

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KOJI MATSUDA and MIWAKO KITAO

Appeal No. 95-0969
Application 07/045,586¹

ON BRIEF

Before KIMLIN, JOHN D. SMITH and OWENS, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the examiner's refusal to allow claims 1, 3, 5-7, 10 and 11 as amended after final rejection. These are all of the claims remaining in the application.

¹ Application for patent filed September 16, 1992. According the appellants, the application is a continuation of Application 07/618,845, filed November 28, 1990, now abandoned.

THE INVENTION

Appellants claim a water-in-oil emulsion which, appellants state, has a high water content and excellent emulsion stability (specification, page 1). Claim 1 is illustrative and reads as follows:

1. A water-in-oil emulsion comprising an aqueous phase and a fat phase in a weight ratio of the aqueous phase to the fat phase of from 50/50 to 80/20 and containing a polyglycerol fatty acid ester which is added to the fat phase in an amount of from 0.1 to 5% by weight based on the total amount of the emulsion, which has erucic acid accounting for at least 70% by weight of its fatty acid component, and which has a mean esterification ratio of from 30 to 90% .

THE REFERENCES

Terada et al. (Terada)	3,939,290	Feb. 17, 1976
Yokobori et al. (Yokobori)	4,847,105	Jul. 11, 1989

THE REJECTION

Claims 1, 3, 5-7, 10 and 11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Terada in view of Yokobori.²

OPINION

We have carefully considered all of the arguments advanced by appellants and the examiner and agree with appellants that the aforementioned rejection is not well founded. Accordingly, this

² The rejection under 35 U.S.C. § 103 over U.S. Patent No. 3,914,458 to Terada et al. in view of Yokobori has been withdrawn (answer, page 5).

rejection will be reversed.

Terada discloses a water-in-oil emulsion wherein the aqueous phase is about 5-50 wt% of the emulsion (col. 1, line 65 - col. 2, line 6). The emulsion contains a polyhydric alcohol fatty acid ester which is made using an unsaturated fatty acid or a mixture of unsaturated and saturated fatty acids (col. 2, line 67 - col. 3, line 8). The preferred amount of unsaturated fatty acid is at least about 50 wt% of the combined fatty acids, and the unsaturated fatty acids which are disclosed as being suitable include erucic acid (col. 3, lines 15-17 and 22-26). The polyhydric alcohol unsaturated fatty acid ester is present in an amount of 0.25 to 2.5 wt% of the emulsion (col. 3, lines 31-34).

To arrive at appellants' polyglycerol fatty acid ester from the teaching of Terada, one would have to: 1) select an amount of unsaturated fatty acid which is at least 70 wt% of the combined fatty acid, 2) select erucic acid from the eight listed unsaturated fatty acids (col. 3, lines 22-26), 2) select a polyglycerol, which is not among the polyhydric alcohols listed by Terada (col. 3, lines 26-30), as the polyhydric alcohol, and 3) select an esterification ratio of 30-90%. In our view, the teaching by Terada would not have fairly suggested this combination of selections to one of ordinary skill in the art.

To remedy the deficiency in Terada, the examiner relies upon Yokobori. This reference teaches that blooming of chocolate can be reduced by adding to hard butter used to make the chocolate, 0.05 to 20 wt% of a polyglycerol fatty acid ester which is made using saturated or unsaturated fatty acids having up to 24 carbons and which has an average of four or more moles of fatty acid bound to polyglycerol having an average of five or more hydroxyl groups (col. 1, line 61 - col. 2, line 21; col. 3, lines 8-11).³ Yokobori states that it is preferred that all of the hydroxyl groups of the polyglycerol are esterified, but indicates that fewer of the hydroxyl groups can be esterified (col. 2, lines 22-35).

The examiner asserts that Yokobori discloses use of polyglycerol fatty acid esters as emulsifiers (answer, page 4). As pointed out by appellants (reply brief, page 3), Yokobori teaches that it was known in the art to use emulsifiers in chocolate (col. 1, lines 17-19), but does not indicate that the polyglycerol fatty acid ester added to hard butter according to his invention serves as an emulsifier. Thus, the examiner has

³ According to appellants, "blooming" is the formation of white powder on the surface of chocolate during storage and is considered to be due to growth of fine crystals of oil fat in the chocolate (brief, page 12).

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provided no factual support for his argument that use of polyglycerol fatty acid esters as emulsifiers is conventional in the art and that it therefore would have been obvious to one of ordinary skill in the art to use Yokobori's polyglycerol fatty acid ester as Terada's polyhydric alcohol fatty acid ester emulsifier (answer, page 4).

The examiner has not explained, and it is not apparent, why one of ordinary skill in the art would have been motivated by the teachings of Terada and Yokobori to use as Terada's polyhydric alcohol fatty acid ester the polyglycerol fatty acid ester recited in appellants' claim 1, and would have had a reasonable expectation of success in doing so. See *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988); *In re Longi*, 759 F.2d 887, 892-93, 225 USPQ 645, 648 (Fed. Cir. 1985). Consequently, we conclude that the examiner has not carried his burden of establishing a *prima facie* case of obviousness. Since no *prima facie* case of obviousness has been set forth, we need not address the experimental results. See *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

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DECISION

The rejection of claims 1, 3, 5-7, 10 and 11 under 35 U.S.C. § 103 as being unpatentable over Terada in view of Yokobori is reversed.

REVERSED

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
)	
)	
JOHN D. SMITH)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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)	
TERRY J. OWENS)	
Administrative Patent Judge)	

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