

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 42

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EDWARD C. Y. NIEH

Appeal No. 1999-0381
Application No. 07/776,014

ON BRIEF

Before WINTERS, WILLIAM F. SMITH, and ADAMS, Administrative Patent Judges.

WILLIAM F. SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1, 3 through 10, 14 and 15, all the claims pending in the application.

Claim 1 is illustrative of the claims on appeal:

1. A composition useful as a mold release agent comprising:
 - (a) 80% to 60% by weight one or more water soluble copolymers of ethylene oxide and propylene oxide containing at least 40% and less than 80% by weight oxyethylene units and exhibiting liquid phase at ambient temperatures;
 - (b) 20% to 40% by weight of a crystalline polyoxyethylene glycol having a melting point slightly above ambient; and
 - (c) 100 to 5000 ppm of one or more antioxidant additives.

The references relied on by the examiner are:

The Polyglycol Handbook” Dow Chemical Company, pp. 6-28 (1988)
(Handbook)

Kirk-Othmer “Encyclopedia of Chemical Technology,” Vol. 18, pp.
623-624 and pp 637-638 (1982) (Kirk-Othmer)

GROUND OF REJECTION

Claims 1, 3 through 10, 14 and 15 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon the Handbook and Kirk-Othmer.

On consideration of the record, we reverse.

BACKGROUND

The present invention is directed to compositions to be used as "mandrel release agents" (specification, page 1). According to appellant, there is a need for a release agent "formulated [to have] the most desirable viscosity at application temperatures and [result] in a solid film which [is] smooth but [exhibits] no brittleness or cracking" (specification, page

6) and “wherein the melting point of the formula could be precisely controlled by one of the components in the composition” (specification, page 7). Such “[a] release agent composition ... could be adjusted to cover a wide range of viscosities, lubricities and melting points and [be] adaptable to fit a number of different types of molding equipment [sic]” (specification, page 6). Appellant seeks to meet these requirements by providing “a three-component water soluble mold release composition ... comprising one or more water soluble copolymers of ethylene oxide and propylene oxide, a highly crystalline polyoxyalkylene compound which melts at slightly above ambient temperature and one or more antioxidant additives” (specification, page 7).

PROCEDURAL HISTORY

We find it helpful to outline the procedural history of this application.

1. On September 21, 1995, in Appeal No. 1993-2624 a merits panel entered a new ground of rejection of claims 1-10 under 35 U.S.C. § 103. As evidence of obviousness, the Board relied on the Handbook and Kirk-Othmer (Paper No.20).
2. On January 24, 1996, appellant responded by filing a declaration from Edward C.Y. Nieh (Paper No. 21). This is appellant’s own declaration and it sought to rebut the obviousness rejection on the basis that the claimed compositions possessed unexpected properties.
3. On March 13, 1996, the examiner entered a final rejection maintaining the rejection entered by the merits panel (Paper No. 22).

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4. On May 6, 1996, appellant submitted an amendment after final seeking to amend claim 1 and cancel claim 2 (Paper No. 23). This amendment after final was denied entry by the examiner in the advisory action entered May 16, 1996 (Paper No. 24).

5. On August 16, 1996, appellant submitted a second amendment after final seeking to amend claim 1, cancel claim 2, and add new claims 11 through 13 (Paper No. 26). This amendment after final was also denied entry by the examiner in the advisory action entered September 26, 1996 (Paper No. 31).

6. On September 16, 1996, the appellant filed a Notice of Appeal (Paper No. 30).

7. On November 19, 1996, appellant submitted an amendment under 37 CFR § 1.129(a) seeking to amend claim 1, cancel claim 2, and add new claims 11 and 12, renumbered as 14 and 15 (Paper No. 32). On December 6, 1996, the examiner reopened prosecution and rejected claims 1, 3 through 10, 14 and 15 over the same ground entered by the merits panel (Paper No. 33).

8. On March 10, 1997, the appellant filed a second Notice of Appeal (Paper No. 34) and a second declaration from Edward C.Y. Nieh (Paper No. 35).

9. On April 10, 1997, appellant filed an appeal brief (Paper No. 36). In response, the examiner entered an examiner's answer on August 15, 1997 (Paper No. 37).

10. The appellant then submitted a request for reconsideration of the declaration (Paper No. 38, filed October 14, 1997), a reply brief (Paper No. 39, filed October 17, 1997) and an Information Disclosure Statement (Paper No. 40, filed October 27, 1997). The examiner

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noted and considered all these submissions in a communication entered January 5, 1998 (Paper No. 41).

THE REJECTION UNDER 35 U.S.C. § 103

We refer to the decision entered September 21, 1995 (Paper No. 20) for the statement of rejection presented by the merits panel. We note that the examiner repeated this rejection verbatim on pages 4 and 5 of the examiner's answer.

