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**Datasheet for the decision
of 25 July 2023**

Case Number: T 1191/20 - 3.3.02

Application Number: 15711069.3

Publication Number: 3116865

IPC: C07D323/00, C08K5/14, C10L1/18

Language of the proceedings: EN

Title of invention:
CYCLIC KETONE PEROXIDE COMPOSITION

Patent Proprietor:
Nouryon Chemicals International B.V.

Opponent:
ARKEMA France

Headword:

Relevant legal provisions:
EPC Art. 56
RPBA 2020 Art. 12(4), 12(6)

Keyword:

Inventive step
Amendment to case
Late-filed auxiliary requests
Late-filed evidence

Decisions cited:

G 0007/93, T 1617/20, T 0405/14

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1191/20 - 3.3.02

D E C I S I O N
of Technical Board of Appeal 3.3.02
of 25 July 2023

Appellant: Nouryon Chemicals International B.V.
(Patent Proprietor) Velperweg 76
6824BM Arnhem (NL)

Representative: LKGlobal UK Ltd.
Cambridge House
Henry Street
Bath BA1 1BT (GB)

Respondent: ARKEMA France
(Opponent) 420 Rue d'Estienne d'Orves
92700 Colombes (FR)

Representative: Bandpay & Greuter
11 rue Christophe Colomb
75008 Paris (FR)

Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 17 March 2020
revoking European patent No. 3116865 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman M. O. Müller
Members: S. Bertrand
L. Bühler

Summary of Facts and Submissions

- I. The appeal by the patent proprietor ("appellant") lies from the opposition division's decision to revoke European patent No. 3 116 865.
- II. Claim 1 as granted relates to a composition containing cyclic ketone peroxides. More specifically, the composition comprises at least two trimeric cyclic ketone peroxides: a trimeric methyl ethyl ketone peroxide (3MEK-cp) and at least one trimeric cyclic ketone peroxide of formula (II) as defined in the claim.
- III. The following documents are used in the current decision:
- | | |
|------|---|
| D1 | W0 96/03397 A1 |
| D2 | WO 2004/072059 A1 |
| A013 | Experimental report filed with the statement of grounds of appeal |
- IV. In the impugned decision, the opposition division's conclusions included the following:
- The subject-matter of the claims according to the main request and auxiliary requests 3 and 4 did not involve an inventive step in view of D1 or D2 as the closest prior art (Article 56 EPC).
 - The claims of auxiliary requests 1 and 2 did not meet the requirements of Article 123(3) EPC.
 - Auxiliary request 5 was not admitted into the proceedings.

- V. In its statement of grounds of appeal, the appellant contested the opposition division's reasoning. It submitted sets of claims in auxiliary requests 1 to 12 and, *inter alia*, document A013 (denoted D13 by the appellant).
- VI. In its reply to the appeal, the opponent ("respondent") made submissions regarding the admittance of auxiliary requests 1, 2 and 5 to 12, and document A013. It further submitted, *inter alia*, that the subject-matter claimed in the main request and the auxiliary requests did not involve an inventive step in view of D1 or D2 as the closest prior art.
- VII. The board issued a communication pursuant to Article 15(1) RPBA 2020 in preparation for the oral proceedings, scheduled at the parties' requests.
- VIII. Oral proceedings before the board were held in person on 25 July 2023 in the presence of both parties.
- IX. The appellant's relevant requests were as follows:
- that the decision under appeal be set aside and that the patent be maintained as granted (main request),
 - or, alternatively, that the patent be maintained in amended form on the basis of one of auxiliary requests 1 to 12 filed with the statement of grounds of appeal,
 - that document A013 be admitted into the proceedings, and
 - that the objection of lack of inventive step when starting from examples 12 and 13 of D1 not be admitted into the proceedings.

The respondent's relevant requests were as follows:

- that the appeal be dismissed and the opposition division's decision to revoke the patent be upheld,
- that auxiliary requests 1, 2 and 5 to 12 not be admitted into the proceedings,
- that document A013 not be admitted into the proceedings, and
- that the appellant's assertion that, compared with examples 12 and 13 of D1, the claimed composition showed a reduced crystallisation temperature implying improved safety, not be admitted into the proceedings.

