Case Number: T 0715/01 - 3.3.4
Application Number: 93911319.7
Publication Number: 0646122
IPC: C07H 15/04
Language of the proceedings: EN
Title of invention: An improved process for the preparation of glycosides
Applicant: Cognis Corporation
Opponent: -
Headword: Glycosides/COGNIS
Relevant legal provisions: EPC Art. 108, 56, R. 64, 65
Keyword: "Admissibility of the appeal - statement of grounds filed on behalf of a party not on record - correction (yes)"
"Inventive step (yes)"
Decisions cited: T 0097/98, T 0460/99, G 0011/91
Catchword: Correction of the wrongly-named appellant in the statement of grounds of appeal allowed under Rule 65(2) EPC (applying the rationale of T 0097/98).
Case Number: T 0715/01 - 3.3.4

DECISION
of the Technical Board of Appeal 3.3.4
of 24 September 2002

Appellant: Cognis Corporation
Suite 200,
2500 Renaissance Boulevard
Gulph Mills, PA 19406 (US)

Representative: Weber, Thomas Dr
Patentanwälte,
von Kreisler, Selting, Werner
Bahnhofsvorplatz 1 (Deichmannhaus)
D-50667 Köln (DE)

Decision under appeal: Decision of the Examining Division of the
refusing European patent application
No. 93 911 319.7 pursuant to Article 97(1) EPC.

Composition of the Board:
Chairperson: U. M. Kinkeldey
Members: L. Galligani
V. Di Cerbo
Summary of Facts and Submissions

I. The appeal was filed against the decision of the examining division dated 15 January 2001 whereby the European patent application No. 93 911 319.7 (International Publication No. WO 93/24504, European publication Nr. 0 646 122) was refused for lack of inventive step in view of the following documents:

(1) EP-A-0 362 671

(3) WO-A-90/07516


II. The notice of appeal was filed on 14 March 2001 by the representative Dr Thomas Weber on behalf of the applicants Henkel Corporation, these being the same applicants against whom the decision under appeal was issued. Dr Weber was the representative who had represented the applicants before the examining division. The statement of grounds of appeal was filed on 4 May 2001 by Dr Bernd Fabry on letter headed "Cognis" which correctly identified the present patent application by its application and publication numbers and title, but referred to "Cognis Corp." as applicants. The letter indicated that a change of representative of the applicants had taken place. The first paragraph of the said letter read:"This Brief on Appeal is in response to the decision to refuse the above-referenced European patent application dated 15 January 2001 and in addition to the formal appeal applicant has already lodged dated March 12, 2001".
III. With the statement of grounds of appeal, amended claims were filed. The examining division did not rectify its decision and remitted the case to the board under Article 109(2) EPC.

IV. On 31 October 2001, the board issued a communication drawing the appellants' attention to the fact that the statement of grounds had been filed by Cognis Corporation while the notice of appeal had been filed by Henkel Corporation, and that this raised the question of the admissibility of the appeal.

V. On 18 December 2001, the representative Dr Thomas Weber informed the board that all titles and rights of the application had been assigned to Cognis Corporation. Copy of the assignment, dated 13 December 2001, was annexed to his letter.

VI. On 21 December 2001, in reply to the board's communication, the representative Dr Thomas Weber filed a request for correction of the name of the applicants mentioned on page 1 of the statement of grounds from "Cognis Corp." to read "Henkel Corporation". An amended page 1 was filed. He also filed an authorisation of Henkel Corporation to Dr Bernd Fabry dated 10 April 2001.

VII. On 15 July 2002, the board dispatched the summons to oral proceedings together with a communication outlining the legal situation as regards the admissibility of the appeal and also with some preliminary observations on the amended claims.

