

***Case No COMP/M.4941 -
HENKEL / ADHESIVES
& ELECTRONIC
BUSINESS***

Only the English text is available and authentic.

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

Article 6(1)(b) NON-OPPOSITION
Date: 15/02/2008

***In electronic form on the EUR-Lex website under document
number 32008M4941***



COMMISSION OF THE EUROPEAN COMMUNITIES
Competition DG

Markets and cases IV: Basic Industries, Manufacturing and Agriculture

Brussels, 15.02.2008

SG-Greffe (2008) D/200662

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 Where possible the information omitted has been replaced by ranges of figures or a general description.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.4941 - HENKEL/ ADHESIVES & ELECTRONIC BUSINESS
Notification of 21.09.2007 pursuant to Article 4 of Council Regulation No 139/2004¹**

1. On 11/01/2008, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004 (the "Merger Regulation") by which Henkel KGaA, Germany ("Henkel") acquires within the meaning of Article 3(1)(b) of the Council Regulation control of the whole of the adhesives and electronic materials business (the "A&E Business") that Akzo Nobel N.V., Netherlands ("Akzo") recently acquired from Imperial Chemical Industries PLC, United Kingdom ("ICI"), by way of purchase of shares. The A&E Businesses currently form part of the National Starch and Chemical Company, within ICI.
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 functioning of the EEA Agreement.

I. THE PARTIES

3. Henkel is a German company listed on the Frankfurt stock exchange and on all of Germany's regional exchanges. The company produces and supplies laundry and home care products, cosmetics and toiletries, adhesives, sealants and surface treatment products.

¹ OJ L 24, 29.1.2004 p. 1.

4. The A&E Businesses, which comprise all assets and liabilities relating to industrial adhesives and electronic materials (as well as certain industrial surface treatment products), currently form part of the National Starch division of ICI, which is now controlled by Akzo after closing of the Akzo/ICI transaction on January 2, 2008.²

II. THE TRANSACTION AND THE CONCENTRATION

5. On August 13, 2007, Akzo and Henkel signed Sale and purchase agreement (“on-sale agreement”) that sets out the terms and conditions according to which Henkel is to acquire the A&E Businesses by Henkel from Akzo. After completion of the Transaction, the activities of the A&E Businesses will be solely controlled by Henkel. The transaction constitutes therefore a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

III. COMMUNITY DIMENSION

6. The notified operation has a Community dimension under Article 1(2) of the Merger Regulation. The parties have a combined aggregate worldwide turnover in excess of €5,000 million (Henkel € 12,739.8 million; the A&E Businesses € [...]) and at least two have a Community-wide turnover in excess of € 250 million (Henkel € [...]; the A&E Businesses amounted to € [...]). None of the parties achieve more than two-thirds of its Community-wide turnover within one Member State.

IV. RELEVANT MARKETS

7. The parties' activities overlap in three areas: industrial adhesives, electronic adhesives/materials and to limited extent in industrial surface treatments.

A. Relevant product markets

Industrial Adhesives

8. According to Henkel and in line with previous Commission's practice³, industrial adhesives can be distinguished from adhesives sold to consumers and craftsmen and do-it-yourself customers. Industrial adhesives have different distribution channels, are packaged in different quantities, are branded differently and the end customers are different. This distinction was confirmed by the market investigation.
9. Henkel submits that the current transaction should be assessed on the basis of an overall industrial adhesives product market without further segmentation according to applications or technologies. In *Henkel/Sovereign* the Commission considered that industrial adhesives could be further sub-divided according to the industry applications that such adhesives are used for. Although in the previous case Henkel supported this view, in the current transaction Henkel claims that although customers' needs differ in

² On August 13, 2007, an agreement was signed by Akzo and ICI specifying the terms of a recommended cash offer by Akzo for the share capital of ICI. The offer has been made by way of a scheme of arrangement, which required approval of the High Court in London. Akzo's shareholders approved the transaction on November 5, 2007, ICI's shareholders on November 6, 2007. The transaction was approved by the Commission on 13 December 2007, see: Case M.4779 Akzo/ICI and put into effect on January 2, 2008.

³ Case M.3612 Henkel/Sovereign (decision of 22 December 2004).

different applications, there is a certain demand – side substitutability as customers could use different adhesives for the same application. There would also be a significant degree of supply side substitutability.