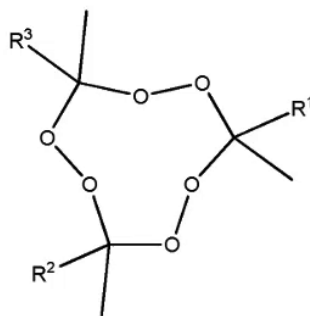
X. For the parties' submissions that are relevant to the present decision, reference is made to the reasons for the decision provided below.

Reasons for the Decision

Main request

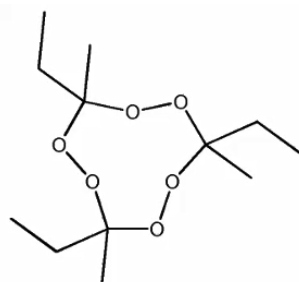
1. Inventive step - claim 1

Claim 1 of the main request relates to a composition comprising at least two trimeric cyclic ketone peroxides: a trimeric cyclic methyl ethyl ketone peroxide (3MEK-cp) and at least one peroxide satisfying formula (II)



wherein R¹ to R³ are independently selected from alkyl and alkoxyalkyl groups, said groups having 2 to 5 carbon atoms, the total number of carbon plus oxygen atoms of R¹+R²+R³ is in the range 7-15, and the molar ratio of 3MEK-cp to the total amount of peroxides satisfying formula (II) being in the range of from 10:90 to 80:20.

3MEK-cp has the following formula:



Compositions of cyclic peroxide ketones pose a safety hazard when stored at 0°C or below due to the formation of explosive crystals (paragraph [0002] of the patent). The aim of the claimed invention is to improve safety and storage stability of compositions containing cyclic peroxide ketones without requiring the addition of a cocrystallising compound or dialkyl peroxide as used in the prior art (paragraph [0005] of the patent).

2. Admittance of the respondent's inventive-step attack when starting from examples 12 and 13 of D1
 - 2.1 In the reply to the grounds of appeal (point 5.3.1), the respondent submitted that the subject-matter of claim 1 of the main request lacked an inventive step when starting from examples 12 and 13 of D1.
 - 2.2 During the oral proceedings, the appellant requested that this attack not be admitted into the proceedings.
 - 2.3 To examine admittance of the objection of lack of inventive step starting from examples 12 and 13 of D1, it is necessary to consider the content of these examples and the file history.

Examples 12 and 13 of D1 disclose two compositions comprising trimeric cyclic ketone peroxides. The trimeric cyclic ketone peroxide in example 12 is prepared from methyl isopropyl ketone (MiPK) and the trimeric cyclic ketone peroxide in example 13 is prepared from methyl isobutyl ketone (MiBK). The trimeric cyclic ketone peroxides obtained from MiPK or MiBK are peroxides of formula (II) according to claim 1 of the main request: R^1 to R^3 are each an isopropyl (example 12 of D1) or isobutyl (example 13 of D1) group, i.e. an alkyl group comprising three or four carbon atoms. The total number of carbon plus oxygen atoms of $R^1+R^2+R^3$ is 9 for the trimeric cyclic ketone peroxides obtained from MiPK (example 12 of D1) or 12 for the trimeric cyclic ketone peroxides obtained from MiBK (example 13 of D1), and, in both cases, is thus within the range 7 to 15 required by claim 1 of the main request.

On page 17 of its notice of opposition (point 4.2), the respondent raised an objection of lack of inventive

step starting from D1. The respondent submitted in this passage that, should novelty be acknowledged in view of D1, then the distinguishing features of claim 1 of the main request would be the selection of the starting ketones for preparing the trimers as specified in claim 1 of the main request (3MEK-cp and at least one peroxide of formula (II) according to claim 1 of the main request) and the molar ratio of 3MEK-cp to the total amount of peroxides of formula (II). The respondent further submitted in the same passage that no effect was achieved by the distinguishing features of claim 1 of the main request over a composition comprising 3MEK-cp ("*vis-à-vis d'une composition obtenue à partir de la MEK seule comme cétone de départ*", exemplified in examples 1 to 11 of D1) or a composition comprising peroxides of formula (II) ("*vis-à-vis d'une composition fabriquée à partir d'une autre cétone de départ que la MEK (par exemple la **MPK**)*" emphasis added by the board). The respondent referred to MiPK and MiBK as ketones used to prepare peroxides of formula (II). These are the ketones used as the starting material in examples 12 and 13 of D1 ("*la MPK, la MiPK, la MBK et la MBK [sic] sont des cétones de départ préférées dans D1*", last paragraph on page 17 of the notice of opposition; see also page 7 of the notice of opposition, in which the respondent submitted that MiPK and MiBK were the ketones used in examples 12 and 13 of D1 for preparing cyclic peroxide trimers). The respondent formulated the objective technical problem as the provision of an alternative composition of peroxides ("*fournir une composition alternative de peroxydes*", fourth paragraph on page 17 of the notice of opposition).

