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**D E C I S I O N**  
of 26 July 2005

**Case Number:** T 0996/02 - 3.3.1

**Application Number:** 98923216.0

**Publication Number:** 986546

**IPC:** C07D 251/60

**Language of the proceedings:** EN

**Title of invention:**  
Crystalline Melamine

**Applicant:**  
DSM N.V.

**Opponent:**

-

**Headword:**  
Melamine/DSM

**Relevant legal provisions:**  
EPC Art. 54, 111(1)

**Keyword:**  
"Novelty (yes) - purity of compound no distinguishing feature  
- particular powder not inevitable result of preparation  
process"  
"Remittal to first instance (yes) - outstanding issues"

**Decisions cited:**  
T 0205/83, T 0666/89, T 0990/96

**Catchword:**

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Case Number: T 0996/02 - 3.3.1

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.1  
of 26 July 2005

**Appellant:** DSM N.V.  
Het Overloon 1  
NL-6411 TE Heerlen (NL)

**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 3 April 2002  
refusing European application No. 98923216.0  
pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** A. Nuss  
**Members:** R. Freimuth  
R. Menapace

## Summary of Facts and Submissions

I. The appeal lodged on 17 May 2002 lies from the decision of the Examining Division posted on 3 April 2002 refusing European patent application No. 98 923 216.0 (European publication No. 986 546) which was filed as international application published as WO-A-98/55465.

II. The decision under appeal was based on claims 1 to 26 as filed, independent claim 1 reading as follows:

"1. Multicrystalline melamine powder having the following properties:

$d_{90}$ : 50-150  $\mu\text{m}$ ;  $d_{50}$  < 50  $\mu\text{m}$

bulk density (loose) 430-570  $\text{kg/m}^3$

color APHA less than 17

melamine: > 98.5 wt%

melam: < 1 wt%."

III. The Examining Division found that the present application lacked novelty pursuant to Article 54 EPC in view of document

(A) US-A-4 565 867.

The Examining Division held in particular that the multicrystalline melamine powder as defined in claim 1 comprised five parameters, namely the features (i) to (v), whereof only the features (i) to (iii) were regarded to be relevant for the matter of novelty. The features (iv) and (v) related to the level of purity and were, thus, not appropriate for establishing novelty.

That multicrystalline melamine powder was already known from document (A). This document disclosed the manufacture of melamine powder wherein crude melamine melt was sprayed in an ammonia environment for the purpose of rapid cooling. The resulting melamine powder had a purity of up to 99,5% and was multicrystalline since it consisted of small particles in the form of imperfect crystals bonded together to form larger particles. The Examining Division "believed that the characteristics of melamine obtained according to 'A' [wa]s within the parameter values of a multicrystalline melamine powder having the features (i) to (v) of present claim 1". The then pending independent claim 10 was also found not to be novel.

- IV. The Appellant submitted that it was possible to obtain the novel product according to claim 1 by means of a novel process. The combination of the present process features was not disclosed in the prior art, particularly that the powder was agitated mechanically over at least a part of the cooling range. That step was instrumental to ensure that the desired colour of the melamine powder was achieved. The Appellant conceded that the colour of the melamine powder, i.e. feature (iii) in present claim 1, was an indication of the presence of impurities although the colour, nevertheless, was independent from the level of purity (see test report submitted on 11 July 2005).

With respect to the novelty of claim 1 the Appellant submitted that the multicrystallinity of the melamine powder was disclosed in document (A), but that the features (i) and (ii) as defined in claim 1, i.e. a particular particle size distribution and a particular

bulk density, were not disclosed. Nor was a melamine powder having these features the inevitable result of the process described in that document. This known process could be performed in such a way so as to lead to a melamine powder satisfying the features (i) and (ii), but would not necessarily do so with the consequence that the melamine powder of claim 1 was novel.

V. The Appellant requested at the oral proceedings before the Board that the decision under appeal be set aside and that the application be remitted to the department of first instance for further prosecution on the basis of original claims 1 to 9.

