&publyear_op=EQ&publyear=2013&doctype=

IX. Oral proceedings before the board were held on 4 October 2023 by videoconference in the presence of both parties.

X. Final requests relevant to the decision

The appellant requested that the appealed decision be set aside and that the patent be revoked. It further

requested that auxiliary requests 1 to 16 not be admitted into the proceedings. The appellant also requested that A014 not be admitted into the proceedings. Furthermore, the appellant requested that the case not be remitted to the opposition division if the main request was not considered allowable.

The respondent requested that the appeal be dismissed, meaning that the patent be maintained as granted (main request). If the main request was not granted, the respondent requested remittal of the case to the opposition division for further prosecution. If neither the main request nor the request for remittal was granted, the respondent requested that the patent be maintained in amended form on the basis of the claims of one of auxiliary requests 1 to 16 as filed before the opposition division on 20 September 2019. Furthermore, the respondent requested that the following questions be referred to the Enlarged Board of Appeal should the board intend to conclude that D4 had been publicly available before the priority date of the patent:

- "1. If there is no evidence to the contrary, is a master's thesis or similar document for obtaining a university degree, which is to be made available to the public due to a legal provision and/or university regulation, assessed to be publically available as soon as the document is approved?*
- 2. If the answer to question 1 is "yes", are indications that the document did not proceed to publication in the usual or foreseen manner sufficient to cast doubt on publically available and thus disprove the assessment of immediate availability?*
- 3. If the answer to question 1 is "no", is such document assessed to be publically available as soon as*

a hard copy (or electronic copy) reaches a public library, or only as soon as the public was able to gain knowledge that the document actually did reach the library and is available from the library on demand, e.g. by means of a publically available register listing the document?"

XI. The appellant's submissions relevant to the present decision are summarised as follows. For further details, reference is made to the reasons for the decision set out below.

Public availability of document D4 and request of referral to the Enlarged Board of Appeal

- D9t confirmed that university theses had to be rendered public immediately after their approval.
- D8 and A012 confirmed that this instruction was followed for master's theses at Aalto University by rendering a hard copy of the theses available as public documents at the department where the theses were prepared and accessible by any person on request. This was the case for D4.
- The date of 18 November 2014 mentioned in the "ED" field of D4-1 merely indicated the date on which a record of D4 had been inserted in the INSSI database of the Learning Centre of Aalto University. This date was consistent with D8 stating that copies of master's theses are sent to the central library for cataloguing in the INSSI database at an unspecified time after approval. Thus, the cataloguing in the INSSI database had no relevance for the date on which D4 had been rendered available to the public at the School of Chemical Technology where it had been prepared.

- There was also no evidence that the publication of D4 had been delayed. D10 instead confirmed that D4 had been published in the usual way.
- The facts and circumstances underlying decision T 314/99 invoked by the respondent were completely different from those of the current case, not least in view of the country of publication being different (Germany rather than Finland). Procedures for the publication of chemistry theses at the University of Hamburg in the early 1980s had no bearing on the publication of university theses in Finland circa 30 years later.
- Therefore, it had to be concluded that D4 had been publicly available before the priority date of the patent, and no referral to the Enlarged Board of Appeal was needed.

Admittance of auxiliary requests 1 to 16

- Auxiliary requests 1 to 16 had been filed only two months prior to oral proceedings before the opposition division.
- These requests contained at least seven diverging lines of amendment.
- No reasons justifying the filing of these auxiliary requests at a late stage during opposition proceedings were apparent, especially in view of the opposition division's preliminary opinion being in favour of the respondent.
- Two months was not enough time for the appellant to prepare a proper response to these auxiliary requests.

- It had to be concluded that auxiliary requests 1 to 16 had not been admissibly raised before the opposition division.
- In view of Article 12(4) RPBA 2020, these requests should not have been admitted.

Remittal to the opposition division

- Procedural economy would be negatively impacted by a remittal of the case to the opposition division.
- No special reasons justifying a remittal were present since inventive step was the only ground for opposition. Moreover, D4 had been used as the closest prior art for the subject-matter of the claims as granted, and this remained the case also for the subject-matter of all auxiliary requests.

Inventive step

- D4, and in particular the 230-260°C fraction it disclosed, represented the closest prior art. D4 also disclosed the suitability of this fraction as a solvent.
- No technical effect resulted from the features distinguishing the subject-matter of claim 1 of all claim requests from this fraction of D4. The solvent properties were even degraded for the claimed compositions.
- Therefore, the objective technical problem was the provision of an alternative composition.
- The claimed composition represented an obvious alternative to the 230-260°C fraction of D4. No technical difficulties were mentioned in the patent to be linked to the production of the claimed compositions. The fractionation by distillation to arbitrarily adjust the amounts of C13 to C16

paraffins was within the routine abilities of the skilled person.

- Even if considering the objective technical problem to be the provision of a composition having a higher viscosity, the claimed solution would have been arbitrary and obvious. It would have been obvious to the skilled person that an increase of the content of C15 paraffins would lead to an increase in viscosity.
- Therefore, it had to be concluded that the subject-matter of claim 1 of all requests lacked an inventive step.

XII. For the respondent's submissions relevant to the present decision, reference is made to the reasons for the decision set out below.

Reasons for the Decision

Document D4 - availability to the public before the priority date of the patent

1. Document D4 is a master's thesis presented in 2013 at the School of Chemical Technology (now School of Chemical Engineering) of Aalto University in Finland. It is undisputed that D4 was submitted on 1 August 2013 and approved on 20 August 2013, as certified by document D11. D4 is cited in paragraphs [0022], [0064], [0066], [0083] and [0100] of the patent.
2. In line with the appealed decision (point II6 on pages 8 to 11), the respondent argued that the evidence submitted by the appellant did not allow concluding that D4 had been made available to the public before the priority date of the patent (3 January 2014).

2.1 The respondent argued that the date of public availability of a document was a factual question and not a question of law or likelihood. The only reliable evidence on the publication date of D4 was D4-1, representing the record of D4 in the INSSI database of the Learning Centre of Aalto University. D4-1, while mentioning 2013 in the field "Publication year", indicated 18 November 2014 as the date of entry of D4 into the INSSI database (see the "ED" field in D4-1). It had not been contested by the appellant that, while the "Publication year" field was manually entered by using the year printed on the abstract or hard copy of the thesis, the "ED" field was automatically generated when the hard copy of the thesis arrived at the central library of Aalto University. In other words, the year printed on the hard copy of the thesis merely represented an expectation, whereas the automatically generated "ED" field gave the real indication of the date the thesis had been rendered publicly available. This occurred for D4 on 18 November 2014, i.e. after the priority date of the patent. Therefore, D4-1 demonstrated that for unknown reasons D4 did not proceed to publication soon or immediately after approval.

2.2 The respondent further argued that the evidence produced by the appellant could not prove an earlier publication of D4. D9t was a mere recommendation that theses be made public immediately after approval. However, neither D8 nor D10 nor A012 explained what happened in the case of D4, i.e. why publication was delayed. It was highly probable that an error occurred when D4 was forwarded to the central library. Even if the author of D4 stated in D10 that she had been informed that D4 "could be published in the usual way", D10 could not prove that this information reached Prof. Lehtonen, the supervisor of D4. And even assuming that

Prof. Lehtonen was aware of this information, it was not credible that no delay occurred when preparing D4 for publication. Thus, either by oversight or owing to an excessive workload, D4 was not sent to the central library for publication immediately after approval. It could also be that Prof. Lehtonen simply had the hard copy of D4 in his room for an unspecified time and realised well after the date of approval that it had to be sent for publication. This possibility was corroborated by document A014. A014 demonstrated that out of ten projects supervised by Prof. Lehtonen in 2013, four of them, including D4, showed the entry date of 18 November 2014 in the INSSI database, i.e. their publication was delayed.

