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**Datasheet for the decision
of 7 April 2017**

Case Number: T 1277/12 - 3.3.03

Application Number: 03739465.7

Publication Number: 1490411

IPC: C08F2/22

Language of the proceedings: EN

Title of invention:

METHOD FOR CONTROLLING THE STABILITY OF EMULSIONS AND
STABILIZED EMULSIONS

Patent Proprietor:

RHODIA CHIMIE

Opponent:

BASF SE

Relevant legal provisions:

EPC Art. 54, 113(1)

Keyword:

Novelty - (no)

Right to be heard - opportunity to comment (yes)

Decisions cited:

T 0682/97



Beschwerdekammern
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Case Number: T 1277/12 - 3.3.03

D E C I S I O N
of Technical Board of Appeal 3.3.03
of 7 April 2017

Appellant: BASF SE
(Opponent) Global Intellectual Property
GVX-C006
67056 Ludwigshafen (DE)

Respondent: RHODIA CHIMIE
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Representative: RHODIA CHIMIE
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted on 4 April 2012 rejecting the opposition filed against European patent No. 1490411 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman D. Semino
Members: F. Rousseau
R. Cramer

Summary of Facts and Submissions

I. The appeal by the opponent lies from the decision of the Opposition Division posted on 4 April 2012 according to which the opposition against European patent No. 1 490 411 was rejected.

II. Claim 1 of the patent reads as follow:

"1. Use in an emulsion comprising a hydrophobic phase dispersed in an aqueous phase, or an aqueous phase dispersed in a hydrophobic phase, and less than 4% by weight of a surfactant, for controlling the stability of said emulsion, of a block copolymer selected from the group consisting of:

(block A)-(block B) di-block copolymers,
-(block A)-(block B)-(block A) tri-block copolymers,
and
-(block B)-(block A)-(block B) tri-block copolymers,

wherein

block A is a hydrophilic block,
block B is a hydrophobic block, and
block A comprises units deriving from mono-alpha-ethylenically-unsaturated monomers."

III. In the contested decision novelty with respect to documents D4 and D6 and the presence of an inventive step with respect to document D7, taken alone or in combination with one of D8, D9, D10 and D11 was acknowledged.

IV. With a fax of 10 August 2012 completing the statement of grounds of appeal filed on 2 August 2012, the

opponent/appellant submitted inter alia the following document:

D14: T. Liu, et al., *Macromolecules* 1999, 32, 6031-6042

V. With communication dated 7 August 2012 the statement of grounds of appeal was notified to the respondent, whereby it was stated that a reply was to be filed within four months. No reply was received.

VI. The appellant's arguments as far as relevant for the present decision may be summarized as follows:

D14 described the use of block-copolymers and low molecular weight surfactants for emulsion polymerisation and stabilization of emulsions in amounts of 0,1 to 5% by weight (abstract and page 6033, Tables 5 and 6). The dispersant function of amphiphilic copolymers was for example disclosed on page 6031, right-hand column, second paragraph of that document. The block copolymers described in D14 were also surfactants, so that the feature surfactant in claim 1 of the patent in suit also encompassed those compounds. Accordingly, the feature "less than 4% by weight of a surfactant" did not represent any distinguishing feature over D14. Accordingly, the subject-matter of claim 1 was anticipated by D14.

VII. The appellant (opponent) requested that the decision under appeal be set aside and the patent be revoked.

VIII. The respondent (patent proprietor) did not file any request, nor any submission in the appeal proceedings.

Reasons for the Decision

1. D14 was submitted as an additional prior art document attached to the addendum to the first letter of 2 August 2012 setting out the grounds of appeal. D14 and the submissions relating to that prior art were submitted on 10 August 2012, i.e. still within four months of notification of the contested decision posted on 4 April 2012 and deemed to be received on 14 April 2012 (Rule 126(2) EPC). Those additional submissions are therefore considered to be part of the statement of grounds of appeal of the appellant.
2. Due to the relevance of D14 (see below) to counter the conclusion in the decision under appeal and the lack of a request of the respondent not to admit the document, the Board does not see any reason to make use of its power under Article 12(4) RPBA. Document D14 is therefore in the appeal proceedings according to Article 12 RPBA.
3. D14 (see in particular abstract, Tables 5 and 6 and Part V starting on page 6040) relates to a study comparing the stabilization effect of the block copolymers poly(methyl methacrylate)-b-poly(methacrylic acid) and the surfactant sodium dodecyl sulfate as dispersants in the microemulsion polymerization of methyl methacrylate. Said block copolymers are (block A)-(block B) di-block copolymers within the meaning of claim 1 of the patent in suit, wherein the poly(methacrylic acid) constitutes the hydrophilic block comprising units derived from mono-alpha-ethylenically-unsaturated monomers and the poly(methyl methacrylate) the hydrophobic block (cf. paragraphs

[0037] and [0038] in the patent in suit). D14 discloses the ability of both sodium dodecyl sulfate and the above mentioned di-block copolymer to stabilize the poly(methyl methacrylate) latex produced (see page 6041, "conclusion" second paragraph). Moreover, the amount of block copolymer used as stabilizer for the emulsion is disclosed in Table 5 to be as low as 1.0 g/L, i.e. about 0.1% by weight of the emulsion.

4. It follows from the above that D14 discloses the use in an emulsion comprising a hydrophobic phase, i.e. poly(methyl methacrylate), dispersed in an aqueous phase of 1.0 g/L, i.e. about 0.1% by weight of the emulsion, of a block copolymer according to the definition of operative claim 1. As mentioned above the terms of claim 1 of the patent in suit do not exclude either explicitly or implicitly the use of said block-copolymer in micro-emulsions, i.e. the particular type of emulsions concerned in D14. Accordingly, the sole feature of claim 1 potentially distinguishing the claimed use from the disclosure of D14 is that the emulsion comprises "less than 4% by weight of a surfactant, for controlling the stability of said emulsion". In view of its structure and function described in D14, the above mentioned block copolymer disclosed in D14 is a surfactant which allows to control the stability of the emulsion as required by operative claim 1. In the microemulsion polymerization of methyl methacrylate reported in Table 5 of that document, that block-copolymer is in fact the sole surfactant present in the resulting emulsion. Accordingly, the emulsion obtained contains about 0.1% by weight of a surfactant, i.e. less than 4% by weight.
5. The Board agrees with the appellant's argument that a technical sensible reading of claim 1 is that the

amount of surfactant being less than 4% by weight relates to the total amount of surfactant contained in the emulsion. There is in particular no reason to construe claim 1 as containing an implicit limitation defining that the amount of surfactant of less than 4% by weight relates to a surfactant different from the block copolymers defined in claim 1 which should be additionally present. In the absence of any argument in this respect advanced by the respondent, let alone any corresponding amendment offered to limit the claimed subject-matter, the board concludes that the wording of claim 1 according to its broadest technical sensible meaning does not allow a distinction between the use of the block copolymer presently claimed and that disclosed in D14.

6. Accordingly, the subject-matter of claim 1 lacks novelty over D14.

7. As the finding of the Board is based on an objection raised by the appellant to which the respondent has been given an opportunity to respond but chose not to, the requirement in Article 113(1) EPC has been observed (cf. T 682/97, Reasons Nr. 8), and a decision to revoke the patent can be taken without the need to hold oral proceedings.

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:



P. Martorana

D. Semino

Decision electronically authenticated