10. However, the great majority of competitors and customers that replied to the Commission's request for information considered that the product market should be divided according to the different applications. According to them, this classification is commonly used in the adhesive industry, required product characteristics are mainly determined by application, and there are different market players active on these markets.
11. Industrial adhesives can be also further sub-divided according to technologies, namely water-based adhesives, hot-melts, reactive adhesives and solvent-based adhesives⁴. In the *Henkel/Sovereign* decision, the Commission left it open whether there was a need for such subdivision, although it noted that for some applications, in particular bookbinding, a further subdivision based on technologies may be necessary. Henkel argues that such a further sub-segmentation according to technologies is not justified as most adhesive technologies can be and are used for several areas of applications. Although, some technologies are better suited to certain functions, it is possible for customers to switch between adhesive technologies.
12. The market investigation in this case was less conclusive regarding the need to subdivide the product markets between different technologies. The majority of the parties' competitors stated that supply side substitutability between different technologies is low (while switching production between solvent and water-based technologies is inexpensive, changing from water/solvent based to hot melts is much more expensive). Producers generally have dedicated production lines for different types of adhesives. From the demand-side perspective, it seems that to some extent customers may be able to switch between different adhesive technologies. This ability to use different technologies varies for the different applications for which the adhesives are used.
13. According to the Commission's investigation a subdivision of the overall industrial adhesives sector by application seems therefore to be the most appropriate with possible further sub-division in different adhesive technologies.
14. At European level the parties activities overlap in industrial adhesives for (i) automotive, (ii) packaging, (iii) woodworking, (iv) bookbinding/graphic arts, (v) labelling, (vi) non-woven hygiene products, (vii) non-woven textile products, (viii) disposable medical products, (ix) flexible packaging, (x) aerospace, (xi) product assembly, (xii) construction, (xiii) tapes & labels, (xiv) footwear, and (xv) marine applications. The only significant overlaps (above [20-30]%) are in relation to five applications: automotive, bookbinding, non-woven hygiene, non-woven textile, and disposable medical products. Only these applications will be further discussed below as no competition concerns can be identified for the areas in which the increment is minimal or the parties' market shares do not exceed [20-30]%.
15. However, for the purpose of the present decision, the precise definition of the relevant product markets may be left open, since the notified operation does not raise competition

4 For water-based adhesives the bonding mechanism is triggered by the evaporation of water or the absorption of water by the substrate. In solvent-based adhesives, the bonding mechanism is triggered by the evaporation of the solvent. Hot-melt adhesives are applied to the substrate as a melt and solidify upon cooling. Reactive adhesives use a chemical reaction.

concerns both under the assumption of markets segmented by application and/or based on technologies.

Automotive adhesives

16. Adhesives for automotive applications are used to join various combinations of metal, glass and plastic and are used in the production of passenger cars and other types of vehicles. In *Henkel/Sovereign*, the Commission found that there is a distinct market for automotive adhesives. The Commission left open whether this market has to be further sub-divided according to the sub-categories of products and adhesive technology used. Henkel submits that a further sub-division by technology is not necessary as for the majority of all automotive applications, customers may use solvent-based, water-based, reactive adhesives and to a lesser extent also hot-melt adhesives. Although the market investigation largely confirmed that the parties' customers use different types of technologies, some customers indicated that switching from the technologies currently used to new ones, would require certain investment.
17. In any event, the precise definition of the relevant product market(s) in adhesives for the automotive industry can be left open since under any of the possible market definitions the operation would not raise competition problems.

Adhesives for bookbinding and graphic arts applications

18. Three distinct production uses of adhesives in the bookbinding/graphic arts industry may be distinguished: (i) printing applications; (ii) (classical) bookbinding applications; and (iii) (cover) laminating applications.
19. The notifying party submits that adhesives for bookbinding/graphic arts should not be sub-segmented. This is because many large customers source adhesives for all applications and virtually all major adhesive suppliers (in particular Henkel, the A&E Businesses, Bostik, H.B. Fuller and Forbo) offer the full range of adhesives for these applications. The customers in all three areas of adhesives for bookbinding/graphic arts applications are typically printing companies and bookbinders. Moreover, there were no indications from the demand side that a further subdivision for printing, bookbinding or cover laminating should be made.
20. In the *Henkel/Sovereign* transaction, the Commission also considered a further sub-segmentation by adhesive technology in particular in the area of bookbinding, but ultimately left the product market definition open. The market investigation showed that the technologies used in bookbinding and printing include: ethylene vinyl acetate (“EVA”) based hot-melt adhesives (over [45-55]%) of EEA consumption according to the parties); EVA and other water-based adhesives (dispersions) ([25-35]%); adhesives based on natural polymers; polyurethane (“PU”) based hot-melt adhesives; and pressure sensitive/rubber-based hot-melt adhesives.
21. Henkel is of the opinion that a further segmentation of adhesives for bookbinding (including printing) applications by technology is not appropriate, as: (i) customers are not interested in a particular adhesive technology, but only a specific functionality required for a given application; (ii) for each individual bookbinding and printing purpose, at least two or more technologies can be and are used alternatively by the customers; (iii) all adhesives are used on the same (bookbinding) machines irrespective of the adhesive

technology; (iv) customers can easily switch between different technologies as virtually all customers today use modular bookbinding machines; (v) all major adhesive suppliers offer the full range of technologies and can expand into production of one technology from another with ease. On the supply side, according to Henkel a narrow approach to market definition does not make sense either, since most suppliers offer a comprehensive product range and compete at the level of these product ranges rather than at the level of individual technologies.

