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Datasheet for the decision of 10 September 2009

Case Number: T 1730/08 - 3.3.10

Application Number: 00992945.6

Publication Number: 1144349

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Language of the proceedings: EN

Title of invention:
Isomerization process

Patentee:
Innovene USA LLC

Opponent:
Chevron Phillips Chemical Company

Headword:
Isomerization process/INNOVENE

Relevant legal provisions:
EPC Art. 123(2)(3), 111(1)

Keyword:
"Amendments (allowable) - no added subject-matter"
"Remittal (yes)"

Decisions cited:
G 0009/91

Catchword:
-

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Case Number: T 1730/08 - 3.3.10

D E C I S I O N
of the Technical Board of Appeal 3.3.10
of 10 September 2009

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Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 15 July 2008 revoking European patent No. 1144349 pursuant to Article 101(3)(b) EPC.

Composition of the Board:

Chairman: R. Freimuth
Members: J.-C. Schmid
D. S. Rogers

Summary of Facts and Submissions

I. The Appellant (Proprietor of the patent) lodged an appeal on 5 September 2008 against the decision of the Opposition Division posted on 15 July 2008 revoking European patent No. 1 144 349.

II. A notice of Opposition was filed by the Respondent (Opponent) requesting the revocation of the patent in suit in its entirety on the grounds of lack of novelty and inventive step (Article 100(a) EPC) and of extending the subject-matter of the patent in suit beyond the content of the application as filed (Article 100(c) EPC).

III. The Opposition Division held that a composition comprising an olefinic mixture was different from an olefinic composition, since this latter had to be interpreted as a composition comprising mainly olefins. Consequently, the Opposition Division arrived at the conclusion that a composition comprising an olefinic mixture and having a kinematic viscosity of less than 4 mm^2/sec measured at 40°C and a pour point below -25°C was not disclosed in the application as filed.

IV. At the oral proceedings before the Board held on 10 September 2009 the Appellant defended the maintenance of the patent in suit on the basis of the claims 1 to 3 of a request submitted during the oral proceedings, this request superseding any previous request. Independent claim 1 thereof reading as follows:

"1. A composition comprising an olefin mixture, wherein the olefins contain from 10 to 35 carbon atoms and wherein:

at least 70 weight percent of said composition are di-or tri-substituted internal olefins;
at least 20 weight percent of said composition are tri-substituted internal olefins;
at least 20 weight percent of said composition are linear internal olefins of formula R^1-CH=CH-CH_2-CH_2-CH_3;
less than 40 weight percent of the internal olefins are linear internal olefins of formula R^1-CH_2-CH_2-CH=CH-CH_3 or R^1-CH_2-CH=CH-CH_2-CH_3; and
at least 50 weight percent of said composition is the sum of the linear internal olefins having the formula R^1-CH_2-CH=CH-CH_2-CH_3 plus the linear internal olefins having the formula R^1-CH=CH-CH_2-CH_2-CH_3, wherein R^1 is an aliphatic hydrocarbon group having from 5 to 30 carbon atoms,

and which composition has a kinematic viscosity of less than 4 mm^2/sec (4cSt) measured at 40°C and a pour point below -25 C."

V. According to the Appellant, the claims did not contain subject-matter extending beyond the content of the application as filed. A composition comprising an olefinic mixture defined the same subject-matter as an olefinic composition. The first paragraph of page 7 was the counterpart of claim 19 in the application as filed and thus concerned the same embodiment. It was thus allowable to amend original claim 19 in the light of the disclosure of this section of the application as filed to remove inconsistencies or to restrict the

claimed composition. All features of the composition of claim 1 were disclosed in the application as filed und thus the requirement of Article 123(2) EPC was met. The amendments carried out on the granted claims restricted their scope and thus the requirement of Article 123(3) EPC was also met.

VI. According to the Respondent the section of the first paragraph of page 7 of the application as filed could not be combined with the subject-matter of original claim 19, since claim 19 and that paragraph did not relate to the same embodiment. Claim 19 was directed to a composition comprising an olefin mixture whereas the section of the first paragraph on page 7 addressed an olefinic composition, thus implying an olefin content of more than 50 wt.%, with the consequence that the composition comprising an olefin mixture claimed in claim 19 and the olefinic composition described on page 7 were two separate embodiments. Furthermore, the viscosity of the composition was defined in original claim 19 relative to the olefin mixture comprised in the composition whereas on page 7 of the application as filed it was defined relative to the composition, thus indicating that the composition claimed in claim 19 and that defined on page 7 did not pertain to the same embodiment. A further difference was the basis for the calculation of the percentage of internal olefins which had a double bond at the fourth or higher position which was determined on page 7 relative to the internal olefins whereas it was defined in claim 19 relative to the composition. Accordingly features disclosed on page 7, first paragraph of the application as filed could not be introduced into original claim 19 without generating fresh subject-matter.

