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**Datasheet for the decision
of 22 July 2025**

Case Number: T 1325/23 - 3.3.09

Application Number: 19177627.7

Publication Number: 3553119

IPC: C08J9/14

Language of the proceedings: EN

Title of invention:

COMPOSITIONS COMPRISING TRANS-HFC-1234ZE AND ISOBUTANE

Patent Proprietor:

The Chemours Company FC, LLC

Opponent:

Honeywell International Inc.

Headword:

Compositions comprising trans-HFC-1234ze and isobutane/THE
CHEMOURS

Relevant legal provisions:

EPC Art. 76(1), 123(2)

RPBA 2020 Art. 13(2)

Keyword:

Amendment after notification of Art. 15(1) RPBA communication
- deletion of claims
Amendments - allowable (yes)
Remittal to the department of first instance - (yes)

Decisions cited:

T 2091/18, T 0424/21

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

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Case Number: T 1325/23 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 22 July 2025

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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 26 May 2023
revoking European patent No. 3553119 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman A. Haderlein
Members: R. Romandini
M. Ansorge

Summary of Facts and Submissions

- I. The appeal, filed by the patent proprietor (the appellant), is against the decision of the opposition division to revoke the European patent. The patent is based on a divisional application.
- II. The opposition filed by the opponent (the respondent) was based on the grounds for opposition under Article 100(c), Article 100(b) and Article 100(a) EPC for lack of inventive step.

The decision under appeal

- III. The decision to revoke the patent was based on the ground of Article 100(c) EPC as the subject-matter of the patent was found to extend beyond the content of the parent application as filed. In its reasoning, the opposition division also referred to Article 123(2) EPC (see point 15.3 of the decision).

Claim 1 of the main request underlying the decision under appeal reads as follows:

"A blowing agent comprising a composition comprising: 39 to 99 weight percent trans-HFC-1234ze and 61 to 1 weight percent isobutane."

- IV. The opposition division found that the claimed combination of features was not unambiguously disclosed in the parent application as filed. This conclusion was based on two reasons.

- V. First, the opposition division considered that the word "comprising" in claim 1 went beyond what was originally disclosed in the parent application as filed. It stated that the only explicit disclosure of the claimed ranges - 39 to 99 wt% trans-HFC-1234ze and 61 to 1 wt% isobutane - was in Table 5 of the parent application as filed (point 16.1 of the decision).
- VI. Second, the opposition division also took the view that the combination of the features set out in claim 1 was based on a selection from two lists. One selection was said to concern the two compounds with the amounts taken from the long list in Table 5, which in turn formed one of the lists of compounds of the invention. The other selection was considered to be the reference to a blowing agent in claim 1, which, in the view of the opposition division, constituted a selection from a list of application areas disclosed in the parent application. This list included heat transfer fluids, aerosol propellants, flame suppressants, etc. The opposition division stated that the focus of the application was clearly on the use as a heat transfer fluid. There was no indication that the claimed composition was particularly suitable as a blowing agent. There was no pointer to the claimed combination. The compositions of trans-HFC-1234ze and isobutane were disclosed among hundreds of further compositions (see Tables 2 to 6) and were at most equivalent (see point 16.3 of the decision). Thus, for this reason also, the main request was found not to be allowable under Article 100(c) EPC.
- VII. Auxiliary requests 1 to 13 were also directed to the use of the claimed composition as a blowing agent. Consequently, the opposition division found that they shared at least some of the added-matter problems of

the main request. As a result, none of the auxiliary requests was found to comply with Article 76(1) EPC.

The appeal proceedings and the parties' requests

VIII. In filing its appeal, the appellant requested, as the main request, that the decision under appeal be set aside and that the patent be maintained on the basis of the claims of the main request or, alternatively, on the basis of one of auxiliary requests 1 to 13 and a description to be adapted.

