Sodium Gluconate, Gluconic Acid, and Derivative Products from China and France

Investigation Nos. 701-TA-590 and 731-TA-1397-98 (Preliminary)

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-590 and 731-TA-1397-98 (Preliminary)

Sodium Gluconate, Gluconic Acid, and Derivative Products from China and France

DETERMINATIONS

On the basis of the record¹ developed in the subject investigations, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that there is a reasonable indication that an industry in the United States is threatened with material injury by reason of imports of sodium gluconate, gluconic acid, and derivative products from China, provided for in subheadings 2918.16.10, 2918.16.50 and 2932.20.50 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value ("LTFV") and to be subsidized by the government of China. The Commission further determines that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of sodium gluconate, gluconic acid, and derivative products from France that are alleged to be sold in the United States at LTFV.²

COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

Pursuant to section 207.18 of the Commission's rules, the Commission also gives notice of the commencement of the final phase of its investigations. The Commission will issue a final phase notice of scheduling, which will be published in the *Federal Register* as provided in section 207.21 of the Commission's rules, upon notice from the Department of Commerce ("Commerce") of affirmative preliminary determinations in the investigations under sections 703(b) or 733(b) of the Act, or, if the preliminary determinations are negative, upon notice of affirmative final determinations in those investigations under sections 705(a) or 735(a) of the Act. Parties that filed entries of appearance in the preliminary phase of the investigations need not enter a separate appearance for the final phase of the investigations. Industrial users, and, if the merchandise under investigation is sold at the retail level, representative consumer organizations have the right to appear as parties in Commission antidumping and countervailing duty investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigations.

¹ The record is defined in sec. 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(f)).

² Chairman Rhonda K. Schmidtlein dissenting. Chairman Schmidtlein determines that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of the subject product from China and France.

BACKGROUND

On November 30, 2017, PMP Fermentation Products, Inc., Peoria, Illinois, filed a petition with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV and subsidized imports of sodium gluconate, gluconic acid, and derivative products from China and LTFV imports of sodium gluconate, gluconic acid, and derivative products from France. Accordingly, effective November 30, 2017, the Commission, pursuant to sections 703(a) and 733(a) of the Act (19 U.S.C. 1671b(a) and 1673b(a)), instituted countervailing duty investigation No. 701-TA-590 and antidumping duty investigation Nos. 731-TA-1397-98 (Preliminary).

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of December 6, 2017 (82 FR 57614). The conference was held in Washington, DC, on December 21, 2017, and all persons who requested the opportunity were permitted to appear in person or by counsel.

Views of the Commission

Based on the record in the preliminary phase of these investigations, we determine that there is a reasonable indication that an industry in the United States is threatened with material injury by reason of imports of sodium gluconate, gluconic acid, and derivative products ("GNA products") from China that are allegedly sold in the United States at less than fair value and are allegedly subsidized by the government of China. We also determine that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of subject imports from France that are allegedly sold in the United States at less than fair value.¹²

I. The Legal Standard for Preliminary Determinations

The legal standard for preliminary antidumping and countervailing duty determinations requires the Commission to determine, based upon the information available at the time of the preliminary determinations, whether there is a reasonable indication that a domestic industry is materially injured or threatened with material injury, or that the establishment of an industry is materially retarded, by reason of the allegedly unfairly traded imports.³ In applying this standard, the Commission weighs the evidence before it and determines whether "(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of such injury; and (2) no likelihood exists that contrary evidence will arise in a final investigation."

The U.S. Court of Appeals for the Federal Circuit ("Federal Circuit") has stated that the purpose of preliminary determinations is to avoid the cost and disruption to trade caused by unnecessary investigations and that the "reasonable indication" standard requires more than a finding that there is a "possibility" of material injury. It also has noted that, in a preliminary investigation, the "statute calls for a reasonable indication of injury, not a reasonable indication

¹ Chairman Schmidtlein determines that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of GNA products from China and France that are allegedly sold in the United States at less than fair value and by imports of GNA products that are allegedly subsidized by the government of China. *See* Separate and Dissenting Views of Chairman Rhonda K. Schmidtlein. She joins in sections I through VII.B of these Views.

² Due to the lapse in appropriations and ensuing cessation of Commission operations, these investigations conducted under authority of Title VII of the Tariff Act of 1930 have been tolled by one day pursuant to 19 U.S.C. §§ 1671b(a)(2), 1673b(a)(2).

³ 19 U.S.C. §§ 1671b(a), 1673b(a) (2000); see also American Lamb Co. v. United States, 785 F.2d 994, 1001-04 (Fed. Cir. 1986); Aristech Chem. Corp. v. United States, 20 CIT 353, 354-55 (1996). No party argues that the establishment of an industry in the United States is materially retarded by the allegedly unfairly traded imports.

⁴ American Lamb Co., 785 F.2d at 1001; see also Texas Crushed Stone Co. v. United States, 35 F.3d 1535, 1543 (Fed. Cir. 1994).

⁵ American Lamb Co.. 785 F.2d at 1002-1003.

of need for further inquiry."⁶ Moreover, the U.S. Court of International Trade ("CIT") has reaffirmed that, in applying the reasonable indication "standard for making a preliminary determination regarding material injury or threat of material injury, the Commission may weigh all evidence before it and resolve conflicts in the evidence."⁷

II. Background

PMP Fermentation Products, Inc. ("PMP"), a domestic producer of sodium gluconate, gluconic acid, and liquid gluconate, filed the petitions in these investigations on November 30, 2017. Petitioner appeared at the staff conference and submitted a postconference brief.

Two respondent entities participated in these investigations. Jungbunzlauer S.A., the sole producer of GNA products in France, and Jungbunzlauer Inc., its affiliated U.S. importer (collectively "JBL"), appeared at the conference and jointly submitted a postconference brief. No Chinese producer of subject merchandise or importer of subject merchandise from China has participated in these investigations.

Data Coverage. U.S. industry data are based on the questionnaire responses of one producer, PMP, accounting for all known U.S. production of GNA products in 2016. U.S. import data are based on questionnaire responses from nine U.S. importers, accounting for 63.9 percent of total subject imports from China and 100 percent of total subject imports from France. The Commission received responses to its questionnaires from one foreign producer of subject merchandise, Jungbunzlauer S.A., whose exports accounted for virtually all imports of subject merchandise from France in 2016. No Chinese producer of subject merchandise submitted a questionnaire response. 12

⁶ Texas Crushed Stone Co., 35 F.3d at 1543.

⁷ Ranchers-Cattlemen Action Legal Foundation v. United States, 74 F. Supp. 2d, 1353, 1368 (Ct. Int'l Trade 1999).

⁸ As discussed below, the scope of these investigations includes sodium gluconate, gluconic acid, liquid gluconate, glucono delta lactone, and subject blends. PMP does not produce glucono delta lactone ("GDL"), and the record indicates (and the parties agree) that there was no domestic production of GDL during the period of investigation ("POI") of January 2014 through September 2017. Petitions, Vol. I at 1 n.1; Transcript of Conference ("Conference Tr.") at 39 (Zinkhon), 117 (Waite).

⁹ Confidential Report, Memorandum INV-QQ-004 (Jan. 8, 2018), as revised by Memorandum INV-QQ-006 (Jan. 10, 2018) ("CR") at I-5; Public Report, *Sodium Gluconate, Gluconic Acid, and Derivative Products from China and France*, Inv. Nos. 701-TA-590 and 731-TA-1397-1398 (Preliminary), USITC Pub. 4756 (Jan. 2018) ("PR") at I-3.

¹⁰ CR at I-5; PR at I-3 to I-4.

¹¹ CR at I-5; VII-6; PR at I-4, VII-6.

¹² CR at VII-3: PR at VII-3.

III. Domestic Like Product

In determining whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the "domestic like product" and the "industry."¹³ Section 771(4)(A) of the Tariff Act of 1930, as amended ("the Tariff Act"), defines the relevant domestic industry as the "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."¹⁴ In turn, the Tariff Act defines "domestic like product" as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation."¹⁵

The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis. ¹⁶ No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation. ¹⁷ The Commission looks for clear dividing lines among possible like products and disregards minor variations. ¹⁸ Although the Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value, ¹⁹ the Commission determines what domestic product is like

¹³ 19 U.S.C. § 1677(4)(A).

¹⁴ 19 U.S.C. § 1677(4)(A).

¹⁵ 19 U.S.C. § 1677(10).

¹⁶ See, e.g., Cleo Inc. v. United States, 501 F.3d 1291, 1299 (Fed. Cir. 2007); NEC Corp. v. Department of Commerce, 36 F. Supp. 2d 380, 383 (Ct. Int'l Trade 1998); Nippon Steel Corp. v. United States, 19 CIT 450, 455 (1995); Torrington Co. v. United States, 747 F. Supp. 744, 749 n.3 (Ct. Int'l Trade 1990), aff'd, 938 F.2d 1278 (Fed. Cir. 1991) ("every like product determination 'must be made on the particular record at issue' and the 'unique facts of each case'"). The Commission generally considers a number of factors including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. See Nippon, 19 CIT at 455 n.4; Timken Co. v. United States, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996).

¹⁷ See, e.g., S. Rep. No. 96-249 at 90-91 (1979).

¹⁸ See, e.g., Nippon, 19 CIT at 455; Torrington, 747 F. Supp. at 748-49; see also S. Rep. No. 96-249 at 90-91 (Congress has indicated that the like product standard should not be interpreted in "such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not 'like' each other, nor should the definition of 'like product' be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.").

¹⁹ See, e.g., USEC, Inc. v. United States, 34 Fed. App'x 725, 730 (Fed. Cir. 2002) ("The ITC may not modify the class or kind of imported merchandise examined by Commerce."); Algoma Steel Corp. v. United States, 688 F. Supp. 639, 644 (Ct. Int'l Trade 1988), aff'd, 865 F.3d 240 (Fed. Cir.), cert. denied, 492 U.S. 919 (1989).

the imported articles Commerce has identified.²⁰ The Commission may, where appropriate, include domestic articles in the domestic like product in addition to those described in the scope.²¹

In its notices of initiation, Commerce defined the imported merchandise within the scope of these investigations as follows:

... all grades of sodium gluconate, gluconic acid, liquid gluconate, and glucono delta lactone (GDL) (collectively GNA Products), regardless of physical form (including, but not limited to substrates; solutions; dry granular form or powders, regardless of particle size; or as a slurry). The scope also includes GNA Products that have been blended or are in solution with other product(s) where the resulting mix contains 35 percent or more of sodium gluconate, gluconic acid, liquid gluconate, and/or GDL by dry weight.

Sodium gluconate has a molecular formula of $NaC_6H_{11}O_7$. Sodium gluconate has a Chemical Abstract Service (CAS) registry number of 527-07-1, and can also be called "sodium salt of gluconic acid" and/or sodium 2, 3, 4, 5, 6 pentahydroxyhexanoate. Gluconic acid has a molecular formula of $C_6H_{12}O_7$. Gluconic acid has a CAS registry number of 526-95-4, and can also be called 2, 3, 4, 5, 6 pentahydroxycaproic acid. Liquid gluconate is a blend consisting only of gluconic acid and sodium gluconate in an aqueous solution. Liquid gluconate has CAS registry numbers of 527-07-1, 526-95-4, and 7732-18-5, and can also be called 2, 3, 4, 5, 6-pentahydroxycaproic acid-hexanoate. GDL has a molecular formula of $C_6H_{10}O_6$. GDL has a CAS registry number of 90-80-2, and can also be called d-glucono-1,5-lactone.

The merchandise covered by the scope of these investigations is currently classified in the Harmonized Tariff Schedule of the United States (HTSUS) under subheadings 2918.16.1000, 2918.16.5010, and 2932.20.5020. Merchandise covered by the scope may also enter under HTSUS subheadings 2918.16.5050, 3824.99.2890, and 3824.99.9295. Although the HTSUS subheadings and CAS registry numbers are provided for convenience and customs purposes, the written description of the merchandise is dispositive. ²²

²⁰ Hosiden Corp. v. Advanced Display Mfrs., 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); Cleo, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); Torrington, 747 F. Supp. at 748-52 (affirming the Commission's determination defining six like products in investigations where Commerce found five classes or kinds).

²¹ See, e.g., Pure Magnesium from China and Israel, Inv. Nos. 701-TA-403 and 731-TA-895-96 (Final), USITC Pub. 3467 at 8 n.34 (Nov. 2001); *Torrington,* 747 F. Supp. at 748-49 (holding that the Commission is not legally required to limit the domestic like product to the product advocated by the petitioner, co-extensive with the scope).

²² Sodium Gluconate, Gluconic Acid, and Derivative Products From the People's Republic of China: Initiation of Countervailing Duty Investigation, 83 Fed. Reg. 499, 502-503 (Jan. 4, 2018); Sodium (Continued...)

GNA products are chemical products derived primarily from corn-based liquid glucose that are used in a wide variety of overlapping end uses, ranging from industrial and agricultural applications to use in the production of food, household, and personal care products. Sodium gluconate and GDL are sold in dry, white powder form, while gluconic acid and liquid gluconate are sold in a semi-clear liquid form. Sodium gluconate and liquid gluconate contain sodium, while GDL and gluconic acid are sodium-free. The vast majority of subject imports are in dry form, either sodium gluconate or GDL, because the large percentage of water in the liquid products, gluconic acid and liquid gluconate, makes it costly to ship them overseas.

A. Arguments of the Parties

Petitioner's Argument. PMP argues that that the Commission should define the domestic like product to include all GNA products, including sodium gluconate, gluconic acid, liquid gluconate, and GDL, coextensive with Commerce's scope.²⁷

Respondents' Argument. JBL argues that GDL should be treated as a separate domestic like product from the other in-scope GNA products.²⁸ In its postconference brief, JBL addresses the difference between GDL and the other GNA products with respect to the Commission's six domestic like product factors, but does not identify any domestically produced product that is "like" or "most similar" to the imported GDL within the scope.²⁹

B. Analysis

Based on the record, we define a single domestic like product corresponding to the range of GNA products within the scope, including sodium gluconate, gluconic acid, liquid gluconate, and blends thereof. We reject JBL's request to define GDL as a separate domestic like product.

The record indicates that PMP does not produce GDL and has not produced it during the POI. The record also shows that GDL has not been produced by any other U.S. producer during the POI.³⁰ While PMP asserts that it has the capability to produce GDL and could easily do so, it

(...Continued)

Gluconate, Gluconic Acid, and Derivative Products From France and the People's Republic of China: Initiation of Less-Than-Fair-Value Investigations, 83 Fed. Reg. 516, 521-522 (Jan. 4, 2018).

²³ CR at I-3 to I-4, I-13 to I-15; PR at I-3, I-11 to I-12.

²⁴ CR at I-11; PR at I-8 to I-9; PMP's Postconference Brief at 6.

²⁵ PMP's Postconference Brief at 6.

²⁶ Conference Tr. at 53 (Zinkhon).

²⁷ PMP's Postconference Brief at 4-9.

²⁸ Conference Tr. at 116 (Waite).

²⁹ JBL's Postconference Brief at 12-21.

³⁰ Conference Tr. at 25, 39 (Zinkhon); Petitions, Vol. 1, at 1 n.1. According to PMP, the last domestic producer of GDL ceased operations in 2007. Conference Tr. at 45 (Zinkhon).

states that it has not felt the need to do so given the market dynamics.³¹ PMP further states that it does not anticipate producing GDL in the near future, but could do so if the market dynamics changed.³² PMP instead imported GDL from a nonsubject supplier during the POI.³³

Under the statute, the Commission does not define a domestic like product that is not produced domestically.³⁴ The statute defines the "domestic like product" as "a product which is like, or in the absence of like, most similar in characteristics and uses with the article subject to an investigation."³⁵ The Commission has reasoned that defining a domestic like product that is not produced domestically would contradict the statute's mandate to identify a *domestic* item that is like or most similar to subject imports.³⁶ For imported products not made domestically, the Commission has found that parties seeking a separate domestic like product must identify a domestically produced variant that is "most similar in characteristics and uses" with such imported product.³⁷ Accordingly, the Commission's consistent practice has been to reject requests by parties to define a domestic like product for imported merchandise not manufactured domestically and for which parties have not identified a domestically produced variant most similar in characteristics and uses.³⁸ Thus, with respect to the GDL included in the

³¹ Conference Tr. at 25, 39 (Zinkhon).

³² Conference Tr. at 40-41 (Zinkhon, Niedermeier).

³³ Conference Tr. at 93 (Zinkhon).

³⁴ See, e.g., Certain Aluminum Extrusions from China, Inv. Nos. 701-TA-475 and 731-TA-1177 (Review), USITC. Pub. 4677 at 11-16 (Mar. 2017); Grain-Oriented Electrical Steel from Germany, Japan, and Poland, Inv. Nos. 731-TA-1233, 1234, and 1236 (Final), USITC Pub. 4491 at 10 & n.49 (Sept. 2014).

³⁵ 19 U.S.C. § 1677(10).

³⁶ Certain Aluminum Extrusions from China, Inv. Nos. 701-TA-475 and 731-TA-1177 (Review), USITC Pub. 4677 at 12-14 (March 2017).

³⁷ See, e.g., Nepheline Syenite from Canada, Inv. No. 731-TA-525 (Final), USITC Pub. 2502 at 5-11 (Apr. 1992) (where the scope included imports of nepheline syenite and there was no domestic production of nepheline syenite (a primary source of alumina for glassmaking), defining the domestic like product as the products manufactured in the United States most similar in characteristics and uses, glass-grade feldspar and aplite), aff'd, Feldspar Corp. v. United States, 825 F. Supp. 1095 (Ct. Int'l Trade 1993); Certain Frozen Fish Fillets from Vietnam, Inv. No. 731-TA-1012 (Preliminary), USITC Pub. 3533 at 5 (Aug. 2002) (where the scope included frozen "basa" and "tra" fillets, finding corresponding domestic like product was frozen catfish fillets); Ferrovanadium and Nitrided Vanadium from Russia, Inv. No. 731-TA-702 (Review), USITC Pub. 3420 at 5 (May 2001) (where the scope included ferrovanadium and nitrided vanadium, and nitrided vanadium was no longer produced in United States, defining corresponding domestic like product as ferrovanadium). See also Raw In-Shell Pistachios from Iran, Inv. No. 731-TA-287 (Second Review), USITC Pub. 4701 at 6 n.20 (June 2017) (like product analysis cannot be used to limit the scope definition); Certain Aluminum Extrusions from China, Inv. Nos. 701-TA-475 and 731-TA-1177 (Review), USITC Pub. 4677 at 12-14 (Mar. 2017).

³⁸ See, e.g., Certain Lined Paper School Supplies from China, India, and Indonesia, Inv. Nos. 701-TA-442-443 and 731-TA-1095-1097 (Preliminary), USITC Pub. 3811 at 12 n.50 (Oct. 2005) (fashion notebooks and certain lined paper school supplies); Extruded Rubber Thread from Malaysia, Inv. No. 753-TA-34, USITC Pub. 3112 at 5 n.14 (June 1998) (food-grade extruded rubber thread and non-food-grade extruded rubber thread); Certain Cold-Rolled Steel Products from Australia, India, Japan, Sweden, and Thailand, Inv. Nos. 731-TA-965, 971-972, 979, and 981 (Final), USITC Pub. 3536 at 10 n.30 (Sept. (Continued...)

scope of imported subject merchandise in these investigations, in "the absence of like" (i.e., in the absence of any domestic production of GDL), the statute defines the domestic like product as the domestically manufactured product that is "most similar in characteristics and uses with the article {here, the GDL} subject to an investigation."

Physical Characteristics and Uses. All four principal GNA products are produced from the fermentation of liquid glucose. PMP produces gluconic acid from this fermentation process. PMP subsequently produces sodium gluconate by adding sodium hydroxide to gluconic acid and then drying the product. PMP also blends gluconic acid with sodium gluconate to produce liquid gluconate. The basic chemical makeup of GNA products is consistent, and their chemical formulas differ only to account for differences in their sodium and water content.

GNA products have a wide variety of end uses, including in concrete, fertilizer, soaps and detergents, industrial cleaners, food, health-care and de-icing sectors. GNA products have excellent chelating properties, making them useful in domestic and industrial cleaning applications.⁴² The selection of a GNA product for a specific application may depend on whether the customer wants the GNA product in a powder or liquid form, and whether the product should contain sodium or be sodium-free.⁴³

PMP contends that since gluconic acid can be produced from GDL by adding water, GDL and gluconic acid are interchangeable, depending on whether the product is desired in an aqueous solution or in dry form. However, JBL contends that GDL has a gentle acidification effect when added to an aqueous solution, due to the slow hydrolysis of GDL to gluconic acid, a chemical function which no other GNA product can replicate. JBL contends that because of this unique property, GDL has end uses in food products and personal care products that are very different from the typical end uses of other GNA products utilized in construction and

(...Continued)

2001) (texture-rolled carbon steel used in seat-belt retractors); see also Large Residential Washers from China, Inv. No. 731-TA-1306 (Preliminary), USITC Pub. 4591 at 10 (Feb. 2016) (declining to include types of out-of-scope washers not produced in the United States in the domestic like product without a basis to ascertain whether there was a clear dividing line between such washers and domestic production of articles corresponding to the scope); Certain Aluminum Extrusions from China, Inv. Nos. 701-TA-475 and 731-TA-1177 (Review), USITC Pub. 4677 at 12-14 (Mar. 2017).

³⁹ Conference Tr. at 21-22 (Zinkhon); CR at I-15 to I-20; PR at I-12 to I-15. Although PMP does not currently produce GDL, it indicated that GDL can be produced by removing the water from gluconic acid. Conference Tr. at 22 (Zinkhon).

⁴⁰ Conference Tr. at 22 (Zinkhon); CR at I-17 to I-18; PR at I-14.

⁴¹ PMP's Postconference Brief at 6 and Attachment A.9.

⁴² Conference Tr. at 22-25 (Zinkhon); CR at I-13 to I-14; PR at I-11 to I-12.

⁴³ Conference Tr. at 45 (Zinkhon); Petitions, Vol. 1, at 11.

⁴⁴ Conference Tr. at 22, 25 (Zinkhon).

⁴⁵ Conference Tr. at 100 (Rainville), 108-109 (Torres); JBL's Postconference Brief at 13-14.

industrial cleaning applications.⁴⁶ Responding market participants were divided on the comparability of individual GNA products in terms of characteristics and uses.⁴⁷

Manufacturing Facilities, Production Processes and Employees. PMP reports that it produces sodium gluconate, gluconic acid, and liquid gluconate at the same facility, generally using the same equipment, the same employees, and the same or overlapping processes. PMP does not produce GDL at this facility, but states that it could easily do so, by drying gluconic acid, using the same equipment and the same people. Market participants were divided in their views of the extent of overlap in manufacturing facilities, production processes and employees to manufacture the various GNA products. PMP reports that it

Channels of Distribution. The record indicates and the parties appear to agree that all GNA products are sold through distributors and directly to end users. In each comparison of different GNA products, *** of responding market participants reported that they were *** with respect to channels of distribution. ⁵²

Interchangeability. PMP asserts that all GNA products, including GDL, are highly interchangeable, because they differ only in sodium and water content, and are easily

⁴⁶ Conference Tr. at 99-100 (Rainville); JBL's Postconference Brief at 14-15.

⁴⁷ A majority of responding market participants reported that the characteristics and uses of sodium gluconate and gluconic acid are ***. Responding market participants were divided between reporting that the characteristics and uses of GDL and sodium gluconate are ***, and were similarly divided with respect to comparisons of GDL with gluconic acid and liquid gluconate, and with respect to comparisons of sodium gluconate and liquid gluconate. Responding market participants were divided between reporting that the characteristics and uses of gluconic acid and liquid gluconate are ***. CR/PR at Table D-1. Importer *** reports that ***, although *** acknowledges that ***. CR/PR at Table D-3.

⁴⁸ Conference Tr. at 25, 46 (Zinkhon); see CR/PR at Figure I-4 (indicating a greater degree of overlap for some of the GNA products than others, depending on whether the manufacturing involved the addition of sodium hydroxide and/or the use of an ion exchange column, centrifuge, evaporation and/or drying equipment).

⁴⁹ Conference Tr. at 25, 42 (Zinkhon).

⁵⁰ A majority of responding market participants reported that in comparisons of sodium gluconate with gluconic acid, sodium gluconate with liquid gluconate, gluconic acid with liquid gluconate, and gluconic acid with GDL, the products are *** with respect to manufacturing facilities and employees. By contrast, responding market participants were divided between reporting that the manufacturing facilities and employees for production of GDL and sodium gluconate are ***, and were divided between reporting that manufacturing facilities and employees for production of liquid gluconate and GDL are ***. CR/PR at Table D-1. Importers *** report that ***, although *** reports that ***. CR/PR at Table D-3. See generally JBL's Postconference Brief at 17-18 (describing JBL's non-U.S. production operations in France).

⁵¹ CR/PR at Table II-1; Conference Tr. at 25, 55 (Zinkhon); PMP's Postconference Brief at 8; JBL's Postconference Brief at 18.

⁵² CR/PR at Table D-1.

converted into one another by removing or adding water.⁵³ PMP states that while there are some end uses where only one specific GNA product can be used, in most end uses, GNA products can be used interchangeably, including in the food sector, where gluconic acid and GDL are often used interchangeably, such as in dips.⁵⁴

By contrast, JBL argues that GDL has unique properties, including gentle acidification in aqueous solutions, that no other GNA products have, and that those products are accordingly not substitutable for GDL. A JBL witness testified that there are a number of applications where it is essential that the product be in powder form, meaning that liquid gluconic acid could not be substituted for GDL. S5 JBL acknowledges that there are some food applications where gluconic acid can be substituted for GDL. S6

When asked whether the product combinations are always, mostly, sometimes or never comparable, majorities of responding market participants reported that sodium gluconate and gluconic acid, as well as sodium gluconate and GDL, are *** comparable. A majority of responding market participants reported that sodium gluconate and liquid gluconate are *** comparable. Responding market participants were divided as to whether gluconic acid and GDL, as well as liquid gluconate and GDL, are *** comparable or *** comparable. Importer *** reported that ***.

Producer and Customer Perceptions. PMP asserts that producers and customers perceive all GNA products, including GDL, as interchangeable and as one family of products. PMP states that many of its customers use GDL and gluconic acid for the same food applications. PMP encourages customers that request GDL to use gluconic acid instead, and has had some success in this, including converting one of its long-term customers from using GDL to using gluconic acid for making mozzarella cheese. 62

By contrast, JBL views GDL as a different product, with a unique quality of gentle acidification, and distinct end uses, from sodium gluconate and other GNA products. JBL states that its GDL customers are distinct from its customers for other GNA products and do not consider these other products to be substitutes for GDL.⁶³

Majorities of responding market participants reported that, as to market perceptions, sodium gluconate is *** to gluconic acid, liquid gluconate, or GDL. In comparisons of gluconic acid and liquid gluconate, gluconic acid and GDL, and liquid gluconate and GDL, responding

⁵³ Conference Tr. at 21-23 (Zinkhon); PMP's Postconference Brief at 7.

⁵⁴ Conference Tr. at 23-25 (Zinkhon); PMP's Postconference Brief at 7.

⁵⁵ Conference Tr. at 107-109 (Torres); JBL's Postconference Brief at 16-17.

⁵⁶ JBL's Postconference Brief at 21.

⁵⁷ CR/PR at Table D-1.

⁵⁸ CR/PR at Table D-1.

⁵⁹ CR/PR at Table D-1.

⁶⁰ CR/PR at Table D-3.

⁶¹ Conference Tr. at 45 (Zinkhon); PMP's Postconference Brief at 8.

⁶² Conference Tr. at 24-25, 29-30 (Zinkhon).

⁶³ Conference Tr. at 100 (Rainville), 126-127 (Torres); JBL's Postconference Brief at 20.

⁶⁴ CR/PR at Table D-1.

market participants were divided between characterizing market perceptions of them as *** and ***. 65 Importer *** reports that ***. 66

Price. PMP states that the prices of GNA products are all within a range, but there is generally no significant difference between the prices of the GNA products that it produces, *i.e.*, sodium gluconate, gluconic acid, and liquid gluconate. PMP acknowledges that GDL sells for a slightly higher price than the other GNA products because it requires the additional step of drying gluconic acid. However, a JBL witness testified that prices for GDL are often twice as high as the prices of other GNA products. Thus, the parties agree that prices for GDL are higher than those for other GNA products. Majorities of responding market participants reported that most GNA products are at least *** with respect to price, although their responses were more mixed with respect the comparability of GDL and other GNA products.

Conclusion. The record indicates that all GNA products share the same basic physical characteristics. Domestic producer PMP reports that it manufactured all but GDL in the same facility using much of the same equipment and the same employees, and that it could also produce GDL in this facility. While different GNA products may be more suited to certain end uses because of their specific properties, which may limit substitutability between GNA products for particular end uses, the record indicates a general interchangeability between GNA products and substantial overlap in their end uses. Domestically produced GNA products are perceived to be part of an overall family of GNA products, which are sold in comparable channels of distribution within a range of U.S. prices. Thus, the record indicates, and no party disputes, that there is no clear dividing line between the domestically produced GNA products corresponding to the scope: sodium gluconate, liquid gluconate, gluconic acid, and blends thereof.

GDL is also within the scope of these investigations, but is not produced domestically. As previously noted, under the statute the Commission does not define a domestic like product that is not produced domestically. Thus, with respect to the GDL included in the scope of imported subject merchandise in these investigations, the statute provides that in "the absence of like" (*i.e.*, in the absence of any domestic production of GDL), the domestic like product is defined as the domestically manufactured product that is "most similar in characteristics and

⁶⁵ CR/PR at Table D-1.

⁶⁶ CR/PR at Table D-3.

⁶⁷ Conference Tr. at 45-46 (Zinkhon); PMP's Postconference Brief at 8.

⁶⁸ Conference Tr. at 41-42 (Spooner); PMP's Postconference Brief at 8.

⁶⁹ Conference Tr. at 100 (Rainville); JBL's Postconference Brief at 20.

⁷⁰ Majorities of responding market participants reported that the prices of sodium gluconate and liquid gluconate, and of gluconic acid and liquid gluconate, are ***. A majority of responding market participants reported that the prices of sodium gluconate and gluconic acid are ***. CR/PR at Table D-1. Responding market participants were divided as to whether the price of GDL is *** with the prices of sodium gluconate, gluconic acid, and liquid gluconate. CR/PR at Table D-1. *** reports that ***. CR/PR at Table D-3.

uses with the article subject to an investigation."⁷¹ JBL argues that GDL is a different product from other GNA products, but has not identified any domestically produced product that is "like, or in the absence of like, most similar in characteristics and uses" to the imported GDL.

