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**Datasheet for the decision
of 16 October 2024**

Case Number: T 2269/22 - 3.3.09

Application Number: 14769423.6

Publication Number: 2993990

IPC: A23L2/60, A23L27/30, A23L2/52

Language of the proceedings: EN

Title of invention:
BEVERAGES CONTAINING RARE SUGARS

Patent Proprietor:
The Coca-Cola Company

Opponents:
Acapo AS
COMPAGNIE GERVAIS DANONE

Headword:
Beverages/COCA-COLA

Relevant legal provisions:
EPC Art. 56, 100(a)

Keyword:
Inventive step - (no)

Decisions cited:

Catchword:



Beschwerdekammern
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Case Number: T 2269/22 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 16 October 2024

Appellant:
(Opponent 1)

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Respondent:
(Patent Proprietor)

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Party as of right:
(Opponent 2)

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Representative:

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Decision under appeal:

**Interlocutory decision of the Opposition
Division of the European Patent Office posted on
20 July 2022 concerning maintenance of the
European Patent No. 2993990 in amended form.**

Composition of the Board:

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

Summary of Facts and Submissions

- I. Opponent 1 (appellant) lodged an appeal against the opposition division's decision holding the then auxiliary request 2 allowable.
- II. With their notices of opposition, opponents 1 and 2 had requested that the patent be revoked on the ground for opposition of lack of inventive step under Article 100(a) EPC, *inter alia*.
- III. The opposition division decided that the subject-matter of claim 1 of the then auxiliary request 2 involved an inventive step in view of D1 as the closest prior art.
- IV. Claim 1 of the main request (which is identical to claim 1 of the then auxiliary request 2) reads as follows:

"A beverage comprising the rare sugar D-psicose and the high potency sweetener Rebaudioside M; wherein the Rebaudioside M is greater than 95% pure; the D-psicose is present in an amount from 0.1% to 2% by weight; and the weight ratio of Rebaudioside M to D-psicose is from 1:25 to 1:100."

Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that the feature "wherein the beverage does not comprise alloose" has been added to the end of the claim.

Claim 1 of auxiliary request 2 differs from claim 1 of the main request in that the feature "wherein the beverage does not comprise erythritol" has been added to the end of the claim.

Claim 1 of auxiliary request 3 differs from claim 1 of the main request in that the feature "wherein the beverage does not comprise a polyol" has been added to the end of the claim.

V. The following documents were cited in the case in hand:

D1: WO 2013/096420 A9

D6: GRAS exemption claim for D-psicose as an ingredient in foods, August 18 2011

D19: GRAS Notice for D-allulose, April 1 2016

VI. The parties' relevant arguments submitted during the written proceedings and the oral proceedings are reflected in the reasons for the decision below.

VII. Requests

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

The proprietor (respondent) requested that the appeal be dismissed (main request) or, as an auxiliary measure, that the patent be maintained on the basis of one of auxiliary requests 1 to 3, filed with the reply to the statement setting out the grounds of appeal.

Reasons for the Decision

MAIN REQUEST

1. Inventive step
 - 1.1 The appellant argued that the claimed subject-matter lacked inventive step in view of D1 as the closest prior art.
 - 1.2 As outlined below, the board shares this view.
 - 1.3 The invalidity of the priority claim is common ground among the parties. The board has no reason to doubt this. Accordingly, D1 is prior art pursuant to Article 54(2) EPC.
 - 1.4 The parties agreed that D1 was the closest prior-art document. The board shares this view. Consequently, the question of inventive step is to be assessed in view of D1 as the closest prior art.
 - 1.5 D1 discloses a beverage comprising Rebaudioside X (Reb X) and at least one additive, and it may further contain at least one additional sweetener (see claim 40 of D1). In this context, it is noted that Reb X is a synonym of Rebaudioside M (Reb M). D1 describes that the additional sweetener may be a carbohydrate sweetener such as D-psicose (see page 34, lines 13 to 15, of D1), a synthetic sweetener (see page 34, lines 21 to 32, of D1) or a natural high-potency sweetener such as Reb A, Reb B, Reb D, mogroside V, etc. (see page 34, line 33, to page 35, line 14, of D1). Reb X and carbohydrate sweetener may be present in any weight ratio, such as from about 0.001:14 to about 1:0.01, for example about 0.06:6. Carbohydrates

are present in the sweetener composition in an amount effective for providing a concentration from about 100 ppm to about 140 000 ppm when present in a sweetened composition, such as a beverage (see page 34, lines 16 to 20, of D1). Example 10 of D1 discloses blends of Reb X with other non-caloric sweeteners such as Reb B, Reb D, Reb A or mogroside V.