IX. At the oral proceedings, the Chairman announced the Board's conclusion that the subject-matter of claim 1 of the main request and claim 1 of auxiliary requests 1 to 10 was not allowable due to non-compliance with Article 76(1) EPC/Article 123(2) EPC. Claims 1 and 2 of auxiliary request 11 were considered to comply with Article 76(1) EPC and Article 123(2) EPC. With respect to claims 3 to 5 of auxiliary request 11, the Board gave a preliminary opinion that these claims contravened Article 76(1) EPC/Article 123(2) EPC or Article 84 EPC. In response, the appellant filed a new auxiliary request 11 (consisting of two claims only), which was made the highest-ranking request. It then stated that it withdrew the main request and auxiliary requests 1 to 10. Claims 1 and 2 of the new auxiliary request 11 read as follows:

"1. Use of a composition consisting of:

39 to 99 weight percent trans-HFC-1234ze and 61 to 1 weight percent isobutane as a foam blowing agent.

2. The use of claim 1, wherein the composition consists of:

*77.9 weight percent trans-HFC-1234ze and 22.1 weight percent isobutane;
90 weight percent trans-HFC-1234ze and 10 weight percent isobutane;
99 weight percent trans-HFC-1234ze and 1 weight percent isobutane;
60 weight percent trans-HFC-1234ze and 40 weight percent isobutane; or
39 weight percent trans-HFC-1234ze and 61 weight percent isobutane."*

- X. The final requests of the appellant were that the opposition division's decision be set aside and that the patent be maintained on the basis of the claims of new auxiliary request 11 filed during the oral proceedings before the Board or one of auxiliary requests 12 or 13 filed before the opposition division. If the claims according to one of these requests were considered to meet the requirements of Article 76(1) EPC/Article 123(2) EPC, the appellant requested that the case be remitted to the department of first instance for further consideration of the objections raised by the opponent under Article 100(a) and (b) EPC.
- XI. The final requests of the respondent were that the appeal be dismissed and that the patent be revoked. It also requested remittal of the case to the opposition division if the Board found the claims of the main request, or any one of auxiliary requests 1 to 13, to comply with the requirements of Article 100(c) EPC (Article 76(1) EPC or Article 123(2) EPC) for consideration of the opponent's objections raised under Article 100(a) and (b) EPC in opposition proceedings and maintained in these appeal proceedings.

The arguments of the parties

XII. The appellant challenged both reasons on which the opposition division based its decision on the main request, namely that the use of the term "comprising" adds subject-matter (see point V above) and that the subject-matter of claim 1 results from a selection from two lists (see point VI above).

XIII. The second reason for refusal – that the claimed subject-matter results from a twofold selection (i.e. the combination of components and the use as a blowing agent) – is relevant also to new auxiliary request 11 on which the current decision is based. The appellant argued that there was no selection concerning the blowing agent use. It referred to two passages of the earlier applications.

First, it cited page 1, lines 15 to 17, which state that:

"The compositions of the present invention are useful in processes for producing cooling or heat, as heat transfer fluids, foam blowing agents, aerosol propellants, and fire suppression and fire extinguishing agents."

Second, the appellant cited the passage from page 57, line 29 to page 58, line 11, which reads:

"In yet another embodiment, the invention relates to blowing agent compositions comprising the fluoroolefin-containing compositions as described herein. Preferably, the blowing agent compositions comprise from about 20 to about 99 weight percent of the fluoroolefin-containing composition. More preferably,

the blowing agent compositions comprise from about 40 to about 99 weight percent of the fluoroolefin-containing composition. Even more preferably, the blowing agent compositions comprise from about 50 to about 99 weight percent of the fluoroolefin-containing composition. Still more preferably, the blowing agent compositions comprise from about 60 to about 99 weight percent of the fluoroolefin-containing composition."

According to the appellant, this constituted explicit disclosure of the use of the compositions as blowing agents. No selection from a list of potential uses was involved. The only choice that might have been necessary was, if any, the selection of a specific fluoroolefin-containing composition from those disclosed between pages 12 and 30 of the earlier applications, including, for example, the composition listed in Table 5, comprising 39 to 99 wt% trans-HFC-1234ze and 61 to 1 wt% isobutane.

