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PUBLIC VERSION

In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus […]. Where possible the information omitted has been replaced by ranges of figures or a general description.

To the notifying party

Subject: **Case M.9756 – NOURYON / CP KELCO**
Commission decision pursuant to Article 6(1)(b) of Council Regulation No 139/2004[1] and Article 57 of the Agreement on the European Economic Area[2]

Dear Sir or Madam,

(1) On 14 May 2020, the Commission received notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004 and following a referral pursuant to Article 4(5) thereof by which[3] Nouryon Chemicals International B.V. ("Nouryon", the Netherlands), solely controlled by funds managed by affiliates of the Carlyle group ("Carlyle", USA), acquires within the meaning of Article 3(1)(b) of the Merger Regulation control of the carboxymethyl cellulose ("CMC") business of CP Kelco ApS (Denmark), consisting of CP Kelco Oy and certain other assets ("CP Kelco CMC"), currently under the control of J.M. Huber Corporation ("Huber", USA), (the "Transaction"). Nouryon is referred to as the "Notifying Party" and, together with CP Kelco CMC, as the "Parties."

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

2 OJ L 1, 3.1.1994, p. 3 (the "EEA Agreement").

3 Publication in the Official Journal of the European Union No C 176 of 26.05.2020, p. 5.

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1. THE PARTIES

(2) Nouryon (formerly known as Akzo Nobel Specialty Chemicals) is a global manufacturer and supplier of specialty chemicals, headquartered in Amsterdam, the Netherlands. Nouryon produces a wide range of chemicals such as salt, chlorine and caustic products, chemical intermediates, surfactants and processing chemicals and cellulose derivatives. Nouryon has approximately 10,000 employees worldwide and operates in over 80 countries.

(3) Nouryon has its main CMC plant in the Netherlands (Arnhem) and a smaller one in Italy (Novara), this latter plant accounting for around [5-10]% of CMC production capacity in the EEA.

(4) CP Kelco CMC constitutes the business, currently under the sole control of CP Kelco Aps that manufactures and sells CMC. CP Kelco Aps is itself a subsidiary of CP Kelco, a nature-based ingredient solutions company, headquartered in Atlanta, Georgia, USA. CP Kelco Aps mainly manufactures and sells pectin and carrageenan and it also sells products manufactured by other business units within CP Kelco. CP Kelco is a producer of specialty hydrocolloids for use in a wide variety of consumer and household products and industrial applications. CP Kelco is part of the corporate group of Huber, a corporation organized and existing under the laws of the state of New Jersey.

(5) CP Kelco CMC essentially consists in one single plant, located at in Finland (Äänekoski).

2. THE OPERATION AND THE CONCENTRATION

(6) On 29 January 2020 Nouryon, CP Kelco ApS and J.M. Huber Corporation as sellers entered into an equity and asset purchase agreement pursuant to which Nouryon agreed to acquire all equity interests in CP Kelco Oy as well as certain assets held by Huber in connection with the CMC Business.

(7) Nouryon will thus acquire sole control of CP Kelco CMC. The Transaction is therefore a concentration within the meaning of Article 3(1)(b) of the EU Merger Regulation.

3. EU DIMENSION

(8) In accordance with Article 4(5) of the Merger Regulation, the Notifying Party requested a referral to the Commission on the grounds that the case would be reviewable under the national merger control laws of three Member States, namely Austria, Cyprus and Germany. No Member State expressed disagreement with this request and the case was referred to the Commission on 24 April 2020.

4. COMPETITIVE ASSESSMENT

4.1. Overview of affected markets

(9) The Transaction gives rise to a single horizontal overlap. Nouryon and CP Kelco CMC both manufacturer CMC, a specialty chemical also known as cellulose gum, which would thus be horizontally affected.

(10) The Transaction also gives rise to two vertically affected markets, with respect to the production and supply of sodium hydroxide ("caustic soda") and monochloroacetic acid ("MCA"). Nouryon manufactures and sells both of these products that are important inputs in the CMC manufacturing process. The Target neither manufactures nor sells any of these products.

(11) The Transaction also gives rise to other minor vertical relationships between products manufactured by Nouryon that are used in the production of CMC, namely salt, hydrochloric acid and hydrogen peroxide (upstream) and CMC (downstream) even though these are minor inputs in the production process. Other minor vertical links are created by the fact that CMC is used by some portfolio companies controlled by funds managed by affiliates of the Carlyle group, either as an input (in sparkling wine and detergents) or in their manufacturing process (to produce polishing and abrasive products).

4.2. Market definitions

4.2.1. Carboxymehyl cellulose (CMC)

(12) CMC is a water-soluble cellulose ether often sold in the form of a powder. It functions as a thickener, binder, stabilizer, protective colloid, suspending agent, gelling agent, and flow control agent. It is used in a variety of industries (oil & gas exploration, manufacturing of detergents, food and beverages, and pharmaceuticals), with different purity grades (ranging from 50% to over 99.5%) depending on the application. Low-purity CMC is called "technical CMC", while higher-purity CMC (typically above 95%) is called "purified CMC". Within purified CMC, a distinction can be made between purified CMC with a purity grade comprised between 95% and 99.5% ("intermediate-purity CMC"), and purified CMC with a purity grade above 99.5% ("high-purity CMC"). CMC is manufactured by converting cellulose into alkali cellulose using caustic soda, and further treating alkali cellulose with MCA. The product resulting from this two-steps process can then be dried, and, in the case of higher purity grade, neutralised with an acid and washed with solvents, before being further ground to match the customer's preferred particle size distribution.

(13) CMC is used in a number of different applications. Some applications, such as pharma and oral care, as well as food, require a specific grade of CMC (high-purity CMC in both cases), while some applications, such as industrial, paper and packaging or mining can use different grades of CMC (within each application) depending of the precise use that is being made of the product. In addition, some applications, such as pharma and oral care, as well as food, involve different regulatory requirements.

(14) Both parties produce and supply all types of CMC in the EEA, through their plants located in the Netherlands and in Italy (Nouryon) and in Finland (CP Kelco CMC).

4.2.1.1. Product Market definition

(A) Commission precedents

(15) In the past,[4] the Commission examined only once whether the wider market for "all cellulose ethers" should be segmented based on the type of a cellulose ether, such as methylcellulose and derivatives ("MC&D") or CMC, but ultimately left the product market definition open. It should be noted that on that occasion, the Commission did not consider a further sub-segmentation either by purity grade or end-use application.

(B) Position of the Notifying Party

(16) The Notifying Party submits that the relevant product market should be defined as the overall market for the manufacture and supply of CMC.[5] The Notifying Party acknowledges that there are certain demand-side substitutability limitations that could justify a further segmentation between the technical and purified CMC grades.[6] However, the Notifying Party takes the view that there is a strong degree of supply-side substitutability between different purity grades of CMC.[7]

(17) In addition, the Notifying Party discusses a potential segmentation of the CMC market by end-use application, proposing a distinction between (i) Pharma & Oral care, (ii) Food & Beverage, (iii) Mining, (iv) Paper & Packaging and (v) Consumer & Industrial end-use applications.[8] In any event, the Notifying Party considers that the precise definition of the CMC market can be left open since the proposed Transaction does not raise competition concerns, regardless of how the markets are defined.[9]

(18) Nonetheless, the Notifying Part itself seems to suggest that a sub-segmentation by grade might be appropriate, while on the contrary, a sub-segmentation by application might not, since within the same grade CMC does not differ across applications. It submits market data for overall CMC, by grade and by application.

(C) Results of the market investigation and conclusion

(19) The results of the market investigation confirmed that the vast majority of customers do not consider CMC to be substitutable with any other types of

4 See Case M. 4550 - *DOW Chemical Company/Wolff Walsrode*, decision of 20 June 2007.
5 Form CO, paragraph 81.
6 Form CO, paragraphs 82 – 84.
7 Form CO, paragraph 85 – 92.
8 Form CO, paragraph 93.
9 Form CO, paragraph 94.

cellulose ethers, notably croscarmelose (a cellulose ether consisting of cross-linked CMC).[10]

(20) The results of the market investigation were somewhat mixed as to the question whether the different purity grades of CMC (technical, intermediate-purity and high-purity) are substitutable from a demand perspective. While about a third of responding customers indicated there is no substitutability at all between the three different grades, two other fractions, almost equal in strength as the first one indicate either that intermediate-purity CMC can be substituted with high-purity CMC, but not with technical CMC, or that all purity grades can be substituted. The market investigation therefore shows that customers clearly distinguish technical CMC from higher purity grades of CMC. However, the results of the market investigation do not allow the Commission to conclude regarding the ability of customers to substitute high-purity CMC with intermediate-purity CMC.[11] At the same time, there are indications that there is no supply-side substitutability between the different purity grades of CMC. [12]

(21) In view of the above, the distinction between technical and purified CMC appears relevant. Furthermore, it cannot be excluded that a further distinction should be made within purified CMC between intermediate-purity and high-purity CMC.

