

***Case No COMP/M.5712 -
MITSUBISHI CHEMICAL
HOLDINGS/MITSUBISHI
RAYON CO***

Only the English text is available and authentic.

**REGULATION (EC) No 139/2004
MERGER PROCEDURE**

Article 6(1)(b) NON-OPPOSITION
Date: 25/02/2010

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EUROPEAN COMMISSION

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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 Where possible the information omitted has been replaced by ranges of figures or a general description.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.5712 - MITSUBISHI CHEMICAL HOLDINGS/
MITSUBISHI RAYON CO
Notification of 22.01.2010 pursuant to Article 4 of Council Regulation
No 139/2004**

1. On 22.1.2010, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004¹ by which the undertaking Mitsubishi Chemical Holdings Corporation ("MCHC", Japan) acquires within the meaning of Article 3(1)(b) of the EC Merger Regulation control of the whole of the undertaking Mitsubishi Rayon Co., Ltd ("MRC", Japan) by way of public bid offer.

I. THE PARTIES

2. MCHC is a publicly listed holding company headquartered in Tokyo, Japan. Through its subsidiaries, MCHC is active in the production and marketing of chemicals, pharmaceuticals, recording media (plastics and carbon fibre).

¹ OJ L 24, 29.1.2004, p. 1 (the "EC Merger Regulation").

3. MRC is a publicly listed company headquartered in Tokyo, Japan. MRC and its subsidiaries are primarily active in the production and marketing of chemicals, plastics, coating materials, synthetic fibres, textiles and carbon fibre.
4. Both companies are independent and separately listed without any common controlling shareholders.

II. THE OPERATION AND THE CONCENTRATION

5. The envisaged operation involves the acquisition by MCHC of the whole of MRC by a public bid offer under Japanese law. In the event MCHC is unable to acquire all issued and outstanding shares issued by MRC through the Tender Offer, the companies plan to conduct a share exchange with respect to those shares which could not be acquired. Once the transaction is successfully completed, MRC will become a wholly owned subsidiary of MCHC. As a consequence, MCHC will solely controlled MRC. Thus, the operation constitutes a concentration within the meaning of Article 3(1)(b) of the EC Merger Regulation.

III. COMMUNITY DIMENSION

6. The undertakings concerned have a combined aggregate world-wide turnover of more than EUR 5 billion² (MCHC: EUR 19,081 Million and MRC: EUR 3,823 Million). Each of them has a Community-wide turnover in excess of EUR 250 million (MCHC: EUR [...] and MRC: EUR [...]), but they do not achieve more than two-thirds of their aggregate Community-wide turnover within one and the same Member State. The notified operation therefore has a Community dimension.

IV. COMPETITIVE ASSESSMENT

7. There are no horizontal overlaps above 15% on any relevant market; however, the concentration gives raise to a number of vertical links on a worldwide and on an EEA level. The following markets are vertically affected:
 - (i) Carbon fibre (upstream) – Carbon fibre intermediate products (downstream);
 - (ii) Acrylic ester (upstream) – Acrylic-based bead resins for acrylic coating applications (downstream);
 - (iii) I-Butanol (upstream) – Acrylic-based bead resins for acrylic coating applications (downstream);
 - (iv) N-Butanol (upstream) - Butyl Methacrylate (downstream);
 - (v) Acetone (upstream) – MMA- Methylmethacrylate (downstream);
 - (vi) MMA (upstream) - Hair Setting Resins (downstream).
8. The above markets are only vertically affected on a worldwide level, with the exception of the markets for pitch-based carbon fibres (upstream) and carbon fibre intermediate products (downstream), which are also vertically affected on an EEA level.

² Turnover calculated in accordance with Article 5(1) of the EC Merger Regulation.

