EN

Case No COMP/M.4550 - DOW CHEMICAL COMPANY / WOLFF WALSRODE

Only the English text is available and authentic.

REGULATION (EC) No 139/2004
MERGER PROCEDURE

Article 6(1)(b) NON-OPPOSITION
Date: 20/06/2007

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COMMISSION OF THE EUROPEAN COMMUNITIES

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In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus […]. Where possible the information omitted has been replaced by ranges of figures or a general description.

PUBLIC VERSION

MERGER PROCEDURE
ARTICLE 6(1)(b) DECISION

To the notifying party:

Dear Sir/Madam,

Subject: Case No COMP/M.4550 – Dow Chemical Company/Wolff Walsrode
Notification of 11 May 2007 pursuant to Article 4 of Council Regulation No 139/2004[1]

1. On 11 May 2007, the Commission received a notification of a proposed concentration pursuant to Article 4 and following a referral pursuant to Article 4(5) of Council Regulation (EC) No 139/2004 (the "Merger Regulation") by which The Dow Chemical Company acquires control by way of purchase of shares and assets over the Wolff Walsrode business group (Germany). The latter is currently a division of Bayer AG, active in the production and distribution of cellulose ethers and esters, and through its Casings business unit the manufacture of fibrous and plastic casings.

2. After examination of the notification, the Commission has concluded that the operation falls within the scope of the Merger Regulation but does not raise serious doubts as to its compatibility with the common market and the EEA agreement.

1 OJ L 24, 29.1.2004 p. 1.

I. THE PARTIES

3. The Dow Chemical Company ("Dow", USA) is a US corporation and the ultimate parent company of the Dow group of companies, which are active in plastics and chemicals, agricultural sciences and hydrocarbon and energy products and services.

4. The Wolff Walsrode business group ("*Wolff*", Germany) comprises (i) Wolff Walsrode AG and subsidiaries, a wholly owned subsidiary of Bayer Chemicals AG, (ii) Wolff Cellulosics LLC, a Delaware company which is a wholly owned subsidiary of Bayer Material Science LLC and (iii) the Walsroder Casings business´ production facility located in Poland owned by Bayer Sp.z.o.o. Each is a wholly owned subsidiary of Bayer AG, a global company active in health care, nutrition and high-tech materials headquartered in Germany. Wolff is a German manufacturer and supplier of cellulosics through its Wolff Cellulosics business unit, and of fibrous and plastic casings through its Walsroder Casings business unit.

II. THE OPERATION

5. The concentration concerns the acquisition by The Dow Chemical Company, through its wholly owned subsidiary Dow Deutschland Anlagengesellschaft mbH, of Wolff as defined above. After completion of the transaction, Dow will have sole control over Wolff.

III. CONCENTRATION

6. In light of the above the operation constitutes a concentration under the terms of the Merger Regulation.

IV. COMMUNITY DIMENSION

7. The operation does not have a Community dimension within the meaning of Article 1 of the Merger Regulation as Wolff has an aggregate Community-wide turnover of less than EUR 250 million[2] and as Wolff does not have a turnover above EUR 25 million in three or more Member States[3].

8. However, in view of the filing requirements in 11 Member States[4] and the cross-border nature of the transaction, the notifying party submitted a request for referral under Article 4(5) of the Merger Regulation on 7 March 2007. None of the Member States competent to examine the concentration indicated its disagreement with the request for referral within the period laid down by the Merger Regulation.

9. The concentration is therefore deemed to have a Community dimension pursuant to Article 4(5) of the Merger Regulation.

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[2] The Community-wide turnover of Dow was EUR […] in 2006 (worldwide EUR 39 billion). Wolff's turnover for the same period amounted to EUR […] (worldwide EUR […]).

[3] Only in […] did Wolff obtain a turnover exceeding EUR 25 million in 2006.

[4] Austria, Cyprus, Germany, Greece, Ireland, Italy, Poland, Portugal, Slovakia, Spain and the United Kingdom.