2.3 According to the respondent, there was also no evidence that D4 was publicly accessible at any other place before reaching the central library for cataloguing. D8 stated that theses were classified as public documents after approval and that any person was able to access and read a hard copy of approved theses on request. However, to request a document, it was necessary to know that this document could be requested. Only as of 18 November 2014 could a member of the public have seen that a hard copy of D4 was at the central library. Only after that date could they have known of the existence of D4 and thus requested access to it.

2.4 Even assuming that there was an obligation to grant access to D4 immediately after approval, factual access required at least knowing where and whom to ask for access and getting the access granted in a timely manner, i.e. before the priority date. All this information was lacking for D4. In the absence of this information, it was impossible for the respondent to provide arguments and evidence to counter the vague assumption of the appellant that D4 was publicly

accessible before having been catalogued in the central library. The general indication contained in D8, A012 and A013 that theses must be available at the school after approval merely indicated personal views of employees of Aalto University on the public availability of theses in general at Aalto University. There was no proof that this instruction had been followed for D4. Moreover, these views could not be taken for granted. Especially the statement in point 1 of D8, asserting that there were no provisions in any Finnish act by which university theses were exempt from publication as secret documents, was contradicted by D9t. The latter stated that some official documents containing confidential material might be kept secret.

2.5 The respondent further referred to decision T 314/99. In that case, while it was common ground that the thesis at issue had arrived at the library of the department concerned (Chemistry Department) before the priority date, the board concluded that there was not sufficient evidence that the public was aware that the thesis was available at this library. The board noted that the mere arrival at the library did not mean that the thesis had been catalogued so that the public was able to acquire knowledge of it. Therefore, as in the current case, the public was unaware of the existence of the thesis before the priority date. By applying the findings of T 314/99 to the current case, the respondent argued that the mere existence of a hard copy, either at the library or elsewhere in the university, was not sufficient for its public availability.

2.6 The respondent concluded that there were serious doubts that D4 was publicly available before the priority date of the patent. In such a case where neither of two possibilities is overwhelmingly likely, the benefit of

doubt should be given to the patent proprietor because the potential loss of the patent cannot be remedied, while the opponent always has the possibility to invoke national nullity proceedings. The respondent referred to decision G 9/91 of the Enlarged Board of Appeal (point 18 of the reasons).

3. The board is not convinced by the respondent's arguments for the following reasons.
 - 3.1 The priority date of the patent is 3 January 2014. The approval date of the thesis D4 is 20 August 2013 (see D11). This is before the priority date of the patent.
 - 3.2 Section 12 of the Constitution of Finland (D6) states that "*[d]ocuments and recordings in the possession of the authorities are public, unless their publication has for compelling reasons been specifically restricted by an Act*". Master's theses such as D4 are documents in the possession of universities. Thus, they must be public unless an act restricts their publication. There is no evidence that the publication of D4 was restricted.
 - 3.3 The letter from the Ministry of Education of Finland dated 28 January 2004 (D9t, last paragraph), by referring to the Finnish Act on the Openness of Government Activities of 25 May 1999, recommends that universities ensure "*thesis projects **are made public immediately after approval***" (emphasis added by the board).
 - 3.4 D8 (points 2 to 5) confirms that according to D9t and the Finnish Act on the Openness of Government Activities of 25 May 1999, master's theses and other theses at Aalto University are classified as public documents after their approval. Hard copies of any master's thesis are available as public documents at

the department where the thesis was prepared and accessible by any person on request. A012 (last paragraph) confirms that this was the case in 2013 at the School of Chemical Technology (now School of Chemical Engineering), where D4 was prepared.

3.5 Therefore, under Finnish law as reflected in D9t, a university thesis falls within the public domain immediately after approval and is immediately available to the public by means of at least one hard copy being available at the department where the thesis was prepared.

3.6 As set out above, the approval of master's thesis D4 in the current case occurred before the priority date of the patent. This was not disputed by the respondent.

3.7 The board acknowledges that the entry "ED" of 18 November 2014 reported in D4-1 and referred to by the respondent is after the priority date of the patent. However, this date merely indicates the date on which a record of D4 was inserted in the INSSI database of the Learning Centre of Aalto University. This date is consistent with point 5 of D8 stating that copies of master's theses are sent to the central library for cataloguing in the INSSI database "*at an unspecified time after approval*". However, the cataloguing in the INSSI database has no relevance for the date on which D4 was rendered available to the public at the School of Chemical Technology, which was the date of its approval, and this by virtue of Finnish law.

3.8 Therefore, contrary to the respondent's assertion, there is no evidence that something went wrong with the publication of D4. In other words, there is no evidence that publication was delayed. Simply, the usual procedure was followed by sending a hard copy of D4 to the central library of Aalto University for cataloguing

in the INSSI database at an unspecified time after it had been rendered publicly available at the School of Chemical Technology where it had been prepared, in accordance with Finnish law.

3.9 The respondent's allegation based on A014 that the supervisor of D4, Prof. Lehtonen, delayed publication of D4 for unknown reasons, e.g. by keeping the hard copy of D4 in his room or owing to an excessive workload, is not corroborated by any evidence. In fact, this would have meant that Prof. Lehtonen did not comply with the Finnish law referred to above. But no proof of this has been submitted by the respondent. The respondent could have asked Prof. Lehtonen about the circumstances of the public availability of D4 at the School of Chemical Technology. However, at the oral proceedings, the respondent confirmed that it had not asked Prof. Lehtonen about this, despite the fact, stated by the respondent itself at the oral proceedings, that Prof. Lehtonen was a former employee of the respondent. Therefore, the respondent's allegation amounts to mere speculation and has to be disregarded.

3.10 The board does not accept the respondent's allegation that according to the third paragraph of D9t theses could be kept secret. D9t (third paragraph) merely states that "*documents used for a dissertation or other scientific study*" (emphasis added by the board) are to be held secret under special circumstances, e.g. if these documents contain private business information or professional secrets. In other words, according to D9t, only documents used for completing a thesis may under certain circumstances remain secret, but not the thesis itself.

3.11 Moreover, declaration D10 of the author of D4 confirms in point 7 that there was no reason to keep the thesis confidential. Therefore, there is no doubt that D4 was rendered public immediately after its approval, as prescribed by Finnish law.

3.12 The case law cited by the respondent does not support its case on the publication of D4 either.

Decision G 9/91 of the Enlarged Board of Appeal (OJ of EPO, 1993, page 408, point 18 of the reasons), which was referred to by the respondent, was concerned with the possible introduction in the appeal proceedings of a fresh ground for opposition, i.e. a ground for opposition on which the decision of the opposition division had not been based. The Enlarged Board held that this was only possible with the consent of the patent proprietor which, otherwise, would have to face unforeseeable complications at a very late stage of the proceedings. This rationale is not applicable to the case at hand, where no new ground for opposition is introduced into the appeal proceedings. On the contrary, D4 was filed by the appellant with the notice of opposition, and its availability to the public is an issue which the appealed decision is based on.