Carbon fibre (upstream) – Carbon fibre intermediate products (downstream)

Relevant product markets

9. Carbon fibre is produced when an organic precursor fibre is heated at high temperature in an oxygen-depleted atmosphere. The resulting carbon fibre is the immediate input material for the production of carbon fibre intermediate products.
10. There exist two alternative production processes for producing carbon fibre using two different precursor materials: PAN and pitch-based precursors.
11. The most common starting material for producing carbon fibre is polyacrylonitrile (“PAN”) made from commercially available acrylonitrile. The initial acrylic is drawn and spun to produce polymer fibres which are heated at temperatures ranging from 1,000 to 1,500 degrees Celsius in an oxygen-depleted atmosphere. An alternative to PAN-based precursors is pitch. Pitch produces carbon fibres with better stiffness and conductivity. In the case at hand, MRC produces only PAN-based carbon fibre, whereas MCHC does not produce PAN-based carbon fibre (only pitch-based).
12. The parties also submit that depending on the application pitch-based carbon fibre can be combined with up to 50% (or more) of PAN-based carbon fibre without losing the distinct characteristics inherent to pitch-based carbon fibre. Since pitch-based carbon fibre is generally more expensive to produce or procure than PAN-based carbon fibre, the combination of pitch-based and PAN-based carbon fibre leads to cost savings without entailing significant compromises as regards the product characteristics. Accordingly, combinations of pitch-based and PAN-based carbon fibre can be used for essentially all applications for which pitch-based carbon fibre is generally used.
13. For the purposes of assessing the transaction, the parties submit it is appropriate to distinguish between separate product markets for pitch-based carbon fibre on one hand, and PAN-based carbon fibre³ on the other hand. They argue that due to the differences in qualitative characteristics, applications, process and costs of production, the two types of carbon fibre are substitutable only to a limited extent.

³ The parties argue they should be considered as separate markets due to the following reasons: (i) from a demand side: either type of carbon fibre has different technical and physical characteristics as regards their respective strength, stiffness (i.e., elastic modulus), density, and thermal conductivity. That is the reason why they are used for other purposes. PAN-based carbon fibre is used for a wide variety of industrial and day-to-day applications (automotive applications, sports equipment, housing for computers and electrical control panels and other places that require low-weight materials with excellent strength, stiffness, and thermal or electrical conductivity), while Pitch-based carbon fibre is more expensive and has superior technical characteristics, and is mostly used for aerospace and other high-end applications (propeller shafts, industrial robot arms, aircraft and spacecraft structural parts, radio telescopes etc.). MCHC estimates that around 70% of all worldwide Pitch-based carbon fibre supply is used for these high-end applications. Concerning the price, the average production cost of the pitch-base carbon fibre is four times higher than the PAN-based carbon fibres. (ii) from a supply perspective: The production processes for each of pitch-based and PAN-based carbon fibre, although similar in overall terms, are not substitutable with each other.

14. In previous decisions, the Commission did not distinguish between pitch-based and PAN-based carbon fibre. Instead, it considered an overall carbon fibre market, but left the ultimate product market definition open.⁴
15. Carbon fibre is used as starting material for carbon fibre intermediate products. Carbon fibre intermediate products are sheet-shaped products comprising (i) carbon fibre cloth *without* pre-impregnation and (ii) carbon fibre cloth *with* pre-impregnation (i.e. carbon fibre cloth combined with resins). Producing pre-impregnated carbon fibre cloth involves only one additional production step, i.e. the application of the pre-impregnation substance (a resin) to the carbon fibre cloth. Both parties are active in carbon fibre intermediate products. The parties consider that the only relevant differentiating factor between intermediate carbon fibre products is the type of carbon fibre (pitch-based or PAN-based) used.
16. The parties further submit that, for the purpose of assessing the transaction, it is not necessary to define separate product markets for carbon fibre intermediate products because (i) there is a perfect supply substitutability for carbon fibre intermediate products, as any supplier of carbon fibre cloth can also produce pre-impregnated carbon fibre cloth⁵ (ii) the parties estimate that their market shares in the hypothetical sub segments (i.e. carbon fibre cloth *with* and *without* pre-impregnation) would not differ to any material degree from their market shares in the market for all carbon fibre intermediate products. In addition, the parties consider that the only relevant differentiating factor between intermediate carbon fibre products is the type of carbon fibre (pitch-based or PAN-based) used as a starting material for the production of the downstream carbon fibre intermediate products.

