

II

(Acts whose publication is not obligatory)

COMMISSION

COMMISSION DECISION

of 11 July 2001

declaring a concentration to be compatible with the common market and the functioning of the EEA Agreement

(Case COMP/M.2314 — BASF/Eurodiol/Pantochim)

(notified under document number C(2001) 1856)

(Only the English text is authentic)

(Text with EEA relevance)

(2002/365/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to the Agreement on the European Economic Area, and in particular Article 57 thereof,

Having regard to Council Regulation (EEC) No 4064/89 of 21 December 1989 on the control of concentrations between undertakings ⁽¹⁾, as last amended by Regulation (EC) No 1310/97 ⁽²⁾, and in particular Article 8(2) thereof,

Having regard to the Commission decision of 27 March 2001 to initiate proceedings in this case,

Having given the undertakings concerned the opportunity to make known their views on the objections raised by the Commission,

Having regard to the opinion of the Advisory Committee on Concentrations ⁽³⁾,

Whereas:

- (1) On 12 February 2001, the Commission received notification pursuant to Article 4 of Regulation (EEC) 4064/89 ('the Merger Regulation') of a proposed concentration by which the German undertaking BASF AG (BASF) acquires control of the whole of the Belgian undertakings Pantochim SA (Pantochim) and Eurodiol SA (Eurodiol) by way of a binding purchase agreement dated 29 December 2000.
- (2) After examination of the notification, the Commission concluded that the notified operation fell within the scope of the Merger Regulation. Commitments were

offered during the initial phase of the Commission's investigation pursuant to Article 6(2) of the Merger Regulation for the purposes of a first phase clearance decision. These commitments were not sufficient to remove the competitive concerns raised by the merger. The Commission considered therefore that the operation raised serious doubts as to its compatibility with the common market. Therefore, on 27 March 2001, the Commission decided to initiate proceedings pursuant to Article 6(1)(c) of the Merger Regulation.

I. THE PARTIES

- (3) BASF is a company with world-wide activities in the production and distribution of speciality chemicals and other chemical products, health and nutrition products, oil and gas.
- (4) Eurodiol and Pantochim are Belgian companies. Both are subsidiaries of the SISAS group, based in Italy and Luxembourg. Pantochim is active in the production of a number of chemicals, mainly phthalic anhydride (PA) and phthalates. Eurodiol is active in the production of 1,4-butanediol (BDO) and BDO-related chemicals gamma-butyrolacton (GBL), N-methylpyrrolidon (NMP) and tetrahydrofuran (THF).
- (5) On 18 September 2000, Eurodiol and Pantochim were placed under a pre-bankruptcy regime (*concordat judiciaire*) by the Court of Charleroi, Court of Commerce (*Tribunal de commerce*) Belgium. In the same judgment, the Court nominated four Court Commissioners (*Commissaires au sursis*) to supervise the management of

⁽¹⁾ OJ L 395, 30.12.1989, p. 1; corrected version in OJ L 257, 21.9.1990, p. 13.

⁽²⁾ OJ L 180, 9.7.1997, p. 1; corrigendum OJ L 40, 13.2.1998, p. 17.

⁽³⁾ OJ C 116, 17.5.2002.

Eurodiol and Pantochim during the period of pre-bankruptcy proceedings. In addition, the Italian parent company SISAS SPA, Milano, is in bankruptcy proceedings as well.

II. THE OPERATION AND THE CONCENTRATION

- (6) The operation consists in the acquisition of Eurodiol and Pantochim by BASF by way of a binding purchase agreement concluded on 29 December 2000 between BASF Antwerpen NV (a wholly owned affiliate of BASF) and the Commissioners acting for Pantochim and Eurodiol.
- (7) The notified operation constitutes an acquisition of sole control by BASF over Eurodiol and Pantochim and, therefore, a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

III. COMMUNITY DIMENSION

- (8) The undertakings concerned have a combined aggregate worldwide turnover of more than EUR 5 billion⁽⁴⁾. In 1999, BASF achieved a world-wide turnover of EUR 29,5 billion, whereas Eurodiol and Pantochim had a combined turnover of EUR 202 million. BASF, Eurodiol and Pantochim achieved an aggregate turnover in excess of EUR 100 million in 12 Member States. In addition, BASF, as well as Pantochim and Eurodiol, achieved turnover in excess of EUR 25 million in three Member States (Belgium, Germany and Italy). None of the undertakings concerned achieves more than two thirds of its aggregate Community-wide turnover within one and the same Member State. The notified operation therefore has a Community dimension within the meaning of Article 1(3) of the Merger Regulation (see Table 1).

Table 1

Turnover of BASF and of Pantochim and Eurodiol in 1999

(in million EUR)

Country	BASF	Pantochim and Eurodiol
Belgium	[...] * (*)	[...] *
Germany	[...] *	[...] *
Italy	[...] *	[...] *

(*) Parts of this text have been edited to ensure that confidential information is not disclosed; those parts are enclosed in square brackets and marked with an asterisk.

⁽⁴⁾ Turnover calculated in accordance with Article 5(1) of the Merger Regulation and the Commission notice on the calculation of turnover (OJ C 66, 2.3.1998, p. 25). To the extent that figures include turnover for the period before 1 January 1999, they are calculated on the basis of average ECU exchange rates and translated into EUR on a one-for-one basis.

IV. COMPETITIVE ASSESSMENT

A. RELEVANT PRODUCT MARKETS

1. PHTHALIC ANHYDRIDE (PA)
- (9) PA is a raw material mainly used for the production of phthalates as well as alkyd resins and unsaturated polyester (UP) resins. PA is sold in flakes or in molten form.
- (10) The parties submit that PA forms a relevant product market and they have provided data on this basis. This market definition has been broadly confirmed by the market investigation of the Commission.
2. PHTHALATES
- (11) Phthalates are diesters from the respective alcohol and PA. Because of their different characteristics phthalates can be further subdivided into standard phthalates and short-chain phthalates. However, the notifying parties submit, that there would be only one relevant product market, since it would be possible at least for a certain part of the European producers to switch the production process from standard to short-chain phthalates.
- (12) In particular the parties argue that the extent of the necessary adjustments would depend on the respective plant design. An esterification unit designed and used for the production of standard phthalates would have to be only adapted regarding the alcohol removal and purification section. The purification section would only require some minor modifications of the piping. The parties submit that, after these adjustments have been performed, the esterification unit would be able to produce the various types of phthalates with a shut down period of two to three days. The costs of such adjustments would amount to about 5 % of the costs of a new plant.
- (13) Most replies to the market investigation carried out by the Commission suggest that a market definition including standard and short chain phthalates would be too wide. Competitors of BASF have submitted that the ability to switch production between standard and short-chain phthalates is very limited due to the investments required to produce short-chain phthalates in their plants. In addition, standard phthalates and short chain phthalates are used in totally different applications. The parties themselves submit that, depending on the balance of polarisable/polar segments of the molecules and the length of the alkyl chain of the respective phthalates, the solubility and the compatibility with certain polymers are different. They conclude that therefore only phthalates with a short-chain length (i.e. C1 up to C4) are suitable for applications such as the production of nitrocellulose or the phlegmatising of peroxides.

(14) Due to their different chemical structures, standard and short-chain phthalates are used in different applications. Standard phthalates (defined as phthalates on the basis of C4- or longer alcohol) are often referred to as plasticisers, since about 95 % of the total consumption is used as plasticisers for PVC. The remaining 5 % of the standard phthalates is used as plasticisers in glues, coatings and colours, as inhibitors for peroxides as well as for the production of nitrocellulosis. The short-chain phthalates DMP and DEP (phthalates on the basis of C1- respectively C2-alcohol) are used as plasticisers in the production of cellulose esters, as inhibitor/stabiliser for peroxides, as fixing agent in cosmetic articles and as diluent for fragrances.

(15) For the purpose of the present case it can be left open whether standard phthalates and short-chain phthalates form two separate product markets or a single product market, because competition concerns do not arise in either case.

3. 1,4-BUTANEDIOL (BDO)

(16) BASF submits that BDO is used as a raw material for the production of BDO-based chemicals, namely the solvents gamma-butyrolacton (GBL), N-methylpyrrolidon (NMP) and tetrahydrofuran (THF) as well as N-vinylpyrrolidon (NVP), poly-vinylpyrrolidon (PVP), poly-tetramethylen-etherglycol (PTMEG), polybutylenterephthalat (PBT) and polyurethanes (PUR). According to BASF, at present, BDO is commercially produced by four different processes, on the basis of acetylene, butadiene, propylene oxide as well as butane. However, in the opinion of BASF BDO forms one single product market.

(17) Third parties have confirmed the market definition suggested by BASF. According to them BDO is, by its chemical properties and characteristics, a product of its own and cannot be substituted by other products. The alternative processes which can be used to produce BDO do not influence the basic properties of the product — the final product stays the same.

(18) On the basis of the foregoing the Commission considers BDO to be a relevant product market.

4. BDO-RELATED PRODUCTS (GBL, NMP AND THF)

(19) BASF submits in the notification that the products GBL, NMP and THF belong to a wider market of special solvents. This market definition also includes certain oxygenated solvents (propylene glycol monomethyl ether acetate (PGMEA), dimethylformamide (DMF),

dimethylacetamid (DMAC), propylenecarbonate (PC), dimethyl sulphoxide (DMSO)) as well as methylene-chloride.

(20) Special solvents represented only a small part of the total organic solvents market in the European Union (1999). The market for special solvents, BASF states, is broadly split. There are more than 20 different companies on the market, none of which can offer the complete range of the respective products. However these products are said, by BASF, to constitute one market, as significant competition arises from different solvents depending on their various applications.