Furthermore the application as filed did not disclose that the weight percentage of the sum of the linear internal olefins having the formula R^1-CH_2-CH=CH-CH_2-CH_3 plus the linear internal olefins having the formula R^1-CH=CH-CH_2-CH_2-CH_3 indicated in claim 1 was relative to the composition.

VII. The Appellant requested that the decision under appeal be set aside and that the case be remitted to the first instance on the basis of claims 1 to 3 filed during the oral proceedings before the Board.

The Respondent requested that the appeal be dismissed.

VIII. At the end of the oral proceedings the decision of the Board was announced.

Reasons for the Decision

1. The appeal is admissible.

2. *Articles 100(c) and 123(2) EPC*

2.1 Claim 1 which is directed to "a composition comprising an olefin mixture, wherein the olefins contains from 10 to 35 carbon atoms" is mainly based on claim 19 in combination with page 7, first paragraph, of the application as filed.

2.1.1 The features that "at least 70 weight percent of said composition are di- or tri-substituted internal olefins" and that "at least 20 weight percent of said

composition are tri-substituted internal olefins" are disclosed in claim 19 of the application as filed.

2.1.2 The feature that "at least 20 weight percent of said composition are linear internal olefins of formula R^1-CH=CH-CH_2-CH_2-CH_3" is also based on original claim 19, which discloses that at least 20 weight percent of said composition are internal olefins having a double bond at the fourth position, in combination with page 2, lines 10 and 11 identifying the internal olefins having a double bond at the fourth position as being internal olefins of formula 5; and page 1, last line establishing that formula 5 represents a linear internal olefin of formula R^1-CH=CH-CH_2-CH_2-CH_3.

2.1.3 The feature that "less than 40 weight percent of the internal olefins are linear internal olefins of formula R^1-CH_2-CH_2-CH=CH-CH_3 or R^1-CH_2-CH=CH-CH_2-CH_3" is based on page 7, lines 6 to 8 which discloses that less than 40 weight percent of the internal olefins in the composition are olefins of formula 3 or 4 having a double bond at position 2 or 3 in combination with page 1, line 28 and 30 identifying the formulae 3 and 4 as being the linear internal olefins of formula R^1-CH_2-CH_2-CH=CH-CH_3 and R^1-CH_2-CH=CH-CH_2-CH_3, respectively.

2.1.4 The feature that "at least 50 weight percent of said composition is the sum of the linear internal olefins having the formula R^1-CH_2-CH=CH-CH_2-CH_3 plus the linear internal olefins having the formula R^1-CH=CH-CH_2-CH_2-CH_3" is based on page 7, line 10 to 13 which discloses that the sum of the concentration of the internal olefins of formula 4 having a double bond at position 3 plus the

concentration of "deep" olefins is at least 50 weight percent in combination with page 2, line 11 and 12 defining the deep olefins as internal olefins having the olefinic double bond at the fourth or higher position, page 2, line 10 and 11 identifying the internal olefins having a double bond at the fourth position as being internal olefins of formula 5; and the two last line of page 1 establishing that formula 4 and 5 represents linear internal olefins of formula R^1-CH_2-CH=CH-CH_2-CH_3 and R^1-CH=CH-CH_2-CH_2-CH_3, respectively.

The section on page 7, lines 10 to 13 relating to a concentration of "at least 50 wt%" does not explicitly indicate the reference to which this concentration refers. However, in the context of this section read as a whole, this concentration can only be the concentration relative to the total weight of the composition, since the first paragraph on page 7 specifies the details of the composition. The sentence following the section on page 7, lines 10 to 13 starts with "Such composition of the present invention is **further** (emphasis added) characterized in….", indicating a continuation of the details of the composition. Furthermore, in the working examples exemplifying claimed olefinic compositions, the concentration of the olefins having the structure of formula 4 plus that of the deep olefins is indicated in weight percentage relative to the total weight of the composition (see examples 2 and 9 in table 4 on page 13), thus indicating that the same concentration in the section on page 7, lines 10 to 13 is defined also relative to the composition. For these reasons, in the Board's judgment, the skilled person would directly

and unambiguously derive from the application as filed that this percentage value indicated in claim 1 refers to the total weight of the composition, with the consequence that the feature of "of said composition" in claim 1 does not add subject-matter.

