

***Case No COMP/M.4071 -  
APOLLO / AKZO  
NOBEL IAR***

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: 29/05/2006

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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 29/05/2006

SG-Greffe(2006) D/202779

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PUBLIC VERSION

MERGER PROCEDURE  
ARTICLE 6(1)(b) DECISION

To the notifying party

Dear Sir/Madam,

**Subject: Case No COMP/M.4071 – Apollo / Akzo Nobel IAR  
Notification of 18.04.2006 pursuant to Article 4 of Council Regulation  
No 139/2004<sup>1</sup>**

1. On 18.04.2006, 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 (“Merger Regulation”) by which the undertaking Hexion Speciality Chemicals (“Hexion”, USA), belonging to the Apollo Group (“Apollo Group”, USA), acquires within the meaning of Article 3(1)(b) of the Merger Regulation control of the whole of Akzo Nobel’s Inks and Adhesive Resins business (“IAR”, the Netherlands) by way of purchase of shares and assets.
2. After examination of the notification, the Commission has concluded that the notified operation falls within the scope of the Merger Regulation and does not raise serious doubts as to its compatibility with the common market and the EEA Agreement.

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<sup>1</sup> OJ L 24, 29.1.2004 p. 1.

## **I. THE PARTIES**

3. Hexion is solely controlled by the Apollo Group, which manages a number of investment funds with interests in a wide range of different activities at global level. Hexion produces and sells a range of thermosetting and specialty resins, including, but not limited to, rosin resins, hydrocarbon resins, rosin-hydrocarbon hybrid resins (“hybrid resins”), alkyd resins, acrylic dispersions, acrylic resins and a number of other resins such as amino resins, epoxy resins, phenolic resins and polyester resins. Hexion has more than 90 production and distribution facilities in 18 countries in the Americas, Europe and the Asia Pacific region, and approximately 7,000 employees.
4. IAR primarily manufactures products based on rosin (a pine tree derivative), including rosin resins, hybrid resins and other rosin products, with a focus on the printing inks and adhesives industries. IAR has production facilities in the Netherlands, Portugal, China, New Zealand, Argentina, Canada and the United States.

## **II. THE OPERATION AND THE CONCENTRATION**

5. Hexion will acquire either directly or through wholly-owned subsidiaries the various shares and assets that comprise the entirety of the IAR business.
6. The operation constitutes the acquisition of control by the Apollo Group, who controls Hexion, over the whole of IAR and therefore it constitutes a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

## **III. COMMUNITY DIMENSION**

7. The transaction did not have Community dimension under either Article 1 (2) or 1 (3) of the Merger Regulation. In fact, IAR’s Community-wide turnover did not exceed 100 Million in 2004 and in 2005. Since the operation was reviewable under the national merger control laws of the four Member States, namely Germany, Poland, Spain and the UK, on 3.02.2006 the parties submitted to the Commission a referral request pursuant to Article 4(5) of the Merger Regulation, which was transmitted to all Member States. No Member State expressed its disagreement within the period of 15 working days of receiving the reasoned submission. Therefore, the transaction is deemed to have Community dimension.

## **IV. COMPETITIVE ASSESSMENT**

8. The parties’ activities overlap only in the following types of resins in the EEA: (i) rosin resins, (ii) hydrocarbon resins, (iii) hybrid resins, (iv) alkyd resins and (v) acrylic dispersions. In particular, the parties’ activities overlap exclusively in resins used for the production of inks.
9. IAR does not produce hydrocarbon resins. It only sells them to a very limited extent and the overlap does not give rise to an affected market. Therefore the assessment will be focused on the four remaining types of resins.

## **RELEVANT MARKETS**

### **A. Rosin resins and hybrid resins**

#### **Relevant product market**

10. The parties submit that most, if not all, rosin resins belong to the same relevant product market so that the relevant product market is wider than any single end-use application (such as printing ink, pigments, adhesives, road markings, etc.) .
11. Furthermore, as in any case the parties' activities only overlap in resins for printing ink applications, the parties submit that rosin resins, hybrid resins and hydrocarbon resins used for printing ink applications belong to the same relevant product market. However, since according to the parties the transaction would not raise competition concerns under the narrower product market definition where there's an overlap (rosin resins for printing ink applications and hybrid resins for printing ink applications), it wouldn't be necessary to determine how broad the product market should be defined.