It follows that two attacks starting from D1 as the closest prior art were raised by the respondent in the notice of opposition:

- one starting from cyclic peroxide trimers prepared from MEK (i.e. 3MEPK-cp), and
- one starting from the peroxides in examples 12 and 13 of D1.

The objection of lack of inventive step when starting from examples 12 and 13 of D1 was thus raised from the start of the opposition proceedings.

Furthermore, in its decision the opposition division held (fifth full paragraph of page 14 to fifth paragraph on page 17) that the subject-matter of claim 1 of the main request did not involve an inventive step starting from D1 as the closest prior art. In arriving at this conclusion, the opposition division held that the distinguishing feature of claim 1 in view of D1 was the presence of 3MEK-cp (second paragraph on page 17). This means that, in its decision, the opposition division dealt with the inventive-step objection starting from a composition in D1 comprising a peroxide of formula (II), such as the peroxides in examples 12 and 13 of D1.

It follows that the objection of lack of inventive step based on examples 12 and 13 of D1 was raised at the start of the opposition proceedings and the decision under appeal was based on it. Therefore, the respondent's reliance on it in its reply to the grounds of appeal does not constitute an amendment to its appeal case under Article 12(4) RPBA. The board thus had no discretion not to admit this objection. The

board therefore decided to admit this objection into the proceedings.

3. Admittance of the appellant's assertion that, compared with examples 12 and 13 of D1, the claimed composition showed a reduced crystallisation temperature implying improved safety and admittance of the part of A013 related to this assertion, that is, the data regarding solutions E, and F to H, in as far as these solutions were to show reduced crystallisation temperature achieved by adding 3MEK-cp to 3MPK-cp, which is a peroxide according to formula (II) of claim 1.
 - 3.1 With the statement of grounds of appeal, the appellant submitted A013. A013 comprises, *inter alia*, a comparative example, namely solution E. Solution E is a composition comprising cyclic peroxide trimers prepared from MPK. The cyclic peroxide trimers prepared from MPK of solution E, like examples 12 and 13 of D1, are peroxides of formula (II) according to claim 1 of the main request. Therefore, this composition reflects the teaching of examples 12 and 13 of D1. Table 3 of A013 shows that the crystallisation temperature of solution E is -2°C . D13 furthermore comprises solutions F to H as further examples. These solutions are compositions comprising 3MEK-cp and peroxides of formula (II). Solutions F to H are thus in accordance with claim 1 of the main request. These solutions have a crystallisation temperature of -26°C or -27°C (table 2 of A013). Based on the comparison of solution E (representing D1) and solutions F to H (according to claim 1 of the main request), the appellant submitted that, compared with examples 12 and 13 of D1, the claimed composition exhibited a reduced crystallisation temperature implying improved safety.

3.2 The respondent requested that the appellant's assertion that, compared with examples 12 and 13 of D1, the claimed composition showed a reduced crystallisation temperature implying improved safety and the part of A013 related to this assertion, that is, the data regarding solutions E, and F to H, in as far as these solutions were to show reduced crystallisation temperature achieved by adding 3MEK-cp to 3MPK-cp, which is a peroxide of formula (II) according to claim 1, not be admitted into the proceedings.

3.3 Since the appellant's assertion and the part of A013 related to this assertion were submitted for the first time with the statement of grounds of appeal, their admittance is governed by Article 12(6) RPBA, *inter alia*.

According to Article 12(6) RPBA, second sentence, the board has the discretion not to admit evidence which should have been submitted in opposition proceedings.

