

***Case No COMP/M.6313 -  
ASHLAND/ INTERNATIONAL  
SPECIALTY PRODUCTS***

Only the English text is available and authentic.

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

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Article 6(1)(b) NON-OPPOSITION  
Date: 18/08/2011

***In electronic form on the EUR-Lex website under  
document number 32011M6313***



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 Where possible the information omitted has been replaced by ranges of figures or a general description.

Brussels, 18.8.2011

C(2011) 6059

PUBLIC VERSION

MERGER PROCEDURE

**To the notifying party:**

Dear Sirs,

**Subject: Case No COMP/M.6313 - ASHLAND/ INTERNATIONAL SPECIALTY PRODUCTS  
Commission decision pursuant to Article 6(1)(b) of Council Regulation No 139/2004<sup>1</sup>**

1. On 14 July 2011, the European Commission received notification of a proposed concentration pursuant to Article 4 of the Merger Regulation by which Ashland Inc. ('Ashland', United States) acquires within the meaning of Article 3(1)(b) of the Merger Regulation control of the whole of International Specialty Products Inc. ('ISP', United States) by way of purchase of shares.<sup>2</sup> (Ashland and ISP are designated hereinafter as the "Parties").

**I. THE PARTIES**

2. **Ashland** is a US-listed chemicals company which manufactures and supplies a wide range of products including composite polymers, adhesives, process and utility water treatments, cellulose ethers, lubricants and automotive chemicals.<sup>3</sup>

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<sup>1</sup> OJ L 24, 29.1.2004, p. 1 ("the Merger Regulation"). With effect from 1 December 2009, the Treaty on the Functioning of the European Union ("TFEU") has introduced certain changes, such as the replacement of "Community" by "Union" and "common market" by "internal market". The terminology of the TFEU will be used throughout this decision.

<sup>2</sup> Publication in the Official Journal of the European Union No C 216, 22.7.2011, p. 32.

<sup>3</sup> Ashland is organised in four business units: (i) Ashland Aqualon Functional Ingredients (AAFI), into which ISP will be merged, produces specialty additives and functional ingredients that modify the physical properties of aqueous (water-based) systems; (ii) Ashland Consumer Markets (ACM) produces and distributes branded automotive, commercial and industrial lubricants and car-care products; (iii) Ashland Hercules Water Technologies (AHWT) produces and supplies process, utility-water and functional

3. **ISP** is US-based privately-owned manufacturer and supplier of specialty chemicals for a wide variety of personal care, pharmaceutical, beverage, biocides, plastics, tyre and rubber and other applications.

## **II. THE OPERATION**

4. On 30 May 2011 Ashland and ISP entered into a stock purchase agreement under the terms of which Ashland will acquire 100% of the issued share capital of ISP for a total consideration of approximately USD 3 200 million.

## **III. CONCENTRATION**

5. As a result of the proposed transaction, Ashland will acquire 100% of ISP's issued share capital and therefore sole control of the company. The notified operation therefore constitutes a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

## **IV. EU DIMENSION**

6. The undertakings concerned have a combined aggregate world-wide turnover of more than EUR 5 000 million<sup>4</sup> (Ashland EUR [...], ISP EUR [...]). Each of them has an EU-wide turnover in excess of EUR 250 million (Ashland EUR [...], ISP EUR [...]), but they do not achieve more than two-thirds of their aggregate EU-wide turnover within one and the same Member State. The notified operation therefore has an EU dimension pursuant to Article 1(2) of the Merger Regulation.

## **V. COMPETITIVE ASSESSMENT**

### *Introduction*

7. The proposed transaction leads to a number of horizontal overlaps between the activities of the Parties particularly with respect to personal care products and pharmaceutical excipients which are non-active ingredients contained in finished pharmaceutical products. However, it is only the latter which leads to an affected market.<sup>5</sup>
8. The proposed transaction also gives rise to a number of vertical relationships. These are principally in the area of personal care where Ashland manufactures a chemical which is used by ISP in the manufacture of an intermediate product (MA/MVE copolymer) that is in turn used downstream by third parties primarily in the manufacture of oral care products and hairspray.