Since the compositions of the invention were clearly and unambiguously disclosed as suitable – and in some cases preferred – for all described purposes, including their use as blowing agents, and since these compositions were not presented as being inextricably linked to any one use, a composition for use as a blowing agent comprising 39 to 99 wt% trans-HFC-1234ze and 61 to 1 wt% isobutane was, in the appellant's view, clearly and unambiguously disclosed and derivable from the earlier applications.

The appellant further argued that the patent in dispute was directed to an independent embodiment disclosed in lines 29 to 31 of page 57 of the earlier applications, according to which the "invention relates to blowing agent compositions comprising the fluoroolefin-

containing compositions as described herein" (see submission of 17 July 2024, point 2.1.3, page 4). In appellant's view, the subject-matter of claim 1 according to the main request simply further defined this explicitly disclosed embodiment only in that the list of possible fluoroolefin-containing compositions, which included the fluoroolefin-containing compositions described in the earlier applications as filed, had been narrowed, namely to compositions of 39 to 99 wt% trans-HFC-1234ze and 61 to 1 wt% isobutane. These compositions were disclosed in Table 5 of the earlier applications without being bound to a specific application. The skilled reader would be immediately aware that these compositions might be suitable for any of the disclosed applications or uses (*ibidem*).

The original list of compositions (in the current case, the described fluoroolefin-containing compositions) allegedly disclosed, in the embodiment on page 57, lines 29 to 31, of the earlier applications, a list that fully encompassed the compositions remaining in the narrower list recited in claim 1 according to the main request. Hence, the amendment made to the originally disclosed embodiment on page 57, lines 29 to 31, of the earlier applications led to subject-matter based on a restricted version of the original subject-matter (*idem*, page 5).

XIV. The respondent's submissions concerned the original main request and original auxiliary request 11. These submissions were, however, also relied upon for new auxiliary request 11, to the extent they remain applicable (see below, point XVII). They can be summarised as follows.

- Claim 1 adds matter because the claimed subject-matter results from a twofold selection: first, of a composition disclosed in Table 5 of the application as filed, and second, of its use as a blowing agent, selected from the list of alternative applications disclosed on page 1, lines 15 to 17, and page 57, line 29 to page 58, line 11 of the application. No pointer to this combination is provided in the application.

- The compositions disclosed in Table 5 are presented only as near-azeotropic at $-25\text{ }^{\circ}\text{C}$. By omitting this limitation, claim 1 encompasses compositions not disclosed in the original application (e.g. zeotropic compositions or compositions near-azeotropic at other temperatures than $-25\text{ }^{\circ}\text{C}$). This omission adds technical information not directly and unambiguously derivable from the application as filed.

- Claim 5 of the original main request and of original auxiliary request 11 explicitly limited the subject-matter to compositions that are near-azeotropic or azeotropic at $-25\text{ }^{\circ}\text{C}$. Its presence shows that claim 1 – which lacks this limitation – necessarily covers a broader set of compositions, including zeotropic compositions or compositions near-azeotropic at other temperatures than $-25\text{ }^{\circ}\text{C}$. This repercussive effect was cited as an additional ground for added matter in claim 1.

- Claim 2 (original main request): the five compositions listed (77.9/22.1, 90/10, 99/1, 60/40 and 39/61 wt%) are disclosed only in Table 9 as azeotropic or near-azeotropic at $-25\text{ }^{\circ}\text{C}$. Omitting this limitation constitutes an unallowable generalisation. Claim 2 also involves a further selection from Table 9 in

combination with the use as a blowing agent, without there being a pointer in the application as filed.

These objections were raised against both the main request and the original auxiliary request 11 since the relevant features of claims 1 and 2 were present in both requests. The repercussive-effect argument arose for claim 5 of the original main request and original auxiliary request 11.