The board acknowledges that the appellant's assertion and the part of A013 related to this assertion represents a response to the objection of lack of inventive step when starting from examples 12 and 13 of D1; however, as submitted by the respondent, the objection of lack of inventive step based on examples 12 and 13 of D1 and the lack of technical effect achieved by the distinguishing feature had been raised in the notice of opposition. The appellant had thus had sufficient time during the proceedings before the opposition division to respond to the objection. Therefore, waiting for the opposition division's decision, which, as set out above, is based on this objection, cannot be regarded as a circumstance justifying the submission of the appellant's assertion and the part of A013 related to this assertion with the

statement of grounds of appeal. The appellant could and should have filed the assertion and the part of A013 related to this assertion before the opposition division.

- 3.4 For these reasons, the board decided not to admit the appellant's assertion that, compared with examples 12 and 13 of D1, the claimed composition showed a reduced crystallisation temperature implying improved safety and the part of A013 related to this assertion, that is, the data regarding solutions E, and F to H, in as far as these solutions were to show reduced crystallisation temperature achieved by adding 3MEK-cp to 3MPK-cp, which is a peroxide of formula (II) according to claim 1, into the proceedings.

4. D1 as the closest prior art

As set out above, D1 discloses cyclic ketone peroxide formulations. Examples 12 and 13 of D1, referred to by the respondent, are compositions comprising trimeric cyclic ketone peroxides prepared from MiPK or MiBK. As set out above, these trimeric cyclic ketone peroxides are peroxides of formula (II) according to claim 1 of the main request.

Furthermore, D1 is concerned with providing safe and storage-stable cyclic ketone peroxide formulations (page 3, lines 1 to 5 of D1). This represents the same aim as the claimed invention (point 1., *supra*).

- 4.1 The appellant submitted that D1, contrary to D2, was not concerned with the storage stability of trimeric cyclic ketone peroxides at low temperatures. Since the aim of D1 was not the same as that of the patent, D1 could not be considered a suitable starting point for

the assessment of the inventive step of the claimed subject-matter.

The board disagrees.

The board acknowledges that D2 (page 2, lines 10 to 13) refers to safety and storage stability; however, as set out above, D1 is also concerned with providing safe and storage-stable cyclic ketone peroxide formulations (page 3, lines 1 to 5 of D1). It follows that the appellant's submission that the aim of D1 was not the same as that of the patent is not convincing.

- 4.2 The appellant also argued that, in comparison with D2, the compositions in D1 were less similar in structure to the composition in claim 1 of the main request. The appellant submitted that at least four selections were necessary from the "broad and general description" of D1 in order to arrive at a composition comprising 3MEK-cp and at least one peroxide of formula (II), plus an additional adjustment of the specific molar ratio of the trimers, to arrive at the subject-matter of claim 1 of the main request. In comparison, D2 only required at least two selections from the "general description" of D2.

The board does not agree that D2 is closer to the claimed subject-matter in structure than D1; however, this is in fact irrelevant. As set out above, D1 is in the same technical field and has the same aim as the opposed patent. It is this criterion which matters in relation to whether a document can be considered as the closest prior art, not proximity in terms of technical features. Furthermore, even if D2 were closer than D1, even in terms of the technical field and the aim of the invention, this would not disqualify D1 as a suitable starting point. As set out in T 405/14, point 19 of the

Reasons, a document selected as a starting point cannot be excluded only because some seemingly more promising item of prior art is available. Indeed, inventive step can, in principle, be assessed starting from any prior-art disclosure. If the starting point is too far from the claimed subject-matter in terms of purpose and technical features, the problem-and-solution approach will simply not result in a finding that the claimed subject-matter is obvious.

Based on the above, D1 can be considered as a suitable starting point for the assessment of inventive step.

The appellant disputed that examples 12 and 13 of D1 were a suitable starting point for the assessment of inventive step within document D1. It submitted that 3MEK-cp disclosed in example 11 of D1 was the compound with the highest total active oxygen content in comparison with the compounds in examples 12 and 13 of D1. For this reason, example 11 was the most promising starting point in D1.

The board acknowledges that the compound in example 11 3-MEK-cp has the highest total active oxygen content in comparison with examples 12 and 13; however, this cannot be seen as a reason to disregard examples 12 and 13. The mere fact that examples 12 and 13 of D1 have a lower total active oxygen content and thus may be less promising does not mean that the skilled person would not realistically start from them. In the same way as discussed above for D1 and D2, a passage selected as a starting point cannot be excluded only because some seemingly more promising passage is available. It follows that examples 12 and 13 of D1 can be considered suitable starting points for the assessment of

inventive step of the subject-matter of claim 1 of the main request.

