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**Datasheet for the decision
of 4 December 2024**

Case Number: T 2463/22 - 3.3.09

Application Number: 11832534.9

Publication Number: 2628396

IPC: A23G3/34, A23L29/231

Language of the proceedings: EN

Title of invention:

POWDER MIX

Patent Proprietor:

Cargill, Incorporated

Opponents:

Herbstreith & Fox GmbH & Co. KG Pektin-Fabriken
CP Kelco ApS

Headword:

Powder mix/CARGILL

Relevant legal provisions:

EPC Art. 54(2), 56

Keyword:

Novelty - public prior use (yes) - main request (no)
Inventive step - auxiliary request (no)
Standard of proof - required degree of conviction

Decisions cited:

G 0003/19, G 0002/21, T 1465/05, T 2466/13, T 1054/18,
T 1138/20, T 1311/21, T 0832/22
House of Lords, Re B (Children) [2008] UKHL35

Catchword:

On standard of proof, see Reasons 4.5, in particular
Reasons 4.5.7 - 4.5.17



Beschwerdekammern

Boards of Appeal

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Case Number: T 2463/22 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 4 December 2024

Appellant:
(Opponent 1)

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Appellant:
(Opponent 2)

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Respondent:
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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted on 10 November
2022 rejecting the opposition filed against
European patent No. 2628396 pursuant to Article
101(2) EPC.**

Composition of the Board:

Chairman A. Haderlein
Members: F. Rinaldi
 N. Obrovski

Summary of Facts and Submissions

- I. This decision concerns the appeals filed by opponents 1 and 2 (appellants 1 and 2) against the opposition division's decision to reject the oppositions.
- II. In their respective notice of opposition, the opponents had requested that the patent be revoked in its entirety, based on Article 100(a) (lack of novelty and lack of inventive step), among other grounds.
- III. The following documents, among others, were cited during the opposition proceedings:
 - D9: Redacted invoice from Herbstreith & Fox GmbH & Co. KG (Herbstreith & Fox) to Condio GmbH (Condio) (4 January 2006) - sale of Pektin Classic CM 203, lot number 0 05 11 114
 - D10: Test report for Pektin Classic CM 203, lot number 0 05 11 114 (12 January 2006)
 - D21: Product information C Dex™ 02043 (Cargill)
- IV. On appeal, the main request of the patent proprietor (respondent) was for maintenance of the patent as granted. With its reply to the statements setting out the grounds of appeal, the respondent filed the first to third auxiliary requests, among others.
- V. On appeal, all parties to the proceedings filed further documents, including the following:

- D9a: Partly redacted invoice from Herbstreith & Fox to Condio (4 January 2006) - sale of Pektin Classic CM 203, lot number 0 05 11 114
- D71: Affidavit by Ilka Scholz (9 March 2023)
- D74: Excerpt from PROTEAN database: entry for CM 203 lot number 0 05 11 114
- D80: Specification of Pektin Classic CM 203 (2007)
- D81: Email from Herbstreith & Fox to Condio and analytical data sheet (12 January 2006)
- D82: Email exchange between Herbstreith & Fox and Condio (12 January 2006)
- D85: Affidavit by Thomas Finger (13 March 2023)
- D86: Excerpt from the ERP system FOSS
- D96: "Food carbohydrates: chemistry, physical properties, and applications, ed. S. W. Cui, Boca Raton: Taylor & Francis, 2005, 1-411

D96 was filed by appellant 2. The remaining documents were filed by appellant 1.

VI. Only the wording of claim 1 of the patent as granted and of the first to third auxiliary requests is relevant to this decision.

Claim 1 of the main request and of the second auxiliary request reads as follows:

"A powder mix comprising pectin with a calcium content adjusted to 500 ppm or less, with a sodium content adjusted to 5000 ppm or more and with a potassium content adjusted to 5 ppm or more."

In claim 1 of the first auxiliary request, the term
"powder mix comprising sugar and pectin"

replaces the term *"powder mix comprising pectin"* in
claim 1 of the main request.

In claim 1 of the third auxiliary request, the term

*"wherein the pectin has been adjusted such that 80% by
mass or more has a particle size of 150 µm or less"*

is added at the end of the wording of claim 1 of the
main request.