(21) The applications of special solvents, as listed by BASF, are: electronic and paint stripping, process chemicals, purification/cleaning, agrochemical and pharmaceutical industry.

(22) BASF provides a list of substitution possibilities within each of these major applications identified. In the electronic sector NMP-based photo-resist strippers, for example, compete heavily against alternative strippers based on DMSO, hydroxylamine, ethylacetate, PGMEA, etc. In addition, BASF also argues that new technologies, which are under development, may lead to a future substitution of GBL, NMP and THF.

(23) For coatings and paint-stripping applications, BASF explains that NMP is for paint-stripping purposes, for example, competing against [...]*.

(24) For process chemical applications, BASF considers NMP substitutable with a wide range of alternative systems and products, e.g. [...]*. For cleaning applications, BASF states that, based on the nature of the material, which has to be cleaned, a wide range of products is used such as [...]* and so forth. For life science applications, there is competition from different technologies and ongoing reformulation. BASF highlights an example where THF was substituted [...]*.

(25) According to BASF these examples indicate that solvents of all the categories mentioned (special solvents, other oxygenated solvents, other organic solvents as well as non-organic solvents) are interchangeable to a certain degree and therefore could be regarded as one relevant product market. BASF, however, has assumed that the subsection termed 'special solvents' forms a separate relevant product market for the purpose of the notification.

- (26) The notification, however, concerns BDO-related solvents (GBL, NMP and THF) in particular, which are the products produced by Eurodiol and BASF. There are only a handful of companies active in the production of BDO-related solvents and most of these produce all the products. For BASF, Eurodiol and most other companies active in the production of BDO-related products, the production process allows the production of all three products, as well as BDO, in a joint production process. Chart 1 and chart 2 below represent a simplified outline of how the production processes operate with different technologies. Some other producers use different technologies from those shown here. BASF identified four different technologies in the notification, but generally the technologies are able to produce the full range of products.

Figure 1

The BASF-process

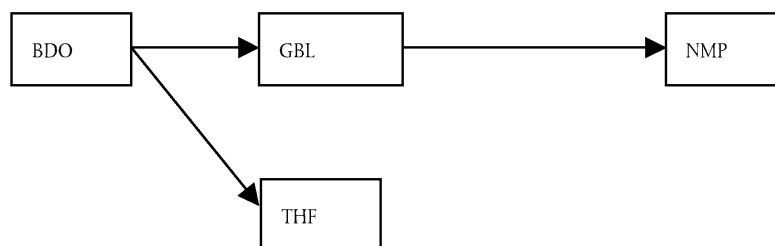
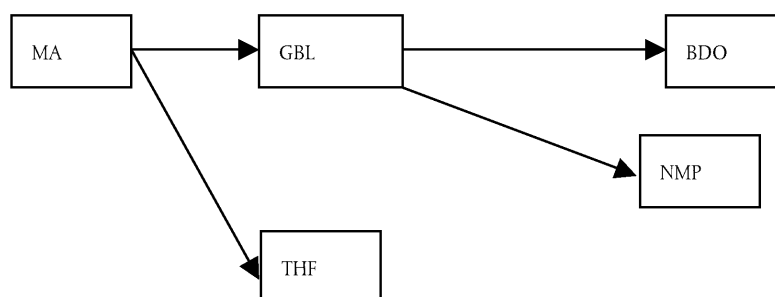


Figure 2

The Eurodiol-process



- (27) The BASF process is the 'Reppe' process, which is a relatively mature technology, based on acetylene and formaldehyde. The Eurodiol process is on the basis of a recently invented technology, using butane and MA as a raw material. Third parties have stated that this production process has to be considered as a 'low cost' technology. It can be seen from the Figures 1 and 2 that, in the BASF process, GBL and THF are derived from BDO whereas, in the Eurodiol process, BDO is derived from GBL. The term 'BDO-related products' will therefore be used in this decision when referring to GBL, NMP and THF.
- (28) The Commission has examined whether BDO-related products should be considered together with other non-BDO-related special solvents, as suggested by BASF, separately from other non-BDO-related special solvents or individually as separate product markets.
- (29) The market investigation carried out by the Commission did not confirm the market definition suggested by BASF. According to third parties the product-groups of BDO-related products are distinct from other special solvents and form separate product markets. The vast majority of customers did not support the claim that there is substitutability with regard to GBL, NMP and THF, either among the products concerned or by any other solvents. The specific technical properties and different applications do not, in practice, permit replacement of one of the products involved by other chemicals.
- (30) Third parties highlight that substitution possibilities are very restricted, in particular for the pharmaceutical and agrochemical business. A large proportion of the merchant market for BDO-related products is used in the pharmaceutical and agrochemical businesses. In Europe, production for the merchant market in these business sectors accounts for approximately [50 to 70 %]* of GBL, about [40 to 60 %]* of THF and around [10 to 30 %]* of NMP.
- (31) GBL is primarily [...] used to manufacture NMP. In this process there are no substitutes for GBL. It is also used in the manufacture of pharmaceuticals and agrochemicals and as a solvent. In these applications, according to third parties, GBL is the obvious choice because it has superior performance compared to other solvents and/or lower cost.

- (32) NMP is a powerful solvent for most commercial resins. Due to its high boiling point and excellence solvent power NMP exceeds and improves the properties of high temperature bake coatings. NMP is also used in electronics markets for stripping and cleaning. Furthermore, it is used as a reaction solvent in a wide variety of chemistries, for agrochemicals, electronics and petrochemical processing.
- (33) One of the principal applications of NMP is the production of wire enamel, and [20 to 30 %]* of NMP produced worldwide is used as a wire enamel solvent. A potential substitute for NMP in this application has been identified, by third parties, as cresols. However, the use of cresols in wire enamel applications is anticipated to decrease considerably in the near future as a result of environmental pressure. Generally, NMP is more expensive than its substitutes and is therefore only used where its performance is much better than the substitutes or health and safety issues are important.
- (34) Most [> 70 %]* of the THF production is used in the production of PTMEG, which is used in elastomers and elasthan stretch fibres. For this application THF cannot, according to third parties, be substituted for by other products. The remaining THF [< 25 %]* is used as solvent in PVC cements and coatings and as a reaction solvent in pharmaceuticals. In these applications, according to a third party, THF has superior performance to other solvents and a lower cost, and will therefore be the obvious choice for consumers.
- (35) Demand-side factors therefore suggest few, if any, substitution possibilities between GBL, NMP and THF. Third parties have said that even if substitution was generally possible from a chemical point of view, it would be very time consuming and cost intensive. Any substitution in this field would require expensive research to find and test other suitable products, it would involve industrial trial of the modified process to be undertaken and it would take a long time to obtain the necessary authorisation from administrative bodies. Furthermore, BDO-related products are generally ordered individually, and the demand structures for each product are quite different. The majority of customers consulted in the market investigation did not consume all three BDO-related products. The prices charged by BASF for the BDO-related products are also different. In 1997, for example, GBL and NMP were up to 30 % more expensive

than THF. By 1999, however, price differences had narrowed to just under 5 %. Furthermore, during the period between 1997 and 2000 when the prices of BDO-related products declined quite substantially in the EEA, the prices did not decline to the same extent for all products. The price charged by BASF for THF, for example, fell by just over 25 % whereas the NMP price fell by nearly 40 %.

- (36) Besides different specific properties and performances of the individual substances, third parties have pointed to the regulatory requirements imposed by national or Community health authorities⁽⁹⁾, which make reformulation and substitution cumbersome.
- (37) No third party consulted in the market investigation was aware of any ongoing development of technologies for future substitution of GBL, THF and NMP.
- (38) It is therefore concluded that GBL, NMP and THF form separate and distinct product markets.

B. RELEVANT GEOGRAPHIC MARKETS

1. PA

- (39) The notifying parties submit that the relevant geographic market for PA is at least EEA wide. They further believe that the adjacent east European countries (Poland, Hungary, Slovenia, the Czech and Slovak Republics) form part of this relevant geographic market. For these countries there are no barriers to trade with the EEA, and the prices tend to follow EEA prices. This definition has been largely confirmed by the Commission's investigation.
- (40) It is not necessary to further delineate the relevant geographic markets because, in all alternative geographic market definitions considered, effective competition would not be significantly impeded in the EEA or any substantial part thereof.

2. PHTHALATES

- (41) The notifying parties submit that the relevant geographic market for all phthalates is at least EEA wide. They further believe that the adjacent east European countries (Poland, Hungary, Slovenia, the Czech and Slovak Republics) form part of this relevant geographic market. For these countries there are no barriers to trade with the EEA, and the prices tend to follow EEA prices. This definition has been largely confirmed by the Commission's investigation.
- (42) It is not necessary to further delineate the relevant geographic markets because, in all alternative geographic market definitions considered, effective competition would not be significantly impeded in the EEA or any substantial part thereof.

⁽⁹⁾ See for example Council Directive 75/319/EEC of 20 May 1975 on the approximation of provisions laid down by law, regulation or administrative action relating to proprietary medicinal products (OJ L 147, 9.6.1975, p. 13). Directive as last amended by Directive 2000/38/EC (OJ L 139, 10.6.2000, p. 28).