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chemistries; and (iv) Ashland Performance Materials (APM) produces and supplies composite resins, gelcoats, adhesives and specialty coatings. Its epoxy vinyl ester resins, unsaturated polyester resins, water-based and energy-curable coatings, and pressure sensitive, laminating and structural adhesives are used in the construction, transportation, infrastructure, boatbuilding, and packaging and converting markets.

<sup>4</sup> Turnover calculated in accordance with Article 5(1) of the Merger Regulation and the Commission Consolidated Jurisdictional Notice (OJ C 95, 16.4.2008, p. 1).

<sup>5</sup> The proposed transaction also results in horizontal overlaps in rheology modifiers and certain polymers (polyquaterniums) used in hair care. As these overlaps, however, do not result in affected markets under any plausible market definition, these products are not further addressed in this decision.

## I. Horizontal issues

### *Pharmaceutical excipients: binders and coatings*

9. Pharmaceutical excipients are the non-active ingredients included in the drug formulation and may be used to perform different functions within the drug such as to transport the active ingredients to the intended part of the body, prevent the active ingredients from being released too early and also to protect the drug's stability. Key types of excipients are binders, coatings, bioavailability enhancers and radiation-sensitive coatings.
10. Ashland and ISP each manufacture and sell excipients, specifically binders and coatings.<sup>6</sup> Pharmaceutical binders are excipients used in solid form dosages (i.e. tablets and capsules) which control the release of the active ingredient. Pharmaceutical coatings refer to film polymers which are used to coat drugs in solid dosage forms and multi-particulates.

### *Relevant product markets*

#### *(a) Pharmaceutical excipients in general*

11. Pharmaceutical excipients can have different chemical compositions and are based on different basic substances including lactose, starch, cellulose, magnesium, stearic acid, gelatine, sucrose, talc or sodium.<sup>7</sup>
12. The Parties submit, in line with previous Commission decisions, that it would not be appropriate to consider all excipients as constituting one single product market<sup>8</sup> but rather that a distinction should be made according to the different basic substances from which excipients are made. In this regard the Parties refer to the Commission Decision in *Friesland Foods/Campina* where the Commission assessed lactose-based excipients separately from other forms of excipients such as starch and cellulose-based products.
13. In this regards, if the approach adopted in the *Friesland Foods/Campina* decision were to be followed in the present case, the Parties' pharmaceutical binders would fall into separate product markets as ISP focuses on binders based on its PVP technology (i.e., chemistry derived from acetylenic polymers) whereas Ashland produces binders based on cellulose ethers. With respect to pharmaceutical coatings, the Parties' products would overlap because both supply pharmaceutical coatings based on a particular type of cellulosic ether.

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<sup>6</sup> ISP also supplies bioavailability enhancers and radiation-sensitive coatings. Ashland is not active in bioavailability enhancers or radiation-sensitive coatings. Consequently there is no horizontal overlap between the Parties in this regard and bioavailability enhancers and radiation-sensitive coatings are not further addressed in this decision.

<sup>7</sup> Case COMP/M.5046 *Friesland Foods/Campina*, decision of 17 December 2008.

<sup>8</sup> In previous cases, the Commission has concluded against a broad market for pharmaceutical excipients (including all excipients based on different basic substances and for all dosage forms) in Case COMP/M.4207 - *Campina / Fonterra Co-operative Group / JV*, decision of 2 June 2006 and Case COMP/M.5046 - *Friesland Foods/Campina*, decision of 17 December 2008.