VII. The appellants' arguments are summarised as follows.

- The prior uses referred to by appellant 1, in particular the prior use of product 5 (Pektin Classic CM 203, lot number 0 05 11 114, sold to Condio GmbH in January 2006) had been demonstrated beyond reasonable doubt, among other things by the supplementary evidence filed. Product 5 anticipated the subject-matter of claim 1 of the main request and of the first and second auxiliary requests.
- Product 5 constituted the closest prior art for assessing inventive step of claim 1 of the third auxiliary request. In view of the common general knowledge, the subject-matter of claim 1 did not involve an inventive step.

VIII. The respondent's arguments are summarised as follows.

- The prior use of product 5 had not been demonstrated beyond reasonable doubt. The evidence provided showed several gaps, in particular there

was no evidence that product 5 had been handed over to the buyer, Condio GmbH. Thus, the subject-matter of claim 1 of all requests was novel.

- Product 5 did not constitute a suitable starting point for assessing inventive step of the subject-matter of claim 1 of the third auxiliary request. The properties of the product were unknown. The skilled person would have had no motivation to provide the subject-matter claimed.

IX. Final requests

The appellants requested that the decision under appeal be set aside and that the patent be revoked.

The respondent requested that the appeals be dismissed (main request) or, alternatively, that the patent be maintained on the basis of one of the first to third auxiliary requests, all filed with the reply to the appellants' statements setting out the grounds of appeal.

Reasons for the Decision

1. *Patent in suit*
 - 1.1 The patent addresses the problem of providing a powder mix comprising pectin that easily dissolves in cold water (paragraph [0001]).
 - 1.2 The solution is provided by a pectin with a specific content of ions, as set out in claim 1 of the patent.

1.3 The patent also discloses an advantageous particle size of the pectin that further improves solubility in cold water (for example, in claim 2 of the patent).

2. *Admittance of documents*

2.1 With its statement setting out the grounds of appeal, appellant 1 filed several documents, including D9a, D71, D74, D80 to D82, D85 and D86.

2.2 With its statement setting out the grounds of appeal, appellant 2 filed document D96, among other documents.

2.3 The respondent requested that the documents filed by the appellants not be admitted into the proceedings.

2.4 The documents filed by appellant 1 concern the alleged prior uses (products 1 to 8) substantiated in the notice of opposition. Documents D9a, D71, D74, D80 to D82, D85 and D86 supplement the evidence provided during the opposition proceedings and refine the objections of appellant 1 regarding the alleged prior use of product 5.

2.5 The opposition division considered that claim 1 lacked novelty in view of the cited prior use(s). This was communicated to the parties in the annex to the summons to oral proceedings. It was not until the oral proceedings that the opposition division changed its assessment on novelty. In the decision under appeal, the opposition division set out that it was not able to conclude that the delivery of the prior uses had taken place.

2.6 Under these circumstances, the filed supplementary documentary evidence constitutes an appropriate

reaction to the course of events during the oral proceedings before the opposition division. Therefore, no reason can be seen for not admitting documents D9a, D71, D74, D80 to D82, D85 and D86 into the proceedings.

2.7 Appellant 2 filed document D96 in support of a further development of its line of argument presented in the opposition proceedings on inventive step. The information in D96 confirms common general knowledge on particle size of commercial polysaccharide powders.

2.8 To conclude, the board exercised its discretion to admit documents D9a, D71, D74, D80 to D82, D85, D86 and D96 into the appeal proceedings (Article 12(4) RPBA).

3. *Interpretation of claim 1*

3.1 Claim 1 as granted concerns a powder mix comprising pectin with specified amounts of ions.

3.2 The first question is whether pectin as such may be regarded as a powder mix comprising pectin, as the appellants contended.

3.3 For the opposition division, the powder mix comprising pectin of claim 1 referred to "*a mixture of two different powders, of which pectin is only one, hence corresponding to the examples*" (Reasons for the decision, point 2.2). In points 5.4.5 and 5.5.3 of the decision under appeal, it is explained that "powder mix" implied "*the presence of at least one further main ingredient in addition to pectin (and its ions)*".

3.4 On the face of it, the term "powder mix" refers to a powder composition that comprises more than one constituent. Otherwise, the term "mix" associated with

the term "powder" would have next to no meaning. Thus, the powder mix in claim 1 is not understood to refer to a composition that consists of a single component even if the component itself, i.e. the individual pectin molecules of the composition, is by nature heterogeneous. Whether the other constituent is a "main" ingredient, as held the opposition division, is not relevant in this context.

