

***Case No IV/M.1304 -  
HERCULES /  
BETZDEARBORN***

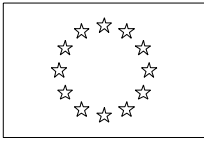
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**REGULATION (EEC) No 4064/89  
MERGER PROCEDURE**

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Article 6(1)(b) NON-OPPOSITION  
Date: 05/10/1998

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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 05.10.1998

PUBLIC VERSION

MERGER PROCEDURE  
ARTICLE 6(1)(b) DECISION

To the notifying parties

Dear Sirs,

**Case No IV/M.1304: Hercules/BetzDearborn**

Notification of 2 September 1998 pursuant to Article 4 of Council Regulation (EEC) No 4064/89 ('the Merger Regulation'), as last amended by Council Regulation (EC) No 1310/97.

1. On 2 September 1998 Hercules Incorporated, ("Hercules") notified an operation by which it would acquire sole control over BetzDearborn, Inc. ("BetzDearborn"), a speciality chemical company.

**I THE PARTIES**

2. The Hercules group is a US based worldwide producer of chemicals and related products. It operates primarily in two industry segments: speciality chemicals and food and functional products.
3. BetzDearborn is a US based company engaged worldwide in the engineered speciality chemical treatment of water and industrial process systems.

**II THE OPERATION AND THE CONCENTRATION**

4. The operation represents the acquisition of sole control by Hercules of BetzDearborn. To carry out the acquisition, Hercules has established a newly owned subsidiary that will be merged into BetzDearborn, with BetzDearborn surviving as a wholly owned subsidiary of Hercules.

### III COMMUNITY DIMENSION

5. The worldwide turnover of Hercules in 1997 was in excess of ECU 1 640 million and BetzDearborn's turnover was in excess of ECU 1 140 million. With a combined worldwide turnover below ECU 5 billion, the parties do not meet the thresholds set forth in Article 1(2) of the Merger Regulation. However the thresholds set forth in Article 1(3) of the Merger Regulation are met. First, the parties combined worldwide turnover is greater than ECU 2 500 million. Second, Hercules' Community-wide turnover was ECU [...] <sup>1</sup> million and BetzDearborn's was ECU [...] <sup>2</sup> million. Thirdly, the individual 1997 turnover of both Hercules and BetzDearborn exceeded ECU 25 million in France, Germany, Italy and the United Kingdom. In those four member states, their combined turnover also exceeded ECU 100 million. The notification does not fall to be treated as an EFTA co-operation case.

### IV COMPATIBILITY WITH THE COMMON MARKET

6. The parties argue that their operations are complementary, with only a limited number of competitive overlaps in the supply of certain speciality chemicals to the paper and pulp products industry. The overlaps occur in the following four product areas: retention/drainage aids, defoamers, sizing agents and creping agents.

- Retention/drainage aids

7. Retention and drainage aids are process chemicals used to affect the water flow at the wet end of the paper production process. Retention aids and drainage aids must be compatible and work together. The parties have combined market shares below 15% in any Member State with Hercules having a de-minimis market share. It has therefore not been necessary to define precisely the relevant product and geographic market.

- Defoamers

8. Defoamers are process chemicals used in pulp and papermaking. The pulp and paper making process generates foam that needs to be controlled by periodic addition of anti-foam agents. The parties' combined market share is below 15% in any identifiable product or geographic market in the EU. It has therefore not been necessary to define precisely the relevant product and geographic market.

A. *Relevant product markets*

- Sizing agents

9. Sizing agents are a functional chemical that gives paper products their water resistance characteristic. They are applied at two stages of the paper making process. First, "wet-end" or "internal" sizing agents are mixed into the pulp slurry to ensure even distribution of the chemical in the inner layers of the paper fibre. Second, "surface" sizing agents are later applied on the surface of the paper during the drying phase to concentrate the chemical onto the outer layers of fibre in the

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<sup>1</sup> Deleted business secret.

<sup>2</sup> Deleted business secret.

paper. The parties have no overlap as to surface sizing agents where only Hercules is active.

10. Internal sizing agents can be further subdivided into three categories: rosin sizes, AKD sizes (AKD stands for alkylketene dimer) and ASA sizes (ASA stands for alkenyl succinic anhydride). The parties explained that rosin sizes on the one hand and AKD and ASA sizes on the other hand are not substitutable in all internal/wet end applications. Rosin sizes are used in acidic environment whereas AKD/ASA sizes are used in alkalyne environment. There is interchangeability only when the paper product is manufactured in a neutral pH environment.
11. The parties argue that these three categories of sizes belong to the same product market. First, AKD and ASA are used for the same application. While AKD is delivered to paper mills in an emulsified form, ASA needs to be emulsified on site. When taking into account the need for paper mills to equip themselves with an ASA emulsifier, ASA enjoys a slight price advantage over AKD and as a consequence there has been some substitution over the past years. Secondly, the parties argue that most paper companies produce in multiple pH environments (i.e. acidic/neutral/alkalyne) and therefore purchase across the full range of sizes. They further contend that price discrimination between those end-uses where any internal size can be used versus other end-uses where only one type is used is not possible.
12. Respondents to the Commission's market investigation broadly confirmed that when faced with a small non-transitory price increase in rosin sizes, customers could not readily switch to other types of sizing agents. The same applied to ASA and AKD sizes. A conclusion as to the substitutability between ASA and AKD was more difficult to draw. Most respondents explained that customers using ASA could switch at any moment to AKD sizes. However, possible reactions to a price increase in AKD were mixed.
13. It was however not necessary for the Commission to delineate the relevant product market because the notified transaction would not create or strengthen a dominant position on any possible relevant market involving sizing agents (see below).