VIII. In reply to this communication, on 28 August 2002, the representative Dr Thomas Weber filed amended claims 1 to 15, and an undated authorisation by Cognis Corporation to representatives of the patent firm "Von Kreisler, Selting, Werner", he being among them.
Claims 1 and 12 read as follows:

"1. A process for preparing aliphatic glycosides according to formula (I)

$$\text{RO(CHR}^1\text{CH}_2\text{O)}_y\text{G}_x \quad (I)$$

Wherein R is the residue of a fatty alcohol having from 7 to 22 carbon atoms which can be saturated or unsaturated, straight chain or branched, R\(^1\) is hydrogen, a methyl or ethyl radical, G is the residue of a reducing saccharide, y is a number of from 0 to 5, and x is a number of from 1 to 5, by reacting an alcohol according to formula (II)

$$\text{RO(CHR}^1\text{CH}_2\text{O)}_y\text{H} \quad (II)$$

with a source of reducing saccharide in the presence of an acid catalyst and a stoichiometric excess of fatty alcohol under reduced pressure at a temperature in the range of 90 to 140 \(^\circ\)C to form a reaction mixture and recovering the aliphatic glycoside from said mixture, which comprises:

(a) forming a slurry of a hydrous saccharide source in a first portion of fatty alcohol;

(b) heating a second portion of fatty alcohol to a temperature of from 60 to 110 \(^\circ\)C under a pressure of less than 13.33 kPa (100 mmHg);

(c) continuously introducing the slurry into the second portion of fatty alcohol to form a mixture while maintaining the temperature of the mixture between 60 to 110 \(^\circ\)C and a pressure of less than 13.33 kPa (100 mmHg) to form a mixture of alcohol and saccharide source with a reduced water content..."
of less than 1% b.w. of water;

(d) adjusting the temperature of the mixture to a range of from 90 to 140 °C if the temperature is below this range and maintaining the pressure at less than 13.33 kPa (100 mmHg);

(e) introducing the acid catalyst into the heated mixture of alcohol and saccharide source with reduced water content as formed in step d);

(f) reacting the alcohol with the saccharide source at a temperature of from 90 to 140 °C under a reduced pressure to form a reaction mixture containing the aliphatic glycoside; and

(g) recovering the aliphatic glycoside."

"12. A method for producing a dry mixture of a saccharide source and a fatty alcohol containing from 7 to 22 carbon atoms said mixture containing less than 1% b.w. of water, which method comprises:

(a) forming a slurry of a hydrous saccharide source in a first portion of fatty alcohol;

(b) heating a second portion of fatty alcohol to a temperature of from 60 to 110 °C under a pressure of less than 13.33 kPa (100 mmHg);

(c) continuously introducing the slurry into the second portion of fatty alcohol to form a mixture while maintaining the temperature of the mixture between 60 to 110 °C and a pressure of less than 13.33 kPa (100 mmHg) to form a mixture of alcohol and saccharide source with a reduced water content of less
than 1% b.w. of water;

(d) adjusting the temperature of the mixture to a range of from 95 to 125 "C if the temperature is below this range and maintaining the pressure at less than 13.33 kPa (100 mmHg) to form said anhydrous mixture."

Dependent claims 2 to 11 concerned embodiments of the method according to claim 1, while dependent claims 12 to 15 were directed to embodiments of the method of claim 12.

IX. Oral proceedings took place on 24 September 2002. An amended description adapted to claims 1 to 15 was filed.

X. As regards the admissibility of the appeal, it was submitted that, as the notice of appeal was filed in full compliance with the provisions of Articles 107 and 108 and Rule 64 EPC, the fact that the statement of grounds referred on page 1 to (at that time) incorrect applicants had to be considered, under the circumstances of the case, as an error correctable under Rule 65(2) EPC. In fact, (i) the said statement of grounds had been filed by a professional representative who, as proven by the authorisation dated 10 April 2001, was entitled to act already before May 2002 on behalf of Henkel Corporation, (ii) the statement of grounds explicitly referred to the notice of appeal filed by "the formal appeal applicant", and clearly dealt with the issues raised by the decision under appeal, (iii) it indicated that a change of representative of the applicants had taken place. Rule 65(2) EPC referred to the situation where "the appeal" does not comply with the provisions of Rule 64(a) EPC, and this could not possibly be limited...
exclusively to the notice of appeal. In this context, reference was made to decision T 97/98 (OJ EPO 2002, 183) where the board allowed the correction of the name of the appellant in an appeal.

As regards the substantive issues, it was submitted that the claims on file met not only the requirements of Articles 54, 83, 84 and 123(2) EPC, but also those of Article 56 EPC because, as shown also by the comparative example submitted, the actual concentration of the hydrous glycose during the dewatering step was kept significantly lower compared to what was taught by the state of the art and the method as claimed led to a reduced time for separating off the water and to a better colour quality of the products.