Domestically produced gluconic acid and imported GDL share similar physical characteristics, and gluconic acid can be produced by adding water to GDL. As JBL admits, gluconic acid can be substituted for GDL in some end uses. PMP encourages customers requesting GDL to use gluconic acid instead, and has persuaded some of its customers to switch from GDL to gluconic acid for particular end uses, indicating that producers and customers perceive gluconic acid and GDL to have some interchangeability. PMP has indicated that it can produce GDL at the same facility with the same employees and the same equipment it uses to produce other GNA products, and that they would share similar channels of distribution. Thus, the record indicates that domestically produced gluconic acid is "like, or in the absence of like, most similar in characteristics and uses" to imported GDL, and as discussed above, there are no clear dividing lines among gluconic acid, sodium gluconate, liquid gluconate, and blends thereof.

Accordingly, we define the domestic like product to include the range of GNA products corresponding to the scope.

IV. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product." In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

The record indicates that PMP is the only known domestic producer of the domestic like product.⁷⁷ Both PMP and JBL agree that the domestic industry should consist of PMP.⁷⁸ There are no related parties issues in these investigations.⁷⁹ Accordingly, we define the domestic industry as PMP, the sole domestic producer of the domestic like product during the POI.

⁷¹ 19 U.S.C. § 1677(10).

⁷² Conference Tr. at 22, 25 (Zinkhon).

⁷³ JBL's Postconference Brief at 21.

⁷⁴ Conference Tr. at 24-25, 29-30 (Zinkhon).

⁷⁵ Conference Tr. at 25, 42, 55 (Zinkhon).

⁷⁶ 19 U.S.C. § 1677(4)(A).

⁷⁷ CR at III-1; PR at III-1.

⁷⁸ PMP's Postconference Brief at 9; Conference Tr. at 119-120 (Waite).

⁷⁹ See CR at III-2 to III-3; PR at III-2 (indicating no imports of GNA products from subject countries by the domestic industry and no direct or indirect control relationships between any domestic producer and any exporter or importer of subject merchandise).

V. Negligible Imports

Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible.⁸⁰

During November 2016 – October 2017, the 12-month period preceding the November 30, 2017, filing of the petitions, subject imports from China accounted for 43.9 percent of total U.S. imports of GNA products by quantity, and subject imports from France accounted for 46.1 percent of total U.S. imports of GNA products by quantity. As imports from each subject country are clearly above negligible levels, we find that subject imports from China and France are not negligible.

VI. Cumulation

For purposes of evaluating the volume and effects for a determination of reasonable indication of material injury by reason of subject imports, section 771(7)(G)(i) of the Tariff Act requires the Commission to cumulate subject imports from all countries as to which petitions were filed and/or investigations self-initiated by Commerce on the same day, if such imports compete with each other and with the domestic like product in the U.S. market. In assessing whether subject imports compete with each other and with the domestic like product, the Commission generally has considered four factors:

- (1) the degree of fungibility between subject imports from different countries and between subject imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
- (2) the presence of sales or offers to sell in the same geographic markets of subject imports from different countries and the domestic like product;
- (3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and
- (4) whether the subject imports are simultaneously present in the market.⁸²

While no single factor is necessarily determinative, and the list of factors is not exclusive, these factors are intended to provide the Commission with a framework for

⁸⁰ 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B).

⁸¹ CR/PR at Table IV-3.

⁸² See Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan, Inv. Nos. 731-TA-278-80 (Final), USITC Pub. 1845 (May 1986), aff'd, Fundicao Tupy, S.A. v. United States, 678 F. Supp. 898 (Ct. Int'l Trade), aff'd, 859 F.2d 915 (Fed. Cir. 1988).

determining whether the subject imports compete with each other and with the domestic like product.⁸³ Only a "reasonable overlap" of competition is required.⁸⁴

A. Arguments of the Parties

PMP argues that the Commission should cumulate subject imports from China with subject imports from France for its analysis of present material injury, stating the record indicates that there is a reasonable overlap of competition between and among subject imports from both countries and the domestic like product.⁸⁵ At the conference, JBL's counsel stated that it contested the cumulation of subject imports from China with subject imports from France for purposes of the Commission's analysis of present material injury, but its postconference brief does not address the issue.⁸⁶

B. Analysis

We consider subject imports from China and France on a cumulated basis for our analysis of whether there is a reasonable indication of material injury by reason of subject imports, because the statutory criteria for cumulation are satisfied. As an initial matter, petitioner filed the antidumping/countervailing duty petitions with respect to both countries on the same day, November 30, 2017.⁸⁷

Fungibility. The U.S. producer and most responding U.S. importers reported that the domestic like product and subject imports from both subject countries are "always" interchangeable. The U.S. producer and most responding U.S. importers also reported that subject imports from China and France are "always" interchangeable. The U.S. producer and most responding U.S. importers reported that non-price differences are "sometimes" or "never" significant in comparisons of the domestic like product and subject imports from both subject countries, as well as in comparisons of subject imports from China with subject imports from France. The U.S. producer and subject imports from China with subject imports from France.

⁸³ See, e.g., Wieland Werke, AG v. United States, 718 F. Supp. 50 (Ct. Int'l Trade 1989).

⁸⁴ The Statement of Administrative Action ("SAA") to the Uruguay Round Agreements Act ("URAA"), expressly states that "the new section will not affect current Commission practice under which the statutory requirement is satisfied if there is a reasonable overlap of competition." H.R. Rep. No. 103-316, Vol. I at 848 (1994) (*citing Fundicao Tupy*, 678 F. Supp. at 902); *see Goss Graphic Sys., Inc. v. United States*, 33 F. Supp. 2d 1082, 1087 (Ct. Int'l Trade 1998) ("cumulation does not require two products to be highly fungible"); *Wieland Werke, AG*, 718 F. Supp. at 52 ("Completely overlapping markets are not required.").

⁸⁵ PMP'S Postconference Brief at 10-14; Petitions, Vol. 1, at 14-16.

⁸⁶ Conference Tr. at 119-20 (Waite).

⁸⁷ None of the statutory exceptions to cumulation applies.

⁸⁸ CR/PR at Table II-6.

⁸⁹ CR/PR at Table II-6.

⁹⁰ CR/PR at Table II-7.

JBL states that a substantial percentage of subject imports from France were of GDL, which is not produced domestically, arguing that this indicates a lack of competition between subject imports from France and the domestic like product. However, during 2016, *** percent of U.S. shipments of subject imports from France, *** percent of U.S. shipments of subject imports from China, and *** percent of U.S. shipments of the domestic like product were of sodium gluconate. The Commission's pricing data confirm that there was head-to-head competition between subject imports from China, subject imports from France, and the domestic like product with respect to pricing products 1 and 2, both of which are sodium gluconate products.

The record indicates some differences in U.S. shipments by end use market between subject imports from China (*** percent of which went to agricultural end uses); subject imports from France (*** percent of which went to food end uses); and the domestic like product (*** percent of which went to construction end uses; *** percent of which went to industrial/institution end uses, and *** percent of which went to other/unknown end uses). However, the record also indicates some overlap between imports from both subject countries and the domestic like product in industrial/institution and metal cleaning end uses, and to a more limited degree in agriculture, construction, and food end uses.

PMP manufactures all of its GNA products to the more stringent Food Chemical Codex standards, while JBL reports that it sells four different grades of GNA products: food, personal, pharmaceutical, and technical.⁹⁶

In light of market participants' responses regarding the interchangeability of the domestic like product and subject imports and the limited role of any non-price differences among them as well as the substantial overlap in shipments of sodium gluconate in the U.S. market by subject imports from China, subject imports from France, and the domestic like product, the record indicates sufficient fungibility between the domestic like product and subject imports from China and France to meet the reasonable overlap standard.

Channels of Distribution. A majority of the commercial shipments of the domestic like product and subject imports from France were to end users, and almost all commercial shipments of subject imports from China were to end users.⁹⁷

⁹¹ JBL's Postconference Brief at 2. During 2016, *** percent of U.S. shipments of subject imports from France, *** percent of U.S. shipments of subject imports from China, and *** percent of U.S. shipments of the domestic like product were of GDL. CR/PR at Table IV-5.

⁹² CR/PR at Table IV-5.

⁹³ CR/PR at Tables V-3, V-4.

⁹⁴ CR/PR at Table IV-4.

⁹⁵ CR/PR at Table IV-4.

⁹⁶ CR at II-1 to II-2; PR at II-1. JBL reports that approximately two-thirds of its sales in the U.S. market are of food-grade products. Conference Tr. at 101 (Rainville); JBL's Postconference Brief at 2. According to a PMP witness, Chinese producers manufacture a technical grade product, but it is of lower quality and is not exported to the U.S. market. Conference Tr. at 48 (Zinkhon).

⁹⁷ CR at II-3; PR at II-2; CR/PR at Table II-1.

Geographic Overlap. The domestic like product and subject imports from France were sold in *** U.S. regions, while subject imports from China were sold in all regions of the contiguous United States. 98

Simultaneous Presence in Market. Subject imports from both China and France were present in the U.S. market in every month from January 2014 through September 2017. ⁹⁹ The domestic like product also was present in the U.S. market throughout the POI. ¹⁰⁰

Conclusion. As previously discussed, the record indicates sufficient fungibility between the domestic like product and subject imports from China and France to meet the reasonable overlap standard. Market participants generally perceive the domestic like product and subject imports from both countries to be interchangeable and they perceive non-price differences among them to be only sometimes or never significant. Although a substantial percentage of subject imports from France are of GDL, which is not produced domestically, and there are some differences among the domestic like product and subject imports from the two sources in the end use markets to which their product is sold, the domestic like product and subject imports from both China and France compete in the U.S. market for sales of sodium gluconate. The domestic like product and subject imports from China and France also share overlapping channels of distribution, were simultaneously present in the U.S. market throughout the POI, and are all sold in all regions in the contiguous United States. Consequently, the record indicates that there is a reasonable overlap of competition between and among subject imports and the domestic like product. We accordingly analyze subject imports from China and France on a cumulated basis for our analysis of whether there is a reasonable indication of material injury by reason of subject imports.

VII. Reasonable Indication of Material Injury by Reason of Cumulated Subject Imports

A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation. ¹⁰¹ In making this determination, the Commission must consider the volume of subject imports, their effect on prices for the domestic like product, and their impact on

⁹⁸ CR at II-4; PR at II-2; CR/PR at Table II-2.

⁹⁹ CR/PR at Table IV-7.

¹⁰⁰ See CR/PR at Tables V-3, V-4.

¹⁰¹ 19 U.S.C. §§ 1671b(a), 1673b(a). The Trade Preferences Extension Act of 2015, Pub. L. 114-27, amended the provisions of the Tariff Act pertaining to Commission determinations of reasonable indication of material injury and threat of material injury by reason of subject imports in certain respects. We have applied these amendments here.

domestic producers of the domestic like product, but only in the context of U.S. production operations. The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant." In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States. No single factor is dispositive, and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is "materially injured by reason of" unfairly traded imports, ¹⁰⁶ it does not define the phrase "by reason of," indicating that this aspect of the injury analysis is left to the Commission's reasonable exercise of its discretion. ¹⁰⁷ In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury. ¹⁰⁸

In many investigations, there are other economic factors at work, some or all of which may also be having adverse effects on the domestic industry. Such economic factors might include nonsubject imports; changes in technology, demand, or consumer tastes; competition among domestic producers; or management decisions by domestic producers. The legislative history explains that the Commission must examine factors other than subject imports to ensure that it is not attributing injury from other factors to the subject imports, thereby

¹⁰² 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... {a}nd explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

¹⁰³ 19 U.S.C. § 1677(7)(A).

¹⁰⁴ 19 U.S.C. § 1677(7)(C)(iii).

¹⁰⁵ 19 U.S.C. § 1677(7)(C)(iii).

¹⁰⁶ 19 U.S.C. §§ 1671b(a), 1673b(a).

¹⁰⁷ Angus Chemical Co. v. United States, 140 F.3d 1478, 1484-85 (Fed. Cir. 1998) ("{T}he statute does not 'compel the commissioners' to employ {a particular methodology}."), aff'g 944 F. Supp. 943, 951 (Ct. Int'l Trade 1996).

The Federal Circuit, in addressing the causation standard of the statute, has observed that "{a}s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement." Nippon Steel Corp. v. USITC, 345 F.3d 1379, 1384 (Fed. Cir. 2003). This was re-affirmed in Mittal Steel Point Lisas Ltd. v. United States, 542 F.3d 867, 873 (Fed. Cir. 2008), in which the Federal Circuit, quoting Gerald Metals, Inc. v. United States, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that "this court requires evidence in the record 'to show that the harm occurred "by reason of" the LTFV imports, not by reason of a minimal or tangential contribution to material harm caused by LTFV goods.'" See also Nippon Steel Corp. v. United States, 458 F.3d 1345, 1357 (Fed. Cir. 2006); Taiwan Semiconductor Industry Ass'n v. USITC, 266 F.3d 1339, 1345 (Fed. Cir. 2001).

inflating an otherwise tangential cause of injury into one that satisfies the statutory material injury threshold. In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports. Nor does the "by reason of" standard require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry. It is clear that the existence of injury caused by other factors does not compel a negative determination.

Assessment of whether material injury to the domestic industry is "by reason of" subject imports "does not require the Commission to address the causation issue in any particular way" as long as "the injury to the domestic industry can reasonably be attributed to the subject imports" and the Commission "ensure{s} that it is not attributing injury from other sources to

¹⁰⁹ SAA, H.R. Rep. 103-316, Vol. I at 851-52 (1994) ("{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports."); S. Rep. 96-249 at 75 (1979) (the Commission "will consider information which indicates that harm is caused by factors other than less-than-fair-value imports."); H.R. Rep. 96-317 at 47 (1979) ("in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;" those factors include "the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export performance and productivity of the domestic industry"); accord Mittal Steel, 542 F.3d at 877.

¹¹⁰ SAA at 851-52 ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports."); *Taiwan Semiconductor Industry Ass'n*, 266 F.3d at 1345. ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports." (emphasis in original)); *Asociacion de Productores de Salmon y Trucha de Chile AG v. United States*, 180 F. Supp. 2d 1360, 1375 (Ct. Int'l Trade 2002) ("{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury" or make "bright-line distinctions" between the effects of subject imports and other causes.); *see also Softwood Lumber from Canada*, Inv. Nos. 701-TA-414 and 731-TA-928 (Remand), USITC Pub. 3658 at 100-01 (Dec. 2003) (Commission recognized that "{i}f an alleged other factor is found not to have or threaten to have injurious effects to the domestic industry, *i.e.*, it is not an 'other causal factor,' then there is nothing to further examine regarding attribution to injury"), *citing Gerald Metals*, 132 F.3d at 722 (the statute "does not suggest that an importer of LTFV goods can escape countervailing duties by finding some tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.").

¹¹¹ S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

¹¹² See Nippon, 345 F.3d at 1381 ("an affirmative material-injury determination under the statute requires no more than a substantial-factor showing. That is, the 'dumping' need not be the sole or principal cause of injury.").

the subject imports."¹¹³ Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."¹¹⁴

The Federal Circuit's decisions in *Gerald Metals, Bratsk,* and *Mittal Steel* all involved cases in which the relevant "other factor" was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit's guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports. The additional "replacement/benefit" test looked at whether nonsubject imports might have replaced subject imports without any benefit to the U.S. industry. The Commission applied that specific additional test in subsequent cases, including the *Carbon and Certain Alloy Steel Wire Rod from Trinidad and Tobago* determination that underlies the *Mittal Steel* litigation.

Mittal Steel clarifies that the Commission's interpretation of Bratsk was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the court requires the Commission to have "evidence in the record 'to show that the harm occurred 'by reason of' the LTFV imports,'" and requires that the Commission not attribute injury from nonsubject imports or other factors to subject imports. Accordingly, we do not consider ourselves required to apply the replacement/benefit test that was included in Commission opinions subsequent to Bratsk.

The progression of *Gerald Metals*, *Bratsk*, and *Mittal Steel* clarifies that, in cases involving commodity products where price-competitive nonsubject imports are a significant factor in the U.S. market, the Court will require the Commission to give full consideration, with adequate explanation, to non-attribution issues when it performs its causation analysis. ¹¹⁷

affirmative determination unless it finds that a domestic industry is materially injured 'by reason of' subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.") citing United States Steel Group v. United States, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its decision in Swiff-Train v. United States, 793 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission's causation analysis as comporting with the Court's guidance in Mittal.

¹¹⁴ Nucor Corp. v. United States, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); see also Mittal Steel, 542 F.3d at 879 ("Bratsk did not read into the antidumping statute a Procrustean formula for determining whether a domestic injury was 'by reason' of subject imports.").

¹¹⁵ *Mittal Steel*, 542 F.3d at 875-79.

¹¹⁶ Mittal Steel, 542 F.3d at 873 (quoting from Gerald Metals, 132 F.3d at 722), 875-79 & n.2 (recognizing the Commission's alternative interpretation of *Bratsk* as a reminder to conduct a non-attribution analysis).

To that end, after the Federal Circuit issued its decision in *Bratsk*, the Commission began to present published information or send out information requests in the final phase of investigations to producers in nonsubject countries that accounted for substantial shares of U.S. imports of subject merchandise (if, in fact, there were large nonsubject import suppliers). In order to provide a more complete record for the Commission's causation analysis, these requests typically seek information on capacity, production, and shipments of the product under investigation in the major source countries that export to the United States. The Commission plans to continue utilizing published or requested (Continued...)

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard. Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues. 119

B. Conditions of Competition and the Business Cycle

The following conditions of competition inform our analysis of whether there is a reasonable indication of material injury or threat of material injury by reason of subject imports.

1. Demand Conditions

U.S. demand for GNA products depends on demand for downstream products. GNA products have a wide variety of applications, including use in concrete, fertilizers, soaps and detergents, industrial cleaners, food, health care products, and road de-icing materials. The largest end-use categories for GNA products in the U.S. market in 2016 were industrial/institution and construction, followed by food and agriculture. GNA products account for a small share of the cost of end-use products.

The parties disagreed with respect to U.S. demand trends. PMP stated that the U.S. market for GNA products has experienced strong growth over the past ten years, and anticipated continued growth. ¹²² JBL stated that it had not seen much growth in U.S. demand for GNA products, although it stated that there is more potential growth in demand for GDL than for other GNA products. ¹²³ Most importers reported that U.S. demand for GNA products has fluctuated or not changed since January 1, 2014. ¹²⁴ Most responding market participants reported that the GNA products market is not subject to business cycles, but several importers reported seasonality in the concrete and agriculture end-use markets. ¹²⁵

(...Continued)

information in the final phase of investigations in which there are substantial levels of nonsubject imports.

¹¹⁸ We provide in our respective discussions of volume, price effects, impact, and reasonable indication of threat a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

¹¹⁹ Mittal Steel, 542 F.3d at 873; Nippon Steel Corp., 458 F.3d at 1350, citing U.S. Steel Group, 96 F.3d at 1357; S. Rep. 96-249 at 75 ("The determination of the ITC with respect to causation is ... complex and difficult, and is a matter for the judgment of the ITC.").

¹²⁰ CR at I-3 to I-4, I-13 to I-14; II-1, II-8; PR at I-3, I-11 to I-12, II-1, II-5; CR/PR at Table IV-4.

¹²¹ CR at II-8 to II-9; PR at II-5.

¹²² CR at II-9; PR at II-6; Conference Tr. at 27-29, 57-58 (Zinkhon).

¹²³ CR at II-9 to II-10; PR at II-6; Conference Tr. at 125 (Torres).

¹²⁴ CR/PR at Table II-4.

¹²⁵ CR at II-9; PR at II-5.

Apparent U.S. consumption increased by *** percent from 2014 to 2016, increasing from *** dry pounds in 2014 to *** dry pounds in 2015, but then declining to *** dry pounds in 2016. It was *** dry pounds in the first nine months of 2016 ("interim 2016") and *** dry pounds in the first month of 2017 ("interim 2017").

2. Supply Conditions

There are three sources of supply to the U.S. market: the domestic industry, subject imports, and nonsubject imports.

The domestic industry consists of one firm, PMP, which produces sodium gluconate, gluconic acid, and liquid gluconate at its production facility in Peoria, Illinois. Sodium gluconate accounts for the vast majority of PMP's production and sales. PMP does not produce GDL and did not produce it during the POI. PMP directly imports and purchases GDL from Roquette, a nonsubject Italian supplier, and sells imported GDL in the U.S. market. PMP manufactures all of its GNA products to Food Chemical Codex standards, as indicated earlier.

The largest end-use applications for PMP's sales in 2016 were ***. PMP asserts that its production of GNA products is a high fixed-cost, capital-intensive operation that depends on continuous production and maintaining a high capacity utilization rate for efficient operations. 133

The domestic industry had the largest share of apparent U.S. consumption during the POI, followed by subject imports, and then nonsubject imports. The domestic industry's share of apparent U.S. consumption declined from *** percent in 2014 to *** percent in 2015, and then increased to *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017. 134

The sole producer of subject merchandise in France is Jungbunzlauer S.A., which accounts for all subject imports from France. ¹³⁵ Subject imports from France were mostly

¹²⁶ CR/PR at Tables IV-8, C-1.

¹²⁷ CR at III-1; PR at III-1; Conference Tr. at 21-22, 25 (Zinkhon).

¹²⁸ Conference Tr. at 21-22 (Zinkhon). Of PMP's U.S. shipments of GNA products in 2016, *** percent were sodium gluconate, *** percent were liquid gluconate, and *** percent were gluconic acid. CR/PR at Table IV-5.

¹²⁹ Conference Tr. at 25, 39 (Zinkhon); Petitions, Vol. 1, at 1 n.1.

¹³⁰ Conference Tr. at 93 (Zinkhon); CR/PR at Tables III-10, IV-1.

¹³¹ CR at II-1; PR at II-1.

¹³² PMP's U.S. shipments of GNA products by end use in 2016 included *** percent to other/unknown; *** percent to construction; *** percent to industrial/institution; *** percent to agriculture; and *** percent to food. CR/PR at Table IV-4.

¹³³ PMP's Postconference Brief at 15-16; Petitions, Vol. 1, at 20; CR at III-5, VI-7; PR at III-3; VI-3 to VI-4. In any final phase investigations, we intend to collect more information with respect to the fixed costs of PMP's production operations.

¹³⁴ CR/PR at Tables IV-9; C-1.

¹³⁵ CR at VII-6: PR at VII-6.

sodium gluconate and GDL, as well as *** of gluconic acid and liquid gluconate.¹³⁶ The largest end-use application for subject imports from France in 2016 was the food sector, followed by ***.¹³⁷ JBL sells four different grades of GNA products: food, personal, pharmaceutical, and technical.¹³⁸

No producer of the subject merchandise in China responded to the Commission's questionnaire. Information available on the record indicates that sodium gluconate is manufactured by 40 producers in China. Subject imports from China were mostly of sodium gluconate and *** quantities of GDL; there were no subject imports from China of gluconic acid or liquid gluconate. The largest end-use application for subject imports from China in 2016 was the agriculture sector. According to PMP, Chinese producers manufacture a technical grade product, but it is of lower quality and is not exported to the U.S. market.

Cumulated subject imports' share of apparent U.S. consumption increased from *** percent in 2014 to *** percent in 2015, and then declined to *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017. 143

Italy supplied almost all nonsubject imports during the POI. Nonsubject imports' share of apparent U.S. consumption increased from *** percent in 2014 to *** percent in 2015 and 2016; it was *** percent in interim 2016 and *** percent in interim 2017.

3. Substitutability and Other Conditions

The record indicates that the domestic like product and subject imports from both China and France are moderately to highly substitutable. The U.S. producer and most responding

¹³⁶ CR at II-1, II-2 n.8; PR at II-1 and n.8; Conference Tr. at 121 (Waite). Of U.S. shipments of subject imports from France in 2016, *** percent were sodium gluconate, *** percent were GDL, *** percent were gluconic acid, and *** percent were liquid gluconate. CR/PR at Table IV-5.

¹³⁷ CR at IV-6; PR at IV-5. U.S. shipments of subject imports from France in 2016 by end use included *** percent to food; *** percent to industrial/institution; *** percent to other/ unknown; *** percent to metal cleaning; and *** percent to construction. CR/PR at Table IV-4.

¹³⁸ CR at II-2; PR at II-1. According to a PMP witness, Chinese producers manufacture a technical grade product, but it is of lower quality and is not exported to the U.S. market. Conference Tr. at 48 (Zinkhon).

¹³⁹ JBL's Postconference Brief, Exh. 2, European Commission 2017 Implementing Regulation at Paragraph (50).

¹⁴⁰ CR at II-1; IV-7; PR at II-1, IV-6. Of U.S. shipments of subject imports from China in 2016, *** percent were sodium gluconate and *** percent were GDL. CR/PR at Table IV-5.

¹⁴¹ CR at IV-6; PR at IV-5. U.S. shipments of subject imports from China in 2016 by end use included *** percent to agriculture; *** percent to metal cleaning; and *** percent to industrial/institution. CR/PR at Table IV-4.

¹⁴² Conference Tr. at 48 (Zinkhon).

¹⁴³ CR/PR at Tables IV-9; C-1.

¹⁴⁴ CR at II-7; PR at II-4 to II-5; CR/PR at Tables III-10, IV-1. *** nonsubject imports from Italy were ***. CR at II-7 n.23; PR at II-5 n.23. Importer ***, which imported GNA products *** reported that ***. *** Importer Questionnaire Response at 22, 36 (EDIS Document No. ***).

¹⁴⁵ CR/PR at Tables IV-9. C-1.

U.S. importers reported that the domestic like product and subject imports from both subject countries are "always" interchangeable and that subject imports from China and France are "always" interchangeable. However, responding market participants reported limitations on interchangeability between different GNA products within the scope of these investigations. Importer *** reported that ***, although it reported that ***. According to JBL's witnesses, GDL gently acidifies when added to an aqueous solution, a unique function which no other GNA product can replicate, which gives GDL end uses in food products and personal care products that are very different from the typical end uses of other GNA products in construction and industrial cleaning. The parties agree that GDL sells for a higher price than other GNA products.

Purchasers responding to the Commission's lost sales/lost revenues survey identified several factors as important to their purchasing decision for GNA products, with quality, availability, and price being the most frequently listed factors. The U.S. producer and most responding U.S. importers reported that non-price differences are "sometimes" or "never" significant in comparisons of the domestic like product and subject imports from both subject countries, as well as in comparisons of subject imports from China with subject imports from France. We find that price is an important factor in purchasing decisions for GNA products.

*** and importers reported selling GNA products primarily through annual contracts, but also using spot sales. PMP and some importers reported using annual contracts with fixed prices. End users typically have a qualification process for GNA products, the length of which can range from three months to two years and may vary by end use and whether a new product is involved. 156

(...Continued)

¹⁴⁶ CR at II-11; PR at II-7.

¹⁴⁷ CR/PR at Table II-6.

¹⁴⁸ When asked about interchangeability, majorities of responding market participants reported that sodium gluconate and gluconic acid, as well as sodium gluconate and GDL, are ***. A majority of responding market participants reported that sodium gluconate and liquid gluconate are ***. Responding market participants were divided as to whether gluconic acid and GDL, as well as liquid gluconate and GDL are ***. CR/PR at Table D-1.

¹⁴⁹ CR/PR at Table D-3.

¹⁵⁰ Conference Tr. at 99-100 (Rainville), 108-109 (Torres); JBL's Postconference Brief at 13-15.

¹⁵¹ Conference Tr. at 41-42 (Spooner); 100 (Rainville); PMP's Postconference Brief at 8; JBL's Postconference Brief at 20.

¹⁵² CR at II-11; PR at II-7.

¹⁵³ CR/PR at Table II-7.

¹⁵⁴ CR at V-3; PR at V-3; CR/PR at Table V-2. *** reported that *** percent of its U.S. commercial shipments were done through long-term contracts. CR/PR at Table V-2.

¹⁵⁵ CR at V-3 to V-4; PR at V-3.

¹⁵⁶ CR at II-12 to II-13; PR at II-8. According to PMP, the qualification process is much longer and more rigorous for food and personal care end uses than construction end uses with concrete. Conference Tr. at 61 (Zinkhon).

The largest component of the domestic industry's cost of goods sold ("COGS") was raw material costs, ranging from a full-year low of *** percent in 2014 to a high of *** percent in 2016.¹⁵⁷ Liquid corn syrup accounts for the majority of the domestic industry's raw material costs, accounting for *** percent in 2016.¹⁵⁸ The price of liquid corn sugar (glucose syrup) increased by almost 40 percent over the POI.¹⁵⁹ PMP purchases liquid corn sugar at prices negotiated in sales contracts with suppliers on an annual basis.¹⁶⁰

C. Volume of Cumulated Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant." ¹⁶¹

The volume of cumulated subject imports from China and France was 20.1 million dry pounds in 2014, 23.0 million dry pounds in 2015, and 18.8 million dry pounds in 2016. It was lower in interim 2016 (14.0 million dry pounds) than in interim 2017 (16.5 million dry pounds). Subject imports' share of apparent U.S. consumption increased from *** percent in 2014 to *** percent in 2015, and then declined to *** percent in 2016; it was lower in interim 2016 (*** percent) in interim 2016 than in interim 2017 (*** percent).

Expressed as a share of domestic production, cumulated subject imports increased from *** percent in 2014 to *** percent in 2015, declined to *** percent in 2016 and were lower in interim 2016 (*** percent) than in interim 2017 (*** percent). Viewed in isolation, the absolute volume of cumulated subject imports and the cumulated volume relative to apparent U.S. consumption and production are significant. As explained below, however, we do not find a significant increase in cumulated subject imports either in absolute terms or relative to apparent U.S. consumption or production, and we find that cumulated subject imports did not have significant price effects or impact on the domestic industry's condition.

D. Price Effects of the Cumulated Subject Imports

Section 771(7)(C)(ii) of the Tariff Act provides that, in evaluating the price effects of subject imports, the Commission shall consider whether –

(I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and

¹⁵⁷ CR/PR at Table VI-1.

¹⁵⁸ CR at VI-6; PR at VI-3.

¹⁵⁹ CR at V-1; PR at V-1; CR/PR at Figure V-1.

¹⁶⁰ CR at V-1; PR at V-1.

¹⁶¹ 19 U.S.C. § 1677(7)(C)(i).

¹⁶² CR/PR at Table IV-2.

¹⁶³ CR/PR at Tables IV-9; C-1.

¹⁶⁴ Derived from CR/PR at Table C-1.

(II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree. ¹⁶⁵

As addressed in section IV.B.3 above, the record indicates that the domestic like product and subject imports from China and France are moderately to highly substitutable and that price is one of several important factors in purchasing decisions.