The case underlying decision T 314/99 concerned, *inter alia*, the availability to the public of a thesis prepared at the Institute of Inorganic and Applied Chemistry of the University of Hamburg, Germany. The entrusted board (point 5.4.4 of the reasons) concluded that one copy of the thesis had arrived in the archive of the library of the Chemistry Department before the priority date of the contested patent. However, the board held (point 5.5 of the reasons) that the thesis "*did not by its mere arrival in the archive become publicly available, since that did not mean it was as of that point in time catalogued or otherwise prepared*

for the public to acquire knowledge of it, and because without such means of information the public would remain unaware of its existence".

This rationale is not applicable to the case at hand where, as set out above, theses prepared at Finnish universities have to be made available for public consultation at the department where they are prepared immediately after approval, by virtue of Finnish law. No such legal provision is mentioned in decision T 314/99.

3.13 Therefore, the board sees no reasons to doubt that D4 was made publicly available at the School of Chemical Technology of Aalto University immediately after its approval on 20 August 2013 as prescribed by Finnish law and thus before the priority date of the patent. Hence, the board concludes that D4 represents prior art within the meaning of Article 54(2) EPC.

3.14 The appellant requested that A014 not be admitted into the proceedings. However, since the board came to the conclusion, in the appellant's favour, that D4 is prior art within the meaning of Article 54(2) EPC even when A014 is taken into account, there was no need for the board to decide on the admittance of this document.

Referral of questions to the Enlarged Board of Appeal

4. Under Article 112(1) (a) EPC, the board, either of its own motion or following a request from a party, shall refer questions to the Enlarged Board of Appeal if it considers that a decision is required either to ensure uniform application of the law or if a point of law of fundamental importance arises.

4.1 The respondent requested that the following questions be referred to the Enlarged Board of Appeal should the

board intend to conclude that D4 had been publicly available before the priority date of the patent.

"1. If there is no evidence to the contrary, is a master's thesis or similar document for obtaining a university degree, which is to be made available to the public due to a legal provision and/or university regulation, assessed to be publically available as soon as the document is approved?

2. If the answer to question 1 is "yes", are indications that the document did not proceed to publication in the usual or foreseen manner sufficient to cast doubt on publically available and thus disprove the assessment of immediate availability?

3. If the answer to question 1 is "no", is such document assessed to be publically available as soon as a hard copy (or electronic copy) reaches a public library, or only as soon as the public was able to gain knowledge that the document actually did reach the library and is available from the library on demand, e.g. by means of a publically available register listing the document?"

The respondent argued that the request for referral of the above questions had to be allowed because the board, when taking the view that D4 was publicly available, would diverge from the previously cited decision T 314/99. In other words, a referral was needed to ensure uniform application of the law.

4.2 The board disagrees. As set out above, the facts and circumstances underlying decision T 314/99 were different from those of the current case, so the rationale of T 314/99 was not applicable to the case at hand. Therefore, the board, when coming to the above-mentioned conclusion that D4 was publicly available before the priority date of the patent, did not see any

divergence from T 314/99. Solely for this reason, the respondent's request for referral should be rejected.

4.3 The board further notes that question no. 1 formulated by the respondent concerns university theses to be made available to the public in view of legal provisions or university regulations in Finland. This question is highly specific so that no point of law of fundamental importance arises.

4.4 Furthermore, whether, as put forward in question no. 2, indications that a document did not proceed to publication in the usual or prescribed manner are sufficient to cast doubt on public availability is a question of fact that will depend on the circumstances of the case. Case-specific questions of fact should, however, not be referred to the Enlarged Board of Appeal.

4.5 Lastly, whether, as is asked in question no. 3, a document must be assessed to be publicly available as soon as a hard copy (or electronic copy) reaches a public library or only as soon as the public was able to gain knowledge that the document had reached the library and was available from the library on demand, e.g. by means of a publicly available register listing the document, is not relevant since what matters in the current case is not the arrival of D4 at the central library but its approval at the university. In as far as this question hinges on a potential divergence between the current decision and T 314/19, no divergence exists, as set out above.

4.6 For these reasons, the board rejected the respondent's request to refer the above questions to the Enlarged Board of Appeal.

Auxiliary requests 1 to 16 - admittance into the proceedings under Article 12(2) and (4) RPBA 2020

5. The respondent filed auxiliary requests 1 to 16 before the opposition division by letter dated 20 September 2019.
- 5.1 The opposition division decided to reject the opposition and thus did not decide on the admittance of auxiliary requests 1 to 16 (see appealed decision, page 8, point II5). The respondent argued that since these auxiliary requests were filed before the opposition division and no decision on their admittance had been taken, the requests were *per se* part of the appeal proceedings.
- 5.2 The statement of grounds of appeal was filed on 28 April 2020. Therefore, the Rules of Procedure of the Boards of Appeal in their revised version that entered into force on 1 January 2020 apply.
- 5.3 Under Article 12(2) RPBA 2020, a party's appeal case shall be directed, *inter alia*, to the requests on which the decision under appeal was based. Since the opposition division did not decide on the admittance of auxiliary requests 1 to 16, the appealed decision is not based on these requests. Thus, the reliance of the respondent on auxiliary requests 1 to 16 in the appeal proceedings does not meet the requirements of Article 12(2) RPBA 2020.
- 5.4 Under Article 12(4) RPBA 2020, "[a]ny part of a party's appeal case **which does not meet the requirements in paragraph 2** is to be regarded as an amendment, **unless the party demonstrates that this part was admissibly raised and maintained** in the proceedings leading to the decision under appeal. Any such amendment may be

admitted only at the discretion of the Board" (emphasis added by the board).

5.5 Hence, the respondent's reliance in appeal on auxiliary requests 1 to 16 constitutes an amendment of its appeal case unless these requests were admissibly raised and maintained before the opposition division. It was not contentious between the parties that the auxiliary requests had been maintained throughout the opposition proceedings. A decisive question on the admittance of auxiliary requests 1 to 16 is therefore whether these requests had been admissibly raised before the opposition division. If this is the case, the board has no discretion for not admitting them into the proceedings under Article 12(4) RPBA 2020.

5.6 To examine whether auxiliary requests 1 to 16 were admissibly raised before the opposition division, it is necessary to consider the file history.

5.6.1 The patent was opposed in its entirety on the ground under Article 100(a) EPC in combination with Article 56 EPC, lack of inventive step (Form 2300, points V and VI). In the notice of opposition, the appellant raised objections against all dependent claims (notice of opposition, pages 9 to 11).

5.6.2 With the reply to the opposition, and before expiry of the time limit set under Rule 79(1) EPC, the respondent filed four sets of claims according to auxiliary requests 1 to 4.

5.6.3 The opposition division issued a preliminary opinion stating that the subject-matter of claim 1 as granted was inventive over the prior art cited by the appellant (D1, D4 and D5 were indicated as possible closest prior-art documents).

5.6.4 The appellant replied to the opposition division's preliminary opinion and maintained that the subject-matter of claim 1 as granted was not inventive. It also raised objections against inventive step of auxiliary requests 1 to 4 then on file.

5.6.5 On 20 September 2019, i.e. two months prior to the oral proceedings before the opposition division and within the time limit set by the opposition division under Rule 116(1) EPC, the respondent filed the sets of claims according to current auxiliary requests 1 to 16. Auxiliary requests 5, 6 and 16 were identical to the previously filed auxiliary requests 1 to 3. No reasons were specified by the respondent as to why the remaining auxiliary requests had not been filed with the reply to the notice of opposition.