3. BDO AND BDO-RELATED PRODUCTS (GBL, NMP AND THF)

- (43) BASF considers that the relevant geographic markets for the manufacture and sale of BDO and special solvents include at least western Europe (EEA plus Switzerland). This is because customers purchase BDO and special solvents from suppliers which are located in different Member States. In addition, transportation costs are not considered to represent a material barrier to trade. BASF therefore believes that the relevant geographical markets are broader than western Europe, and include eastern Europe, owing to the absence of trade barriers with western Europe and limited transportation costs. Furthermore, storage of BDO and special solvents does not, due to its unlimited durability, represent an obstacle to trade within the European market. Finally, BASF states that prices for comparable quantities within the relevant market are comparable with only small differences.
- (44) Third parties confirmed the submission of BASF in so far that there are no special customer preferences as to the geographic origin of the products. Quality is comparable for all suppliers, except for the east European suppliers, and durability seems not to be a particular problem of the concerned markets.

(a) *The main producers and trade flows*

- (45) SISAS produces BDO, GBL, NMP and THF in Belgium at Eurodiol, and BASF produces all four products in Germany and in the United States, but also produces BDO in Japan and Korea and THF in Japan. The competitors are located either in Europe or in the United States. International Speciality Products Inc. ('ISP') produces all four products in the United States, and also produces BDO and THF in Germany. Lyondell Chemical Company ('Lyondell') produces all four products in the United States. In addition, DuPont de Nemours International SA ('DuPont') has facilities in Spain for THF and GBL (only for captive use) and in the United States for BDO and THF.
- (46) In 2000 there were, according to BASF, significant exports of BDO to the United States [20 kt to 40 kt]* and only limited imports [1 kt to 5 kt]*. There were significant imports of GBL [1 kt to 10 kt]* and NMP [5 kt to 20 kt]* to Europe from the United States, but exports were negligible from Europe to the United States. For THF there was a trade flow of about [1 kt to 5 kt]* in both directions. Not all of the imported goods, however, were sold on the merchant market; some were used captively in intra-company transfers.
- (47) Exports from Europe to Asia during 2000 were estimated by BASF as follows: [1 kt to 5 kt]* for BDO, [1 kt to 5 kt]* for GBL, [1 kt to 10 kt]* for NMP and [1 kt to 10 kt]* for THF. During the same period [...]*. In addition, third parties have said that products from

Asia are not competitive on price, which further suggests that these producers do not constitute a competitive restraint. Asian producers were therefore not considered further in the analysis.

- (48) Despite the absence of any obvious import barriers between eastern Europe and the EEA only limited imports have been identified either by BASF or in the market investigation carried out by the Commission. In eastern Europe there are three producers, namely [...]*. Several customers stated in the market investigation that the products produced in eastern Europe are of inferior quality and that manufacturers are not able to supply on a reliable basis. Furthermore, most of the customers did not know of any eastern European suppliers or said that they had not been approached by any such suppliers. Up to now there have only been minimal imports of GBL and NMP [...]*. BASF claims that there are [...]* some quantities of THF from eastern Europe sold on the EEA market, but the market investigation did not reveal a single THF customer using THF from eastern Europe.
- (49) Whilst there may technically be few barriers to trade, the Commission has little evidence to suggest that eastern European producers have any restraining influence on the EEA markets for BDO, GBL, NMP and THF. The Commission therefore does not consider eastern Europe as part of the relevant market. Instead, owing to the high level of trade flow from the United States to the EEA the Commission has considered whether the market may be wider than the EEA. The extent to which the conditions of competition are appreciably different in the United States as compared to the EEA has therefore been considered in detail.
- (50) In 1999 and 2000 the EEA markets for BDO, GBL, NMP and THF were characterised by four players BASF, Sisas, ISP and Lyondell. The same four players were present on the United States markets. For GBL and NMP, a substantial proportion of the EEA market [> 30 %]* is produced in the United States whereas for BDO and THF only [1 to 10 %]* originate from the United States.
- (51) During 1999, when the Eurodiol plant in Feluy became fully operational for producing all four products (BDO, GBL, NMP and THF), prices in the EEA fell sharply. Importers were unable to meet this sharp decline in prices, their products became less competitive and sales of United States producers fell during 1999. In 2000, GBL importers' prices were between [1 % and 30 %]* higher than BASF, for THF the prices were [5 % to 15 %]* higher and for NMP they were [1 % to 10 %]* higher. For BDO no significant price differences between European producers and importers could be found.

- (52) There are also substantial freight costs and duties for import from the United States and Asia which limit imports into the Community. At present the duty on BDO is 7,8 % while it is 6,5 % for GBL, NMP and THF. The market investigation has shown that the additional costs as a result of both transport and duties can reach up to 20 % of the final product price (clearly this proportion has increased when prices declined). In addition, the EUR-USD exchange rate also moved to make imports into Europe more expensive in recent years.
- (53) Despite the price differences of imported goods, the level of imports recovered in 2000. Customers have indicated that they prefer to have dual sources of supply as this allows them greater flexibility and secures supply in the event that one producer is unable to supply on a regular basis. The present shortage of BDO and all BDO-related products in addition to some stickiness in switching suppliers caused by long-term contracts and supply relationships in other product markets, may have prevented the sharp decrease in imports which one would otherwise have expected.

(b) Prices

- (54) The decline in the price level in the EEA was not mirrored to the same extent as in the United States. Table 2 highlights in percentage terms the price changes for BDO, GBL, NMP and THF in the different locations from 1998 to 2000.

Table 2

The relative change in prices in the EEA and in the United States between 1998 and 2000

	Price fall in the EEA	Price fall in United States
BDO	[30 %-50 %] *	Changed between [-30 % and +20 %] *
GBL	[40 %-60 %] *	Unaffected
NMP	[30 %-50 %] *	[10 %-30 %] *
THF	[20 %-50 %] *	[< 20 %] *

- (55) As shown in Table 2, the price changes in the United States were only to a limited extent, if at all, influenced by prices in the EEA. This provides a strong indication that prices in the EEA for BDO and related products are not restrained by prices charged in the United States.
- (56) Furthermore, before the prices for BDO and related products began to fall in the EEA there were negligible price differentials between the EEA and the United States in the product markets for NMP and GBL, while for THF the price difference was in the range of 10 % to 20 %. By 2000 the price differentials became wider with the largest price differential [...] * observed in the GBL market whereas the smallest price differentials were in the BDO [...] * and THF [...] * markets.

- (57) The Commission considers the evidence that the sharp price decline in the EEA was not mirrored in the United States, to a substantial degree, in any of the four markets indicates that the geographical scope of these markets are not subject to conditions of competition which are sufficiently homogenous in the United States and in the EEA. Therefore, the United States markets should be distinguished from the EEA markets and should not be considered further in this analysis. This conclusion is supported by the widening price differentials for all four products and the barriers to importing between the United States and the EEA-markets.

(c) Conclusion

- (58) It may therefore be concluded that the EEA is the relevant geographic market for BDO, GBL, NMP and THF.

C. ASSESSMENT

- (59) For the purpose of this decision the data used for the assessment of the competitive situation is mainly from 1999. This is because Pantochim and Eurodiol experienced financial difficulties in the second half of 2000, which severely limited their output as shown in Table 3.

Table 3

Eurodiol production 2000 in tonnes

	January-June 2000	July-December 2000	% decline
BDO	[...] *	[...] *	[...] *
GBL	[...] *	[...] *	[...] *
NMP	[...] *	[...] *	[...] *
THF	[...] *	[...] *	[...] *

- (60) The decline in output from the first half of 2000 to the second half was most extreme for NMP but the production of GBL and THF also decreased significantly. Therefore, it would be misleading to use the year 2000 sales figures, given that it would not fully reflect the market position Eurodiol had.

1. PA

- (61) The activities of the parties overlap in the production of PA, which is mainly used for the production of phthalates as well as for saturated and unsaturated polyester resins. Some of the big producers of PA are vertically integrated in the downstream markets. Thus, approximately 50 % of the overall production in the EEA goes into captive use. In 1999 BASF used about 87 % of its PA production as a raw material for other products, whereas Sisas used 36 % of its output for the production of downstream products.

- (62) On the free market for PA, the parties would hold a post-merger market share of 14 % (BASF 4 %, Pantochim 10 %). The notifying parties face competition from Atofina (15 %), Atmos (11 %) and Lonza (11 %).
- (63) In view of the relatively low market share of BASF following the operation and the existence of substantial competition by a number of major manufacturers, it may be concluded that the operation does not rise competition concerns as to its compatibility with the Common Market in the market for PA.

2. PHTHALATES

(a) *Market for phthalates*

- (64) BASF produces both short-chain phthalates as well as standard phthalates, while Pantochim only produces standard phthalates. Therefore, the only overlap of the activities of the parties is in the area of standard phthalates.
- (65) On an overall market comprising both standard and short-chain phthalates BASF will have an EEA-wide market share of 26 % (BASF 19 %/Pantochim 7 %) after the merger. It faces competition mainly from Exxon (28 %) and Oxeno/Degussa (10 %), while a number of other manufacturers (Atofina, BP, Lonza and Neste) have market shares between 5 % and 7 %.
- (66) After the merger, BASF will have a market share roughly equal to Exxon on a market for all phthalates. Additionally, there is a number of large international companies like Atofina, Degussa, Lonza and Neste active in the market to ensure competition after the merger.
- (67) Therefore, in view of the foregoing, it may be concluded that competition concerns are unlikely to arise on a market of all phthalates.

(b) *Market for standard phthalates*

- (68) The activities of the parties overlap in the area of standard phthalates. Since some 98 % of all phthalates are standard phthalates the market situation is very similar to the situation of the broader market for all phthalates.
- (69) On a narrower market of standard phthalates BASF will have an EEA-wide market share of 26 % (BASF 19 %/Pantochim 7 %) after the merger. They face competition mainly from Exxon (28 %) and Oxeno/Degussa (10 %), while a number of other manufacturers (Atofina, BP, Lonza and Neste) have market shares between 5 % and 7 %. Given the particular strength of Exxon and Oxeno/Degussa BASF will face strong competition after the merger.
- (70) In view of the foregoing, it may be concluded that competition concerns are unlikely to arise on a market for standard phthalates.