#### Rosin resins

12. As stated before, rosin resins are used in a wide range of applications such as printing inks, adhesives, road markings, chewing gum or rubber. Rosin resins are also produced, within each application, in a wide range of qualities or grades. From a chemical/technical standpoint, rosin resins can be classified as: (i) rosin soaps, (ii) resinates, (iii) rosin esters, (iv) maleic and fumaric modified resins and (v) rosin-modified phenolic rosins.
13. The parties submit that from the demand-side point of view, although tailored for specific end-applications, the various types of rosin resins are used in multiple end-applications. In addition, from a supply-side viewpoint, rosin resins of all qualities and grades and for all applications can generally be produced in the same reactors. They contend that it is neither difficult nor time consuming to switch between the production of the different types and grades and therefore there would be a high degree of supply-side substitutability.
14. Based on the above, the parties consider that all types and grades of rosin resins should belong to the same relevant product market, and any type of sub-segmentation according to the end-application or to the different grades should not be relevant.
15. The parties recognise that in previous cases<sup>2</sup> the Commission appeared to segment the resin markets by end-applications. However, the parties state that, if this approach is taken, all rosin resins used for printing ink applications (the only application in which the parties overlap) should be considered as belonging to the same relevant product market.

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<sup>2</sup> Case M.1391 – International Paper / Union Camp, decision of 5 February 1999.

*Rosin resins used for printing ink applications*

16. The Commission in its previous decisions<sup>3</sup> has already investigated the printing market and identified two main product categories: “paste” inks, mainly used for “publication” printing, and “liquid” inks, mainly used for “packaging” printing.
17. The parties submit that printing inks are generally made for specific printing techniques, such as offset (used in publication printing) or gravure and flexographic (used mainly in packaging printing). Offset techniques require a thick, solvent ink (the so called “paste” inks) while gravure and flexographic techniques use solvent-borne or waterborne fluid inks (the so called “liquid” inks).
18. Offset techniques can be subdivided into web offset (including coldset and heatset) and sheet-fed. Regardless of this subdivision, offset inks are thick pastes and consist of four basic components: resin, pigments, solvents and additives. Four types of resin are used in the production of paste inks: rosin resins, hydrocarbon resins, hybrid resins and alkyd resins and ink makers generally use a mix of resins to achieve the performance characteristics required by their customers.
19. Gravure printing is used for packaging printing and to a lesser extent for publication printing, while flexographic printing is mainly used for packaging materials such as corrugated containers, flexible plastic, etc. Both techniques use liquid inks that are made from a wide range of resins<sup>4</sup>.
20. According to the parties, rosin resins used for offset (paste) applications are generally interchangeable across all offset applications. While there is limited demand-side substitution between rosin resins for paste inks and rosin resins for liquid inks, they submit that the ease with which rosin resin producers can and do switch production in the same reactors between the different resins puts them in the same relevant product market.

*Results of the market investigation*

21. The market investigation has shown that from the customers’ point of view, the different grades of rosin resins are not in general exchangeable<sup>5</sup>, and this conclusion is valid for both rosin resins as a whole and rosin resins used for printing inks. While in some instances different grades can be used, most of the times this substitution requires a reformulation process (some customers have reported that this process sometimes can take up to one year) and tests with the customers. Therefore, although the boundaries between the different end-applications in which each type or grade of rosin resin can be used are blurred, most of the time substitution is not possible or very difficult.
22. From the production point of view, the market investigation is not conclusive with respect to whether or not all the producers are able to produce easily and in the short

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<sup>3</sup> Case M.3886 – Aster 2 / FLINT INK, decision of 25 August 2005.

<sup>4</sup> Including acrylic resins, alkyd resins, cellulose, epoxy resins, hydrocarbon resins, melamine resins, polyesters and polyethers, polyamides, polyurethanes, rosin resins, shellac, styrene-maleic anhydride resin, urea resins and vinyl resins.

<sup>5</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid customers, questions 6 and 7.

term the whole range of rosin resins for the various end-applications. Some of them confirm that they can do it, but others are only active in some of the end-applications and starting the production of rosin resins for other applications would require additional investments and time<sup>6</sup> (including the installation of new reactors in some instances which may take more than one year, or large investments up to 0,5 M €)<sup>7</sup>.

