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**Datasheet for the decision
of 7 December 2018**

Case Number: T 2415/17 - 3.3.02

Application Number: 02257527.8

Publication Number: 1321506

IPC: C10M169/04, C10M141/12

Language of the proceedings: EN

Title of invention:

Lubricating oil composition with a reduced phosphorus content

Applicant:

Infineum International Limited

Headword:

INFINEUM / LUBRICATING COMPOSITION

Relevant legal provisions:

EPC Art. 83, 84

Keyword:

Sufficiency of disclosure - (no)
Clarity (no)

Decisions cited:

Catchword:



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Case Number: T 2415/17 - 3.3.02

D E C I S I O N
of Technical Board of Appeal 3.3.02
of 7 December 2018

Appellant: Infineum International Limited
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 30 June 2006
refusing European patent application No.
02257527.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman M. O. Müller
Members: M. Maremonti
P. de Heij

Summary of Facts and Submissions

I. The appeal by the applicant (hereinafter "appellant") lies from the decision of the examining division to refuse European patent application No. 02 257 527.8

II. The impugned decision is based on the main and sole request of the applicant filed on 9 May 2006 during oral proceedings before the examining division. The request contains eleven claims, independent claim 1 of which reads as follows:

"1. A lubricating oil composition having 100 to no more than 600 ppm, by mass, of phosphorus and between 50 and 350 ppm, by mass, of molybdenum, comprising a major amount of oil of lubricating viscosity, an oil soluble molybdenum compound in an amount providing 50 to 350 ppm, by mass, of molybdenum to said composition, an amount of zinc dialkyl dithiophosphate providing said composition with 100 to no more than 600 ppm, by mass, of phosphorus, an amount of at least one metal-free friction modifier sufficient to allow the composition to pass an ASTM Sequence VIB Fuel Economy Test, and an amount of at least one phosphorus-free antioxidant sufficient to achieve a MHT-4 TEOST result of less than or equal to 45 mg of deposit."

Claims 2 to 10 define specific embodiments of the composition of claim 1, while claim 11 is directed to a method in which the composition of claim 1 is used.

III. The following documents were among those cited during the examination proceedings:

D2: US 5 629 272 A

D3: WO 01/30948 A

The examining division came to, *inter alia*, the following conclusion:

- The subject-matter of claim 1 did not involve an inventive step in view of either D2 or D3 taken as the closest prior art.

IV. In its statement setting out the grounds of appeal, the appellant contested the reasoning of the examining division and submitted that the subject-matter of the claims filed on 9 May 2006 involved an inventive step in view of D2 and D3.

V. On 3 August 2018, the board issued a communication in preparation for the oral proceedings. In particular, it expressed the preliminary opinion that the claimed subject-matter appeared to be neither clear under Article 84 EPC nor sufficiently disclosed in the application within the meaning of Article 83 EPC.

VI. In its reply to the board's communication dated 29 November 2018, the appellant did not respond to the objections raised by the board. It withdrew its request for oral proceedings, communicated that it would not attend the oral proceedings and requested a written decision on the file as it stood.

VII. Oral proceedings before the board were held on 7 December 2018 in the absence of the appellant in accordance with Rule 115(2) EPC and Article 15(3) RPBA.

VIII. Final requests

The appellant requested in writing:

- 1) that the decision under appeal be set aside and that a patent be granted with the set of claims filed as the

main request at the oral proceedings before the examining division on 9 May 2006; or

2) if request 1) was not granted, that the decision under appeal be set aside and the prosecution of the application be resumed in writing.

Reasons for the Decision

1. *Claim 1 - Clarity - Article 84 EPC*

Claim 1 at issue (II, *supra*) is directed to a lubricating oil composition having an oil soluble molybdenum compound.

Claim 1 further specifies that the defined composition also comprises "*an amount of at least one metal-free friction modifier **sufficient to allow** the composition to pass an ASTM Sequence VIB fuel economy test, and an amount of at least one phosphorous-free antioxidant **sufficient to achieve** a MHT-4 TEOST result of less than or equal to 45 mg of deposit*" (emphasis added by the board).

1.1 The amounts of both the friction modifier and the antioxidant are thus defined in terms of *results to be achieved*. The board holds that such a definition is unclear. In particular, it is unclear whether these two compounds must be present in the composition or only be included if the composition without these compounds does not achieve the mentioned results in terms of fuel economy and mass of deposit.

1.2 The board further observes that according to the description, page 14, line 13, molybdenum compounds may

also provide antioxidant credits to the composition. It is thus also unclear whether the "*phosphorous-free antioxidant*" referred to in claim 1 must be different to the oil soluble molybdenum compound already mentioned in claim 1.

- 1.3 Moreover, the term "*metal-free friction modifier*" included in claim 1 is *per se* unclear. In fact, the skilled person cannot unambiguously identify which classes of compounds are both
- covered by this term and
 - able to let the composition pass the fuel economy test as required by claim 1 at issue.

- 1.4 The same objection applies to the term "*phosphorous-free antioxidant*". Here also, the skilled person cannot unambiguously identify which classes of compounds are both covered by this term and able to make the composition achieve the mass of deposit required by claim 1.

- 1.5 For the above reasons, the board concludes that the claimed subject-matter does not meet the requirements of Article 84 EPC.

2. *Sufficiency of disclosure- Article 83 EPC*

- 2.1 Given the above definition of the amounts of both the friction modifier and the antioxidant in claim 1 at issue as *results to be achieved*, the question arises whether the application as a whole contains sufficient information to allow a skilled person to reproduce the claimed composition without undue burden across the entire claimed scope.

- 2.2 For the invention as defined in claim 1 to be sufficiently disclosed under Article 83 EPC, the skilled person must be able, on the basis of the teaching contained in the application and common general knowledge, to produce a composition containing at least one friction modifier and at least one antioxidant, (notwithstanding their unclear definition, see 1.3 and 1.4, *supra*), to allow the composition to pass the ASTM Sequence VIB fuel economy test, and, **at the same time**, achieve a MHT-4 TEOST result of less than or equal to 45 mg of deposit.
- 2.3 The application (see the results on page 21) contains a single example (example 14) of a composition able to achieve the required deposit (43 mg, see table 4). The other tested compositions (examples 9 to 13) are unable to meet this requirement (see the results in tables 3 and 4). The composition of example 14 requires, however, two different antioxidants to be included (AO1: diphenylamine-type antioxidant and AO2: hindered phenolic antioxidant) in very specific amounts. The tested composition is not said to contain any friction modifier. Moreover, its performance in a fuel economy test is not reported.
- 2.4 The application does not include a single example of compositions able to pass the fuel economy test required by claim 1, let alone *in combination* with the achievement of the required mass of deposit.
- 2.5 The board thus concludes that the skilled person is at a loss as to which amount and type of friction modifier and antioxidant are needed so that the requirements of claim 1 at issue in terms of fuel economy and mass of deposit are met. A research programme would be necessary to identify these features, thus posing an

undue burden on the skilled person. The requirements of Article 83 EPC are not met.

3. The above objections under Articles 84 and 83 EPC were already raised by the board in its communication dated 3 August 2018 (V, *supra*). The appellant did not respond to these objections and chose not to attend the oral proceedings.

Conclusions

6. The sole claim request of the appellant is not allowable under Articles 84 and 83 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



N. Maslin

M. O. Müller

Decision electronically authenticated