(c) *Market for short-chain phthalates*

- (71) On the narrower market for short-chain phthalates, BASF has a market share of 18 %. In addition, the parties submitted that their activities do not overlap since in Feluy only standard phthalates are produced.
- (72) On the basis of the foregoing it may be concluded that competition concerns do not exist on a narrower market for short-chain phthalates.

3. BDO

- (73) Following the operation the parties will attain a market share of [35 % to 45 %]* in the EEA (BASF [20 % to 30 %]*; SISAS [15 % to 25 %]*). The market leader with the highest market share ([45 % to 55 %]*) remains ISP. Lyondell ([5 % to 15 %]*) and Du Pont ([< 5 %]*) are also active in the market. Given the strength of ISP, the operation would be unlikely to lead to single dominance of BASF.
- (74) The operation is also unlikely to lead to the creation of a collectively dominant position, although BASF and ISP will have an aggregated market share of > 80 % after the merger and the takeover of SISAS will reduce the number of key players on the market from four to three. Several features of the BDO market militate against the likelihood of collective dominance of BASF and ISP.
- (75) Market prices have come down significantly within the last three years due to strong price competition and the market entry of SISAS in 1998. The market shares of BASF and ISP have changed continuously, showing declining shares for ISP ([...]*) and high volatility for BASF ([...]*). Following price competition the margins in the BDO market have been depressed significantly and SISAS had to exit the market facing heavy losses.
- (76) Third parties have submitted to the Commission that prices depend strongly on the quantities available for the market. Although the market is expected to grow considerably it is difficult for the producers to adapt to short term changes in demand for BDO. The minimum size of a (new) plant is considerable. Given that the production capacities are concentrated in a few production plants any intermediate shut down of capacity, for example, in case of an accident, induces enormous effects on prices. On the other hand, third parties expect that the creation of new capacity in the market would lead to strong price competition. Third parties have confirmed the parties' submission that a new production plant, built up by Lyondell in the Netherlands with a capacity of about 125 kt, will be operational in the first half of 2002. The market investigation has shown that customers expect continuous price competition induced by the increase of capacity following the investment of Lyondell.

(77) BDO is commercially produced by four different processes: ISP and BASF (in Ludwigshafen) both apply the condensation of acetylene with formaldehyde and following hydrogenation. In Feluy BDO is produced [...] (in a different way).

(78) On the basis of the foregoing, it may be concluded that the notified merger would not lead to competition concerns for the market of BDO.

4. BDO-RELATED PRODUCTS (GBL, NMP AND THF)

(79) BASF and Eurodiol are both active in the production of GBL, NMP and THF and have significant sales on the merchant markets. Prior to the proposed concentration BASF was the strongest player in the EEA markets for GBL, NMP and THF.

(80) The BDO market is in short supply owing to growing demand coinciding with lower levels of production than expected by Eurodiol [...]. This shortage, however, does not appear to have influenced the production of GBL, NMP or THF to any significant extent. Although GBL is derived from BDO, in most processes, there is little indication that BDO intended for GBL or THF production has been diverted onto the BDO merchant market.

(81) GBL and NMP are both solvents, they are relatively non-toxic and almost 100 % recoverable and recyclable. Both solvents offer broad solubility for resins with good chemical and thermal stability combined with complete water solubility. THF is a solvent with a high solvency for PVC and polyurethanes. It is, like GBL and NMP, also almost 100 % recoverable and recyclable.

(a) GBL

(82) BASF estimates that the main GBL applications on a worldwide basis in 1999 were in agrochemicals and pharmaceuticals [...] and electronics [...]. In Europe the importance of GBL for specific segments was different with pharmaceuticals accounting for the main application [...]. This is because the electronics market is heavily concentrated in Asia and the United States and the production of specific pharmaceuticals and agrochemicals is mainly done in Europe.

(83) GBL is primarily used [...] in the manufacture of pyrrolidones (VP, PVP and particularly NMP). [...] (6) (7)

(84) In the notification BASF estimates that the merchant market in the EEA for GBL was worth EUR [10 to 20 million]* in 1999, accounting for [5 kt to 10 kt]*. According to BASF, the worldwide GBL capacity, merchant sales in the EEA and market shares (volume based) in 1999 were as shown in Table 4.

Table 4

World GBL (capacity, EEA sales and market shares on the merchant market (BASF estimates for 1999))

GBL	Capacity kt/year	EEA merchant sales in kt	EEA market share
BASF (Germany)	30	[...] *	[...] *
BASF (United States)	30		
Eurodiol (Belgium)	40	[...] *	[...] *
Combined	100	[...] *	[...] *
ISP (United States)	41	[...] *	[...] *
Lyondell (United States)	20	[...] *	[...] *
DuPont (Spain)	45		[...] *
Mitsubishi (Japan)	10		[...] *
[...] * [others]	5		[...] *
[...] * [others]	5		[...] *
Total	226	[...] *	[...] *

(6) [...] *
(7) [...] *

- (85) BASF estimates its market share in 1999 to be [35 % to 45 %]* (in terms of volume) and [35 % to 45 %]* (in terms of value). Eurodiol's market share accounted for [25 % to 35 %]* (in terms of volume) and [20 % to 30 %]* (in terms of value). Based on these estimates the merger would combine the two leading companies in the market for GBL achieving [60 % to 70 %]* of the market shares (in terms of volume and value).
- (86) The market investigation carried out by the Commission has broadly confirmed the GBL capacity figures outlined in Table 4. Furthermore, capacity has been stable and has not increased in the past three years. With respect to market shares, however, BASF have slightly overstated the sales of Eurodiol, the combined market share, estimated by the Commission, was therefore around [50 % to 60 %]* (in volume terms) in 1999. Figures for 2000 indicate a slight fall in market share bringing the combined share closer to [50 % to 60 %]*. The next largest competitor sells less than half the amount in the GBL merchant market. Information on sales over time (1997 to 2000) has according to BASF seen Eurodiol gaining market share at the expense of BASF's competitors, and the market investigation has broadly confirmed this trend.
- (87) Following the proposed merger the new entity would be the only producer in the EEA selling GBL on the merchant market. BASF would control [40 % to 50 %]* of world GBL capacity with its main competitors producing for the merchant markets located in the United States. Whilst there are some small capacities in eastern Europe [...] the Commission has not received any evidence that GBL has been imported into the EEA. BASF has not identified any sales from eastern Europe into the EEA nor has it been able to indicate the extent to which the GBL produced is used captively for NMP production. None of the customers consulted in the market investigation have claimed to be buying GBL from eastern European producers. Furthermore, customers have stated that east European products are of inferior quality and the producers are not able to provide a timely and reliable supply.
- (88) The market investigation has also indicated that all producers, except for Eurodiol, are producing at or near full capacity. In addition, there is no indication of new capacity being built in Europe for GBL in the foreseeable future. [...]*, which is due to start BDO production in the beginning of 2002. However, it has been publicly stated that Lyondell has postponed its plans to extend this plant for the production of the BDO-related products. Furthermore, Lyondell estimates that once the decision to enter has been taken it would take a significant time to enter into real commercial production.
- Lyondell's potential entry can therefore not be relied on to represent a competitive restraint on the merged entity.
- (89) BASF also expects the Mitsubishi plant in Japan to undertake a de-bottleneck of its GBL capacity in the beginning of 2002. This, according to BASF, would increase capacity at the Mitsubishi plant from [...]*. There were, however, in 2000 no imports from Asia, and during this period Europe and America were net exporters to Asia. Furthermore, it is not known to what extent this capacity is captive or intended for sale in the Asian merchant market. Finally, BASF has also suggested that DuPont could enter the GBL market. However, DuPont is not producing GBL for the merchant market. There is no evidence to support that DuPont is likely to enter the GBL merchant market in the near future.
- (90) In the market investigation, producers have stated that they are not able to quickly raise production without incurring substantial additional capital cost. The extent to which producers are willing to switch their captive production to the merchant market has therefore been examined. None of the producers stated that they would switch from captive production to sale on the merchant market in response to a 10 % increase in permanent relative prices, nor would they change their production mixes (the extent to which this is possible would also be limited by the lack of excess capacity). It seems reasonable to conclude therefore that products, which are at present used in captive production, are unlikely to be placed for sale on the merchant market. Captive production does therefore not represent a competitive restraint on the prices of GBL in the merchant market.
- (91) In February and March 2001 Eurodiol was using just over [50 % to 70 %]* of capacity available for GBL production. BASF predicts that by 2003 it will produce [35 kt to 50 kt per annum]* at the Feluy plant which is equivalent to full capacity. Of this production [20 kt to 30 kt per annum]* will be for captive use for NMP and the remainder will be used at Ludwigshafen for captive use for Pyrrolidone, which indicates that all production is expected to be for captive use.
- (92) The Commission has during the investigation explored the extent to which BASF may change its production mix at its plants post merger. The production process at Eurodiol, if operated efficiently, should be able to produce GBL more cheaply than at BASF's other plants. [...]*. Similarly, BDO production would be more expensive using the Eurodiol process than at Ludwigshafen. It is therefore possible that, after the merger, BASF would concentrate on the BDO-related products at the Feluy

plant and BDO production at Ludwigshafen. [...]*, irrespective of its future plans BASF would by acquiring a different technology become more flexible to respond to changes in demand of BDO and BDO-related products.