V. COMPETITIVE ASSESSMENT

A. Relevant product markets

10. The transaction mainly concerns the cellulose ethers sector of the chemical industry (applications in building materials, pharmaceuticals, food and industrial), and to a lesser extent the market(s) for casings (the 'skin' of sausages, cheeses etc.).

i) *Cellulosics*

11. Cellulosics are synthetic plastics made from cellulose. They include cellulose ethers and cellulose esters. Both parties are active in cellulose ethers, only Wolff is active in cellulose esters with the result that there is no overlap between the parties in that area.

ii) *Cellulose ethers*

12. According to the notifying parties different cellulose ethers result from the use of different substituting agents in the basic production process. Commercially significant cellulose ethers include methylcellulose ("MC") and derivatives ("MC&D"), sodium carboxymethylcellulose ("CMC"), hydroxyethylcellulose ("HEC") and derivatives, ethyl hydroxyethylcellulose ("EHEC") and derivatives, hydroxypropyl cellulose ("HPC") and derivatives and ethyl cellulose ("EC").

13. The parties submit that whilst these ethers differ in their chemical structures and come in different grades, they overlap in functionalities and compete with each other in the different applications where they are used as additives.[5] They therefore submit that all these cellulose ethers and their respective derivatives form one relevant product market. Overall, the market investigation does not support this conclusion. Whilst most competitors who replied agreed with this view, half of all customers who replied to the market investigation disagreed with it.

14. None of the parties produces HPC, only Wolff produces CMC and only Dow produces HEC and EC. Both parties produce MC&D, the only cellulose ether within which there is an overlap between the parties. As such, given that this is the narrowest possible product market in which the parties´ activities overlap, the Commission examined the proposed transaction overall and with respect to this particular market.

15. MC&D are used in various applications, including building materials, which is the largest application, and in regulated applications such as pharmaceuticals, food and personal care applications.

iii) *Cellulose esters*

16. According to the notification, cellulose esters are made by reacting high-purity cellulose with selected acids and anhydrides in a multistage process. One such cellulose ester is

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[5] Building materials such as mortar, where they are used as additives to improve adherence or workability; pharmaceutical applications, where they are used as tablet binders or thickeners in liquid medicine; food applications such as non-dairy whipped cream, where they act as binders, emulsifiers, stabilizers and thickeners; personal care products such as shampoos and conditioners, where they act as flow-control agents and thickeners; other industrial applications such as the production of coatings and glues.

nitrocellulose (NC), also known as cellulose nitrate. NC is used as input in various industry applications, including wood coatings and printing inks.

17. There is no overlap between the parties in NC, in which only Wolff is active. Wolff's market share in NC in the EEA is estimated by the parties to be [30-40]% by value and [30-40]% by volume. However, NC is not an upstream or downstream product to cellulose ethers and accordingly, NC is not an affected market. Furthermore neither of the parties is active in any other kind of cellulose ester and as such there are no competition concerns arising in this product area.

iv) *Casings*

18. Casings, which are used for sausages, other meat, cheese or convenience food products may be either man-made or natural. Wolff produces them on the basis of nylon/polyamide–extruded films and Dow in the form of saran polyvinylidene chloride ("PVDV") film or of viscose. In the latter case, the casings are classed as fibrous.

19. The parties submit that man-made casings are interchangeable to some extent with natural casings from the demand side as they perform similar functions and are used in some of the same applications, such as sausages. The result of the market investigation is inconclusive in this respect. However, given the small market shares of the parties in either a wider market for casings or the alternative narrower markets, the definition of the market does not make a difference to the competitive assessment of the case and the definition of the relevant product market may be left open.

v) *Polyethylene oxides (PEO)*

20. Dow, but not Wolff, is active in polyethylene oxides (PEO) and as such there is no overlap between the parties´ activities in this area. PEO are water-soluble resins produced through polymerization of ethylene oxide used to deliver binding, thickening, lubricating, water retention and film formation functions. It is used in various applications.[6]

21. The parties treat PEO as a separate product market to cellulose ethers. This is supported by the replies to the market investigation. Furthermore the parties do not consider PEO to be a "closely related neighbouring market" to cellulose ethers given that PEO only competes with the latter in one application, pharmaceuticals. On the basis of information to hand and replies to the market investigation, the Commission has decided to treat PEO as a separate and non-closely related neighbouring market to cellulose ethers. Therefore, this is not discussed further.

Conclusion on product markets

22. Ultimately, the definition of the relevant product markets can be left open as on any definition considered the transaction does not give rise to competition concerns.