22. The Commission's investigation in the present case indicates that a further subdivision based on adhesive technologies may be necessary for bookbinding. At least for some customers switching between various adhesive technologies used in bookbinding is not easy. First, not all customers use modular machines and would therefore have to invest in a new machine in order to be able to switch. Second, even those customers who are able to switch adhesives in an existing machine would incur follow-up costs because of the specific characteristics and reactions of the various types of adhesives. Therefore, a majority of responding customers have stated that a hypothetical 5-10% non-transitional price increase in a particular adhesive would not be sufficient to make switching to a different technology economically feasible.
23. However, the precise definition of the relevant product market(s) in bookbinding adhesives can be left open since under any of the possible market definitions discussed above, the operation would not raise serious doubts as to its compatibility with the common market in this sector.

Adhesives for non-woven hygiene

24. Adhesives for non-woven hygiene products are primarily used in the manufacture of baby diapers and feminine hygiene pads and shields, as well as adult incontinence products.⁵ To ensure maximum protection, high adhesion abilities, resistance, and, in some cases, elasticity under stress are key features of adhesives used in these applications. Further, adhesives for hygiene products need to avoid skin irritations and other adverse effects when they come in contact with the human skin.
25. The main adhesive technologies used in the non-woven hygiene products area are pressure sensitive ("PSA") hot-melts, and to a negligible extent (less than [0-10]%), other hot-melts. This has been confirmed by the Commission's market investigation.
26. Henkel is of the view that the relevant market comprises all adhesives for non-woven hygiene products.
27. For the purpose of the present decision it can be left open whether PSA hot-melts, and others hot melts are to be considered as a single relevant product market or whether they form two separate markets, since under any possible market definition no competition problems would arise.

Adhesives for non-woven textile

⁵ In the Parties' view, adhesives used for laminating (disposable or re-usable) surgical drapes and gowns are also (a minor) part of the adhesives for non-woven hygiene products market and they have therefore also included sales of these adhesives in the market data for this segment.

28. Adhesives for non-woven textile applications are mainly used for bonding and laminating of apparel and industrial fibers, in particular in the manufacture of high-tech textile composites.
29. For the purpose of the present decision it can be left open whether the different technologies used in adhesives for non-woven textile constitute separate product markets, since under any possible market definition no competition problems would arise.

Adhesives for disposable medical products applications

30. Adhesives for disposable medical products include all types of skin contact coating adhesives for various applications such as tapes, bandages, wound dressings and plasters.
31. The Commission has not dealt previously with this type of adhesives. Henkel submits that the adhesives used for non-woven hygiene, non-woven textile and disposable medical products applications could form a single relevant product market as all three segments use the same pressure sensitive ("PSA") adhesives.
32. However, from the Commission's investigation it appears that the suppliers and customers active in non-woven textile and hygiene adhesives are different from those for medical products adhesives markets, and hence these markets will be assessed individually.

Electronic adhesives

33. Electronic adhesives are specifically designed for the manufacture of electronic components and systems (e.g., the manufacture of the electronic core of a laptop, mobile phone or television). Henkel claims that they should be treated differently from industrial adhesives which are designed for the assembly of a wide variety of industrial end products. This division has been confirmed by the market investigation. Henkel argues in favour of overall electronic adhesives product market, because competitive conditions are the same or similar for all electronic adhesives.
34. Both Parties are active in the overall market for electronic adhesives. Regarding electronic components, their activities overlap in adhesives used in the packaging of (i) semiconductor devices and (ii) passive and electromechanical components. Regarding electronic systems, their activities overlap in adhesives used for (i) the assembly of electronic components into electronic circuits (so-called printed circuit board ("PCB") assembly), and (ii) the manufacture of electronic displays. This division according to different applications was largely confirmed by the market investigation.
35. In any event, the precise definition of the relevant product market(s) in electronic adhesives can be left open since under any of the possible market definitions the operation would not raise competition problems

Electronic materials

36. Both Parties produce and sale of electronic materials other than adhesives. Henkel produces solder materials, whereas the A&E Businesses offer electromagnetic interference shielding. Solder materials are used to electrically and, in contrast to electronic adhesives, metallurgically join electronic components. Electromagnetic interference shielding is used in the assembly process of electronic devices to shield

components against electro-magnetic interference with metallic casings or metallic coatings. In each case, there is no overlap, and the world-wide sales share of each party is well below [20-30]%. Accordingly, these products will not be further discussed below as no competition concerns would arise from the proposed transaction.

Industrial surface treatments

37. Industrial surface treatments are chemical and technical processes to modify the properties of certain substrates, such as metal. They include a variety of products, such as cleaners, pre-treatments and lubricants.⁶ While Henkel produces and sells a wide variety of industrial surface treatment products, the A&E Businesses only sell metal working lubricants.⁷ Due to very limited overlaps in the parties' activities, these products will not be further discussed below as no competition concerns can be identified.