(93) The market investigation carried out by the Commission has shown that, with the exception of eastern European producers, there are no consumer preferences regarding the origin of GBL. Moreover, the EEA market is currently said to be very short of GBL. BASF estimates that imports into Europe arose only from America, and amounted to [1 kt to 10 kt]* in 2000. BASF was responsible for [1 kt to 5 kt]* of these imports which was used for captive production of NMP and Pyrrolidone at the Ludwigshafen plant. BASF's own sales on the merchant market were [1 kt to 5 kt]* in 2000.

(94) Imports from the United States and Asia are, however, subject to significant duties for importing and according to third parties, transportation and duties account for up to 20 % of the actual product price. Nevertheless, price data provided by importers indicated that their products were at most 15 % more expensive in 1999 than BASF's prices for GBL. This price difference was virtually eliminated by 2000.

(95) Third parties have also stated, however, that market entry is difficult and risky, and that the construction of a new production facility requires considerable investment and is subject to proven technology that is cost effective. Moreover, to make a production facility profitable high capacity utilisation is needed. Since most key customers require certification of their suppliers, building a customer base is a time consuming process. In the last five years Eurodiol has been the only market entrant in the EEA. According to third parties, Eurodiol's troubles were caused by its failure to gain market share to enable it to cover its costs.

(96) BASF states that customers for special solvents are broadly split with some important customers being large international players. It segments its customers into A/B/C-type customers. Type A customers are active on a global basis, have various production sites in Europe/worldwide and require large bulk deliveries. For special solvents type A customers consume more than [...]*. In 1999 type A customers represented only [...]* of BASF's customer base. Type B customers have regional activities and require bulk deliveries and most have more than one production site. For special solvents this type of customer consumes [...]* and in 1999 represented [...]* of BASF's customer structure. The remaining [...]* of customers were type C which purchase less than [...]*.

These have national activities, one production site and require bulk and/or drum deliveries.

(97) The GBL customer structure on its own appears similar with only a few very large customers (type A and B) which together represented around [40 % to 60 %]* of total sales. Customers, in the market investigation, considered that they do not have buyer power because GBL has been in short supply for some time and there is little choice of whom to buy from. Should supply become more abundant, however, some key customers do believe that they would have bargaining power. These customers in particular purchase other non-related products from BASF and their GBL expenditure is likely to be small in relation to these expenditures on other products.

(98) [...]*. The Commission's market investigation has forecasted a market growth of between 3 % and 5 % per year. With most manufacturers producing at or near full capacity and not having an economic incentive to sell capacities used captively on the merchant market, it is unlikely that the growth in demand can be satisfied by BASF's competitors (see recitals 90 and 95).

(99) It would therefore appear that the new entity would be in a better position than its competitors to meet the demand growth. Although BASF indicates that it intends to use the [...]*. BASF would therefore be able to divert volume onto the merchant market once production increased at the Eurodiol plant. In addition, given that the GBL merchant market is very small compared to the capacity available, only a small proportion (less than 1 %) of capacity would need to be diverted onto the merchant market to meet demand growth. Despite this it would be very difficult for competitors to increase their sales further given their present captive demand, since they have no economic incentive to switch from captive production to sales on the merchant market. This is not the case for BASF, which will have the flexibility, obtained by acquiring new capacity and a different technology.

Conclusion for GBL

(100) The proposed operation would, therefore, combine the only two EEA-wide producers, selling GBL on the merchant market, resulting in a strong market position. Customers will have little choice of where to buy their future increasing GBL requirements. It may therefore be concluded that the proposed operation is likely to result in the creation of a dominant position of the parties in the market GBL in the EEA.

(b) **NMP**

States and the wire coatings market is dominated by European producers.

- (101) On a worldwide basis BASF estimates that NMP was used in 1999 mainly for electronics [10 % to 30 %]*, coatings [10 % to 30 %]*, and process chemicals [10 to 30 %]*, cleaning [10 % to 30 %]* and agrochemicals [10 % to 30 %]*. Within Europe the main areas of application were slightly different with coatings accounting for [10 % to 30 %]* and process chemicals and agrochemicals accounting for just below [10 % to 30 %]* each. The difference arose because the electronics market is heavily concentrated in Asia and the United
- (102) NMP is produced from GBL and in all processes, BASF estimates that one tonne of GBL can produce approximately [0,5 t to 2 t]* of NMP.
- (103) BASF estimates, in the notification, that the merchant market for NMP was worth [EUR 40 million to EUR 60 million]* in 1999 in the EEA, accounting for [20 kt to 40 kt]*. According to BASF, the worldwide NMP capacity, merchant sales in the EEA and market shares (volume based) in 1999 were as shown in Table 5.

Table 5

World NMP capacity, EEA sales and market shares on the merchant market (BASF estimates for 1999)

NMP	Capacity kt/year	EEA merchant sales in kt	EEA market share
BASF (Germany)	15	[...] *	[...] *
BASF (United States)	25		
Eurodiol (Belgium)	25	[...] *	[...] *
Combined	65	[...] *	[...] *
ISP (United States)	23	[...] *	[...] *
Lyondell (United States)	18	[...] *	[...] *
Mitsubishi (Japan)	8		[...] *
[...] * ([...] *) [others]	3		[...] *
[...] * ([...] *) [others]	5		[...] *
Others		[...] *	[...] *
Total	122	[...] *	[...] *

- (104) BASF estimates its market share in 1999 to be [35 % to 45 %]* (in terms of volume) and [35 % to 45 %]* (in terms of value). Eurodiol's market share was estimated to account for [10 % to 20 %]* (in terms of volume) and [10 % to 20 %]* (in terms of value). Based on these estimates the operation would result in a combined market share in the market for NMP of [50 % to 60 %]* (in terms of volume and value). The figure for 'other' includes NMP recyclers which purchase used NMP from customers and recycle the material by a running and distillation step. Afterwards the recycled NMP is according to BASF sold into the NMP merchant market.
- (105) The market investigation carried out by the Commission has broadly confirmed the capacity figures outlined above. Furthermore, capacity has been stable and has not increased in the past three years. With respect to market shares, however, BASF has slightly overstated the size of the market and the sales of Eurodiol. In addition, the Commission believes that the significance of recyclers may also have been overstated. The market investigation has shown that there are no relevant sales of recycled NMP on the merchant market in Europe. Most recycle firms will treat the used NMP for companies and return it back to them and as such it is not available on the merchant market. The Commission therefore considers, based on 1999 figures that the market share of BASF is [35 % to 45 %]* and the combined market share is [50 % to 60 %]* (in volume terms). The latest figures for 2000 show a slight decline in the market share although the combined share is still [50 % to 60 %]*. The next largest competitor has less than half the sales on the merchant market. Information of sales over time (1997 to 2000) has according to BASF seen Eurodiol gaining market share [...]*. The market investigation has broadly confirmed this trend.

- (106) Following the proposed merger the new entity would be the only EEA-wide producer selling on the merchant market. BASF would control over 50 % of world NMP capacity with its main competitors producing for the merchant markets located in the United States. Whilst there are some small capacities in eastern Europe [...] there is no evidence that significant amounts of NMP have been imported into the EEA. Although BASF estimates that approximately [< 2 kt]* have been imported into the EEA from Eastern Europe in 2000, no customers have claimed to be buying NMP from eastern European producers. Furthermore, many stated that Eastern European products are of inferior quality, more expensive than alternative supplies and that the producers are not able to provide a timely and reliable supply.
- (107) The market investigation has also indicated that all producers except for Eurodiol are producing at or near full capacity. In addition, there is no indication of new capacity being built in Europe for NMP in the foreseeable future. [...] which is due to start BDO production in the beginning of 2002. However, it has been publicly stated that Lyondell has postponed its plans to extend this plant for the production of the BDO-related products. Furthermore, Lyondell estimates that once the decision to enter has been taken it would take a significant time to enter into real commercial production. Lyondell's potential entry can therefore not be relied on to represent a competitive constraint on the merged entity.
- (108) BASF also states that the Mitsubishi plant in Japan is building new NMP capacity to come on stream in the beginning of 2002. This, according to BASF, would increase capacity at the Mitsubishi plant [...]*. However, there were no imports from Asia in 2000, and Europe and the United States were net exporters to Asia. Furthermore, it is not known to what extent this capacity is captive or intended for sale on the Asian merchant market.
- (109) Producers have, in the market investigation, stated that they are not able to quickly raise production without incurring substantial additional capital cost. The extent to which producers are willing to change the production mix has therefore been examined. Most producers stated that they would not change their production mix in response to a 10 % increase in permanent relative prices for NMP in the EEA. Furthermore, the extent to which a change in production mix would be possible is also limited by the lack of excess capacity. Moreover, it is unlikely that products intended for the United States market would be switched to the EEA market given that the price differential was around 50 % in 2000.
- (110) In February and March 2001 Eurodiol was using [20 % to 40 %]* of capacity available of NMP production. BASF predicts that by 2003 it will produce [20 kt to 35 kt/a]* at the Feluy plant, which is equivalent to full capacity. Given the production processes at Eurodiol, if operated efficiently, BASF should be able to produce NMP more cheaply at Eurodiol after the merger than at its other plant. [...]*. It is therefore possible that BASF would concentrate on the BDO-related products at the Feluy plant and BDO production at Ludwigshafen. [...]*. However, irrespective of its future plans BASF would by acquiring a different technology become more flexible to respond to changes in demand of BDO and BDO-related products.
- (111) The market investigation carried out by the Commission has shown that, with the exception of east European producers, there are no consumer preferences regarding the origin of NMP. Moreover, the EEA market is very short of NMP. BASF estimates that imports into Europe amounted to [5 kt to 15 kt]* in 2000 from the United States and nothing from elsewhere. BASF was responsible for only [< 2 kt]* of this, which was sold on the merchant market.
- (112) Imports from the United States and Asia are however subject to significant duties. According to third parties, transportation and duties account for up to 20 % of the actual product price. Nevertheless, price data provided by importers indicated that their products were at most 10 % more expensive than NMP sold by BASF.
- (113) Third parties have also stated that market entry is difficult and risky. This is because the construction of a new production facility requires considerable investment and is subject to a proven technology that is cost effective. Moreover, to make a production facility profitable high capacity utilisation is needed. Since most key customers require certification of their suppliers building a customer base is a time-consuming process. In the last five years Eurodiol has been the only market entrant in the EEA. According to third parties, Eurodiol troubles were caused by its failure to gain market share to enable it to cover its costs.
- (114) BASF states that its customers for special solvents are broadly split with some important customers being large international players. It segments its customers into A/B/C-type customers. Type A customers are active on a global basis, have various production sites in Europe/worldwide and require large bulk deliveries. For special solvents type A customers consume more than [...]*. In 1999 type A customers represented only [...] of BASF's customer base. Type B customers have regional activities and require bulk deliveries and most have more than one production site. For special solvents this type of customer consumes [...] and in 1999 represented [...] of BASF's customer structure. The remaining [...] of customers were type C which purchase less than [...]*. These have national activities, one production site and require bulk and/or drum deliveries.