6. The appellant argued in appeal that auxiliary requests 1 to 16 had not been admissibly raised and requested that they not be admitted into the proceedings. It submitted that claim 1 as granted had been amended in at least seven different diverging directions in auxiliary requests 1 to 16 and referred to the table bridging pages 5 and 6 of its letter dated 3 November 2020. Moreover, claim 1 of several auxiliary requests contained various combinations of the granted dependent claims which were not disclosed as such in the claims as granted. Features from the description had also been included. Thus, *prima facie*, issues under Article 123(2) EPC arose, the discussion of which was detrimental to procedural economy. The appellant further noted that although the filing of diverging claim requests could be justified in some cases, e.g. when several grounds for opposition were invoked by an opponent, in the case at hand, only lack of inventive step had been put forward. No special reasons were mentioned by the respondent, nor can any be seen in

view of the file history, which justified the filing of such diverging auxiliary requests only two months prior to oral proceedings. Moreover, the respondent had substantially modified its case two months in advance of the oral proceedings before the opposition division by filing, besides auxiliary requests 1 to 16, new experimental data and new submissions disputing the public availability of D4. In its reply to the preliminary opinion of the opposition division, the appellant had merely reiterated previous objections, and thus this reply could not have justified this change of the respondent's case. Two months was not enough time for the appellant to properly draft objections against the subject-matter of each of the newly filed diverging requests.

7. The board finds the appellant's arguments unconvincing for the following reasons.

To judge whether a claim request was admissibly raised in opposition proceedings within the meaning of Article 12(4) RPBA 2020, a board has to decide whether the opposition division should have admitted the claim request had a decision on admittance been required. If so, the claim request was admissibly raised. This will be examined in the following for the claim requests filed before the board in the current case.

7.1 Auxiliary requests 5, 6 and 16

7.1.1 Article 114(2) EPC gives an opposition division the discretion to disregard facts or evidence not submitted in due time by the parties concerned. As set out in decision T 1776/18 (points 4.5.5 and 4.5.6 of the reasons), for the purposes of Article 114(2) EPC, a patent claim is to be regarded as a statement of technical facts in legal terms and thus qualifies as "facts or evidence" within the meaning of Article

114(2) EPC. An opposition division thus has, as a rule, the discretion to admit or not to admit a late-filed claim request.

7.1.2 On 18 July 2018, the opposition division issued a communication under Rule 79(1) EPC informing the respondent that an opposition had been filed and setting a time limit of four months for filing observations and/or amendments. As set out above, auxiliary requests 5, 6 and 16 are identical to auxiliary requests 1 to 3 filed by the respondent with its reply to the notice of opposition with the letter of 23 November 2018. Auxiliary requests 1 to 3 (current auxiliary requests 5, 6 and 16) were thus filed within the time limit set by the opposition division in its communication under Rule 79(1) EPC. The time period up to the expiry of this time limit constitutes the earliest point during opposition proceedings in which a proprietor (respondent in these proceedings) can file amended claims. Therefore, auxiliary requests filed with the reply to the notice of opposition within the time limit set under Rule 79(1) EPC are not late filed. Thus, Article 114(2) EPC does not apply. Therefore, as a rule, claim requests filed in reply to the notice of opposition within the time limit set under Rule 79(1) EPC should be admitted by the opposition division and would thus be deemed to have been admissibly raised within the meaning of Article 12(4) RPBA 2020 (see e.g. T 2114/19 (unnumbered paragraph of the reasons with the heading "Auxiliary request 1") and T 1214/21 (point 5)).

7.1.3 Article 114(2) EPC does only apply to claim requests not submitted in due time. However, the board takes the view that from this article it cannot be derived, by inverse reasoning, that every claim request filed in

due time must always be considered admissibly raised under Article 12(4) RPBA 2020.

On the contrary, auxiliary requests filed within the time limit under Rule 79(1) EPC might also be, in truly exceptional situations, considered not to have been admissibly raised within the meaning of Article 12(4) RPBA 2020. The board is aware that in this respect it diverges from what is stated in the Guidelines for Examination at the EPO in Section E-VI 2.1 ("*If a patent proprietor replies to a notice of opposition by amending the patent, such a request for amendment cannot be considered as late-filed and **has to be admitted into the proceedings** (Rule 79(1))*", emphasis added by the board).

The board bases this view on decision R 6/19 of the Enlarged Board of Appeal, according to which (catchword) the basis for an opposition division's discretion to admit or not claim requests is Article 123(1) EPC. The Enlarged Board held (reasons, points 7 to 9) that under Article 123(1) EPC, a patent proprietor does not always have the right to amend its patent and that "*amendments and their admission into the proceedings shall be in accordance with the provisions of the implementing regulations*". The Enlarged Board referred to Rule 81(3) EPC, which gives the opposition division the discretion not to admit claim requests. The Enlarged Board derived this discretion especially from the rule's provision that an opportunity to amend the patent must be given only "*where necessary*". The current board observes that in a similar way, Rule 79(1) EPC stipulates that a patent proprietor must be given the opportunity to amend its patent in reply to the notice of opposition only "*where appropriate*". Therefore, discretion is available to the opposition division also not to admit claim requests

filed within the time limit set under Rule 79(1) EPC. Hence, these claim requests may, in truly exceptional situations, also be regarded as not having been admissibly raised.

The existence of a truly exceptional situation leading to the consideration of claim requests filed within the time limit set under Rule 79(1) EPC to not have been admissibly raised should be decided on a case-by-case basis. Such a situation might occur where an abuse of the proceedings occurred, e.g. when an unreasonably high number of diverging auxiliary requests were filed without proper justification. The number of grounds for opposition or different objections raised by an opponent as well as the number of opponents may represent, *inter alia*, criteria to be considered.

7.1.4 In the current case, the respondent only filed four auxiliary requests with its reply to the notice of opposition, with the amendments being based on dependent claims as granted (see below). Auxiliary requests 1 and 2 (identical to current auxiliary requests 5 and 6) were convergent with the main request; auxiliary request 3 (identical to current auxiliary requests 16) corresponded to auxiliary request 1 with the claims being amended as use claims; and auxiliary request 4 contained a single process claim, convergent with auxiliary request 3. Therefore, these auxiliary requests were convergent and clearly reasonable in number. In view of the above observations, these auxiliary requests should have been admitted into the proceedings had a decision on admittance been required by the opposition division. It follows that auxiliary requests 5, 6 and 16, being identical to three of the four requests filed with the reply to the notice of opposition, were admissibly raised in terms of Article 12(4) RPBA 2020.

7.2 Auxiliary requests 1 to 4 and 7 to 15

7.2.1 These auxiliary requests were filed after expiry of the time limit set under Rule 79(1) EPC and before expiry of the time limit set under Rule 116(1) EPC.

7.2.2 Decision T 221/20 (points 2.1 to 2.4) considered auxiliary requests filed after the expiry of the time limit set under Rule 79(1) EPC and before the expiry of the time limit under Rule 116(1) EPC set by the opposition division in its summons to attend oral proceedings to have been admissibly raised. In fact, the current version of the Guidelines for Examination in the EPO (March 2023 Edition), in Section E-VI.2.2.2, states that "[a]mendments submitted before the date set under Rule 116(1) cannot, **as a rule**, be considered as being late-filed" (emphasis added by the board).