B. Relevant geographic markets

Industrial Adhesives

38. In *Henkel/Sovereign*, the Commission left the geographic market definition open for most segments of the industrial adhesives market and assessed most of the markets both on EEA and national level. Henkel submits that for all industrial adhesives the relevant geographic market is (at least) EEA-wide, due to: (i) considerable trade flows in adhesives between different Member States⁸; (ii) adhesive suppliers' activities spread across Europe and not necessarily concentrated where their production facilities are located; (iii) low transport costs⁹; (iv) similar price levels across the EEA; (v) recent examples of geographic expansion by adhesive suppliers to neighbouring markets.
39. Overall results of the market investigation have largely confirmed this view (with some exceptions for different applications that will be discussed further below). The parties' competitors indeed supply not only in the countries where their production facilities are located, but also other countries in the EEA and to limited extent also outside the EEA. However the sales patterns differ among applications and majority of competitors confirms that in order to be competitive in the EEA, an industrial adhesive supplier needs to have production facilities located in the EEA, a strong distribution network and often an ability to provide technical service. The majority of the parties' competitors also indicate that either they already supply in other countries in the EEA or in the event of a 5-10% increase in price in their country of origin they would be interested to supply customers in other European countries and sometimes also beyond Europe. However, it has to be added that the ability to supply across national borders depends on the supplier's size and specialization, with larger suppliers offering boarder range of industrial adhesives more often indicate ability to supply across Europe and beyond while smaller suppliers, specializing in specific types of industrial adhesives, seem to have narrower reach to supply across the EEA. The transport costs are on average low (ranging from 1-15% depending on type of industrial adhesives). Finally, contracts tend to be signed at a national, European or global level depending on customer structure in different

⁶ Henkel estimates that, with respect to all products for industrial surface treatment, the Parties' combined share in the EEA in 2006 amounted to significantly less than [10-20]%.

⁷ With respect to metal working lubricants, Henkel estimates that its sales share in the EEA amounted to approximately [0-5]% in 2006 and the A&E Businesses' share equally to approximately [0-5]%.

⁸ According to Henkel EEA exports are high and account for [35-45]% or more of intra-EEA production.

⁹ According to Henkel transport costs are insignificant (on average not more than [0-5]% of sales price).

applications, for example automotive or non woven hygiene customers are large multinational companies that conclude contracts at the European/global level.

40. In any event, for the purpose of the present decision the exact definition of the geographic market for those industrial adhesives markets that are not further discussed below (i.e. for laminating/flexible packaging, bottle labelling, packaging, tapes and labels, aerospace, product assembly, construction, footwear, marine applications and woodworking) can be left open, as no competition problems arise on EEA-wide or national markets.

Automotive adhesives

41. The Commission concluded in *Henkel/Sovereign* that the relevant geographic market for adhesives for automotive applications is at least EEA-wide in scope. Henkel agrees with this view and argues that customers of automotive adhesives are large multinational companies such as the vehicle manufacturers or the manufacturers of parts for the automotive industry, which source globally or at least on an EEA-wide basis directly from the manufacturers. The main suppliers of automotive adhesives are active throughout the EEA. Transport costs are insignificant and account for less than [0-10]% of the sales price and prices do not substantially differ between Member States.
42. This view was confirmed by the market investigation. A majority of the market players, indicated that this market was global. Therefore, for the purpose of the current decision it is concluded that the geographic markets for adhesives for the automotive industries are either global or at least EEA-wide.

Adhesives for bookbinding and graphic arts applications

43. In Henkel's view, the geographic scope of the bookbinding/graphic arts segment is EEA-wide, since the conditions of competition are sufficiently homogeneous across the EEA, there are substantial trade flows between Member States and transport costs are low enough not to discourage cross-border sales.
44. In *Henkel/Sovereign* the exact geographic market definition was left open, however the transaction was assessed both at national and at the EEA level. This was because a considerable proportion of customers in bookbinding markets are small and medium-sized enterprises which tend to source locally and suppliers tend to have local sales representations or use local distributors, even though physical delivery of the products is sometimes across national borders.
45. The market investigation in the present case indicates that the geographic market for bookbinding adhesives is EEA-wide. However, a minority of customers considered the markets to be national or regional.
46. The view that the market could be smaller than the EEA is supported by the fact that market shares in a number of applications vary considerably between the different countries of the EEA. Also, even large multi-national customers with production sites in a number of countries sometimes source adhesives locally or regionally on the level of each production plant. In addition, manufacturers tend to be present by sales representations or via local distributors in the various countries, even though physical delivery of the products sold sometimes takes place cross-border. The market investigation shows that the existence of a good distribution network across Europe is seen by most market participants as a prerequisite for being a successful supplier of industrial adhesives.

47. On the other hand, the market investigation has also revealed that a majority of competitors would supply a customer that is located outside their country of operation in the event of a 5-10% increase in price in that country, and by the same token, most customers would switch to a supplier located outside the country in which they are based in the event of a permanent 5-10% price increase in their home country. This indicates that the geographic scope of the markets concerned is likely to be wider than national and to include several neighbouring countries, without necessarily being EEA-wide in scope for all product markets concerned.
48. In any event, for the purpose of the present decision the exact definition of the geographic market for adhesives for bookbinding can be left open, since under the assumption of EEA-wide, regional or national markets no competition problems arise.