23. However, with respect to rosin resins for ink applications the vast majority of the producers active in this segment confirm that they are able to produce easily in the same reactors the whole range of rosin resins for printing ink applications<sup>8</sup>.

#### *Conclusion on rosin resins*

24. In the light of the above, the Commission considers that rosin resins for printing ink applications (rosin resins for “paste” inks and rosin resins for “liquid” inks) belong to the same relevant product market. However, the question whether rosin resins for all end-applications belong to the same relevant product market or whether it should be split into several product markets can be left open since the transaction does not raise competition concerns under any alternative definition.

#### Hybrid resins

25. The term hybrid resin refers to a resin where a rosin resin and a hydrocarbon resin are reacted together. Therefore, hybrid resins are not simple blends of different products, but a new product obtained through a chemical reaction of its components. Hybrid resins are a niche product and are used exclusively in printing inks, for which demand is limited. These resins offer improved water balance, gloss and misting properties compared with non-hybrid rosin resins, but cost more.
26. In a first step, the resin producer makes or purchases a hydrocarbon resin, and then in a second step reacts it with rosin, and other chemicals (e.g., phenol and paraformaldehyde). [description of the second step]
27. The parties submit that hybrid resins would belong to the same relevant product market as rosin resins for ink applications. On the demand side, customers could and would substitute hybrid resins by rosin resins or by blends of rosin and hydrocarbon resins by modifying their recipes to take advantage of price changes. On the supply-side, rosin resins producers could [...] produce hybrid resins on rosin resins reactors [...]
28. However the market investigation does not appear to confirm the parties’ view. The vast majority of the customers (five out of six, and the remaining one is doubtful) confirm that hybrid resins cannot be substituted by blends of rosin and hydrocarbon resins<sup>9</sup>. Hybrid resins are obtained by “reacting” rosin and hydrocarbon resins through a

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<sup>6</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid competitors questions 11 and 12.

<sup>7</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid competitors question 30.

<sup>8</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid customers question 25. Out of the eight producers who replied and are active in rosin resins for printing ink applications, seven confirmed this possibility.

<sup>9</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid customers question 26.

chemical process which confers them certain characteristics which cannot be achieved by simply blending the components. Furthermore, from the production point of view some producers indicate that some adaptations to their equipment may be necessary, and most importantly, most of the producers consider that the production of hybrid resins needs specific know-how. Therefore, even if from the technical point of view the production switch were to be easy, it appears that the need of knowledge about the process would prevent producers from switching easily from rosin resins production to hybrid resins production.

29. In any case, the question whether hybrid resins for printing ink applications constitutes a separate relevant product market or whether it belongs to a wider market comprising also rosin resins for printing ink applications can be left open as the final assessment does not change.

#### Rosin resins, hybrid resins and hydrocarbon resins for printing ink applications

30. As stated above, the parties consider that rosin resins, hybrid resins and hydrocarbon resins for printing ink applications belong to the same relevant product market. Hydrocarbon resins are synthetic resins<sup>10</sup> which are used in many of the same applications as rosin resins and in particular in ink applications. According to the parties, rosin resins compete directly with hydrocarbon resins as they are interchangeable as components of web offset inks (paste inks) which account for around two thirds of the rosin resins consumption. Both types of resins are said to be directly substitutable in coldset inks, while in heatset inks ink manufacturers could normally reformulate their recipes to replace a substantial part of the rosin resins by hydrocarbon resins (or vice versa). This substitution is said to be easy and could be done in the short term. Rosin resin manufacturers cannot ignore the threat of reformulation since historically substitution between rosin and hydrocarbon resins has been one-way in favour of hydrocarbon resins given its lower cost in the long run. Thus, once a customer reformulates its ink, it does not go back to rosin resin if the price of rosin resin subsequently decreases by a small but significant amount. This would be a powerful disincentive to increase rosin resin prices relative to hydrocarbon resin prices.
31. In addition, the parties state that from the supply-side point of view, although hydrocarbon resin batch process reactors<sup>11</sup> are more robust than rosin resin reactors, they are fundamentally the same and therefore some hydrocarbon producers can easily switch production to rosin resins (a number of rosin producers make both rosin and hydrocarbon resins in the same reactors<sup>12</sup>), and those who do not, could easily convert their hydrocarbon batch process reactors at minimal cost as Hexion has also done. These differences are mainly that hydrocarbon reactors work at higher pressure, they work

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<sup>10</sup> Hydrocarbon resins are produced by polymerising hydrocarbon monomers. Most of them are produced from C5 monomers and/or C9 monomers. They are generally divided into three categories: aliphatic hydrocarbon resins (usually based on C5 monomers), aromatic hydrocarbon resins (usually based on C9 monomers) and waterwhite resins (usually based on pure monomers such as styrene derivatives or hydrogenated monomers).