- 1.6 The subject-matter of claim 1 differs from D1 on account of the combination of Reb M with D-psicose in an amount of 0.1 to 2 wt.%.
- 1.7 For the following reasons, an effect resulting from this difference cannot be acknowledged over D1.
 - 1.7.1 To acknowledge an improvement over the closest prior art it must be credible that the effect originates from the distinguishing feature over that prior art. As outlined below, there is no evidence in the patent (either in the example shown in Table 14 or in paragraph [0211]) that there is an improvement over the beverage disclosed in D1.
 - 1.7.2 The example in Table 14 of the patent contains 2.1 wt.% D-psicose, which is outside the range of 0.1% to 2 wt.% in claim 1. Accordingly, this example could at best demonstrate that a higher D-psicose content than that required in claim 1 may lead to improved taste, such as reduced sweetness lingering. The board does not agree with the respondent that the same effect would be identified for beverages comprising an amount of D-psicose in the range of 0.1 to 2 wt.%.
 - 1.7.3 The board does not agree with the opposition division that an improvement over D1 is plausible in view of paragraph [0211] of the patent, in which certain

properties of the zero calorie lemon-lime set out in Table 14 of the patent are mentioned. Paragraph [0211] of the patent mentions that "the evaluation of the zero calorie lemon lime CSD by the expert panel showed that it had a faster and more rounded sweetness and flavor profile, with very low sweet lingering and no bitterness or licorice aftertaste, showing that D-psicose helped reduce or eliminate these unwanted characteristics"; however, it does not specify with which beverage this assessment was compared. The reference point cannot be the beverage disclosed in D1. For this reason alone, the example in Table 14 of the patent is not suitable for demonstrating an improvement over D1.

- 1.7.4 The experimental data of 5 May 2022 are also not suitable for demonstrating an improvement over the beverage disclosed in D1. The board agrees with the appellant that the experimental data of 5 May 2022 are not a representative comparison with D1.
- 1.7.5 As outlined under point 1.5 above, D1 discloses a beverage comprising Reb X, i.e. Reb M, at least one additive and an additional sweetener (see claim 40 of D1). As mentioned in example 10 of D1, the additional sweetener may be Reb X, Reb B, Reb D, Reb A or mogroside V.
- 1.7.6 Since D1 already discloses the combination of Reb M with an additional sweetener, for demonstrating an effect over D1 it is not sufficient to demonstrate a potential advantage over the sole use of Reb M, as done in the experimental data of 5 May 2022. The same applies to the experimental data mentioned in the reply to the statement of grounds of appeal. An additional sweetener is disclosed in D1 as part of the beverage,

but this component is not reflected in the experimental data submitted by the respondent.

- 1.7.7 In this context, the respondent referred to samples 8 and 9 in example 10 of D1, which related to blends of Reb X with mogroside V and demonstrated increased astringency, sourness and mouth-coating, and higher mogroside V levels increased sweetness and sweetness lingering, i.e. undesirable properties.

Although samples 8 and 9 of example 10 of D1 exemplify blends of Reb X with an additional sweetener in the sense of claim 40 of D1 having undesirable properties, it is noted that samples 2 to 6 of example 10 of D1 relate to compositions leading to desirable and improved beverages. Accordingly, referencing samples 8 and 9 of example 10 of D1 does not effectively demonstrate an improvement over D1.

- 1.7.8 Irrespective of the above, there is no evidence on file that the claimed beverage leads to an improvement over those as disclosed in example 10 of D1, in which the improvement originates from the distinguishing feature.

- 1.7.9 Moreover, the experimental data submitted by letter of 5 May 2022 pertain to a completely different composition from the zero calorie lemon-lime in Table 14 of the patent. Therefore, it is not suitable for confirming the example according to Table 14 of the patent, which as such is not suitable for demonstrating that there is an improvement resulting from the difference over D1.

- 1.7.10 Even if it is assumed, for the sake of argument, that the data filed with the reply to the appeal were admitted on appeal, this data similarly fails to

demonstrate an improvement over D1 for the same reasons as outlined above.

1.8 In light of this, the objective technical problem to be solved is to provide an alternative beverage.

1.9 With respect to the question of obviousness, it is noted that D1 already teaches D-psicose as an additional sweetener. As can be understood from paragraph [0004] of the patent, "D-psicose is self-GRAS with a letter of no objection from the US FDA and it is currently approved at a maximum level of 2.1% (w/w) in a non-alcoholic beverage". This is considered common general knowledge in the present technical field, as evidenced by D6 (see Table 2 of D6). Even if the post-published document D19 were capable of demonstrating that D-psicose has now been approved by the US FDA in higher amounts of up to 3.75 wt.%, this does not have an influence on how a skilled person would assess this on the priority date.

1.10 In view of this information, a skilled person seeking a solution to the above problem would not freely choose the amount of D-psicose, but would consider the above regulatory limitations (D6), i.e. would choose a maximum level of 2.1 wt.%. The board agrees with the appellant that any commercial development using D-psicose is limited by this, or at least a skilled person would consider these regulatory limitations. The amount of D-psicose claimed is arbitrary. In the absence of any improvement over D1, choosing an amount of D-psicose falling within the scope of claim 1 is a matter of routine for a skilled person. D1 discloses that the Reb X and carbohydrate sweetener can be present in any weight ratio, with carbohydrates in concentrations from about 100 ppm to about 140 000 ppm,

making the weight ratio required in claim 1 an arbitrary choice.

In view of the above, the subject-matter of claim 1 of the main request does not involve an inventive step in view of D1 alone.

AUXILIARY REQUESTS

2. The subject-matter of claim 1 of auxiliary requests 1 to 3 differs from claim 1 of the main request in that certain components are excluded from the claimed beverage. These disclaimer formulations cannot change the assessment of inventive step in view of D1. For the same reasons as given for claim 1 of the main request, the subject-matter claimed in these auxiliary requests does not involve an inventive step in view of D1.

Order

For these reasons it is decided that:

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

The Registrar:

The Chairman:



K. Götz-Wein

A. Haderlein

Decision electronically authenticated