B. Relevant geographic markets

6 Pharmaceuticals, personal care and cleaning products, mining, building materials, paper and other industrial applications.

i) *Cellulose ethers (including MC&D)*

23. The parties submit that the relevant geographic market for cellulose ethers is at least EEA-wide and probably worldwide. They point to low transport costs, important cross-border trade, a largely harmonized regulatory framework (within the EEA) and the absence of price differences among EEA Member States. The market investigation has confirmed that the geographic market for cellulose ethers is at least EEA-wide. Indications are that imports into the EEA, which until a few years ago were lower than exports, have been increasing to around 25% of EEA sales, mainly due to increased imports from Asia. However, because of the importance of testing new products as they fit in a customer's formulation in close cooperation between supplier and customer, which puts a premium on a sales organization in the EEA, the market is more likely currently to be EEA-wide rather than worldwide.

ii) *Casings*

24. The parties argue that the geographic scope for casings is EEA-wide, given low transport costs, absence of barriers to trade and the importance of cross-border or central purchasing by customers. A wider than EEA market is rejected by the parties as imports of casings into the EEA are estimated to constitute only [10-20]% of total EEA sales. The results of the market investigation support an EEA-wide market.

Conclusion on geographic markets

25. Ultimately, the definition of the relevant geographic markets can be left open as on any definition considered the transaction does not give rise to competition concerns.

C. Competitive Assessment –

A) Horizontal Overlaps

i) Cellulose ethers, in particular MC&D

Table 1 – Competitors Market Shares in MC&D[7]

MC&D Competitor		EEA 2006				Worldwide 2006			
		Value		Volume		Value		Volume	
Dow		[20-30]%	[30-40]%	[20-30]%	[30-40]%	[20-30]%	[40-50]%	[20-30]%	[40-50]%
Wolff Walsrode AG		[10-20]%		[10-20]%		[10-20]%		[10-20]%	
Shin-Etsu		[30-40]%		[20-30]%		[20-30]%		[20-30]%	
Hercules/Aqualon		[20-30]%		[20-30]%		[10-20]%		[10-20]%	
Samsung		[5-10]%		[5-10]%		[5-10]%		[10-20]%	
Chinese	Ruitai	[0-5]%		[0-5]%		[0-5]%		[0-5]%	
	Shandong Head	[0-5]%		[0-5]%		[0-5]%		[0-5]%	
	Tianpu	[0-5]%		[0-5]%		[0-5]%		[0-5]%	

26. As can be seen from table 1 above, the proposed concentration makes the combined entity the market leader in MC&D both in the EEA and worldwide ([30-40]% EEA, [40-50]% worldwide). The two next largest competitors are Shin-Etsu ([30-40]% EEA, [20-30]% worldwide) and Hercules/Aqualon ([20-30]% EEA, [10-20]% worldwide). Thereafter Samsung is significantly smaller ([5-10]% EEA or [5-10]% worldwide). Apart from these three main competitors, there are three Chinese MC&D producers active in the EEA whose market shares are still relatively small, but are expected to grow.

27. Looking at the market shares on a wider product market of all cellulose ethers, including, beside MC&D, also CMC, EHEC, HPC and EC, product groups in which the parties do not overlap, table 2 below presents the following picture:

[7] Market share estimates are based on rounded figures.

Table 2 – Competitors Market Shares in all cellulose ethers[8]

All cellulose ethers Competitor		EEA 2006				Worldwide 2006			
		Value		Volume		Value		Volume	
Dow		[10-20]%	[30-40]%	[10-20]%	[20-30]%	[20-30]%	[30-40]%	[10-20]%	[20-30]%
Wolff Walsrode AG		[10-20]%		[10-20]%		[10-20]%		[10-20]%	
Hercules/Aqualon		[20-30]%		[20-30]%		[20-30]%		[20-30]%	
Shin-Etsu		[20-30]%		[10-20]%		[10-20]%		[10-20]%	
Huber / CP Kelco /Noviant		[5-10]%		[10-20]%		[5-10]%		[10-20]%	
Akzo Nobel		[5-10]%		[5-10]%		[5-10]%		[5-10]%	
Samsung		[0-5]%		[0-5]%		[0-5]%		[0-5]%	
Chinese	Ruitai	[0-5]%		[0-5]%		[0-5]%		[0-5]%	
	Shandong Head	[0-5]%		[0-5]%		[0-5]%		[0-5]%	
	Tianpu	[0-5]%		[0-5]%		[0-5]%		[0-5]%	

28. The parties also become market leader, alone in the EEA and together with Hercules worldwide, but with clearly lower market shares than in MC&D. Beside Hercules and Shin-Etsu, which trade places compared to table 1, there are additional large competitors, CP Kelco and Akzo Nobel, who are not active in MC&D but in other types of cellulose ethers, and who are also large international companies. The market shares of Samsung and of the three Chinese competitors are similar to their shares in MC&D.