<sup>11</sup> Hydrocarbon resins can be produced either with a “batch process” reactor or with a “continuous process” reactor, while rosin resins are produced only with “batch process” reactors.

<sup>12</sup> Parties’ statement.

only with liquid inputs (as opposed to rosin reactor which work with both liquid and solid inputs) and that the agitator needs to be more powerful.

32. The market investigation does not confirm the parties' view on this aspect. From the demand-side, although some customers acknowledge that for web offset inks (paste inks) there may be some partial substitutability between hydrocarbon and rosin resins, this is not the case as regards liquid inks, where it appears that substitution is almost inexistent. Moreover, most of the customers<sup>13</sup> do not consider that hydrocarbon producers may be able to switch production to rosin resins easily and in the short term or that these producers may constitute an alternative in case of price increases in rosin resins<sup>14</sup>.
33. With respect to supply-side, and the possibility of hydrocarbon producers to switch production to rosin resins, the investigation indicates that for most of the producers which are not currently doing it, this switch would not be economically feasible or in any case, could not be implemented in the short term and at negligible cost<sup>15</sup>. These additional investments, necessary for instance to allow the use of solid inputs, have been explicitly recognised by the parties themselves.
34. In the light of the above, the Commission considers that the supply-side substitutability between hydrocarbon resins and rosin resins is not enough as to allow many producers switching production easily, at low cost and in the short term. In any case, the question whether rosin resins, hydrocarbon resins and hybrid resins for printing ink applications constitute separate relevant product markets or whether they belong to the same market can be left open as the final assessment does not change.

#### **Relevant geographic market**

35. The parties submit that the geographic scope of the markets for the various resins used in ink applications are at least EEA-wide due to the international tendering process through which the ink manufacturers source their inputs and the cross-border trade that takes place. Transportation costs do not account for a significant portion of the final price of the resins and therefore resins are shipped all over Europe from few plants. For example, Hexion serves customers throughout the EEA from a single plant in Belgium, while IAR does it from a single plant in Portugal.
36. The parties state that the geographic market is even likely to be global. Ink makers increasingly purchase on a global scale, as a result of which imports and prices elsewhere in the world exert a significant competitive constraint on prices in the EEA. As an example, Micro Inks, an Indian producer, successfully captured approximately 5% of ink resin sales in Europe before it was purchased by Huber (an ink producer).

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<sup>13</sup> Out of nine answers, four did not take a position as they did not have knowledge on this possibility; the remaining five customers rejected this possibility.

<sup>14</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid customers question 29.

<sup>15</sup> Six out of the seven who answered to this question. Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid competitors question 23.



37. The Commission has previously defined the geographic market for inks resins as being at least EEA<sup>16</sup>. The market investigation has confirmed that this geographic market definition is still valid. However, there are some customers<sup>17</sup> and competitors<sup>18</sup> who indicate that the market may be global, given the increasing impact of companies from Asia and China such as Arez. Other companies also import into Europe such as MeadWestvaco or Micro Inks. Although the level of imports is still low (i.e. around 5% of the European rosin resin market for printing inks which has a size of around 144 kt), the impact of producers such as Arez (China), who entered the market in 2005 and has plans to build a large plant of 30 kt capacity, cannot be automatically dismissed.
38. In any case, for the purposes of this decision the geographic market definition can be left open since the final assessment does not change either if the market is defined as being at least the EEA or world-wide.