14. Furthermore, excipients also vary both according to the wide variety of different dosage forms in which drugs are available as well as according to the different ways of administering active substances to the body, namely liquids (injections and syrups), semi-solid dosages (ointments and gels), solid dosages (tablets and capsules) or drugs for inhalation. In *Friesland Foods/Campina*, the Commission noted that because of these differing methods of administering the active substance to the body, pharmaceutical excipients used in one specific dosage form (for example, tablets) cannot be used in another dosage form (such as injections).<sup>9</sup>
15. The Parties do not consider that such market segmentation based purely on the functions excipients perform is valid. Indeed, the Parties find this approach to be less meaningful than one based on the basic substance of the excipient both in terms of the lack of substitutability between chemistries during the commercialisation of the end product<sup>10</sup> as well as the limited substitutability during the development phase of the product.<sup>11</sup>
16. Nonetheless, the Parties submit that, should the market for pharmaceutical excipients be divided according to the functionality and/or according to the dosage form in which they are used, their activities would overlap only in respect to two types of pharmaceutical excipients, namely: pharmaceutical binders and pharmaceutical coatings, thus excluding bioavailability enhancers and radiation-sensitive coatings.<sup>12</sup>

**(b) *Pharmaceutical binders***

17. As noted in the preceding section, if a distinction is made according to the basic substances on which the binders are based, the Parties' products would fall into separate product markets as ISP produces binders based on PVP technology and Ashland supplies cellulosic-based binders.
18. The majority of customers in the market investigation admit that switching pharmaceutical binders at the development/formulation stage is theoretically possible. However, in practice, this is seldom resorted to mainly due to the considerable costs involved for the clinical trials and the necessary administrative procedures such as approval and product registration. A change of binder is even less likely to take place during the commercialisation of the drug as significant costs are involved for the attainment of regulatory approvals.
19. In addition, the Parties also note that the market for binders could hypothetically be divided according to the two different methods used in the manufacture of tablets, wet

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<sup>9</sup> Case COMP/M.5046 - *Friesland Foods/Campina*, decision of 17 December 2008, para. 1624.

<sup>10</sup> This is due to the fact that a change in the formulation of the drug would entail significant costs and delays in the approval for commercialization of the end product.

<sup>11</sup> A change in the formulation of the drug would necessarily involve ulterior experiments as to whether chemically, the excipient is compatible with the other ingredients, the different properties involved etc.

<sup>12</sup> As regards other dosage forms (and in particular in respect of liquid and semi liquid form) the Parties confirm that to the best of their knowledge, there is no overlap for any function excipients perform in such dosage forms.

granulation or dry granulation<sup>13</sup> or by specific properties (such as immediate release or modified release<sup>14</sup>).

20. As regards a possible distinction between the binders used in the wet and dry granulation process, most customers responding to the market investigation considered them as two separate segments. Similarly, customers have also considered immediate release binders and modified release binders to constitute separate segments.

**(c) *Pharmaceutical coatings***

21. Pharmaceutical coatings provide both aesthetic and functional benefits to solid dosage drugs (that is to say tablets). In fact, through the application of an outer colour (or a clear surface) coating, the drug is not only easily identifiable but it is also protected from both odour and moisture, thus increasing a drug's shelf-life. Such coatings are hereinafter referred to as "standard coatings". In addition, a sub-category of specialised coatings which have additional properties such as the ability to control the release of a drug's active ingredient (for example, they can provide extended release functionality) can also be distinguished.
22. Both Parties produce pharmaceutical coatings. ISP manufactures standard coatings based on both PVP and a type of cellulose ether ( HPMC) whilst Ashland only supplies standard coatings based on cellulose ethers (including HPMC). Both Ashland and ISP also produce specialised coatings, although in ISP's case only to a minimal extent.
23. The Parties consider that the relevant product market for pharmaceutical coatings should be either defined widely to incorporate all pharmaceutical coatings or more narrowly at the level of cellulosic coatings for solid dosage forms, which both Parties sell.
24. The market investigation has confirmed that a division between standard coatings and specialised coatings is pertinent with the former being the most commonly used types of coatings.