XI. The appellants request that the decision under appeal be set aside and a patent be granted on the basis of

claims: 1 to 15 filed with letter dated 28 August 2002,
description: pages 1 to 3, 3a, 3b, 3c, 4 to 21 filed during oral proceedings;
drawings: Figure 1 filed during oral proceedings.

Reasons for the Decision

Admissibility of the appeal

1. According to Article 107 EPC a party to the proceedings adversely affected by the decision may appeal. In the present case, Henkel Corporation being the applicants against which the decision to refuse the European Patent application was issued, and Henkel Corporation being the party on behalf of which a notice of appeal
was filed by the professional representative Dr Thomas Weber, the requirements of Article 107 EPC are met. Moreover, the notice of appeal was filed within the time limit and in the form laid down in Article 108, first two sentences, EPC and Rule 64 EPC.

2. The last sentence of Article 108 EPC requires that "within four months after the date of notification of the decision, a written statement setting out the grounds of appeal must be filed". The said sentence does not indicate by whom the statement of grounds has to be filed, but a logical course of action would require that this be the same party filing the notice of appeal. In the present case, however, not only the statement of grounds was filed by a different professional representative, Dr Bernd Fabry, but it was filed on behalf of Cognis Corp. which at that time was not yet a party on record. In fact, the assignment of all titles and rights of the application from Henkel Corporation to Cognis Corporation bears the date of 13 December 2001, and was communicated to the EPO on 18 December 2001, ie after the expiry of the time limit for filing the statement of grounds.

3. In reply to a communication by the board drawing the attention to these deficiencies, the representative Dr Thomas Weber requested under Rule 65(2) EPC a correction of the applicants referred to on page 1 of the statement of grounds from "Cognis Corp." to "Henkel Corporation". He also filed the authorisation of Henkel Corporation to Dr Bernd Fabry dated 10 April 2001.

4. This authorisation, although belatedly, shows that Dr Bernd Fabry was indeed entitled to act on behalf of Henkel Corporation before the expiry of the time limit for filing the statement of grounds of appeal. Thus, the only question remains whether a correction of the name of the applicants in the said statement of grounds
is allowable under Rule 65(2) EPC.

5. In decision T 97/98 (supra), the then competent board allowed under Rule 65(2) in conjunction with Rule 64(a) EPC the correction of the name of the appellant to substitute the legal person other than the one indicated in the appeal because it was considered that the true intention was to file the appeal in the name of the party who was actually the party to the proceedings before the first instance. The board took the position that there is a deficiency in the indication of the name and address of the appellant within the meaning of Rule 65(2) EPC also when incorrect indications have been made, and that by referring to Rule 64(a) EPC, which rule again refers to Rule 26(2)(c) EPC, Rule 65(2) EPC defines when a deficiency exists by reference to all the details of the required indications of name and address laid down in Rule 26(2)(c) EPC. It was observed that correction of errors in the name or address of the appellant may be of varying nature and that the cited rules refer to deficiencies in the indication of the name or address, generally, no distinction being made as to their nature. The view was expressed that nothing in said rules allows them to be applied only to certain kinds of deficiencies and as a matter of principle not when the correction of a wrong indication of the name or address of the appellant leads to a different person to the one originally expressly named in the appeal having to be regarded as the appellant. It was stated that what is required under Rules 64(a) and 65(2) EPC is that there be indeed a deficiency, i.e. that the indication be wrong, so that its correction only
expresses what was intended when filing the appeal. It must be shown that it was the true intention to file the appeal in the name of the person, who, according to the request, is to be substituted.

In the case of T 460/99 of 30 August 2001 correction of the name of the wrongly-named appellant in the notice of appeal was allowed under Rule 88 EPC.

6. The legal situation in the present case differs from that of the cases of T 97/98 and T 460/99 (supra) in that the issue is not the correction of appellants' name in the notice of appeal, but the correction of the appellants' name in the statement of grounds of appeal.