(22) With respect to a potential segmentation of CMC by applications, the customers' responses to the market investigation firmly indicated that there is no substitutability across applications, therefore rejecting the Parties' argument in this respect.[13] This lack of demand-side substitutability is not surprising given the different requirements, regulatory or in terms of grade or quality, that exist for each application. A majority of competitors nonetheless expressed the opinion that they can switch production between CMC for different applications very easily and do so routinely.[14] The Commission notes in this respect that competitors cannot switch production across different purity grades, and consequently would not be able to switch production for one or more given applications across purity grades. However, should a potential segmentation by application be made, this distinction would cease to be relevant within a given purity grade, for the above-mentioned supply-side substitutability reasons: if a CMC producer attempted to increase prices for a given application within a given CMC grade, other producers manufacturing the same grade of CMC (but possibly for different applications) would be able to increase their output of this very same grade and application of CMC very easily (and they do so routinely). As a result, the Commission considers that only the potential segmentation of CMC by grade is relevant, and that, for the above-mentioned supply-side substitutability reasons, a potential sub-segmentation of CMC by application is not relevant.

10 Replies to question 6 of Q1 - Questionnaire to CMC customers.
11 Replies to questions 8 and 8.2 of Q1 - Questionnaire to CMC customers.
12 Replies to question 4 of Q2 - Questionnaire to CMC competitors.
13 Replies to questions 7 and 9 of Q1 - Questionnaire to CMC customers.
14 Replies to question 5 of Q2 - Questionnaire to CMC competitors.

(23) Ultimately, for assessing the Transaction, Commission considers that a potential segmentation of CMC by application would not be relevant. As regards a potential segmentation of CMC by grade, the Commission considers that the exact scope of the product market definition can be left open between CMC as a single product or segmented between technical and purified CMC or segmented between technical, intermediate-purity and high-purity, since the Transaction does not give rise to serious doubts as to its compatibility with the internal market under any of the various combinations of the above-mentioned alternative market definitions.

4.2.1.2. Geographic market definition

(A) Commission precedents

(24) In the past,[15] the Commission considered that the market for cellulose ethers was more likely to be EEA-wide rather than worldwide, ultimately leaving the question open.

(B) Position of the Notifying Party

(25) The Notifying Party submits that the relevant geographic market is global in scope. It argues that the costs of shipping CMC overseas are low, the non-hazardous nature of CMC makes it suitable for worldwide shipment, and there are no regulatory barriers to selling in the EEA.[16] Moreover, the Notifying Party stresses that more than half of the Parties' combined CMC sales are made outside the EEA.[17] The Notifying Party also emphasises that there are significant volumes of Chinese and Turkish imports of CMC in the EEA market (in 2018, 11% of the EEA CMC consumption was imported from Turkey and 5% was imported from China).[18]

(C) Results of the market investigation and conclusion

(26) The results of the market investigation confirmed to some extent the view of the Notifying Party, pointing towards the existence of a geographic market for CMC and its potential sub-segments that would be larger than the EEA.

(27) The market investigation revealed that a majority of customers would consider procuring CMC outside the EEA in case of a small but significant non-transitory increase in CMC prices in the EEA.[19] Consistent with this, a majority of customers mentioned that they consider CMC supplied by Chinese and Turkish suppliers, but not suppliers from North or South America, as a credible

15 See Case Comp/M. 4550 - *DOW Chemical Company/Wolff Walsrode*, decision of 20 June 2007.

16 Form CO, paragraphs 96 – 100.

17 [60-70]% of the CMC produced by CP Kelco within the EEA is exported and sold outside the EEA, and for Nouryon, [40-50]% of the CMC produced within the EEA was sold outside of the EEA. See also paragraphs 101 and 102 of the form CO.

18 Form CO, paragraphs 103 – 105.

19 Replies to question 11 of Q1 - Questionnaire to CMC customers.

alternative to CMC supplied by Nouryon or CP Kelco for the supply of CMC for their plants in the EEA.[20]

(28) However, it should be noted that the customers' responses were inconclusive as to whether there exist some factors that they consider as barriers to procuring CMC outside the EEA. Logistic and supply chains factors, as well as higher transportation costs, are mentioned among these barriers.[21]

(29) As regards competitors, a majority among them considers that there are no barriers to supplying CMC from areas outside the EEA to customers located in the EEA at competitive terms.[22] One competitor suggested that the relevant geographic market might encompass Europe, the Middle East and Africa.[23] Competitors responding to the market investigation took the view that there were no regulatory requirements for selling CMC in the EEA, and in particular, that CMC was exempted from REACH[24] registration.[25]

(30) In light of the above, the Commission considers that the relevant geographic market for CMC is more likely to be wider than EEA-wide, possibly encompassing Europe, Middle East and Africa (EMEA), and including CMC producers from China as well, but not North and South America. For the avoidance of doubt, throughout all this decision, the term "worldwide" will be deemed to encompass the entire world, including North and South America; while "EMEA" will be used when referring to the geographic zone comprising Europe, Middle East and Africa, plus China. In any event, for the purposes of assessing the Transaction, the exact scope of the geographic market definition can be left open since under both an EEA-wide or larger geographic market definition (EMEA, or world-wide), the Transaction does not give rise to serious doubts as to its compatibility with the internal market.

4.2.2. Caustic soda

(31) Caustic soda is a white and odourless compound that absorbs moisture. It is a by-product derived from the production of chlorine. It is a commodity product that can be supplied in a liquid or solid form.

(32) It has a wide range of applications and its use for the production of CMC only absorbs a negligible part of total demand. Caustic soda can be used as a raw material for the production of sodium hypochlorite, the treatment of bauxite (from which alumina is produced), as a pH balancer in a number of chemical

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20 Replies to question 12 of Q1 - Questionnaire to CMC customers. See also replies to question 11.2 of Q1 - Questionnaire to CMC customers.

21 Replies to question 13 of Q1 - Questionnaire to CMC customers.

22 Replies to question 9 of Q2 - Questionnaire to CMC competitors. See also replies to question 8 of Q2 - Questionnaire to CMC competitors.

23 Replies to question 9 of Q2 - Questionnaire to CMC competitors, as well as the non-confidential minutes of a call with a CMC competitor on 7 May 2020.

24 Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). The REACH legislation addresses the production and use of chemical substances, and their potential impacts on both human health and the environment.

25 Replies to question 9 of Q2 - Questionnaire to CMC competitors.

processes, for the treatment of sewage, for washing and cleansing food storage containers amongst others.

4.2.2.1. Product market definition

(A) Commission precedents

(33) The Commission has previously[26] considered caustic soda to constitute a separate product market. It has ultimately left open whether liquid and solid caustic soda constitute two separate product markets, but found that any further segmentation within liquid or solid caustic soda would not be appropriate, given that most producers can easily produce different concentrations.

(B) Position of the Notifying Party

(34) The Notifying Party submits that the caustic soda segment is a separate market, distinct from other chemical products, but that any further division of the caustic soda market by its form, that is to say liquid or solid, is not appropriate, due to supply-side substitutability.[27]

(C) Results of the market investigation and conclusion

(35) The market investigation did not provide any indications suggesting that the Commission should depart from its past decisional practice.

(36) In any event, the Commission considers that, for the purpose of the present case, the exact scope of the product market definition for caustic soda can be left open, since the Transaction does not raise serious doubts as to its compatibility with the internal market, regardless of the product market definition (that is to say an overall market for caustic soda or a segmentation by form).

4.2.2.2. Geographic market definition

(A) Commission precedents

(37) In the past, the Commission considered that the geographic market for caustic soda was at least North-West Europe (Belgium, Luxembourg, Netherlands, Denmark, France, Ireland, Sweden, Norway and the United Kingdom) and might even be EEA-wide in scope.[28]

(B) Position of the Notifying Party

(38) The Notifying Party submits that the geographic dimension of the caustic soda market is at least EEA-wide in scope, if not worldwide. In support of this, the Notifying Party puts forward arguments like intercontinental trade flows of caustic soda between the EU, the Americas and the Middle East and the ease

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26 See Case COMP/M.6218, *Ineos/Tessenderlo*, decision of 26 July 2011 and Case COMP/M.4734, *Ineos/Kerlineg*, decision of 30 January 2008.