3.5 Furthermore, the opposition division correctly assessed that the examples of the patent support the interpretation that the powder mix requires two or more different components. Indeed, the examples disclose more than one powder ingredient apart from pectin, such as cocoa, sugar and citric acid. This is also consistent with other sections of the patent's description which discloses powder mixes for preparing products such as desserts and beverages (paragraph [0040]).

3.6 To conclude, the term "powder mix comprising pectin" implies that the pectin is associated with at least a second (powder) ingredient.

4. *Main request - novelty*

4.1 The opposition division concluded that the subject-matter of claim 1 was novel. As regards the cited prior uses, the opposition division held that they had not been proven beyond reasonable doubt / up to hilt, in particular in regard to whether the products of the prior uses had actually been delivered. The two terms "beyond reasonable doubt" and "up to hilt" are used as synonyms in the decision under appeal.

- 4.2 In the oral proceedings before the board, the parties mainly focused on which standard of proof had to be applied, debating in particular G 2/21 and T 1138/20, and whether the applicable standard had been met.
- 4.3 The appellants argued that, in view of T 1138/20, a lower standard of proof than that of beyond reasonable doubt had to be applied. However, even if the beyond reasonable doubt standard was applied, it would be met. The prior uses (products 1 to 8) discussed during the opposition proceedings had been made available to the public, as had been shown by the comprehensive and coherent evidence.
- 4.4 The respondent argued that the applicable standard of proof for determining whether the alleged prior uses, in particular the one regarding product 5, had been made available to the public was beyond reasonable doubt. T 1138/20 was an isolated decision that deviated from the settled case law on the standard of proof for prior uses and should not be applied. T 1138/20 was not compatible with the Enlarged Board's decision G 2/21 either. The reference to the "required" standard of proof in G 2/21, Reasons 31 indicated that, also according to the Enlarged Board, there was more than one standard of proof in the proceedings before the EPO. In applying the beyond reasonable doubt standard in the case in hand, it had not only to be shown that the sale of the product in question had occurred but also that the product had actually been handed over to the buyer. In the absence of a signed delivery note, there was a gap in the chain of evidence, and the public prior use had not been proven.

4.5 On the required standard of proof

4.5.1 When a deciding body of the EPO has to assess whether a prior use took place in cases in which all or a considerable part of the evidence rests with only one of the parties to the proceedings (typically, an opponent), the case law of the Boards of Appeal has tried to reconcile the following two aspects.

- On the one hand, under the principle of free evaluation of evidence, the deciding body must not observe any formal rules when assessing evidence, such as giving one means of evidence, as such, more weight than another. Accordingly, a lower probative value must not be systematically attributed to e.g. witness statements on a prior use from real life than to written evidence such as patent specifications.
- On the other hand, there is an imbalance in that one of the parties to the proceedings has access to the evidence and the other does not. The party that contests the prior use usually has little or no access to evidence that could support its case. All it can do is, essentially, point out inconsistencies or gaps in the chain of evidence provided by the other party.

4.5.2 On the standard of proof to be applied, the following is set out in Case Law of the Boards of Appeal of the EPO, 10th edn., 2022, III.G.4.3, second paragraph:

"The EPO standard of proof is generally the balance of probabilities. By way of exception, the standard of proof of the balance of probabilities is shifted to a standard of proof beyond reasonable doubt mainly in opposition where only the opponent has access to information (evidence) concerning, for example, an alleged public prior use."

- 4.5.3 In the current board's view, this distinction in the case law on the applicable standards of proof is a result of the considerations set out in point 4.5.1 above. The Enlarged Board in G 2/21, Reasons 46, referring to the same chapter and edition of the Case Law Book cited in point 4.5.2 above, recognised that different concepts as to the standard of proof have been developed in the case law of the Boards of Appeal.
- 4.5.4 In T 1138/20, Reasons 1.2.1, second paragraph, reference seems to be made to case law according to which the different treatment of evidence concerning public prior uses may not really concern a higher standard of proof but rather the reduced weight and importance attached to evidence to which only one of the parties has access (concerning, typically, evidence lying exclusively in the sphere of the opponent). If such case law did indeed systematically (i.e. not only depending on individual circumstances) give less weight to a certain type of evidence (namely to evidence to which only one of the parties has access) than to other types of evidence, this would go against the principle of free evaluation of evidence. According to this principle, there are no types of evidence which are, as such, less (or more) convincing than others, as also recognised in T 1138/20, Reasons 1.2.2.