- Creping agents

14. Creping agents are process chemicals used to improve the creping process in the manufacture of tissue and towel paper. Creping occurs by scraping with a blade the paper while it is turning on a Yankee drying drum at very high speeds. Creping agents ensure that the paper adheres to the drum and then that it is released from the drum. The parties explained that adhesion and release agents are usually sold together.
15. The parties argued that tissue and paper manufacturers for the same adhesion and release functions use other speciality chemicals such as wet strength resins. Therefore the relevant product market should be wider than creping agents.
16. Respondents to the Commission's market investigation tended to agree that the relevant product market is limited to creping agents. It was however not necessary for the Commission to define precisely the relevant product market because it would

not affect the assessment of the effect of this transaction as far as creping agents are concerned.

*B. Geographic markets*

17. According to the parties, the relevant geographic market for both sizing and creping agents would be at a minimum pan-European and possibly world-wide. AKD is manufactured and transported in a solid form (flakes). The parties estimate total transport costs for pan-European shipments of AKD flakes at 1.4-1.6% of total value. However, once emulsified, the transport cost is at around 15% of emulsified AKD value. Similarly, the transports costs would amount to around 0.5-0.6% of the total value of creping agents. The import duties applied on AKD flakes or creping agents from the US are in the region of 6%.
18. The parties also cite the following factors as proving that the market is at least pan-European: (i) the products are manufactured according to pan-European specifications, (ii) there are no national preferences or brands; (iii) the same major competitors and customers are present in several European countries; (iv) there are no substantial price variations among European countries and (v) there are no other barriers to intra-European competition.
19. The market investigation conducted by the Commission broadly confirmed the parties' contention that the market is at least pan-European for both sizing agents and creping agents.

*C. Competitive assessment*

- Sizing agents

20. Hercules is the leading supplier of both rosin and AKD/ASA sizes. BetzDearborn does not supply rosin sizes in Europe, but supplies AKD/ASA sizes. If there was an AKD/ASA relevant market, the combined entity market share in Europe would be [...] <sup>3</sup> [...] <sup>4</sup> for Hercules and [...] <sup>5</sup> for BetzDearborn). In a broader product market including Rosin as well, the parties would have a combined market share of [...] <sup>6</sup>. In a market for all sizing agents (including surface sizing), the combined market shares would be [...] <sup>7</sup>. The parties argue that these percentages are not the expression of the creation or the strengthening of a dominant position for the following reasons.
21. First, there would be other important suppliers of AKD/ASA. The parties cite Akzo Nobel ([...] <sup>8</sup>), Raisio ([...] <sup>9</sup>), Cytac ([...] <sup>10</sup>), Kemira ([...] <sup>11</sup>) and BASF ([...] <sup>12</sup>).

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<sup>3</sup> Deleted business secret : less than 50%.

<sup>4</sup> Deleted business secret : less than 40%.

<sup>5</sup> Deleted business secret : less than 10%.

<sup>6</sup> Deleted business secret : less than 35%.

<sup>7</sup> Deleted business secret : less than 35%.

<sup>8</sup> Deleted business secret.

<sup>9</sup> Deleted business secret.

22. Secondly, they contend that barriers to entry and expansion are low. There would be no significant barriers to geographic entry via imports into Europe. In addition, the production of internal sizing agents involves raw materials (rosin pulp, animal fats or other fatty acids, or oil refinery by-products) which are widely available. There are no high manufacturing or equipment-related barriers. The formulation recipes are readily available. It would take less than two years and cost less than \$ 2 million to build a new ASA plant and start production in Europe. To build an AKD plant would also take less than two years and would cost less than \$ 10 million. Moreover, existing speciality chemical facilities can be adapted in less than one year and at low-to-modest capital investment. Finally, there would be some emulsification capacity for AKD available in Europe. To build an emulsification plant would take less than one year and cost less than \$ 2 million.
  23. Thirdly, the parties would be facing concentrated demand from sophisticated customers which would purchase a wide range of speciality chemicals and launch pan-European and regular tenders for these speciality chemicals products.
  24. The market investigation conducted by the Commission confirmed that the parties would face sufficient competitive constraints both from the demand side and the supply side and that therefore the combination of their sizing agents activities will not lead to the creation or the strengthening of a dominant position.
- Creping agents
25. Hercules is the leading European supplier of creping agents with a [...] <sup>13</sup> market share in Europe. The addition of BetzDearborn's [...] <sup>14</sup> market share leads to a combined market share of [...] <sup>15</sup>. The immediate competitors would be Petrofer ([...] <sup>16</sup> ) and Key Chemical ([...] <sup>17</sup> ).
  26. It has been argued that the parties would be able to leverage their market position post-merger either into higher prices charged to customers or by using their alleged strong position into other speciality chemical products for the paper industry to exclude their competitors from the creping agent market through low prices which could not be matched by the other incumbents.
  27. The parties explained that the combination of their creping agents activities should not raise competitive concerns for the two following reasons. First, customers for creping agents would exercise significant countervailing power: four companies would represent around 60% of the total European creping agent demand.