The Commission collected quarterly F.O.B. pricing data on sales of two sodium gluconate products shipped to unrelated customers during the POI. The pricing data do not include imported GDL. The pricing data for sales of the requested products, although not all firms reported pricing data for all products for all quarters. The pricing data reported by these firms accounted for approximately *** percent of U.S. producers' commercial shipments of GNA products, 99 percent of reported U.S. commercial shipments of subject imports from China, and *** percent of U.S. commercial shipments of subject imports from France in 2016. The coverage of the Commission's pricing data was close to complete with respect to U.S. shipments of sodium gluconate, with the differences in coverage levels reflecting the differing shares of shipments from each source that were composed of sodium gluconate products as opposed to other GNA products.

Cumulated subject imports from China and France undersold the domestic like product in *** out of *** quarterly comparisons, at margins ranging between *** percent and *** percent, and an average margin of underselling of *** percent. The record also reflected predominant underselling by volume, with *** dry pounds of cumulated subject imports associated with instances of underselling, as compared to *** dry pounds of cumulated subject imports associated with instances of overselling. Thus, *** percent of the volume of cumulated subject imports covered by the Commission's pricing data was sold during quarters in which the average price of these imports was less than that of the comparable domestic product. The Commission received responses to its lost sales and lost revenue survey from nine purchasers

¹⁶⁵ 19 U.S.C. § 1677(7)(C)(ii).

 $^{^{166}}$ CR at V-4 to V-5; PR at V-3 to V-4. The two products were Product 1 – sodium gluconate in a 50 lb. to 60 lb. bag; and Product 2 – sodium gluconate in a 2,000 lb. to 2,500 lb. bag. CR at V-5; PR at V- 4

¹⁶⁷ At the request of petitioner, the Commission collected pricing data with respect to two sodium gluconate products. Petitions, Vol. 1, at 26. Petitioner did not request and the Commission did not collect pricing data with respect to sales in the U.S. market of GDL, liquid gluconate, or gluconic acid. CR at V-5 n.7; PR at V-3 n.7.

¹⁶⁸ CR at V-5; PR at V-4.

¹⁶⁹ CR at V-5; PR at V-4.

¹⁷⁰ CR at V-5 n.9; PR at V-4 n.9. In 2016, *** percent of the domestic industry's U.S. shipments were of sodium gluconate, while *** percent of U.S. shipments of subject imports from China were of sodium gluconate, and *** percent of U.S. shipments of subject imports from France were of sodium gluconate. CR/PR at Table IV-5.

¹⁷¹ CR/PR at Table V-6.

¹⁷² CR/PR at Table V-6.

identified by ***, and purchasers confirmed some of those allegations.¹⁷³ Given the moderate to high degree of substitutability between subject imports and the domestic like product, the importance of price in purchasing decisions, and some confirmed lost sales/lost revenue allegations, we find the underselling by cumulated subject imports to be significant.

Prices of sodium gluconate declined overall during the POI for both subject imports and the domestic like product. The record does not reflect a clear correlation between declines in the domestic industry's prices and changes in the volume and prices of cumulated subject imports. Cumulated subject imports increased between 2014 and 2015, but the domestic industry's prices were generally stable to increasing until the last half of 2015. When the volume of cumulated subject imports declined to period lows beginning in 2016, the domestic industry's prices declined or remained relatively stable despite a concurrent decline in apparent U.S. consumption between 2015 and 2016. Accordingly, we do not find that cumulated subject imports depressed the domestic industry's prices to a significant degree.

With respect to price suppression, the domestic industry's ratio of COGS to net sales fell from *** percent in 2014 to *** percent in 2015 and increased to *** percent in 2016; it was *** percent in interim 2016 and was higher in interim 2017 (*** percent). The industry's revenues declined by *** percent from 2014 to 2016, The industry's COGS declined by a greater degree (*** percent) during the same period. The domestic industry's COGS to net sales ratio increased by *** percentage points from 2015 to 2016, and was almost *** percentage points higher in interim 2017 than in interim 2016, providing evidence that the

¹⁷³ Four purchasers reported decreasing purchases from domestic producers, one reported increasing purchases, two reported no change in purchases, and three reported fluctuating purchases. CR at V-12 to V-13; PR at V-7. Of the nine responding purchasers, seven reported that since 2014 they had purchased imported GNA products from subject countries instead of domestically produced product. CR/PR at Table V-8. Six of these purchasers reported that price was a primary reason for the decision to purchase subject imports rather than domestically produced product. CR/PR at Table V-8. Four of the responding purchasers reported that U.S. producers had reduced their prices in response to subject imports. CR at V-14; PR at V-8; CR/PR at Table V-9.

¹⁷⁴ CR at V-10; PR at V-6. Decreases in weighted average prices for cumulated subject imports were *** percent for product 1 and *** percent for product 2. Derived from CR/PR at Tables V-3 to V-4. Decreases in prices for domestically produced sodium gluconate during the POI were *** percent for product 1 and *** for product 2. Decreases in prices for subject imports of sodium gluconate from China were *** percent for product 1 and *** for product 2. Decreases in prices for subject imports of sodium gluconate from France were *** percent for product 1 and *** for product 2. CR/PR at Table V-5.

¹⁷⁵ CR/PR at Tables V-3 and V-4, Figure V-2, Figure V-3. Apparent U.S. consumption declined from *** dry pounds in 2015 to *** dry pounds in 2016, a decline of *** percent. CR/PR at Tables IV-9, C-1.

¹⁷⁶ CR/PR at Tables VI-1, C-1.

Revenues declined from \$*** in 2014 to \$*** in 2015, and then fell to \$*** in 2016; they were \$*** in interim 2016 and \$*** in interim 2017. CR/PR at Tables VI-1, C-1.

 $^{^{178}}$ Total COGS declined from \$*** in 2014 to \$*** in 2015 and then increased to \$*** in 2016; it was \$*** in interim 2016 and \$*** percent in interim 2017. CR/PR at Tables VI-1, C-1.

domestic industry was able to cover its costs but faced somewhat of a cost-price squeeze at the end of the period, at a time of an uptick in apparent U.S. consumption.¹⁷⁹

Given the moderate to high degree of substitutability between subject imports and the domestic like product and the importance of price in purchasing decisions, we find the underselling by cumulated subject imports to be significant, although the underselling did not lead to significant price depression or suppression or lead to market share shifts that otherwise correlated with the domestic industry's condition, as discussed below.

E. Impact of the Cumulated Subject Imports¹⁸⁰

Section 771(7)(C)(iii) of the Tariff Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic factors which have a bearing on the state of the industry." These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry." 181

The domestic industry generally performed well during the POI. Its operating and sales performance was strong during the POI, with most of its key indicators increasing between 2014 and 2016. The industry's production, capacity utilization, net sales quantity, U.S. shipments, market share, and most of its employment indicators increased between 2014 and 2016. The industry's financial performance during the POI was also strong and improving, with increases in its operating income, operating income margin, and net income between 2014 and 2016. Many of these performance indicators remained stable or were somewhat higher in interim 2017 compared to interim 2016, as indicated below.

The domestic industry's production and capacity utilization increased between 2014 and 2016, while its capacity remained stable. Production increased by *** percent from 2014 to 2016, increasing from *** dry pounds in 2014 to *** dry pounds in 2015 and *** dry pounds in 2016; it was *** dry pounds in both interim 2016 and interim 2017. The domestic industry's capacity remained constant at *** dry pounds from 2014 to 2016; it was *** dry pounds in both interim 2016 and interim 2017. Capacity utilization increased from *** percent in 2014

¹⁷⁹ Apparent U.S. consumption was *** dry pounds in interim 2016 and *** dry pounds in interim 2017. CR/PR at Tables IV-9, C-1.

¹⁸⁰ In its notice initiating the antidumping duty investigations on imports from China and France, Commerce reported estimated dumping margins of 213.15 percent for imports from China and 76.95 percent for imports from France. *Sodium Gluconate, Gluconic Acid, and Derivative Products From France and the People's Republic of China: Initiation of Less-Than-Fair-Value Investigations*, 83 Fed. Reg. 516, 520 (Jan. 4, 2018).

¹⁸¹ 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

¹⁸² CR/PR at Tables III-5. C-1.

¹⁸³ CR/PR at Tables III-5. C-1.

to *** percent in 2015 and *** percent in 2016; it was *** percent in interim 2016 and interim 2017. 184

The domestic industry's net sales quantity, ¹⁸⁵ U.S. shipments, ¹⁸⁶ and market share all increased between 2014 and 2016. The domestic industry's share of apparent U.S. consumption declined from *** percent in 2014 to *** percent in 2015, but increased to *** percent in 2016; its market share was *** percent in interim 2016 but lower (*** percent) in interim 2017. ¹⁸⁷ Ending inventories increased by *** percent from 2014 to 2016, increasing from *** dry pounds in 2014 to *** dry pounds in 2015 and *** dry pounds in 2016; they were *** dry pounds in interim 2016 but lower (*** dry pounds) in interim 2017. ¹⁸⁸

The domestic industry's hours worked, wages paid, and productivity also increased between 2014 and 2016. Employment was stable from 2014 to 2016, increasing from the production-related workers (PRWs) in 2014 to the PRWs in 2015 and then declining to the PRWs in 2016; it was the PRWs in interim 2016 and interim 2017.

While the domestic industry's revenues declined between 2014 and 2016,¹⁹³ its total COGS declined by a *** percentage.¹⁹⁴ The industry's ratio of COGS to net sales fell from *** percent in 2014 to *** percent in 2015 and then increased to *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017.¹⁹⁵

¹⁸⁴ CR/PR at Tables III-4. C-1.

¹⁸⁵ Net sales quantity increased by *** percent from 2014 to 2016, increasing from *** dry pounds in 2014 to *** dry pounds in 2015 and *** dry pounds in 2016; it was *** dry pounds in interim 2016 and higher (*** dry pounds) in interim 2017. CR/PR at Tables VI-1, C-1.

¹⁸⁶ U.S. shipments increased by *** percent from 2014 to 2016, increasing from *** dry pounds in 2014 to *** dry pounds in 2015 and *** dry pounds in 2016; they were *** dry pounds in interim 2016 and higher (*** dry pounds) in interim 2017. CR/PR at Tables III-6, C-1.

¹⁸⁷ CR/PR at Tables IV-9; C-1.

¹⁸⁸ CR/PR at Tables III-9, C-1.

 $^{^{189}}$ Hours worked increased by *** percent from 2014 to 2016, increasing from *** hours in 2014 to *** hours in 2015 and *** hours in 2016; they were stable at *** hours in interim 2016 and interim 2017. CR/PR at Tables III-11, C-1.

 $^{^{190}}$ Wages paid increased by *** percent from 2014 to 2016, increasing from \$*** in 2014 to \$*** in 2015 and 2016; they were \$*** in interim 2016 and higher (\$***) in interim 2017. CR/PR at Tables III-11, C-1.

¹⁹¹ Productivity increased by *** percent from 2014 to 2016, increasing (in dry pounds per hour) from *** in 2014 to *** in 2015 and *** in 2016; productivity was *** in interim 2016 and higher (***) in interim 2017. CR/PR at Tables III-11, C-1.

¹⁹² CR/PR at Tables III-11, C-1.

 $^{^{193}}$ Revenues declined by *** percent from 2014 to 2016, declining from \$*** in 2014 to \$*** in 2015 and \$*** in 2016; they were \$*** in interim 2016 and higher (\$***) in interim 2017. CR/PR at Tables VI-1, C-1.

 $^{^{194}}$ Total COGS declined by *** percent from 2014 to 2016, declining from \$*** in 2014 to \$*** in 2015 but increasing somewhat to \$*** in 2016; total COGS was \$*** in interim 2016 and higher (\$***) in interim 2017. CR/PR at Tables VI-1, C-1.

¹⁹⁵ CR/PR at Tables VI-1, C-1.

The domestic industry's financial performance was strong and improved between 2014 and 2016, with its operating income, operating income margin, and net income all increasing between 2014 and 2016, ¹⁹⁶ while its gross profit declined ***. ¹⁹⁷ Operating income increased by *** percent overall from 2014 to 2016, increasing from \$*** in 2014 to \$*** in 2015 before falling to \$*** in 2016; it was \$*** in interim 2016 and lower (\$***) in interim 2017. ¹⁹⁸ The industry's operating income margin increased overall between 2014 and 2016, increasing from *** percent in 2014 to *** percent in 2015 before declining somewhat to *** percent in 2016; it was *** percent in interim 2016 and lower (*** percent) in interim 2017. ¹⁹⁹ Capital expenditures fell by *** percent between 2014 and 2016, declining from \$*** in 2014 to \$*** in 2015 and \$*** in 2016; they were \$*** in interim 2016 and higher (\$***) in interim 2017. ²⁰⁰

As described above, the domestic industry saw increases in its key indicators during 2014 to 2016: a *** percent increase in production, a *** percentage point increase in capacity utilization, a *** percent increase in net sales quantity, a *** percent increase in U.S. shipments, and a *** percentage point increase in market share. While the level of employment remained stable, hours worked increased by *** percent, wages paid increased by *** percent, and productivity increased by *** percent. Operating income increased overall by *** percent, net income increased by *** percent, and the industry's operating income margin by *** percentage points. Only While the industry's revenues declined by *** percent between 2014 and 2016, the industry's costs of good declined by a greater amount, *** percent. Capital expenditures declined between 2014 and 2016, but PMP considered those expenditures to have been at a normal level over the period. Although some performance indicators were less favorable in interim 2017 than in interim 2016 (market share, COGS to net sales ratio; and financial indicators), the data in the record indicate a domestic industry that generally performed well during the POI and improved its overall performance with respect to a number of key indicators, including its financial performance.

This record of improving performance indicators does not suggest a domestic industry that is injured by cumulated subject imports. Moreover, the record does not indicate a correlation between cumulated subject imports and impairment in the performance of the domestic industry. The volume of cumulated subject imports reached its period high during the

 $^{^{196}}$ Net income increased overall by *** percent from 2014 to 2016, increasing from \$*** in 2014 to \$*** in 2015, and then declining to \$*** in 2016; it was \$*** in interim 2016 and lower (\$***) in interim 2017. CR/PR at Tables VI-1, C-1.

 $^{^{197}}$ The industry's gross profit declined by *** percent from 2014 to 2016, increasing from \$*** in 2014 to \$*** in 2015 before declining to \$*** in 2016; it was \$*** in interim 2016 and lower (\$***) in interim 2017. CR/PR at Tables VI-1, C-1.

¹⁹⁸ CR/PR at Tables VI-1, C-1.

¹⁹⁹ CR/PR at Tables VI-1, C-1.

²⁰⁰ CR/PR at Tables VI-4, C-1. The domestic industry incurred *** research and development expenses during the POI. CR/PR at Table VI-4.

²⁰¹ CR/PR at Table C-1.

²⁰² CR/PR at Table C-1: Conference Tr. at 80-81 (Niedermeier).

POI in 2015 at 23.0 million dry pounds, an increase of 14.3 percent over 2014. Despite the increase in import volume in 2015, the domestic industry increased its net sales and U.S. shipment quantities. Moreover, it registered its *** financial performance in that year, including peaks in gross profits, operating income, operating income margin, and net income. However, when the volume of cumulated subject imports sharply declined to 18.8 million dry pounds in 2016, a decline of 18.3 percent, the domestic industry's financial performance did not demonstrate a benefit from this decline in subject import competition. Instead, the domestic industry's gross profit, operating income, operating income margin, and net income all declined *** between 2015 and 2016 as imports declined, although these financial indicators remained at *** levels. Thus, the record does not indicate a causal link between cumulated subject imports and the domestic industry's condition.

We disagree with PMP's argument that the Commission's analysis of whether there is a reasonable indication that the domestic industry is materially injured by reason of cumulated subject imports should focus primarily on the performance of PMP's sodium gluconate operations. The Commission must determine whether the domestic industry "as a whole" has been materially injured by subject imports. Thus, the Commission must analyze the performance of the domestic industry with respect to its operations producing the domestic like product, which is not limited to sodium gluconate, but also includes gluconic acid, liquid gluconate, and blends thereof. While our analysis in these investigations has specifically

²⁰³ The volume of cumulated subject imports increased from 20.1 million dry pounds in 2014 to 23.0 million dry pounds in 2015, and declined to 18.8 million dry pounds in 2016. It was 14.0 million dry pounds in interim 2016 and 16.5 million dry pounds in interim 2017. CR/PR at Table IV-2.

²⁰⁴ CR/PR at Tables III-6, VI-1, C-1.

²⁰⁵ CR/PR at Tables VI-1, C-1.

²⁰⁶ CR/PR at Table IV-2.

 $^{^{207}}$ The domestic industry's operating income, operating income margin, and net income remained higher in 2016 than in 2014. CR/PR at Tables VI-1, C-1.

²⁰⁸ PMP asserts that sodium gluconate is its "core" product and that the strongest competition between subject imports and the domestic like product in the U.S. market during the POI took place with respect to sodium gluconate, arguing that the Commission's analysis should therefore focus on the PMP's performance in its sodium gluconate operations. PMP's Postconference Brief at 21, 25-26, 33.

See, e.g., Cleo Inc. v. United States, __ F. Supp. 2d __, Slip Op. 06-131 (Ct. Int'l Trade Aug. 31, 2006) at 31, aff'd, 501 F.3d 1291 (Fed. Cir. 2007) ("The ITC's task is to assess whether the industry 'as a whole' has been injured by the subject imports..."). See generally Hynix Semiconductor, Inc. v. United States, 431 F. Supp. 2d 1302, 1308 n.5 (Ct. Int'l Trade 2006); Committee for Fair Coke Trade v. United States, 28 CIT 1140 (2004); Calabrian Corp. v. United States, 794 F. Supp. 377, 385-386 (Ct. Int'l Trade 1992).

As discussed in section III above, the scope of these investigations includes not only sodium gluconate, but also gluconic acid, liquid gluconate, GDL, and subject blends, in accordance with the scope requested by PMP in the Petitions. See Petitions, Vol. 1, at 4-5. As also discussed in section III above, the Commission has defined the domestic like product to include all GNA products corresponding to the scope, in accordance with the domestic like product requested by PMP. PMP's Postconference Brief at 4-9; Petitions, Vol. 1, at 9-12. Petitioner could have requested that the scope of the investigations and the domestic like product be limited to sodium gluconate, but did not do so.

addressed sodium gluconate and other GNA products included in the domestic like product,²¹¹ our overall material injury analysis necessarily focuses on the domestic industry as a whole, and does not limit itself to the industry's operations with respect to a particular portion of the domestic like product.

We also disagree with PMP's assertions that, because of the nature of the industry, any increase in sales by cumulated subject imports necessarily translates to a decline in the domestic industry's production, capacity utilization, sales, and profitability. As noted, PMP asserts that the production of GNA products is a high fixed cost, capital-intensive operation that depends on continuous production for efficient operations, giving the domestic industry a strong incentive to reduce prices to compete with subject imports in order to maximize capacity utilization. PMP specifically asserts that its "Illinois plant operates '24/7' all year round, with downtime only for maintenance." The record indicates that PMP's plant ran at *** capacity utilization rates during the POI, however, with capacity utilization rates ranging from a low of *** percent in 2014 to a high of *** percent in 2016 and *** percent in both interim 2016 and interim 2017. The domestic industry increased its production, net sales quantity, U.S. shipments, operating income, operating income margin, and net income, and most of its employment indictors between 2014 and 2016, notwithstanding its *** capacity

²¹¹ As previously discussed, at the request of PMP, the Commission collected pricing data with respect to two sodium gluconate pricing products, and did not collect pricing data with respect to U.S. sales of GDL or other GNA products. CR at V-4 to V-5 and n.7; PR at V-3 to V-4 and n.7; see Petitions, Vol. 1, at 26.

²¹² PMP's Postconference Brief at 15-16, 35; Petitions, Vol. 1, at 20.

²¹³ PMP's Postconference Brief at 15-16; Petitions, Vol. 1, at 20. A PMP witness testified that its fixed costs are low. Conference Tr. at 82 (Zinkhon).

²¹⁴ PMP's Postconference Brief at 15-16; Petitions, Vol. 1, at 20.

²¹⁵ CR/PR at Tables III-4, C-1. PMP states that it must produce "24/7, 320 days per year." PMP's Postconference Brief at 35; Conference Tr. at 76 (Zinkhon). However, the information supplied by PMP indicates that the number of days of PMP's production was *** 320 days in each full year of the POI --*** days in 2014, *** days in 2015, and *** days in 2016. PMP's Postconference Brief, Attachment A, at 11-12. PMP asserts that it lost *** production days in 2017 as a result of the lost sales alleged in the petition, which it further asserts translated into a loss of *** percentage points in capacity utilization in 2017. PMP's Postconference Brief at 35. However, the domestic industry's capacity utilization rate increased from *** percent in 2014 to *** percent in 2015 and *** percent in 2016, and was *** percent in both interim 2016 and interim 2017. CR/PR at Tables III-4, C-1. The addition of PMP's production of out-of-scope products on the same machinery as its production of the domestic like product increases its capacity utilization rates *** during the POI. Including the production of out-ofscope merchandise on the same machinery, the domestic industry's capacity utilization rate increased from *** percent in 2014 to *** percent in 2015 and *** percent in 2016; it was *** percent in interim 2016 and higher, at *** percent, in interim 2017. CR/PR at Table III-5. Thus, the record does not support PMP's contention that subject imports caused a reduction in its capacity utilization rate in 2017. Despite the apparent *** capacity at PMP's Illinois plant, PMP did not use that capacity to produce GDL, which PMP's witnesses stated that it could do easily at the plant using the same equipment and the same employees, but rather chose to import GDL from Italy. Conference Tr. at 25, 42, 93 (Zinkhon).

utilization rates.²¹⁶ Indeed, as noted, the volume of cumulated subject imports increased most between 2014 and 2015, but the domestic industry increased its production, capacity utilization, sales and profitability during the same period.²¹⁷ Thus, we find unpersuasive PMP's argument that cumulated subject imports caused substantial reductions in the domestic industry's production, capacity utilization, and sales during the POI, thereby impairing the domestic industry's financial performance, ²¹⁸ since the actual data reported by PMP refute that argument with respect to each of those performance indicators.

In view of the foregoing, we find that there is no reasonable indication that an industry in the United States is materially injured by reason of cumulated subject imports from China that are allegedly sold in the United States at less than fair value and subsidized by the government of China and subject imports from France that are allegedly sold in the United States at less than fair value.

VIII. Threat of Material Injury by Reason of Subject Imports

A. Legal Standard

Section 771(7)(F) of the Tariff Act directs the Commission to determine whether the U.S. industry is threatened with material injury by reason of the subject imports by analyzing whether "further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted." The Commission may not make such a determination "on the basis of mere conjecture or supposition," and considers the threat factors "as a whole" in making its determination whether dumped or subsidized imports are imminent and whether material injury by reason of subject imports would occur unless an order is issued. In making our determination, we consider all statutory threat factors that are relevant to these investigations.

²¹⁶ CR/PR at Table C-1.

²¹⁷ Despite the 14.3 percent increase in subject import volume between 2014 and 2015, CR/PR at Table IV-2, in the same period the domestic industry's production increased by *** percentage points, its capacity utilization rate increased by *** percentage points, its net sales quantity increased by *** percent, and its financial performance reached its full-year peak in 2015. CR/PR at Table C-1.

²¹⁸ PMP's Postconference Brief at 22, 34-35.

²¹⁹ 19 U.S.C. § 1677(7)(F)(ii).

²²⁰ 19 U.S.C. § 1677(7)(F)(ii).

These factors are as follows: (I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement) and whether imports of the subject merchandise are likely to increase; (II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports; (III) a significant rate of increase of the volume or market penetration of imports of the subject (Continued...)

B. Cumulation for Threat

Under section 771(7)(H) of the Tariff Act, the Commission may "to the extent practicable" cumulatively assess the volume and price effects of subject imports from all countries as to which petitions were filed on the same day if the requirements for cumulation in the material injury context are satisfied.²²²

Because our determinations address the issue of reasonable indication of threat of material injury by reason of subject imports, we must also consider whether to cumulate subject imports from China and France for purposes of a threat analysis. In contrast to cumulation for material injury, cumulation for threat analysis is discretionary.

In section VI above, we found that the requirements for cumulating subject imports for purposes of our analysis of reasonable indication of material injury are satisfied. However, for our analysis of reasonable indication threat of material injury, we find that subject imports from China and France are not likely to compete under similar conditions of competition in the U.S. market in the imminent future, based on the following considerations.

First, subject import shipments from China and France differ substantially in product type. A large percentage, ***, of U.S. shipments of subject imports from France consist of GDL, 223 while the *** of subject imports from China are of sodium gluconate, and *** percentage of subject imports from China are GDL. 224 Second, subject import shipments from China and France are concentrated in different end use markets. The *** majority of subject

(...Continued)

merchandise indicating the likelihood of substantially increased imports; (IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices and are likely to increase demand for further imports; (V) inventories of the subject merchandise; (VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products; ... (VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time). 19 U.S.C. § 1677(7)(F)(i).

To organize our analysis, we discuss the applicable statutory threat factors using the same volume/price/impact framework that applies to our material injury analysis. Statutory threat factors (I), (II), (III), (V), and (VI) are discussed in the analysis of likely subject import volume. Statutory threat factor (IV) is discussed in the analysis of likely subject import price effects. Statutory factors (VIII) and (IX) are discussed in the analysis of likely impact. Statutory factor (VII) concerning agricultural products is inapplicable to these investigations.

²²² 19 U.S.C. § 1677(7)(H).

²²³ *** percent of U.S. shipments of subject imports from France in 2016 were GDL, while *** percent were sodium gluconate, *** percent were gluconic acid, and *** percent were liquid gluconate. CR/PR at Table IV-5.

²²⁴ *** percent of U.S. shipments of subject imports from China in 2016 were GDL, while *** percent were sodium gluconate. CR/PR at Table IV-5.

imports from China serve agriculture end uses and *** serve food end uses, ²²⁵ while the largest end use for subject imports from France is for food, and *** is destined for agriculture end uses. ²²⁶

In addition, subject imports from China and France differed substantially in their pricing patterns. Subject imports from China undersold the domestic like product in *** out of *** quarterly comparisons, while subject imports from France oversold the domestic like product in *** out of *** quarterly comparisons. ²²⁷

The French industry consists of one producer, JBL. ²²⁸ JBL reported capacity utilization of *** percent throughout the POI. ²²⁹ Its capacity remained stable throughout this period, and it has no plans to add capacity in the imminent future. ²³⁰ By contrast, the information in the record indicates that there are many producers of subject merchandise in China, including at least 40 producers of sodium gluconate. ²³¹ The information available indicates that in 2014, the capacity utilization rate for the subject industry in China was approximately 50 percent, *** percentage points lower than the rate reported by JBL throughout the POI. ²³² Furthermore, the available information indicates that the GNA products industry in China has added substantial capacity in recent years and is expected to continue to add substantial capacity between 2017 and 2022. ²³³

The subject industries in China and France also differ in their export markets, with exports from China tending to go to Asia, and exports from France tending to go to Europe. The largest export markets for GNA products from China are India, followed by the United States,

²²⁵ *** percent of U.S. shipments of subject imports from China in 2016 went to agriculture end uses, while *** percent went to food end uses. CR/PR at Table IV-4.

²²⁶ *** percent of U.S. shipments of subject imports from France in 2016 went to food end uses, while *** percent went to agriculture end uses. CR/PR at Table IV-4.

²²⁷ CR/PR at Table V-6.

²²⁸ CR at VII-6; PR at VII-6.

²²⁹ The capacity utilization rate of the domestic industry in France was *** percent in 2014, *** percent in 2015, *** percent in 2016; it was *** percent in interim 2016, and *** percent in interim 2017. It is projected to be *** percent in 2017 and *** percent in 2018. CR/PR at Table VII-3.

²³⁰ Reported production capacity in France was *** dry pounds in 2014, 2015 and 2016; it was *** dry pounds in interim 2016 and interim 2017. It is projected to be *** dry pounds in 2017 and 2018. CR/PR at Table VII-3.

²³¹ JBL's Postconference Brief, Exh. 2, European Commission 2017 Implementing Regulation at Paragraph (50). No Chinese producer of subject merchandise submitted a questionnaire response, so we have relied in our analysis upon other information available on the subject industry in China, including public information and information supplied by the parties. See 19 U.S.C. § 1677e(a).

²³² JBL's Postconference Brief, Exh. 2, European Commission 2017 Implementing Regulation at Paragraph (50).

²³³ The available information indicates that the capacity of the Chinese sodium gluconate industry increased by approximately 50 percent between 2010 and 2014. JBL's Postconference Brief, Exh. 2, European Commission 2017 Implementing Regulation at Paragraph (50). The available information indicates that, reflecting increases in industry capacity, Chinese production of sodium gluconate increased from 695,000 metric tons in 2012 to 1.2 million metric tons in 2017, and is projected to increase further to 1.6 million metric tons in 2022. Petitions, Exh. I-4, at 20, 88.

and then Turkey, as well as a number of other significant export markets in Asia (*e.g.*, Japan, Korea, and Taiwan).²³⁴ The largest export markets for GNA products from France are Germany, the United States, and Spain, as well as a number of other significant export markets in the European Union ("EU") (*e.g.*, United Kingdom, Italy, Ireland, the Netherlands).²³⁵ In the market where JBL sells most if its GNA products, the EU has an antidumping duty order with respect to imports of sodium gluconate from China, which was extended in January 2017.²³⁶ By contrast, there are no antidumping or countervailing duty measures restricting imports of GNA products from France in any market. These differences also indicate that subject imports from China will likely compete differently from subject imports from France in the U.S. market.

Because subject imports from China and France exhibited substantial differences in their product mix and end uses; their pricing behavior; the composition, capacity utilization rates, and increases in capacity of their subject industries; their export markets and their respective abilities to sell in other markets due to antidumping duty measures, for purposes of our analysis of whether there is a reasonable indication of threat of material injury by reason of subject imports we exercise our discretion not to cumulate subject imports from China and France.

C. Reasonable Indication of Threat of Material Injury by Reason of Subject Imports from China

For the reasons discussed below, we find a reasonable indication that a domestic industry is threatened with material injury by reason of subject imports from China.

1. Likely Volume

The volume of subject imports from China was 10.5 million dry pounds in 2014, 10.6 million dry pounds in 2015, and 9.2 million dry pounds in 2016. It was 7.1 million dry pounds in interim 2016 and 7.9 million pounds in interim 2017. The share of apparent U.S. consumption accounted for by subject imports from China declined from *** percent in 2014 to *** percent in 2015, and *** percent in 2016; it was lower in interim 2016 (*** percent) than in interim 2017 (*** percent). Thus, while the volume and market share of subject imports from China declined between 2015 and 2016, they were higher in interim 2017 than in interim 2016. 239

²³⁴ CR/PR at Table VII-1.