**(d) *Conclusion***

25. For the purposes of this decision, however, the precise product market definition for pharmaceutical excipients including binders, coatings and their potential segments can

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<sup>13</sup> In the wet granulation process, the pharmaceutical manufacturer either combines the excipients and active ingredients for a drug as dry powders before adding a liquid (usually a water-based solution or other solvent) or sprays a solution of the binder in a liquid (usually water or other solvent) onto the active ingredients. The addition of liquid to powder to form granules is conducted in either a high shear mixer or in a fluid bed. The resulting granules are then dried in an oven in the case of the high shear mixing or directly in the fluid bed and screened before compressing into tablets. In dry granulation (also referred to as direct compression), the mixed excipient/active ingredient powder is compressed in its dry state and then broken up to produce granules.

<sup>14</sup> According to the United States Food and Drug Administration (FDA) definition, Modified Release Dosage Forms are "Dosage forms whose drug-release characteristics of time course and/or location are chosen to accomplish therapeutic or convenience objectives not offered by conventional dosage forms such as a solution or an immediate release dosage form. Modified release solid oral dosage forms include both delayed and extended release drug products," please see: <http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM070640.pdf>.

ultimately be left open because the proposed transaction would not raise competition concerns under any potential market definition.

### ***Relevant geographic market***

26. In conformity with previous Commission practice, the Parties submit that the relevant geographic market for pharmaceutical excipients is at least EEA-wide, if not worldwide. This is on the basis of the fact that the majority of excipient suppliers sell at least on an EEA-wide basis, if not globally, while customers routinely source excipients at the same level.
27. With respect to pharmaceutical binders, the Parties submit that their market shares and those of their competitors are similar at the EEA and worldwide level. In this regard, they consider that it is not necessary to adopt a given definition of the relevant geographic market because irrespective of the market being considered as EEA-wide or worldwide, the proposed transaction would not lead to competition concerns.
28. As regards pharmaceutical coatings, the Parties submit that the relevant geographic market can be left open as their combined market share at both an EEA and worldwide level is low and would not lead to competition concerns.
29. For the purposes of the present case, the precise geographic market definition can be left open as the proposed transaction is unlikely to cause any competition concerns regardless of whether the market is considered to be EEA-wide or worldwide.

### ***Competitive assessment***

#### ***(a) Pharmaceutical excipients in general***

30. As regards the hypothetical market for pharmaceutical excipients, the combined market shares of the Parties are modest at [0-10]% on both a global and EEA-wide basis. Their market position would therefore not give rise to an affected market.

#### ***(b) Pharmaceutical binders***

31. On the basis of a market for all pharmaceutical binders, the Parties' combined market share would be [10-20]% in the EEA (Ashland [5-10]%, ISP [5-10]%) and [10-20]% on a worldwide basis (Ashland [5-10]%, ISP [5-10]%). This implies that the market for all binders would be technically affected if this market is deemed to be global in scope. However, it is noted that the global market for binders comprises many competitors with market shares similar to the merged entity. These suppliers which include FMC, Dow and BASF, with market shares of [10-20]%, [10-20]% and [5-10]% respectively, would continue to exert a competitive constraint on the merged entity.
32. However, if the market for pharmaceutical binders were subdivided into the different methods used in the manufacturing of tablets, namely the wet granulation process and the dry granulation process, an affected market would arise only in respect of the wet granulation process. In this regard, the merged entity would have market shares of [20-30]% on a global basis (Ashland [10-20]%, ISP [10-20]%) and [10-20]% in the EEA (Ashland [10-20]%, ISP [5-10]%). The merged entity would continue to face a number of competitors including Dow, BASF, FMC and Shin-Etsu amongst others which are active in the EEA and globally.