Adhesives for non-woven hygiene

49. Henkel submits that the relevant geographic market is at least EEA-wide. The main customers for these adhesives are the large international manufacturers of non-woven hygiene products such as Kimberly-Clark, Johnson & Johnson, SCA and Procter & Gamble that account for around [40-70]% of the European non-woven hygiene sales. All of these customers tender or negotiate contracts regarding the purchase of adhesives centrally at least at the European level. These customers qualify multiple adhesive suppliers at the global level.
50. There are no previous Commission decisions defining the geographic markets in question. The market investigation in the present case has provided indications that the geographic market for non-woven hygiene adhesives is at least EEA-wide, but some customers indicated that a narrower geographic market definition, such as national markets or regional markets within the EEA, may be more appropriate.
51. In any event, for the purpose of the present decision the exact definition of the geographic market for non-woven hygiene adhesives can be left open, since both under the assumption of EEA-wide, regional, or national markets no competition problems can be identified.

Adhesives for non-woven textile

52. The notifying party submits that the relevant geographic market in this area comprises the whole of the EEA. No local production or other presence is required in order to serve the entire EEA. As stated above for non-woven hygiene applications, Henkel serves customers, many of which (in particular the ones producing mainly low-end products) are located or have their production facilities in Asia, source from the EEA or at the global level. Large customers such as Gore and Panzac source their requirements on an EEA basis. However, Henkel acknowledges that there are also a large number of smaller customers that purchase more at the local level and there are also many smaller, more regionally or locally active adhesive suppliers.
53. There are no previous Commission decisions defining the geographic markets in question. The market investigation in the present case has provided indications that the geographic market for non-woven textile adhesives is at least EEA-wide, but some customers indicated that a narrower geographic market definition, such as national markets or regional markets within the EEA, may be more appropriate.

54. In any event, for the purpose of the present decision the exact definition of the geographic market for non-woven textile adhesives can be left open, since both under the assumption of EEA-wide, regional or national markets no competition problems arise.

Adhesives for disposable medical products applications

55. Henkel submits that the relevant geographic market comprises at least the EEA. This is due to following factors: (i) large multinational customers that source at the EEA level account for around [45-65]% of the entire demand; (ii) all medical adhesive suppliers have to comply with uniform European standard and there are no significantly deviating national standards in place; (iii) there is no need for suppliers to have local production or local dedicated sales forces; (iv) exports are high and account for around [...]% of Henkel's production by value; (v) transport costs amount to only up to [0-5]% of average price.
56. This view was confirmed by the market investigation, with all market players indicating either global or the EEA dimension of this market. Therefore, for the purpose of the current decision it is concluded that the geographic market for adhesives for disposable medical products is at least EEA-wide.

Electronic adhesives

57. Henkel claims that the relevant geographic market for electronic adhesives is world-wide. Customers source electronic adhesives from manufacturers at global level, typically in bidding procedures, and manufacturers produce and supply electronic adhesives worldwide. Moreover, many of the customers are located in Asia. According to Henkel transport costs are low and no significant barriers to trade exist and prices do not substantially differ between the different regions. Furthermore, downstream markets for electronic components and systems as well as electronic manufacturing services are considered to be global in scope according to previous Commission's practice.¹⁰
58. The market investigation has confirmed the parties' view of a global market for electronic adhesives. All customers that replied to the Commission's investigation source electronic adhesives from manufacturers at global level and many of them have production facilities located outside the EEA. Transport costs tend to be negligible when compared to the sales prices and there are no significant differences in prices. Therefore it can be concluded for the purpose of this decision, that the markets for electronic adhesives are global in scope.

V. COMPETITIVE ASSESSMENT

Industrial adhesives market

59. On the overall industrial adhesives market, Henkel has a market share in terms of sales of approximately [5-15]% and the A&E Businesses have a share of around [0-10]% in the EEA. Their main competitors include: H.B. Fuller ([0-10]%), Bostik ([0-10]%) and Forbo ([0-5]%). Therefore, the transaction does not raise competition concerns at this level.

¹⁰ Case No. COMP/M.2820 - *STMicroelectronics/Alcatel Microelectronics*, June 24, 2002; Case No. COMP/M.4766 - *Flextronics/Soletron*, August 28, 2007.

60. The Parties and their main competitors' market shares for overall industrial adhesives market divided according to technologies are given in the table below. It should be noted that on none of these potential markets does the parties' market share exceed [20-30]%.¹¹ Furthermore there are significant competitors active in the EEA for each technology. The transaction does not give rise to competitive concerns when considered at the overall industrial adhesive level.

EEA sales shares of the Parties and their main competitors (in %) in industrial adhesives by technology

Technology	Size € M	Henkel	A&E	H + A&E	C1	C2	C3
Water-based	[...]	[5-15]	[0-10]	[10-20]	H.B. Fuller [5-15]	Bostik [0-10]	Forbo [0-10]
Solvent-based	[...]	[0-5]	[10-20]	[10-20]	Bostik [5-15]	Icap [0-10]	EFTEC [0-10]
Hot-melt	[...]	[5-15]	[5-15]	[15-25]	H.B. Fuller [5-15]	Bostik [0-10]	Jowat [0-10]
Reactive	[...]	[10-20]	[0-5]	[10-20]	Dow [5-15]	EFTEC [0-10]	Sika [0-5]

61. Even if hot melt technologies were split further, the parties' highest combined share, for PU hot-melt adhesives, would amount to [25-35]%. The parties would continue to be constrained by strong competitors such as Jowat ([15-25]%), Kleiberit/Klebchemie ([5-15]%) and H.B. Fuller ([0-10]%), other important adhesive producers active in this area include Bostik, Forbo, EFTEC and Sika.