²³⁵ CR/PR at Table VII-5.

²³⁶ CR at VII-13 to VII-14; PR at VII-10.

²³⁷ CR/PR at Table IV-2.

²³⁸ CR/PR at Table IV-9.

²³⁹ According to PMP, the decline in subject imports from China from 2015 to 2016 was primarily a result of a tornado in Arkansas in December 2015 that severely damaged the plant of a firm (Actagro) that had been importing subject merchandise from China, causing those imports to cease. According to PMP, Actagro resumed operations in late 2016, and its imports from China reached its pre-tornado levels in the spring of 2017. Conference Tr. at 58-59 (Zinkhon, Spooner, Malasevich). In any final phase (Continued...)

No Chinese producer of GNA products submitted a questionnaire response.²⁴⁰ Thus, there are no reported data on capacity, production, or inventories of subject merchandise from China in these investigations. Accordingly, we have relied in our analysis upon other information available on the subject industry in China, including public information and information supplied by the parties, as indicated above.

As noted, the information in the record indicates that there are many producers of subject merchandise in China, including at least 40 producers of sodium gluconate. The information available indicates that in 2014, these 40 producers had a total production capacity of between 1.0 million and 1.2 million tons, and that the capacity utilization rate of these producers in China was approximately 50 percent. The information available also indicates that, after demand in the domestic Chinese market was subtracted out, the Chinese industry in 2014 had approximately 600,000 to 700,000 tons of capacity available for exports. Given that apparent U.S. consumption in 2016 was *** dry pounds, the total capacity of the Chinese industry as of 2014 is at least *** times the size of apparent U.S. consumption, and the capacity of the Chinese industry available for export as of 2014 is at least 21 times the size of apparent U.S. consumption.

The available information indicates that the sodium gluconate industry in China increased its capacity by about 50 percent between 2010 and 2014. The available information indicates that Chinese production of sodium gluconate increased from 695,000 metric tons in 2012 to 1.2 million metric tons in 2017. The industry in China is expected to continue to add substantial capacity between 2017 and 2022; capacity increases would be consistent with information in the record regarding increased production by the industry in China, which is projected to reach 1.6 million metric tons in 2022. Thus, the subject industry in China has vast capacity and vast unused capacity given its estimated capacity utilization rate of only 50 percent, dwarfing the size of apparent consumption in the U.S. market, and it is expected to increase both its capacity and its production in the imminent future.

As indicated, the subject industry in China has vast capacity available for export. Chinese exports of GNA products increased from 427.8 million pounds in 2014 to 500.7 million pounds in 2016. The United States was the second largest destination for exports of GNA

(...Continued)

investigations, we intend to collect additional information on the effect of the tornado and any other relevant developments with respect to trends in the volume of subject imports from China.

²⁴⁰ CR at VII-3; PR at VII-3.

²⁴¹ JBL's Postconference Brief, Exh. 2, European Commission 2017 Implementing Regulation at Paragraph (50).

²⁴² JBL's Postconference Brief, Exh. 2, European Commission 2017 Implementing Regulation at Paragraph (50).

²⁴³ JBL's Postconference Brief, Exh. 2, European Commission 2017 Implementing Regulation at Paragraph (51).

²⁴⁴ JBL's Postconference Brief, Exh. 2, European Commission 2017 Implementing Regulation at Paragraph (50).

²⁴⁵ Petitions, Exh. I-4, at 20, 88.

²⁴⁶ Petitions. Exh. I-4. at 20, 88.

products from China in each year of the 2014 to 2016 period, indicating that subject producers in China are already familiar with the United States as one of the largest export destinations for subject merchandise.²⁴⁷ Furthermore, the average unit value ("AUV") of Chinese exports of GNA products to the U.S. market is substantially higher than the reported AUV of Chinese exports to every other export market for GNA products, indicating that the higher relative prices in the U.S. market would likely make it attractive to subject producers in China.²⁴⁸ Moreover, the EU has an antidumping duty order with respect to imports of sodium gluconate from China, which it extended in January 2017, limiting the access of subject Chinese producers to the large EU market, and giving them a further incentive to divert export shipments to the U.S. market.²⁴⁹

We note that Commerce initiated a countervailing duty investigation with respect to imports from China based on 44 alleged subsidy programs in China. Although the record contains no information with respect to inventories of subject merchandise held by the subject Chinese producers, U.S. importers' inventories of subject merchandise from China increased from 2014 to 2016, although their inventories were lower in interim 2017 than in interim 2016.

In sum, we conclude that there are already substantial volumes of subject imports from China in the U.S. market and that subject Chinese producers have both the ability and incentive to increase significantly the volume and market penetration of subject imports from China in the imminent future based on record information showing an uptick in the volume and market share of subject imports from China in interim 2017, and the large and growing industry in China that possesses substantial unused capacity, is export oriented, and is constrained in the large EU market by an antidumping duty order. Thus, we find a likelihood of significant increased subject imports from China in the imminent future.

There is no information available on the record as to whether subject producers in China have the ability to produce other products on the same equipment used to produce GNA products.

²⁴⁷ CR/PR at Table VII-1.

²⁴⁸ CR/PR at Table VII-1.

²⁴⁹ CR at VII-13 to VII-14; PR at VII-10.

These alleged programs were listed by Commerce under the following categories: (A) Preferential Loans and Interest Rates; (B) Preferential Income Tax Programs; (C) Preferential Indirect Tax Programs: Value Added Tax (VAT) Reductions, Export Tax Rebates, and Import Tariff Eliminations; (D) Provision of Inputs, Services and Land for Less than Adequate Remuneration; (E) Grant Programs; (F) Special Economic Zones; and (G) Subsidies for Foreign Invested Enterprises. CR at I-6 to I-9; Department of Commerce, Enforcement and Compliance, Office of AD/CVD Operations, December 20, 2017 Countervailing Duty Investigation Initiation Checklist at 7-44 (EDIS Document 633260).

²⁵¹ U.S. importers' inventories of subject merchandise from China were *** dry pounds in 2014, *** dry pounds in 2015, *** dry pounds in 2016; they were *** dry pounds in interim 2016 and *** dry pounds in interim 2017. CR/PR at Table VII-6. The ratio of U.S. importers' inventories of subject merchandise from China to U.S. shipments of imports from China was *** percent in 2014, *** percent in 2015, and *** percent in 2016. It was *** percent in interim 2016 and *** percent in interim 2017. *Id*.

2. Likely Price Effects

As previously noted, the Commission's pricing data accounted for approximately 99 percent of reported U.S. commercial shipments of subject imports from China. Subject imports from China undersold the domestic like product in *** out of *** quarterly comparisons, at margins ranging between *** percent and *** percent, and an average margin of underselling of *** percent. Subject imports from China associated with instances of underselling, with the subject imports from China associated with instances of overselling. Thus, *** percent of the volume of subject imports from China covered by the Commission's pricing data was sold during quarters in which the average price of these imports was less than that of the comparable domestic product. We see no basis to conclude that the significant and pervasive underselling by subject imports from China will be reversed in the imminent future. Thus, we find that subject imports from China are likely to undersell domestic prices significantly in the imminent future.

Moreover, five purchasers responding to the Commission's lost sales and lost revenue survey reported that they purchased subject imports from China rather than the domestic like product, reporting a volume of 20.5 million dry pounds of such purchases of subject imports from China. In each case, the purchaser reported that price was a primary reason for the decision to purchase subject imports from China rather than domestically produced product, and no purchaser reported a non-price reason as a primary reason. One purchaser, ***, reported that it purchased *** dry pounds of subject merchandise from China rather than the domestic like product primarily because of the lower prices of subject imports from China. Three purchasers reported that U.S. producers had reduced their prices in response to subject imports from China. PMP has also asserted that shortly before it filed the petitions, a major PMP customer, ***, indicated that it *** and threatened to switch its business to that Chinese supplier if it did not receive a retroactive price reduction from PMP.

Continued underselling by subject imports from China will likely put significant downward pressure on domestic prices in the imminent future. This, in turn, would likely have depressing or suppressing effects on domestic prices. Accordingly, we find that subject imports from China are likely to enter the U.S. market in the imminent future at prices that will have significant price-depressing or price-suppressing effects.

²⁵² CR at V-5; PR at V-4.

²⁵³ CR/PR at Table V-6.

²⁵⁴ CR/PR at Table V-6.

²⁵⁵ CR/PR at Table V-8.

²⁵⁶ CR/PR at Table V-8.

²⁵⁷ CR/PR at Table V-8.

²⁵⁸ CR/PR at Table V-9.

²⁵⁹ Conference Tr. at 9 (Spooner); 20 (Niedermeier); Petitions, Vol. 1, at 30; PMP's Postconference Brief at 43.

3. Likely Impact

As discussed above, subject imports from China are likely to enter the United States in substantial volumes, engage in significant underselling of the domestic like product, and have significant price-depressing or price-suppressing effects in the imminent future. We note that *** percent of U.S. shipments of subject imports from China were of sodium gluconate, while *** percent of U.S. shipments of the domestic like product were of sodium gluconate. Thus, *** subject imports from China compete head-to-head with the domestic industry with respect to sodium gluconate, the "core" product that PMP contends competes most with subject imports and has been most affected by subject imports. ²⁶¹

While we found that the domestic industry performed well during the POI with respect to a number of trade and financial indicators, we conclude that the likely significant and increasing volume of low-priced subject imports from China will likely have an adverse impact on the domestic industry in the imminent future, as suggested by PMP's assertions regarding the possible loss of a major customer (***) to *** subject imports from China. We find that in the imminent future, subject imports from China are likely to increase in volume, take market share and sales from the domestic industry, and depress or suppress domestic prices significantly. Lost sales will negatively affect the domestic industry's production, shipments, employment, and inventories. Suppressed or depressed prices will negatively affect the domestic industry's revenues, profits, and ability to make capital improvements.

We have also considered the effects of other factors, including nonsubject imports, on the domestic industry. Unlike subject imports from China, nonsubject imports, which were supplied almost entirely by the industry in Italy, had a *** and stable presence in the U.S. market during the POI. Moreover, the ***.

In view of the foregoing, we find that there is a reasonable indication that an industry in the United States is threatened with material injury by reason of subject imports from China that are allegedly sold in the United States at less than fair value and subsidized by the government of China.

D. No Reasonable Indication of Threat of Material Injury by Reason of Subject Imports from France

For the reasons discussed below, we find no reasonable indication that an industry in the United States is threatened with material injury by reason of subject imports from France.

²⁶⁰ CR/PR at Table IV-5.

²⁶¹ PMP's Postconference Brief at 21.

²⁶² Nonsubject imports' share of apparent U.S. consumption increased from *** percent in 2014 to *** percent in 2015 and 2016; it was *** percent in interim 2016 and *** percent in interim 2017. CR/PR at Tables IV-9; C-1.

²⁶³ CR/PR at Tables III-10, IV-1. Importer ***, which imported GNA products *** reported that ***. *** Importer Questionnaire Response at 22, 36 (EDIS Document No. ***).

1. Likely Volume

The volume of subject imports from France was 9.6 million dry pounds in 2014, 12.4 million dry pounds in 2015, and 9.6 million dry pounds in 2016. It was 6.9 million dry pounds in interim 2016 and 8.5 million pounds in interim 2017. The share of apparent U.S. consumption accounted for by subject imports from France increased from *** percent in 2014 to *** percent in 2015 but declined to *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017. Thus, the volume and market share of subject imports from France declined *** between 2015 and 2016, but were higher in interim 2017 than in interim 2016. The higher volume of subject imports from France in interim 2017 as compared to interim 2016, however, was primarily the result of a substantially higher volume of imports of GDL, a product that the domestic industry does not produce. The only producer of GNA products in France, JBL, projected higher exports to the United States in 2017 and 2018 than in 2016, but at levels that are below its reported 2015 exports.

JBL's production capacity remained stable during the POI and is not projected to increase in 2017 or 2018. Aside from a *** increase to *** percent in 2015, JBL's capacity utilization rate was in the range of *** percent during most of the POI. JBL projects capacity utilization in the same range in both 2017 and 2018 as during the POI. Apart from a *** decline in 2015, the level of unused capacity of the industry in France remained relatively stable during the POI and is expected to remain in the same range in 2017 and 2018 as in 2016. JBL

²⁶⁴ CR/PR at Table IV-2.

²⁶⁵ CR/PR at Table IV-9.

²⁶⁶ Total subject imports from France were 1.604 million dry pounds higher in interim 2017 than in interim 2016. CR/PR at Table IV-2. Subject imports of GDL from France were 1.230 million dry pounds higher in interim 2017 than in 2016, while subject imports of all other GNA products from France, including sodium gluconate, were only 374,000 dry pounds higher in interim 2017 than in 2016. CR/PR at Table D-4.

²⁶⁷ Conference Tr. at 25, 39 (Zinkhon); Petitions, Vol. 1, at 1 n.1.

²⁶⁸ Export shipments to the United States of subject producers in France were *** dry pounds in 2014, *** dry pounds in 2015, and *** dry pounds in 2016. They were *** dry pounds in interim 2016 and *** dry pounds in interim 2017. They are projected to be *** dry pounds in 2017 and *** dry pounds in 2018. CR/PR at Table VII-3.

²⁶⁹ Reported production capacity in France was *** dry pounds in 2014, 2015 and 2016; it was *** dry pounds in interim 2016 and interim 2017. It is projected to be *** dry pounds in 2017 and 2018. CR/PR at Table VII-3.

²⁷⁰ The capacity utilization rate in France was *** percent in 2014, *** percent in 2015, *** percent in 2016; it was *** percent in interim 2016, and *** percent in interim 2017. It is projected to be *** percent in 2017 and *** percent in 2018. CR/PR at Table VII-3.

Reported production of GNA products in France increased from *** dry pounds in 2014 to *** dry pounds in 2015 and then declined to *** dry pounds in 2016; it was *** dry pounds in interim 2016 and *** dry pounds in interim 2017. It is projected to be *** dry pounds in 2017 and *** dry pounds in 2018. CR/PR at Table VII-3. Unused capacity declined from *** dry pounds in 2014 to *** dry pounds in 2015 and then increased to *** dry pounds in 2016; it was *** dry pounds in interim 2016 (Continued...)

is highly export oriented, and its home market is relatively small.²⁷² Nevertheless, JBL benefits from the EU's antidumping duty order on imports of sodium gluconate from China in these neighboring country export markets. Exports to markets other than the United States accounted for a ***, between *** percent of JBL's shipments throughout the POI.²⁷³ Most of JBL's exports are within the EU market of which France is a member.²⁷⁴ In contrast, the industry in France is not constrained by any antidumping or countervailing duty orders in effect on imports of GNA products from France.

Inventories of GNA products held by the French producer declined from 2014 to 2016, but were higher in interim 2017 than in interim 2016. U.S. importers' inventories of subject merchandise from France increased overall from 2014 to 2016 but declined *** between 2015 and 2016; they were higher in interim 2017 than in interim 2016. The inventory levels of the

(...Continued)

and *** dry pounds interim 2017. It is projected to be *** dry pounds in 2017 and *** dry pounds in 2018. *Id.*

Total export shipments accounted for *** percent of total shipments by the industry in France in 2014, *** percent in 2015 and *** percent in 2016; they were *** percent in interim 2016, and *** percent in interim 2017. They are projected to account for *** percent of shipments in 2017 and *** percent of shipments in 2018. CR/PR at Table VII-3. Home market shipments accounted for *** percent of total shipments by the industry in France in 2014, *** percent in 2015, *** percent in 2016; they were *** percent in interim 2016 and *** percent in interim 2017. They are projected to account for *** percent of shipments in 2017 and *** percent in 2018. *Id.*

²⁷³ According to questionnaire data, JBL's exports to the United States accounted for *** percent of total shipments by the industry in France in 2014, *** percent in 2015, and *** percent in 2016. They were *** percent in interim 2016 and *** percent in interim 2017. They are projected to account for *** percent of shipments in 2017 and *** percent in 2018. CR/PR at Table VII-3. Exports to all other markets accounted for *** percent of total shipments by the industry in France in 2014, *** percent in 2015, and *** percent in 2016. They were *** percent in interim 2016 and *** percent in interim 2017. They are projected to account for *** percent of shipments in 2017 and *** percent in 2018. *Id.*

²⁷⁴ The largest individual export market for GNA products from France is Germany, followed by the United States and Spain, and it has a number of other export markets in the EU accounting for a substantial share of its exports, including the United Kingdom, Italy, Ireland, and the Netherlands. CR/PR at Table VII-5.

dry pounds in 2015, and *** dry pounds in 2016. They were *** dry pounds in interim 2016 and *** dry pounds in interim 2017. They are projected to be *** dry pounds in 2017 and *** dry pounds in 2018. CR/PR at Table VII-3. The industry in France had inventories equivalent to *** percent of production in 2014, *** percent in 2015, *** percent in 2016, *** percent in interim 2016, and *** percent in interim 2017. Its projected inventories are equivalent to *** percent of production in 2018. *Id.*

²⁷⁶ U.S. importers' inventories of subject merchandise from France were *** dry pounds in 2014, *** dry pounds in 2015, *** dry pounds in 2016; they were *** dry pounds in interim 2016 and *** dry pounds in interim 2017. CR/PR at Table VII-6. The ratio of U.S. importers' inventories of subject merchandise from France to U.S. shipments of imports from France was *** percent in 2014, *** percent in 2015, and *** percent in 2016. It was *** percent in interim 2016 and *** percent in interim 2017. *Id.*

(Continued...)

French producer and of U.S. importers of subject merchandise from France were thus generally in line with the volume of subject imports from France during the POI.²⁷⁷

Given the substantial presence of subject imports from France in the U.S. market during the POI and the strong export orientation of the French industry, subject imports from France are likely to remain in the U.S. market at sizable levels in the imminent future. However, in light of the relatively stable capacity, capacity utilization rate, and level of unused capacity of the French industry, as well as its unrestricted primary export markets in the EU, we do not find a likelihood of substantially increased subject imports from France in the imminent future. Moreover, as the most recent import data indicate, imports of GDL, which is not produced domestically and is used primarily in food applications different from the principal applications for the domestic like product (***)²⁷⁸ are likely to account for a substantial share of any imports from France and a substantial portion of any increase in the overall volume of subject imports from France.

2. Likely Price Effects

As previously discussed the Commission's pricing data only address prices of sodium gluconate in the U.S. market. The Commission's pricing data, which accounted for *** percent of U.S. commercial shipments of subject imports from France in 2016,²⁷⁹ are reasonably complete with respect to shipments of subject imports of sodium gluconate from France, since sodium gluconate accounted for *** percent of total U.S. shipments of subject imports from France in 2016.²⁸⁰ Subject imports from France of the two sodium gluconate pricing products oversold the domestic like product in *** out of *** quarterly comparisons.²⁸¹ By volume there was also predominant overselling, with *** dry pounds of subject imports from France associated with instances of overselling, as compared to *** dry pounds of subject imports from France associated with instances of underselling.²⁸² Thus, *** percent of the volume of subject imports from France covered by the Commission's pricing data was sold during quarters

(...Continued)

The record indicates that JBL has the ability to produce *** on the same equipment used to produce GNA products, but that such product shifting *** by JBL. CR at II-7; PR at II-4.

Responding importers of GNA products reported *** dry pounds of subject imports from France imported or arranged after September 30, 2017. Arranged imports from France were *** dry pounds for the October-December 2017 period, *** dry pounds for the January-March 2018 period, and *** dry pounds for the April-June 2018 period. CR/PR at Table VII-7.

²⁷⁸ CR/PR at Table III-7.

²⁷⁹ CR at V-5; PR at V-4.

²⁸⁰ CR/PR at Table IV-5.

²⁸¹ CR/PR at Table V-6.

The *** of reported *** by subject imports from France in interim 2017 was with respect to product 2 in the first quarter of 2017, and was associated with a volume of *** dry pounds, out of a total volume of *** dry pounds of subject imports from France of product 2 in interim 2017. CR/PR at Table V-4.

in which the average price of these imports was higher than that of the comparable domestic product. ²⁸³

PMP argues that the Commission should not rely on the pricing data, but should instead rely on certain AUV data for subject imports from France that it contends show "a more aggressive French pricing posture." However, given the reasonably complete coverage of our pricing data, we rely on those data for our underselling analysis here, rather than AUV data, which may reflect differences in product mix. PMP also attempts to provide its own pricing analysis, using its own calculations with respect to sales of PMP and JBL to their top ten listed customers, and calculating margins of underselling that purport to show that JBL in fact undersold PMP with respect to pricing products 1 and 2, and that distributors *** than purchasers using or consuming the product. However, it is not clear that PMP is using comparable data in these calculations, and we accordingly rely on our pricing data and not the calculations supplied by PMP, which may be based on different sources of data.

While the Commission's pricing data show overselling by subject imports of sodium gluconate from France, there are no pricing data with respect to subject imports of GDL from France, which accounted for *** percent of total U.S. shipments of subject imports from France in 2016.²⁸⁷ The parties agree that GDL sells for a higher price than other GNA products.²⁸⁸ Thus, of the two principal subject products imported from France, one product pervasively oversold the domestic like product during the POI, while the other product is not produced domestically and generally sells for a higher price than all other GNA products. Given the higher prices of subject imports from France during the POI, we see no basis to conclude that the overselling by subject imports from France will be reversed in the imminent future. Thus, we do not find that subject imports from France are likely to undersell domestic prices significantly in the imminent future.

We have also considered the responses of purchasers to the Commission's lost sales lost revenue survey pertaining to subject imports from France. In the petition, PMP alleges that it lost sales and revenues from *** purchasers due to competition from subject imports from France, with all of these allegations concerning events in ***. Four of the firms that responded to the Commission's survey reported that they did not purchase subject imports from France instead of the domestic like product. Page 1990

Five firms reported that they had purchased subject imports from France instead of the domestic like product: ***. Of these five firms, two firms, ***, reported that subject imports

²⁸³ CR/PR at Table V-6.

²⁸⁴ PMP's Postconference Brief at 29-30.

²⁸⁵ We generally view AUV data with caution, because differences in AUVs may reflect differences in product mix or channels of distribution. *See Allegheny Ludlum Corp. v. United States*, 287 F.3d 1365, 1373-74 (Fed. Cir. 2002).

²⁸⁶ PMP's Postconference Brief at 28.

²⁸⁷ CR/PR at Table IV-5.

²⁸⁸ Conference Tr. at 41-42 (Spooner); 100 (Rainville); PMP's Postconference Brief at 8; JBL's Postconference Brief at 20. In addition, *** reports that ***. CR/PR at Table D-3.

²⁸⁹ CR at V-12; PR at V-7.

²⁹⁰ CR/PR at Table V-8. These *** firms were ***. *Id.*

from France were not priced lower than the domestic like product, and two firms, ***, reported that price was not a primary reason for purchasing subject imports from France instead of the domestic like product. ²⁹¹ ²⁹²

Two of the firms that reported that they had purchased subject imports from France instead of the domestic like product, *** and ***, also reported that subject imports from France were priced lower than the domestic like product and that price was a primary reason for purchasing subject imports from France instead of the domestic like product. *** reported purchasing *** dry pounds of subject merchandise from France in 2016, as well as importing *** dry pounds of subject merchandise from France in 2015. However, it also reported purchasing *** dry pounds of the domestic like product in 2016, over *** times its purchases of subject merchandise from France; this firm increased its purchases of the domestic like product between 2014 and 2016 and reported that the domestic industry's share of its purchases increased by *** percent between 2014 and 2016. Hhile *** reported that price was a primary reason for purchasing subject imports from France instead of the domestic like product, it also reported that ***, a non-price reason. He domestic like product that ***, but further reported that ***, a non-price reason.

Of the nine purchasers that responded to the lost sales and lost revenue allegations, only one firm, ***, reported that the domestic industry had reduced its prices to compete with imports of subject merchandise from France, as compared to three firms reporting that the domestic industry had reduced its prices to compete with imports of subject merchandise from China. However, *** purchased *** volumes from the domestic industry than it sourced from France. Moreover, *** accounted for a *** percentage of the reported purchases of

²⁹¹ CR/PR at Table V-8. Of the two firms that reported that price was not a primary reason for purchasing subject imports from France instead of the domestic like product, *** reported that *** and *** reported that *** were non-price reasons for purchasing subject imports from France. *Id.* *** sourced the *** share of its purchases from China (between *** percent and *** percent during 2014 and 2016, and *** percent in interim 2017), some from the domestic industry, and *** percent from France. *** Purchaser Questionnaire Response at 5 (EDIS Document No. 631634). *** clarified that ***. EDIS Document No. 631175.

While *** reported that price was a primary reason for its purchasing subject imports from France instead of the domestic like product, it also reported that ***. *** Purchaser Questionnaire Response at 5-6 (EDIS Document No. 631766). *** further clarified that its purchase of subject imports from France was ***. EDIS Document No. 633356. *** reported that the domestic industry did not reduce its prices to compete with subject imports from France. CR/PR at Table V-9.

²⁹³ *** Purchaser Questionnaire Response at 4 (EDIS Document No. 631557). *** also reported *** dry pounds of subject merchandise from China during the POI. *Id.*

²⁹⁴ *** Purchaser Questionnaire Response at 4 (EDIS Document No.631557); CR/PR at Table V-7. *** reported that ***. *** Purchaser Questionnaire Response at 5 (EDIS Document No.631557).

²⁹⁵ *** Purchaser Questionnaire Response at 5 (EDIS Document No. 631557).

²⁹⁶ CR/PR at Table V-9.

²⁹⁷ CR/PR at Table V-9.

²⁹⁸ In 2016, *** purchased *** dry pounds of subject merchandise from France and *** dry pounds of the domestic like product, almost *** times as much. CR/PR at Table V-7.

subject merchandise from France in 2016.²⁹⁹ While *** reported that price was a primary reason for purchasing subject imports from France instead of the domestic like product, it also reported that its sourcing decisions were ***, a non-price reason.³⁰⁰

We find that subject imports from France are not likely to have significant price-depressing or price-suppressing effects in the imminent future. As discussed above, the volume of subject imports from France is unlikely to be significant in the imminent future. Any increase in that volume is likely to consist of imports of higher-priced GDL, which the domestic industry does not produce, and imports of sodium gluconate, which were priced higher than the domestic like product in the *** of comparisons during the POI. Thus, an increase in subject imports of either higher-priced product from France would not be likely to depress or suppress the domestic industry's prices to a significant degree in the imminent future.

Based on the foregoing, the pricing behavior of subject imports from France during the POI, and the absence of any indication that the pricing patterns or the volumes of these imports are likely to change significantly, subject imports from France are unlikely to undersell the domestic like product to a significant degree in the imminent future. Subject imports from France are not likely to enter the U.S. market at prices that are likely to have significant depressing or suppressing effects on domestic prices or to increase demand for further imports from France.

3. Likely Impact

As discussed above, we have found that the volume of subject imports from France is not likely to be significant or to increase significantly in the imminent future. Furthermore, subject imports from France are not likely to undersell the domestic like product, and are not entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices. Given the domestic industry's generally healthy trade and financial performance during the POI, we find that the likely volume of subject imports from France is unlikely to lead to a significant deterioration in the domestic industry's condition in the imminent future. ³⁰¹

²⁹⁹ Of the reported *** dry pounds of purchases and imports of subject merchandise from France in 2016 reported by U.S. purchasers, *** accounted for less than *** percent with its purchases of *** dry pounds. CR/PR at Table V-7.

³⁰⁰ CR/PR at Table V-9.

³⁰¹ As previously discussed, subject imports from France are primarily composed of sodium gluconate, which the pricing data show was priced higher than the domestic like product in the *** of pricing comparisons, and GDL, which is not produced domestically and is priced higher than all other GNA products. Thus, given the higher prices of subject imports from France, they are not likely to have an actual or potential negative effect on the domestic industry's existing development and production efforts. Moreover, the information provided by PMP regarding actual and anticipated negative effects of subject imports on the domestic industry's investment, growth and development focuses on the adverse effects of ***, and does not mention *** in this response. CR/PR at Table VI-7. Finally, there is no evidence of any other demonstrable adverse trends that indicate the probability that subject imports from France will likely materially injure the domestic industry.

Given our conclusion that the volume of subject imports from France is not likely to be significant in the imminent future, and that subject imports will not likely have significant adverse price effects, we find that subject imports will not likely have a significant impact on the performance of the domestic industry.

In view of the foregoing, we find that there is no reasonable indication that an industry in the United States is threatened with material injury by reason of subject imports from France that are allegedly sold in the United States at less than fair value.

IX. Conclusion

For the reasons stated above, we determine that there is a reasonable indication that an industry in the United States is threatened with material injury by reason of imports of GNA products from China that are allegedly sold in the United States at less than fair value and are allegedly subsidized by the government of China. We also determine that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of GNA products from France that are allegedly sold in the United States at less than fair value.

Separate and Dissenting Views of Chairman Rhonda K. Schmidtlein

I. Present Material Injury

I join my colleagues, Vice Chairman David S. Johanson and Commissioners Irving A. Williamson and Meredith M. Broadbent, in their findings regarding the definitions of the domestic like product and the domestic industry as well as the conditions of competition and the cumulation analysis with regard to present material injury. As explained below, however, I find that there is a reasonable indication that a significant volume of cumulated subject imports from China and France has undersold the domestic like product and caused material injury to the domestic industry during the period of investigation.

A. Volume of Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."²

In absolute terms, the volume of cumulated subject imports from China and France was 20.1 million dry pounds in 2014, 23.0 million dry pounds in 2015, and 18.8 million dry pounds in 2016. Subject imports from January to September ("interim") 2016 totaled 14.0 million dry pounds whereas from January to September 2017, they totaled 16.5 million dry pounds. Subject imports' share of apparent U.S. consumption increased from *** percent in 2014 to *** percent in 2015, and then declined to *** percent in 2016; it was higher in interim 2017 (*** percent) than in interim 2016 (*** percent).

Expressed as a share of domestic production, cumulated subject imports increased from *** percent in 2014 to *** percent in 2015, declined to *** percent in 2016, and were higher in interim 2017 (*** percent) than in interim 2016 (*** percent).⁴

I concur with my colleagues in the majority and find that the absolute volume of cumulated subject imports and the cumulated volume relative to apparent U.S. consumption and production are significant. I, however, also find that there was a significant increase in the volume of cumulated subject imports when comparing the nine-month interim periods of 2016 and 2017, both in absolute terms and relative to apparent U.S. consumption and production.

The subject import volume fluctuated during the full years of the period of investigation and decreased overall by 6.3 percent from 2014 to 2016, but the volume increased by 17.1 percent when comparing the interim periods of January to September 2016 and January to

¹ Sections I through VII.B of the Views of the Commission.

² 19 U.S.C. § 1677(7)(C)(i).