33. Similarly, if the market for pharmaceutical binders were subdivided into immediate release binders and modified release binders, the following hypothetical product markets would be affected: the market for immediate release binders at a global level where the merged entity would have a market share of [10-20]% (Ashland [5-10]%, ISP [10-20]%) and the market for modified release binders at a global and EEA-level where the combined market shares of the Parties would be [10-20]% (Ashland [10-20]%, ISP [0-5]%) and [10-20]% (Ashland [10-20]%, ISP [0-5]%) respectively. Nonetheless, in all cases the merged entity would continue to face significant competition from the considerable number of other market players such as FMC, BASF and DMV in the case of immediate release binders and global players like Dow and Shin-Etsu in the case of modified release binders.
34. Furthermore as noted above, although both Parties are active in binders, these have different basic substances because ISP produces PVP-based binders whilst Ashland supplies binders based on cellulosics. The majority of customers responding to the market investigation did not perceive the different types of binders, specifically PVP and cellulose-based to be close substitutes. This has been confirmed by competitors which considered that whilst in theory, PVP and cellulose-based binders can perform the same function, in practice, given their application in the drug formulations, they are not substitutable. Therefore, it follows that PVP binders and cellulose binders would most likely belong to separate markets if pharmaceutical binders were to be further subdivided.
35. Despite the above, even if one were to consider a market only comprising cellulose ethers and PVP-based pharmaceutical binders, where the merged entity would have a market share in the region of [20-30]% at a global and EEA level, concerns would be unlikely to arise as it would continue to face competitive pressure from a number of alternative suppliers including BASF, Dow and Shin-Etsu.

*Table 1: Parties and their competitors market shares for PVP and cellulose binders*

<b>Pharmaceutical binders (only PVP &amp; cellulose)</b>	<b>Chemistry</b>	<b>Market share worldwide</b>	<b>Market share EEA</b>
ISP	PVP	[10-20]%	[10-20]%
Ashland	Cellulosics	[10-20]%	[10-20]%
<i>Combined</i>		<i>[30-40]%</i>	<i>[20-30]%</i>
BASF	PVP	[10-20]%	[20-30]%
Dow	Cellulosics	[20-30]%	[20-30]%
Shin-Etsu	Cellulosics	[10-20]%	[10-20]%
Asian producers	PVP	[0-5]%	[0-5]%
Nippon	Cellulosics	[5-10]%	[0-5]%
Others	Various	N/A	N/A
<b>Total market</b>	<b>Various</b>	<b>100%</b>	<b>100%</b>

36. Similarly, the same would apply were a distinct market to be considered for cellulose and PVP binders used in the wet granulation process.<sup>15</sup>

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<sup>15</sup> In this regards, it is noted that if distinct markets were to be found for cellulose and PVP binders used in the dry granulation process, this would not result in an affected market



Table 2: Parties and their competitors market shares for PVP and cellulosic binders (wet granulation binders)

Wet granulation binders (only PVP and cellulose)	Chemistry	Market share Worldwide	Market share EEA
ISP	PVP	[10-20]%	[10-20]%
Ashland	Cellulosics	[10-20]%	[10-20]%
<i>Combined</i>		<i>[30-40]%</i>	<i>[20-30]%</i>
BASF	PVP	[10-20]%	[20-30]%
Dow	Cellulosics	[20-30]%	[20-30]%
Shin-Etsu	Cellulosics	[10-20]%	[10-20]%
Asian producers	PVP	[0-5]%	[0-5]%
Nippon	Cellulosics	[5-10]%	[0-5]%
<i>Others</i>	<i>Various</i>	<i>N/A</i>	<i>N/A</i>
<b>Total market</b>	<b>Various</b>	<b>100%</b>	<b>100%</b>

37. Moreover, if a further subdivision on the basis of properties is made, the merged entity would have a market share for PVP and cellulosic immediate release binders of [30-40]% world-wide and [30-40]% EEA-wide.