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<sup>10</sup> Deleted business secret.

<sup>11</sup> Deleted business secret.

<sup>12</sup> Deleted business secret.

<sup>13</sup> Deleted business secret : between 40 – 45%.

<sup>14</sup> Deleted business secret : less than 5%.

<sup>15</sup> Deleted business secret : less than 50%.

<sup>16</sup> Deleted business secret.

<sup>17</sup> Deleted business secret.

Secondly, there would be numerous firms supplying creping agents and/or closely related products to the same customers. These firms would therefore be well positioned to enter or expand opportunistically in the supply of creping agents in Europe. The following paragraphs examine the extent to which this alleged supply-side flexibility would constrain the competitive behaviour of the parties in the supply of creping agent.

28. Creping agents include two different products: adhesion aids and release aids. Release aids are formulated on oil bases that are widely available on the open market. Their formulations are widely known and easily duplicated. Most adhesion aids are polyamide epichlorohydrin (PAE) resins which are diluted to the desired strength on a mill-specific basis. The parties argue that other speciality chemicals based on PAE resins such as wet strength resins are used by tissue and paper manufacturers for the same adhesion and release functions and that the same manufacturing process is used for the production of both wet strength resins and creping adhesion agents. The parties explained that the switch from production of PAE resins sold as wet strength resins to the production of PAE resins sold as creping adhesion agent can be made in approximately one-half hour, merely by emptying the input lines and polymerization reactor and slightly adjusting the reaction time and temperature. In addition, the production process for PAE-based creping (adhesion) agents would be simple and highly flexible notably because: (i) formulations are based on simple chemistries that are easy to duplicate; (ii) production equipment is simple (a small reactor and dilution vessel) and not dedicated solely to the production of creping agents but also to wet strength resins and retention aids; (iii) input chemicals are readily available in the open market.
29. Wet strength resins based on PAE are manufactured and sold by a number of chemical companies which have salesforce visiting regularly the same paper mills which consume creping agents. When including the capacity of production of wet strength resins, the parties estimate the rate of use of capacity of production at approximately 60%. In addition, the construction of a new unit of production would require low expenses and less than a year.
30. Therefore, according to the parties, they would not be able to raise their creping agent prices above their competitive level because then, actual or potential competitors would be able to use their in excess PAE capacity to underprice them in the creping agent market. In this context, the parties have estimated Hercules' share of the total European PAE production capacity as [...] <sup>18</sup>. BetzDearborn does not manufacture PAE based products in Europe. When taking into account the US based PAE production facilities the parties' combined share would be below 10%.
31. The Commission market investigation confirmed the parties' view that there is a high level of supply side flexibility which would significantly impede their ability to raise creping agents prices above their competitive level.
32. In view of the above the concern that the parties may be using their alleged strong position into other speciality chemical products for the paper industry so that to exclude through low prices their competitors from the creping agent market does not

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<sup>18</sup> Deleted business secret.

seem convincing. Since the barriers to entry or expansion into the creping agent activity appear to be low, even if the combined entity were able to drive its creping agents competitors out of the market by underpricing them, it could not charge supra competitive prices afterwards because this would attract new entrants.

## **V ANCILLARY RESTRAINTS**

33. The parties have identified two possible ancillary restraints. The first one constrains the behaviour of BetzDearborn prior to the closing of the transaction. BetzDearborn has agreed, during the pre-closing period, to conduct its operations in the ordinary course of business as well as to report to Hercules any material matters pertaining to the ongoing operations. Moreover BetzDearborn has undertaken certain antidilution obligations. Insofar as these provisions constitute restrictions, they aim at maintaining the value of the acquired business pending closing of the transaction. They are directly related and necessary to the implementation of the proposed concentration.

The second restriction identified by the parties provides that BetzDearborn will not initiate or solicit in any way any third party offer for 20% or more of its business or engage in or continue negotiations relating thereto unless a more favourable proposal than the present transaction would be made. Again, insofar as this provision constitutes a restriction, it aims at maintaining the value of the acquired business pending closing of the transaction and is therefore directly related and necessary to the implementation of the proposed concentration.

## **VI CONCLUSION**

34. In view of the above the Commission has decided not to oppose the notified operation, and to declare it compatible with the common market and with the functioning of the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of Council Regulation No 4064/89 and Article 57 of the EEA Agreement.
35. For the above reasons, the Commission has decided not to oppose the notified operation and to declare it compatible with the common market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of Council Regulation (EEC) No 4064/89.

For the Commission