62. Some of the parties' competitors have indicated to the Commission that the combined entity will gain considerable purchasing power on upstream market for raw materials that can give them competitive advantage over other players. However, although the upstream markets are rather concentrated and there are sometimes shortages of raw materials (in particular VAM), these raw materials are also used by a number of other industries for the manufacture of products other than industrial adhesives. The parties' combined purchasing position of the total estimated EEA-wide demand for the raw materials concerned is not significant and unlikely to raise competition concerns (both Henkel's and the A&E Businesses' estimated shares of the purchasing markets amount to below [0-10]% at each level).

Automotive adhesives

63. In automotive applications, the Parties' combined market share in the EEA in 2006 amounted to approximately [20-30]%, with Henkel accounting for [20-30]% and the A&E Businesses for [0-5]%. Henkel submits that the combined market shares are similar or lower for potential sub-segments based both on further division according to applications.

¹¹ Only if the markets were even further subdivided according to technology used, in PU hot melts the parties' combined market share would amount to [25-35]% (Henkel [20-30]%, A&E [0-10]%). However, the parties will continue to be constrained by Jowat ([15-25]%), Klebchemie ([10-20]%) and Fuller ([0-10]%).

If the markets for automotive adhesives were split by technology, the transaction does not raise competition concerns as the market share of the A&E Business remains limited. The main competitors active in automotive adhesives in the EEA are Dow ([15-25]%), EFTEC ([10-20]%) and Sika ([10-20]%).

64. Based on above, it can be concluded that the operation would not raise competition problems on the market(s) for automotive adhesives.

Adhesives for bookbinding and graphic arts applications

65. The parties' combined EEA-wide sales share in terms of value amounts to [20-30]% (Henkel – [10-20]%; A&E – [5-15]%) in a market comprising all adhesives for bookbinding/graphic arts (including bookbinding, printing and laminating) and [20-30]% in bookbinding and printing separately. The parties face competition from a number of suppliers active throughout the EEA such as H.B. Fuller ([10-20]%), Forbo ([5-15]%), Bostik ([5-15]%) Planatol ([0-5]%) and Demco Pack ([0-5]%), and roughly 40 smaller suppliers, who compete with the larger players at local level (together accounting for about [25-35]%). In view of the moderate combined market shares there transaction therefore does not raise competition concerns for an EEA wide market.

66. The Parties' market shares for bookbinding and graphic arts applications market divided according to technologies are given in the table below.

EEA sales shares of the Parties (in %) in bookbinding and graphic arts application adhesives by technology

Technology	Henkel		A&E		Henkel + A&E	
	In T€	%	in T€	%	in T€	%
EVA hot-melt	[...]	[10-20]	[...]	[10-20]	[...]	[25-35]
PSA hot-melt	[...]	[5-15]	[...]	[10-20]	[...]	[20-30]
Water-based	[...]	[5-15]	[...]	[0-10]	[...]	[10-20]
PU hot-melt	[...]	[40-50]	[...]	[0-10]	[...]	[45-55]
Protein	[...]	[10-20]	[...]	[10-20]	[...]	[25-35]
Total	[...]	[10-20]	[...]	[5-15]	[...]	[20-30]

67. The transaction leads to a significant combined share only in PU hot-melts. However, the parties submit that the PU hot-melts account for less than [5-15]% in value and less than [0-10]% in volume of all adhesives used in bookbinding (including printing) applications. Moreover, the A&E Businesses are not a major supplier of PU hot-melts [...]. Further, there are a number of other suppliers of PU hot-melt adhesives which are strong players in the overall bookbinding and printing segment, such as H.B. Fuller, Forbo and Bostik, and since 2003, a further number of adhesive suppliers have started offering PU hot-melts for bookbinding/graphic arts applications, such as Intercol, Beardow & Adams, Dural and Eukalin. Therefore, the transaction does not raise competition concerns at any technology level for bookbinding adhesives.

68. Also, on national level, the parties' combined market shares are above [20-30]% for adhesives for bookbinding including printing applications in Belgium ([35-45]%), Czech Republic ([25-35]%), Denmark ([25-35]%), Germany ([25-35]%), Greece ([20-30]%), Ireland ([30-40]%), Netherlands ([25-35]%), United Kingdom ([20-30]%), Norway ([20-

30]%) in value in 2006. In other EEA Member States the market shares do not exceed [20-30]%).