4.3 Distinguishing feature

The distinguishing features of the subject-matter of claim 1 of the main request over examples 12 and 13 of D1 are the presence of 3MEK-cp and the molar ratio of 3MEK-cp to the total amount of peroxides of formula (II). This was not disputed by the parties.

4.4 Technical effect and objective technical problem

Based on the examples of the patent, the appellant formulated the objective technical problem as the provision of a composition comprising trimeric cyclic ketone peroxides having a low crystallisation temperature.

The board disagrees for the following reasons:

Example 1 of the patent is a composition prepared from MEK and MPK (starting ketones) at a molar ratio of MEK to MPK of 70:30. The reaction product of example 1 of the patent comprises, *inter alia*, 3MEK-cp (one of the trimeric cyclic ketone peroxides specified in claim 1 of the main request), 2MEK1MKP-cp, 1MEK2MPK-cp and 3MPK-cp. The three latter compounds are peroxides of formula (II) according to claim 1 of the main request. The molar ratio of 3MEK-cp to the total amount of peroxides of formula (II) is 45.5:54.5 (54.5 = 40.2+12.8+1.5, table 1 of the patent). This ratio is within the ratio specified in claim 1 of the main request (10:90 to 80:20). It follows that example 1 of the patent is a composition according to claim 1 of the main request.

Example 2 of the patent is a repetition of example 1 using MEK and MPK as the starting ketones in different molar ratios (100:0, 50:50, 70:30, 75:25 and 80:20).

Example 3 of the patent is a repetition of examples 1 and 2 using MiBK instead of MPK.

Example 4 of the patent is a repetition of example 1 using MEK, MPK and MiKP as the starting ketones in a molar ratio of 70:15:15. The molar ratio of 3MEK-cp to the total amount of peroxides of formula (II) is 46.9:53.1 (53.1 = 16.7+24.3+1.7+5.4+4.2+0.3+0.3+0.2, table 4 of the patent). This ratio is within the ratio specified in claim 1 of the main request (10:90 to 80:20). It follows that example 4 of the patent is a composition according to claim 1 of the main request.

Example 5 of the patent is a repetition of example 4 using MEK, MPK and MiBP (instead of MipK in example 4) as the starting ketones in a molar ratio of 70:27:3.

Example 6 of the patent is a test of the degradation of polypropylene using the composition in example 1 of the patent.

In view of the above, and as submitted by the respondent, the examples of the patent do not provide any comparison with the composition in example 12 (trimeric cyclic ketone peroxide prepared from MiPK) or 13 (trimeric cyclic ketone peroxide prepared from MiBK) of D1.

Consequently, no technical effect is demonstrated in the patent by adding 3MEK-cp in a specific amount to obtain the claimed molar ratio, i.e. by the distinguishing features of claim 1 of the main request over examples 12 and 13 of D1.

It follows that the objective technical problem is, as formulated by the respondent, the provision of an alternative composition comprising trimeric cyclic ketone peroxides.

4.5 Obviousness

As submitted by the respondent, D1 (page 5, lines 11 to 14 and 16 to 21) teaches mixtures of trimeric cyclic ketone peroxides. In example 11 of this document, the cyclic ketone peroxide 3MEK-cp is disclosed.

Arbitrarily choosing this trimeric cyclic ketone peroxide and adding it to the peroxides in example 12 or 13 of D1 for providing an alternative composition is part of the routine abilities of the skilled person.

As submitted by the respondent, the molar ratio of 3MEK-cp to the total amount of peroxides of formula (II) is totally arbitrary in claim 1 of the main request. Selecting an arbitrary ratio corresponding to arbitrarily adding certain amounts of two components is part of the routine abilities of the skilled person, too.

Therefore, it would have been obvious to the skilled person, faced with the objective technical problem, to select 3MEK-cp disclosed in D1 (e.g. example 11) and to add it to the trimeric cyclic ketone peroxide prepared from MiPK in example 12 of D1 or the trimeric cyclic ketone peroxide prepared from MiBK in example 13 in an amount such that the molar ratio of 3MEK-cp to the total amount of peroxides of formula (II) was within the range from 10:90 to 80:20 of claim 1 of the main request.

The subject-matter of claim 1 of the main request therefore does not involve an inventive step in view of D1 as the closest prior art.