7.2.3 However, in the board's view, it cannot be held that any claim request submitted after the expiry of the time limit set under Rule 79(1) EPC and before the expiry of the time limit set under Rule 116(1) EPC is automatically filed in due time and thus was admissibly raised.

7.2.4 The board holds that whether or not a claim request filed after the expiry of the time limit set under Rule 79(1) EPC and before the expiry of the time limit set under Rule 116(1) EPC is to be considered to have been filed in due time depends on whether it was submitted as a direct and timely response to a change of the subject of the proceedings introduced by the opponent or the opposition division.

7.2.5 In the current case, no reasons were mentioned by the respondent as to why auxiliary requests 1 to 4 and 7 to 15 had not been filed earlier, and especially why they had not been filed with the reply to the notice of opposition within the time limit set under Rule 79(1)

EPC. Like the appellant, the board sees no reason for the filing of these auxiliary requests only at a later stage, especially in view of the preliminary opinion issued by the opposition division having been in the respondent's favour and since no substantial new submissions had been filed by the appellant in its reply to the opposition division's provisional opinion. In other words, the subject of the proceedings had not changed. Therefore, auxiliary requests 1 to 4 and 7 to 15 have to be considered to have been filed late during opposition proceedings.

- 7.2.6 Opposition divisions have the discretion to not admit any late-filed claim request if a decision on admittance is required (see e.g. T 966/17, points 2.2 to 2.4 of the reasons). Hence, the boards have the discretion to consider a late-filed claim request not to have been admissibly raised.
- 7.2.7 As set out by the Enlarged Board of Appeal in decision G 9/91 (*loc. cit.*), in contrast to appeal proceedings, the procedure before the opposition division has an administrative and investigative character. This allows an opponent to submit prior art also at a late stage of the procedure, which, unlike in appeal proceedings, if *prima facie* relevant, has to be admitted. In the same way, to properly defend its patent, a patent proprietor must, as a rule, be permitted to redefine its fallback positions in terms of auxiliary requests also at a late stage of opposition proceedings.
In the following, criteria available to opposition divisions when exercising their discretion not to admit a late-filed claim request are discussed.
- 7.2.8 The board acknowledges that lack of clear allowability as referred to by the appellant in the current proceedings may be a reason not to admit a late-filed

claim request filed after the expiry of the time limit set under Rule 79(1) EPC and before the expiry of the time limit set under Rule 116(1) EPC. The board notes, however, that the Guidelines for Examination at the EPO, March 2023 Edition, refer to the criterion of clear allowability only for requests filed after the time limit set under Rule 116(1) EPC (see Section H-II. 2.7.1 as referred to in Sections E-VI.2.1 and E-VI.2.2). In the current case, however, as set out above, auxiliary requests 1 to 4 and 7 to 15 were filed before rather than after the expiry of the time limit set under Rule 116(1) EPC. For such auxiliary requests, clear allowability should in the board's view at least not be the sole criterion an opposition division should look at when deciding to admit or not such claim requests. For such auxiliary requests, this criterion should thus not be the sole criterion for the board to decide whether they were admissibly raised.

7.2.9 Whether an opponent has sufficient time to deal with an amended claim request is, as argued by the appellant, another criterion the opposition division might consider. This criterion is also mentioned in the Guidelines for Examination at the EPO, March 2023 Edition, Section E-VI.2.2.3 (see also T 726/20, point 3.2 of the reasons and T 435/21, point 3.1 of the reasons). However, in the same way as for the criterion of clear allowability, the Guidelines mention this criterion only for claim requests filed after the expiry of the time limit set under Rule 116(1) EPC. It is indeed in this situation where the question whether the opponent has sufficient time to deal with the late-filed claim requests may play a prominent role.

In the case at hand, however, as set out above, the auxiliary requests were filed before rather than after the expiry of the time limit set under Rule 116(1) EPC,

such that the appellant had two months to deal with the auxiliary requests. If the appellant considered that it did not have enough time to properly respond, it could and should have requested a postponement of the oral proceedings. No such request was made.

7.2.10 The board further acknowledges that other criteria like timeliness and complexity of the amendments, procedural economy, especially divergence of claim requests and suitability of the amendments to overcome previously raised objections without giving rise to new issues, which are generally used by the boards of appeal when exercising their discretion to admit or not an amendment to a party's appeal case (Articles 12(4) and 13(1) RPBA 2020), may also be considered when deciding whether or not a late-filed claim request submitted after the expiry of the time limit set under Rule 79(1) EPC and before the expiry of the time limit set under Rule 116(1) EPC should have been admitted by an opposition division and was thus admissibly raised (T 2385/12, reasons, point 1.6; T 84/17, reasons, point 2.2; T 1270/18, reasons, points 4 to 7; T 1695/18, reasons, point 10; T 602/20, reasons, point 12.3.1; T 1800/20, reasons, points 3.1 to 3.7). Whether or not the late-filed claim request was substantiated when filed before the opposition division could also be taken into account (a criterion used by the boards under Articles 12(3) and (5) RPBA 2020 for submissions filed in appeal). However, when taking this decision, in view of the above-stated administrative character of opposition proceedings, these criteria should be used by the boards in a more lenient way than for a party's submission filed during appeal proceedings.

7.2.11 In the current case, the appellant emphasised that the respondent had amended its case at a late stage during opposition proceedings without there being any reason

for filing this amendment so late. There had not been any reason why the amended claims had not been filed in reply to the notice of opposition. Moreover, it pointed to the divergence of the amendments made.

7.2.12 The board acknowledges that if in appeal proceedings an amendment of the appeal case is filed after the initial stage of the appeal proceedings (filing of statement of grounds of appeal and reply) without proper justification and a reason why the amendment was not made at an earlier stage, a board might decide not to admit the amendment *inter alia* under Article 13(1) RPBA 2020. The board acknowledges that applying the same criterion in the same strict way to the filing of auxiliary requests 1 to 4 and 7 to 15 in the current case might lead to the conclusion that had a decision been needed on their admittance in opposition proceedings, they would not have been admitted, implying that they had not been admissibly raised. However, this would imply that criteria under Article 13(1) RPBA that deal with later stages of the appeal proceedings are applied in the same strict manner at a much earlier stage, namely during opposition proceedings. The board takes the view that this cannot be the correct approach.

7.2.13 The board further concurs with the appellant that the amendments made in auxiliary requests 1 to 4 and 7 to 15 were partially divergent (see below) and that divergence of claim requests can also play a role for opposition divisions when deciding on admittance. However, as argued by the respondent, the divergence in the case at hand can be regarded as being justified in view of the different inventive-step attacks of the appellant in the notice of opposition (three documents had been indicated as the possible closest prior art). Furthermore, as set out above, the amendments made in

auxiliary requests 1 to 4 and 7 to 15 were essentially based on dependent claims as granted.

7.2.14 Therefore, although the opposition division's preliminary opinion was in favour of the respondent, the board considers the filing of auxiliary requests 1 to 4 and 7 to 15 to be a reasonable redefinition of the fallback positions of the respondent to defend its patent against a possible change of mind of the opposition division at the oral proceedings. Therefore, even though there has not been any change of the subject of the proceedings or other reason for filing the auxiliary requests only shortly before the expiry of the time limit set under Rule 116(1) EPC, the opposition division should have admitted auxiliary requests 1 to 4 and 7 to 15 into the proceedings if a decision on admittance had been required.