29. In the following paragraphs, the analysis focuses on the narrower market for MC&D, in which the parties overlap and in which they have the highest individual and combined market shares. However, the conclusions reached also apply to the hypothetical wider market for all cellulose ethers.

Non-Coordinated Effects

30. In terms of non-coordinated effects, whilst the combined entity will replace Shin Etsu as market leader within the EEA, the market share differential between these two players will be less than [5-10]% in MC&D. The main competitors, Shin Etsu, Hercules/Aqualon and Samsung are large financially strong international companies, active in the chemical industry on a worldwide scale.

[8] Market share estimates are based on rounded figures.

31. The Commission has noted high rates of capacity utilization by the parties and their competitors within the EEA. However, the parties have submitted that there are other products which compete with cellulose ethers in different applications and provided cost calculations for various kinds of products within those applications[9]. Most customers and competitors who replied to the market investigation agreed that there are competing substitutes for MC&D and indicated that the degree of substitutability depended on the product and the application in question. [10]

32. Furthermore there is a certain degree of substitution between MC&D and other cellulose ethers, for which there are other suppliers available. Such substitution possibilities have been confirmed by customers.

33. While it is usually not possible to replace the entire quantity of MC&D used in a particular application by an alternative product, the possibility to use such alternative products for a part of one's needs acts as a sufficient restraint on a supplier wanting to increase prices.

34. Moreover, the market investigation also clarified that most customers multi-source and usually work with several suppliers simultaneously.

35. In conclusion, the evidence weighs against the probability of unilateral price increases by the new market leader.

Co-ordinated Effects

36. In terms of coordinated effects, the merger will reduce the number of MC&D manufacturers active in the EEA from eight to seven, with asymmetric market shares, an asymmetry which becomes more pronounced with the transaction. There are however only two major competitors with shares between [20-30]% and [30-40]% (EEA) or [10-20]% and [20-30]% (worldwide).

37. Whereas the Commission notes that the market for MC&D is a reasonably mature market and that there are high rates of capacity utilization by all competitors, the evidence indicates that there is relatively limited price transparency. Furthermore, reaction from recent Chinese entrants may act as a competitive constraint in case the major producers attempted to raise prices. In general terms the evidence presented to the Commission indicates that prices for MC&D have been decreasing since 2004.

38. There have been capacity increases both in the EEA and in Asia over the last years, and more capacity increases, which take two years to materialize, are expected by several

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9 Most of these cost calculations indicated that the alternative substitutes given would come within 5% to 10% of the price formulation based on MC&D.

10 The parties have mentioned acrylic thickeners, alginates, natural hydrocolloids, polymeric methacrylates, polyols, silicate thickeners, which can depending on the application concerned replace MC&D in a specific formulation. The market investigation has confirmed the possibility of replacing MC&D by such substitution products, mentioning e.g. guar ether for building applications, acrylic thickeners for tile adhesives, xanthan gum for food applications, polymeric methacrylates for tablet coatings in pharmaceutical production. In the case of guar ether, this substitution is only for part of the MC&D needed, however, the lower price of guar ether combined with the small proportion of MC&D in the total cost of all ingredients needed leads to the result that even insignificant hypothetical price rises of MC&D could be offset.

market participants. The information obtained from several customers that they are either already importing from Asia or in the process of testing MC&D products from Asia makes it credible that further increases in capacity, also in Asia or America, may contribute to counteracting hypothetical coordinated price increases.

39. To conclude, the evidence weighs against the probability of successful price increases due to co-ordination between competitors on the MC& D market.

ii) *Casings*

40. The proposed concentration does not give rise to any competition concerns regarding casings. Based on all man-made casings, Wolff´s EEA-wide market share was about [5-10]% in 2006. If both man made and natural casings are taken into account, Wolff has a market share of about [0-5]% within the EEA. On the other hand Dow has had no sales of any casings within the EEA in 2006 and as such there is no overlap between the parties in this area.

B) Vertical issues

41. There are no vertical relationships between the parties, since neither party is engaged in business activities in a product market, which is upstream or downstream of a product market in which any other party to the concentration is engaged, and in which any of their individual or combined market shares at either level is 25% or more.

VI. CONCLUSION

42. 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 (EC) No 139/2004.

For the Commission
signed
Neelie KROES
Member of the Commission