- 4.5.5 T 1138/20 does not subscribe to the view that a different standard of proof should be applied when all pieces of evidence lie within the sphere of an opponent. According to this decision, instead only one standard of proof should be applied in the proceedings before the EPO, namely, as stated in the last paragraph of point 1.2.1 of the Reasons, "*the deciding body must be convinced, taking into account the circumstances of the case and the relevant evidence before it, that the alleged fact occurred*". The board in T 1138/20 did not embrace either of the two standards of proof recognised in the previous case law (i.e. the balance of probabilities standard and the beyond reasonable doubt standard), nor did it, apart from in the statement cited above, provide a definition for the "one standard of proof" which it itself considered to be generally applicable instead. It can, however, be inferred from T 1138/20, Reasons 1.3.4, first paragraph that this standard of proof is intended to be lower than beyond reasonable doubt (which the board in T 1138/20 applied "in the appellant's favour").
- 4.5.6 In the current board's view, under the principle of free evaluation of evidence, it is always decisive in the evaluation of evidence that the members of the deciding body are personally "convinced". Moreover, they must always be convinced of whether, as stated in T 1138/20, "the alleged fact has occurred". Both is true regardless of which standard of proof is applied.
- 4.5.7 The standard of proof refers to the nature or degree of conviction that the members of the deciding body must have to be satisfied that an alleged fact occurred (see T 832/22, Reasons 3.2.4). Accordingly, under the balance of probabilities standard, the members of the deciding body must be convinced, on the balance of

probabilities (i.e. consider it more likely than not), that the alleged fact indeed occurred. Under the beyond reasonable doubt standard, the members of the deciding body must be convinced beyond reasonable doubt that the alleged fact indeed occurred.

- 4.5.8 Hence, although the term "conviction" by itself excludes concepts like mere "reasonable suspicion", referring to the deciding body's conviction that an alleged fact occurred (see T 1138/20, Reasons 1.2.1, last paragraph and T 1311/21, Reasons 3.2.1(d) (vi)) does not, strictly speaking, on its own say anything about which standard of proof should be applied by the deciding body to arrive at this conviction.
- 4.5.9 The current board considers the following extracts from House of Lords, Re B (Children) [2008] UKHL 35, Reasons 2 to be an accurate and illustrative description of the issue at hand: "If a legal rule requires a fact to be proved (a 'fact in issue'), a judge or jury must decide whether or not it happened. *There is no room for a finding that it might have happened.* The law operates a binary system in which the only values are 0 and 1. The fact either happened or it did not. [...] [T]he standard of proof [...] is [...] the *degree of persuasion* which the tribunal must feel before it decides that the fact in issue did happen." (emphasis by the board).
- 4.5.10 Two matters are important in the above extract. Firstly, that the standard of proof is related to the required degree of conviction of the members of the deciding body. Secondly, that it is *not* related to *what* is evaluated by the deciding body (i.e. the subject of the evaluation). Hence, also when a lower standard of proof such as balance of probabilities is applied, the

deciding body must assess whether or not the alleged fact indeed occurred. In other words, also when such a standard of proof is applied, the question is not whether the alleged fact *might have occurred with some probability*. This also aligns with M. Schweizer's rejection of the latter approach (Beweiswürdigung und Beweismaß, 2015, pages 15, 100 and ff).

- 4.5.11 The following statements by the Enlarged Board in G 2/21 are consistent with this understanding. According to the Enlarged Board, the principle of free evaluation of evidence requires the deciding body to decide according to its own "conviction", and the subject of the evaluation of evidence is always "the correctness or incorrectness of a contested allegation as to fact" (G 2/21, Reasons 31), respectively "whether an alleged fact has occurred or not" (G 2/21, Reasons 45). The standard of proof is the yardstick against which "all the arguments for and against a factual statement" must be put "in relation to" for a judge to be "personally convinced of the truth of the factual allegation" (G 2/21, Reasons 31).
- 4.5.12 The more specific question whether there is, as stated in T 1138/20, only a single standard of proof or whether the Enlarged Board in G 2/21, as argued by the respondent, indirectly recognised that there is more than one standard of proof in the proceedings before the EPO can, in the case in hand, be left unanswered for the following reasons.
- 4.5.13 The highest standard of proof applied in the case law of the Boards of Appeal is the beyond reasonable doubt standard (sometimes also referred to as proving something "up to the hilt", which this board considers to be an obsolete term). Hence, if the deciding body is

convinced beyond reasonable doubt that an alleged fact occurred, there is no need to decide how many standards of proof there are and which one is applicable (see T 832/22, Reasons 3.2.6 with reference to T 2466/13, Reasons, 2.1.1).