## **B. Alkyd resins**

### **Relevant product market**

39. Alkyd resins are used primarily in surface coatings (e.g., paints), which account for around 95% of all alkyd resins sales, with only a small amount (around 5% of all alkyd sales) is used in printing inks. In addition, a further sub-segmentation may be done between solvent-borne alkyd resins (which account for around 94% of the European production) and water-borne alkyd resins (accounting for around 6% of the European production). Solvent-borne alkyd resins use a solvent as a medium while water-borne alkyd resins use water.
40. The parties consider that this sub-segmentation by application is not relevant since, although there is a small amount of demand-side substitution, there is an unlimited supply-side substitutability. The same reactors are used for the production of solvent-borne alkyd resins for both applications and in general the raw materials are substantially identical. The technology is mature and widely available, there are no relevant patents, and any maker of alkyd resins for coatings already possesses the necessary know how to produce alkyd resins for printing inks. Many alkyd resins producers market resins for both coatings and printing ink applications, including Benasedo, Cray Valley, Hexion, Novance, Nuplex (selling printing ink resins through IAR), Reichhold (Vienna), Spolchemie, Synthapol and Worlée. These producers account for more than 50% of merchant market alkyd resin capacity in Europe.
41. The Commission considers that a distinction between alkyd resins for ink applications and alkyd resins for coating applications is not appropriate. First, the Commission in its previous decisions analysed<sup>19</sup> whether alkyd resins as a whole constitute a relevant product market, or whether they should be separated into solvent-borne and waterborne resins, but left open the exact product market definition without questioning whether a

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<sup>16</sup> Case M.1391 – International Paper / Union Camp, decision of 5 February 1999.

<sup>17</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid customers questions 34 and 35.

<sup>18</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid competitors questions 34 and 36.

<sup>19</sup> Case COMP M.3558 CYTEC/UCB-Surface Specialties, § 16.

sub-segmentation according to the final applications (i.e. coatings or inks) should be made. Secondly, the market investigation has not provided strong indications that this segmentation should be done and, on the contrary, the respondents have confirmed that the production technology is similar<sup>20</sup>. However, the market investigation seems to indicate that a distinction between solvent-borne and water-borne alkyd resins may be appropriate.

42. In the light of the above, the Commission considers that alkyd resins should not be further sub-segmented by applications into resins for ink and resins for coating applications.
43. With respect to a possible separation of markets between solvent-borne and water-borne alkyd resins, the question can be left open since the final assessment does not change under any alternative.

### **Relevant geographic market**

44. The parties submit that the Commission already concluded in the case COMP M.3558 CYTEC/UCB-Surface Specialties that the geographic market for both solvent-borne and water-borne alkyd resins is at least as broad as the EEA. This is corroborated by the fact that IAR serves customers as far apart as Finland and Spain with alkyd resins that are toll produced by an alkyd resins producer (Nuplex, see paragraph 40) in the Netherlands.
45. The market investigation indicates that the vast majority of the customers purchase alkyd resins throughout the EEA, and confirmed that the geographic market is at least the EEA<sup>21</sup>. Therefore for the purposes of this decision the relevant geographic market is at least the EEA.

### **C. Acrylic dispersions**

#### **Relevant product market**

46. The parties state that the Commission has on several occasions<sup>22</sup> considered that the relevant product markets to which acrylic dispersions belong may be defined either by reference to the monomers from which they are produced or by reference to the end-use for which they are produced. In this case, four relevant market definitions are possible: (i) acrylic dispersions generally, (ii) pure acrylic dispersions, (iii) styrene acrylic dispersions and, if segmentation according to the final application is taken, (iv) acrylic dispersions for ink applications.
47. For the purposes of this decision, however, it is not necessary to determine which of the above market definitions are appropriate as the final assessment does not change under any alternative.

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<sup>20</sup> Article 11 letter of 25<sup>th</sup> April to alkyd resins competitors questions 8 and 12.

<sup>21</sup> Article 11 letter of 25<sup>th</sup> April to Alkyd resins customers questions 12 and 13. At least 9 out of 12 clearly confirmed this geographic market definition.

<sup>22</sup> For example, Case No IV/M.1467-Rohm + Haas/ Morton of 19 April 1999, § 9 and 10.

## Relevant geographic market

48. In previous decisions, the Commission has defined the relevant geographic market for acrylic dispersions as being at least the EEA<sup>23</sup>.
49. The parties agree with this definition. They submit that acrylic dispersions are sold at least as widely as the EEA from very few production plants. For example, IAR serves customers in Finland and Spain with acrylic dispersions that are toll produced by Nuplex in the Netherlands.
50. Therefore for the purposes of this decision the relevant geographic market for acrylic dispersions is considered to be at least the EEA.