7.3 For these reasons, the board concludes that auxiliary requests 1 to 16 were admissibly raised and maintained by the respondent before the opposition division. Therefore, no discretion is available to the board under Article 12(4) RPBA 2020 for not admitting these requests into the proceedings.

Remittal of the case to the opposition division

8. At the oral proceedings, the board came to the conclusion that the main request was not allowable (see below).

8.1 The respondent requested that the case be remitted to the opposition division for further prosecution on the basis of the claims of auxiliary requests 1 to 16. It argued that during the appeal proceedings, the appellant had only briefly commented on the inventive step of the subject-matter of the auxiliary requests. The remittal would allow the appellant to present its case on inventive step in full and the respondent to

properly reply. The respondent should be allowed to defend its case before the opposition division and not in the restricted ambit of the appeal proceedings.

8.2 The appellant argued instead that a remittal of the case would negatively impact procedural economy and requested that the case not be remitted.

9. The board decided not to remit the case to the opposition division for the following reasons.

9.1 Under Article 111(1) EPC, the board may either exercise any power of the department responsible for the decision appealed, here the opposition division, or remit the case to that department for further prosecution. Under Article 11 RPBA 2020, the board shall not remit a case to the department whose decision was appealed for further prosecution unless special reasons present themselves for doing so.

9.2 In the case at hand, lack of inventive step is the sole ground for opposition invoked by the appellant. Inventive step is also the sole patentability issue dealt with by the opposition division in the decision under appeal.

9.3 Although the opposition division assessed inventive step in view of document D1 as the closest prior art, whereas inventive step is dealt with in the following in view of D4 taken as the starting point, both parties have extensively presented their arguments on inventive step during the appeal proceedings also in view of D4 as the closest prior art.

9.4 As explained below, the amendments in the auxiliary requests do not change the subject of the proceedings to the extent that, for example, a new document would have to be selected as the closest prior art. In fact, the objections raised by the appellant at the oral

proceedings against the subject-matter of the auxiliary requests all relied, *inter alia*, on D4 as the closest prior art and were basically the same as those raised against the main request. Also, the arguments of the respondent on the technical effects of the distinguishing features and the resulting objective technical problem in view of D4 were essentially the same as for the main request.

9.5 For these reasons and with due consideration of procedural economy, the board saw no special reasons requiring a remittal of the case to the opposition division. Therefore, the respondent's request that the case be remitted to the opposition division was refused.

All claim requests - claim 1 - inventive step under Article 56 EPC

10. Claim 1 as granted (wording under point II above) was amended in auxiliary requests 1 to 16 by including various features essentially contained in the dependent claims as granted. As set out above, the amendments are only partially convergent. Therefore, inventive step is assessed in the following for the narrowest subject-matter within each group of convergent requests.

11. Main request (claims as granted) and auxiliary requests 1 and 2

11.1 Claim 1 of auxiliary request 1 contains the following additional feature as compared with claim 1 of the main request (point II above):

"and wherein the composition comprises less than 9 wt-% C13 and lighter paraffins and less than 7 wt-% C16 and heavier paraffins, based on the total weight of the composition"

In claim 1 of auxiliary request 2, the same feature was amended to read (amendments highlighted by the board):

*"and wherein the composition comprises less than 9 **5** wt-% C13 and lighter paraffins and less than 7 **3** wt-% C16 and heavier paraffins, based on the total weight of the composition"*

11.2 Therefore, within this group of requests, claim 1 of auxiliary request 2 defines the narrowest subject-matter.

11.3 Closest prior art

11.3.1 Both parties referred to document D4 as a possible starting point for the assessment of inventive step. D4 discloses (point 6.1.1 on page 61, point 6.2 and table 5 on page 63) both an n-paraffinic mixture and an isoparaffinic mixture, both produced from hydrotreated vegetable oils and fractionated by distillation. In appendix G, D4 discloses various isoparaffinic fractions. Table G.4 on page 4/10 of appendix G shows a fraction with a boiling point ranging from 230 to 260°C, containing, *inter alia*, 53.04% C14 and 19.74% C15 isoparaffins. Table 14 of D4 (page 78) discloses several properties of the various isoparaffinic fractions, *inter alia*, the aniline point, Kauri-butanol ("KB") value and kinematic viscosity.

11.3.2 The above fraction with a boiling point ranging from 230 to 260°C (the "230-260°C fraction") was selected by the parties as the closest prior art. The board does not see any reason to take a diverging view.

11.4 Distinguishing features

It was common ground that the subject-matter of claim 1 of auxiliary request 2 differs from the 230-260°C fraction of D4 in that:

- the amount of C14 paraffins ranges from 40 to 50 wt-% (53.04 wt-% in the 230-260°C fraction of D4)
- the amount of C15 paraffins ranges from 35 to 45 wt-% (19.74 wt-% in the 230-260°C fraction of D4)
- the composition comprises less than 5 wt-% C13 and lighter paraffins (22.82 wt-% in the 230-260°C fraction of D4)
- the composition comprises less than 3 wt-% C16 and heavier paraffins (4.39 wt-% in the 230-260°C fraction of D4)

11.5 Objective technical problem

11.5.1 The respondent referred to the data reported in tables 12 and 23 of the patent and the experimental data filed by letter dated 20 September 2019, all data having been summarised on page 17 of the reply to the statement of grounds of appeal. The composition denoted "Comp 1" fell under claim 1 of auxiliary request 2, while the comparative composition "230-260°C" represented the above-mentioned 230-260°C fraction of D4. The reported results showed comparable solvent properties in terms of the aniline point and KB value. However, the claimed lower amount of C13 and lighter paraffins implied a reduction of the volatile organic compounds ("VOCs") which led to a reduced health impact of the composition. The lower content of C16 and heavier paraffins led to less insolubles, thus improving the solvent power, as confirmed by the reported results. On this basis, the respondent formulated the objective technical problem as the provision of a composition having lower VOCs while showing comparable solvent properties.

11.5.2 However, the board notes that, as pointed out by the appellant, the results summarised on page 17 of the reply to the appeal show that the 230-260°C fraction of D4 has a lower aniline point (89.9°C vs. 91.3°C) and a higher KB value (22.5 vs. 21.5) as compared with the composition "Comp 1" falling under claim 1 of auxiliary request 2. This indicates improved solvent power and better solubility of the composition of D4 over the composition falling under claim 1 of auxiliary request 2. Therefore, contrary to the respondent's view, it cannot be concluded that the properties of the claimed compositions are comparable to those of the 230-260°C fraction of D4. Rather, the properties of the claimed compositions are worse.

11.5.3 As regards the lower amount of VOCs invoked by the respondent, this is not the technical effect of the lower amount of C13 and lighter paraffins but merely another way the respondent used to define this same feature. In other words, if accepted, this wording already contained an element of the claimed solution, and as such it cannot be included in the formulation of the objective technical problem. Moreover, the patent is silent on any advantage that might be derived from the claimed amount of C13 and lighter paraffins. A positive impact of the claimed solvent compositions on health as put forward by the respondent is not mentioned in the patent.

11.5.4 Therefore, the board concurs with the appellant that no technical effect is linked to the distinguishing features mentioned above. Hence, the objective technical problem is the mere provision of an alternative composition.

11.6 Obviousness of the claimed solution

11.6.1 The respondent argued that even when considering the objective technical problem to be the provision of an alternative composition, no indication was present in the available prior art pointing to a composition containing the claimed amounts of paraffins in combination. Without an explicit pointer, the claimed composition could only be arrived at by using hindsight.