³ CR at Table C-1.

⁴ CR at Table IV-2.

September 2017.⁵ This increase in subject import volume exceeded the increase in apparent U.S. consumption during the same period; apparent U.S consumption was *** percent higher in interim 2017 than in interim 2016. Although the subject imports lost market share during the full years of the period of investigation, in the interim periods the subject imports increased their U.S. market share by *** percentage points, entirely at the expense of the domestic industry.⁶ Similarly, when evaluating the ratio of subject imports to domestic production, this ratio fluctuated during the full years of the period of investigation and showed an overall decline, but it increased by *** percentage points when comparing interim 2016 and interim 2017.⁷

For the foregoing reasons, and particularly in light of the increases experienced by the subject imports when comparing the nine-month interim periods, I find that the volume of cumulated subject imports and the increase in that volume to be significant in absolute terms and relative to U.S. apparent consumption and domestic production.

B. Price Effects of the Subject Imports

Section 771(7)(C)(ii) of the Tariff Act provides that, in evaluating the price effects of the subject imports, the Commission shall consider whether:

- (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
- (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.⁸

As explained in the discussion of conditions of competition, I agree with my colleagues that the record indicates there is a moderate to high degree of substitutability between subject imports and domestically produced sodium gluconate, gluconic acid, and derivative products ("GNA products" or the "subject product"). The majority of U.S. producers and importers reported that domestically produced and subject imports of GNA products are "always" or "frequently" interchangeable. Along with quality, price was reported as an important factor in purchasing decisions by market participants.⁹

⁵ Subject imports in January to September 2016 were 14.0 million dry pounds whereas in January to September 2017, they were 16.5 million dry pounds. CR at Table C-1.

⁶ CR at Table C-1. The domestic industry's share of apparent U.S. consumption was *** percent in interim 2016 and *** percent in interim 2017.

⁷ The ratio of subject imports to U.S. production was *** percent in January to September 2016 and *** in January to September 2017. CR at Table IV-2.

⁸ 19 U.S.C. § 1677(7)(C)(ii).

⁹ CR/PR at Tables II-5, II-6, and II-7. The *** and 5 out of 6 U.S. importers reported that domestically produced and subject imports of GNA products are "always" or "frequently" interchangeable.

The Commission collected pricing data for two sodium gluconate products. ¹⁰ Total cumulated subject imports of these products undersold domestic product in *** quarterly comparisons or *** percent of the time. On a volume basis, cumulated subject imports of these products undersold the domestic product in *** dry pounds of *** dry tons, or *** percent of the total volume. ¹¹ I concur with my colleagues in the majority and find that the pricing data collected by the Commission, along with the moderate to high degree of substitutability between subject imports and the domestic like product and the importance of price in purchasing decisions, as well as the confirmed lost sales/lost revenue allegations as described below, supports the conclusion that the underselling by cumulated subject imports is significant. ¹²

I find that the pricing data collected by the Commission show a correlation between the increased margins of underselling in interim 2017 and the surge in volume of subject imports during that time, which resulted in the domestic industry's loss of market share between the interim periods of *** percentage points. Specifically, for product 1, when comparing the quarterly price data for interim 2016 and interim 2017, the volume of imports of sodium gluconate from China increased by *** percent while the magnitude of the margins of underselling were among the *** of the period of investigation at *** percent. For product 2, when comparing the interim periods, the volume of imports of sodium gluconate from China increased approximately *** percent while the margins of underselling were *** percent in April-June 2017 and *** percent in July-September, *** for U.S. imports of that particular product from China during the period of investigation. The volume of subject imports of GNA products from France increased by 23.2 percent when comparing interim 2016 to interim 2017, which coincided with France's *** margin of underselling of *** percent.¹³

Further, purchaser questionnaire responses indicate that the domestic industry lost sales and revenues to subject imports. With regard to subject imports from China, of 8 responding purchasers, 5 reported that, since 2014, they had purchased imported GNA products from China instead of domestic product. Five of these purchasers reported that prices of the Chinese product were lower than those of domestic product, and all five reported that the lower price was a primary reason for the decision to purchase Chinese product rather than domestic product. With regard to subject imports from France, of the 9 responding purchasers, 4 reported that they had purchased GNA products from France instead of domestic product. Three of those four purchasers reported that the price of the French product was lower than

¹⁰ Pricing data reported by market participants accounted for approximately 71 percent of U.S. producers' commercial shipments of GNA products, 99 percent of reported U.S. commercial shipments of subject imports from China, and 41 percent of U.S. commercial shipments of subject imports from France in 2016. CR at V-5. The Commission collected price data on the following products:

Product 1.-- Sodium gluconate in 50 lb. to 60 lb. bag.

Product 2.-- Sodium gluconate in 2,000 lb. to 2,500 lb. bag.

¹¹ CR at Table V-6.

¹² I also concur with my colleagues that subject imports did not depress or suppress the domestic industry's prices to a significant degree.

¹³ CR at Tables V-3, V-4, and C-1.

the price of the domestic product, and two of the three purchasers reported that the lower price was a primary reason for the decision to purchase subject imports from France.¹⁴

Therefore, like my colleagues, I find that cumulated subject imports significantly undersold the domestic like product. I also find that, as a result of this underselling, the subject imports gained market share during the first nine months of 2017 directly at the expense of the domestic industry, as described above. This loss of market share had significant adverse effects on the domestic industry, which are described further below.

C. Impact of the Subject Imports

Section 771(7)(C)(iii) of the Tariff Act provides that in examining the impact of subject imports, the Commission "shall evaluate all relevant economic factors which have a bearing on the state of the industry." These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."

I agree with my colleagues in the majority that the domestic industry reported many positive performance indicia during the annual periods of 2014 to 2016. Many of these indicia, however, deteriorate at the end of the period, especially in interim 2017 when U.S. apparent consumption exhibited its *** and subject imports increased. While U.S. apparent consumption increased by *** percent in interim 2017, the domestic industry's share of the U.S. market fell by *** percentage points, from *** percent to *** percent. During the same period, subject import volume increased by *** percent and captured *** percentage points in U.S. market share, increasing from *** percent in interim 2016 to *** percent in interim 2017. 18

The domestic industry reported steady capacity over the entire period of investigation. Domestic production increased from 2014 to 2016 by *** percent, but experienced *** when comparing interim 2016 and interim 2017 when U.S. apparent consumption rose by its ***

¹⁴ CR at V-13.

¹⁵ 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851 and 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.").

¹⁶ 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27. Section 503 states that the "USITC may not determine that there is no material injury or threat of material injury to a domestic industry from imports merely because that industry is profitable or its performance has recently improved."

¹⁷ CR at Table C-1.

¹⁸ Ibid.

rate.¹⁹ U.S. producers' inventories increased by *** percent from 2014 to 2016 then decreased by *** percent when comparing the interim periods. Although U.S. shipments increased by *** percent from 2014 to 2016, they increased by only *** percent from interim 2016 to interim 2017, well below the *** percent increase in apparent consumption. U.S. shipment unit values fell by *** percent from 2014 to 2016 and domestic employment indicia were steady.²⁰

The U.S. industry was profitable throughout the period of investigation, but its financial performance deteriorates late in the period, especially during the nine-month interim period of January through September of 2017. The domestic industry reported an increase of *** percent in operating income from 2014 to 2016, but when comparing the interim periods, operating income decreased by *** percent. 21 Operating margins exhibited a similar trend, increasing by *** percent from 2014 to 2016, but decreasing by *** percent when comparing the interim periods. Further, the domestic industry reported an increase in net income from 2014 to 2016 of *** percent, but when comparing the interim periods, net income decreased by *** percent. Net profit margins increased by *** percent from 2014 to 2016, but decreased by *** percent from interim 2016 to interim 2017.²² Therefore, although many of the domestic industry's trade and financial indicia are steady or positive during the full years of the period of investigation, I differ from my colleagues in the majority and find that for the purposes of this preliminary investigation, subject imports had a significant adverse impact on the domestic industry during the interim period. Low-priced subject imports increased significantly in absolute terms and relative to U.S. consumption and production during this period, and significantly undersold the domestic like product, causing the domestic industry's market share to decline during that time. This loss of market share caused a number of domestic industry indicia to decrease including gross profits, operating income, net income, and ratios of operating and net income to sales. In my view, this evidence meets the relatively low threshold of whether there is a reasonable indication that an industry in the United States is materially injured by reason of subject imports.

D. Conclusion

For the foregoing reasons, I find that there is a reasonable indication that a domestic industry producing GNA products in the United States is materially injured by reason of subject imports from China and France.

¹⁹ As domestic production increased during the full years of the period of investigation, so did the industry's inventory volumes, which increased by *** percent during the full years of the period of investigation. These inventory levels declined during the interim periods by *** percent as apparent U.S. consumption increased. CR at Table C-1.

²⁰ Ibid.

²¹ Ibid.

²² Ibid.

PART I: INTRODUCTION

BACKGROUND

These investigations result from petitions filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by PMP Fermentation Products, Inc. ("PMP"), Peoria, Illinois, on November 30, 2017, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized imports of sodium gluconate, gluconic acid, and derivative products (collectively referred to as "GNA products") from China and less-than-fair-value ("LTFV") imports of sodium gluconate, gluconic acid, and derivative products ("GNA products") from China and France. The following tabulation provides information relating to the background of these investigations. 2 3

Effective date	Action		
December 1, 2017	Petition filed with Commerce and the Commission; institution of Commission investigation (82 FR 57614, December 6, 2017)		
December 21, 2017	Commission's conference		
January 4, 2018	Commerce's notices of initiation of antidumping investigations (83 FR 516, December 20, 2017) and countervailing duty investigation (83 FR 499, January 4, 2018)		
January 12, 2017	Commission's vote		
January 16, 2017	Commission's determination		
January 23, 2017	Commission's views		

STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

Statutory criteria

Section 771(7)(B) of the Tariff Act of 1930 (the "Act") (19 U.S.C. § 1677(7)(B)) provides that in making its determinations of injury to an industry in the United States, the Commission-shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . .

¹ See the section entitled "The Subject Merchandise" in *Part I* of this report for a complete description of the merchandise subject in this proceeding.

² Pertinent *Federal Register* notices are referenced in appendix A, and may be found at the Commission's website (www.usitc.gov).

³ A list of witnesses appearing at the conference is presented in appendix B of this report.

may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that--In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant.... In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether. . .(I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.. . . In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to. . . (I) actual and potential decline in output, sales, market share, gross profits, operating profits, net profits, ability to service debt, productivity, return on investments, return on assets, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.

In addition, Section 771(7)(J) of the Act (19 U.S.C. § 1677(7)(J)) provides that -5

(J) EFFECT OF PROFITABILITY.—The Commission may not determine that there is no material injury or threat of material injury to an industry in the United States merely because that industry is profitable or because the performance of that industry has recently improved.

I-2

⁴ Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

⁵ Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

Organization of report

Part I of this report presents information on the subject merchandise, alleged subsidy/dumping margins, and domestic like product. Part II of this report presents information on conditions of competition and other relevant economic factors. Part III presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. Parts IV and V present the volume of subject imports and pricing of domestic and imported products, respectively. Part VI presents information on the financial experience of U.S. producers. Part VII presents the statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury as well as information regarding nonsubject countries.

MARKET SUMMARY

GNA products are chemical products derived primarily from corn-based liquid glucose that are used in a wide variety of overlapping end-uses, ranging from industrial and agricultural applications, to the production of food, household and personal care products. The sole U.S. producer of GNA products is PMP Fermentation Products, Inc. ("PMP"), while leading producers of GNA products outside the United States include Xiwang Group, Shandong Fuyang, Shandong Parkson, Zhucheng Dongxiao, Wanshang Group, Shandong Qilu Group, Wefang Honghai, Qingdao, Kehai, Shangdong Kaison, and Shandong Xinhong of China and Jungbunzlauer S.A. ("JBL") of France. The leading U.S. importers of GNA products from China are ***, while the leading importer of GNA products from France is ***. Leading importers of product from nonsubject countries (Italy and South Korea) include ***. The top purchasers of GNA products include end users ***, and major chemical distributors ***.

Apparent U.S. consumption of GNA products totaled approximately (***) dry pounds in 2016. Currently, one firm is known to produce GNA products in the United States. U.S. producers' U.S. shipments of product totaled *** dry pounds (***) in 2016, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from subject sources totaled *** dry pounds (***) in 2016 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from nonsubject sources totaled *** dry pounds (***) in 2016 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

SUMMARY DATA AND DATA SOURCES

A summary of data collected in these investigations is presented in appendix C, table C-1. Except as noted, U.S. industry data are based on PMP's questionnaire response, which accounted for all known U.S. production of GNA products during 2016. U.S. imports are based

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⁶ Petition, Vol. I, 6; and PMP's postconference brief, p. 1 and p. 6.

⁷ Petition, exh. I-4, pg. 23.

on the questionnaire responses of 9 firms that are believed to account for 63.9 percent of U.S. imports of GNA products from China and all U.S. imports of GNA products from France. Foreign industry data are based on the questionnaire response of one producer in France whose exports accounted for virtually all U.S. imports of GNA products from France in 2016. The Commission did not receive any foreign producers' questionnaire responses from Chinese firms.

PREVIOUS AND RELATED INVESTIGATIONS

Sodium gluconate ("GNA") has been the subject of one prior countervailing duty investigation in the United States. The Commission conducted a countervailing duty investigation with respect to the European Communities. On June 16, 1981, a petition was filed by Pfizer, Inc. alleging that the European Communities were providing subsidies for the production and exportation of sodium gluconate and that, by reason of imports of this allegedly subsidized merchandise, an industry in the United States was being injured or threatened with material injury. On September 16, 1981, Commerce issued a preliminary affirmative determination with respect to the countervailing duty investigation regarding imports of sodium gluconate from the European Communities. Subsequently, the Commission suspended the countervailing duty investigation on November 24, 1981 based on an agreement reached between Commerce and Joh A. Benckiser, a German manufacturer and exporter of sodium gluconate that accounted for virtually all of the imported subject merchandise. 12

⁸ The European Communities, a precursor to the European Union, was comprised of three international organizations governed by common institutions and incorporated into the European Union in 1993.

⁹ Ten preliminary investigations were originally instituted and designated as *Sodium Gluconate from Belgium (701-TA-69); Denmark (701-TA-70); the Federal Republic of Germany (701-TA-71); France (701-TA-72); Greece (701-TA-73); Ireland (701-TA-74); Italy (701-TA-75); Luxembourg (701-TA-76); the Netherlands (701-TA-77); and the United Kingdom (701-TA-78)*. The Commission re-designated those investigations as *Sodium Gluconate from the European Communities (Inv. No. 701-TA-79)*.

¹⁰ Sodium Gluconate from the European Communities, Inv. No. 701-TA-79 (Preliminary), USITC Publication 1169, July 1981, p. 1; and Sodium Gluconate From Belgium, Denmark, the Federal Republic of Germany, France, Greece, Ireland, Italy, Luxembourg, The Netherlands, and the United Kingdom; Institution of Preliminary Countervailing Duty Investigations and Scheduling of Conference, 46 FR 32971, June 25, 1981.

¹¹ Sodium Gluconate From the European Communities, 46 FR 40839, August 12, 1981.

¹² Suspension of Countervailing Duty Investigation from the European Economic Community, 46 FR 60288, December 9, 1981.

NATURE AND EXTENT OF ALLEGED SUBSIDIES AND SALES AT LTFV

Alleged subsidies

On January 4, 2018, Commerce published a notice in the *Federal Register* of the initiation of its countervailing duty investigation on GNA products from China.¹³ Commerce identified the following government programs in China:¹⁴

A. Preferential Loans and Interest Rates

- 1. Policy Loans
- 2. Loans through Regional Development Plans Shandong Region
- 3. Loans through Regional Development Plans Northeast Region Revitalization Twelfth Five-Year Plan
- Preferential Loans Provided by the Export-Import Bank "Going-out" for Outbound Investments
- 5. Export Seller's Credit and Guarantees
- 6. Export Buyer's Credit

B. Preferential Income Tax Programs

- 1. Preferential Income Tax Reductions for High and New Technology Enterprises (HNTEs)
- 2. Preferential Deduction of Research and Development Expenses for HNTEs
- 3. Preferential Income Tax Policies for Enterprises in Specific Regions, Provinces, or Designated Areas Shandong
- 4. Preferential Income Tax Policies for Enterprises in Specific Regions, Provinces, or Designated Areas Township Rural-Area Benefits
- 5. Corporate Income Tax Law Article 33: Reduction of Taxable Income for Revenue Derived from the Manufacture of Products that Are in Line with State Industrial Policy and Involve Synergistic Utilization of Resources

C. Preferential Indirect Tax Programs: Value Added Tax (VAT) Reductions, Export Tax Rebates, and Import Tariff Eliminations

- 1. VAT and Tariff Exemptions for Purchases of Fixed Assets Under the Foreign Trade Development Fund Program
- 2. VAT and Tariff Exemptions on Imported Equipment for Favored Industries

¹³ Sodium Gluconate, Gluconic Acid, and Derivative Products From the People's Republic of China: Initiation of Countervailing Duty Investigation, 83 FR 499, January 4, 2018.

¹⁴ Department of Commerce, International Trade Administration, *Sodium Gluconate, Gluconic Acid, and Derivative Products From the People's Republic of China: Initiation of Countervailing Duty Investigation - China CVD Initiation Checklist.*

D. Provision of Inputs, Services, and Land for Less Than Adequate Remuneration (LTAR)

- 1. Provision of Corn for LTAR
- 2. Provision of Electricity for LTAR
- 3. Provision of Land for LTAR
- 4. Provision of Water for LTAR

E. Grant Programs

- 1. Grants for Corn Storage/Provision of Storage for LTAR
- 2. Grants Provided to Corn Processors
- 3. Grants Provided to Promote Rationalization
 - Grants Promoting Rationalization
 - Grants for Relocation to the "Corn Belt"
- 4. The State Key Technology Project Fund
- 5. Grants Provided in Support of Agricultural Development Projects
- 6. Subsidies for Development of "Brands"
- 7. Small and Medium Sized Enterprises (SME) International Market Exploration/Development Fund
- 8. Grants for Listing Shares
- 9. Foreign Trade Development Fund
- 10. Shandong Province's Special Fund for the Establishment of Key Enterprise Technology Centers
- 11. Shandong Province's Environmental Protection Industry Research and Development Funds
- 12. Grants for Energy Saving Technology
 - Special Fund for Energy Saving Technology Reform
 - Shandong Province's Award Fund for Industrialization of Key Energy-Saving Technology
- 13. Grants for Antidumping Investigations
- 14. Clean Production Technology Fund
- 15. Environmental Protection Special Fund

F. Special Economic Zones (SEZs)

- 1. Tax and Fee Exemptions for Entities in Economic Development Zones
- 2. Grants for Entities in Economic Development Zones
- 3. Land-Use Rights for LTAR in Certain Industrial/Development Zones

G. Subsidies for Foreign Invested Enterprises (FIEs)

- 1. Reduced Income Tax Rates for FIEs Based on Location
- 2. Preferential Direct and Indirect Tax Rates for FIEs
 - Value Added Tax (VAT) and Tariff Exemptions for FIEs and Certain Domestic Enterprises Using Imported Equipment in Encouraged Industries
 - VAT Refunds for FIEs on Purchases of Chinese-made Equipment

- Reduced Tax Rates for FIEs Recognized as High or New Technology Enterprises
- 4. Tax Offsets for Research and Development by FIEs
- Local Income Tax Exemption and Reduction Programs for "Productive" FIEs

Alleged sales at LTFV

On January 4, 2018, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigations on GNA products from China and France. Commerce has initiated antidumping duty investigations based on estimated dumping margins of 213.15 percent for GNA products from China ¹⁵ and 76.95 percent for GNA products from France. ¹⁶

THE SUBJECT MERCHANDISE

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:

The scope of this investigation covers all grades of sodium gluconate, gluconic acid, liquid gluconate, and glucono delta lactone (GDL) (collectively GNA Products), regardless of physical form (including, but not limited to substrates; solutions; dry granular form or powders, regardless of particle size; or as a slurry). The scope also includes GNA Products that have been blended or are in solution with other product(s) where the resulting mix contains 35 percent or more of sodium gluconate, gluconic acid, liquid gluconate, and/or GDL by dry weight.

Sodium gluconate has a molecular formula of NaC₆H₁₁O₇. Sodium gluconate has a Chemical Abstract Service (CAS) registry number of 527-07-1, and can also be called "sodium salt of gluconic acid" and/or sodium 2, 3, 4, 5, 6-pentahydroxyhexanoate. Gluconic acid has a molecular formula of C₆H₁₂O₇. Gluconic acid has a CAS registry number of 526-95-4, and can also be called 2, 3, 4, 5, 6-pentahydroxycaproic acid. Liquid gluconate is a blend consisting only of gluconic acid and sodium gluconate in an aqueous solution. Liquid gluconate has CAS registry numbers of 527-07-1, 526-95-4, and 7732-18-5, and can also be called 2, 3, 4, 5, 6-pentahydroxycaproic acid-hexanoate. GDL has a molecular

¹⁵ Sodium Gluconate, Gluconic Acid, and Derivative Products From France and the People's Republic of China: Initiation of Less-Than-Fair-Value Investigations, 83 FR 516, January 4, 2018.

¹⁶ Sodium Gluconate, Gluconic Acid, and Derivative Products From France and the People's Republic of China: Initiation of Less-Than-Fair-Value Investigations, 83 FR 516, January 4, 2018.

formula of C₆H₁₀O₆. GDL has a CAS registry number of 90-80-2, and can also be called d-glucono-1,5-lactone.

The merchandise covered by the scope of this investigation is currently classified in the Harmonized Tariff Schedule of the United States (HTSUS) under subheadings 2918.16.1000, 2918.16.5010, and 2932.20.5020. Merchandise covered by the scope may also enter under HTSUS subheadings 2918.16.5050, 3824.99.2890, and 3824.99.9295. Although the HTSUS subheadings and CAS registry numbers are provided for convenience and customs purposes, the written description of the merchandise is dispositive. 17

Tariff treatment

Based upon the scope set forth by the Department of Commerce, information available to the Commission indicates that the merchandise subject to these investigations are provided for in 2918.16.10, 2918.16.50, and 2932.20.50 the following provisions of the Harmonized Tariff Schedule of the United States ("HTS"). The 2017 general rate of duty is 6 percent *ad valorem* per kilogram for HTS subheading 2918.16.10, 3.7 percent *ad valorem* for HTS subheading 2918.16.50, and 3.7 percent *ad valorem* for HTS subheading for HTS subheading 2932.20.50. Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

THE PRODUCT

Description and applications

The imported products subject to these investigations are collectively referred to as GNA products: gluconic acid ("GA," $C_6H_{12}O_7$), sodium gluconate ("GNA," $NaC_6H_{11}O_7$), gluconodelta-lactone ("GDL," $C_6H_{10}O_6$), ¹⁸ (figure I-1) along with liquid gluconate ("LG"), ¹⁹ and subject

¹⁷ Sodium Gluconate, Gluconic Acid, and Derivative Products From the People's Republic of China: Initiation of Countervailing Duty Investigation, 83 FR 499, January 4, 2018; Sodium Gluconate, Gluconic Acid, and Derivative Products From France and the People's Republic of China: Initiation of Less-Than-Fair-Value Investigations, 83 FR 516, January 4, 2018.

¹⁸ GDL is a neutral cyclic ester of GA, can also be denoted as glucono-δ-lactone.

¹⁹ LG for the purposes of this investigation solely refers to a blend of gluconic acid and sodium gluconate. LG sold by PMP usually contains 60% or more of active ingredient. PMP can sell LG that has an active ingredient concentration up to 90%. Conference transcript, p. 57 (Zinkhon).

blends. 20 GDL and GNA are sold in dry form, while GA and LG are sold in liquid 21 form (table I-1). 22

Figure I-1:

Chemical structures of GA, GNA, and GDL; LG contains a mixture of GA and GNA

Source: Based on information in PMP's postconference brief, Attachment S p. 7 and JBL's postconference brief, Exhibit 7.

Table I-1
GNA Products Continuum

<u>Product</u>	<u>Dry</u>	<u>Liquid</u>	<u>Sodium</u>	Sodium Free
GNA	Х		Х	
LG		Х	Х	
GA		Х		х
GDL	Х			Х

Source: PMP's postconference brief, p.6.

These products are imported under different HTS numbers; however, they are closely related to one another (figure I-2)²³ and it is easy to convert from one GNA product to another.²⁴

²⁰ The products for the purposes of this investigation are collectively referred to as GNA products or subject merchandise.

²¹ Conference transcript p. 30 (Zinkhon).

²² PMP's postconference brief, p.6.

²³ Differences in chemical formulas differ to account for sodium and water content; PMP's postconference brief, p.6.

²⁴ Starting with GA, if water is removed and the product is dried, GDL is obtained. If water is added to GDL, then GA is obtained. If sodium hydroxide is added to GA, and then dried, the resulting product is GNA; PMP's postconference brief, p.7.

Sodium Gluconate

(GNA)

Na C₆H₁₁O₇

Liquid Gluconate

(Bluconate (Blend of GA and GNA)

Figure I-2: Relationship and interchangeability between GNA products

Source: PMP's postconference brief, A.9.

When in dry form, all GNA products are white granular powder and it is difficult to tell the difference between the four forms: GNA, LG, GA, and GDL.²⁵ Beyond the physical similarities, the subject products are interchangeable according to the petitioner because GNA products either contain, or can be readily converted to, the active gluconate anion (figure I-3).²⁶

²⁵ Petition, Vol. I, p.7.

²⁶ An anion is an ionic species having negative charge; conference transcript, p. 84 (Zinkhon).

Figure I-3: Chemical structure of gluconate anion

Source: NIH TOXNET "Gluconate ion," https://chem.nlm.nih.gov/chemidplus/rn/608-59-3 (accessed December 29, 2017).

GNA products are excellent sequestrates and chelators.²⁷ GNA products are also noted for being non-corrosive (resistant to oxidation), non-toxic, and biodegradable.²⁸ These properties make GNA products of great use in a multitude of industries including concrete and admixtures, food industry, personal care and household products, and in agriculture. In the concrete admixture industry, GNA products are used to reduce water, improve resistance to freeze-thawing, and retard the setting of concrete.²⁹ GNA products are also utilized in the food industry as a debitterant in artificial sweeteners, as an ingredient in soft cheeses and sausages, and as a salt substitute.³⁰ In the personal care and household products industries GNA products are utilized as chelators. GNA products soften the water in dishwasher detergents and act as an anti-redeposition agent; in shampoo and other cleaners GNA products increase lather; and in toothpaste GNA sequesters calcium, assisting in the prevention of gingivitis.³¹ The GNA products also have applications in the agricultural sector, where the product is used to enhance the uptake of micronutrients from the soil to the plant.³² In addition to these major sectors, GNA is also employed in mining, textiles, plastics, de-icing, ³³ electroplating, pharmaceuticals, and pulp and paper.³⁴ PMP argues that all GNA products can be used for any application and

³⁰ GDL is widely used in tofu production; conference transcript, p. 93 (Zinkhon).

³² Plants naturally make GA for the purposes of micronutrient uptake and the addition of GNA products to the fertilizer puts less stress on the plant and assists in better overall yields. Ibid.

³³ Use of GNA products, specifically GNA, has grown in the past 15 years for use in de-icing and demand in this sector is expected to grow significantly. Conference transcript, pp.27-29 (Zinkhon).

³⁴ FDA lists GNA as a generally recognized as safe (GRAS) sequestrant. FDA Select Committee on GRAS Substances Database

https://www.accessdata.fda.gov/scripts/fdcc/?set=SCOGS&sort=Sortsubstance&order=ASC&startrow=1 &type=basic&search=gluconate, accessed January 4, 2018.

²⁷ A chelant binds to metal ions once a metal ion is bound to a chelator the metal ion can no longer form new deposits; GNA products are noteworthy for excellent chelating power and are useful in eliminating interference from calcium, iron, copper, aluminum, and other 'heavy metals.'

²⁸ Conference transcript, p. 48 (Zinkhon).

²⁹ Petition, Vol. I, p.6

³¹ Petition, Vol. I, p. 7.

ultimately, end-users determine which member of the GNA Product family to use depending on their particular needs and desired properties.³⁵

Out of the four subject products, GDL has the unique property of being able to adjust the pH of a solution progressively over time as a function of temperature. When other organic acids in powder from (e.g. lactic acid) are added to water, the acid will hydrolyze immediately, while GDL, by comparison, hydrolyzes progressively. This property makes GDL desirable for end-use in the food industry. Sa 39

The majority of PMP's domestic sales of GNA products consists of GNA, not LG or GA.

It should be noted that approximately half of JBL's total U.S. imports of GNA products is GDL.

41

Corn, more specifically corn syrup, is a major feedstock in the production of GNA products. Non-GMO certification can be obtained for the subject merchandise. Currently, JBL has non-GMO certification for its entire production, and consequently 100 percent of JBL's U.S. shipments are certified non-GMO.⁴² PMP currently has a "non-GMO statement" and PMP's corn syrup supplier also has a "non-GMO statement," but PMP's GNA products are not certified as non-GMO.⁴³ PMP customers to date have accepted the statement to be equivalent to the certification.⁴⁴ JBL acknowledges that currently, U.S. customers that require GMO-free product are a niche market, but JBL sees a growing demand for GMO-free ingredients.⁴⁵

Manufacturing processes

As mentioned, the four in-scope products are closely related.⁴⁶ All in-scope GNA products are derived from GA, which is derived from glucose. GA is the precursor to GNA, while GDL is a purified lactone form of GA (crystals are grown from GA), and LG represents a mixture of GA and GNA. PMP is the sole domestic producer of GNA products⁴⁷ and describes GNA products production as four processes that branch out from a single fermenter (Figure I-4).⁴⁸

³⁵ PMP's postconference brief, p.6.

³⁶ JBL's postconference brief, p. 16.

³⁷ JBL's postconference brief, p. 16.

³⁸ Conference transcript, p.99 (Rainville).

³⁹ JBL's postconference brief, p. 16.

⁴⁰ Petition, Vol. I, p.7, conference transcript p. 53 (Zinkhon).

⁴¹ Conference transcript, pp. 98-99 (Rainville).

⁴² JBL's postconference brief, p. 3.

⁴³ Conference transcript, p. 35 (Zinkhon).

⁴⁴ Conference transcript, p. 35 (Zinkhon).