## ASSESSMENT

### A. Resins for printing ink applications (overlap: rosin resins and hybrid resins)

#### *Market structure*

51. The table below shows the market shares of the parties and the main competitors in the EEA for printing ink applications and under the various alternative product market definitions<sup>24</sup>:

**Market Shares in value for the EEA in 2005**  
**Resins for printing ink applications**

Company	Rosin resins	Rosin + Hybrid resins	Rosin + Hybrid + Hydrocarbon resins
Hexion	[10-20]%	[10-20]%	[10-20]%
IAR	[20-30]%	[20-30]%	[20-30]%
<b>Combined</b>	<b>[40-50]%</b>	<b>[40-50]%</b>	<b>[40-50]%</b>
Arizona	[10-20]%	[10-20]%	[10-20]%
Cray Valley	[10-20]%	[10-20]%	[10-20]%
Respol	[0-10]%	[0-10]%	[0-10]%
DRT	[0-10]%	[0-10]%	[0-10]%
Euro-Yser	[0-10]%	[0-10]%	[<5]%
Kraemer	[<5]%	[<5]%	[<5]%
Westvaco	[<5]%	[<5]%	[<5]%
Others	[0-10]%	[0-10]%*	20-30%**
Total	100%	100%	100%

(\*) Includes Resinal with [<5]%

(\*\*) Includes Resinal with [<5]% and Neville with [10-20]%

52. If hybrid resins is considered as a separate relevant product market, the market shares would be as follows:

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<sup>23</sup> Case No IV/M.1467-Rohm + Haas/ Morton of 19 April 1999, § 17 to 20.

<sup>24</sup> Source: Form CO

**Market Shares in value for the EEA in 2005  
Hybrid resins for printing ink applications**

Company	Hybrid resins
Hexion	[50-60]%
IAR	[<5]%
<b>Combined</b>	<b>[50-60]%</b>
Arizona	[10-20]%
Micro-Inks	[0-10]%
Resinall	[30-40]%
Westvaco	[<5]%
Total	100%

53. At world-wide level the market shares fall substantially, given the presence of a significant number of new players. Thus, the combined market shares of the parties would be [20-30]% for rosin resins, [10-20]% for rosin and hybrid resins and [20-30]% for rosin, hybrid and hydrocarbon resins. Should hybrid resins be considered a separate market, the market share would be [45-55]% ([40-50]% for Hexion and [<5]% for IAR).
54. From the above it can be concluded that the transaction is most likely to create competition concerns for the rosin resins market and for the hybrid resins markets at EEA level, therefore the assessment will be focussed on these markets.

Hybrid resins

55. The hybrid resins market is not very large, with a size of 11 kt, compared for example with the rosin resins market with 144 kt. The parties will get post-merger a combined market share at EEA level of [50-60]%, which is in principle indicative that the transaction may give rise to competition concerns.
56. However, it has to be taken into account that the overlap brought about by the transaction is very small, only [<5]%. Therefore, the transaction as such does not introduce a significant structural change in the competitive dynamics of the market.
57. In addition, there are other big competitors such as Resinall ([30-40]%) and Arizona ([10-20]%) which constitute the real current competitive constraints to Hexion in this market. This fact has been confirmed by the market investigation, which has not raised competitive concerns with respect to this market. In particular, the vast majority of the customers consider that the transaction will not introduce any change in the market and that the impact of the transaction will be minimal or inexistent<sup>25</sup>.
58. In the light of the above, the Commission considers that this operation does not give rise to competition concerns with respect to the hybrid resins market.

Rosin resins

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<sup>25</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid customers. More than 75% of the respondents (seven out of 9) did not raise any type of competition concerns while the rest only indicated that the number of producers would be reduced and hence competition.

59. With respect to rosin resins, the majority of the competitors (11 out of 13)<sup>26</sup> consider that the transaction will not have anti-competitive effects. However, some customers (around half of the respondents)<sup>27</sup> have indicated that the reduction in the number of players and the relatively high market share of the merged entity post-transaction may lead to price increases and reduction of product development.
60. The market investigation has confirmed that most of the customers need specific grades of rosin resins for their applications which indicates that this market is in principle not characterised by the homogeneity of the product sold. In some instances, for certain applications the resin is customised for the customer, a process that can take some months. In addition there are many producers in the market, characterised by lack of symmetry in market shares. This fact, together (although to a very minor extent) with the concerns shown by some producers<sup>28</sup> (around 30% of the replies) about the increasing impact of other producers from outside of the EEA, such as Arez (China), indicate that in principle a coordinated anticompetitive behaviour derived from this transaction is not likely to happen. However, given that two big players are merged, the transaction could still lead to anticompetitive effects derived from the unilateral behaviour of the company.
61. The section below assesses whether or not, post-merger, any such behaviour is likely to be defeated by other competitors which have enough production capacity as to serve customers wishing to change of supplier in case of price increases.