5. The main request is thus not allowable.

Auxiliary requests 1 to 3 and 5

6. Claim 1 of auxiliary requests 1 and 2 is a combination of claims 1 and 10 of the main request, i.e. claim 1 of auxiliary request 1 differs from claim 1 of the main request in that it additionally comprises a product-by-process feature.

7. Claim 1 of auxiliary request 3 is a combination of claims 1 and 2 of the main request, i.e. "*wherein R^1 through R^3 are alkyl groups having 2 to 5 carbon atoms, the total number of carbon atoms of $R^1+R^2+R^3$ is in the range 7-15*") has been added to claim 1.

8. Claim 1 of auxiliary request 5 is a combination of claim 1 of auxiliary requests 1 and 3.

9. The distinguishing features of claim 1 of auxiliary requests 1 to 3 and 5 remain the same as those identified for claim 1 of the main request. Hence, as not disputed by the appellant during the oral proceedings, the conclusion drawn for claim 1 of the main request also applies to claim 1 of auxiliary requests 1 to 3 and 5.

10. Therefore, claim 1 of auxiliary requests 1 to 3 and 5 does not meet the requirements of Article 56 EPC.

11. Auxiliary requests 1 to 3 and 5 are not allowable.

Auxiliary request 4

12. Claim 1 of auxiliary request 4 is a combination of claims 1 and 4 of the main request, i.e. claim 1 has been amended as follows: "*the molar ratio of 3MEK-cp to the total amount of peroxides satisfying formula (II) is in the range of from ~~10:90~~**40:60** to 80:20*".
13. Inventive step - claim 1
 - 13.1 The respondent objected that the subject-matter of claim 1 of auxiliary request 1 lacked an inventive step in view of examples 12 and 13 of D1.
 - 13.2 As set out above, the ratio of 3MEK-cp to the total amount of peroxides satisfying formula (II) in claim 1 has been restricted to 40:60 to 80:20. This implies a higher lower limit for the claimed ratio, implying a higher relative amount of 3MEK-cp, as compared with claim 1 of the main request. The appellant submitted that, starting from examples 12 and 13 of D1, i.e. from a peroxide of formula (II) according to claim 1 of auxiliary request 4 and even considering the objective technical problem as the provision of an alternative composition comprising trimeric cyclic ketone peroxides, the skilled person would not have added a significant amount of 3MEK-cp. They therefore would not have arrived at an amount within the range defined by the higher lower limit of 40:60 for the molar ratio of 3MEK-cp to the total amount of peroxides of formula (II) according to claim 1 of auxiliary request 4. The alternative proposed by claim 1 of auxiliary request 4 was hence not obvious in the appellant's view.

13.3 The board disagrees. As submitted by the respondent, the amended molar ratio of 3MEK-cp to the total amount of peroxides of formula (II) in claim 1 of auxiliary request 4, like the molar ratio in claim 1 of the main request, is not linked to a technical effect and is thus arbitrary. The board can see no reason why the skilled person would not add a higher relative amount of 3MEK-cp, and none was given by the appellant. It follows that the reasons given for claim 1 of the main request apply, *mutatis mutandis*, to the subject-matter of claim 1 of auxiliary request 4.

13.4 The subject-matter of claim 1 of auxiliary request 4 thus does not involve an inventive step in view of examples 12 and 13 of D1 as the closest prior art.

14. Auxiliary request 4 is therefore not allowable.

Auxiliary request 6

15. Claim 1 of auxiliary request 6 is a combination of claim 1 of auxiliary requests 1 and 4.

16. It follows that the distinguishing features of claim 1 of auxiliary request 6 remain the same as those identified for claim 1 of auxiliary request 4. Hence, as not contested by the appellant, the conclusion drawn for claim 1 of auxiliary request 4 also applies to claim 1 of auxiliary request 6.