Relevant geographic markets

17. As regards the carbon fibre markets above mentioned, according to the parties and in line with previous Commission decisions⁶, the relevant geographic market is likely to be worldwide, or at least EEA wide:
- Carbon fibre products are traded worldwide and there are significant trade flows of carbon fibre across continents;⁷
 - There are generally no barriers to international trade;⁸
 - Transport costs account for only a small portion of the final price of carbon fibre products (around 5% or less);
 - All producers of carbon fibre sell their output on a worldwide basis, including in countries where they have no production facilities; and
 - Prices tend to be uniform worldwide for comparable grades of carbon fibre.

Conclusion on the market definition

⁴ Case M.5484 – *SGL Carbon/Brembo/BCBS/JV*; M.1182 – *Akzo Nobel/Courtaulds*

⁵ MCHC estimates that around 60% of the global carbon fiber cloth output is further processed into pre-impregnated carbon fiber cloth.

⁶ In Case M.5484 – *SGL Carbon/Brembo/BCBS/JV*

⁷ For example, MCHC exports around [60-70]% of the carbon fibre it produces from Japan (MCHC's carbon fibre production facilities are located [...]).

⁸ In Japan, restrictions exist as regards the export of carbon fibre that can be used for military purposes depending on the country of destination.

18. As irrespective of considering an overall carbon fibre market (pitch-based and PAN-based combined) or two carbon markets (pitch-based and PAN-based separately) the transaction would not lead to any competition concern, the product and geographic market definitions can be left open.
19. Concerning carbon fibre intermediate products, the transaction would not lead to serious doubts under any potential market definition. Thus, the product and the geographic market definition can be left open.

Competitive assessment

20. In the carbon fibre market (pitch-based and PAN-based combined), the combined market share of the parties is not above 15% at either worldwide, or EEA level. On the hypothesis of separate markets for pitch-based and PAN-based carbon fibres there is no horizontal overlap.
21. Only in the production of pitch-based products would there be a vertical link with the downstream market for carbon fibre intermediates products. In the upstream market of pitch-based carbon fibre, the MCHC's market share is [20-30]% at both worldwide and EEA level, whereas in the downstream market of carbon fibre intermediates products, the parties' (MRC and MCHC combined) market shares would be very low ([5-10]% for carbon fibre intermediate products worldwide, and [0-5]% on an EEA level). MRC has expansion plans for carbon fibre,⁹ but not in relation to carbon fibre intermediate products. In addition, the parties estimate that their market shares in the hypothetical sub segments of carbon fibre intermediate products would not differ to any material degree from their shares in the overall market for carbon fibre intermediate products. Furthermore, there are strong competitors active in the market for pitch-based carbon fibre products upstream, such as: Kureha ([40-50]% EEA and worldwide) and Osaka Gas Chemical ([10-20]% EEA and worldwide). In additions, MCHC understands that some Chinese companies have entered the carbon fibre segment since 2000 and operate on a worldwide basis (Sinosteel Jilin Carbon Co., Ltd.; Zhongfu Shenyin Carbon Fiber Co., Ltd.; Anshan Sinocarb Carbon Fibers Co., Ltd.; Dalian Xingke Carbon Fiber Co., Ltd.).¹⁰
22. Despite the MCHC's market share upstream, in view of the low market shares in the downstream markets and the presence of strong competitors in the upstream level, market foreclosure (both input and costumer) seems unlikely in this case, as the merged entity would not be able to use its entire pitch-based carbon fibre production internally, and it would have to sell in the merchant market. The Commission considers therefore that the proposed transaction does not raise serious doubts as to its compatibility with the common market.

⁹ MRC had planned to expand its carbon fibre production capacity in Japan by around [...] MT as of the fourth quarter 2009, but eventually decided to postpone this expansion plan by around one year due to the prevailing difficult economic environment. The expansion plan is now tentatively scheduled to be implemented as of the fourth quarter 2010.

¹⁰ MCHC has no information about these competitors' market shares, but estimates that their shares on a worldwide level would be low and not exceed the single-digit range.