*Production capacities*

62. The table below shows the total production capacity and the estimated production (including resins for all end-applications, not only for printing inks) of rosin resin suppliers based on the parties' estimates.

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<sup>26</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid competitors questions 49 and 50.

<sup>27</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid customers questions 44 and 45.

<sup>28</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid competitors question 36.

**Parties' estimates of production and production capacity  
of rosin resins in Europe (imports excluded) –Europe 2005**

Company	Production Capacity (kt)	Production (kt)	Free capacity (kt)
Hexion	[...]	[...]	[...]
IAR	[...]	[...]	[...]
<b>Combined</b>	[...]	[...]	[...]
Arizona	105	71	34
Cray Valley	20	18	2
Respol	30	8	22
DRT	16	15	1
Euro-Yser	25	5.5	19.5
Kraemer	10	2.5	7.5
Union Resinera	10	5	5
Megara	10	5	5
Eastman	25	21	4
Others	25	14	11
<b>Total competitors</b>	<b>276</b>	<b>165</b>	<b>111</b>
<b>Total</b>	[...]	[...]	[...]

63. However, the above data are based on the total capacity and production of all rosin resins for all applications. In order to obtain the real free production capacity for rosin resins for ink applications, the Commission asked in the market investigation to each producer the amount of free capacity ready to be used for the production of rosin resins for ink applications. Since not all the producers have replied to this question, the table below shows in the first part the results taking the producers who replied to the Commission's questionnaires and in the second part the values considered are those estimated by the parties.

**Spare capacity for the production of rosin resins for ink applications**

Company	Free capacity (kt)
<b>Parties</b>	
Hexion	[...]
IAR	[...]
<b>Combined</b>	[...]
<b>Competitors who replied</b>	
Arizona	[...]
Cray Valley	[...]
Respol	[...]
Kraemer	[...]
Megara	[...]
Union Resinera	[...]
Eastman	[...]
<b>Total Competitors who replied</b>	<b>28.2</b>
<b>Rest of competitors</b>	
DRT	1
Euro-Yser	19.5
Others	11
<b>Total Competitors</b>	<b>59.7</b>

64. From the results of the market investigation, it is clear that the market is not capacity constrained. And this holds true even if only the producers who have replied to the market investigation are considered. Considering that the EEA market size for rosin resins for ink applications is around 144 kt, these competitors alone would account for 28.2 kt of spare capacity, which represents 19.5% of the market size. If the parties' estimates for the other producers are correct, the spare capacity would amount up to 41% of the market size. Although this value may be overestimated, it is clear that the market cannot be considered as capacity constrained even under the worst case scenario (taking into account only the producers who have responded to the Commission's questionnaires).
65. The market investigation has confirmed this conclusion, and the majority of the customers have acknowledged that the market has overcapacity<sup>29</sup>.
66. One customer has shown concerns stating that (i) in the past prices of rosin resins have been increased by IAR and by Hexion, and (ii) it has had procurement problems during the months September to December, when, due to the seasonality of the consumption of inks (and therefore also of rosin resins), a peak of demand takes place and the market is constrained during these months.
67. However, the evidence provided and the further information submitted by the parties indicate that the reported situation is not linked to an anti-competitive situation in the rosin resins market for printing ink applications. Firstly, with respect to the price increases, it appears that they are related to an increase in the raw materials' prices. The price of the crude oil, for example, from which key inputs for the resins production are derived<sup>30</sup>, has risen significantly over the last years. Moreover, other important component in the production of rosin resins (gum rosin and tall oil rosin)<sup>31</sup> have also experienced significant price increases in the past years. For example, for the period January 2004 to date gum rosin price has risen from about \$500 to about \$1.250 per metric ton. Secondly, regarding the procurement problems, the information provided to and gathered by the Commission on these issues appears to indicate that the reported shortages were due to technical problems in the production process of one supplier or to shutdowns because of scheduled maintenance and not to a general lack of capacity in the overall market during the period considered. Furthermore, it appears that the customer in question was able to find alternative sources of supply which mitigated the impact of the unexpected shortage.