27 Form CO, paragraphs 111 – 112.

28 See Case COMP/M.6218 *Ineos/Tessenderlo*, decision of 26 July 2011

and low costs of transport.[29] The Notifying Party ultimately submits that the precise geographic market definition for caustic soda can be left open in this case, as the Transaction will not lead to any competition concerns under any market definition.[30]

(C) Results of the market investigation and conclusion

(39) The market investigation did not provide any indications suggesting that the Commission should depart from its past decisional practice.

(40) In any event, the Commission considers that, for the purpose of the present case, the exact scope of the geographic market definition for caustic soda and its sub-segments can be left open, since the Transaction does not raise serious doubts as to its compatibility with the internal market, regardless of the geographic market definition (that is to say North West- Europe, EEA or worldwide).

4.2.3. MCA

(41) MCA is an intermediate chemical produced by the reaction of acetic acid and chlorine. It is used for the synthesis of other chemical products. It is generally sold in liquid solution, flakes, molten or sodium salt. MCA is used in the production of CMC, surfactants, thioglycolic acid and various applications, such as agrochemicals, pharmaceutical, food and personal care industries and others. MCA comes in various purity grades. For CMC applications, customers tend to prefer MCA with a higher purity grade.

4.2.3.1. Product market definition

(A) Commission precedents

(42) In the past,[31] the Commission has found that MCA may be considered as a separate product market in its main applications, where it has no substitutes. The Commission has not endorsed a further sub-segmentation of the MCA market.

(B) Position of the Notifying Party

(43) The Notifying Party agrees with the Commission precedents that MCA should be considered as a separate product market, without further segmentation.[32] The Notifying Party also submits that the precise product definition for MCA can be left open in this case, as the Transaction will not lead to any competition concerns under any market definition.[33]

(C) Results of the market investigation and conclusion

(44) The market investigation did not provide any indications suggesting that the Commission should depart from its past decisional practice.

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29 Form CO, paragraph 116.
30 Form CO, paragraph 117.
31 See Case IV/M.390 *Akzo / Nobel Industrier*, decision of 10 January 1994.
32 Form CO, paragraphs 124 – 125.
33 Form CO, paragraph 126.

(45) As a result, the Commission considers that, for the purpose of the present case, MCA should be considered as a separate product market, without further segmentation .

4.2.3.2. Geographic market definition

(A) Commission precedents

(46) In the past,[34] the Commission has examined MCA on a regional basis (Western Europe).

(B) Position of the Notifying Party

(47) The Notifying Party argues that at present the geographic market definition should be at least EEA-wide since there are ample flows of MCA across the EEA, transport costs are low and there are no significant price differentials across the EEA.[35]

(48) The Notifying Party also submits that the Commission, in its Decision of 31 October 2019 in Case SA.38330 (2016/FC) – Poland [36], considered market shares for two plausible geographic markets, namely the EEA market, and the combined EEA and USA market.[37]

(49) The Notifying Party submits that the precise geographic market definition for MCA can be left open in this case, as the Transaction will not lead to any competition concerns under any market definition.[38]

(C) Results of the market investigation and conclusion

(50) The market investigation did not provide any indications suggesting that the Commission should depart from its past decisional practice.

(51) However ,the Commission considers that recent developments in the MCA market, including its Decision on Case SA.38330 (2016/FC) – Poland could point to the conclusion that a Western Europe geographic market definition is not relevant anymore.

(52) In any event, the Commission considers that, for the purpose of the present case, the exact scope of the geographic market definition for MCA can be left open, since the Transaction does not raise serious doubts as to its compatibility with the internal market, regardless of the geographic market definition (that is to say regional (Western Europe), EEA-wide or the combined EEA and USA market).

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34 See Case IV/M.390 *Akzo / Nobel Industrier*, decision of 10 January 1994.

35 Form CO, paragraphs 128 - 130

36 Letter to the Member State in working language
Official Journal: JOCE C/144/2020 of 17.04.2020
https://ec.europa.eu/competition/state_aid/cases1/202016/282908_2148733_65_2.pdf

37 case SA.38330 (2016/FC) – Poland ; paragraph 146

38 Form CO, paragraph 131

4.3. Competitive assessment

4.3.1. Horizontal overlap in the manufacture of Carboxymethyl cellulose (CMC): Non-coordinated effects

4.3.1.1. Introduction

(53) Article 2 of the Merger Regulation requires the Commission to examine whether notified concentrations are compatible with the internal market, by assessing whether they would significantly impede effective competition in the internal market or in a substantial part of it.

(54) The Commission Guidelines on the assessment of horizontal mergers under the Merger Regulation (the "Horizontal Merger Guidelines") distinguish between two main ways in which mergers between actual or potential competitors on the same relevant market may significantly impede effective competition, namely non-coordinated effects and coordinated effects.[39]

(55) Non-coordinated effects may significantly impede effective competition by eliminating the competitive constraint imposed by each merging party on the other, as a result of which the merged entity would have increased market power without resorting to coordinated behaviour. According to recital (25) of the preamble of the Merger Regulation, a significant impediment to effective competition can result from the anticompetitive effects of a concentration even if the merged entity would not have a dominant position on the market concerned. In this regard, the Horizontal Merger Guidelines consider not only the direct loss of competition between the merging firms, but also the reduction in competitive pressure on non-merging firms in the same market that could be brought about by the merger.[40]

(56) The Horizontal Merger Guidelines list a number of factors which may influence whether or not significant non-coordinated effects are likely to result from a merger, such as the large market shares of the merging firms, the fact that the merging firms are close competitors, the limited possibilities for customers to switch suppliers, or the fact that the merger would eliminate an important competitive force. Not all of these factors need to be present for significant non-coordinated effects to be likely. The list of factors, each of which is not necessarily decisive in its own right, is also not an exhaustive list.[41]

4.3.1.2. Market structure

(57) Both Parties are active in the supply of all grades of CMC in the EEA and worldwide. CP Kelco CMC produces CMC exclusively in one single plant, located at Äänekoski (Finland). This plant has the capability to produce all types of CMC, with a focus on purified CMC. Nouryon produces technical CMC in its Novara plant (Italy) and high purity CMC in its Arnhem plant (the Netherlands). Nouryon has the possibility to produce CMC with intermediate purity by mixing

39 OJ C 31, 05.02.2004, p. 5.

40 Horizontal Merger Guidelines, paragraphs 24-38.

41 Horizontal Merger Guidelines, paragraphs 24-38.

the outputs of these two plants. [Business secrets – Information redacted regarding commercial strategy].[42]

Table 1: The Parties' plants and their respective capacity in the EEA, 2019

Purity grade		Nouryon				CP Kelco CMC		Parties combined		
		Arnhem (Netherlands) (kt)	**Novara (Italy) (kt)**	**Nouryon total capacity (kt)**	**Nouryon's capacity share**	**Äänekoski (Finland) (kt)**	**CP Kelco's capacity share**	**Parties' combined total capacity (kt)**	**Parties' combined capacity share**	**Parties' combined capacity share – excluding Novara**
All purities		**[Business secret – capacity information]**	**[Business secret – capacity information]**	**[Business secret – capacity information]**	**[10–20]%**	**[Business secret – capacity information]**	**[30–40]%**	**[Business secret – capacity information]**	**[40–50]%**	**[40–50]%**
Technical CMC		[Business secret – capacity information]	[Business secret – capacity information]	**[Business secret – capacity information]**	**[10–20]%**	[Business secret – capacity information]	**[20–30]%**	**[Business secret – capacity information]**	**[30–40]%**	**[20–30]%**
All purified CMC		[Business secret – capacity information]	[Business secret – capacity information]	**[Business secret – capacity information]**	**[5–10]%**	[Business secret – capacity information]	**[40–50]%**	**[Business secret – capacity information]**	**[50–60]%**	**[50–60]%**
Purified CMC	95% < Purity < 99.5%	[Business secret – capacity information]	[Business secret – capacity information]	**[Business secret – capacity information]**	**Not provided**	[Business secret – capacity information]	**Not provided**	**[Business secret – capacity information]**	**Not provided**	**Not provided**
	Purity > 99.5%	[Business secret – capacity information]	[Business secret – capacity information]	**[Business secret – capacity information]**	**Not provided**	[Business secret – capacity information]	**Not provided**	**[Business secret – capacity information]**	**Not provided**	**Not provided**

Source: Notifying Party's estimates

(59) At **worldwide level**, the Notifying Party's estimates of the Parties and their largest competitors volume-based and value-based sales market shares are shown in Table 2.