The definition of the radical R^1 as being an aliphatic hydrocarbon group having from 5 to 30 carbon atoms is found on page 1, line 13 and page 4, line 24 of the application as filed.

2.1.5 The feature that the "composition has a kinematic viscosity of less than 4 mm^2/sec (4cSt) measured at 40°C and a pour point below -25°C" is based on page 7, line 14 to 16 of the application as filed.

2.2 The only objections with respect to added subject-matter raised by the Respondent were that the features described in the section of page 7, first paragraph could not be combined with the features of the composition claimed in claim 19, since the composition described in the description and that claimed did not relate to the same embodiment, and that the application as filed did not disclose that the weight percentage indicated in claim 1 of the sum of the linear internal olefins having the formula R^1-CH_2-CH=CH-CH_2-CH_3 plus the linear internal olefins having the formula R^1-CH=CH-CH_2-CH_2-CH_3 referred to the total weight of the composition (see point VI above).

2.2.1 Having regard to the Respondent's first objection, the Board holds that the application as filed is directed to two embodiments, of which one is an isomerisation process, and the other an olefinic composition. The

first portion of the description refers to the process and the product directly obtained thereby while page 7, first paragraph refers to the olefinic composition as such, i.e. regardless of its preparation process. The same construction is reflected in the claims where independent claim 1 is directed to a process for the isomerisation of a linear alpha olefin mixture while independent claim 19 is directed to an olefinic composition.

Claim 19 as filed is the sole independent claim directed to an olefinic composition and the first paragraph of page 7 is the sole section of the application as filed addressing an olefinic composition *per se*. Therefore, the section on page 7, first paragraph is the direct counterpart of claim 19 in the application as filed and hence both necessarily refer to the same embodiment.

2.2.2 The Respondent's argument that an olefinic composition is not a composition comprising olefins is also devoid of merit. Alleging that an olefinic composition is not a composition comprising olefins is only playing on words and technically makes no sense. In addition, the respondent's suggestion that the term "olefinic composition" necessarily means that the composition must have a content of more than 50% of olefins, is wholly unfounded. The simple technical meaning of an olefinic composition is a composition comprising olefins.

2.2.3 The composition of original claim 19 specifies the viscosity value of the olefin mixture comprised therein, while page 7 addresses the viscosity of the composition

itself. The calculation of the percentage of internal olefins present which have a double bond at the fourth or higher position is determined on page 7 relative to the internal olefins whereas it is defined in claim 19 relative to the composition.

Inconsistencies between claims and description are rather common in patent applications and do not lead to the conclusion that claims and description refer to different embodiments, but need to be clarified in order to satisfy Article 84 EPC.

Therefore, the Board comes to the conclusion that claim 19 and its counterpart on page 7, first paragraph are directed to the same embodiment. Hence, claim 1 can properly be based on the combination of claim 19 with the first paragraph of page 7 of the application as filed.

2.2.4 Having regard to the Respondent's last objection, it is a matter of fact that the section of page 7 of the application as filed does not explicitly indicate a reference for the weight percent of the sum of the linear internal olefins having the formula R^1-CH_2-CH=CH-CH_2-CH_3 (double bond at the third numbered atom carbon) plus the linear internal olefins having the formula R^1-CH=CH-CH_2-CH_2-CH_3 ("deep" olefins) disclosed at lines 10 to 13.

The skilled reader would thus have to fill in this gap in the disclosure in order to give sense to this feature. When reading the application as filed there is only one way to fill this gap, i.e. by taking the missing information from example 2 and 9 which are the

sole examples of the application as filed exemplifying olefinic compositions, and thus the sole examples dealing with that feature. In those examples, the said percentage is given with reference to the total weight of the olefinic composition (see table 4 on page 13, entry 3-internal plus ≥4-internal olefins). Moreover, a comprehensive reading of the first full paragraph on page 7 already indicates that this concentration is the concentration relative to the total weight of the composition (see point 2.1.4 above).

2.2.5 Consequently, claim 1 satisfies the requirement of Article 123(2) EPC, as well as dependent claims 2 and 3 which are backed up by original claims 20 and 21 respectively.

3. *Article 123(3) EPC*

The Respondent did not raise any objection with regard to any extension of the protection conferred by the claims of the granted patent pursuant to Article 123(3) EPC, and the Board does not see any reasons to take a different view

3.1 A first amendment in claim 1 with respect to granted claim 1 concerns the minimum content of the di-or tri-substituted internal olefins which is no longer expressed in term of weight percentage relative to the olefin mixture as in granted claim 1 but relative to the composition.