7. The facts of the case are essentially those reported in sections II and VI above and can be summarised as follows:

- The appeal was initiated by the filing of the notice of appeal by Dr Thomas Weber on behalf of Henkel Corporation who had been adversely affected by the decision. As established in point 1 above, this was in full compliance with the provisions of Articles 107, 108 and Rule 64 EPC;

- The statement of grounds of appeal was filed within the time limit set in Article 108 EPC by Dr Bernd Fabry on letter headed "Cognis". The letter correctly identified the present patent application by its application and publication numbers and title, but referred to "Cognis Corp." as applicants. The first paragraph of the said letter read: "This Brief on Appeal is in response
to the decision to refuse the above-referenced European patent application dated January 15, 2001 and in addition to the formal appeal applicant has already lodged dated March 12, 2001" (emphasis added by the board).

Although - as later shown - Dr Bernd Fabry was entitled to act on behalf of Henkel Corporation at the time of filing of the statement of grounds of appeal (cf point 4 above), he quoted in his letter the wrong applicants.

8. The board is convinced that the true intention of Dr Fabry was to make the second step in the appeal by filing the statement of grounds as required by Article 108 EPC so as to render it admissible and trigger thereby a revision of the decision against the party adversely affected by it. This is unmistakably demonstrated by his statement "in addition to the formal appeal applicant has already lodged" and by the fact that all data reported in his letter, with the only exception of the name of the applicants are correct. Paradoxically, had Dr Fabry not mentioned in his letter any applicant, no problems of admissibility would have arisen, once the authorisation issue had been cleared (cf point 4 above). The key question here is thus whether under these circumstances the law provides any form of remedy to his mistakenly quoting the wrong applicants.

9. As regards the correction of the name and address of an appellant in the statement of grounds, the EPC provides no explicit remedy.

As stated in point 5 above, correction of the name of the wrongly-named appellant in the notice of appeal was allowed by the boards of appeal in at least two cases by relying either on Rule 65(2) EPC (cf T 97/98) or on
Rule 88 EPC (cf T 460/99). Since - as noted also in eg G 11/91 (OJ EPO 1993, 125, see point 1.1 of the reasons) - Rule 88 EPC appears in chapter V of part VII of the Implementing Regulations to the Convention, which relates directly to part VII of the Convention, and not to part VI relating to the appeal procedure, and Rule 65(2) EPC provides an explicit remedy for deficiencies in the name and address of the notice of appeal as it refers to Rule 64(2), sub-paragraph (a), EPC, this board considers that the relevant question here is whether Rule 65(2) EPC can be interpreted as being applicable also to the statement of grounds of appeal.

10. In the board's judgement, the answer to this question is affirmative for the following reasons:

(a) Rule 65(2) EPC refers to "the appeal" in general, not specifically to the "notice of appeal";

(b) By way of Rule 64(a) EPC, reference is made to general provisions of Rule 26(2)(c) EPC in relation to name and address of an applicant;

(c) The possible explanation for (a) above, is that - as shown by the preparatory documents of the EPC - a Rule 65 had initially been drafted entitled "Content of the appeal" which stated that the appeal had to contain (a) the name and address ... (b) a statement identifying ... (identical to items (a) and (b) of present Rule 64 EPC) and (c) "the grounds on which the amendment or cancellation of the decision is requested." (cf Draft Implementing Regulations to the EPC M/2 8 December 1972, part VI "Rule 65"). After it was decided, in the interest of the users, to divide the time limit for filing an appeal into two parts, one for filing a notice of appeal (within
two months) and the other for filing the statement of grounds (within four months), this Rule 65 became Rule 64 entitled "Contents of the notice of appeal" (cf Munich Diplomatic Conference document M/146/R/10, 30 September 1973, "Rule 64") and Rule 65 (former Rule 66 "Rejection of the appeal as inadmissible") was reformulated in its present form (cf Munich Diplomatic Conference document M/160/K, 4 October 1973, "Rule 65"), which is the elaboration of a initial proposal of the Norwegian delegation which considered necessary to introduce some form of correction of deficiencies before rejecting the appeal as inadmissible (Minutes of the proceedings of the Main Committee I, items 2294-2299).