(60) The Notifying Parties did not provide market shares at the EMEA level, since this possible geographic delineation of the CMC market came up as the result of the market investigation. However, the Parties' market shares at such a level are lower than their combined EEA ones.[43] This means that the EEA market shares discussed below will be an over-estimation of the Parties' position in the more likely geographic market of the EMEA.

Table 2: Market share estimates for CMC by purity grade worldwide, 2019

	Value			Volume		
	Nouryon	**CP Kelco CMC**	**Combined**	**Nouryon**	**CP Kelco CMC**	**Combined**
All purities	[5–10]%	[10–20]%	[20–30]%	[0–5]%	[10–20]%	[10–20]%
Technical CMC	[5–10]%	[5–10]%	[10–20]%	[5–10]%	[5–10]%	[10–20]%
Purified CMC	[5–10]%	[10–20]%	[20–30]%	[0–5]%	[10–20]%	[10–20]%

Source: Notifying Party's estimate

42 The important differences between the capacity shares provided in Table 1 and the EEA market shares provided in Table 3 to Table 6 is due to the fact that part of the CMC produced within the EEA by the Parties is exported and sold outside the EEA ([60-70]% for CP Kelco and [40-50]% for Nouryon).

43 See submission by the Notifying Party, by e-mail of 22.06.2020.

(61) At the **EEA level**, the Notifying Party's estimates of the Parties' and their largest competitors' volume-based and value-based sales market shares are shown in Table 3. The Notifying Party also provided estimates of the Parties' volume-based and value-based market shares in the EEA by purity grade (

(63) Table 4).

Table 3: Market share estimates for CMC in the EEA, 2019.

Supplier	Value		Volume	
	Sales (million EUR)	**Share**	**Volume (kt)**	**Share**
Nouryon	[Business secret – sales information]	[10–20]%	[Business secret – sales information]	[5–10]%
CP Kelco CMC	[Business secret – sales information]	[20–30]%	[Business secret – sales information]	[10–20]%
Combined	**[Business secret – sales information]**	**[30–40]%**	**[Business secret – sales information]**	**[20–30]%**
Ashland	[Business secret – sales information]	[10–20]%-[10–20]%	[Business secret – sales information]	[10–20]%
Lamberti	[Business secret – sales information]	[10–20]%	[Business secret – sales information]	[5–10]%
DuPont	[Business secret – sales information]	[5–10]%-[10–20]%	[Business secret – sales information]	[5–10]%
Mikro-Technik	[Business secret – sales information]	[5–10]%-[5–10]%	[Business secret – sales information]	[5–10]%
Mare	[Business secret – sales information]	[0–5]% -[5–10]%	[Business secret – sales information]	[5–10]%
Others	*[Business secret – sales information]*	*[0–5]% -[20–30]%*	*[Business secret – sales information]*	*[20–30]%*
Total	**[…]**	**100%**	**[…]**	**100%**

Source: Notifying Party's estimates

Table 4: Market share estimates for CMC by purity grade in the EEA, 2019

		Value				Volume			
		Size of the market (million EUR)	**Nouryon**	**CP Kelco CMC**	**Combined**	**Size of the market (kt)**	**Nouryon**	**CP Kelco CMC**	**Combined**
All purities		**[Confidential information]**	**[10–20]%**	**[20–30]%**	**[30–40]%**	**[Confidential information]**	**[5–10]%**	**[10–20]%**	**[20–30]%**
Technical CMC		[Confidential information]	[5–10]%	[10–20]%	**[20–30]%**	[Confidential information]	[5–10]%	[10–20]%	**[10–20]%**
Purified CMC	Intermediate purity 95%-99.5%	Not provided[44]	Not provided	Not provided	**Not provided**	[Confidential information]	[0–5]%	[30–40]%	**[40–50]%**
	High purity > 99.5%	Not provided	Not provided	Not provided	**Not provided**	[Confidential information]	[10–20]%	[5–10]%	**[10–20]%**
All purified CMC		[Confidential information]	[10–20]%	[10–20]%	**[30–40]%**	[Confidential information]	[5–10]%	[20–30]%	**[30–40]%**

Source: Notifying Party's estimates

(65) For illustrative purposes, the Commission notes that the Parties have also provided estimates of their volume-based (only) supply shares in the EEA by application (Table 5), as well as by applications within each purity grade (Table 6).

Table 5: Supply share estimates for CMC (all purities) by applications in the EEA, 2019 (by volume)

	Size of the market (kt)	**Nouryon**	**CP Kelco CMC**	**Combined**
All applications	**[Confidential information]**	**[5–10]%**	**[10–20]%**	**[20–30]%**
Consumer & Industrial & Others	[Confidential information]	[5–10]%	[20–30]%	**[20–30]%**
Paper & Packaging	[Confidential information]	[0–5]%	[20–30]%	**[30–40]%**
Food & Beverage	[Confidential information]	[0–5]%	[5–10]%	**[10–20]%**
Pharma & Oral Care	[Confidential information]	[20–30]%	*[0–5]%*	***[20–30]%***
Mining	[Confidential information]	[0–5]%	*[90–100]%*	***[90–100]%***

Source: Notifying Party's estimates

44 The Notifying Party explains that it was not possible to provide value shares for the two potential sub-segments of Purified CMC because industry reports do not contain such information. Accordingly, the Notifying Party only provided volume shares for these two sub-segments, basing their calculation on the assumption that the highly purified market corresponds to the regulated industries (i.e. Food, Pharma, Personal Care).

Table 6: Supply share estimates for CMC (all purities) by applications within each purity grade in the EEA, 2019 (by volume)

Purity grade	Technical CMC			Intermediate-purity CMC			High-Purity CMC		
	Nouryon	CP Kelco CMC	Combined	Nouryon	CP Kelco CMC	Combined	Nouryon	CP Kelco CMC	Combined
All applications	[5–10]%	[10–20]%	**[20–30]%**	[0–5]%	[30–40]%	**[40–50]%**	[10–20]%	[5–10]%	**[10–20]%**
Consumer & Industrial & Others	[10–20]%	[20–30]%	**[30–40]%**	[5–10]%	[20–30]%	**[20–30]%**	[0–5]%	[10–20]%	**[10–20]%**
Paper & Packaging	[5–10]%	[5–10]%	**[10–20]%**	-	[30–40]%	**[30–40]%**	-	-	-
Food & Beverage	-	-	-	-	-	-	[0–5]%	[5–10]%	**[10–20]%**
Pharma & Oral Care	-	-	-	-	-	-	[20–30]%	[0–5]%	**[20–30]%**
Mining	[10–20]%	[80–90]%	**[90–100]%** [45]	-	[90–100]%	**[90–100]%**	-	-	-

Source: Notifying Party's estimates

(66) Within the EEA, in a possible **overall CMC market**, that is without any further distinction by purity grade the Parties have a combined market share of [30–40]%(with an increment of [10–20]%, brought by Nouryon) on a value basis and of [20–30]%(with an increment of [5–10]% brought by Nouryon) on a volume basis. On a volume basis there are five competitors in the EEA with market shares higher than the increment brought by Nouryon. On a value basis, there are three competitors in the EEA with a market share similar to the increment brought by Nouryon.

(67) Looking at a potential segmentation by **purity grade**, the Parties' activities appear complementary to some extent. For technical CMC, the Parties' combined market share in the EEA is of [10–20]% (with an increment of [5–10]% brought by Nouryon) on a volume basis and of [20–30]% (with an increment of [5–10]% brought by Nouryon) on a value basis. For the high purity grade the market share is [10–20]% (with an increment of [5–10]% brought by Nouryon) by volume.

(68) The Parties' combined volume-based market share for the intermediate purity grade is [40–50]% (with a [0–5]% increment from Nouryon), but Nouryon is present in this segment [Business secrets – Information redacted regarding production secrets] in comparison with other players, who can manufacture intermediate purity grade CMC in a single site with a dedicated production line. [Business secrets – Information redacted regarding production secrets].