69. The notifying party submits that the addition of the Parties' existing sales shares would overstate the Parties' future position, as they expect to lose customers post-merger since some of them, in particular those that currently source from both Henkel and the A&E Businesses, will need to qualify an additional supplier according to ISO standards. Additionally, large overcapacities are present in the industry, facilitating switching of suppliers.
70. Both large and small customers generally engage in dual or multiple sourcing. The market investigation showed that the common practice of large and small customers is to qualify at least 2, 3, and even in some cases as many as 5 suppliers. Having at least two sources of supply is necessary for these customers so to be able to meet the requirements of the technical standards ISO 9000/9001. In this situation, since a significant sales share can be achieved with very few customers, a large sales share do not necessarily reflect the real market position of the parties because most of the parties' customers already work with at least on other supplier and could easily increase purchases from these suppliers if the merged entity were to increase prices.
71. The Commission's market investigation has not shown any particular competition concern with regard to national markets in the above mentioned countries. In particular, customers located in these countries have stated that in the event of a non-transitory significant price increase they would be able to turn their demand to suppliers based in another Member State. This indicates that even under the assumption of national markets, entry barriers are low and there are enough alternative suppliers post-merger. Thus, relatively high market shares of the parties in certain countries do not indicate the power to unilaterally raise prices or otherwise significantly impede competition. Therefore, even under the assumption of national market the concentration does not lead to competition concerns.
72. The competitive analysis would not differ significantly if product markets defined by adhesive technologies in bookbinding/graphic arts were to be considered on a national level. For these possible markets competition concerns can be excluded for the same reasons as are explained above with regard to possible EEA-wide markets for the various bookbinding adhesives technologies.
73. Therefore, the operation does not raise serious doubts that the notified operation would significantly impede effective competition neither in the EEA nor on national markets for adhesives for bookbinding and graphic arts or for the different adhesive technologies for bookbinding and graphic arts.

Adhesives for non-woven hygiene

74. At the EEA level, the A&E Businesses' 2006 sales share of [30-40]% would be increased by the addition of Henkel's [0-10]% share (combined [35-45]%). The parties face competition from Bostik ([15-25]%), HB Fuller ([5-15]%) and Savare ([0-10]%) and a number of smaller competitors which together account for roughly [20-30]% of the market.

75. Henkel submits that due to the relatively small addition to the A&E Businesses' existing business, the strong buyer power exercised by the parties' customers, their engagement in dual/multiple sourcing, the presence of strong competitors, the low threshold for new entries (in particular by raw material suppliers), as well as the overcapacities in the industry, the transaction will not afford the parties the possibility to increase prices or to otherwise limit competition in the area of non-woven hygiene adhesives post-merger.
76. The market investigation has shown that it is common practice among customers to dual and/or multiple source and even those customers not currently dual sourcing have qualified at least two suppliers, in accordance with ISO standards.
77. The Commission's market investigation has not shown any particular competition concern with regard to national markets. In particular, customers have stated that in the event of a non-transitory significant price increase they would be able to satisfy their requirement from suppliers based in other Member States. This indicates that even under the assumption of national markets, entry barriers are low and there are enough alternative suppliers post-merger. Also, transport costs are another factor that supports an EEA wide market definition, since they are low enough not to discourage cross-border sales and there is a significant trade flow between Member States.
78. Also the market investigation confirmed the existence of overcapacities in the sector which would allow competitors to increase their output should the combined entity attempt to raise prices or restrict output.
79. Therefore, the operation does not raise serious doubts that the notified operation would significantly impede effective competition in the markets for adhesives for non-woven hygiene at the national or EEA level.

Adhesives for non-woven textile

80. The Parties' combined sales share at the EEA level amounts to [25-35]% (Henkel [20-30]%, the A&E Businesses [0-10]%). Henkel, only active in the market since [...], is already the market leader today with a [20-30]% share and the addition of the A&E Businesses' activities ([0-10]%) is insignificant. The Parties will remain subject to strong competition from a number of competitors, including Jowat (holding a [10-20]% share at the EEA level), Forbo ([5-15]%), Collano ([5-15]%), Bostik ([0-10]%), Savaré ([0-10]%) and a number of smaller competitors (including Kleiberit/Klebchemie) which together account for roughly 20% of the market.
81. Further, Henkel's [...] largest customers in the EEA account for [...]% of Henkel's total EEA sales of adhesives for non-woven textile applications¹². The A&E Businesses' [...] largest customers in the EEA account for almost [...]% of the A&E Businesses' total EEA sales of adhesives for non-woven textile applications. The loss of or significant reduction of sales to any of these customers would immediately decrease the Parties' sales shares significantly.
82. National markets with both considerable combined market shares (2006, based on value) and significant overlaps would be Italy ([60-70]%), the UK ([35-45]%) and Portugal ([35-

45]%). However, in these three countries, the Parties will continue to face strong competition. In Italy, Savare holds a [10-20]% share, Jowat [0-10]% and Bostik, Forbo, and Kleiberit each one [0-5]%. In Portugal, Jowat will remain the market leader with a sales share of around [55-65]%. In the UK, Selock and Beardow & Adams, Kleiberit, Forbo as well as Witcobond are important competitors.

83. Further, the market investigation shows that it is common practice among customers to dual and/or multiple source and those customers not currently dual sourcing have qualified at least two suppliers, in accordance with ISO standards.

84. Therefore, the operation does not raise serious doubts that the notified operation would significantly impede effective competition in the markets for adhesives for non-woven textile at the national or EEA level.

Adhesives for disposable medical products applications.