Acrylic ester (upstream) – Acrylic-based bead resins for acrylic coating applications (downstream)

Relevant product markets

23. Acrylic ester is a commodity chemical needed for the production of a variety of chemicals and plastics, including for example: polyacrylonitrile fibres, synthetic latex polymers, monomers, phenolic antioxidants, acrylic resins, or adhesives. Acrylic esters are one of the two main input materials for acrylic-based resins for coating materials.¹¹ Acrylic esters are responsible for the “pliability” (or “flexibility”) of the resulting resins. MCHC produces the following acrylic esters: (i) Butyl acrylate, (ii) Ethyl acrylate (iii) 2-Ethylhexyl acrylate (iv) Methyl acrylate. MRC does not produce acrylic ester.
24. Concerning acrylic ester, the Commission has defined in its previous decisions separate markets for each type of acrylic ester, because of the lack of sufficient demand and supply-side substitutability between the individual esters¹² (i.e. in the present case separate product markets for (i) Butyl acrylate, (ii) Ethyl acrylate (iii) 2-Ethylhexyl acrylate and (iv) Methyl acrylate).
25. The parties argue that (i) in absence of any horizontal overlap and (ii) in light of MCHC’s minimal market shares in the market for acrylic esters¹³, the product market definition can be left open, as there would be no serious doubts under any alternative market definition.
26. With respect to acrylic-based bead resins for acrylic coating applications, the parties submit that, synthetic resins, such as acrylic resins, are generally supplied in one of three forms: emulsions, solutions or beads. A resin emulsion is a suspension of solid particles in a liquid, which for emulsion resins is usually water. In a resin solution, the resin is dissolved in a solvent such as toluene or acetone. Bead resins are the resin in “dry” form, i.e., in the form of solid particles. These acrylate-based bead resins may be used for the production of all types of acrylic coating materials. They can be considered as an intermediate product, as the customer may then proceed to use the beads as an input to the creation of its own suspensions (by dispersing the beads in water) or solutions (by dissolving the beads in solvent). MRC produces acrylic resins only in bead form. The acrylate-based bead resins supplied by MRC and its competitors are commodity products with generally similar prices.
27. The parties consider a market segment encompassing acrylic-based bead resins to be the narrowest reasonably possible product market and add that this market should be considered as a sub-segment of a wider market comprising all synthetic resins used for coating materials, including, e.g., PVC, polycarbonate, or polyester resins. In addition, MRC estimates that acrylic-based resins in bead form account for by far the smallest portion of a market segment comprising acrylic-based resins in all three possible forms (beads, emulsions, and solutions).
28. There are no previous decisions regarding acrylic-based bead resins, however the Commission has previously defined the market for emulsion resins for decorative paints

¹¹ Another one are methacrylic esters.

¹² Case M.5424 – *Dow/Rohm and Haas*; M.5355 – *BASF/CIBA*

¹³ MCHC’s estimates its shares of sales of individual types of acrylic ester on a worldwide basis being below of [5-10]%. In the EEA MCHC sells only one type of acrylic ester, *i.e.*, butyl acrylate, and its share of sales is minimal ([0-5]%).

as a separate product market.¹⁴ Therefore a separate market for acrylic-based bead resins for acrylic coating applications could be considered in the case at hand.

Relevant geographic markets

29. For purposes of this Notification, the parties submit that the question whether the geographic market for acrylic ester is global or EEA-wide can be left open. MCHC considers that there are no obstacles to long-distance transport of acrylic ester.
30. In previous decisions, the Commission has left the geographic market definition open and has not decided whether the market for acrylic ester was global or EEA-wide.¹⁵
31. Regarding acrylic-based bead resins for acrylic coating applications MRC considers that the geographic scope is at least EEA-wide and possibly worldwide, given that transport costs are low (5% or less of the sales price) and given that there are no relevant barriers to trade. MRC considers that there are no obstacles, including on product safety grounds, to long-distance transport of acrylic-based bead resins and other acrylic coating materials.
32. The parties submitted that no previous Commission decisions relating to acrylic-based bead resins for acrylic coating applications are available. In previous decisions the Commission has defined the market for emulsion resins for decorative paints as EEA-wide.¹⁶

Conclusion on the market definition

33. With respect to acrylic esters, the product market definition could be left open, as even considering the narrowest product markets comprising each type of acrylic ester, the transaction would not lead to any serious doubts.
34. Concerning acrylic-based bead resins, the question whether all synthetic resins should be considered as a separate market or whether a further sub-segmentation by type of forms and end-application may be needed, could be also left open. The transaction will not give rise to any serious doubts under any alternative product market definition.
35. As well the geographic market definition for both products could be left open as the transaction would not lead to serious doubts under any potential geographic market definition.