(69) On an overall purified CMC market, combining the intermediate and high-purity grades, the Parties' combined market share would be [30–40]% (with an increment of [5–10]% by Nouryon)on a volume-basis and of [30–40]%(with an increment of [10–20]% by Nouryon)

45 Volumes of technical CMC sold for mining applications in the EEA were less than [Business secrets – Information redacted regarding sold volumes] in 2019.

(70) Looking at **applications** for illustrative purposes and as an indication of closeness of competition between the Parties, the Commission notes that the Parties' portfolios also appear to complement each other, with a strong focus of CP Kelco CMC on the mining and paper industries ([40-50]% of CP Kelco's CMC sales, but less than [10-20]% of Nouryon's CMC sales), while Nouryon instead focuses on supplying the pharmaceutical sector (about [50-60]% of its CMC sales, but less than [5-10]% of CP Kelco CMC's sales).

(71) Their combined EEA market shares are [20–30]% in the pharma and oral care segment (with a [0–5]% increment from CP Kelco CMC), [30–40]% in the paper and packaging segment (with a [0–5]% increment from Nouryon), and as high as [90–100]%(with a [0–5]% increment from Nouryon) in the mining segment. According to the Notifying Party, these market shares would not materially change by different purity grades for those applications where different purity grades are used.[46]

4.3.1.3. The Notifying Party's position

(72) The Notifying Party argues that the level of combined market shares should not be a cause for concern, since the are many strong remaining rival CMC suppliers (such as Ashland, DuPont, Lamberti, Mare, Mikro-Technik, Barzaghi, Chongqing Lihong Fine Chemicals and USK Kimya) that will continue to exert strong competitive pressure on the merged entity on all possible segments of the CMC market in the EEA.[47] The Notifying Party also submits that there is sufficient spare production of CMC capacity in the EEA and world-wide in order to ensure competition post-Transaction.[48] In addition, the Notifying Party points out that actual and potential future entries act as a further constraint on CMC manufacturers, since the barriers to enter the CMC market are low.[49]

(73) The Notifying Party claims that imports of CMC from outside the EEA are an additional source of competitive pressure since CMC is easily transportable across the EEA and transport costs as well as trade barriers and tariffs are low.[50] In 2018, 11% of the EEA CMC consumption was imported from Turkey and 5% was imported from China.

(74) The Notifying Party further explains that customers can easily switch among CMC suppliers, since long term contracts (with a duration of more than 2 years) are infrequent in the CMC industry, multi-sourcing is a common practice among customers, and qualification processes that customers need to carry out before purchasing from a new supplier are not a barrier to switching.[51]

(75) Finally, the Notifying Party argues that the Parties are not close competitors, given their different focus regarding CMC customers and applications, their complementary footprint being a key driver of this transaction.[52] The Notifying

46 See submission by the Notifying Party, by e-mail of 22.06.2020.
47 Form CO, paragraphs 175 – 208.
48 Form CO, paragraphs 224 – 226.
49 Form CO, paragraphs 219 -223.
50 Form CO, paragraphs 227 – 230.
51 Form CO, paragraphs 209 – 218.
52 Form CO, paragraphs 231 – 241.

Party further submits that because of their different focuses, the Parties have no customers in common.[53]

4.3.1.4. Results of the market investigation and assessment

(76) In light of the results of the market investigation, the Commission considers that the Transaction does not lead to a significant impediment to effective competition due to horizontal non-coordinated effects for the following reasons:

(77) First, on a **potential overall market for CMC** the market investigation showed that customers and competitors consider that there are around five credible CMC suppliers in the EEA (including the Parties, Ashland, DuPont and Lamberti). When asked about credible CMC suppliers also from outside the geographical limits of the EEA, the results of the market investigation point to a more important number of credible suppliers (more than five) from the customer's perspective.[54] These are mainly suppliers from Turkey and China. Competitors consider the number of credible suppliers at this wider level to be around ten, or more. Therefore, competitors also identify a number of their peers who are not yet active in the EEA, which customers located in the EEA do not consider as credible suppliers. Thus, competitors consider that Denkim and USK Kimia (two Turkish producers)[55] would rank just below the above mentioned top five suppliers in the EEA in terms of competitive strength. This number of credible suppliers does not change by purity grade or application.[56] In light of this, the Commission considers that post-Transaction, there will be a sufficient number of credible suppliers of CMC to customers based in the EEA.

(78) While the Parties are generally considered as strong suppliers for CMC, some of their peers would also qualify as strong suppliers. This is in particular the case of Ashland, DuPont and Lamberti. For all three purity grades non-EEA suppliers are overall not considered as equally strong, but customers do indicate in their commentaries that they know of Chinese and Turkish manufacturers they would rank in a good position. Other CMC producers consider (in a similar way) both CP Kelco and Nouryon as being among the top CMC producers, while they also consider Ashland, DuPont and Lamberti to be strong competitors.[57]

(79) The finding that post-Transaction a sufficient number of credible suppliers of CMC will remain is further supported by the fact that respondents to the market investigation clearly indicated that there are no CMC products which would only be manufactured by the merged entity or by a small number of CMC suppliers beside the merged entity. This fact is widely acknowledged by customers of the Parties, [58] as well as by their competitors.[59]

53 Form CO, paragraphs 242 – 244.
54 See replies to question 15 of Q1 - Questionnaire to CMC customers.
55 See replies to question 13 of Q2 - Questionnaire to CMC competitors.
56 See replies to question 15.1 of Q1 - Questionnaire to CMC customers.
57 See replies to question 13 of Q2 - Questionnaire to CMC competitors.
58 See replies to questions 16 and 17 of Q1 - Questionnaire to CMC customers.
59 See replies to questions 11 and 12 of Q2 - Questionnaire to CMC competitors.

(80) Regarding closeness of competition between CP Kelco and Nouryon, customers' responses are inconclusive as to whether CP Kelco and Nouryon are competing with each other in a particularly close manner.[60] In particular, Nouryon and CP Kelco are not considered by their competitors as being each other's closest competitors.[61] This would tend to support the Parties' argument that, given their different business focus, Nouryon and CP Kelco are not each other's closest competitors.

(81) As regards the Parties' customers' buyer power, more than half of the customers who expressed a view believe that they have equal or more bargaining power against their CMC suppliers when negotiating their purchases of CMC.

(82) When asked about potential price increases resulting from the Transaction, only a small proportion of customers believe that it will result in significant increases in prices at EEA level. Most of the respondents point to either small price increases, or no increases at all at EEA level.[62] However, at worldwide level, a majority of respondents does not foresee any price increase.[63] Taking into account the fact that, as discussed in paragraph (27) above, a majority of customers would consider procuring CMC from suppliers located outside the EEA in case of a small but significant non-transitory increase in CMC prices in the EEA, it can be concluded that if the merged entity were to attempt to raise prices to its customers in the EEA, these would be able to turn to non-EEA suppliers (mainly from China and Turkey) and probably defeat this strategy. In addition, account has to be taken also of the fact that among the criteria of customers for choosing their supplier, price is only in the third place, while product quality and supply reliability come in the first two places,[64] and that customers overwhelmingly responded that post-Transaction there would still be sufficient choice of credible CMC suppliers for EEA customers, both from inside the EEA and outside the EEA.[65]

(83) Finally, asked about any other negative consequences of the Transaction (for example on product quality, choice, innovation), responding CMC customers did not identify any, at either EEA[66] or wider ~~worldwide~~ level.[67]

(84) If **different purity grades of CMC were to constitute separate product markets**, as can be seen in Table 4 above, the combined market shares of the Parties by volume are at most around [30–40]%, with the exception of the possible intermediate purity CMC market ([40–50]%). By value, the combined shares of the Parties are below [20–30]% for technical CMC, [30–40]% for CMC overall and [30–40]% for purified CMC.