85. The parties' combined market share for all adhesives for disposable medical applications at the EEA level will be [25-35]% (the A&E Businesses – [25-35]%; Henkel – [0-5]%). The combined entity will continue facing competition from BASF which will remain the largest supplier ([30-40]%) and two medium-sized competitors Collano (5-15%), Mapei ([0-10]%) as well as a number of smaller competitors.

86. Henkel claims that the addition of the parties' market shares overstates the combined entity future position, as customers that currently source from both Henkel and the A&E Businesses, will necessarily have to qualify an additional supplier in accordance with ISO standards in this industry.

87. According to Henkel, the A&E Businesses' sales on this market are predominantly solvent-based acrylic PSAs, which Henkel does not offer. Therefore, at the technology level, the transaction only leads to an overlap in PSA hot-melts as Henkel does not supply any other technologies in medical applications. In PSA hot-melts the combined market share in PSA hot-melts at the EEA is approximately [20-30]% (A&E [15-25]% and Henkel [0-10]%).

88. Given the moderate combined market share, the relatively small addition in market shares due to the transaction and the fact that no competition concerns were raised during the market investigation, the transaction does not raise competition concerns.

Electronic adhesives

89. The Parties' combined market share on global electronic adhesives market is [0-10]% (Henkel – [0-5]% and the A&E Businesses – [0-10]%).¹³ The Parties' combined worldwide market shares remain below [10-20]% also in specific areas of application, such as in adhesives used for manufacture of electronic components in the packaging of (i) semiconductor devices ([10-20]% global) and (ii) passive components ([0-10]%) and adhesives used for manufacture of electronic infrastructures and systems used for (i)

¹² [...]

¹³ In areas without overlap, the Parties' individual sales shares do not exceed [20-30]%.

printed circuit board (PCB) assembly ([0-10]% global) and (ii) manufacture of electronic displays (below [0-5]%).

90. If these applications were even further segmented, the parties would have much higher combined shares in two sub-segments: (i) adhesives used in semiconductor packaging to interconnect wire-bonded microchips to their substrates (so-called die attach adhesives) – [25-35]% (Henkel [0-5]%, A&E [20-30]%)¹⁴, and (ii) adhesives used in PCB assembly to underfill semiconductor packages (so-called BGA underfill) – [45-55]% (Henkel [30-40]%, A&E [10-20]%).
91. Henkel argues these high market shares in the potential sub-segments are unlikely to lead to competition concerns, due to following factors: (i) customers in electronic adhesives sector exercise strong buyer power, as the demand-side is concentrated and dominated by large multinational firms, which tend to source from multiple suppliers and usually in (central) bidding procedures and they can and do switch between suppliers (ii) even significant sales shares are not an indication of market power as like all electronic adhesives, die attach and BGA underfill adhesives are driven by innovation; (iii) Henkel will continue to face strong competition from companies active in the relevant sub-segments¹⁵ and remain under the threat of new competitors entering these sub-segments¹⁶, notably competitors active in other applications of electronic adhesives, or existing competitors expanding their activities¹⁷.
92. Although some of the parties' customers in these two specific sub-segments expressed some competition concerns in that the parties' position after the transaction might be stronger, the majority of the parties' customers confirmed in the market investigation that they multi-source and try to qualify more than one supplier in qualification process that may take up to two years. They also indicated to the Commission that on the global electronic adhesives market (and to the lesser extent in its sub-segments such as die attach and BGA underfill) the parties compete with strong Japanese companies including Sumitomo, Hitachi and some smaller players. In view of this, the Commission considers that no competition concerns will arise.

¹⁴ These market shares would not be significantly different if only organic die attach (that constitute around 90% of all die attach sold worldwide), with Henkel accounting for [0-5]% and A&E Business for [25-35]% of global sales.

¹⁵ Such as for die-attach adhesives: Hitachi Chemical with global market share of [30-40]%, Sumitomo Bakelite ([10-20]%), Lintec ([0-10]%) and Nitto ([0-10]%). The main competitors in BGA underfill are Namics ([0-10]%), Zymet ([0-10]%), Won Chemical ([5-15]%), Cheil Industries ([0-10]%) and Kusumoto ([0-10]%).

¹⁶ In the past five years, Shin-Etsu (2006/2007), Dow Corning (2006/2007), Nippon Steel (2004/2005), Yi-Hua (2004/2005), Heraeus (2004) and LS Cable (2003) entered the die attach adhesives segment. Competitors that entered the BGA underfill segment include Hitachi (2007), 3M (2007), Argotec (2006/2007), AIM (2006), Cheil Industries (2006), Shin-Etsu (2006), Sunstar (2005/2006), Zymet (2003/2004) and Won Chemical (2003).

¹⁷ There is a strong trend in the industry to move production to Asia, notably to lower cost countries such as China. With know-how migrating to Asia, there are many new entrants in electronic adhesives. These entrants are often large electronics conglomerates, such as Samsung or LG, inspired by the success of Japanese integrated electronics firms such as Hitachi, Sony, Matsushita, etc.

VI. CONCLUSION

93. 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 the Merger Regulation.

For the Commission,
signed,
Neelie KROES
Member of the Commission