- 4.5.14 When assessing factual allegations using the standard of proof of beyond reasonable doubt, the following considerations appear to be helpful.
- 4.5.15 Firstly, the European Patent Organisation is an independent international organisation with its own autonomous legal order (G 3/19, Reasons XV.2.4). Accordingly, the beyond reasonable doubt standard has an autonomous meaning within this legal order. This meaning may differ from the meaning attached to this notion in other legal orders, for example in national criminal systems.
- 4.5.16 Secondly, the beyond reasonable doubt standard of proof does not require the best theoretically possible chain of evidence. With respect to an alleged gap in the chain of evidence, the question should therefore not be whether there could be a better or "more complete" chain of evidence. This is arguably almost always the case. Rather, the question that the deciding body has to ask itself is whether the entirety of the evidence as it stands allows the deciding body, applying the principle of free evaluation of evidence, to regard the factual allegation as true with the required degree of conviction, i.e. beyond reasonable doubt.
- 4.5.17 In this context, this board agrees with T 832/22, Reasons 3.2.5, in that it seems expedient to focus on the term "reasonable" when applying the standard of proof of "beyond reasonable doubt". As stated in

T 832/22, even if there is some remaining doubt, this standard of proof "*can be met as long as the remaining doubt is not reasonable, which can be understood as overall insubstantial in view of the entirety of the available evidence*". Beyond reasonable doubt thus refers to a standard for assessing a means of evidence which is both appropriate and practical, including for prior uses from real life.

4.6 Prior use - product 5

4.6.1 Product mixes of the prior uses cited by appellant 1 that comprise pectin and dextrose are products 1, 4 and 5. In the following, the focus will be on product 5.

4.6.2 Product 5 concerns a sample from a lot of a powder mix of pectin and dextrose produced and marketed under the name "Pektin Classic CM 203" by appellant 1, Herbstreith & Fox GmbH & Co. KG (in the following, Herbstreith & Fox or the manufacturer). The lot number in question is 0 05 11 114.

4.6.3 Details on the production of the lot of product 5 are explained in declaration D71 signed by Ilka Scholz, Group Leader Standardisation in the production plant of Herbstreith & Fox in Werder, Germany. According to D71, the lot of product 5 consists of three different pectins (identified with their internal batch number) and dextrose (also identified by an internal batch number). The lot contains 63.6% (w/w) pectin, the rest being dextrose. The production of the lot was finalised on 28 November 2005 in Werder. All this information is shown in D74, an excerpt from the managing system software Protean.

4.6.4 A sample of this lot was sent to Institut Fresenius to be analysed. The results of the analysis were notified to the manufacturer by letter dated 12 January 2006 (D10). From these results, it can be taken that the powder mix contains, among other things:

- sodium: 6 820 mg/kg
- potassium: 602 mg/kg
- calcium: 132 mg/kg

4.6.5 As appellant 1 explained during the opposition proceedings, and as discussed in the decision under appeal (for product 1, Reasons 5.3.2), dextrose is devoid of calcium and potassium ions and contains only 5 mg sodium per 100 g. Reference was made to D21, a data sheet of a dextrose marketed by the patent proprietor.

4.6.6 In view of this information, the content of calcium, sodium and potassium disclosed in D10 corresponds essentially to the content of these ions of the pectin alone. Considering that 63.6% (w/w) of the powder of product 5 is pectin, this product is a powder mix in which the pectin in it has the content of calcium, sodium and potassium required by claim 1.

4.6.7 The next question to be addressed is whether product 5 was available to the public.

4.6.8 A part of lot 0 05 11 114 was sold to the company Condio GmbH (in the following, Condio or the buyer) in Werder, Germany. In support of these sales, the following documents were provided.

- An invoice dated 4 January 2006, sent by the manufacturer to the buyer (redacted version D9 and

partly redacted version D9a). The invoice lists several products with the corresponding lot numbers and amounts sold. Among these products is listed Pektin Classic CM 203, 1150 kg, and the lot number 0 05 11 114. In addition, the invoice discloses an invoice number, a shipping date (3 January 2006) and the shipping method, namely pick-up ("Abholung"). In D9a, the total amount to be paid is also disclosed, whereas this information was rendered illegible in the redacted version D9.