New auxiliary request 11 filed at the oral proceedings

- XV. Against the admittance of new auxiliary request 11 (see above, point IX), the respondent argued that no exceptional circumstances were present and that the request could have been filed earlier. In the opposition proceedings (letter of 7 March 2023), the opponent had raised an objection of lack of clarity against claims 3 and 4, which were deleted in the newly filed auxiliary request. This objection was reiterated on appeal with reference to both auxiliary request 4 and auxiliary request 11. In paragraphs 9.109 to 9.112 of its reply to the appellant's statement of grounds, the opponent stated:

"9.109 The claims of Auxiliary Request 11 lack clarity for the same reasons as set out in this letter for Auxiliary Request 4.

9.110. In particular, if the Proprietor intends that the claims of Auxiliary Request 11 encompass the use of further blowing agents then the claims lack clarity because two different claim constructions are possible, a first claim construction in which the claims are limited such that no additional blowing agents may be present and a second claim construction in which the

claims encompass the use of further blowing agents.

9.111. However, if the addition of further blowing agents is ruled out by the language in claim 1, then the amendment to claim 1 introduces a lack of clarity in claims 3 and 4 that was not present in the claims as granted. The lack of clarity being the fact that claim 1 relates to the use of a composition consisting of trans-HFC-1234ze and isobutane, whereas claims 3 and 4 of Auxiliary Request 11 relate to the use of a composition consisting of three components: trans-HFC-1234ze; isobutane; and HFC-1243zf, DME, CF3I, or CF3SCF3.

9.112. Corresponding arguments were previously presented in paragraphs 15.6-15.7 of our letter of 7 March 2023 (raised against the then Auxiliary Request 9, which is Auxiliary Request 11 presently on file). We maintain those objections in these proceedings."

In view of this background, the respondent contends that the appellant could not have been surprised that this issue was raised. The appellant could have filed an amended request earlier to address this objection but chose not to do so. Consequently, there were no exceptional circumstances justifying the late filing.

XVI. The appellant did not dispute that the clarity objections were not new and had been raised earlier in the proceedings. It argued that they had not been discussed previously in opposition or appeal proceedings and that the objections were only taken up by the Board at the oral proceedings. For this reason, the new request had not been filed earlier. Furthermore, the amendments were straightforward and

easy to understand, consisting merely of the deletion of three dependent claims.

- XVII. On the allowability of the new auxiliary request 11, the respondent relied on the submissions for the original main request and original auxiliary request 11. The objections which the Board considers relevant to new auxiliary request 11 are discussed in the Reasons for the Decision (see point 3 below).

Reasons for the Decision

1. Introduction

Following the withdrawal of the main request and auxiliary requests 1 to 10 and the designation of new auxiliary request 11 as the highest-ranking request, the Board had to decide solely on the admittance and allowability of this request.

As the appellant is defending the patent in an amended form, the relevant provisions for the assessment of added subject-matter are Article 76(1) EPC and Article 123(2) EPC (see also Article 101(3)(b) EPC). Since both parties agree that the descriptions of the parent, divisional, grandparent, and great-grandparent applications as filed are identical, it is not necessary to distinguish between these two provisions. Any non-compliance with Article 76(1) EPC necessarily implies non-compliance with Article 123(2) EPC and *vice versa*. Accordingly, in the following, the Board refers to both provisions together.

2. Admittance

2.1 The admittance of auxiliary request 11 raises two issues. The first is whether the filing of this request represents an amendment of the appeal case. The second is whether, in light of Article 13(1) and (2) RPBA 2020, this amendment can and must be admitted.

2.2 The Board notes that the appellant has not argued that new auxiliary request 11 does not amount to an amendment of its case. The current Board also agrees with the approach taken in T 2091/18, according to which no clear basis can be found in the RPBA for treating the deletion of claims differently from other changes. What constitutes a party's appeal case is implicitly defined in Article 12(2) and (3) RPBA 2020 and includes the party's requests. By definition, therefore, the filing of a new request – even if the only change is the deletion of dependent claims – constitutes an amendment to the appeal case. Whether the new request changes the factual or legal framework of the appeal proceedings or whether it simplifies the proceedings is not relevant for determining whether an amendment exists. These aspects may, however, be relevant when the Board exercises its discretion on admittance under Article 13(1) and (2) RPBA.