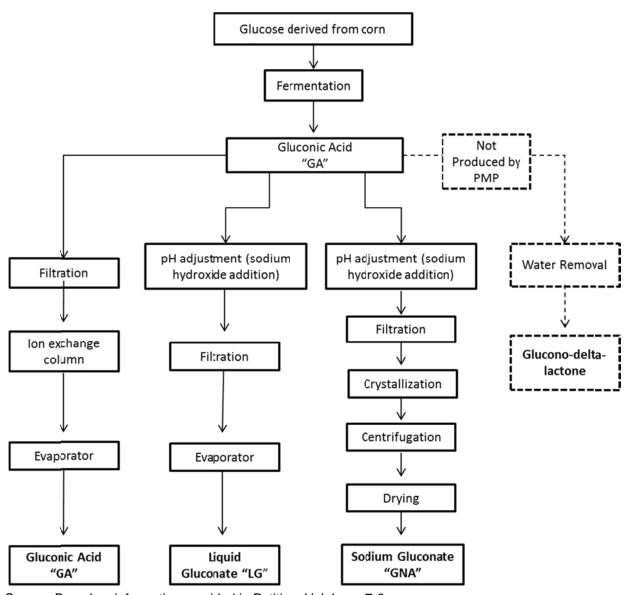
⁴⁵ JBL's postconference brief, p. 3.

⁴⁶ PMP's postconference brief, p. 15.

⁴⁷ PMP does not produce GDL. There has not been a U.S. manufacturer of GDL since 2007, Conference transcript p. 45, (Zinkhon).

⁴⁸ Conference transcript p. 21, 75 (Zinkhon).

Figure I-4
GNA products: PMP production flowchart



Source: Based on information provided in Petition, Vol. I, pp. 7-9.

First, GA is produced through the fermentation of glucose.⁴⁹ Glucose can be obtained through the hydrolysis of carbohydrates; liquid corn sugar is the most cost efficient and commonly used source.⁵⁰ Industrially, glucose is commonly produced through the introduction of a fungus, typically *Asper Nigelus*,⁵¹ to a medium containing liquid corn syrup.⁵² ⁵³ The fungus converts

⁴⁹ Conference transcript, p. 21, (Zinkhon).

⁵⁰ Conference transcript, p.36 (Zinkhon).

⁵¹ Conference transcript, p. 87 (Zinkhon).

glucose into GA through oxidative fermentation.^{54 55} The second process is when sodium hydroxide (NaOH) is added to the mix, and the resulting product when dried is GNA.⁵⁶ The third process, to produce LG, is the blending of GA and GNA.⁵⁷ Fourth is the production of GDL which is produced through the removal of water from GA.^{58 59} To summarize, once fermentation is complete, the liquid is removed and the subsequent product can be used to produce GA, LG, or GNA products. The specific downstream processes for GA, LG, and GNA at PMP are detailed as follows.⁶⁰

After the completion of the oxidative fermentation, GA is filtered to remove impurities and improve color. The product is then run through an ion exchange column to exchange sodium ions with hydrogen ions, yielding a diluted concentration of GA. This mixture is then run through an evaporator to achieve the desired concentration of GA.

For the production of LG, GA is diverted to a different production stream and the pH is adjusted with sodium hydroxide. The resulting chemical reaction yields LG. This mixture is filtered to remove impurities and to improve color, and is subsequently run through an evaporator to achieve a variety of concentrations depending on the desired specifications for the product. Imports of LG are presumed by petitioner to be minimal due to the high liquid content and the costs associated with transport.⁶¹

For the production of GNA, LG is filtered and passed through an evaporator and into a crystallizer. With the introduction of heat, vacuum, and agitation, a supersaturated solution or slurry is achieved. The resulting slurry is discharged to a centrifuge which removes the majority of the excess water from the crystals. The crystals are then dried, and subsequently sifted for packaging. There are no intermediate products in the production of sodium gluconate from gluconic acid.⁶²

(...continued)

⁵² Petition, Vol. I, p. 11.

⁵³ Air flow, air pressure, agitation, pH and temperature are controlled in the main fermenter to maintain optimum growing conditions for the fungus; Petition p. 8.

⁵⁴ Oxidative fermentation is the most common production method, but glucose can also be chemically oxidized. Zhejiang Tianyi Food Additives utilizes a catalytic oxidative method; Zhejiang Tianyi Food Additives Co., Ltd. "About Us," http://www.sinotianyi.com/template/about-en.html, retrieved December 19, 2017.

⁵⁵ Chemically oxidized GNA products produce a technical grade which is not imported into the U.S.; conference transcript p.87 (Zinkhon).

⁵⁶ Conference transcript p. 22 (Zinkhon).

⁵⁷ Ibid.

⁵⁸ "In other words, GDL is the dry form of GA;" Conference transcript, p. 22 (Zinkhon).

⁵⁹ In theory GDL could be produced too. Conference transcript, p. 34 (Zinkhon).

⁶⁰ Petition, Vol. I, pp. 7-9.

⁶¹ Petition, Vol. I, p.23.

⁶² Recovered liquid contains some active ingredient is also referred to as the 'mother liquor,' which is recycled back to the beginning of the process in the feedstock. Once the mother liquor is no longer useful for the production process, (dirty, not enough active ingredient present, etc.), the mother liquor is discharged. This discharged product is sold to the concrete admixture industry and is sold in liquid form. Conference transcript pp.73-74, p.88 (Zinkhon).

GDL⁶³ is separated from GA by crystallization through the removal of water.⁶⁴ GDL can subsequently be converted back to GA upon the addition of water. 65

The production of GNA products is performed as a continuous fermentation process. ⁶⁶ A variety of packages are available for GA, GDL, GNA, and LG, including: paper bags, fiber drums, and flexible intermediate bulk containers (FIBC). For powdered products, GNA and GDL, the most commonly imported products, packages are usually sold in 25 kilogram (small) or 1,000 kilogram (large) packs. 67 68

JBL's process differs slightly in production in that the direct product from fermentation is GNA, ⁶⁹ GA and GDL are subsequently produced from GNA (figure I-5). ⁷⁰ JBL also produces its corn syrup while PMP buys from suppliers.⁷¹

Figure I-5 JBL Production flowchart⁷²

DOMESTIC LIKE PRODUCT ISSUES

In these preliminary phase investigations Petitioner PMP proposes that the domestic like product should be defined as GNA, including its related derivatives, LG, GA, GDL, and blended products resulting in a mix that contains 35 percent or more of GNA, GA, LG and/or GDL by dry weight, co-extensive with Commerce's scope. 73

Respondent JBL contends that GDL should be considered as a separate like product. 74 Respondents point out that the GDL is not produced by the domestic industry and argue that it

⁶³ Also known as glucono-1,5-Lactone.

⁶⁴ Jungbunzlauer "Glucono-delta-Lactone: General Information" http://www.jungbunzlauer.com/en/products/gluconates/glucono-delta-lactone.html (accessed December 28, 2017).

⁶⁵ In aqueous solutions GDL rapidly dissolves and slowly hydrolyzes to GA. In an aqueous solution there is an equilibrium between gluconic acid and the delta and gamma lactones.

⁶⁶ Conference transcript, pp. 37-38 (Casanova, Zinkhon).

⁶⁷ Conference transcript, p. 131 (Torres).

⁶⁸ PMP also sells 25 kg or 1-ton bulk bags of GNA, 55 gallon drums of GA or LG; PMP "Products" http://www.pmpinc.com/Products/ (accessed December 28, 2017).

⁶⁹ As previously outlined, domestic producer PMP produces GA first then branches out to produce GNA and LG. Respondent JBL surmises that the intrinsic difference between PMP's and JBL's GNA production is that PMP utilizes a two-step process to produce GNA and JBL utilizes a one-step process to produce GNA. JBL's postconference brief, p. 17.

⁷⁰ GA is considered a by-product by JBL; Conference transcript, p.136 (Torres).

⁷¹ Conference transcript, p. 132 (Torres), p. 67 (Niedermeier).

⁷³ Petition, Vol. I, p. 10; and PMP's postconference brief, p. 5.

⁷⁴ Conference transcript, p. 116 (Waite); JBL's postconference brief, p. 21.

is somewhat different chemically as it contains unique properties that cannot be found in other GNA products.⁷⁵

If there are like product issues, the Commission's decision regarding the appropriate domestic product(s) that are "like" the subject imported product is based on a number of factors including: (1) physical characteristics and uses; (2) common manufacturing facilities and production employees; (3) interchangeability; (4) customer and producer perceptions; (5) channels of distribution; and (6) price. Information regarding these factors is discussed below.

Physical characteristics and uses

Petitioner PMP asserts that all GNA products are derived primarily from liquid corn syrup, have the same basic chemical makeup and only differ based on sodium and water content.⁷⁶ Petitioner PMP reports that GNA products are available in two forms, 1) semi-clear liquid form (GA and LG) or 2) a dry, white powder form (GNA and GDL) and share common end uses.⁷⁷ Petitioner PMP states that GNA products are typically used in a wide variety of industrial and agricultural applications, including concrete, fertilizer, soaps & detergents, industrial cleaners, metal cleaning, food, healthcare, general chelation and de-icing.⁷⁸

JBL asserts that in contrast to other GNA products, GDL is primarily used in food products as a controlled release acidifier in dairy products, a coagulant in tofu, a curing accelerator in meat products, a chelating agent in seafood, a leavening agent in bakery products, and a mild acidulant and preservative agent in prepared salads, dressings, and sauces. ⁷⁹ Respondents also report that GDL is also used in personal care products such as skin care products. ⁸⁰

Manufacturing facilities and production employees

Petitioner PMP states that GNA products it produces are manufactured in the same facility using the same production process and that minor variations in production (e.g. the addition or removal of sodium hydroxide and the removal or addition of water) may occur depending on the final product.⁸¹

Respondent JBL argues that the in contrast to the production of other GNA products which require a two-step process to produce sodium gluconate, the production of GDL is carried out via a one-step process.⁸²

⁷⁵ Respondent JBL's postconference brief, p. 12-13; and conference transcript, p. 116 (Waite).

⁷⁶ PMP's postconference brief, p. 6.

⁷⁷ Petition, Vol. I, p. 11; and PMP's postconference brief, p. 6.

⁷⁸ Petition, Vol. I, p. 11.

⁷⁹ JBL's postconference brief, pp. 14-15.

⁸⁰ JBL's postconference brief, pp. 14-15.

⁸¹ Petition, Vol. I, p. 12; and Petitioner's postconference brief, p. 8.

⁸² JBL's postconference brief, pp. 17-18.

Interchangeability

Petitioner PMP claims that GNA products are "typically comparable" in quality and "highly interchangeable" because they differ only by sodium and water content. ⁸³ Petitioner PMP also reports that customers use them interchangeably depending on whether a liquid or dry-end product is desired and that one GNA product can easily be converted to another with the addition or removal of water. ⁸⁴ Respondent JBL contends that other GNA products do not contain the same unique pH adjusting property as GDL and therefore cannot be substituted for GDL. ⁸⁵

Customer and producer perceptions

Petitioner PMP reports that customers generally consider all GNA products as belonging to one family of products and perceive GNA products to be the same because they are commodity products. ⁸⁶ Respondent JBL argues that GDL is not comparable in terms of customer and producer perceptions.

Channels of distribution

Petitioner PMP reports that all GNA products, including GDL, are sold directly to end users and distributors.⁸⁷ Respondent JBL states that all GNA products are sold through the same channels of distribution and either sold directly to end users and/or distributors.⁸⁸ Respondent JBL also asserts that customers perceive GDL differently compared to other GNA products due to its chemical makeup and primary uses in the processing of food products.⁸⁹

Price

Petitioner PMP states that GDL is priced higher than other GNA products because it requires an additional step in production to dry gluconic acid, ⁹⁰ but contends that GNA products are commodity products. ⁹¹ Respondent JBL argues that GDL is priced differently and is often priced as much as two times higher than the price of other GNA products. ⁹²

⁸⁶ Petition, Vol. I, p. 11; and PMP's postconference brief. p. 8.

⁸³ Petition, Vol. I, p. 11; and Petitioner's postconference brief, p. 6.

⁸⁴ Petition, Vol. I, p. 11; and PMP's postconference brief, p. 7.

⁸⁵ JBL's postconference brief, p. 16.

⁸⁷ Conference transcript, p. 55 (Zinkhon), p. 41(Spooner); PMP's postconference brief, p. 8.

⁸⁸ JBL's postconference brief, p. 18.

⁸⁹ JBL's postconference brief, p. 18.

⁹⁰ Conference transcript, pp. 41-42 (Spooner).

⁹¹ PMP's postconference brief, p. 8; and Petition, Vol. I, p. 12.

⁹² Conference transcript, p. 100 (Waite).

PART II: CONDITIONS OF COMPETITION IN THE U.S. MARKET

U.S. MARKET CHARACTERISTICS

GNA products include sodium gluconate ("GNA"), gluconic acid ("GA"), liquid gluconate ("LG", a blend of GA and GNA), and glucono delta lactone ("GDL"). The majority of petitioner PMP's sales were of GNA, but PMP also sells LG and GA. PMP does not manufacture GDL, but imports it from Italy. Reported imports from China were almost all GNA, with GDL accounting for the remainder, and imports from France were mostly GNA and GDL, ***. Most imports of GNA products are in powder or crystal form to minimize shipping costs.¹

GNA products have a wide variety of uses including concrete, fertilizer, soaps and detergents, industrial cleaners, health care products, and road de-icing.² *** were the largest applications for PMP's sales.³ JBL stated that the primary uses of GDL are food and personal care products whereas the primary uses of GNA, LG, and GA are industrial applications.⁴

PMP manufactures all of its GNA products to Food Chemical Codex ("FCC") standards.⁵ PMP stated that the Chinese and French producers manufacture a technical grade product, but that the Chinese technical grade is made using a different production process, is of lower quality, and is not exported to the U.S. market.⁶ Products that have imperfections such as off-color that may not be accepted by the food industry are sold to the concrete industry.⁷ JBL stated that it sells four different grades of GNA products: food, personal, pharmaceutical, and technical.⁸ Most firms reported no changes in marketing or product since 2014; however, ***.⁹

Apparent U.S. consumption of GNA products increased during 2014-2016. Overall, apparent U.S. consumption in 2016 was *** percent higher than in 2014.

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¹ GNA and GDL are dry forms and LG and GA are liquids.

² Conference transcript, pp. 23-24 (Zinkhon).

³ Petition, exh. I-8.

⁴ Conference transcript, pp. 99-100 (Rainville).

⁵ Conference transcript, p. 35 (Zinkhon).

⁶ Conference transcript, p. 48 (Zinkhon).

⁷ Conference transcript, pp. 62-63 (Zinkhon). PMP's postconference brief, attach. A, p. 1.

⁸ JBL offers GNA and GA in food grade and technical grade, LG in technical grade only, and GDL in food grade, personal care grade, and pharmaceutical grade. JBL stated that the three non-technical grades are differentiated based on color and purity. JBL stated that two-thirds of its U.S. sales of GNA products are food grade. All of JBL's production of GNA products is certified non-GMO. Conference transcript, pp. 100-101 (Rainville). JBL's postconference brief, p. 2, 7. According to PMP, only a very small portion of the market for GNA products consists of customers that are concerned about GMO status. PMP's postconference brief, p. 17.

^{9 ***}

U.S. PURCHASERS

The top purchasers of GNA products include end users ***, and major chemical distributors ***. PMP's top purchasers for its U.S. produced GNA products were ***, which accounted for *** percent, and *** percent respectively of its 2016 sales. 10 JBL's largest purchasers in 2016 were ***. *** was the largest purchaser for the *** importers of GNA products from China (***).11

CHANNELS OF DISTRIBUTION

A majority of the sales of U.S. producer PMP, and importer of subject merchandise from France, JBL, were to end users (table II-1). Shipments of imports from China went almost exclusively to end users. The majority of shipments of imports from nonsubject countries were also to end users.

Table II-1

GNA products: U.S. producer's and importers' U.S. commercial shipments, by sources and channels of distribution, January 2014-September 2017

PMP stated at the staff conference that about 70 percent of its sales are to end users and about 30 percent through distributors. It stated that the large international global distributors may carry GNA products from multiple sources while smaller regional distributors tend to work with a single supplier. 12 PMP's smallest containers for liquid products are 55 pound drums, so distributors may do some repackaging into smaller containers for certain customers. 13

GEOGRAPHIC DISTRIBUTION

U.S. producer PMP and importer JBL reported selling GNA products to *** U.S. regions, and imports from China were reportedly sold in all contiguous U.S. regions (table II-2). U.S. producer PMP reported that *** percent of its sales were within 100 miles of its production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers sold 31 percent within 100 miles of their U.S. point of shipment, 63 percent between 101 and 1,000 miles, and 6 percent over 1,000 miles. 14

¹⁰ PMP's top purchasers for its sales of GDL imported from Italy were ***.

¹² Conference transcript, pp. 55-56 (Zinkhon).

¹³ Conference transcript, p. 56 (Zinkhon).

¹⁴ JBL sold *** percent within 100 miles of its U.S. point of shipment, *** percent between 101 and 1,000 miles, and *** percent over 1,000 miles.

Table II-2 GNA products: Geographic market areas in the United States served by U.S. producer and importers

		Subject U.S. importers		
Region	U.S. producer	China	France	
Northeast	***	1	***	
Midwest	***	3	***	
Southeast	***	1	***	
Central Southwest	***	2	***	
Mountains	***	1	***	
Pacific Coast	***	3	***	
Other ¹	***		***	
All regions (except other)	***		***	
Reporting firms	1	5	1	

¹ All other U.S. markets, including AK, HI, PR, and VI.

Source: Compiled from data submitted in response to Commission questionnaires.

SUPPLY AND DEMAND CONSIDERATIONS

U.S. supply

China is by far the world's largest producer of gluconates, accounting for *** worldwide production capacity, with the remainder of capacity in Europe and the United States. ¹⁵ One U.S. producer, two European producers (JBL in France and Roquette in Italy), and a larger number of Chinese producers supply GNA products to the U.S. market. ¹⁶ A summary of supply factors for U.S. and subject foreign producers are presented in table II-3.

Table II-3

GNA products: Factors that affect ability to increase shipments to the U.S. market, by country

Domestic production

Based on available information, U.S. producer PMP has the ability to respond to changes in demand with moderate-to-large changes in the quantity of shipments of U.S.-produced GNA products to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and inventories and some ability to shift

¹⁶ The petition listed 10 producers of GNA products in China. Petition, exh. I-4, p. 23. JBL states that there are approximately 40 producers of sodium gluconate in China. JBL's postconference brief, p. 6.

shipments from alternate markets, mitigated by an inability to shift production to or from alternate products.

Domestic capacity was stable, and capacity utilization increased during 2014-16. PMP's exports, as a percentage of total shipments, decreased slightly. The ratio of inventories to total shipments increased slightly. PMP reported that it also produces *** on the same equipment used to produce GNA products. These products accounted for about *** percent of PMP's total production on the same equipment during the period. PMP indicated it was *** to switch production between GNA products and these other products. PMP stated that its principal export markets are ***.

Subject imports from China¹⁸

Based on available information, Chinese producers of GNA products have the ability to respond to changes in demand with large changes in the quantity of shipments of GNA products to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of large amounts of unused capacity and the ability to shift shipments from alternate markets. No information was available regarding inventories or ability to shift production to or from alternate products.

Subject imports from France¹⁹

Based on available information, the sole French producer, JBL, has the ability to respond to changes in demand with moderate changes in the quantity of shipments of GNA products to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity, some inventories, and the ability to shift shipments from alternate markets.

JBL's capacity was stable during the period of investigation, and capacity utilization increased slightly. JBL also produces lactic acid and the sweetener Erythritol on separate production lines at its plant in France.²⁰ It reported that *** on the same equipment used to produce GNA products, ***.²¹ About *** percent of JBL's shipments went to third-country export markets. JBL identified the following other markets: ***. JBL's principal market is the EU, and it also sells to North Africa, the Middle East, and Asia.²²

Nonsubject imports

¹⁷ ***. Email from PMP's counsel to USITC staff, January 2, 2018.

²¹ JBL's postconference brief, p. 35.

¹⁸ No questionnaire responses were received from Chinese producers.

¹⁹ One producer in France, JBL, responded to the Commission's questionnaire. It accounts for all production of GNA products in France.

²⁰ JBL's postconference brief, p. 1.

²² Conference transcript, p. 102 (Rainville). JBL's postconference brief, p. 3.

Nonsubject imports accounted for 10 percent of total U.S. imports in 2016. Italy accounted for almost all nonsubject imports during January 2014-September 2017. Petitioner PMP imports GDL from Italy.²³

Supply constraints

PMP reported no supply constraints for its GNA products since January 1, 2014. Most importers (8 of 9) also reported no constraints in their ability to supply GNA products. One importer (***) reported supply issues with product from China during the fourth quarter of 2017 resulting from raw material shortages for sodium hydroxide and caustic soda beads, and from high demand in China.²⁴

U.S. demand

Based on available information, the overall demand for GNA products is likely to experience small changes in response to changes in price. The main contributing factors are the limited range of substitute products and the small cost share of GNA products in most of its end-use products.

End uses and cost share

U.S. demand for GNA products depends on the demand for U.S.-produced downstream products. End uses include concrete, food, personal care/household products, dishwasher detergent, and fertilizer. Industrial/institutional and construction were the largest end-use categories for GNA products in the U.S. market, followed by food and agriculture (see *Part IV*).

GNA products account for a small share of the cost of end-use products. *** reported cost shares for some end uses as follows: fertilizer (2 percent), concrete (5 percent), and soap and detergent (3 percent). 25 *** reported cost shares of 1 percent for supplements/personal care and food additives, and 2 percent for industrial/institutional uses.

Business cycles

PMP and most responding importers indicated that the GNA products market was not subject to business cycles. Two importers, ***, reported seasonality in the concrete market. They reported higher demand in the summer because of more construction activity and because a higher concentration of retarders is required to achieve the same retardation effect in warmer weather. One importer, ***, reported seasonality in the agricultural market. 26

25 ***

²³ Conference transcript, p. 44 (Zinkhon). ***.

^{24 ***}

 $^{^{26}}$ *** were to the agricultural market, with peak consumption from January to May.

Demand trends

According to PMP, the U.S. market for GNA products has experienced strong growth, at 6 percent annually, over the past 10 years, and is expected to continue to grow.²⁷ It stated that GNA products are used increasingly over other products because they are biodegradeable, biorenewable, and environmentally friendly. One area of increased demand is road de-icing.²⁸ Conversely, JBL stated that it has not seen much growth in demand for GNA products, although it stated that there is more potential growth for GDL than for other products.²⁹ Most importers reported that U.S. demand for GNA products since January 1, 2014 has not changed or has fluctuated (table II-4).

Table II-4
GNA products: Firms' responses regarding U.S. demand and demand outside the United States

	Number of firms reporting						
ltem	Increase	No change	Decrease	Fluctuate			
Demand inside the United States: U.S. producers	***	***	***	***			
Importers	1	4		4			
Demand outside the United States: U.S. producers	***	***	***	***			
Importers	1	4		4			

Source: Compiled from data submitted in response to Commission questionnaires.

*** reported no change in demand outside the United States, stating that the largest single use outside the United States is concrete admixture, and that overall construction trends have been flat, resulting in limited growth for GNA. It also stated that outside of the U.S. market relatively newer applications such as fertilizer and road de-icing have not widely utilized GNA.

Substitute products

Substitutes for GNA products are limited. *** and 6 of 8 responding importers reported that there were no substitutes for GNA products. Importer *** stated that lignosulfonates are a substitute in concrete. Importer *** stated that EDTA (ethylenediaminetetraacetic acid) and NTA (nitrilotriacetic acid) could be substituted for GNA products in industrial cleaners, and that citric, phosphoric, and lactic acids could be substituted in food. Both of these importers indicated that changes in prices of substitutes had not affected prices of GNA products.

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²⁷ Conference transcript, p. 27 (Zinkhon).

²⁸ Conference transcript, p. 29 (Zinkhon). In its questionnaire response, PMP reported that U.S. demand ***

²⁹ Conference transcript, p. 125 (Torres).

SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported GNA products depends upon such factors as relative prices, quality (e.g., grade standards, defect rates, etc.), and conditions of sale (e.g., price discounts/rebates, lead times between order and delivery dates, reliability of supply, product services, etc.). Based on available data, staff believes that there is moderate-to-high degree of substitutability between domestically produced GNA products and GNA products imported from subject sources.

Lead times

GNA products are primarily sold from inventory. PMP reported that *** sales were from inventory in 2016, with lead times averaging *** days. More than 90 percent of reported import sales were from U.S. inventories with average reported lead times of 4 days.

Factors affecting purchasing decisions

Purchasers responding to lost sales lost revenue allegations³⁰ were asked to identify the main purchasing factors their firm considered in their purchasing decisions for GNA products. The most often cited top three factors reported by these firms were quality (7 firms), price (7 firms), and availability (4 firms), as shown in table II-5. Quality was the most frequently cited first-most important factor (cited by 6 firms); availability was the most frequently reported second-most important factor (3 firms); and price was the most frequently reported third-most important factor (4 firms).

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³⁰ This information is compiled from responses by purchasers identified by the Petitioner to the lost sales lost revenue allegations. See Part V for additional information.

Table II-5
GNA products: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor

Factor	First	Second	Third	Total
Quality	6	0	1	7
Price	1	2	4	7
Availability (including local availability)	1	3	0	4
Delivery	1	1	0	2
Other ¹	0	3	2	5

¹ Other factors include particle size distribution, packaging, customer requirements, service, ease of planning and sourcing, and ability to secure business.

Source: Compiled from data submitted in response to Commission questionnaires.

When asked if any of their customers returned GNA products or canceled orders due to quality issues such as product impurities or caking issues, since January 1, 2014, *** and all but two importers responded no. Importer *** reported that in 2015, a customer was displeased with the pink color that resulted when the customer mixed gluconic acid with another ingredient, and this customer did not place future orders. Importer *** reported caking of *** pounds of Chinese sodium gluconate that was stored in an *** warehouse and that its customer would not accept the product. It stated that after this incident, it stopped storing sodium gluconate in the United States except in ***, which has lower humidity. 31

End users typically have a qualification process for GNA products; for food products and personal care products the qualification time can take 12 to 24 months. ³² JBL testified that qualification may be as short as one quarter to as long as 2 years, depending on whether the customer is replacing equivalent raw materials or developing new products or new formulas. ³³

Comparison of U.S.-produced and imported GNA products

In order to determine whether U.S.-produced GNA products can generally be used in the same applications as imports from China and France, U.S. producers and importers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-6, *** and most importers reported that GNA products from all sources were always interchangeable. One importer reported that GNA products from the United States and China, and from China and France were frequently interchangeable. One importer, *** reported that GNA products from those country pairs were sometimes interchangeable. It stated that some food industry customers will not use Chinese sodium gluconate regardless of its price because of concerns about proper food grade safety monitoring procedures in China, and that some distributors and customers in the metal cleaning industry will not use Chinese sodium gluconate because of past issues with caking.

³² Conference transcript, p. 61 (Zinkhon).

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³¹ It further stated that ***.

³³ Conference transcript, pp. 125-126 (Torres).

JBL stated that GNA products produced in France and the United States are generally interchangeable from a quality perspective except for some specific grades like pharmaceutical, but that GDL, which is produced by JBL but not by PMP, has unique properties which limit its interchangeability with other GNA products.³⁴ JBL stated that Chinese product is sold mostly for construction and metal treatment, and while it has some sales in those end-use markets, JBL prefers to sell in other, higher-priced markets.³⁵

Table II-6
GNA products: Interchangeability between GNA products produced in the United States and in other countries, by country pairs

	U.S. producers				U.S. importers			
Country pair	Α	F	S	N	Α	F	S	N
United States vs. China	***	***	***	***	4	1	1	
United States vs. France	***	***	***	***	4			
China vs. France	***	***	***	***	3	1	1	
United States vs. Other	***	***	***	***	4			
China vs. Other	***	***	***	***	3	1		
France vs. Other	***	***	***	***	4			

Note.—A=Always, F=Frequently, S=Sometimes, N=Never.

Source: Compiled from data submitted in response to Commission questionnaires.

In addition, firms were asked how often differences other than price were significant in sales of GNA products from the United States, subject, or nonsubject countries. As seen in table II-7, *** and almost all importers reported that differences other than price were sometimes or never significant in their sales of GNA products.

One importer, ***, stated that differences other than price were always significant. It stated that it only offers dry sodium gluonate but that U.S. customers in the concrete and construction industry use liquid sodium gluconate and refused to consider powder sodium gluconate that *** tried to offer them. It further stated it was unable to find a cost effective way to import liquid sodium gluconate from China or to make liquid sodium gluconate in the United States from powder sodium gluconate imported from China. In addition, it stated that some customers are unwilling to accept the lead times of 8 to 12 weeks required to ship the product from China, since *** no longer stores sodium gluconate in certain parts of the United States because of caking issues.

³⁴ Conference transcript, pp. 106-109 (Torres).

³⁵ However, JBL also stated that about 80 percent of its sales of sodium gluconate are for non-food uses, such as metal treatment, construction, cleaners, and detergents. Conference transcript, p. 128 (Torres).

Table II-7
GNA products: Significance of differences other than price between GNA products produced in the United States and in other countries, by country pairs

	U.S. producers				U.S. importers			
Country pair	Α	F	S	N	Α	F	S	N
United States vs. China	***	***	***	***	1		3	2
United States vs. France	***	***	***	***			1	3
China vs. France	***	***	***	***			2	2
United States vs. Other	***	***	***	***			1	3
China vs. Other	***	***	***	***			1	3
France vs. Other	***	***	***	***			1	3

Note.--A = Always, F = Frequently, S = Sometimes, N = Never.

Source: Compiled from data submitted in response to Commission questionnaires.

PART III: U.S. PRODUCER'S PRODUCTION, SHIPMENTS, AND EMPLOYMENT

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidies and/or dumping margins was presented in *Part I* of this report and information on the volume and pricing of imports of the subject merchandise is presented in *Part IV* and *Part V*. Information on the other factors specified is presented in this section and/or *Part VI* and (except as noted) is based on the questionnaire response of PMP Fermentation Products ("PMP") that accounted for all known U.S. production of GNA products during 2016.

U.S. PRODUCER

The Commission issued a U.S. producer questionnaire to one firm based on information contained in the petition. Petitioner PMP provided usable data on its productive operations. Staff believes that PMP's response represents all known U.S. production of GNA and GNA related products.

Table III-1 lists the U.S. producer of GNA products, its production locations, position on the petition, and shares of total production.

Table III-1
GNA Products: U.S. producer of GNA products, their position on the petition, production locations, and share of reported production, 2016

Firm	Position on petition	Production location(s)	Share of production (percent)
PMP	Support	Peoria, Illinois	100
Total			100

¹ PMP Fermentation Products. Inc. is ***.

Source: Compiled from data submitted in response to Commission questionnaires.

PMP Fermentation Products, Inc.