Table 3: Parties and their competitors market shares for PVP and cellulosic binders (immediate release)

Immediate release binders (only PVP and cellulose)	Chemistry	Market share worldwide	Market share EEA
ISP	PVP	[20-30]%	[10-20]%
Ashland	Cellulosics	[10-20]%	[10-20]%
<i>Combined</i>		<i>[30-40]%</i>	<i>[30-40]%</i>
BASF	PVP	[20-30]%	[30-40]%
Dow	Cellulosics	[5-10]%	[10-20]%
Shin-Etsu	Cellulosics	[5-10]%	[5-10]%
Asian producers	PVP	[5-10]%	[5-10]%
Nippon	Cellulosics	[5-10]%	[5-10]%

38. In addition, as regards PVP and cellulosic modified release binders, the merged entity would have a combined market share of [20-30]% world-wide and [20-30]% EEA-wide.

Table 4: Parties and their competitors market shares for PVP and cellulosic binders (modified release)

Modified release binders (only PVP and cellulotics)	Chemistry	Market share worldwide	Market share EEA
ISP	PVP	[0-5]%	[0-5]%
Ashland	Cellulosics	[10-20]%	[20-30]%
<i>Combined</i>		<i>[20-30]%</i>	<i>[20-30]%</i>
Dow	Cellulosics	[40-50]%	[40-50]%
BASF	PVP	[0-5]%	[0-5]%
Shin-Etsu	Cellulosics	[20-30]%	[20-30]%
Nippon	Cellulosics	[0-5]%	[0-5]%
Asian producers	PVP	[0-5]%	[0-5]%
Chinese producers (RuiTai, Shangdong Head, and E Hua)	Cellulosics	[5-10]%	n/a
<b>Total market</b>	<b>Various</b>	<b>100%</b>	<b>100%</b>

39. The Parties submit that even on the basis of the most narrow potential market definition, the proposed transaction will have a limited impact and cannot harm effective competition. They further claim that the merged entity will continue to face significant competition from other suppliers with comparable market shares, including for the supply of binders based on PVP and cellulotics. They further consider that the merged entity will face significant competitive constraints from customers, namely big pharmaceutical companies like Pfizer, Johnson & Johnson, GlaxoSmithKline, Merck and Bayer which possess substantial buyer power. In this regard and given their significant financial resources and know-how, these big multinational pharmaceutical companies could each feasibly sponsor a new entrant in the excipients industry in the event of a significant price increase, or even vertically integrate upstream to create their own captive capacity.
40. In view of the confirmation from the market investigation that effectively PVP and cellulosic-based binders are not close substitutes, a market encompassing solely these two substances is rather hypothetical. Furthermore, all the above-mentioned distinct markets within pharmaceutical binders are remote assumptions. Nonetheless even in such hypothetical potential markets the merged entity is always faced by other market players, several of which have significant market shares. It follows that post-transaction the dynamics within the markets would still be retained and customers would still have considerable choice for their supplies as has been confirmed by the majority of customers in the market investigation which had no concerns regarding the proposed transaction.
41. It is therefore concluded that the proposed transaction does not raise serious doubts with respect to pharmaceutical binders.

**(c) Pharmaceutical coatings**

42. As regards pharmaceutical coatings, the combined market share of the Parties for the overall market is minimal and estimated at [0-5]% at a global level and at less than [0-

5]% in the EEA. Moreover, if a distinction were to be made by the chemical substance on which the coating is based, or indeed between standard and specialised coatings, the merged entity's market shares would remain at comparable levels.<sup>16</sup>

43. Thereby, it follows that the proposed transaction does not result in an affected market under any plausible market definition. It is therefore concluded that the proposed transaction does not raise serious doubts with respect to pharmaceutical coatings.