- The amount to be paid shown in D9a and the invoice number figure again in an excerpt of the finance data base FOSS (D86). According to this document, this amount was paid by Condio, the buyer, on 22 February 2006. Explanations regarding this transaction are given in declaration D85 signed by Mr Finger, CFO at Herbstreith & Fox.
- Herbstreith & Fox asked Condio to search for evidence for the sale of product 5 in the buyer's documentation (exchanged emails, compiled in D82). Condio found an email sent by Herbstreith & Fox on 12 January 2006 with an attached analytical data sheet for the lot of product 5. This email from Herbstreith & Fox is filed as D81 in these proceedings.
- On page 1 of D81 (i.e. the email itself), it is stated that analytical data sheets are being provided for products with specified lot numbers. The lot numbers listed in the email are those shown in the invoice D9/D9a and include Pektin Classic CM 203, with lot number 0 05 11 114. The analytical data sheet for lot number 0 05 11 114 found in the

documentation at Condio is filed as D81, pages 2 and 3.

- 4.6.9 In view of all this information, which also involves evidence provided by a third party, i.e. the buyer, the board is convinced beyond reasonable doubt that product 5, with lot number 0 05 11 114, was sold in January 2006.
- 4.6.10 Appellant 1 additionally explained that product 5 was picked up by the buyer (with a fork lift) directly from the manufacturer. Given that the two companies were located in the same town (Werder, Germany) and on the same road (Phöbener Chaussee), this is entirely conclusive.
- 4.6.11 There is on file no acknowledgement of receipt, i.e. a document that confirms that Condio received the delivery including product 5. However, product 5 was sold some 16 years before investigations on the sale of product 5 started and evidence was gathered. Under these circumstances, it cannot be expected that the complete documentation is still stored in and is retrievable from the manufacturer's or the buyer's archives. In view of the other evidence on file, no particular weight is to be given to the absence of a signed delivery note. As explained above, there is additional convincing proof which confirms that product 5 was handed over to the buyer.
- 4.6.12 The respondent raised several aspects, namely that in its view:
- an invoice cannot be considered evidence for the disclosure of the prior use at the date of the invoice

- providing a certificate of analysis (D81) was not evidence that the alleged prior use product was sold
- the settling of an invoice (D86) was not evidence that an object was disclosed to the public
- the excerpt of the FOSS software was merely a list of numbers which could have been reproduced by anyone

4.6.13 However, contrary to what the respondent argued, the board has no indication and no reason to believe that the excerpt from D86 was "reproduced by anyone", i.e. that it is unrelated to the invoice D9/D9a and the corresponding sales. Declaration D85 adds to the credibility of D86. Moreover, Condio had no reason to settle the invoice if it did not receive (or pick up) the goods mentioned in the invoice. Finally, the email D81 (page 1), which lists all products and lot numbers mentioned in D9/D9a, corroborates the statement that the products listed were handed over to the buyer. There would be no necessity to send lot-related information, in particular a lot-specific analytical data sheet (D81, pages 2 and 3), to a potential buyer because in such a case general information would do.

4.6.14 Considering all this, there is no reasonable doubt that product 5 was publicly available prior to the effective date of the patent.

4.6.15 It has also been shown above that product 5 discloses all features of claim 1.

4.7 Therefore, the ground for opposition under Articles 100(a) and 54 EPC prejudices the maintenance of the patent as granted.

5. *First and second auxiliary requests*

5.1 Claim 1 of the first auxiliary request is restricted to a powder mix that comprises sugar and pectin. Product 5 is such a product. It comprises the sugar dextrose and pectin. Thus, the subject-matter of claim 1 of the first auxiliary request lacks novelty (Article 54 EPC) for the same reasons explained above in sections 4.5 and 4.6.

5.2 Claim 1 of the second auxiliary request is identical to claim 1 of the main request. Therefore, the subject-matter of claim 1 of the second auxiliary request lacks novelty (Article 54 EPC) for the same reasons explained above in sections 4.5 and 4.6.

6. *Third auxiliary request*

6.1 Claim 1 of the third auxiliary request is based on claim 1 of the main request with the further restriction that the pectin has been adjusted such that 80% by mass or more has a particle size of 150 μm or less.