17. Therefore, claim 1 of auxiliary request 6 does not meet the requirements of Article 56 EPC.

18. Auxiliary request 6 is not allowable.

Auxiliary request 9

19. Auxiliary request 9 was filed with the statement of grounds of appeal. Auxiliary request 9 corresponds to auxiliary request 5 filed before the opposition division.
20. In its reply to the appeal, the respondent requested that auxiliary request 9 not be admitted into the proceedings.
21. Admittance of auxiliary request 9
 - 21.1 As set out above, auxiliary request 9 corresponds to auxiliary request 5 considered by the opposition division in its decision. Auxiliary request 5 was filed during the oral proceedings before the opposition division (see "Auxiliary request 5" on page 22 of the decision). The opposition division did not admit auxiliary request 5 into the proceedings (see the penultimate paragraph on page 23 of the decision).
 - 21.2 According to the established case law of the boards of appeal developed in view of decision G 7/93, a board should only overrule the way in which an opposition division has exercised its discretion when deciding not to admit a claim request if it comes to the conclusion that the first-instance department did so based on the wrong principles or in an unreasonable way. This case law has been codified in Article 12(6) RPBA, first sentence, according to which the board "*shall not admit requests, facts, objections or evidence which were not admitted in the proceedings leading to the decision under appeal, unless the decision not to admit them suffered from an error in the use of discretion or unless the circumstances of the appeal case justify*

their admittance" (see e.g. T 1617/20, point 2.6.1 of the Reasons).

- 21.3 Therefore, in the present case, it must be determined whether the opposition division applied the wrong principles or applied the right principles but in an unreasonable way when deciding not to admit auxiliary request 5.
- 21.4 On pages 22 to 24 of its decision, regarding the admittance of auxiliary request 5, the opposition division referred to EPC Guidelines E-III, 8.6 relating to facts, evidence or amendments filed during oral proceedings, and to Rule 116(1) EPC for the exercise of discretion by the opposition division to admit such facts, evidence or amendments filed during oral proceedings. The opposition division thus considered the late point in time at which auxiliary request 5 was filed and referred to the legal basis for exercising its discretion to admit or not admit the auxiliary request.

The opposition division further held that the claims of auxiliary request 5 related to a process for the preparation of a composition as defined in claim 1 as filed, while the claims of the higher-ranking requests included a process not limited to the compositions as defined in claim 1 as filed. The opposition division concluded that the claims of auxiliary request 5 did not directly address the objections raised during the proceedings and that the claims of auxiliary request 5 were not *prima facie* allowable.

Furthermore, the opposition division held that claim 1 of auxiliary request 5 was not the result of a combination of an independent claim and a dependent

claim of the patent and that the subject of the discussion relating to inventive step would have changed in substance if auxiliary request 5 had been admitted, such that the opponent could not reasonably be expected to familiarise itself with the proposed amendments in the time available. This means that the opposition division analysed whether the submission of auxiliary request 5 was contrary to fairness (in terms of a proper opportunity to reply).

When a claim request is filed late, its *prima facie* allowability and fairness are the right principles to be applied by a first-instance department when deciding on admittance. Furthermore, the board sees no reason why these principles have been applied by the opposition division in an unreasonable way.

21.5 The appellant's arguments made in this respect are not convincing:

The appellant argued that, prior to the oral proceedings before the opposition division, it did not know the reasons why the claims of the main request did not involve an inventive step. The reasons given by the opposition division justified the filing of auxiliary request 5.

The board does not agree. As set out above, the objections of lack of inventive step based on examples 12 and 13 of D1 and the submissions related to the lack of technical effect achieved by the distinguishing features were raised in the notice of opposition. The board sees no reason why the appellant waited until the oral proceedings to respond to the objections by submitting auxiliary request 5.

The appellant further argued that the subject-matter of claim 1 of auxiliary request 5 was apparent from the application as filed, in which the described composition as well as the described method were clearly linked to one another. Hence, the subject-matter of claim 1 of auxiliary request 5 was indeed originally foreseen and did not shift the discussion relating to inventive step, contrary to the opposition division's conclusion.

The board does not agree. The fact that the claimed subject-matter was "foreseen" in the application as filed is not a reason that the opposition division should have admitted this auxiliary request. On the contrary, what matters is that the discussion of inventive step has been shifted before the opposition division by the submission of auxiliary request 5 relative to the higher-ranking claim requests. More specifically, claim 1 of the higher-ranking requests was directed to a composition comprising at least two trimeric cyclic ketone peroxides, while claim 1 of auxiliary request 5 related to a process for preparing the composition. It follows that the claims of auxiliary request 5 changed the patent proprietor's line of defence during the oral proceedings before the opposition division, relative to the higher-ranking requests. The opponent could not be expected to respond to this new line of defence on the spot, presented for the first time during the oral proceedings. Admitting auxiliary request 5 would thus have been contrary to fairness.