Competitive assessment

36. All four acrylic esters that MCHC produce¹⁷ would have a vertical link with the downstream markets of acrylate-based bead resins for acrylic coating applications produced by MRC. In that regard, in the downstream market for acrylate-based bead resins MRC's market share¹⁸ would be [30-40]% at worldwide¹⁹, whereas in the upstream market for all acrylic esters MCHC's market share is very low ([0-5]% worldwide and [0-5]% in

¹⁴ Case No IV/M.933 - *ICI/UNILEVER*

¹⁵ Case M.5355 – *BASF/CIBA*; M.5424 – *Dow/Rohm and Haas*

¹⁶ Case No IV/M.933 - *ICI/UNILEVER*

¹⁷ (i) Butyl acrylate, (ii) Ethyl acrylate (iii) 2-Ethylhexyl acrylate (iv) Methyl acrylate.

¹⁸ The market share in a wider market encompassing all synthetic resins would be, in any case, much lower.

¹⁹ The worldwide production was 67 ktonnes in 2008.

the EEA)²⁰, and it does not have any expansion plans in this market. Even if the acrylic ester market would be divided in separate product markets, the market share of MCHC would be under any potential product market definition [5-10]%. Furthermore, there are strong competitors active in the downstream market, such as Evonik Degussa ([20-30]% worldwide), DSM ([10-20]% worldwide) and Rohm & Haas ([10-20]% worldwide). On the upstream acrylic ester market, there are a number of competitors on the world-wide level (BASF: [20-30]%, Dow Chemicals: [10-20]%, Rohm and Haas: [10-20]%, Formosa Plastics: [10-20]%, Nippon Shokubai: [10-20]%). Again, some Chinese companies (Jurong Chemical Co., Ltd; China National Bluestar Corporation; Lanzhou Petrochemical Corp; Zhejiang Satellite Holding Group) have entered the acrylic ester segment in the last five years on a global basis.²¹

37. Despite the MRC's comparatively high market share downstream, in view of the low market shares in the upstream market of acrylic ester and the presence of strong competitors in the downstream level, market foreclosure (both input and customer) seems unlikely in this case, because downstream competitors to the combined entity would easily be able to find alternative sources of supply. Therefore, the Commission considers that the proposed transaction does not raise serious doubts as to its compatibility with the common market.

I-Butanol (upstream) – Acrylic-based bead resins for acrylic coating applications (downstream)

Relevant product markets

38. Butanol (BuOH) is a downstream product of butyric aldehyde. It is produced by catalytic hydration from butyric aldehyde. It is the precursor for a series of chemical intermediate products such as butyl acetate, butylamine, butylacrylate and phthalate plasticizers. There are two types of butanol: n-butanol (made from n-butylaldehyde) and iso-butanol (or "isobutyl alcohol") primarily made from iso-butylaldehyde, but also produced in limited quantities when producing n-butanol. Only MCHC is active in butanol production.
39. MCHC considers that n-butanol and i-butanol are the narrowest possible segments of the butanol market. Furthermore, the parties submit that it can be left open whether there is a single relevant product market for butanol (comprising n-butanol and i-butanol) or whether two separate relevant product markets should be identified for each of n-butanol and i-butanol, in light of MCHC's minimal market share of each of n-butanol and i-butanol²².
40. In previous decisions, the Commission defined butanol as a separate product market, but left open whether n-butanol and i-butanol constitute separate product markets.²³

²⁰ The worldwide production was 2.5 million tonnes in 2008.

²¹ MCHC is not aware of any recent entrants specifically into the European market.

²² MCHC has no sales of butanol in EEA. On worldwide level, its market shares are below [0-5]% for both n-butanol and i-butanol.

²³ Case M.5424 – *Dow/Rohm and Haas*; M.3056– *Celanese/Degussa/JV* (European Oxo-Chemicals), Case M.1710 – *Industri Kapital*

41. Concerning acrylic-based bead resins for acrylic coating applications, it is referred to the paragraphs 26-28 above.

Relevant geographic markets

42. As regards butanol, MCHC considers that there are no obstacles, including product safety grounds, to the long-distance transport of butanol. For the purpose of this notification, the parties submit that the question of whether the geographic market for butanol is global or EEA-wide can be left open.