## **II. Vertical issues**

44. The proposed transaction also gives rise to a number of vertical relationships. These are principally in the area of personal care where Ashland manufactures a chemical (maleic anhydride monomer) used by ISP in the manufacture of an intermediate product (MA/MVE copolymer). This product is in turn used downstream by third parties primarily in the manufacture of oral care products and hairspray. There are also vertical relationships in the areas of biocides and acrylic polymers.<sup>17</sup>

### **Maleic anhydride monomers used in the production of certain MA/MVE copolymers**

#### *The upstream market (maleic anhydride monomers)*

45. Ashland manufactures maleic anhydride monomers (also referred to as maleic anhydrides) at a plant in the United States. Maleic anhydrides are manufactured by the catalytic vapour-phase oxidation of hydrocarbons with minor amounts recovered as a by-product of phthalic anhydride production. They are used primarily in the production of polyester resins (by Ashland and third parties but not ISP) and to a lesser extent, vinyl esters.
46. The Parties are not aware of any direct substitutes for maleic anhydrides and suggest that they constitute a separate product market.

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<sup>16</sup> In fact, on a market for PVP and cellulosic coatings, the merged entity's market shares would be [0-5]% worldwide and [0-5]% in the EEA. Considering cellulosic coatings only, the merged entity's market shares would be [0-5]% in the EEA and [0-5]% worldwide. For HPMC coatings, the Parties' combined market shares are [0-5]% in the EEA and [0-5]% worldwide.

Furthermore, the Parties would have the same minimal market shares if a distinct market for standardised pharmaceutical coatings were to be considered. In effect, the market investigation has shown that US-based Colorcon is the absolute market leader and the Parties' combined market shares both on the global and EEA-level are not significant at less than [0-5]. Similarly, the same would apply if a separate market for specialised pharmaceutical coatings were considered where the combined market shares of the Parties on the global and EEA-level would be less than [0-5]%, with other companies like Evonik and BASF being by far the most important suppliers.

<sup>17</sup> Biocides consist of a large variety of chemicals that are used in a range of applications to eliminate or control the growth of organisms that might otherwise have a negative effect on processes, products, machinery, and end-users. ISP supplies active agents for biocides and Ashland is active on the downstream market as a purchaser of active agents.

ISP manufactures acrylic polymers such as flocculants which are used by Ashland and others in the treatment of municipal and industrial waste water.

As neither of these vertical links raises concerns given the parties' limited market shares on the relevant upstream and downstream markets, they are not further addressed in this decision.

47. As far as the scope of the relevant geographic market is concerned, the Parties note that maleic anhydride is sold primarily in molten form which does not lend itself to shipping. They estimate the cost of shipping maleic anhydride monomer from the United States to Europe by isotainer (or portable tank) is approximately [10-20]% of the sales price and that in addition there is a 6.5% import duty. The Parties therefore submit that the market is EEA-wide. The precise scope of the relevant geographic market can be left open for the purposes of the present decision, however, as this would not alter the competitive assessment.

*The downstream market (MA/MVE copolymers)*

48. ISP manufactures and sells a copolymer of maleic anhydride and methyl vinyl ether (MVE) under the trade name Gantrez. The inputs for this MA/MVE copolymer are maleic anhydride and MVE as the reaction monomers and either benzene or toluene as the reaction solvent. ISP produces [...]% of its MVE requirements in house. Ashland does not manufacture MVE. In 2010, [...]% of ISP's production of MA/MVE copolymer was sold on the merchant market primarily for use in oral care applications.<sup>18</sup>

49. The Parties submit that there are functional substitutes for MA/MVE copolymer in each of the principal oral care applications in which it is used, namely adhesives for dentures and in toothpaste.

50. In the case of adhesives for dentures, the Parties submit that karaya gum (a natural substance) produces the same adhesive qualities as MA/MVE copolymers and was indeed widely used before copolymers were introduced.<sup>19</sup>

51. According to the Parties, MA/MVE copolymer has two main uses in toothpaste. In Colgate's Total brand, for example, it is used as an effective bio-adhesive for the delivery of the microbial active ingredient triclosan. In some other fluoride-based toothpastes, such as Colgate's tartar control, it is used to inhibit alkaline phosphatase in saliva which is linked to a higher potential of tartar development.