11.6.2 The board disagrees. When the objective technical problem lies in the provision of an alternative, no pointer or incentive is required. It is sufficient that the skilled person would have considered the claimed solution to be a reasonable alternative to the composition of the closest prior art (see T 1968/08, reasons, point 5.5; T 12/07, reasons, point 4.1.6; T 1045/12, reasons, point 4.7.7).

11.6.3 No particular technical difficulties are described in the patent to be associated with the production of the claimed compositions. In fact, merely fractionation by distillation is applied (paragraphs [0030] to [0035] and claim 19 of the patent) to obtain the claimed amounts of paraffins. The board concurs with the appellant that this fractionation to arbitrarily adjust the amounts of C13 to C16 paraffins is within the routine abilities of the skilled person. Therefore, the claimed composition is to be regarded as an obvious and arbitrary alternative to the 230-260°C fraction of D4.

11.7 For these reasons, the board concludes that the subject-matter of claim 1 of auxiliary request 2 does not involve an inventive step in view of D4 taken as the closest prior art (Article 56 EPC).

11.8 Since claim 1 according to both the main request and auxiliary request 1 defines a subject-matter broader than the subject-matter of claim 1 of auxiliary request 2, it follows that the same conclusion by the board applies *mutatis mutandis*. The subject-matter of claim 1 of the main request and auxiliary request 1 lacks an inventive step in view of D4 taken as the closest prior art (Article 56 EPC).

11.9 Therefore, the main request and auxiliary requests 1 and 2 are not allowable.

12. Auxiliary requests 3 and 9 to 13

12.1 Claim 1 of auxiliary request 3 contains the following additional feature as compared with claim 1 of the main request (point II above):

"and wherein the total aromatic hydrocarbon content of the composition is less than 1500 ppm weight basis"

Claim 1 of auxiliary request 9 contains the following additional feature as compared with claim 1 of the main request (point II above):

"and wherein the composition has a boiling point in a range of 240 °C to 260 °C"

12.1.1 Claim 1 of auxiliary request 10 contains the following additional feature as compared with claim 1 of auxiliary request 3:

"wherein the composition comprises less than 9 wt-% C13 and lighter paraffins and less than 7 wt-% C16 and heavier paraffins, based on the total weight of the composition", i.e. the same feature as included in claim 1 of auxiliary request 1 (see above)

12.1.2 Claim 1 of auxiliary request 11 contains the following additional feature as compared with claim 1 of auxiliary request 10:

"the total isoparaffinic content of the composition is more than 93 wt-%, based on the total weight of the composition"

12.1.3 Claim 1 of auxiliary request 12 contains the following additional feature as compared with claim 1 of auxiliary request 11:

"and the composition has a boiling point in a range of 240 °C to 260 °C"

Therefore, claim 1 of auxiliary request 12 includes the same feature as added to claim 1 of auxiliary request 9.

12.1.4 Claim 1 of auxiliary request 13 contains an additional feature as compared with claim 1 of auxiliary request 12, which states that the C14 and C15 paraffins are produced *"by a process comprising hydrodeoxygenation and isomerization of a biological raw material"*.

12.2 Therefore, within this group of requests, claim 1 of auxiliary request 13 defines the narrowest subject-matter.

12.3 Closest prior art

12.3.1 As for the previous claim requests, the 230-260 °C fraction of D4 was indicated by the parties as the starting point for the assessment of inventive step. The board does again not see any reason to take a diverging view.

12.3.2 As stated above, according to D4, this fraction was produced from hydrotreated vegetable oils, thus implying hydrodeoxygenation and isomerisation. Moreover, as submitted by the appellant by reference to table 19 on page 85 of D4 and not contested by the respondent, the 230-260 °C fraction of D4 contains less

than 1500 ppm of aromatic compounds and more than 93 wt-% isoparaffins.

12.4 Distinguishing features

The respondent argued that the subject-matter of claim 1 of auxiliary request 13 differed from the 230-260°C fraction of D4 in that:

- the amount of C14 paraffins ranges from 40 to 50 wt-% (53.04 wt-% in the 230-260°C fraction of D4)
- the amount of C15 paraffins ranges from 35 to 45 wt-% (19.74 wt-% in the 230-260°C fraction of D4)
- the composition comprises less than 9 wt-% C13 and lighter paraffins (22.82 wt-% in the 230-260°C fraction of D4)
- the composition has a boiling point in the range 240 to 260°C

12.5 Objective technical problem

12.5.1 The respondent referred to the data reported in tables 12 and 23 of the patent and the data filed by letter dated 20 September 2019, all having been summarised on page 17 of the reply to the statement of grounds of appeal. The compositions denoted "Comp 1", "Comp 2" and "Patent Table 23" fell under claim 1 of auxiliary request 13, while the comparative composition "230-260°C" represented the above-mentioned 230-260°C fraction of D4. The reported results showed comparable solvent properties in terms of the aniline point and KB value. However, the lower amount of C13 and lighter paraffins as well as the narrower range of the boiling point implied a reduction of VOCs. Moreover, the claimed compositions had a much higher kinematic

viscosity, thus providing a solvent with a broader application range. Therefore, the respondent formulated the objective technical problem as the provision of a composition having comparable solvent properties while showing lower VOCs and a higher viscosity.

12.5.2 However, the board notes that, as pointed out by the appellant, the results summarised on page 17 of the reply to the appeal show that the 230–260 °C fraction of D4 has a lower aniline point (89.9 °C) and a higher KB value (22.5) as compared with all compositions falling under claim 1 of auxiliary request 13 (named "Comp 1", "Comp 2" and "Patent Table 23"). This indicates improved solvent power and better solubility of the composition of D4. Therefore, contrary to the respondent's view, it cannot be concluded that the properties of the claimed compositions are comparable to those of the 230–260 °C fraction of D4. Rather, the properties of the claimed compositions are worse.

12.5.3 As regards the lower amount of VOCs, the same observations made above by the board for the subject-matter of claim 1 of auxiliary request 2 apply. A lower amount of VOCs cannot be included in the formulation of the objective technical problem. Moreover, as mentioned above, the patent is silent on any advantage that might be derived from the claimed amount of C13 and lighter paraffins. A positive impact of the claimed solvent compositions on health as put forward by the respondent is not mentioned in the patent.

12.5.4 Therefore, the board holds that the objective technical problem can at most be seen in the provision of a composition having a higher viscosity.

12.6 Obviousness of the claimed solution

12.6.1 The respondent argued that D4 (in table 14 on page 78) disclosed compositions having a viscosity higher than the 230-260°C fraction. It referred especially to the fractions named "260-FBP" and "260-285". The skilled person aiming to solve the posed technical problem would have selected one of these fractions, particularly in view of the fact that they had been obtained in high yields (see table 10 on page of D4). Moreover, these fractions were characterised by acceptable solvent properties (see table 14 on page 78 of D4). No reasons were apparent why the skilled person would instead have provided a sub-fraction of the 230-260°C fraction. Moreover, no indication was available on how to produce such a sub-fraction. Finally, none of the available prior-art documents hinted at the claimed content of paraffins.