6.2 The appellants argued that product 5 was a suitable starting point for assessing inventive step of the subject-matter of claim 1 and referred to case law in which prior uses constituted the closest prior art, for instance, T 1464/05 (Reasons 5.2) and T 1054/18 (Reasons 4.2).

6.3 Admittance of the objection starting from product 5

6.3.1 The respondent argued that the objection of lack of inventive step against the third auxiliary request starting from product 5 should not be considered on

appeal. This objection had only been formulated after notification of the communication under Article 15(1) RPBA.

- 6.3.2 In its statement setting out the grounds of appeal, appellant 1 argued that the prior uses (including product 5) constituted the closest prior art. It did not explicitly raise objections against the subject-matter of the auxiliary requests, which the respondent filed with its reply to the appellants' statements of grounds.
- 6.3.3 On appeal, appellant 2 consistently argued that all auxiliary requests (including the third auxiliary request) lacked inventive starting from a number of documents and in view of the common general knowledge. In its view, the products claimed constituted an amalgamation of features of pectin that were known from the prior art. Thus, throughout the appeal proceedings, objections of lack of inventive step against the third auxiliary request had been raised by appellant 2. The objections were based on the argument that the adjustment of the particle size would have been obvious to the skilled person. This line of argument, namely that when starting from a known powder mix comprising pectin, providing a pectin with a small particle size would have been obvious to the skilled person, remains unaltered when starting from product 5.
- 6.3.4 Under these circumstances, if the objection in question were to go beyond a mere refinement of the appellants' appeal case, the board sees no reason to disregard it under Article 13(2) RPBA.
- 6.4 The respondent argued that product 5 was not suitable for use as the closest prior art and that the

modification of the product would not have been obvious to the skilled person.

6.5 There is sometimes reluctance in the case law of the EPO to treat an object of a prior use as the closest prior art in an assessment of obviousness. Often, neither the technical context of such an object nor how it was produced is disclosed. In such a situation, there is neither information on what the object does and what properties it has in the technical environment in which it is applied nor on how the process for its manufacture could be modified. These considerations indeed speak against regarding a prior use as a suitable starting point for assessing inventive step.

6.6 However, in the case in hand, the skilled person would face a different situation. They would know the property that the powder mix of product 5 is soluble in cold water and would also consider processing the powder mix further.

6.6.1 The product specification of Pektin Classic CM 203 (D80) discloses that the product is used as a protein protective colloid in thermally treated sour milk drinks. Such a product is used during the manufacturing of drinks and is added while the drink is still cold. The pectin is used to protect the milk protein during the heating step that follows.

6.6.2 Moreover, D81 (pages 2 and 3) contains the analytical data sheet of the lot of product 5 provided to Condio. It discloses that the product has a specified pH when dissolved in water at 20°C. This temperature is considered cold water within the meaning of the patent.

- 6.6.3 All this information confirms that solubility in cold water is a known, observed property of product 5. In other words, the skilled person would be aware of what the powder mix does when put in the technical environment of its intended purpose: the powder is soluble in cold water.
- 6.7 The parties agree that there is no information in product 5 on the particle size of the pectin. Thus, the subject-matter of claim 1 differs from product 5 in the particle size of the pectin.
- 6.8 Adjusting the pectin of the mix such that 80% by mass or more has a particle size of 150 μm or less has the effect of providing a better solubility compared to when the particle size of pectin is larger. This effect is uncontested.
- 6.9 Therefore, the problem to be solved is to provide a powder mix comprising pectin that easily dissolves in cold water.
- 6.10 However, the claimed solution would have been obvious to the skilled person.
- 6.10.1 It is considered common general knowledge in chemistry that decreasing the particle size of a solute will increase the rate of dissolution and so enhance solubility.
- 6.10.2 This is confirmed in D96, a handbook on food carbohydrates, in which it is stated that:
- "The average particle sizes of many commercial polysaccharide powders are in the range of 50 to 150 μm . The dissolution rate of polysaccharide powders*

generally increases with reduction in particle size." (D96, page 182)

6.10.3 Pectin is a polysaccharide. Moreover, the chapter of D96 from which this quotation is taken is on pectin. So this passage corroborates what the skilled person would have expected and what they would have done to solve the problem posed, namely decrease the particle size of product 5 by means which are common in the art.

6.11 To conclude, the subject-matter of claim 1 of the third auxiliary request does not involve an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

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

The Registrar:

The Chairman:



K. Götz-Wein

A. Haderlein

Decision electronically authenticated