Finally, the appellant submitted that the method in claim 1 of auxiliary request 5 yielded compositions comprising the trimers as well as residual ketones and dimer impurities. Hence, the amendment addressed the

"impurity issue" underlying the opposition division's decision.

The board disagrees.

The impurity issue was relevant only in the context of an inventive-step objection that was different from the objection that led to the above conclusion on the main request. More specifically, the inventive-step objection to which the impurity issue was relevant started from 3MEK-cp, as disclosed in D1 or D2. For this objection, the appellant relied on a comparison between certain examples and comparative examples of the patent to demonstrate a certain improvement. The opposition division held that this improvement might be due to impurities present in the examples of the patent rather than the distinguishing feature over 3MEK-cp of D1 or D2 and, for this reason, did not take this effect into account for inventive step.

However, as set out above, in its decision the opposition division also started from a peroxide of formula (II), i.e. examples 12 and 13 of D1, and denied inventive step. As equally set out above, the patent does not contain any comparative examples reflecting these examples of D1. This, rather than the impurity issue, is why there is no effect proven to be present over examples 12 and 13 of D1. As furthermore set out above, this had already been put forward in the notice of opposition. Therefore, irrespective of the impurity issue, a response to this objection should have been given before the opposition division.

21.6 Therefore, the board decided not to admit auxiliary request 9 into the proceedings, thus confirming the

opposition division's decision not to admit the corresponding auxiliary request 5.

Auxiliary requests 7, 8 and 10 to 12

22. Auxiliary requests 7, 8 and 10 to 12 were filed with the statement of grounds of appeal.
23. Claim 1 of auxiliary request 7, 8 and 10 to 12 is directed to a process for preparing a cyclic ketone peroxide composition.
24. In its reply to the grounds of appeal, the respondent objected to the admittance of auxiliary requests 7, 8 and 10 to 12.
25. Admittance of auxiliary requests 7, 8 and 10 to 12
 - 25.1 The admittance of these auxiliary requests is governed by Article 12(4) and (6) RPBA.
 - 25.2 Auxiliary requests 7, 8 and 10 to 12 were first presented on appeal and differ from the claim requests underlying the impugned decision (i.e. the main request and auxiliary requests 1 to 4). Auxiliary requests 7, 8 and 10 to 12 comprise only process and use claims, and the product claims found in the higher-ranking requests were deleted. With respect to the claim requests underlying the impugned decision, comprising product claims, *inter alia*, auxiliary requests 7, 8 and 10 to 12, comprising process and use claims, thus shift the discussion in relation to inventive step. Hence, they constitute an amendment to the appellant's case under Article 12(4) RPBA. Their admittance is thus subject to the board's discretion.

25.3 Under Article 12(4) RPBA, the board will exercise its discretion in view of, *inter alia*, the suitability of the amendment to address the issues which led to the decision under appeal.

In that regard, the appellant submitted that auxiliary requests 7, 8 and 10 to 12 were submitted to address the issue that the effect of lower crystallisation temperature demonstrated in the examples of the patent could be due to the impurities present in the compositions, as held by the opposition division in its decision.

The board does not agree. For the same reasons as given above for auxiliary request 9, the appellant's submission regarding the impurity issue is irrelevant.

Hence, the board cannot recognise the suitability of the amendment made in auxiliary requests 7, 8 and 10 to 12 to address the objection of inventive step in view of examples 12 and 13 of D1 pursuant to Article 12(4) RPBA.

25.4 Furthermore, under Article 12(6), second sentence, RPBA, the board will not admit, *inter alia*, requests which should have been submitted in the proceedings leading to the decision under appeal, unless the circumstances of the appeal case justify their admittance.

As set out above, the objection of lack of inventive step starting from examples 12 and 13 of D1 and the submission related to the lack of a technical effect achieved by the distinguishing features were raised in the notice of opposition and the appellant could and should have responded during the proceedings before the

opposition division by filing the current auxiliary requests 7, 8, 10 to 12.

25.5 For these reasons, the board has decided not to admit auxiliary requests 7, 8 and 10 to 12 into the proceedings, in accordance with Article 12(4) and (6) RPBA.

26. None of the appellant's requests is both allowable and admissible.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



M. Schalow

M. O. Müller

Decision electronically authenticated