12.6.2 The board disagrees. The patent is completely silent on any advantage that might be derived from a certain viscosity of the claimed composition. As argued by the appellant, the patent does not contain any indication, let alone proof, that such a higher viscosity would provide a broader application range of the claimed composition. Since the solvent properties of the starting composition, i.e. the 230-260°C fraction of D4, would not have to be maintained, the skilled person looking for a solution to the posed technical problem would have selected any possible composition characterised by a higher viscosity. The board concurs with the appellant that especially a higher content of C15 paraffins would have increased the viscosity of the composition and shifted the boiling point towards the claimed range. The skilled person would not have considered the yield to be a relevant parameter since maximisation of the yield is not part of the posed

objective technical problem. Therefore, the composition defined in claim 1 of auxiliary request 13 is merely one of several equivalent straightforward possibilities that the skilled person would have considered according to the circumstances when aiming to solve the posed objective technical problem. As set out above, no technical difficulties for obtaining the claimed compositions are described in the patent. In fact, merely fractionation by distillation is applied (paragraphs [0030] to [0035] and claim 19 of the patent), which is within the routine abilities of the skilled person. The claimed solution has thus to be regarded as an arbitrary variation of the viscosity available to the skilled person by their routine abilities and not involving any inventive activity.

- 12.7 For these reasons, the board concludes that the subject-matter of claim 1 of auxiliary request 13 does not involve an inventive step in view of D4 taken as the closest prior art (Article 56 EPC).
- 12.8 Since claim 1 according to auxiliary requests 3 and 9 to 12 defines subject-matter broader than the subject-matter of claim 1 of auxiliary request 13, the same conclusion by the board applies *mutatis mutandis*. The subject-matter of claim 1 of auxiliary requests 3 and 9 to 12 lacks an inventive step in view of D4 taken as the closest prior art (Article 56 EPC).
- 12.9 Therefore, auxiliary requests 3 and 9 to 13 are not allowable.
13. Auxiliary request 4
- 13.1 Claim 1 of auxiliary request 4 differs from claim 1 of auxiliary request 3 only in view of the following amendment:

*"and wherein the total aromatic hydrocarbon content of the composition is less than 1500 **1300** ppm weight basis"*

13.2 As submitted by the appellant by reference to table 19 on page 85 of D4 and not contested by the respondent, the 230-260°C fraction of D4 contains less than 1300 ppm of aromatic compounds. Therefore, the above feature of claim 1 of auxiliary request 4 is known from D4.

13.3 Since there is thus no additional distinguishing feature compared to auxiliary request 3, the above observations by the board on lack of inventive step of auxiliary request 3 apply *mutatis mutandis* to the subject-matter of claim 1 of auxiliary request 4, which also lacks an inventive step (Article 56 EPC). Therefore, auxiliary request 4 is not allowable.

14. Auxiliary requests 5 to 8

14.1 Claim 1 of auxiliary request 5 contains the following additional feature as compared with claim 1 of the main request (point II above):

"and wherein the total isoparaffinic content of the composition is more than 93 wt-%, based on the total weight of the composition"

14.1.1 Claim 1 of auxiliary request 6 contains the additional feature as compared with claim 1 of auxiliary request 5 expressing that the C14 and C15 paraffins are produced *"by a process comprising hydrodeoxygenation and isomerization of a biological raw material"*.

14.1.2 Claim 1 of auxiliary request 7 contains the additional feature as compared with claim 1 of auxiliary request 6 expressed by the sentence: *"and conducting a separation process of the resulting material, wherein the separation process includes distillation"*

14.2 Claim 1 of auxiliary request 8 contains the following additional feature as compared with claim 1 of auxiliary request 6:

"wherein the composition is obtained by hydrotreatment of vegetable oil and isomerization of the produced n-paraffinic mixture and by separation of the desired fraction by distillation"

14.3 Therefore, within this group of requests, claim 1 of auxiliary request 8 defines the narrowest subject-matter. In fact, albeit using a different wording, it contains all features of claim 1 of auxiliary request 7 with the further specification of the biological raw material as a vegetable oil.

14.4 As stated above, the 230-260°C fraction of D4 is produced from hydrotreated vegetable oils, thus implying hydrodeoxygenation of vegetable oils and isomerisation, followed by fractionation by distillation. Moreover, as submitted by the appellant and not contested by the respondent, the 230-260°C fraction of D4 contains more than 93 wt-% isoparaffins.

14.5 Therefore, all features added to claim 1 of auxiliary request 8 compared to claim 1 of the main request also pertain to the 230-260°C fraction of D4. It follows that the above observations by the board on lack of inventive step of the main request apply *mutatis mutandis* to the subject-matter of claim 1 of auxiliary request 8. For these reasons, the board concludes that the subject-matter of claim 1 of auxiliary request 8 does not involve an inventive step in view of D4 taken as the closest prior art (Article 56 EPC).

14.6 Since claim 1 according to auxiliary requests 5 to 7 defines subject-matter broader than the subject-matter of claim 1 of auxiliary request 8, the same conclusion by the board applies *mutatis mutandis*. The subject-

matter of claim 1 of auxiliary requests 5 to 7 lacks an inventive step in view of D4 taken as the closest prior art (Article 56 EPC).

14.7 Therefore, auxiliary requests 5 to 8 are not allowable.

15. Auxiliary requests 14 to 16

15.1 Claim 1 of auxiliary requests 14 and 15 reads as follows:

"A use of a composition as a solvent, the composition comprising:

40-50 wt-% C14 paraffins, based on the total weight of the composition, and

35-45 wt-% C15 paraffins, based on the total weight of the composition,

wherein the C14 and C15 paraffins are produced from a biological raw material, and wherein the composition comprises less than 9 wt-% C13 and lighter paraffins and less than 7 wt-% C16 and heavier paraffins, based on the total weight of the composition."

Therefore, claim 1 of auxiliary requests 14 and 15 corresponds to claim 1 of auxiliary request 1 (see above), expressed as a use claim.

15.2 Claim 1 of auxiliary request 16 reads as follows:

"A use of a composition as a solvent, the composition comprising:

40-50 wt-% C14 paraffins, based on the total weight of the composition, and

35-45 wt-% C15 paraffins, based on the total weight of the composition,

wherein the C14 and C15 paraffins are produced from a biological raw material by a process comprising

hydrodeoxygenation and isomerization of a biological raw material, and wherein the total isoparaffinic content of the composition is more than 93 wt-%, based on the total weight of the composition."

Therefore, claim 1 of auxiliary request 16 corresponds to claim 1 of auxiliary request 6 (see above), expressed as a use claim.

15.3 As set out above, the board concluded that the subject-matter of claim 1 of auxiliary requests 1 and 6 lacks an inventive step in view of D4 taken as the closest prior art. As mentioned above, D4 (pages 76 to 78 and table 14) discloses the solvent properties, *inter alia*, the aniline point and KB value, of the 230-260°C fraction. Therefore, according to D4, this fraction can be used as a solvent. The use feature of claim 1 of auxiliary requests 14 to 16 is thus known from D4.

15.4 It follows that the same considerations by the board on lack of inventive step of the subject-matter of claim 1 of auxiliary requests 1 and 6 apply *mutatis mutandis* to the subject-matter of claim 1 of auxiliary requests 14 to 16.

15.5 For these reasons, the board concludes that the subject-matter of claim 1 of auxiliary requests 14 to 16 does not involve an inventive step in view of D4 taken as the closest prior art (Article 56 EPC).

15.6 Therefore, auxiliary requests 14 to 16 are not allowable.

Conclusions

16. None of the respondent's claim requests is allowable under Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

M. Schalow

The Chairman:

M. O. Müller



Decision electronically authenticated