(115) The NMP customer structure on its own appears different from that of special solvents with customers more widely dispersed, each representing only a small proportion of BASF's sales. Given this, there is, little evidence of buyer power. Customers in the market investigation consider that they have no buyer power, because NMP is in short supply and there is little choice of whom to buy from. Should supply become more abundant, however, some key customers do believe that they would have bargaining power. These customers in particular purchase other non-related products from BASF and their NMP expenditure is likely to be small in relation to expenditure on these other products.

(116) [...]*. The Commission's market investigation has forecasted a market growth for NMP of 3 % to 4 % per year. With most producers producing at or near full capacity, it is unlikely that the growth in demand can be satisfied by BASF's competitors.

(117) On the basis of this it would appear that the new entity would be in a better position than its competitors to meet the demand growth. [...]*. It is expected that these volumes are already sold on the merchant market and that any future increasing capacity would also be destined for the merchant market.

Conclusion for NMP

(118) The proposed operation would, therefore, combine the only two producers in the EEA, selling NMP on the merchant market, resulting in a strong market position. Customers will have little choice of where to buy their increasing NMP requirements. It is therefore concluded that the proposed operation is likely to result in the creation of a dominant position of the parties in the market NMP on the EEA market.

(c) THF

(119) BASF estimates that the main uses for THF sold on the merchant market are pharmaceuticals [40 % to 60 %]*, industrial solvents, especially PVC and coatings [20 to 40 %]* and electronics [< 20 %]*. The vast majority of the THF is however used captively by the producers, mainly in the production of PTMEG.

(120) BASF estimates in the notification that the merchant market in the EEA for THF was worth [EUR 50 million to 60 million]* in 1999, accounting for [25 kt to 35 kt]*. According to BASF, the worldwide THF capacity, merchant sales in the EEA and market shares (volume based) in 1999 were as shown in Table 6.

Table 6

World THF capacity, EEA sales and market shares on the merchant market (BASF estimates for 1999)

THF	Capacity kt/year	EEA merchant sales in kt	EEA market share
BASF (Germany)	30	[...] *	[...] *
BASF (United States)	20		
BASF (Japan)	20		
Eurodiol (Belgium)	33	[...] *	[...] *
Combined	103	[...] *	[...] *
ISP (Germany)	12	[...] *	[...] *
Lyondell (United States)	16	[...] *	[...] *
DuPont (Spain)	45	[...] *	[...] *
DuPont (United States)	82		
Others		[...] *	[...] *
Penn Chem (United States)	54		
Mitsubishi (Japan)	20		
PTG (Republic of Korea)	10		
Tonen (Japan)	9		
[...] * [others]	5		
Quihar Qianjin (People's Republic of China)	3		
Total	359		[...] *

- (121) BASF estimates its market share in 1999 to be [25 % to 35 %]* (in terms of volume) and [25 % to 35 %]* (in terms of value). Eurodiol's market share accounted for [10 %-20 %]* (in terms of volume) and [10 % to 20 %]* (in terms of value). Based on these estimates the operation would result in a combined market share in the market for THF of [40 % to 50 %]* (in terms of volume and value).
- (122) The market investigation carried out by the Commission has broadly confirmed the capacity figures outlined in Table 6. Furthermore, capacity has been stable and has not increased in the past three years. The market shares have also been confirmed by the market investigation. According to the Commission's investigation, the parties' market shares in 1999 in the EEA accounted for around [25 % to 35 %]* (BASF) and around [10 % to 20 %]* (Eurodiol) resulting in a post-merger market share of about [40 % to 50 %]*. BASF appears to have underestimated the position of its strongest competitor in the market, ISP, slightly but the market shares of DuPont and Lyondell have been broadly confirmed at the levels estimated by BASF. BASF did not identify the origin of the remaining [1 kt to 10 kt]* sold on the EEA merchant market, nor did the market investigation identify the source of this volume. The concentration would therefore result in the market leader merging with the third largest producer, thereby increasing the gap to the largest remaining competitor substantially.
- (123) In 2000 the situation significantly changed on the market for THF. The parties' combined market share increased to around [45 % to 55 %]* (BASF around [25 % to 35 %]*, Eurodiol around [20 % to 30 %]*). During this period there were significant sales from Eurodiol to BASF totalling [1 kt to 5 kt]* which have not been taken into account when calculating the market shares, as this would result in an inflated post-merger position. These sales, however, enabled BASF to increase its sales on the merchant market by [30 % to 40 %]* from 1999 to 2000, an increase from [5 kt to 15 kt]* to [5 kt to 15 kt]*. By 2000 the market share of the next largest competitor, ISP, had also slightly declined. Therefore, since 1999 BASF has improved its market position considerably and its position after the merger would be about twice that of its next largest competitor.
- (124) Following the proposed merger the number of producers in the EEA selling THF on the merchant market will decline from four to three. BASF would own slightly less than 50 % of the EEA-wide production capacities for THF and 45 % of worldwide capacity. Its main competitors would be ISP and Lyondell. DuPont, whilst active in the merchant market, is using most of its production captively and is only selling small quantities on the merchant market⁽⁸⁾. There are also some small capacities in eastern Europe (for example, the Russian Federation, with approximately 5 kt) although there is no evidence that THF has been imported into the EEA. BASF estimated that sales from eastern Europe into the EEA accounted to [1 kt to 5 kt]*, about [< 3 kt]* of the THF produced in eastern Europe being used captively. None of the customers consulted in the market investigation has claimed to be buying THF from east European producers. Furthermore, customers have stated that eastern European products are of inferior quality and the producers are not able to provide a timely and reliable supply.
- (125) The market investigation has indicated that all producers except for Eurodiol are producing at or near full capacity. In addition, there is no indication of new capacity being built in Europe for THF in the foreseeable future. [...]*, which is due to start BDO production in the beginning of 2002. However, it has been publicly stated that Lyondell has postponed its plans to extend this plant for the production of the BDO-related products. Furthermore, Lyondell estimates that once the decision to enter has been taken it would take a significant time to enter into real commercial production. Lyondell's potential entry can therefore not be relied on to represent a competitive constraint on the merged entity.
- (126) BASF has also stated that new THF capacities are presently under construction by Mitsubishi in Japan (capacity [...]*) coming online in 2002; TCC in Taiwan (capacity [...]*) with an expected start up in 2001; Dairen in Taiwan (capacity [...]*) expected to start in 2002, Nan Ya in Taiwan (capacity [...]*) with the start up in 2001 and finally Quihar Qianjin in China (capacity [...]*) with the start up in 2001. However, there were no imports from Asia in 2000, and Europe was a net exporter to Asia. Furthermore, it is not known to what extent this capacity is captive or intended for sale on the Asian merchant market.
- (127) The market investigation carried out by the Commission has shown that there are few consumer preferences regarding the origin of THF⁽⁹⁾. Because of high production volumes and low prices in Europe, imports to Europe were nevertheless limited. BASF estimates that imports into Europe amounted to [1 kt to 5 kt]* (including [1 kt to 2 kt]* by BASF) in 2000 from the United States. No imports were reported from other regions of the world. With exports of [5 kt to 10 kt]* ([...]*) Europe is a net exporter of THF.

⁽⁸⁾ DuPont is producing THF in its plant in Asturias (Spain).

⁽⁹⁾ The sole exception is that THF produced by Russian manufacturers is not generally accepted, because west European standards for quality and supply reliability are currently not met.