2.3 Since the request was filed at the oral proceedings, its admittance is subject to Article 13(2) RPBA 2020. Under Article 13(2) RPBA, exceptional circumstances must be shown. However, this alone is not sufficient. Under Article 13(1) RPBA, the Board must also exercise its discretion taking into account, *inter alia*, the state of the proceedings and whether the party could have filed the request earlier. This provision continues to apply to the exercise of discretion

cumulatively with Article 13(2) RPBA. It also refers to the criteria set out in Article 12(4) to (6) RPBA.

- 2.4 In this respect, the respondent's position that the objections against claims 3 and 4 had already been raised both during the opposition proceedings and in the reply to the appeal is correct. The opponent's contention that the patent proprietor should have responded earlier to the clarity objection is also justified.

The fact invoked by the patent proprietor that the clarity objections to the claims concerned were not discussed earlier, and that the Board addressed them for the first time during the oral proceedings, is not relevant. It is not an exceptional circumstance that the Board may address and agree with an objection – in this case, one raised during the opposition proceedings and reiterated in the opponent's reply to the appeal – only once it becomes relevant in the appeal proceedings.

Furthermore, it is questionable whether the fact that the Board raised an *ex officio* objection against claim 5 (see above, point IX) can in itself justify a late response to objections already raised by the respondent against claims 3 and 4 of original auxiliary request 11.

- 2.5 Nevertheless, the Board decided to admit auxiliary request 11 into the appeal proceedings for the following reasons.

The deletion of dependent claims – at least in the current case – simplified the procedural situation. This is different from reformulating claim sets

involving combinations of claims or features taken from the description, which increases complexity. It is also different from deleting an independent claim. The current Board considered it exceptional that, merely by deleting dependent claims, a request could become allowable as far as the objections discussed on appeal were concerned (see the considerations in T 424/21, Reasons 21 to 26).

2.6 For the above reasons, the Board exercised its discretion to admit auxiliary request 11 into the proceedings (Article 13(2) RPBA).

3. Allowability

3.1 The Board considered the following objections made against the main request also applicable to auxiliary request 11:

- the selection-from-two-lists objection, namely the selection of the composition disclosed in Table 5 of the application as filed and of its use as a foam blowing agent (instead of "blowing agent" as in the main request) (**first objection**)

- the objection that claim 1 does not state that the composition of trans-HFC-1234ze and isobutane is near-azeotropic at -25 °C, thus encompassing compositions not originally disclosed (such as zeotropic compositions or compositions near-azeotropic at other temperatures than -25 °C) (**second objection**)

- the objection against claim 2, namely that the five compositions listed in Table 9 are disclosed only as azeotropic or near-azeotropic at -25 °C and that omitting this limitation constitutes an unallowable

generalisation (**third objection**). The respondent further argued that claim 2 involves an additional selection from Table 9 in combination with the use as a foam blowing agent, again without a pointer in the application as filed.

By contrast, the repercussive-effect argument referring to claim 5 of the original main request and auxiliary request 11 is no longer relevant since a corresponding claim is not present in auxiliary request 11. However, the underlying substantive issue – namely the absence of any limitation in claim 1 to near-azeotropic compositions at -25 °C – remains covered by the second objection above.

3.2 Selection-from-two-lists objection (**first objection**)

3.2.1 Both parties have correctly referred to the gold standard for assessing compliance with Article 76(1) and Article 123(2) EPC – namely, that an amendment is only allowable if the resulting subject-matter is directly and unambiguously derivable, using common general knowledge, from the application as filed. The case law on selection from two lists and the related notions of converging alternatives and pointers are merely analytical aids to apply this standard. The decisive question remains whether the amendment adds new technical information for the skilled person.