PMP, a wholly owned subsidiary of Fuso Chemical Co. Ltd. ("Fuso")¹, is the sole domestic producer of GNA and GNA related products.^{2 3} Headquartered in Peoria, Illinois, PMP acquired

III-1

¹ Fuso is a publicly traded company headquartered in Osaka, Japan that focuses on the production of life science products (fruit acids, including malic acid¹ and other food additives), electronics, and functional chemicals. Fuso is the largest producer in the world of malic acid based on market share. *Fuso Chemical Co., Ltd. webpage*, http://www.fusokk.co.jp/eng/corporateinfo/osaka.html, retrieved December 18, 2017.

² PMP Fermentation Products Inc. webpage, http://www.pmpinc.com/About/, retrieved December 18 2017

³ Conference transcript, p. 7 (Spooner).

its current production facility from Pabst Brewing Company in 1985 and began producing dry sodium gluconate at the facility in 1987. PMP was subsequently acquired by Fuso in 2003.

Table III-2 presents information on U.S. producer's ownership, related and/or affiliated firms of GNA products.

Table III-2

GNA Products: U.S. producer PMP's ownership, related and/or affiliated firms, 2016

* * * * * * * *

As indicated in table III-2, producer PMP is owned by Fuso, but not related to any foreign producers of the subject merchandise. FMP is not related to any U.S. importers of the subject merchandise. In addition, as discussed in greater detail below, PMP directly imported nonsubject merchandise from Italy, but did not import or purchase subject merchandise from U.S. importers during the period of investigations.

PMP was asked to report any changes in operations such as plant openings, plant closings, relocations, expansions, acquisitions, consolidations, prolonged shutdowns or production curtailments since January 1, 2014. Such changes are presented in table III-3.

Table III-3

GNA Products: U.S. producer PMP's reported changes in operations, since January 1, 2014

* * * * * * *

U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION

Table III-4 and figure III-1 present PMP's production, capacity, and capacity utilization. PMP's annual production capacity remained unchanged during 2014-16, while total production increased by *** percent, approximately *** dry pounds over the same period, and was *** percent higher in January to September 2017 relative to January to September 2016. PMP attributed the increase in production to ***. In addition to ***. PMP's capacity utilization rate for GNA products increased by *** percentage points from 2014-16, but remained unchanged from January to September 2016 relative to January to September 2017.

Table III-4

GNA products: U.S. producer PMP's capacity, production, and capacity utilization, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

⁴ Petition, p. 2.

⁵ PMP Fermentation Products Inc. webpage, http://www.pmpinc.com/About/, retrieved December 18, 2017.

⁶ *** ***, email message to USITC staff, December 28, 2017.

⁷ Conference transcript, pp. 27-28 (Zinkhon), pp. 57-58 (Zinkhon),

^{8 ***,} email message to USITC staff, January 2, 2018.

Figure III-1

GNA products: U.S. producer PMP's capacity, production, and capacity utilization, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

PMP's production is calculated ***. Petitioner PMP testified that to maintain efficient production of GNA products the firm uses a state-of-the-art continuous fermentation method. The Commission calculated the graduates to report an expectation of a specific to produce.

The Commission asked the producer to report on constraints on capacity to produce GNA products. PMP stated that the ***¹¹ are constraints that may limit production.

Alternative products

As shown in table III-5, GNA products accounted for *** percent of PMP's production on shared equipment during 2014-16. PMP reported producing out-of-scope products S-45 12 and *** 13

Table III-5

GNA products: U.S. producer PMP's overall capacity and production on the same equipment as subject production, 2014-16, January to September 2016, and January to September 2017

* * * * * * * *

U.S. PRODUCER'S U.S. SHIPMENTS AND EXPORTS

Table III-6 presents U.S. producers' U.S. shipments, export shipments, and total shipments. PMP's U.S. shipments, by quantity, increased by *** percent from 2014-16, while the value of PMP's U.S. shipments decreased by *** over the same period. The quantity and value of PMP's export shipments declined by *** percent and *** percent respectively from 2014-16. PMP ships *** of its GNA products domestically, with U.S. shipments accounting for between *** percent of total shipments from 2014-16, *** percent of total shipments from in January to September 2016 and *** percent of total shipments from in January to September 2017. PMP reported exporting shipments of GNA products to ***.

⁹ PMP's U.S. producer questionnaire response, section II-7.

¹⁰ Petition, Vol. I, p. 7; and conference transcript, pp. 36-37 (Zinkhon) and p. 86 (Zinkhon).

¹¹ PMP's U.S. producer questionnaire response, section II-3d.

¹² S-45 refers to mother liquor by-product produced during the fermentation process that is subsequently recycled into the feedstock and reused in production. S-45 is also sold generally to industrial end-users. Conference transcript, p. 45 (Zinkhon), p. 88 (Zinkhon).

¹³ ***. ***, email message to USITC staff, January 2, 2018.

Table III-6

GNA products: U.S. producer PMP's U.S. shipments, export shipments, and total shipments, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

Table III-7 presents PMP's U.S. shipments by market sector. The vast majority of PMP's U.S. shipments were made to the *** sectors.

Table III-7

GNA products: U.S. producer PMP's U.S. shipments by market sector, 2016

* * * * * * *

Table III-8 presents PMP's U.S. shipments by product type. Most of PMP's U.S. shipments were shipments of ***.

Table III-8

GNA products U.S. producer PMP's U.S. shipments by product type, 2016

* * * * * * * *

U.S. PRODUCER'S INVENTORIES

Table III-9 presents PMP's end-of-period inventories and the ratio of these inventories to PMP's production, U.S. shipments, and total shipments. PMP's end-of-period inventories increased by *** percent from 2014-16, but were *** percent lower during January to September 2017 relative to January to September 2016. Inventories relative to total shipments were *** percentage points *** in 2016 than in 2014, but were *** percentage points lower during January to September 2017 relative to January to September 2016.

Table III-9

GNA products: U.S. producer PMP's inventories, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

U.S. PRODUCER'S IMPORTS AND PURCHASES

PMP's imports of GNA products are presented in table III-10. PMP imported ***. PMP also imported ***. PMP, which does not produce and has no immediate plans to manufacture GDL, testified that it imports GDL from Italy through a relationship between its parent company, Fuso and Italian GDL producer Roquette.¹⁴

¹⁴ Conference transcript, p. 39 (Spooner), p. 41 (Niedermeier), p. 44 (Zinkhon), p. 93 (Zinkhon).

Table III-10

GNA products: U.S. producer PMP's direct imports, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-11 shows U.S. producers' employment-related data. The level of production related workers (PRWs) *** whereas the number of total hours worked, hours worked per PRW, and productivity *** from 2014-16. The level of PRWs, total hours worked, hours worked per PRW, and productivity *** in interim 2017 relative to interim 2016.

Table III-11

GNA products: U.S. producer PMP's employment related data, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

PART IV: U.S. IMPORTS, APPARENT U.S. CONSUMPTION, AND MARKET SHARES

U.S. IMPORTERS

The Commission issued importer questionnaires to 65 firms believed to be importers of subject GNA products, as well as to all U.S. producers of GNA products. Usable questionnaire responses were received from eight companies, representing 63.9 percent of U.S. imports from China and all U.S. imports from France in 2016 under HTS subheadings 2918.16.1000, 2918.16.5010, and 2932.20.5020. One firm indicated it did not import GNA products into the United States since January 1, 2014. Table IV-1 lists all responding U.S. importers of GNA products from China, France and other sources, their locations, and their shares of U.S. imports, in 2016.

Table IV-1 GNA products: U.S. importers by source, 2016

		Share of imports by source (percent)					
Firm	Headquarters	China	France	Subject sources	Nonsubject sources	All import sources	
Brenntag	Reading, PA	***	***	***	***	***	
International Materials Industries	New Orleans, LA	***	***	***	***	***	
JBL	Newton Centre, MA	***	***	***	***	***	
Kraft	Melrose Park, IL	***	***	***	***	***	
Norman Fox	Industry, CA	***	***	***	***	***	
PMP	Peoria, IL	***	***	***	***	***	
Valudor Products	San Diego, CA	***	***	***	***	***	
Vivion	San Carlos, CA	***	***	***	***	***	
Total		***	***	***	***	***	

Source: Compiled from data submitted in response to Commission questionnaires.

¹ The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of data provided by U.S. Customs and Border Protection ("Customs"), may have accounted for more than one percent of total imports under HTS subheading 2918.16.1000, 2918.16.5010, and 2932.20.5020 in 2016.

^{2 ***}

U.S. IMPORTS

Table IV-2 and figure IV-1 present data for U.S. imports of GNA products from China, France and all other sources. From 2014 to 2016, total U.S. imports decreased 4.6 percent by quantity and 15.7 percent by value. Subject imports decreased 6.3 percent by quantity, from 20.1 million dry pounds to 18.8 million dry pounds, and decreased 19.1 percent by value. U.S. imports of GNA products from France increased by 29.5 percent from 2014 to 2015, but then decreased by 22.8 percent from 2015 to 2016. U.S. imports from China saw a slight increase of 0.49 percent from 2014 to 2015, but then decreased by 12.4 percent from 2015 to 2016. ****. ****. ****. Nonsubject sources of U.S. imports of GNA products accounted for between 8.0 percent to 9.6 percent of total U.S. imports, by quantity, during 2014-16.

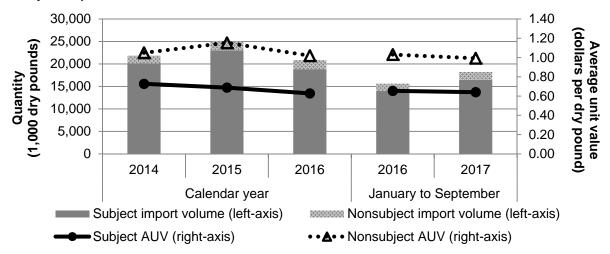
Table IV-2 GNA products: U.S. imports by source, 2014-16, January to September 2016, and January to September 2017

September 2017		Calendar year		January to	September
Item	2014	2015	2016	2016	2017
		Quan	tity (1,000 dry po	unds)	
U.S. imports from					
China	10,502	10,553	9,246	7,140	7,945
France	9,605	12,434	9,603	6,909	8,513
Subject sources	20,107	22,988	18,849	14,049	16,458
Nonsubject sources	1,750	2,060	2,004	1,581	1,771
All import sources	21,858	25,048	20,853	15,630	18,229
		Va	alue (1,000 dollar	s)	
U.S. imports from China	7,303	6,640	4,867	4,009	4,982
France	7,325	9,172	6,966	5,181	5,559
Subject sources	14,629	15,812	11,834	9,191	10,541
Nonsubject sources	1,836	2,374	2,043	1,630	1,758
All import sources	16,465	18,186	13,877	10,820	12,299
	<u></u>	Unit valu	ie (dollars per dr	/ pound)	
U.S. imports from			` '		
China	0.70	0.63	0.53	0.56	0.63
France	0.76	0.74	0.73	0.75	0.65
Subject sources	0.73	0.69	0.63	0.65	0.64
Nonsubject sources	1.05	1.15	1.02	1.03	0.99
All import sources	0.75	0.73	0.67	0.69	0.67
		Share	e of quantity (per	cent)	
U.S. imports from China	48.0	42.1	44.3	45.7	43.6
France	43.9	49.6	46.1	44.2	46.7
Subject sources	92.0	91.8	90.4	89.9	90.3
Nonsubject sources	8.0	8.2	9.6	10.1	9.7
All import sources	100.0	100.0	100.0	100.0	100.0
1	I	Sha	re of value (perce	ent)	
U.S. imports from				,	
China	44.4	36.5	35.1	37.1	40.5
France	44.5	50.4	50.2	47.9	45.2
Subject sources	88.8	86.9	85.3	84.9	85.7
Nonsubject sources	11.2	13.1	14.7	15.1	14.3
All import sources	100.0	100.0	100.0	100.0	100.0
		Rati	o to U.S. product	ion	
U.S. imports from China	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
<u> </u>					

Notes: 50 percent of HTS 2918.16.1000 was used as a conversion rate from liquid to dry weight. Numbers may not add due to rounding.

Source: Official U.S. import statistics using HTS statistical reporting numbers 2918.16.5010, 2932.20.5020 and 2918.16.1000,* accessed December 20, 2017.

Figure IV-1 GNA products: U.S. import volumes and prices, 2014-16, January to September 2016, and January to September 2017



Source: Official U.S. import statistics using HTS statistical reporting numbers 2918.16.5010, 2932.20.5020 and 50 percent of 2918.16.1000, accessed December 1, 2017.

NEGLIGIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible. Negligible imports are generally defined in the Tariff Act of 1930, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible. From November 2016 to October 2017, the most recent 12-month period preceding these investigations, imports from each subject country accounted for more than 7 percent of the volume of all such merchandise imported into the United States. According to official import statistics, imports from China accounted for 43.9 percent of total imports and imports from France accounted for 46.1 percent by quantity during November 2016-October 2017.

³ Sections 703(a)(1), 705(b)(1), 733(a)(1), and 735(b)(1) of the Act (19 U.S.C. §§ 1671b(a)(1), 1671d(b)(1), 1673b(a)(1), and 1673d(b)(1)).

⁴ Section 771 (24) of the Act (19 U.S.C § 1677(24)).

Table IV-3
GNA products: U.S. imports in the negligibility period, by source, November 2016 through October 2017

O010001 2011							
	November 2016 through October 2017						
Item	Quantity (1,000 dry pounds)	Share of quantity (percent)					
U.S. imports from China	10,248	43.9					
France	10,742	46.1					
Subject sources	20,990	90.0					
Nonsubject sources	2,333	10.0					
All import sources	23,323	100.0					

Notes: 50 percent of HTS 2918.16.1000 was use to convert liquid to dry weight. Numbers may not add due to rounding.

Source: Official U.S. import statistics using HTS statistical reporting numbers 2918.16.5010, 2932.20.5020 and 2918.16.1000,* accessed December 20, 2017.

CUMULATION CONSIDERATIONS

In assessing whether imports should be cumulated, the Commission determines whether U.S. imports from the subject countries compete with each other and with the domestic like product and has generally considered four factors: (1) fungibility, (2) presence of sales or offers to sell in the same geographical markets, (3) common or similar channels of distribution, and (4) simultaneous presence in the market. Information regarding channels of distribution, market areas, and interchangeability appear in Part II. Additional information concerning fungibility, geographical markets, and simultaneous presence in the market is presented below.

Fungibility

Table IV-4 presents data on the U.S. producer's and U.S. importers' U.S. shipments of GNA products by end use. U.S. shipments of imports from China were concentrated in the agriculture sector, (*** percent) and U.S. shipments of imports from France were concentrated in the food sector (*** percent). China accounted for *** percent of all U.S. shipments, by quantity, of GNA products for agricultural end uses and France accounted for *** percent. France accounted for *** percent of all U.S. shipments for food end uses in the United States, China accounted for *** percent, and U.S. shipments from nonsubject countries accounted for *** percent.

Table IV-4

GNA products: U.S. producers' and U.S. importers' U.S. shipments by end use, 2016

* * * * * * * *

Table IV-5 presents data on U.S. shipments of GNA by product type. China accounted for *** percent of total U.S. shipments of sodium gluconate and France accounted for *** percent. U.S. importers did not import gluconic acid from China. France accounted for *** percent of total U.S. shipments of gluconic acid. China accounted for *** percent of total U.S. shipments of glucono delta lactone ("GDL"), France accounted for *** percent, and nonsubject countries accounted for *** percent. France accounted for *** percent of total U.S. shipments of liquid gluconate. There were no reported imports of liquid gluconate from China.

Table IV-5

GNA products: U.S. producers' and U.S. importers' U.S. shipments by product type, 2016

* * * * * * *

Figure IV-2

GNA products: U.S. importers U.S. shipments by market sector, 2016

* * * * * * *

Geographical markets

GNA products produced in the United States are shipped nationwide. Table IV-6 presents data on U.S. import quantities of GNA products by source and border of entry in 2016. In 2016, the majority of U.S. imports of GNA products from China, 65.3 percent, entered the United States through U.S. ports located in the western coast. Of the U.S. imports of GNA products entering the United States from U.S. ports located on the western coast, 78.5 percent come from China, 18.5 percent come from France, and 3.1 percent come from nonsubject countries. A majority of U.S. imports of GNA products from France, 52.5 percent, enter the United States through U.S. ports located in the north. Of the U.S. imports of GNA products entering the United States from U.S. ports located in the north, 66.6 percent come from France, 11.5 percent come from China, and 21.9 percent come from nonsubject countries.

Presence in the market

Subject U.S. imports of GNA products from China and France were present in each month from January 2014 to September 2017. The volume of U.S. imports from China peaked in April 2015. The volume of U.S. imports from France peaked in August 2015. Table IV-7 presents data on U.S. imports of GNA products on a monthly basis from January 2014 through September 2017.

Table IV-6
GNA products: U.S. imports, by source and by border of entry, 2016

C.I. productor G.O.	Border of entry						
Item	East	North	South	West	Total		
	Quantity (1,000 dry pounds)						
U.S. imports from							
China	1,843	868	499	6,036	9,246		
France	2,498	5,038	646	1,421	9,603		
Subject sources	4,342	5,907	1,144	7,456	18,849		
Germany	5		35		41		
Italy	13	1,636	6	225	1,879		
Netherlands	7				7		
Taiwan				13	13		
United Kingdom	1	2	1		4		
Nonsubject sources	67	1,657	42	238	2,004		
All import sources	4,409	7,564	1,186	7,694	20,853		
		Sha	re across (perc	ent)			
U.S. imports from							
China	19.9	9.4	5.4	65.3	100.0		
France	26.0	52.5	6.7	14.8	100.0		
Subject sources	23.0	31.3	6.1	39.6	100.0		
Germany	12.2		85.4		100.0		
Italy	0.7	87.1	0.3	12.0	100.0		
Netherlands	100.0				100.0		
Taiwan				100.0	100.0		
United Kingdom	25.0	50.0	25.0		100.0		
Nonsubject sources	3.3	82.7	2.1	11.9	100.0		
All import sources	21.1	36.3	5.7	36.9	100.0		
		Sha	are down (perce	ent)			
U.S. imports from							
China	41.8	11.5	42.1	78.5	44.3		
France	56.7	66.6	54.5	18.5	46.1		
Subject sources	98.5	78.1	96.5	96.9	90.4		
Germany	0.1		3.0		0.2		
Italy	0.3	21.6	0.5	2.9	9.0		
Netherlands	0.2				0.0		
Taiwan				0.2	0.1		
United Kingdom	0.0	0.0	0.1		0.0		
Nonsubject sources	1.5	21.9	3.5	3.1	9.6		
All import sources	100.0	100.0	100.0	100.0	100.0		

Notes: 50 percent of HTS 2918.16.1000 was use to convert liquid to dry weight. Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Numbers may not add due to rounding.

Source: Official U.S. import statistics using HTS statistical reporting numbers 2918.16.5010, 2932.20.5020 and 50 percent of 2918.16.1000,* accessed December 20, 2017.

Table IV-7
GNA products: Monthly U.S. imports, January 2014 through September 2017

	Calendar year					
ltem	2014	2015	2016	2017		
U.S. imports from China	CHINA					
January	1,206	100	1,669	924		
February	1,339	502	433	546		
March	1,631	2,334	558	855		
April	2,012	2,363	722	697		
May	910	1,842	947	804		
June	305	373	567	578		
July	522	346	762	1,597		
August	529	322	137	478		
September	262	552	1,345	1,467		
October	596	101	742			
November	560	616	814			
December	629	1,102	550			
U.S. imports from France		FRAI	NCE			
January	879	785	427	898		
February	697	951	874	887		
March	659	1,384	705	728		
April	1,046	926	278	791		
May	714	850	506	1,654		
June	643	430	1,380	992		
July	1,090	1,121	824	982		
August	899	1,435	1,005	940		
September	697	980	911	643		
October	473	1,370	1,052			
November	1,041	947	1,014			
December	768	1,255	628			
U.S. imports from subject sources	SUBJECT SOURCES					
January	2,085	885	2,096	1,822		
February	2,036	1,453	1,307	1,432		
March	2,290	3,717	1,262	1,582		
April	3,058	3,289	1,000	1,488		
May	1,624	2,692	1,452	2,457		
June	948	802	1,947	1,571		
July	1,612	1,468	1,586	2,579		
August	1,428	1,757	1,142	1,417		
September	959	1,532	2,256	2,109		
October	1,069	1,472	1,793			
November	1,601	1,563	1,828			
December	1,397	2,358	1,179			

Table continued on the next page.

Table IV-7—Continued

GNA products: Monthly U.S. imports, January 2014 through September 2017

	Calendar year					
Item	2014	2015	2016	2017		
	Quantity (1,000 dry pounds)					
U.S. imports from nonsubject sources	NONSUBJECT SOURCES					
January		272	84	47		
February	226	419	420	4		
March	383	6	7	2		
April	104	1	82	580		
May	258	335	75			
June	188	335	482	299		
July	339	77	2	330		
August	32	292	203	103		
September	23	22	227	407		
October	42	8	80			
November	62	1	172			
December	93	292	170			
U.S. imports from all sources	ALL IMPORT SOURCES					
January	2,085	1,157	2,180	1,869		
February	2,262	1,872	1,727	1,437		
March	2,673	3,724	1,269	1,584		
April	3,162	3,290	1,082	2,067		
May	1,883	3,027	1,527	2,457		
June	1,136	1,138	2,429	1,870		
July	1,951	1,545	1,588	2,909		
August	1,460	2,049	1,345	1,520		
September	982	1,554	2,483	2,516		
October	1,111	1,480	1,874			
November	1,664	1,564	2,001			
December	1,489	2,650	1,348			

Notes: 50 percent of HTS 2918.16.1000 was use to convert liquid to dry weight.

Source: Official U.S. import statistics using HTS statistical reporting numbers 2918.16.5010, 2932.20.5020 and 50 percent of 2918.16.1000,* accessed December 20, 2017.

APPARENT U.S. CONSUMPTION

Table IV-8 presents data on apparent U.S. consumption and U.S. market shares for GNA products. Apparent U.S. consumption increased from *** dry pounds to *** dry pounds from 2014 to 2015, an increase of *** percent. Apparent U.S. consumption decreased from *** dry pounds to *** dry pounds from 2015 to 2016, a decrease of *** percent. Apparent U.S. consumption was *** percent higher January-September 2017 than January-September 2016.

Table IV-8
GNA products: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, 2014-16, January to September 2016, and January to September 2017

	Calendar year			January to September		
Item	2014	2015	2016	2016	2017	
	Quantity (1,000 dry pounds)					
U.S. producers' U.S. shipments	***	***	***	***	***	
U.S. imports from						
China	10,502	10,553	9,246	7,140	7,945	
France	9,605	12,434	9,603	6,909	8,513	
Subject sources	20,107	22,988	18,849	14,049	16,458	
Nonsubject sources	1,750	2,060	2,004	1,581	1,771	
All import sources	21,858	25,048	20,853	15,630	18,229	
Apparent U.S. consumption	***	***	***	***	***	
	Value (1,000 dollars)					
U.S. producers' U.S. shipments	***	***	***	***	***	
U.S. imports from						
China	7,303	6,640	4,867	4,009	4,982	
France	7,325	9,172	6,966	5,181	5,559	
Subject sources	14,629	15,812	11,834	9,191	10,541	
Nonsubject sources	1,836	2,374	2,043	1,630	1,758	
All import sources	16,465	18,186	13,877	10,820	12,299	
Apparent U.S. consumption	***	***	***	***	***	

Note.--50 percent of HTS 2918.16.1000 was use to convert liquid to dry weight.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics using HTS statistical reporting numbers 2918.16.5010, 2932.20.5020 and 50 percent of 2918.16.1000,* accessed December 20, 2017.

Figure IV-3

GNA products: Apparent U.S. consumption, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

U.S. MARKET SHARES

U.S. market share data are presented in table IV-9. The U.S. producer's share of the domestic market, by quantity, increased by *** percentage points from 2014 to 2016. It was *** percentage points lower in January-September 2017 than January-September 2016. Subject imports' share of the U.S. market decreased by *** percentage points from 2014 to 2016. It was *** percentage points higher in January-September 2017 than in January-September 2016. ***

Table IV-9

GNA product: U.S. consumption and market shares, 2014-16, January through September 2016, and January through September 2017

* * * * * * *

PART V: PRICING DATA

FACTORS AFFECTING PRICES

Raw material costs

GNA products are derived from corn-based liquid glucose, and can be converted to other GNA products with the addition or removal of water and/or sodium hydroxide. U.S. producer PMP's ratio of raw materials to total cost of goods sold increased from *** percent in 2014 to *** percent in 2016, while its unit raw material costs fluctuated somewhat over the same period. PMP stated that corn (specifically "liquid corn sugar") accounts for nearly *** percent of the total cost of GNA products, and is purchased at prices negotiated in sales contracts with suppliers on an annual basis. PMP also purchases sodium hydroxide through annual contracts, in which prices are capped within a certain range to both reflect sodium hydroxide price movements throughout the year and to protect it from price volatility. PMP stated that raw materials costs increased over the period, citing increases in the 2017 price of liquid corn sugar in particular, but reported that these price increases did not impact prices of its GNA products. Between January 2014 and September 2017, the price of glucose syrup (i.e. liquid corn sugar) increased by almost 40 percent (figure V-1).

¹ PMP's postconference brief, p. 1.

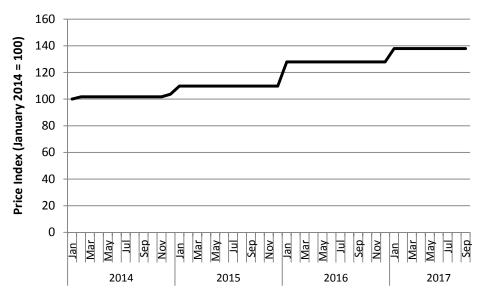
² Conference transcript p. 70 (Zinkhon).

³ Conference transcript p. 71 (Niedermeier).

⁴ Conference transcript p. 67 (Niedermeier).

⁵ Conference transcript p. 36 (Zinkhon).

Figure V-1 U.S. wholesale list price index for glucose syrup, Midwest markets, monthly, January 2014-September 2017



Source: Sugar and Sweeteners Yearbook Tables, ERS, USDA.

Seven of 9 importers reported that raw materials prices either increased or remained unchanged since 2014. *** stated that the cost of corn represents around 60 percent of the variable cost of GNA products. *** reported that the prices of both corn and sodium hydroxide have increased since 2014, and that European sodium hydroxide producers have increased costs as a result of changes to European environmental laws. Another importer, ***, reported that environmental regulation in China has impacted the production of sodium hydroxide, causing a shortage of the product and increasing its price.

U.S. inland transportation costs

*** 6 of 7 responding importers reported that they typically arrange transportation to their customers. *** reported that its U.S. inland transportation costs were about *** percent. Four importers reported costs between 2 and 6 percent, and two (***) reported costs of 20 percent.

PRICING PRACTICES

Pricing methods

*** importers reported using transaction-by-transaction negotiations, contracts and price lists. As presented in table V-1, *** responding importers sell on a transaction-by-transaction negotiation basis, while some firms also use contracts or set price lists.

Table V-1

GNA products: U.S. producers' and importers' reported price setting methods, by number of responding firms¹

*** importers reported selling GNA products primarily using annual contracts, but also using spot sales (table V-2).

Table V-2

GNA products: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2016

Two importers reported fixing price and quantity in their annual contracts. *** reported fixing prices in its annual contracts as well as renegotiating price during annual contract periods.6

Purchasers provided a general description of their firms' method of purchase for GNA products. *** primarily receives bids annually for the next year's volume, and *** receives annual and quarterly pricing offers. Six of the 9 responding purchasers *** reported using individual purchase orders for GNA products. ***.

Sales terms and discounts

PMP and 3 of the 7 responding importers typically quote prices on an f.o.b. basis, and 4 importers quote prices on a delivered basis. *** 7 of the 9 responding importers had no discount policy for GNA products. PMP reported sales terms of ***. Of the 9 responding importers, five reported sales terms of net 30 days, two of net 60 days, one of net 45 days, and one of net 120 days.

PRICE DATA

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following sodium gluconate products⁷ shipped to unrelated U.S. customers during January 2014-September 2017.

^{6 ***}

⁷ Pricing data were requested only for GNA. Pricing data were not collected for GDL, liquid gluconate, or gluconic acid. Some firms, such as ***, produce a variety of grades for different applications. JBL's postconference brief, p. 7. GDL is typically priced higher than other GNA products because of the additional steps in its production process. Conference transcript pp. 41-42 (Spooner); PMP's postconference brief, Attachment M.3, ***.

The differences in the two pricing products are in the denominations of packaging, which is driven by customer preference for larger quantities, rather than the availability of volume discounts or the packaging requirements for particular types of GNA products. ***. Conference transcript p. 131 (Torres); PMP's postconference brief, Attachment M.3, ***.

Product 1.-- Sodium gluconate in 50 lb. to 60 lb. bag.

Product 2.-- Sodium gluconate in 2,000 lb. to 2,500 lb. bag.

*** 5 importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters. Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' commercial shipments of GNA products, 99 percent of reported U.S. commercial shipments of subject imports from China, and *** percent of U.S. commercial shipments of subject imports from France in 2016. Price data for products 1 and 2 are presented in tables V-3 to V-4 and figures V-2 to V-3.

Table V-3
Sodium gluconate: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by quarters, January 2014-September 2017

* * * * * * * *

⁸ Per-unit pricing data are calculated from total quantity and total value data provided by U.S. producers and importers. The precision and variation of these figures may be affected by rounding, limited quantities, and producer or importer estimates.

⁹ The differing coverage levels reflect the differing shares of shipments from each source that were comprised of sodium gluconate versus other GNA products. Imports from China were almost exclusively sodium gluconate, whereas a relatively large share (***) of imports from France were of GDL. JBL's postconference brief, p. 2; Conference transcript pp. 101-102 (Rainville).

Table V-4

Sodium gluconate: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by quarters, January 2014-September 2017

* * * * * * *

Figure V-2

Sodium gluconate: Weighted-average prices and quantities of domestic and imported product 1, by quarters, January 2014-September 2017

* * * * * * *

Figure V-3

Sodium gluconate: Weighted-average prices and quantities of domestic and imported product 2, by quarters, January 2014-September 2017

* * * * * * *

Price trends

In general, sodium gluconate prices decreased during January 2014-September 2017. Table V-5 summarizes the price trends, by country and by product. As shown in the table, domestic price decreases ranged from *** percent during January 2014-September 2017, Chinese import price decreases ranged from *** percent, and French import price decreases ranged from *** percent.