- (128) Producers have stated in the market investigation that they are not able to quickly raise production without incurring substantial additional capital cost. The Commission has, therefore, examined the extent to which producers are willing to switch their captive production to the merchant market. None of the producers stated that they would switch from captive production to sale on the merchant market in response to a 10 % increase in permanent relative prices, nor would they change their production mixes (the extent to which this is possible would also be limited by the lack of excess capacity). It seems reasonable to assume therefore that products, which are at present used in captive production, are unlikely to be placed for sale on the merchant market. Captive production does therefore not represent a competitive restraint on the prices off THF in the merchant market.
- (129) Eurodiol was, in February and March 2001, using about [70 % to 90 %]* of capacity available for THF production. BASF predicts that by 2003 it will produce [35 kt-45 kt/a]* at the Feluy plant, [...] (10) of the current capacity. Given the production processes at Eurodiol, if operated efficiently, BASF should be able to produce THF more cheaply at Eurodiol after the merger than in Ludwigshafen. [...]*
- (130) Third parties have stated that market entry is difficult and risky. This is because the construction of a new production facility requires considerable investment and is subject to a proven technology that is cost effective. Moreover to make a production facility profitable, high capacity utilisation is needed. Since most key customers require certification of their suppliers building a customer base is a time consuming process. In the last five years Eurodiol has been the only market entrant in the EEA and according to third parties, Eurodiol troubles were caused by its failure to gain market share to enable it to cover its costs.
- (131) BASF states that its customers for special solvents are broadly split with some important customers being large international players. It segments its customers into A/B/C type customers. Type A customers are active on a global basis, have various production sites in Europe/worldwide and require large bulk deliveries. For special solvents type A customers consume more than [...]*. In 1999 type A customers represented only [...]* of BASF's customer base. Type B customers have regional activities and require bulk deliveries and the majority have more than one production site. For special solvents, this type of customer consumes [...]* and in 1999 represented [...]* of BASF's customer structure. The remaining customers were type C which purchase less than [...]*. These have national activities, one production site and require bulk and/or drum deliveries.
- (132) The THF customer structure appears different from that of special solvents with no Type A customers, few type B customers and many very small type C customers. There is little evidence of buyer power. Customers, in the market investigation consider that they have no buyer power because THF has been in short supply for some time and there is little choice of whom to buy from. Should supply become more abundant, however, some key customs do believe that they would have bargaining power. These customers in particular purchase other non-related products from BASF and their THF expenditure is likely to be small in relation to the expenditure on these other products.
- (133) [...]*. The Commission's market investigation has forecasted a market growth of THF of 3 % to 7 % per year. With most manufacturers producing at or near full capacity, it is unlikely that the growth in demand can be satisfied by BASF's competitors.
- Conclusion for THF**
- (134) The proposed operation will, therefore, combine two of the three THF producers in the EEA, selling significant quantities on the merchant market (11) resulting in a strong market position. Customers will have little choice of where to buy their increasing THF requirements. It may therefore be concluded that the proposed merger is likely to result in the creation of a dominant position by the parties in the EEA market for THF.
- D. APPLICATION OF THE CONCEPT OF THE 'RESCUE MERGER'**
- (135) In its reply to the Commissions Statement of Objections, BASF argued that the conditions for a failing company defence were met in this case, namely that BASF would gain a comparable position even in the absence of the merger and that in any event the assets of the business in question would exit definitively the market.

(10) [...]*

(11) DuPont is producing THF in their plant in Asturias (Spain) mostly for captive use, and sales to the merchant market have been limited.

1. THE COMMISSION'S DECISION IN CASE KALI + SALZ

- (136) So far, the Commission has only once based a merger decision on the concept of the rescue merger, commonly referred to as 'failing company defence'. Indeed, in its decision in Case *Kali + Salz/MDK/Treuhand* (hereinafter: '*Kali+Salz*')⁽¹²⁾, the Commission stated that the creation of a dominant position was not the consequence of the merger since the acquiring undertaking would gain a dominant position even in the absence of the merger. The lack of causality between the merger and the creation of a dominant position means that the latter would result from the disappearance of the failing company, which would be unavoidable even in the event of the concentration being prohibited and not from the concentration itself which creates or strengthens the dominant position as a result of which competition would be significantly impeded.
- (137) In that decision, the Commission applied the concept of the rescue merger on the basis of the following three criteria⁽¹³⁾:
- (a) the acquired undertaking would in the near future have been forced out of the market if not taken over by another undertaking;
 - (b) there was no less anti-competitive alternative purchase; and
 - (c) the acquiring undertaking would have taken over the market share of the acquired undertaking, if it had been forced out of the market.
- (138) The Court of Justice confirmed the Commission's approach regarding the rescue merger concept in its judgment of 31 March 1998⁽¹⁴⁾, ('the *Kali+Salz* judgment').

2. THE GENERAL FRAMEWORK OF THE CONCEPT OF THE 'RESCUE MERGER'

- (139) The approach taken by the Court of Justice⁽¹⁵⁾ is wider than the criteria set out in the Commission's decision in *Kali + Salz*. According to the Court of Justice, a merger can be regarded as a rescue merger if the competitive structure resulting from the concentration would deteriorate in similar fashion even if the concentration did not proceed⁽¹⁶⁾, that is to say, even if the concentration was prohibited.
- (140) In general terms, the concept of the 'rescue merger' requires that the undertakings to be acquired can be regarded as 'failing firms' and that the merger is not the cause of the deterioration of the competitive structure. Thus, for the application of the rescue merger, two conditions must be satisfied:
- (a) the acquired undertaking would in the near future be forced out of the market if not taken over by another undertaking; and

(b) there is no less anti-competitive alternative purchase.

- (141) However, the application of these two criteria does not completely rule out the possibility of a takeover by third parties of the assets of the undertakings concerned in the event of their bankruptcy. If such assets were taken over by competitors in the course of bankruptcy proceedings, the economic effects would be similar to a takeover of the failing firms themselves by an alternative purchaser.

Thus it needs to be established in addition to the first two criteria, that the assets to be purchased would inevitably disappear from the market in the absence of the merger.

- (142) Given this general framework, the Commission regards the following criteria as relevant for the application of the concept of the 'rescue merger':
- (a) the acquired undertaking would in the near future be forced out of the market if not taken over by another undertaking;
 - (b) there is no less anti-competitive alternative purchase; and
 - (c) the assets to be acquired would inevitably exit the market if not taken over by another undertaking.
- (143) In any event, the application of the concept of the 'rescue merger' requires that the deterioration of the competitive structure through the merger is at least no worse than in the absence of the merger.

3. THE CONCEPT OF THE 'RESCUE MERGER' APPLIED TO THE PRESENT CASE

(a) ***Eurodiol and Pantochim would have been forced out of the market if not taken over by another undertaking***

- (144) As BASF argues, Eurodiol and Pantochim would be forced out of the market if they were not acquired by it. These companies are heavily indebted as is their Italian parent company SISAS SPA, Milano, which is also in bankruptcy proceedings. Both Eurodiol and Pantochim were subject to a pre-bankruptcy regime under Belgian law⁽¹⁷⁾ and placed under the administration of four Court Commissioners (*Commissaires au sursis*). The observation period (*période d'observation*) under this pre-bankruptcy regime (*concordat judiciaire*), during which the Court of Commerce (*Tribunal de commerce*) ordered the provisional postponement of debts (*sursis provisoire*), that is to say, a preliminary suspension of the rights of the creditors, ended on 16 June 2001⁽¹⁸⁾. Due to the lack of liquidity and the significant amount of the companies' debts, a restructuring plan (*plan de redressement*) which would theoretically have allowed the Charleroi Tribunal

⁽¹²⁾ Commission Decision 94/449/EC in Case IV/M.308 — *Kali+Salz/MDK/Treuhand* (OJ L 186, 21.7.1994, p. 38).

⁽¹³⁾ Recital 71.

⁽¹⁴⁾ Joined Cases C-68/94 and C-30/95 — *French Republic/Commission and SCPA/Commission*, [1998] ECR I-1375.

⁽¹⁵⁾ *Kali+Salz* judgment, recitals 112 to 116.

⁽¹⁶⁾ *Kali+Salz* judgment, recitals 112 to 116, in particular recital 115.

⁽¹⁷⁾ *Loi relative au concordat judiciaire/Wet betreffende het gerechtelijk akkoord* of 17 July 1997, *Moniteur Belge/Belgisch Staatsblad*, 28.10.1997, p. 28550.

⁽¹⁸⁾ Judgment of the Charleroi Tribunal de Commerce — Case B/00/00079, of 21 February 2001.

de commerce to prolong the *concordat judiciaire* and the suspension of the rights of the creditors by means of a *sursis définitif* ⁽¹⁹⁾, was not proposed in this case. Therefore, the danger of bankruptcy of both Eurodiol and Pantochim was clear-cut. Indeed, the *Tribunal de commerce* of Charleroi, responsible for the pre-bankruptcy proceedings, has confirmed to the Commission that both undertakings would have to be declared bankrupt if a buyer for Eurodiol and Pantochim were not approved before the expiry of the deadline on 16 June 2001. Once BASF had terminated financial support they would have inevitably been forced out of the market.

- (145) Thus the first of the three conditions identified in the *Kali + Salz* Decision is met.

(b) No less anti-competitive alternative purchase option for Eurodiol and Pantochim

- (146) BASF also argues that there is no alternative buyer of these companies. Since a restructuring plan could be excluded as a realistic option in the present case, the *Tribunal de commerce* of Charleroi authorised the *Commissaires au sursis* in charge of the administration of the plants to find a suitable buyer for the assets of Eurodiol and Pantochim immediately after the decision to open pre-bankruptcy proceedings ⁽²⁰⁾. Subsequently, a number of competitors were contacted. However, whilst some companies took a close look at the businesses, including due diligence, apart from BASF, no other company approached by the Court Commissioners was ready to submit a viable offer for these companies. Already on this basis, it could have been concluded that there was no alternative purchaser.

- (147) Nevertheless, to exclude any doubt as to the existence of an alternative purchaser, the Commission decided to further inquire as to the possibility of an acquisition by an alternative purchaser. In fact, the South African company Sasol Chemical Industries, which belongs to the Sasol Limited Group ('Sasol'), had initially shown interest in acquiring Eurodiol and Pantochim. However, after having carried out a full due diligence procedure, Sasol informed the Commission by letter of 25 May 2001 that they had decided not to pursue their plans mainly because the financial investment to be raised was

considered to go beyond the limits of the international strategy of the company.