#### *Assessment*

68. In the light of the above, it appears to be likely that any attempt of the merged entity to unilaterally raise prices may be defeated by the current significant players such as Arizona, Cray Valley, Respol and by other smaller producers, which have both the capacity and the knowledge to counterbalance any anticompetitive behaviour.

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<sup>29</sup> Article 11 letter of 25<sup>th</sup> April to rosin/hydrocarbon/hybrid customers question 39. Five out of seven customers indicated that the market is not capacity constrained and has overcapacity. Other two additional customers did not take a position.

<sup>30</sup> The parties estimate that these inputs represent around 50% of the resin cost.

<sup>31</sup> The parties estimate that this input represents between 40% and 45% of the resin cost.

69. Moreover, the parties argue that ink manufacturers are powerful and sophisticated customers who exert considerable buyer power on the resin manufacturers. They are in a position to leverage the prices and some others have in-house rosin resin production and discipline their suppliers successfully. With respect to the influence of the captive production of rosin resins that some ink manufacturers have, the parties' estimate that there are three important customers which have significant in-house production. Flint (in Frankfurt and Milan) and Siegwerk (in Siegburg), two big customers, have an estimated production capacity of around 25 kt and 12 kt respectively. Huber, as already mentioned above in paragraph 36, acquired recently Micro Inks and according to the parties it has already informed its suppliers that it will begin shifting purchases to its subsidiary.
70. The investigation has shown that in general rosin resin producers sales are concentrated with two or three big customers. For example, the top five ink producers account for approximately [80-90]% of Hexion's and [90-100]% of IAR's respective revenues from sales of rosin, hybrid and hydrocarbon resins for ink applications. The top two customers account for [50-60]% and [70-80]% of the two companies' respective sales of rosin, hybrid and hydrocarbon resins for ink applications.
71. Therefore, the Commission considers that the strong dependence of the parties on few big customers, and the ability that other producers have to serve these customers constitute significant disincentives to potential unilateral anti-competitive behaviour.
72. In the light of the above, the Commission considers that the proposed transaction does not give rise to competition concerns with respect to rosin resins (for printing ink applications).
73. If the wider market of resin rosins for all applications is considered, the transaction does not give rise to competition concerns either since, apart from the capacity considerations indicated for ink applications, the transaction leads to a combined market share below 20%.
74. Given all the arguments given above, the Commission also concludes that if the relevant product market is considered to be rosin resins and hybrid resins (for printing ink applications), the transaction does not give rise to competition concerns either.

## **B. Alkyd resins**

75. The market shares of the parties post-transaction do not give rise to any affected market under any of the alternative product market definitions considered for alkyd resins (i.e. solvent-borne alkyd resins and water-borne alkyd resins, but regardless of the end-use segmentation between alkyd resins for ink and alkyd resins for coating applications). The market shares remain below [0-10]% in all cases at EEA level (data for 2005).
76. The fact that the transaction has no impact on competition has also been confirmed by the market investigation. In this sense, more than 85% of the customers (eight out of nine) did not raise any type of competition concerns.
77. Therefore, the Commission considers that the proposed transaction does not give rise to competition concerns with respect to alkyd resins.

## **C. Acrylic dispersions**



78. The market shares of the parties post-transaction for the various alternative markets are indicated in the table below:

**Parties' market shares at EEA level (volume)-2005**

<b>Product market</b>	<b>Hexion</b>	<b>IAR</b>
Acrylic dispersions (overall market)	[10-20]%	[<5]%
-Pure acrylic dispersions	[<5]%	[<5]%
-Styrene acrylic dispersions	[20-30]%	[<5]%
Acrylic dispersions for ink applications	[<5]%	[<5]%

79. Therefore, the transaction would only lead to the creation of an affected market for styrene acrylic dispersions. However, the change brought about by the transaction is negligible. IAR's sales in this market are [...] € which compared with Hexion's sales ([...] M€) and the market size (293 M€) are insignificant. Besides, the Commission has not received any indication from the marketplace that the transaction may lead to any anti-competitive effects with respect to acrylic dispersions.

80. Therefore, the Commission considers that the proposed transaction does not give rise to competition concerns with respect to acrylic dispersions.

## **V. CONCLUSION**

81. 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