VI. At the end of the oral proceedings held on 26 July 2005 the decision of the Board was announced.

### **Reasons for the Decision**

1. The appeal is admissible.

2. *Novelty*

The only issue arising from this appeal is whether or not the subject-matter of claim 1 is novel over document (A), which is stated in the decision under appeal as being the sole ground for refusal of the application.

2.1 The Board observes that it is a generally applied principle that for concluding lack of novelty, there must be a direct and unambiguous disclosure in the

state of the art which would inevitably lead the skilled person to subject-matter falling within the scope of what is claimed.

2.2 Claim 1 is directed to a multicrystalline melamine powder which is characterised by five parameters, namely the features (i) to (v).

2.2.1 The last three features refer to the compound melamine as such by indicating (iii) a maximum level of coloration, (iv) a minimum level of purity and (v) a maximum level of an individual impurity. The features (iv) and (v) directly determine the (im)purity of the compound melamine; the coloration (iii) does this indirectly since the change of colour of the compound melamine, which as such is white, is an indication of its impurity, as the Appellant conceded at the oral proceedings before the Board. Thus, the features (iii) to (v) only address the purity of the melamine claimed in powdery form.

According to established jurisprudence of the Boards of Appeal, however, parameters which are not attributable to the chemical compound itself, i.e. which are not inherent in it, cannot be taken into account when assessing novelty since they do not belong to the compound's chemical structure. Thus, a known chemical compound does not acquire novelty merely by virtue of the fact that it is prepared in a purer form. It follows from this finding that, in general, a document disclosing a chemical compound makes available this compound to the public in the sense of Article 54 EPC in all grades of purity (see decisions T 205/83, OJ EPO

1985, 363, point 3.2.3 of the reasons, T 990/96, OJ EPO 1998, 489, point 7 of the reasons).

As in the present case the features (iii) to (v) merely determine the purity of the melamine claimed in powdery form, these features disqualify for being taken into account when assessing novelty.

2.2.2 The first two features define the powdery form of the melamine by specifying a particular (i) particle size distribution and (ii) bulk density.

Document (A) is directed to multicrystalline melamine particles (column 5, lines 67 and 68), but is silent on any particle size, the distribution thereof and their bulk density.

Nor are melamine powders having the claimed particle size distribution and bulk density the inevitable result of the preparation process described in document (A) (cf. decision T 666/89, OJ EPO 1993, 495, point 6 of the reasons). That document is silent on both the specific operation of and the particular devices used in the preparation process although both determine the particle size distribution and the bulk density of the powder prepared in the process. For example, document (A) nowhere specifies the outflow velocity at which the cooling unit is operated and quite generally describes the device for cooling the liquid melamine to form solid particles as a "let-down valve" (column 8, line 46) without indicating any particular form of that valve, e.g. a form suitable for spraying.

Therefore, the process described in that document produces melamine powders which can show a wide variety of particle size distributions and bulk densities and does not inevitably result in a melamine powder having just a particle size distribution and a bulk density within the particular ranges claimed.

2.3 Since the features of (i) a particular particle size distribution and (ii) a particular bulk density as defined in claim 1 do not, for the skilled person, emerge clearly and unambiguously from document (A), it is not detrimental to the novelty of the melamine powder claimed.

2.4 Therefore the Board concludes that the subject-matter of claim 1, and, by the same token, that of dependent claims 2 to 9 is novel within the meaning of Articles 52(1) and 54 EPC.

### 3. *Remittal*

Having so decided, the Board has not taken a decision on the whole matter since the decision under appeal was solely based on a novelty objection vis-à-vis document (A) which objection was held unfounded. As the Examining Division has not yet ruled on the other requirements for granting a European patent and the Appellant having requested remittal to the first instance, the Board considers it appropriate to exercise its power conferred on it by Article 111(1) EPC to remit the case to the Examining Division for further prosecution on the basis of the original claims 1 to 9 according to the sole pending request, in



order to enable the first instance to decide on the outstanding issues.

**Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The application is remitted to the department of first instance for further prosecution on the basis of original claims 1 to 9.

The Registrar:

The Chairman:

N. Maslin

A. Nuss