43. In previous decisions the Commission left the geographic market definition for butanol open and has not decided whether the market was global or EEA-wide.²⁴

44. Concerning acrylic-based bead resins for acrylic coating applications, it is referred to the paragraphs 31-32 above.

Conclusion on the market definition

45. Concerning butanol, the product and the geographic market definition can be left open as the transaction would not lead to serious doubts under any potential market delineation.

46. Concerning acrylic-based bead resins for acrylic coating applications, it is referred to the paragraphs 26-28 and 31-32 above.

Competitive assessment

47. The transaction gives rise to a vertical link between the upstream market of i-butanol (produced by MCHC) and the downstream market of acrylic-based bead resins (produced by MRC). As MCHC does not sell i-butanol in the EEA the vertical link would only exist in a world market. In the upstream market of i-butanol MCHC's share is very low ([0-5]% worldwide)²⁵, and it has no expansion plans, whilst in the downstream market of acrylic-based bead resins for acrylic coating applications MRC's market share is [30-40]% worldwide. There are strong competitors active in the downstream market of acrylic-based bead resins (Evonik Degussa ([20-30]% worldwide), DSM ([10-20]% worldwide) and Rohm & Haas ([10-20]% worldwide). In addition, in the upstream i-butanol market, there are a number of competitors on the world-wide level, such as BASF, Oxea Chemicals and Dow Chemicals, inter alia. MCHC understands that Formosa Plastics Corporation, a Taiwanese company, has entered the butanol segment in the last five years and the company expects new entry to occur in particular, but not only, in China, in the next two to three years.²⁶

48. If wider product market definitions would be taken into account (i.e. a market for synthetic resins and a market for butanol), the parties' market shares would be, in any event, lower.

²⁴ Case M.5424 – *Dow/Rohm and Haas*; M.3506– *Celanese/Degussa/JV* (European Oxo-Chemicals); Case M.1710 – *Industri Kapital 1997 Ltd (Marmorandum)/Neste Chemicals*; M.3056– *Celanese/Degussa/JV* (European Oxo-Chemicals)

²⁵ The worldwide production was 450 ktonnes in 2008.

²⁶ Four Chinese and one Saudi-Arabian companies.

49. Despite the MRC's market share downstream, in view of the low market shares in the upstream market of i-butanol or for butanol, it may be concluded that market foreclosure seems unlikely in this case, as downstream competitors would be able to find alternative sources of supply. MCHC controls only between [0-5]% of butanol sales. Therefore, the Commission considers that the proposed transaction does not raise serious doubts as to its compatibility with the common market.

N-Butanol (upstream) - Butyl Methacrylate (downstream)

Relevant product markets

50. Concerning n-butanol, it is referred to the paragraphs 38-40 above.

51. Butyl methacrylate is produced from MMA monomer and n-butanol, and it is used for the production of coating materials. There are two types of butyl methacrylate, i.e., n-butyl methacrylate ("n-BMA") and i-butylmethacrylate ("i-BMA"). Only MRC is active in butyl methacrylate producing both I and N types.

52. For purposes of assessing the transaction, the parties submit that it can be left open whether there is a single relevant product market for butyl methacrylate (comprising n-butyl methacrylate and i-butyl methacrylate) or whether two separate relevant product markets should be identified for each of n-butyl methacrylate and i-butyl methacrylate.

53. The parties submitted that no previous Commission decisions relating to butyl methacrylate are available.

Relevant geographic markets

54. Concerning n-butanol, it is referred to the paragraphs 42-43 above.

55. The parties claim the butyl methacrylate market is likely to be worldwide, or at least EEA wide, given that transport costs are not prohibitive and given that there are no relevant barriers to trade.²⁷ MRC considers that there are no obstacles, including on product safety grounds, to long-distance transport of butyl methacrylate.

56. Yet again, the parties submitted that no previous Commission decisions relating to butyl methacrylate are available.

Conclusion on the market definition

57. Concerning n-butanol, it is referred to the paragraphs 38-40 and 42-43 above.

58. Concerning butyl methacrylate, the product and the geographic market definition can be left open as the transaction would not lead to serious doubts under any potential market definition.