(85) While the Parties are generally considered as strong suppliers for CMC for all purity grades, it appears that there would also remain other strong suppliers

60 See replies to question 19 of Q1 - Questionnaire to CMC customers.
61 See replies to question 14 of Q2 - Questionnaire to CMC competitors.
62 See replies to question 29.1 of Q1 - Questionnaire to CMC customers.
63 See replies to question 29.1 of Q1 - Questionnaire to CMC customers.
64 See replies to question 21 of Q1 - Questionnaire to CMC customers.
65 See replies to question 28 of Q1 - Questionnaire to CMC customers.
66 See replies to question 29.1 of Q1 - Questionnaire to CMC customers.
67 See replies to question 29.2 of Q1 - Questionnaire to CMC customers.

post-Transaction for each one of these grades. When asked to rank the CMC producers according to their strength, (i) for technical CMC, customers place Ashland first, followed by CP Kelco second, Nouryon third, DuPont fourth and Lamberti fifth;[68] (ii) for purified CMC CP Kelco is ranked first, Ashland second, Nouryon third, DuPond fourth and Lamberti fifth;[69] finally, for (iii) high purity CMC, Ashland is again placed first, CP Kelco second, Nouryon third, DuPond fourth and Lamberti fifth.[70]

(86) The combined market share level in intermediate purity also has to be assessed against the background of some of the arguments brought forward by the Parties. It is worth noting that Nouryon [Business secrets – Information redacted regarding manufacturing process].

(87) Moreover, and as a consequence of this last element, intermediate-purity CMC is a segment in which the increment from the Transaction is relatively low ([0-5%] increment from Nouryon). As a result, the HHI increment from the Transaction is [Business secrets – Information redacted regarding market share increment]. The Notifying Party did not provide market shares for its competitors in the intermediate-purity segment that would allow the Commission to calculate a post-Transaction HHI level. However, it should be noted that the intermediate-purity CMC market represents approximately one third of the overall EEA CMC market, which is itself quite fragmented, with a post-Transaction HHI of <1400. [Business secrets – Information redacted regarding strategic decisions].

(88) In addition, the Commission considers that its findings regarding competitive pressure exercised by non-EEA suppliers from Turkey and/or China also apply to the possible segmentations according to purity grade.[71]

(89) As an illustration of the degree of closeness of competition between the Parties, the Commission also notes that as regards **CMC supplied for different applications**, the combined supply shares of the Parties are at most around [30–40]%. For the applications of consumer & industrial & others; paper & packaging and food & beverage, the increment brought by Nouryon is at most [5-10]%. For pharma & oral care, the increment brought by CP Kelco is below [0-5]%. This tends to illustrate that the Parties do not compete with each other in these segments, but that the Parties' activities are rather complementary. The Commission notes that these supply shares do not materially change if the market is further sub-segmented by purity grade (see Table 6 above). The Commision also notes that strong competitors of the Parties already mentioned above are also present in respect of the different applications for CMC. Lamberti, Denkim, USK Kimya, Selkim and Aciselsan are active in consumer & industrial & other applications. DuPont, Ashland, Mare, Mikro-Technik and

68 See replies to question 18.1 of Q1 - Questionnaire to CMC customers.

69 See replies to question 18.2 of Q1 - Questionnaire to CMC customers.

70 See replies to question 18.3 of Q1 - Questionnaire to CMC customers.

71 See in particular the replies to question 11.3 of Q1 - Questionnaire to CMC customers. One respondent said that "*The producers in China produce products that cover all applications and all grades and typically have aggressive pricing. The market has accepted many of the manufacturers already*.", while another stated that " *Chinese producers of CMC can readily supply technical grades, purified CMC and some high purity CMC.*".

Lamberti are active in paper and packaging, Ashland, DuPont, Wealthy and USK Kimya are active in food and beverage. Ashland, DuPont and Wealthy are active in pharma and oral care . Finally, Ashland and Lamberti are active in mining.

(90) The supply of CMC for mining applications stands out, since the combined supply share would amount to [90–100]% with a marginal increment of [0–5]% brought about by Nouryon, see Table 5 above.

(91) The Commission notes that the supply of CMC for mining applications represents approximately 0.5% of the overall CMC market in value and in volume.[72] This is due to the very small size of the overall mining activities in the EEA, making demand for CMC for mining applications in EEA very low, which so that CMC producers are not actively seeking to be present in this segment. On this small segment, Nouryon has a marginal presence with sales of [Business secrets – Information redacted regarding the value of sales] in 2019, [Business secrets – Information redacted regarding the value of sales] in 2018 and [Business secrets – Information redacted regarding the value of sales] in 2017. The Commission therefore considers that Nouryon is not an important competitor of CP Kelco for mining applications. Moreover, the Commission notes that one CMC competitor who produces CMC for mining applications, in its EEA plant, but only has sales outside of the EEA, due to lack of demand in the EEA, could easily supply to mining customers in the EEA should respective demand rise post-Transaction.[73] Additionally, other competitors from within as well as from outside the EEA (e.g. Turkey and China), could easily produce CMC for mining applications should demand for it increase in the EEA.

4.3.1.5. Conclusion

(92) In conclusion, for the reasons set out above, the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market as a result of horizontal non-coordinated effects concerning CMC.

4.3.2. Horizontal overlap in the manufacture of Carboxymethyl cellulose (CMC) - Coordinated effects

(93) In addition to significantly impeding effective competition within a given market through non-coordinated effects, as described above in paragraphs (53) to (56), a merger may also change the nature of competition in such a way that firms that previously were not coordinating their behaviour, may be post-merger significantly more likely to coordinate and raise prices or otherwise harm effective competition, or make coordination easier, more stable or more effective for firms which were coordinating prior to the merger (coordinated effects).[74]

(94) Regarding potential coordinated effects, the merged entity will have a market share in volume terms on the basis of an overall CMC market which is almost

72 0.4 kt out of a total of 99.5 kt and around EUR 1 million out of a total of EUR 191.6 million in 2019.

73 See the non-confidential minutes of a call with a CMC competitor on 7 May 2020, paragraph 13.

74 Horizontal Merger Guidelines, paragraph 22.

three times higher as that of the next closest competitors. The market does not appear to be concentrated, since there are five competitors with market shares in the range between 6%-12% in volume (Ashland, DuPont, Lamberti, Mare and Mikro-Technik),[75] which together represent around half of the volumes put in the market, as well as a substantial number of other smaller producers (including manufacturers from outside the EEA, which are present in the EEA market through imports). As such, it appears that the relatively low concentration of CMC production on the supply-side would make reaching terms of coordination among CMC producers difficult.[76]

(95) These arguments regarding the lack of concentration in the market are equally valid if CMC was further segmented by grade or by application. In light of these elements, as well as the evidence available to it, the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market in relation to potential coordinated effects in the market of CMC.

4.3.3. General conclusion regarding horizontal effects

(96) In light of the considerations set out in paragraphs (9) to (93), and taking account of the results of the market investigation and of the evidence available to it, the Commission concludes that the Transaction does not raise serious doubts as to its compatibility with the internal market with respect to non-coordinated and coordinated horizontal effects.

4.3.4. Vertical links

4.3.4.1. Introduction

(97) The Commission's Guidelines on the assessment of non-horizontal mergers under the Merger Regulation (the "Non-Horizontal Merger Guidelines") distinguish between two main ways in which vertical mergers may significantly impede effective competition, namely input foreclosure and customer foreclosure.[77]

(98) For a merger to raise input foreclosure competition concerns, the merged entity must have a significant degree of market power upstream.[78] In assessing the likelihood of an anticompetitive input foreclosure strategy, the Commission has to examine whether (i) the merged entity would have the ability to substantially foreclose access to inputs; (ii) whether it would have the incentive to do so; and (iii) whether a foreclosure strategy would have a significant detrimental effect on competition downstream.[79]

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75 When considering value shares, there are between three and five competitors with market shares in the range between 6%-12% (Lamberti, Mare and Mikro-Technik; as well as possibly Ashland and DuPont), which together represent between 40% and 60% of the CMC sales in value terms.