3.2.2 In this case, the application as filed expressly discloses an embodiment directed to the use of fluoroolefin-containing compositions as blowing agents "for preparing foams" (page 57, lines 29 to 31). This foaming embodiment is presented as applicable to the entire set of compositions disclosed in the application, without being limited to a particular

subset. Given this, the Board does not agree with the findings in the decision under appeal that starting from or considering the disclosure of this embodiment amounts to a selection from a list (point 16.3 of the Reasons). The skilled person understands that all disclosed compositions may be employed for this use.

Claim 1 of auxiliary request 11 narrows this already disclosed embodiment to a group of compositions – namely those disclosed in Table 5, consisting of 39 to 99 wt% trans-HFC-1234ze and 61 to 1 wt% isobutane. The amendment, therefore, does not create a new technical combination but merely restricts an existing embodiment to a subset of compositions disclosed as suitable for that use.

Accordingly, the selection-from-two-lists objection does not prejudice the allowability of auxiliary request 11.

3.3 The compositions recited in claim 1 are not limited to near-azeotropic compositions at -25 °C (**second objection**)

3.3.1 The second objection also applicable to auxiliary request 11 concerns the omission in claim 1 of an explicit reference to near-azeotropy at -25 °C. The respondent argued that the compositions defined by the claimed range (39-99 wt% trans-HFC-1234ze and 61-1 wt% isobutane) was disclosed in the application as filed only as near-azeotropic at -25 °C. In its view, omitting this limitation extended the scope of the claim to include compositions that may not exhibit this behaviour, thus adding new subject-matter.

3.3.2 The Board does not agree. As indicated in Table 5 of the application as filed, the compositions defined in this range are disclosed exclusively as near-azeotropic (binary) compositions at $-25\text{ }^{\circ}\text{C}$. There is no alternative disclosure suggesting that these same compositions might behave differently at that temperature.

A skilled person reading the application as filed would therefore understand that the feature of being near-azeotropic at $-25\text{ }^{\circ}\text{C}$ is not a further limitation but an intrinsic property of the claimed subject-matter. Indeed, the mixture set out in claim 1 is a closed composition ("consisting of"), thus excluding any additional component that could compromise its near-azeotropic behaviour. Accordingly, the binary mixture inherently satisfies the requirement of being near-azeotropic at $-25\text{ }^{\circ}\text{C}$. Thus, the omission of the explicit reference to this behaviour from claim 1 does not change the technical information that the skilled person derives from the application as filed.

3.4 Claim 2 (**third objection**)

The third objection, concerning the omission of the azeotropy or near-azeotropy limitation for the five compositions listed in claim 2, rests, in Board's understanding, on the same technical reasoning as the second objection discussed above. Since the compositions listed in Table 9 are likewise disclosed exclusively as azeotropic or near-azeotropic at $-25\text{ }^{\circ}\text{C}$, and since they are also closed compositions, the omission of this information does not add new technical subject-matter either.

3.5 Conclusion

For the reasons set out above, the Board concludes that the subject-matter in claims 1 and 2 of auxiliary request 11 filed at the oral proceedings before the Board complies with Article 76(1) and Article 123(2) EPC.

4. Remittal

4.1 Under Article 11 RPBA, a Board must not remit a case to the department whose decision was appealed for further prosecution unless special reasons present themselves. In the current case, the Board considers that remittal is appropriate for the following reasons.

4.2 First, the opposition division's decision was limited to issues under Articles 123(2) and 76(1) EPC. The other grounds for opposition were neither examined nor decided upon.

4.3 Second, the parties' submissions on appeal, as well as the Board's preliminary opinion, were likewise focused exclusively on the issues under Articles 123(2) and 76(1) EPC. The other grounds for opposition were addressed by the parties only for the sake of completeness.

4.4 Third, both parties have expressly requested remittal of the case.

4.5 In view of these circumstances, the Board considers that special reasons within the meaning of Article 11 RPBA are present. Accordingly, the case is remitted to the opposition division for further prosecution.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division for further prosecution.

The Registrar:

The Chairman:



K. Götz-Wein

A. Haderlein

Decision electronically authenticated