(d) Against this background, the lack of an explicit regulation in respect of name and address deficiencies in the statement of grounds of appeal is considered to have been the result of the reformulations of former Rules 65 and 66 to the final Rules 64 and 65, emphasis being put on the correction of deficiencies in the name and address of the notice of appeal which is the mandatory first step for initiating an appeal, and cannot be interpreted as a specific intention of the legislator not to allow any correction at all. In fact, if the first act of filing the notice of appeal is not validly accomplished, the filing of a valid statement of grounds would no constitute a remedy. The legislative development as depicted in (c) above indicates that the term "appeal" in Rule 65(2) EPC means "the appeal as a whole", ie notice of appeal plus statement of grounds of appeal.

(e) It would thus be inconsistent to allow a correction of a deficiency of name or address only
in the notice of appeal, which initiates the appeal, and not in the statement of grounds of appeal which is the following mandatory step for filing an admissible appeal. Such a strict interpretation would go against the rationale behind Rule 64 and Rule 65 EPC.

(f) Thus, the board considers that in the present case it is possible to remedy the deficiency under Rule 65(2) EPC, even after expiry of the time limit for filing the appeal and in reply to the communication by the board, since the true intention of the appellants was to comply with the formal requirements for making an appeal admissible. This corresponds to applying in the present situation the rationale of T 97/98 (supra).

11. The requested correction of the statement of grounds is therefore allowed and the appeal is accordingly admissible under the provisions of Articles 107, 108 and Rules 64 and 65 EPC.

Substantive matters

12. Claim 1 at issue results essentially from the introduction into claim 1 as filed of the particular operating conditions for the individual steps that are disclosed on pages 8 to 13 of the description as filed ("heating the second portion of fatty alcohol to a temperature of from 60 to 110°C under a pressure of less than 13.33 kPa (100 mmHg)" from pages 8 and 9; "maintaining the temperature of the mixture between 60 to 110°C and a pressure of less than 13.33 kPa (100 mmHg) to form a mixture of alcohol and saccharide source with a reduced water content of less than 1% b.w. of water" from pages 8 to 10; "adjusting the temperature of the mixture to a range of..."
from 90 to 140°C" from pages 11 and 12).

Claim 12 results essentially from the introduction into claim 14 as filed of the feature "mixture ... with a reduced water content of less than 1% b.w. of water" which is found on page 10, lines 12 to 13 of the description as filed as a preferred embodiment.

All the dependent claims are based on the corresponding claims as filed.

Thus the claims at issue comply with the requirements of Article 123(2) EPC.

13. There are no objections under Article 84 EPC to the claims at issue as their subject-matter is defined in clear technical terms and is supported by the description, which contains also a clear and sufficient teaching of how to carry out the claimed process. There are thus also no objections under Article 83 EPC.

14. None of the documents on file, in particular documents (1), (3) and (4), discloses a process comprising all the steps which characterise the processes of claim 1 and claim 12. Their subject-matter is therefore novel.

15. The only remaining issue is that of inventive step. The examining division denied the presence of an inventive step to the claims then on file essentially because it considered that it was a normal option for a skilled person, in the light of documents (3) and (4), to adapt the known process described in document (1) (closest prior art) by using as a starting reactant a slurry of hydrous glycose in fatty alcohol with a reduced water content of less than 1% b.w. water.

16. The processes according to claims 1 and 12 are
characterised by a combination of sequential steps, each step requiring specified conditions. The fundamental question in relation to inventive step is whether or not the state of the art suggested to a skilled person precisely said combination of features. The fact that an individualised feature or a number of features was known or obvious per se does not conclusively show the obviousness of a combination (cf Case Law of the Board of Appeal of the European patent Office, 4th edition 2001, cf in particular section I.D, item 6.4.1)