Thus, the basis for the determination of the minimum content of the di-or tri-substituted internal olefins was enlarged, because the basis for the calculation is

no longer the weight of olefin mixture comprised in the composition, but the weight of all components present in the composition, including the olefin mixture. This has the effect that a higher (absolute) amount of the di- or tri-substituted internal olefins must be present in the composition to achieve the same percentage value, with the consequence that the scope of granted claim 1 indicating a minimum content was restricted by this amendment.

3.2 Similar amendments were made in the claim with respect to the minimum content of the tri-substituted internal olefins, to that of the di-substituted internal olefins having a double bond at the fourth or higher numbered carbon atom position and to that of the sum of the linear internal olefins having a double bond at the third numbered carbon atom position plus the linear internal olefins having a double bond at the fourth or higher numbered carbon atom position, i.e. those minimum contents are expressed in claim 1 in terms of the weight percentage relative to the whole composition in lieu of weight percentage relative to the (internal) olefins present in the composition.

Accordingly, the same findings and conclusions apply *mutadis mutandis* to these amendments, i.e. they restrict the scope of the granted claim.

3.3 A further amendment in claim 1 with respect to granted claim 1 concerns the maximum content of the di-substituted internal olefins having a double bond at the second or third numbered carbon atom which is no longer expressed in terms of weight percentage relative to the olefins of the composition as in granted claim 1

but relative to the internal olefins and which was reduced from 50 weight percent to 40 weight percent.

Thus, the basis for the determination of the maximum content of the di-substituted internal olefins having a double bond at the second or third numbered carbon atom has been reduced, since the basis for the calculation is no longer the weight of all olefins present in the composition but only the weight of those olefins having an internal double bond. This has the effect that a lower (absolute) amount of the di-substituted internal olefins having a double bond at the second or third numbered carbon atom present in the composition is now claimed, all the more so as the upper limit has been reduced to 40 weight percent, with the consequence that the scope of granted claim 1 was also restricted by this amendment.

3.4 Another amendment with respect to granted claim 1 concerns the requirement concerning the maximum amount of di-substituted internal olefins having a double bond at the second or third numbered carbon atom which was amended into a requirement concerning the maximum amount of only **linear** internal olefins of formula R^1-CH_2-CH_2-CH=CH-CH_3 or R^1-CH_2-CH=CH-CH_2-CH_3. Claim 1 therefore no longer comprises the requirement that the composition must contain less than 50 weight percent of the olefins of the olefin mixture which are non-linear di-substituted internal olefins having a double bond at the second or third numbered carbon atom.

However this requirement is always met by the composition as defined in claim 1, since the composition must contain at least 50 wt% of linear

olefin and at least 20% weight percent of tri-substituted internal olefin.

Furthermore, the deletion of the term "di-substituted" has no impact on the claimed scope, since this term is redundant in the definition of the linear internal olefins of formula R^1-CH_2-CH_2-CH=CH-CH_3 or R^1-CH_2-CH=CH-CH_2-CH_3, these olefins being by definition di-substituted.

3.5 The last amendment with respect to granted claim 1 has the effect of requiring the presence of particular linear internal olefins having the formula R^1-CH=CH-CH_2-CH_2-CH_3 or the formula R^1-CH_2-CH=CH-CH_2-CH_3, instead of di-substituted (or linear) internal olefins having a double bond at the fourth or higher numbered carbon atom position or of linear internal olefins having a double bond at the third numbered carbon atom position as indicated in granted claim 1. Thus this amendment constitutes a restriction of the claimed scope with respect to the internal olefins covered vis-à-vis granted claim 1.

3.6 Hence, the amended claims fulfil the requirements of Article 123(3) EPC.

4. *Remittal*

The decision under appeal was based solely on the failure of the claims of the then pending requests to fulfil the requirements of Article 123(2) EPC. The Opposition Division has, however, not yet ruled on the other issues based on the other grounds for opposition pursuant to Article 100(a) and (b) EPC. It is not the duty of the Boards of Appeal to consider and decide upon issues not yet considered and decided upon by the first instance. Instead, the main purpose of appeal proceedings is to give the losing party the opportunity to challenge the decision of the first instance (cf. G 9/91, OJ EPO 1993, 408, point 18 of the reasons). The Board considers it appropriate to exercise its power conferred on it by Article 111(1) EPC to remit the case to the Opposition Division for further prosecution on the basis of the claims according to the sole request before the Board.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance for further prosecution upon the basis of claims 1 to 3 of the request filed during the oral proceedings before the Board.

The Registrar | The Chairman

C. Rodríguez Rodríguez | R. Freimuth