76 Horizontal Merger Guidelines, paragraph 45.

77 OJ L 24, 29.1.2004, p. 1.

78 Non-horizontal Merger Guidelines, paragraph 35.

79 Non-horizontal Merger Guidelines, paragraph 32.

(99) For a merger to raise customer foreclosure competition concerns, the merged entity must be an important customer with a significant degree of market power in the downstream market.[80] In assessing the likelihood of an anticompetitive customer foreclosure strategy, the Commission has to examine whether (i) the merged entity would have the ability to foreclose access to downstream markets by reducing its purchases from its upstream rivals; (ii) whether it would have the incentive to do so; and (iii) whether a foreclosure strategy would have a significant detrimental effect on consumers in the downstream market.[81]

4.3.4.2. Vertical link between caustic soda (upstream) and CMC (downstream)

(100) Nouryon manufactures caustic soda, which is an essential input in the manufacture of CMC. This gives rise to affected markets because the Parties' combined market share levels are above 30% for CMC in certain of its segmentations. The Commission will therefore assess potential customer foreclosure in this respect. However, Nouryon is not an important supplier of caustic soda. Its EEA and North-West Europe market shares for the overall caustic soda market and for the liquid caustic soda market are of [10–20]% and [10–20]% respectively. For liquid caustic soda they are of [10–20]% and [20–30]% respectively. Given the Parties' (through Nouryon) small market shares in the upstream market for caustic soda, and consequently the combined entity's inability to foreclose access to caustic soda to CMC manufacturers with whom it competes downstream, post-Transaction, input foreclosure will not be assessed in this Decision.[82]

(A) The Notifying Party's view

(101) The Notifying Party argues that no customer foreclosure risk arises because the manufacture of CMC is only one of the multiple uses of caustic soda,[83] representing approximately 14% in North-West Europe[84] and 15% of the EEA caustic soda demand,[85] and Nouryon and CP Kelco are not important purchasers of caustic soda at EEA level. Nouryon is already at least partially vertically integrated with respect to the supply of these products for the manufacture of CMC since Nouryon produces approximately [50-60]% of its requirements of caustic soda in-house, while purchasing the remaining [50-60]% from external third parties. Nouryon's external purchases represent approximately [0-5]% of the total EEA demand for caustic soda[86]. Similarly, CP Kelco CMC only accounts for a minor share of the total EEA demand for caustic soda in the EEA (less than [0-5]%).[87]

80 Non-horizontal Merger Guidelines, paragraph 61.

81 Non-horizontal Merger Guidelines, paragraph 59.

82 The issue was nonetheless investigated during the market investigation, see replies to question 18 of Q2 - Questionnaire to CMC competitors.

83 Form CO, paragraph 277.

84 See submission by the Parties, e-mail of 12 June 2020

85 Form CO, paragraph 276.

86 Form CO, paragraph 275.

87 Form CO, paragraph 276.

(B) The Commission's assessment

(102) First, as regards ability, the market investigation confirmed the fact that caustic soda suppliers consider that CMC manufacturers represent only a minor proportion of their sales, and that there is no doubt as to the fact that post-Transaction, there will remain a sufficient pool of customers to sell caustic soda to in the EEA.[88]

(103) Second, as regards incentives, the market investigation has confirmed that with respect to the supply of caustic soda, availability, geographic[89] as well as logistical considerations take precedence over other considerations, and therefore caustic soda suppliers who responded to the market investigation confirmed that they do not have any material concerns about a potential customer foreclosure strategy[90] since they do not believe that the Transaction will change the Parties' incentive to source internally for their (and in Particular CP Kelco CMC's) needs for caustic soda rather than purchasing from an external supplier.[91] In addition, the Commission notes that as of today, Nouryon is not preventing other caustic soda competitors to access to itself as a caustic soda customer: with a caustic soda output of [Business secrets – Information redacted regarding quantities produced and sold] dry metric tonnes, representing [10-20]% of the total EEA consumption, Nouryon would have ample capacity to cover its own needs for CMC production (which represent by comparison only [0-5]% of the EEA demand for caustic soda), and still Nouryon procures around [50-60]% of its needs for caustic soda for the manufacture of CMC from third party suppliers.

(104) Third, as regards potential effects, none of the respondents to the market investigation expected that the Transaction would have any effect on their business, and as such did not foresee any relevant post-Transaction implications for them.

(105) In light of the above, taking account of the results on the market investigation and of all the evidence available to it, the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market in relation to the vertical link between caustic soda (upstream) and CMC (downstream).

4.3.4.3. Vertical link between MCA (upstream) and CMC (downstream)

(106) Nouryon manufactures MCA, which is used as an input in the manufacture of CMC. The Transaction gives rise to vertically affected markets because of the merged entity's downstream market share levels above 30% for CMC in certain of its segmentations. Nouryon is not an important supplier of MCA, with an EEA market share of [20–30]%[92], (below the 30% threshold for a market to be

88 Responses to question 2 of Q3 - *Questionnaire to caustic soda competitors*

89 As regards geographic considerations, it should be noted that Nouryon has five caustic soda plants in the EEA; two of them in the Netherlands and three in Germany; all comparatively far away from Finland.

90 Responses to questions 3 and 4 of Q3 - *Questionnaire to caustic soda competitors*

91 Responses to question 3 of Q3 - *Questionnaire to caustic soda competitors*

92 Nouryon's market share in the combined EEA and USA market would be lower than that. Consequently the Commission's analysis will focus on the EEA level.

considered vertically affected) and a market share of [30–40]% in Western Europe. Therefore, both input and customer foreclosure regarding MCA will be assessed in this decision.

(A) The Notifying Party's view

(107) With respect to potential input foreclosure, the Notifying Party argues that Nouryon's moderate market share for MCA in the EEA would not allow it to foreclose access to MCA.[93] There are in fact three main MCA producers in the EEA: CABB, with a market share of [40–50]%, followed by Nouryon, with a market share of [20–30]%, and PCC, with a market share of [20–30]% (other suppliers representing only [0–5]% of the EEA market).[94]

(108) The Notifying Party also provides market shares for the Western Europe market,[95] recalling that it considers such a geographic delineation highly improbable (see paragraph (47) above), especially in the light of the Commission's Decision in Case SA.38330 (2016/FC) – Poland. In Western Europe, Nouryon's market share would be [30–40]%, while CABB would still be market leader with a market share of [40–50]% and PCC would have [10–20]%.

(109) The Notifying Party argues that competition in the EEA market is fierce, with PCC planning on a capacity increase in its plant in Poland representing 57% of the total EEA MCA market size to date.[96] Accordingly, the EEA MCA market is, and will increasingly be in the future, characterized by overcapacity and will have sufficient spare capacity to meet the demand for MCA from customers in the EEA.[97] Most importantly, the Notifying Party points out that among all CMC manufacturers in the EEA, Nouryon only sells MCA to [Business secrets – Information redacted regarding customer information], in amounts representing approximately [Business secrets – Information redacted regarding customer information] of [Business secrets – Information redacted regarding customer information] demand for MCA in the EEA. Except for [Business secrets – Information redacted regarding customer information], there would therefore be no CMC competitor to which the Parties could reduce supply for MCA or degrade the terms and conditions for these supplies.[98]

(110) The Notifying Party also submits that no customer foreclosure risk arises because (i) Nouryon is already at least partially vertically integrated with respect to the supply of these products for the manufacture of CMC, (ii) CP Kelco CMC only accounts for a minor share of the total EEA demand for MCA in the EEA ([10–20]%) and (iii) 67% of all MCA manufactured in the EEA is for uses other than the manufacture of CMC.[99]

93 Form CO, paragraphs 282 – 287.
94 Form CO, paragraph 283.
95 See submission by the Parties, e-mail of 12 June 2020.
96 Form CO, paragraph 286.
97 Form CO, paragraphs 288 – 289.
98 Form CO, paragraph 282.
99 Form CO, paragraphs 291 – 292.

(B) The Commission's assessment

(111) **As regards a potential input foreclosure strategy,** the Commission first notes that that Nouryon's market share in MCA is moderate (below the 30% threshold for an EEA market definition), and only exceeds the 30% threshold for a potential Western-Europe geographic market. Moreover, the market investigation confirmed that currently there is a substantial overcapacity in MCA production at EEA level, notably due to a recent capacity increase by one competing MCA producer.[100] The over-capacity situation is also true at Western-Europe level, despite the fact that the recent capacity increase in the EEA took place in Poland. Also, a clear majority of CMC producers indicated that post-Transaction, there would remain sufficient alternative sources of MCA if Nouryon decided following the Transaction to stop supplying this input or degrade the terms of its supply[101].

(112) Second, regarding Nouryon's incentives to foreclose MCA input, a majority of CMC producers said that they did not expect Nouryon to have any incentive to engage in such foreclosure strategy.[102] This is also evidenced by the fact that, as of today, Nouryon, is already active at both upstream and downstream levels, and still supplies third party CMC producers with the MCA it produces.

(113) Third, customers' replies indicate that even if the merged entity were to engage in input foreclosure post-transaction, it would be detrimental for itself. [103]

(114) Consequently, also in light of the merged entity's lack of ability and incentive to engage in input foreclosure post-Transaction, the Commission concludes that there will be no significant detrimental effect on competition downstream either.