17. Document (1), which represents the closest prior art, discloses a process for making alkyl glycosides by acetalisation of higher aliphatic primary alcohols with glycoses, particularly glucose, in the presence of a catalyst at a temperature of from about 80°C to about 120°C under reduced pressure and rapid removal of the water of reaction. In one of two variant embodiments ("portion" embodiment, cf column 5, lines 23 to 29), the said process is characterised in that the glycose is mixed with a first portion of the fatty alcohol, heated and added continuously or in portion to the remaining part of the fatty alcohol which was mixed beforehand with the catalyst and heated. In the other embodiment ("entire" embodiment, cf column 5, lines 30 to 35), the entire fatty alcohol and the glycose are mixed and heated before the catalyst is added. The document specifies that the glycose, eg glucose, is used in anhydrous form and that, should it contain water of crystallisation, this should be removed before contact with the catalyst (cf column 6, lines 37 to 50).
18. Although in the "portion" embodiment of document (1), like in the process according to claim 1, the approach is used to mix the glucose with a **first** portion of the fatty alcohol, to heat and then introduce the mixture into the **remaining** portion of the fatty alcohol, there are between the two processes many differences, the most important ones being (i) the use in the process of claim 1 (and claim 12) of **hydrous** glucose instead of anhydrous glucose and (ii) the fact that in the process according to claim 1 the catalyst is added only in step (e), ie after steps (a) to (d) have been performed (these being in fact the steps which characterise the method of claim 12) while in the process according to document (1) the catalyst is immediately mixed with a portion of the fatty alcohol. Another difference, in spite of some overlapping, is that the temperature ranges of operation vary according to the step which is being carried out (from 60 to 110°C in steps (b) and (c) and from 90 to 140°C in steps (d) and (f)), document (1) being less precise about it as for mixing and reaction a range from about 80°C to about 120°C, in particular from 100 to 120°C is proposed.

19. The problem to be solved, having regard to document (1), being defined as finding an alternative process for preparing aliphatic glycosides, the fundamental question in relation to inventive step is whether it would have been obvious for the skilled person to modify the process according to the "portion" embodiment of document (1) by carrying it out according to the sequence of steps which characterise the process of claim 1.
20. In the board's judgement, the answer to the above question is negative for the following reasons:

(a) Both documents (3) and (4), which - in the view of the examining division - would have suggested to the skilled person a modification of the "portion" process according to document (1) in the direction of claim 1, relate to a process for preparing aliphatic glycosides wherein the saccharide, in either anhydrous (solid) or hydrous form, is mixed with the entire amount of fatty alcohol and the resulting slurry is heated so as to reduce the water content to a predetermined value (e.g. less than 1% by weight water, cf document (4), page 6, lines 22 to 26) before the acid catalyst is added.

(b) There is neither in document (3) nor in document (4) a suggestion of splitting the fatty alcohol into a first portion to which the glycoside is added and a heated second portion (with or without catalyst) to which said first portion, after heating, is then continuously added.

(c) In view of the similarity of the operational approach (mixing of the glycoside with the entire amount of fatty alcohol, later addition of the catalyst), the skilled person, when looking for an alternative method, would have readily considered applying the teachings of document (3) or (4) to the "entire" embodiment of the process of document (1), i.e. he or she would have considered using also hydrous glycoside, as an alternative to anhydrous glycoside, and in doing this would have
relied on thermal measures as shown in the said documents to reduce the water content to a predetermined value **before** adding the catalyst.

(d) However, no reason is seen for the skilled person to take into consideration applying the teachings of document (3) or (4) to the "portion" embodiment of document (1) as this is based on a different approach, ie mixing a heated portion of fatty alcohol **containing the catalyst** with a heated slurry of glycose in the other portion of the alcohol. In fact, there was no direct link between this approach and that of the documents (3) and (4). As the teaching of the said two documents was to reduce the water content **before** adding the catalyst, in order to modify the "portion" embodiment in the sense of claim 1 at issue, the skilled person would have had also to separate the step of catalyst addition. Only with hindsight can one derive the process of claim 1 or that of claim 12 (which corresponds to the first part of the process according to claim 1) by combining the description of the "portion" embodiment of document (1) with the teaching of document (3) or (4).

21. Under these circumstances, an inventive step is acknowledged to all claims at issue.

22. The amended description adapted to claims 1 to 15 is in compliance with the requirements of Article 123(2) EPC.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside;

2. The case is remitted to the first instance with the order to grant a patent on the basis of claims 1 to 15 filed with letter dated 28 August 2002; description pages 1 to 3, 3a, 3b, 3c, 4 to 21 filed during oral proceedings; Figure 1 filed during oral proceedings.

The Registrar:  

P. Cremona

The Chairperson:  

U. Kinkeldey