²⁷ Lead times to meet customers' demands are usually short and would not necessarily be compatible with long distances of delivery; nonetheless, MRC imports some of the butyl methacrylate that it sells in Europe from Thailand.

Competitive assessment

59. Both i-BMA and n-BMA separately and the overall butyl methacrylate²⁸ segment would have a vertical link with the upstream market for n-butanol only at worldwide level. MCHC does not sell n-butanol in the EEA.
60. MRC's market share would be [40-50]% worldwide in the downstream market of n-BMA. However, MCHC's market share in the upstream market for n-butanol is negligible ([0-5]% worldwide)²⁹, and it has no expansion plans. Furthermore, there are two strong competitors in the market of n-BMA worldwide: Evonik ([20-30]% worldwide) and Arkema ([20-30]% worldwide).
61. Concerning i-BMA, MRC estimates that its worldwide market share of i-BMA is similar to its worldwide market share of n-BMA. In addition, MRC also estimates that the major competitors in the i-BMA segment worldwide are the same as in the n-BMA segment, and that its competitors' worldwide market shares in the i-BMA segment largely correspond to their market shares in the n-BMA segment.
62. On the overall butyl methacrylate market (combining the i-BMA with the n-BMA) with n-butanol, the parties' combined market share would be lower than in the n-BMA segment.³⁰
63. Despite the MRC's comparatively high market shares downstream, in view of the low market shares in the upstream market of n-butanol and the presence of strong competitors at downstream level, market foreclosure seems unlikely in this case, because downstream competitors have adequate alternative sources of supply (MCHC has a market share of only [0-5]% for N-butanol). MRC would not be able to satisfy its entire input needs internally so that it would have to purchase n-butanol from other suppliers. Therefore, the Commission considers that the proposed transaction does not raise serious doubts as to its compatibility with the common market.

Acetone (upstream) – MMA- Methylmethacrylate (downstream)

Relevant product markets

64. Acetone is a by-product of phenol and is used in the production of plastic materials and the manufacturing of solvents. Only MCHC is active in acetone. In previous decisions, the Commission considered acetone as a distinct product market,³¹ which is uncontested by the parties.
65. MMA is a commodity petrochemical, a monomer which is the base for a major proportion of the other products of methacrylic chemistry. MMA uses acetone as a

²⁸ The worldwide production was 92 ktonnes in 2008.

²⁹ The worldwide production is 2.9 million tonnes in 2008.

³⁰ As MRC's worldwide share of sales of i-BMA is likely lower than its worldwide share of sales of n-BMA, since Lucite's European production capacity for i-BMA has been mothballed since August 2005 (and MRC has no i-BMA production capacity in Europe outside Lucite).

³¹ Case M.3024 – *Bain Capital/Rhodia*; M.439 – *Hüls/Phenolchemie*

production input. MMA is usually obtained by the so-called ACH (“acetone cyanohydrin”) process from hydrocyanic acid, methanol and acetone. MMA is a liquid that has no direct use as an end-product and is processed further, e.g., by polymerization into polymethyl methacrylate (“PMMA”), a transparent plastic, or for the production of the co-polymer methyl methacrylate-butadienestyrene (“MBS”), which is used as a modifier for PVC. MMA's main uses are for the production of transparent or coloured sheet and mouldings, the production of resins for paints and other surface coatings, for decorative paints, as well as for producing hair setting resins. Only MRC is active in MMA.

66. In previous decisions, the Commission defined MMA as a separate product market³², as it cannot be replaced by other products, and the parties did not contest this product definition.

Relevant geographic markets

67. The Commission has defined the geographic scope of the acetone segment as EC-wide³³ because of the high transportation costs and the swap agreements between competitors, which allow the producers to reach customers in an extended area. The parties did not contest this geographic market definition.
68. The Commission has defined the geographic scope of the MMA segment as at least EEA-wide³⁴. The parties did not contest this geographic market definition.

Conclusion on the market definition

69. Concerning both acetone and MMA, the product and the geographic market definition can be left open as the transaction would not lead to serious doubts under any potential market definition.