According to appellant, "[t]he sole issue on appeal is whether the claims are commensurate in scope with the information in the Nieh Declaration, Exhibit 1" (appeal brief, page 2). The examiner concurs (examiner's answer, page 2). Thus, appellant does not contest the prima facie case of obviousness.

However, a conclusion of prima facie obviousness, of course, does not end a patentability determination under 35 U.S.C. § 103. As stated in In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986):

If a prima facie case is made in the first instance, and if the applicant comes forward with reasonable rebuttal, whether buttressed by experiment, prior art references, or argument, the entire merits of the matter are to be reweighed. In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

All the evidence of nonobviousness must be carefully weighed in deciding whether a prima facie case of obviousness has been overcome. Appellant, as the party asserting the

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claimed invention yields unexpected or improved results compared to the prior art bears the burden of establishing that the argued results in the declaration are indeed unexpected or improved. In re Klosak, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972). In submitting evidence asserted to establish unexpected or improved results, it has long been held that objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support.

See In re Boesch, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980);

In re Greenfield 571 F.2d 1185, 1189, 197 USPQ 227, 230 (CCPA 1978); In re Tiffin, 443 F.2d 394, 170 USPQ 88 (CCPA 1971). It has also been held that

... appellant is not required to test each and every species within the scope of the appealed claims and compare same with the closest prior art species. Rather, patentability is established by a showing of unexpected superiority for representative compounds within the scope of the appealed claims. What is representative is a factual question which is decided on a case-by-case basis.

Ex parte Winters, 11 USPQ2d 1387, 1388 (BdPatApp&Int 1989).

Appellant submitted a declaration by the inventor, Edward C.Y. Nieh, to rebut the obviousness rejection under appeal asserting that the claimed compositions possessed

unexpected properties (Paper No. 21).¹ This declaration relies on Examples 9 through 12 in the specification (declaration, paragraphs 11 and 12). Through these examples, appellant seeks to show that the claimed compositions result in compositions with a melting points of 36 or 37 °C even though a minimum of 70% of the composition is a component with a melting point of less than 10 °C (declaration, paragraph 11). Because of this unexpected high melting point, the compositions “provide the advantage of allowing precise control over a melting point while also enabling a wide range of viscosities for a given melting point to fit a variety of molding equipment [sic]” (id.).

The examiner admits that these examples do show unexpected results (examiner’s answer, page 6). However, the examiner contends that “the instant claims are not directed to a composition of the scope of examples 9-12 and the appellant's declaration does not show that the composition of the scope of the instant claims gives the unexpected result demonstrated by the Nieh declaration of 1/24/96 [Paper No. 21]” (examiner’s answer, page 6). According to the examiner,

... it is the examiner's position that there may be other parameters, in addition to the functional requirements of the instant claims, required to obtain the results of the appellant's examples 9-12. The degrees of crystallinity, end groups, molecular weights, polydispersity index, additives, and other physical properties of the ingredients of the instant claims are expected to materially affect the unexpected result of the appellant's examples 9-12. These parameters are not

¹ The second declaration from Edward C.Y. Nieh (Paper No. 35) was deemed untimely and, thus, not considered by the examiner (examiner’s answer, page 11). Accordingly, we do not reach it in our deliberations on the merits of the rejection.

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accounted for in the instant claims nor the appellant's examples. It has not been demonstrated that changing any of these parameters, inherently possessed by the instantly claimed ingredients and the ingredients of the appellant's examples, does not affect the unexpected result demonstrated to occur with the very specific compositions of the appellant's examples 9-12 (examiner's answer, page 8).

We find this position to be in error.

In considering claim 1, we find the claim to be relatively narrow. It requires a specific water soluble copolymer of ethylene oxide and propylene oxide and a specific polyoxyethylene glycol that exhibits a melting point slightly above ambient temperature. Examples 9 through 12 of the specification provide twelve specific compositions within the narrow scope of the claim that show unexpected results (appeal brief, page 8, Table 1). The examiner does not controvert this. In our view, the compositions in examples 9 through 12 are representative of the claimed subject matter.

The examiner has expressed concerns that appellant's showing does not take into account a number of parameters or factors that may affect the unexpected results demonstrated. Assuming arguendo that these factors may have some effect, the examiner has provided no evidence to substantiate that they are of any significance. The examiner's position is speculative in nature absent an explanation or evidence of record of why these factors would be expected to affect the results to such a degree that the declaration evidence would be of minimal value.

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Accordingly, we reverse the examiner's rejection of claims 1, 3 through 10, 14 and 15 under 35 U.S.C. § 103.

REVERSED

Sherman D. Winters))
Administrative Patent Judge))
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)) BOARD OF PATENT
William F. Smith))
Administrative Patent Judge)) APPEALS AND
))
)) INTERFERENCES
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Donald E. Adams))
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