(115) **As regards a potential customer foreclosure strategy,** it should first be noted that Nouryon is already vertically integrated with respect to the supply of MCA, while CP Kelco, who procures CMC in the commercial market, accounts for only [10–20]% of the total EEA demand ([10–20]%)of Western Europe demand) for MCA. As such, it appears therefore unlikely that by foreclosing access to CP Kelco CMC, the combined entity would have the ability to foreclose access to a key customer in the EEA or Western Europe. Additionally there are numerous other potential customers[104], either other CMC producers, or actors active in other downstream industries representing 67% of the MCA market in the EEA (production of herbicides, fungicides and insecticides; of fine chemicals; etc. – the proportion in Western Europe was not provided by the Notifying Party), who will likely be able to absorb the volumes hitherto purchased by CP Kelco (should the combined entity decide to vertically

100 See answers to question 4 of Q4 - Questionnaire to MCA competitors.

101 See answers to question 19.1 of Q2 - Questionnaire to CMC competitors.

102 See answers to question 19.2 of Q2 - Questionnaire to CMC competitors.

103 See answers to questions 19.1.1 and 19.2.1. of Q2 - Questionnaire to CMC competitors. For example one respondent said that "Foreclosure would lead to considerable loss of business for Nouryon.", while another stated that "If they decided to exit the market, it could cause a shortage. However, this scenario is unlikely. In the event of a shortage, the other suppliers would increase production." and "The consolidation of CMC production would not be a rationale for Nouryon to shut down its MCA business"

104 Notably Nouryon's current customers for MCA.

integrate with respect to the supply of MCA). Therefore, it would appear that if the merged entity decided to vertically integrate with respect to the supply of MCA, this would result in a mere realignment of the purchase patterns among competing firms.

(116) Second, as regards incentive and effects, while the results of the market investigation were somewhat inconclusive, it is not necessary for the Commission to conclude on whether the Parties would have an incentive to engage in a potential customer foreclosure strategy with respect to MCA or whether such a foreclosure strategy would have significant detrimental effect on competition downstream, as the lack of ability would already prevent the Parties to engage in such a potential foreclosure strategy in the first place.

(117) In light of the above, taking account of the results on the market investigation and of all the evidence available to it, the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market in relation to the vertical link between MCA (upstream) and CMC (downstream).

4.3.4.4. Other vertical links

(A) Products used as an input for CMC

(118) The Transaction also gives rise to other minor vertical relationships between upstream products manufactured by Nouryon that are used in the production of CMC, namely salt,[105] hydrochloric acid and hydrogen peroxide (upstream), and CMC (downstream). These products are vertically affected because the market share levels are above 30% for CMC in certain of its segmentations; however, they are minor inputs in the production process.

(119) For these three products, input foreclosure is implausible, for lack of ability because these products are not important inputs for the manufacture of CMC, with CP Kelco purchases representing from [Business secrets – Information redacted regarding commercial strategy] to [Business secrets – Information redacted regarding commercial strategy] in 2019, and [0-5]% to [0-5]% of the total EEA demand, depending on the product.[106] This lack of ability also stems from the fact that Nouryon has only modest market shares of [20–30]% for salt, [10–20]% for hydrochloric acid and [10–20]% for hydrogen peroxide in the EEA.[107]

(120) Lack of ability is also the main reason why no customer foreclosure risk arises because Nouryon is already at least partially vertically integrated with respect to the supply of these products for the manufacture of CMC, and CP Kelco CMC only accounts for a minor share of the total EEA demand for these products in

[105] This refers to industrial salt, which has the same chemical composition (NaCl) as table salt, but is usually not suited for human consumption due to the presence of impurities. The majority of industrial salt is mined in salt mines, and is therefore also known as rock salt.

[106] Form CO, paragraphs 300, 311 and 321.

[107] Form CO, paragraphs 297, 308 and 318.

the EEA (less than [0–5]% for hydrogen peroxide, less than [0–5]% for hydrochloric acid and less than [0–5]% for salt).[108]

(121) Given the lack of ability to engage in input or customer foreclosure, it is not necessary to conclude on whether the Parties would have an incentive to engage in input or customer foreclosure strategies.

(122) As regards as regards potential effects, the market investigation did not reveal any concerns from CMC manufacturers with respect to a potential input foreclosure strategy for any of these products. As such, it appears therefore that such a foreclosure strategy would have no significant detrimental effect on competition downstream. Given the evident lack of ability to engage in any customer foreclosure strategy with respect to these three products, the Commission did not seek explicitly feedback on potential customer foreclosure in the course of the market investigation. None of the respondents to the market investigation raised any customer foreclosure concern pro-actively.

(123) In light of the above, taking account of the results on the market investigation and of all the evidence available to it, the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market in relation to the vertical link between salt, hydrochloric acid or hydrogen peroxide (upstream) and CMC (downstream).

(B) Products using CMC as an input

(124) Finally, certain companies controlled by the Carlyle group (namely [Confidential Information – Information redacted regarding the Notifying Party's internal organization]) use CMC as an input in three downstream markets: the production and supply of (i) polishing and abrasive products, (ii) wine, and (iii) institutional and industrial cleaning and hygiene products. The Notifying Party submits that none of those vertical relationships can lead to substantive competition concerns as the combined entity (i) will not have significant market power in relation to CMC production post-Transaction, and (ii) in any event, all these supply relationships do not concern important inputs, and are limited in value and volume. As a matter of fact CMC input costs represent a negligible part of the overall cost for these industries.

(125) For all these products, customer foreclosure scenarios appears extremely implausible, because these three companies only purchase very limited amounts of CMC ([Confidential information – Information redacted regarding the purchased volumes][109]), together accounting for less than [0-5]% of the EEA CMC demand. Consequently, customer foreclosure will not be further assessed in this decision.

(126) As regards potential **input foreclosure**, this also appears implausible. First, the merged entity would most likely lack the ability to foreclose access to CMC to

[108] Form CO, paragraphs 302, 313 and 323.

[109] Moreover, the Notifying Party submits that these [Confidential information - Information redacted regarding commercial strategy] products are produced in the US and not imported in the EEA.

the Carlyle affiliates' downstream competitors, because there would still be a number of CMC suppliers on the market that could supply those competitors.

(127) Second, in regard to the ability to foreclose, CMC is also not an important input in the manufacture of these downstream products, only representing a negligible cost factor in the manufacturing process.[110] For polishing and abrasive products, the Notifying Party submits that it is impossible to clearly define the relevance CMC has for [Confidential information – Information redacted regarding the Notifying Party's internal organisation] products, given that [Confidential information – Information redacted regarding the Notifying Party's internal organisation] only purchases [Confidential information – Information redacted regarding the Notifying Party's purchased volumes] of CMC worldwide (these purchases having taken place only in [Confidential information – Information redacted regarding commercial arrangements of the Notifying Party] and not in the EEA, the purchase share of [Confidential information – Information redacted regarding the Notifying Party's internal organisation] in the EEA would be null) and has a minimal presence in the EEA, with a market share below [5–10]% in the supply of polishing and abrasive products. For wine, the Notifying Party submits that CMC represents less than [0-5]% of the production costs, as it is also used in very small quantities. Finally, for institutional and industrial cleaning and hygiene products, the Notifying Party explains that CMC represents only a small part of the products' costs (<1%).

(128) Third, for these three vertical links, it appears unnecessary to conclude on whether the Parties would have an incentive to engage in an input foreclosure strategy, or whether such a potential input foreclosure strategy would have meaningful effects on the market, as the lack of ability would already prevent the Parties to engage in such input or foreclosure strategies in the first place.

(129) In light of the above, taking account of the results on the market investigation and of all the evidence available to it, the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market in relation to the vertical link between CMC (upstream) and (i) polishing and abrasive products, (ii) wine, and (iii) institutional and industrial cleaning and hygiene products (downstream).

4.3.4.5. General conclusion on vertical effects

(130) In the light of the considerations in paragraphs (100) to (129) the Commission concludes that the Transaction does not raise serious doubts as to its compatibility with the internal market due to vertical effects.

[110] Non-horizontal Merger Guidelines, paragraph 34.

5. CONCLUSION

(131) For the above reasons, the European Commission has decided not to oppose the notified operation and to declare it compatible with the internal market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of the Merger Regulation and Article 57 of the EEA Agreement.

For the Commission

(Signed)
Margrethe VESTAGER
Member of the Commission