52. The Parties submit that in the case of toothpastes using triclosan as the microbial ingredient, the strongest competitive constraint arises from the toothpaste manufacturer's ability to switch to a fluoride-based product in which MA/MVE copolymer is not needed as a delivery agent. In the case of fluoride-based toothpastes using MA/MVE copolymer to inhibit alkaline phosphatase activity in saliva, the Parties submit that most manufacturers tend to use pyrophosphate.

53. The Parties submit that the geographic scope of the potential market for MA/MVE copolymer is global irrespective of the end application in which it is used.

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<sup>18</sup> ISP estimates that [...]% of its sales of MA/MVE copolymer in the EEA in 2010% were used in adhesives for dentures, [...]% in toothpaste with the remainder being used in hairspray and other applications. Form CO, p. 56.

<sup>19</sup> The Parties note that well-fitting dentures do not require any adhesives. Denture adhesives, however, provide a low cost means of making poorly fitting dentures more comfortable for denture wearers.

54. The results of the market investigation in the present case have indicated that customers using MA/MVE copolymer to manufacture adhesives for dentures would be unlikely to switch to another product in response to an increase in the price of the copolymer.
55. The market investigation has also indicated that most customers using MA/MVE copolymer in the manufacture of toothpastes do not consider there to be adequate substitutes to MA/MVE copolymer at the present time for their needs.
56. In terms of the scope of the geographic market, customers in the market investigation consider that the market for the supply of MA/MVE copolymer is worldwide. Transport costs are not significant in comparison to the cost of the product and there are no barriers to trade.
57. For the purposes of the present decision, however, the precise scope of both the relevant product and geographic market can be left open as this would not significantly alter the competitive assessment.

### *Competitive assessment*

58. Ashland has only recently become a manufacturer of maleic anhydride with the (re)purchase in December 2010 of a production facility in the United States that it had sold in 2005. Ashland uses most of its maleic anhydride production captively for the manufacture of polyester resins and does not anticipate being a significant player on the merchant market, particularly in the EEA.
59. Based on its 2011 production plan of [...] tonnes, it expects to use [...]% ([...] tonnes) of its production internally, sell [...]% (approx [...] tonnes) on the merchant market in North America (including sales to ISP) and [...]% ([...] metric tonnes) on the merchant market in the EEA.
60. Ashland submits that the one merchant market sale in the EEA which took place earlier in 2011 was an *ad hoc* sale and is unlikely to reoccur (though this cannot be excluded). On this basis, Ashland estimates that its merchant market share on a global basis would be [0-5]% and less than [0-5]% in the EEA. As such, Ashland does not have market power on the upstream market and could not foreclose downstream competitors.
61. As far as customer foreclosure is concerned, ISP is not a significant purchaser of maleic anhydride accounting for [...]% of global demand (ISP does not use maleic anhydride in any of its manufacturing plants outside North America).
62. As noted above, the maleic anhydride purchased by ISP is combined with methyl vinyl ether (MVE) produced in house to produce MA/MVE copolymer. This product is in turn sold to third parties for use in a range of personal care products. Neither Ashland nor ISP is active on any of the downstream markets where MA/MVE copolymer is used. Therefore, although ISP is the leading supplier of MA/MVE copolymer, the proposed transaction does not lead to any significant change in the structure of the market.
63. In light of these factors, and in the absence of concerns from customers during the market investigation, it is concluded that the proposed transaction will not give rise to vertical concerns insofar as maleic anhydride and MA/MVE copolymer are concerned.

## VI. CONCLUSION

64. For the above reasons, the European Commission has decided not to oppose the notified operation and to declare it compatible with the internal market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of the Merger Regulation.

*For the Commission*  
*(signed)*  
*Joaquín ALMUNIA*  
*Vice-President*