- (148) On the basis of the foregoing, it is concluded that, within the time framework set by the Belgian pre-bankruptcy-regime, no less anti-competitive solution was available. Thus, the second condition identified in the *Kali+Salz* Decision is met.

(c) Inevitable exit from the market of the assets to be acquired

- (149) BASF argues that the third condition of the *Kali+Salz* Decision, namely the accrual to the acquiring company of the entire market share of the acquired undertaking, has not been recognised by the Court of Justice as a necessary prerequisite for the application of the failing company defence theory. It argues that it is sufficient that only a part of the market share is accrued to the acquiring company.

- (150) The Commission recalls that under the particular circumstances of the *Kali + Salz* case, the Commission's approach to establish whether the acquiring undertaking would take over the market share of the acquired undertaking if it were forced out of the market seemed the most obvious method to prove that the concept of the 'rescue merger' could be applied to that case. Indeed, it should be noted that the *Kali + Salz* case had specific economic features, since only two companies, the acquiring and the failing firm, had been active on the market. Given this situation of a duopoly it was clear that the acquirer would have absorbed the market share of the acquired firm, independent from whether the merger was to take place or not.

- (151) In the present case, such a monopoly situation would not be created after Eurodiol's exit from the market. Nor can it be expected that BASF would absorb merely all of Eurodiol's ⁽²¹⁾ market share since their main competitors are likely to gain significant parts of this share as well. However, the Commission recognises that the assets of the failing firm would definitely exit from the market in this case. This exit would most probably lead to a considerable deterioration of market conditions, to the disadvantage of the customers. The Commission considers that these elements are equally relevant for the application of the rescue merger concept.

⁽¹⁹⁾ Articles 29 and 34 of the *Loi relative au concordat judiciaire/Wet betreffende het gerechtelijk akkoord*.

⁽²⁰⁾ The observation period under the *concordat judiciaire* can be extended to a maximum of six months. It can be prolonged once for another three months. After that date the court does not have any alternative but to transform the *concordat judiciaire* into bankruptcy. In this case the observation period started on 16 September 2000 and ended on 16 June 2001.

⁽²¹⁾ Pantochim does not manufacture GBL, NMP and THF (see recital 4).

(152) Consequently, the Commission has examined whether there would be any likelihood that Eurodiol's capacity for the relevant products might be kept on the market after bankruptcy. The Commission's investigation has established some particular economic conditions linked with special features of chemical plants of this type as well as some features of the Belgian bankruptcy proceedings.

(153) Firstly, an immediate takeover of Eurodiol and Pantochim, after bankruptcy, by a third party seems to be unlikely. Indeed, the operation of the two plants involves not only high costs but also considerable environmental risks, resulting from the sensitive production process used at Eurodiol and Pantochim. Another obstacle to an immediate restart of the plants is the fact that any company taking over the business within six months after bankruptcy would be legally obliged to take over the entire workforce.

(154) Secondly, a restart of the plants at a later stage, after the expiry of six months, would be relatively expensive compared with an immediate takeover. The necessary maintenance work over the last years has been, due to the dense economic situation of Sisas, largely neglected. A shutdown of production would cause additional costs for new catalysts when the plant is restarted. BASF reports that, during their toll-manufacturing agreement ⁽²²⁾, Pantochim and Eurodiol had not been able to meet the agreed quantities due to frequent shutdowns caused by technical problems. [...]*. The operation of the two plants involves not only high costs but also considerable environmental risks ⁽²³⁾, resulting from the sensitive production process. Furthermore, the availability of a qualified workforce is also crucial for the operation of a chemical plant of this type. As parts of the qualified workforce have already left and others will certainly do so after bankruptcy is declared, the incentives for any investor to take up business after bankruptcy of Eurodiol are fairly low.

(155) Finally, it is not likely that a third party would buy specific assets of the two companies after their shutdown following a bankruptcy judgment. The plants of Eurodiol and Pantochim can only be economically operated as a whole as they use a highly integrated produc-

tion process ⁽²⁴⁾ which does not make it possible to purchase isolated assets.

(156) On the basis of the foregoing, it is concluded that it is very likely that the assets of Eurodiol, as well as those of Pantochim, including the capacities for the BDO-related products GBL, NMP and THF would definitely exit from the market.

(d) Assessment of the competitive structure resulting from the concentration

(157) The Commission notes that the exit of the assets and production capacities of Eurodiol and Pantochim would cause a significant capacity shortage for products which are already offered on the market under very tight capacity constraints. At least for a considerable period of time, compensation for this capacity reduction would be impossible. BASF and Lyondell have both indicated to the Commission that they are considering building new plants in Europe for the manufacturing of BDO-related products. However, whereas Lyondell has never committed itself in detail to proceed with an extension of its BDO project in the Netherlands to BDO-related products, BASF has already stated that it will immediately expand its plants in Ludwigshafen (Germany) and Geismar (USA), should it not succeed in acquiring Eurodiol and Pantochim ⁽²⁵⁾. In any event, additional capacities would probably not be operational before [2002 to 2005]*.

(158) Given this reduction in capacity, at least for a considerable transitional period of time, market conditions would be adversely affected as a direct consequence of the exit of Eurodiol's capacity. The quantities available on the merchant market would be immediately reduced by [10 % to 15 %]* for NMP, by [25 % to 35 %]* for GBL and by [20 % to 30 %]* for THF. Both BASF and its competitors (ISP, Lyondell and DuPont) already today face serious capacity constraints. None of them would therefore be in a position to satisfy the increasing demand in these markets, at least in the medium term. Furthermore, the Commission's market investigation has shown that a price increase of 10 % would not create an incentive for the current market players to place additional quantities of the products concerned on the EEA merchant market, either by selling quantities which are today in captive use on the merchant market, or by an increase of imports from third countries, since the price levels for these products is in general considerably higher outside the EEA.

⁽²²⁾ During the pre-bankruptcy period Eurodiol entered into a toll-manufacturing agreement with BASF in which BASF agreed to buy the part of the production which could not be sold to third parties.

⁽²³⁾ Note that the plants involved fall within the scope of Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances (OJ L 10, 14.1.1997, p. 13).

⁽²⁴⁾ Including a common energy system (central boiler, steam system), waste-water treatment plant, logistic units.

⁽²⁵⁾ It should be noted that BASF will not expand their capacities in Ludwigshafen if they acquire the Feluy plant.

- (159) During the significant price decrease between 1998 and 2000 there was no evidence that the demand of either GBL, NMP or THF significantly increased except for the long-term market growth of approximately [2,5 % to 10 %]*. This leads to the conclusion that the demand for these products can be considered inelastic. Given the inelastic demand and the capacity constraints described, a very considerable price increase has to be assumed as an immediate consequence of a loss of Eurodiol's production capacity for the BDO-related products.
- (160) By contrast, the Commission considers that the market conditions would be more favourable for the customers after the merger.
- (161) The non-appearance of a sharp shortfall of capacity will be beneficial for the availability of the products in question. In their responses to the Commission's market investigation, third parties have made it very clear that the worst case scenario for customers would be the exit from the market of Eurodiol's⁽²⁶⁾ capacities which would inevitably be followed by supply problems and price increases. In such a situation it is likely that price competition would cease and be replaced by a massive increase of prices.
- (162) On the other hand, the economics of the case do not suggest that BASF is likely to enforce major price increases after the merger. Eurodiol's key economic problem, which led to its financial difficulties, has been its underused capacity for BDO and BDO-related products. According to BASF's business plans for the time after the take over of Eurodiol and Pantochim, these plants have to be operated at almost full capacity in order to achieve profitability and to make use of the full cost reduction potential of the technology. It can therefore be assumed that BASF will attempt to decrease costs after the merger by increased efforts to market THF, GBL and NMP. Given these circumstances the customer may expect better supply conditions and prices from the market after the merger than under a bankruptcy scenario where the assets of Eurodiol are taken off the market. Thus, the Commission considers that the deterioration of the competitive structure through the merger in the specific circumstances is less significant than in the absence of the merger.

4. CONCLUSION

- (163) Under the particular and exceptional circumstances of the case at this specific moment in time, which is characterised by the imminent bankruptcy of the failing companies in the absence of the merger, the absence of a timely alternative offer under the Belgian bankruptcy

proceedings, and the inevitable exit from the market of the assets to be acquired, combined with tight capacity constraints in the industry and demand inelasticity, the Commission concludes that the deterioration of the competitive structure resulting from the notified operation will be less significant than in the absence of the merger. Under these conditions, considered cumulatively under the particular circumstances of this specific case, the market conditions can be expected to be more favourable than in case of the market exit of the assets to be acquired.

V. OVERALL CONCLUSION

- (164) For the reasons set out above it is concluded that the proposed concentration does neither create nor strengthen a dominant position as a result of which effective competition would be significantly impeded in the common market or in a substantial part of it. The concentration is therefore to be declared compatible with the common market and the functioning of the EEA Agreement, pursuant to Article 2(2) and Article 8(2) of the Merger Regulation and Article 57 of the EEA Agreement,

HAS ADOPTED THIS DECISION:

Article 1

The notified operation whereby BASF Aktiengesellschaft will acquire sole control of the undertakings Eurodiol SA and Pantochim SA is declared compatible with the common market and with the EEA Agreement.

Article 2

This Decision is addressed to:

BASF Aktiengesellschaft
Carl-Bosch-Straße 38
D-67056 Ludwigshafen.

Done at Brussels, 11 July 2001.

For the Commission

Mario MONTI

Member of the Commission

⁽²⁶⁾ Pantochim does not manufacture GBL, NMP and THF (see recital 4).