Competitive assessment

70. There is only a vertical link between acetone and MMA on a worldwide level.³⁵ MRC's markets shares in the downstream market for MMA is [30-40]%, however MCHC's market share in the upstream market for acetone is very low ([0-5]%). The parties do not have any expansion plans in these markets. In addition, there is adequate competition in the acetone market (INEOS Phenol Inc: [10-20]%, Shell Chemicals: [5-10]%, Sunoco, Inc.: [5-10]%, Mitsui Chemicals, Inc.: [5-10]%, Ertisa S.A.: [5-10]%). On the global MMA world-wide market, two other companies have a market share above 10% (Rohm & Haas: [10-20]%, Evonik (Degussa): [10-20]%). The parties are not aware of any potential or recent new entrants in the MMA segment.
71. In view of the low market shares in the upstream market of acetone, market foreclosure seems unlikely in this case, since the alternative suppliers of acetone account for [90-100]% of the market. The Commission considers that the proposed transaction does not raise serious doubts as to its compatibility with the common market.

³² Case M.942 – *VEBA/DEGUSSA*; M.933 – *ICI/Unilever*

³³ Case M.3024 – *Bain Capital/Rhodia*; M.439 – *Hüls/Phenolchemie*

³⁴ Case M.942 – *VEBA/DEGUSSA*; M.933 – *ICI/Unilever*

³⁵ MCHC does not sell acetone in the EEA.

MMA (upstream) - Hair Setting Resins (downstream)

Relevant product markets

72. Concerning MMA, it is referred to the paragraphs 65-66 above.
73. Hair setting resins are resins used for cosmetic applications in relation to hair care and are included in products such as shampoos, hair gels and hair waxes. Hair setting resins are made from a number of input materials, including MMA, dimethylaminoethylmethacrylate, and ethyl alcohol. Only MCHC is active in hair setting resin, and it is not active in the production of other cosmetic chemicals.
74. MCHC considers that hair setting resins may reasonably be viewed as part of a wider relevant product market comprising chemicals used for cosmetic applications in general, such as moisturizers, surfactants, or colorants. MCHC considers hair setting resin to be the narrowest possible product market segmentation.
75. According to the parties, no previous Commission decisions relating to hair setting resins are available. Nevertheless, the Commission has previously defined the market for cosmetic ingredients (including all chemical agents used in the manufacture of cosmetics) as a separate product market³⁶.

Relevant geographic markets

76. Concerning MMA, it is referred to the paragraph 68 above.
77. MCHC considers that the geographic scope of the hair setting resin segment is at least EEA-wide and possibly worldwide, given that transport costs are low (5% or less of the sales price) and given that there are no relevant barriers to trade. MCHC considers that there are no obstacles to long-distance transport of hair setting resin.
78. In previous Commission decisions³⁷ relating to cosmetic ingredients, the geographic market definition was considered at least EEA wide in scope. However, the Commission ultimately left the geographic market definition open.

Conclusion on the market definition

79. Concerning both MMA and hair setting resins, the product and the geographic market definitions can be left open as the transaction would not lead to serious doubts under any potential market definition.

Competitive assessment

80. There is vertical link between MMA upstream and hair setting resins downstream, but only at world-wide level, as MCHC does not sell hair setting resins in the EEA. At worldwide level, MRC's markets share of MMA is [30-40]% where it faces competition

³⁶ Case No COMP/M.2926 - *EQT/H&R/Dragoco*

³⁷ Case No COMP/M.2926 - *EQT/H&R/Dragoco*

from Rohm and Haas ([10-20]%) and Evonik ([10-20]%), while MCHC's market share of hair setting resins is very small ([0-5]% worldwide). In addition, there are strong competitors present in the hair setting resin market (BASF: [20-30]%, Akzo Nobel: [10-20]%, International Specialty Products: [10-20]%). The parties are not aware of any potential or recent new entrants in the MMA segment. Neither MCHC nor MRC have any expansion plan in the two related markets.

81. In view of the low market shares in the downstream market of hair setting resins market, input foreclosure seems unlikely in this case, as the merged entity would not be able to use its entire MMA production internally and, thus it would have to sell it to third players in the market. The Commission considers that the proposed transaction does not raise serious doubts as to its compatibility with the common market.

V. CONCLUSION

82. 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)
Joaquín ALMUNIA
Vice-President of the Commission