Table V-5

Sodium gluconate: Summary of weighted-average f.o.b. prices for products 1-2 from the United States, China, and France

* * * * * * *

Price comparisons

As shown in table V-6, prices for sodium gluconate imported from China were below those for U.S.-produced product in *** instances (*** pounds); margins of underselling ranged from *** percent. In the remaining instance (*** pounds), prices for product from China were *** percent above prices for the domestic product.

Prices for sodium gluconate imported from France were below those for U.S.-produced product in *** instances (*** pounds); margins of underselling ranged from *** percent. ¹⁰ In the remaining *** instances (*** pounds), prices for product from France were between *** percent above prices for the domestic product.

 $^{^{10}}$ *** quarters of underselling were for product 2. ***.

Table V-6

Sodium gluconate: Instances of underselling/overselling and the range and average of margins, by country, January 2014-September 2017

* * * * * * * *

LOST SALES AND LOST REVENUE

Petitioner PMP reported that it had to reduce prices and roll back announced price increases, and that it had lost sales. ¹¹ It submitted lost sales and lost revenue allegations, identifying *** firms where it lost sales or revenue (*** consisting of lost revenue allegations, and *** consisting of both lost sales and lost revenues allegations). ¹² All allegations involved sodium gluconate and no other GNA products. ***. ¹³

Staff contacted 15 purchasers and received responses from 9 purchasers. Responding purchasers reported purchasing and importing 93.5 million dry pounds of GNA products during January 2014-September 2017 (table V-7).

During 2016, responding purchasers purchased and imported 62.9 percent from U.S. producers, 23.7 percent from China, 12.6 percent from France, 0.0 percent from nonsubject countries, and 0.7 percent from unknown sources. Of the 8 responding purchasers, 4 reported decreasing purchases from domestic producers, 1 reported increasing purchases, 2 reported no change, and 3 reported fluctuating purchases. Explanations for decreasing purchases of domestic product included better prices from foreign imports, price increases of the domestic product, declining overall sales by the purchaser, and losing clients/market share in the food grade sodium gluconate sector.

Of the 8 responding purchasers, 5 reported that, since 2014, they had purchased imported GNA products from China instead of U.S.-produced product. Of the 9 responding purchasers, 4 reported that they had purchased GNA products from France instead of purchasing U.S.-produced product. Five of these purchasers reported that prices of Chinese product were lower than those of U.S.-produced product, and three purchasers reported that prices of French product were lower than those of U.S. produced product. Five of these purchasers reported that price was a primary reason for the decision to purchase Chinese product rather than U.S.-produced product, and three purchasers reported the same for purchasing French product over U.S.-produced product. Five purchasers estimated the quantity

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¹¹ Conference transcript, p. 19 (Niedermeier).

¹² PMP also cites potential additional lost volume *** of sodium gluconate from their customer ***. PMP's postconference brief, p. 35 and p. 43. Allegations involving this firm were not included in the Lost Sales Lost Revenue worksheet submitted by the petitioner.

¹³ In its postconference brief, the petitioner stated that it had erroneously reported allegations of lost sales and lost revenues involving *** due to competition from Chinese imports, reporting that this firm did not purchase sodium gluconate from China. PMP's postconference brief, Attachment A, p. 9.

¹⁴ Of the 8 responding purchasers, 1 purchaser indicated that it did not know the source of the sodium gluconate it purchased.

of GNA products from China purchased instead of domestic product; quantities ranged from *** dry pounds to *** dry pounds (table V-8). Purchasers did not identify any non-price reasons for purchasing product from China. Three purchasers estimated the quantity of GNA products from France purchased instead of domestic product; quantities ranged from *** dry pounds to *** dry pounds. Purchasers identified product specifications including particle size and packaging as non-price reasons for purchasing imported French product rather than U.S.-produced product.

In general, purchasers described quality, availability, customer specifications, timing, ease of delivery, sourcing, and reliability of supply as non-price factors they consider in making GNA product sourcing decisions.

Of the 7 responding purchasers, three reported that U.S. producers had reduced prices in order to compete with lower-priced imports from China, and one reported that the U.S. producer had reduced prices to compete with lower-priced imports from France (table V-9; two reported that they did not know regarding competition with imports from China, and five reported that they did not know regarding competition with imports from France). The reported estimated price reductions ranged from *** percent for imports from China, and *** percent for imports from France. In describing the price reductions, two purchasers indicated that they had made use of price information from outside sources to provide feedback to suppliers and negotiate for more competitive prices with the U.S. producer.

Table V-7			
GNA products: Purchasers'	responses to	purchasing	patterns

* * * * * * * *

Table V-8

GNA products: Purchasers' responses to purchasing subject imports instead of domestic product

* * * * * * *

Table V-9 GNA products: Purchasers' responses to U.S. producer price reductions

* * * * * * *

PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

BACKGROUND

The sole U.S. producer, PMP, reported its financial results on U.S. GNA products operations.^{1 2} As supplemental information to its U.S. producer questionnaire, PMP also submitted financial results specific to sodium gluconate, the largest product in the group making up GNA products.³ As presented in this report, PMP's financial results reflect all GNA products reported to the Commission in its U.S. producer questionnaire.

With respect to operational changes/disruptions during the period, PMP's overall days in production declined from *** in 2014 to *** in 2016. 4 As noted in Part III, the company also reported that it ***.

OPERATIONS ON GNA PRODUCTS

Table VI-1 and table VI-2 present income-and-loss data for PMP's GNA products operations and corresponding changes in average unit values, respectively. Table VI-3 presents a separate variance analysis of GNA products financial results.⁵

¹ PMP reported its financial results on the basis of generally accepted accounting principles (GAAP). While PMP's fiscal year ends March 31, the annual financial results reported to the Commission reflect calendar-year periods.

² PMP's parent company, FUSO Chemical Co., Ltd, is a publicly traded multinational company headquartered in Osaka, Japan. PMP's operations are included in the parent company's Life Science segment. Reuters' description of Fuso Chemical Co. retrieved December 20, 2017 at https://www.reuters.com/finance/stocks/company-profile/4368.T.

³ December 14, 2017 letter with attachments from Counsel on behalf of PMP, Table A-2. With regard to the relevance of the stand-alone sodium gluconate financial results, PMP noted that it "... would not be in a position to supply the other GNA Products were it not for the viable production of sodium gluconate. Given this relationship, it is therefore appropriate to rely not only on the injury indicia for GNA Products as a whole, but to also rely heavily on the injury indicia for sodium gluconate." PMP's postconference brief, p. 32.

⁴ PMP's postconference brief (Attachment A), p. 12. A PMP company official stated "The industry standard is maximum 320 days of full production, so you leave 45 aside for maintenance and scheduled repairs. The boiler has to be inspected annually, things like that. To run it safely and properly, a facility like ours, it's 320 days is maximum. If we hadn't suffered the injuries that we had already suffered, we would be at like 319.2 days of production." Conference transcript, p. 76 (Zinkhon). ***. As described by another PMP company official, ". . . any extended down time that we have, we plan. We always plan our production around sales budget. But sometimes we have to do maintenance. Maybe we're going to install a new piece of equipment to upgrade the process, so then we'll schedule that down time. We generally don't have much down time due to lower demand or something. We keep our employees working . . . most of the extended down time that we have is due to maintenance or capital projects and things like that." Conference transcript, p. 75 (Niedermeier).

Table VI-1

GNA products: Results of operations of U.S. producer, 2014-16, January-September 2016, and January-September 2017

Table VI-2

GNA products: Changes in average dry value per 1,000 pound values, 2014-16, January-September 2016, January-September 2017

Table VI-3

GNA products: Variance analysis of U.S. producer's financial results, 2014-16, January-September 2016, January-September 2017

Revenue

The majority of GNA products revenue was classified as commercial sales (*** percent of total sales quantity) with the remaining *** percent classified as export transfers.

Volume

PMP's full-year sales volume increased throughout the period but at somewhat different magnitudes: (*** percent) from 2014-15 versus *** percent from 2015-16. Interim 2017 total sales volume was *** percent higher compared to interim 2016.

Value

Notwithstanding the overall increase in total GNA products sales volume, total sales value declined during the full-year period in conjunction with lower average sales value. In

^{(...}continued)

⁵ The Commission's variance analysis is calculated in three parts: sales variance, cost of goods sold (COGS) variance, and SG&A expenses variance. Each part consists of a price variance (in the case of the sales variance) or a cost or expense variance (in the case of the COGS and SG&A expenses variance), and a volume variance. The sales or cost/expense variance is calculated as the change in unit price or perunit cost/expense times the new volume, while the volume variance is calculated as the change in volume times the old unit price or per-unit cost/expense. As summarized at the bottom of table VI-3, the price variance is from sales, the cost/expense variance is the sum of those items from the COGS and SG&A variances, respectively, and the volume variance is the sum of the volume components of the net sales, COGS, and SG&A expenses variances. In general, the utility of the Commission's variance analysis is enhanced when product mix remains the same throughout the period. ***. USITC auditor preliminary-phase notes.

contrast, interim 2017 total sales value was higher compared to interim 2016 due to a combination of higher average sales value and higher total volume. While average sales value was directionally correlated with average raw material cost during parts of the period (see table VI-2), sales/pricing of GNA products does not include a pass-through of raw material costs.

Cost of goods sold and gross profit or loss

Raw materials

Total raw material cost was the largest single component of COGS, ranging from a full-year low of *** percent of total COGS in 2014 to a high of *** percent in 2016 (see table VI-1). To the extent that average unit raw material costs fluctuated during the full-year period, the relative increase in the share of raw material cost to total COGS generally reflects declines in corresponding average conversion costs (combined direct labor and other factory costs).

The majority of raw material costs reflects liquid corn syrup at *** percent of total 2016 raw material costs. Sodium hydroxide is the largest other raw material input at *** percent of total 2016 raw material costs. PMP purchases corn syrup from a small number of suppliers with prices established for annual periods. In part, the extent to which wet millers choose to produce different products in order to maximize profits is reportedly a factor in corn syrup supply and corresponding corn syrup prices. Sodium hydroxide prices are also negotiated for annual periods, with ceiling and floor caps, and were described as dynamic. 9

As shown in table VI-1, raw material cost on an average basis declined in 2015, increased by a somewhat smaller amount in 2016, and then was higher in interim 2017 compared to interim 2016.

Direct labor and other factory costs

The second largest share of GNA products COGS is other factory costs, which declined from *** percent of total COGS in 2014 to *** percent in 2016 (see table VI-1). Direct labor remained within a narrower range as a share of COGS and was at its lowest level in interim 2017 (*** percent) and its highest level in full-year 2016 (*** percent). While PMP's cost structure was generally described as "low fixed cost" at the staff conference, ¹⁰ the company's postconference brief also noted that GNA operations reflect a "high fixed cost, capital intensive industry" in which there is "strong incentive to maximize capacity utilization." It was also noted

VI-3

⁶ As shown in table VI-1, average commercial sales value and average transfer value followed the same directional trend from 2014-15 and then diverged for the rest of the period. ***. PMP's postconference brief (Attachment A), pp. 10-11.

⁷ As described by a PMP company official, in the past ". . . the formula was when the cost went up, we raised the price, and when the cost went down we lowered price. But unfortunately during the POI, we can't do that." Conference transcript, pp. 69-70 (Zinkohn).

⁸ PMP U.S. producer questionnaire, response to III-9d.

⁹ Conference transcript, pp. 67-68 (Niedermeier). Conference transcript, p. 70 (Zinkhon). Conference transcript, pp. 71-72 (Niedermeier).

¹⁰ Conference transcript (Zinkhon), p. 82.

in the postconference brief that it is "difficult to engage in incremental capacity expansion or contraction." 11

Table VI-1 shows that other factory costs on an average unit basis declined during the full-year period and were higher in interim 2017 compared to interim 2016. With regard to this pattern, PMP noted "... the driving factors for the fluctuations are ***. 12 Largely due to higher average other factory costs in interim 2017 compared to interim 2016, the share of conversion costs (combined other factory costs and direct labor) increased to its highest level of the period (*** percent of total COGS) in interim 2017.

Byproducts

PMP identified other products produced in conjunction with GNA products. 13 ***. 14

Cost of goods sold

In conjunction with the above changes in GNA products raw material costs and conversion costs, COGS on an average unit basis declined irregularly during 2014-16 and then was higher in interim 2017 compared to interim 2016.

Gross profit

PMP's total GNA products gross profit and gross profit ratio (total gross profit divided by total revenue) increased to their highest levels in 2015, declined in 2016, and were lower in interim 2017 compared to interim 2016. Table VI-2 shows that the decline in average sales value in 2015 was more than offset by the larger decline in corresponding average COGS, which yielded an increase in gross profit on an average unit basis. In 2016, the continued decline in average sales value was negatively amplified by an increase in average COGS, which yielded a decline in gross profit on an average unit basis. At the end of the period, the higher average sales value in interim 2017 compared to interim 2016 was more than offset by higher average COGS, which yielded the period's lowest average unit gross profit and gross profit ratio.

¹¹ PMP's postconference brief, pp. 15-16. To the extent that fixed costs are present in COGS, the majority would typically be reflected in direct labor and other factory costs.

¹² PMP's postconference brief (Attachment A), p. 14.

¹³ ***. PMP U.S. producer questionnaire, response to III-5. S-45 was described as "mother liquor" that can no longer be recycled back into the production process and is sold to the concrete admixture industry. Conference transcript, pp. 73-74 (Zinkhon).

¹⁴ PMP U.S. producer questionnaire, response to III-9b. ***. PMP's postconference brief (Attachment A), p. 15.

In general, the distinction between joint products, also called main products, and byproducts is largely dependent on the market value of the products in question and their contribution to overall revenue. As such, a product's designation as a byproduct or a main product can change over time given market conditions. For cost accounting purposes, the market value of a byproduct is generally treated as a deduction to arrive at the cost of the main product. Cost Accounting: Using a Cost Management Approach, L. Gayle Rayburn, Irwin, 1993, pp. 258-259.

SG&A expenses and operating income or loss

Total selling, general and administrative (SG&A) expenses increased marginally in 2015, declined in 2016, and were lower in interim 2017 compared to interim 2016. In conjunction with this pattern, the SG&A expense ratio (total SG&A expenses divided by total revenue) was at its highest level in 2015 and subsequently declined to its lowest level in interim 2017. 15

In general and with respect to its impact on GNA product operating results, changes in SG&A expense ratios were essentially neutral in 2014-15, and positive in 2015-16 and interim 2016-17 inasmuch as they partially offset declines in corresponding gross profit.

Interest expense, other expenses, and net income or loss

As shown in table VI-1, PMP reported no interest expense during the period. ***. 16 GNA products net income was positive throughout the period and followed the same directional pattern as operating income. Net income was marginally higher compared to corresponding operating income due to the presence of ***.

CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

Table VI-4 presents PMP's GNA capital expenditures and research and development (R&D) expenses.

Table VI-4

GNA products: Capital expenditures and research and development (R&D) expenses of U.S. producer, 2014-16, January-September 2016, and January-September 2017

PMP's total capital expenditures were at their highest level in 2014, declined somewhat in 2015 and 2016, and were higher in interim 2017 compared to interim 2016. ***. ¹⁷ The level of capital expenditures was generally considered to be in a normal range. 18 However, the company also noted that the level of interim 2017 capital expenditures was ***. 19

As shown in table VI-4, PMP *** R&D expenses during the period examined.

¹⁵ A PMP company official stated that there were no substantial changes in the structure of SG&A during the period. Conference transcript, p. 80 (Zinkhon).

¹⁶ PMP U.S. producer questionnaire, response to III-10.

¹⁷ PMP U.S. producer questionnaire, response to III-13 (note 1).

¹⁸ Conference transcript, p. 81 (Niedermeier).

¹⁹ PMP's postconference brief (Attachment A), p. 12. ***. PMP's postconference brief (Attachment A), pp. 13-14. Overall, PMP stated that it "... is not spending large amounts of capital on *** because of the current material injury and threat of future injury caused by the subject imports. Ibid.

ASSETS AND RETURN ON ASSETS

Table VI-5 presents data on the U.S. producer's GNA products total assets and return on assets.²⁰

Table VI-5

GNA products: U.S. producer's total assets and return on assets, 2014-16

* * * * * * * *

CAPITAL AND INVESTMENT

The Commission requested the U.S. producer of GNA products to describe any actual or potential negative effects on its return on investment or its growth, investment, ability to raise capital, existing development and production efforts (including efforts to develop a derivative or more advanced version of the product), or the scale of capital investments as a result of imports of GNA products from China and France. Table VI-6 tabulates the responses on actual negative effects on investment, growth and development, as well as anticipated negative effects. Table VI-7 presents the narrative responses of the U.S. producer regarding actual and anticipated negative effects on investment, growth and development.²¹

Table VI-6

GNA products: Negative effects of imports from subject sources on investment, growth, and development since January 1, 2014

* * * * * * *

Table VI-7

GNA products: Narrative responses of the U.S. producer regarding actual and anticipated negative effects of imports from subject sources on investment, growth, and development since January 1, 2014

* * * * * * *

²⁰ With respect to a company's overall operations, staff notes that a total asset value (i.e., the bottom line value on the asset side of a company's balance sheet) reflects an aggregation of a number of assets, which, in many instances, are not product specific. Since PMP manufactures other products in addition to GNA products, allocation factors were presumably necessary to report total asset values specific to GNA products operations. The ability of the U.S. producer to assign total asset values to discrete product lines affects the meaningfulness of return on assets.

²¹ *** (see also footnote 3). PMP's postconference brief (Attachment A), p. 12.

PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

Section 771(7)(F)(i) of the Act (19 U.S.C. § 1677(7)(F)(i)) provides that—
In determining whether an industry in the United States is threatened
with material injury by reason of imports (or sales for importation) of the
subject merchandise, the Commission shall consider, among other
relevant economic factors¹--

- (I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,
- (II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,
- (III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,
- (IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,
- (V) inventories of the subject merchandise,

¹ Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that "The Commission shall consider {these factors} . . . as a whole in making a determination of whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted under this title. The presence or absence of any factor which the Commission is required to consider . . . shall not necessarily give decisive guidance with respect to the determination. Such a determination may not be made on the basis of mere conjecture or supposition."

- (VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,
- (VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),
- (VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and
- (IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).²

Information on the nature of the "alleged" subsidies was presented earlier in this report; information on the volume and pricing of imports of the subject merchandise is presented in *Parts IV* and *V*; and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in *Part VI*. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting;" any other threat indicators, if applicable; and any dumping in third-country markets, follows. Also presented in this section of the report is information obtained for consideration by the Commission on nonsubject countries.

² Section 771(7)(F)(iii) of the Act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other WTO member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

THE INDUSTRY IN CHINA

The Commission issued foreign producers' or exporters' questionnaires to 85 firms believed to produce and/or export GNA products from China. The Commission did not receive a response from any producers of the subject merchandise in China. Petitioners identified 10 firms that manufacture GNA products in China.

Exports

Table VII-1 presents data for Chinese exports of GNA products. The leading export markets for GNA products from China are India, the United States, and Turkey (table VII-1). During 2016, India was the top export market for GNA products from China, accounting for 13.6 percent, followed by the United States, accounting for 7.7 percent, and Turkey, accounting for 6.4 percent.

¹ These firms were identified through a review of information submitted in the petition and contained in *** records.

² Petitioners identified Xiwang Group, Shandong Fuyang, Shandong Parkson, Zhucheng Dongxiao, Wanshang Group, Shandong Qilu Group, Wefang Honghai, Qingdao, Kehai, Shangdong Kaison, and Shandong Xinhong as major manufacturers of GNA products in China. Petition, exh. I-4, pg. 23.

Table VII-1:
GNA products: Exports from China, 2014-16

	Calendar year		
Destination market	2014	2015	2016
	Qua	antity (1,000 pounds	s)
China exports to the United States	38,678	41,365	38,710
China exports to other major			
destination markets			
India	58,809	55,689	68,211
Turkey	33,880	37,114	32,268
Japan	24,312	28,720	28,270
United Arab Emirates	20,215	21,850	24,173
Korea	11,164	12,886	23,337
Taiwan	23,515	20,755	19,740
Mexico	15,370	14,839	17,777
Brazil	21,898	20,193	17,729
All other destination markets	180,011	198,942	230,441
Total China exports	427,851	452,353	500,655
	V	alue (1,000 dollars)	
China exports to the United States	122,737	157,348	154,003
China exports to other major destination markets			
India	135,436	141,864	151,228
Turkey	19,425	30,084	26,735
Japan	26,410	29,700	28,371
United Arab Emirates	9,828	6,897	5,433
Korea	25,577	44,899	44,921
Taiwan	15,146	12,186	9,563
Mexico	22,957	21,428	20,186
Brazil	61,180	62,256	48,558
All other destination markets	336,293	436,652	435,160
Total China exports	774,989	943,314	924,157

Table continued on next page.

Table VII-1—Continued GNA products: Exports from China, 2014-16

		Calendar year	
Destination market	2014	2015	2016
	Unit value (dollars per dry pound)		
China exports to the United States	3.17	3.80	3.98
China exports to other major destination markets			
India	2.30	2.55	2.22
Turkey	0.57	0.81	0.83
Japan	1.09	1.03	1.00
United Arab Emirates	0.49	0.32	0.22
Korea	2.29	3.48	1.92
Taiwan	0.64	0.59	0.48
Mexico	1.49	1.44	1.14
Brazil	2.79	3.08	2.74
All other destination markets	1.87	2.19	1.89
Total China exports	1.81	2.09	1.85
	Shar	e of quantity (perce	nt)
China exports to the United States	9.0	9.1	7.7
China exports to other major destination markets			
India	13.7	12.3	13.6
Turkey	7.9	8.2	6.4
Japan	5.7	6.3	5.6
United Arab Emirates	4.7	4.8	4.8
Korea	2.6	2.8	4.7
Taiwan	5.5	4.6	3.9
Mexico	3.6	3.3	3.6
Brazil	5.1	4.5	3.5
All other destination markets	42.1	44.0	46.0
Total China exports	100.0	100.0	100.0

Source: Official exports statistics under HS subheadings 2918.16 and 2932.20 as reported by China Customs in the IHS/GTA database, accessed December 13, 2017.

THE INDUSTRY IN FRANCE

The Commission issued a foreign producers' or exporters' questionnaires to one firm believed to produce and/or export GNA products from France.³ A usable response to the Commission's questionnaire was received from Jungbunzlauer S.A. ("JBL"). This firm's exports to the United States accounted for all of U.S. imports of GNA products from France in 2016. JBL reported that it is the only producer of GNA products in France. Table VII-2 presents information on the GNA products operations of the responding producer in France.

Table VII-2 GNA products: Summary data for producers in France, 2016

Changes in operations

JBL reported no operational and organizational changes since January 1, 2014.

Operations on GNA products

Table VII-3 presents information on the GNA products operations of the responding producer and exporter in France. JBL reported ***. Production capacity was ***. Production ***. From 2015 to 2016, production ***. Overall, production ***. Production was ***, in January-September 2017 than in January-September 2016. Capacity utilization ***. Capacity utilization saw ***. Capacity utilization was ***.

Exports of GNA products from France represented *** percent of total shipments in 2014, *** percent in 2015, and *** percent in 2016. From 2014 to 2016, export shipments were largely destined for non-U.S. markets. Exports from France to non-U.S. markets accounted from *** of total export shipments. Exports of GNA products from France to the United States accounted for *** percent of total export shipments in 2014, *** percent in 2015, and *** percent in 2016. ***.

Commercial home market shipments represented *** percent of JBL's total shipments in 2014, *** percent in 2015, and *** percent in 2016. Commercial home market shipments increased *** dry pounds, by *** percent, from 2014 to 2016.

³ This firm was identified through a review of information submitted in the petition and contained in *** records.

^{4 ***}

Table VII-3

GNA products: Data for producers in France, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

Alternative products

As shown in table VII-4, the responding French firm reported the ability to produce other products on the same equipment and machinery used to produce GNA products. ***.

Table VII-4

GNA products: French producers' overall capacity and production on the same equipment as subject production, 2014-16, January to September 2016, January to September 2017

* * * * * * * *

Exports

Table VII-5 presents data for French exports of GNA products. The leading export markets for GNA products from France are Germany, the United States, and Spain (table IV-5). During 2016, Germany was the top export market for GNA products from France, accounting for 21.3 percent, followed by the United States, accounting for 10.1 percent, and Spain, accounting for 7.3 percent.

Table VII-5:
GNA products: Exports from France, 2014-2016

		Calendar year	
Destination market	2014	2015	2016
	Quant	tity (1,000 dry pounds)
France exports to the United			
States	5,917	6,765	6,795
France exports to other major			
destination markets	44.000	40.400	4.4.040
Germany	11,090	16,180	14,316
Spain	2,604	7,610	4,888
Mexico	4,087	3,964	4,486
United Kingdom	3,032	4,294	3,979
Italy	8,426	7,078	3,663
Brazil	2,997	3,971	3,313
Ireland	272	2,500	2,600
Netherlands	2,893	2,562	2,116
All other destination markets	25,038	19,780	21,190
Total France exports	66,356	74,703	67,345
	Va	alue (1,000 dollars)	
France exports to the United			
States	2,996	2,933	3,121
France exports to other major			
destination markets			
Germany	4,639	5,527	4,910
Spain	1,101	1,992	1,698
Mexico	1,565	1,430	1,522
United Kingdom	2,740	2,377	2,261
Italy	2,025	1,806	1,145
Brazil	1,137	1,351	973
Ireland	136	960	1,001
Netherlands	2,418	1,376	1,046
All other destination markets	10,261	7,553	7,365
Total France exports	29,018	27,305	25,042

Table continued on next page.

Table VII-5—Continued
GNA products: Exports from France, 2014-2016

	Calendar year			
Destination market	2014	2015	2016	
	Unit value (dollars per dry pound)			
France exports to the United States	0.51	0.43	0.46	
France exports to other major destination markets				
Germany	0.42	0.34	0.34	
Spain	0.42	0.26	0.35	
Mexico	0.38	0.36	0.34	
United Kingdom	0.90	0.55	0.57	
Italy	0.24	0.26	0.31	
Brazil	0.38	0.34	0.29	
Ireland	0.50	0.38	0.38	
Netherlands	0.84	0.54	0.49	
All other destination markets	0.41	0.38	0.35	
Total France exports	0.44	0.37	0.37	
	Sha	re of quantity (perce	ent)	
France exports to the United States	8.9	9.1	10.1	
France exports to other major destination markets				
Germany	16.7	21.7	21.3	
Spain	3.9	10.2	7.3	
Mexico	6.2	5.3	6.7	
United Kingdom	4.6	5.7	5.9	
Italy	12.7	9.5	5.4	
Brazil	4.5	5.3	4.9	
Ireland	0.4	3.3	3.9	
Netherlands	4.4	3.4	3.1	
All other destination markets	37.7	26.5	31.5	
Total France exports	100.0	100.0	100.0	

Source: Official exports statistics under HS subheadings 2918.16 and 2832.20 as reported by various national statistical authorities in the IHS/GTA database, accessed December 13, 2017.

U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-6 presents data on U.S. importers' reported inventories of GNA products. U.S. importers' end-of-period inventories of imports from subject countries increased by *** percent from 2014 to 2015, and then decreased by *** percent from 2015 to 2016. End-of-period inventories decreased overall by *** percent from 2014 to 2016. End-of-period

inventories were *** percent lower in January-September 2017 compared to January-September 2016.

Table VII-6

GNA products: U.S. importers' inventories, 2014-16, January to September 2016, and January to September 2017

* * * * * * * *

U.S. IMPORTERS' OUTSTANDING ORDERS

Table VII-7 data presents arranged imports of GNA products. The Commission requested importers to indicate whether they imported or arranged for the importation of GNA products from China and France after September 30, 2017. Responding importers of GNA products reported *** dry pounds of arranged imports from China and *** dry pounds from France. Seven of the nine responding importers reported outstanding orders of GNA products from subject and nonsubject sources.

Table VII-7

GNA products: Arranged imports, October 2017 through June 2018

* * * * * * *

ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

An antidumping investigation was initiated on November 30, 2009 and an antidumping duty order was implemented in the European Union on October 25, 2010, on imports of dry sodium gluconate from China. The antidumping duty rates imposed were 5.6 percent on Shandong Kaison Biochemical Co. Ltd, 27.1 percent on Qingdao Kehai Biochemistry Co. Ltd, and 53.2 percent on all other Chinese firms. The antidumping duty order was extended by the European Union in January 2017.

INFORMATION ON NONSUBJECT COUNTRIES

In assessing whether the domestic industry is materially injured or threatened with material injury "by reason of subject imports," the legislative history states "that the Commission must examine all relevant evidence, including any known factors, other than the dumped or subsidized imports, that may be injuring the domestic industry, and that the

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⁵ Council Implementing Regulation (EU), No 965/2010 of 25 October 2010, Official Journal of the European Union, L 282, October 28, 2010, pg. 24.

⁶ Ihid ng 27

⁷ Semi-Annual Report Under Article 16.4 of the Agreement, European Union, October 19, 2017, World Trade Organization Committee on Anti-Dumping Practices, pg. 10.

Commission must examine those other factors (including non-subject imports) 'to ensure that it is not attributing injury from other sources to the subject imports.'"⁸

According to published sources, global capacity of GNA products in 2016 was ***, global production was ***, and global apparent consumption was ***, table VII-8). World production is largely centered in China ***, Europe ***, and the United States *** with some production in Asia ***. The consumption of gluconates in 2016 was *** for the United States, *** for Europe, *** for China. World consumption of hydroxycarboxylic acids and salts by region in 2016 is shown in figure VII-1, and consumption of hydroxycarboxylic acids and salts by application in major regions is outlined in table VII-9. Global exports by exporting country for 2014-16 are listed in table VII-10.

Outside of the subject countries there are a limited number of producers of GNA products. ¹⁴ Roquette, in Italy, which produces both GA and GNA *** accounts for approximately *** percent of European production of GA and GNA. ¹⁵ Roquette is also a producer of GDL, and supplies PMP with GDL. ¹⁶ Mihwa Co., Ltd., in South Korea, produced approximately *** of GA and GNA in 2016. ¹⁷

Table VII-8

GNA products: World supply/demand for gluconates-2016 (thousands of metric tons, 100% sodium salt basis)

* * * * * * * *

Figure VII-1

GNA products: World consumption of hydroxycarboxylic acids and salts by region - 2016

* * * * * * *

⁸ Mittal Steel Point Lisas Ltd. v. United States, Slip Op. 2007-1552 at 17 (Fed. Cir. Sept. 18, 2008), quoting from Statement of Administrative Action on Uruguay Round Agreements Act, H.R. Rep. 103-316, Vol. I at 851-52; see also Bratsk Aluminum Smelter v. United States, 444 F.3d 1369 (Fed. Cir. 2006).

⁹ ***; Chemical Economics Handbook: Chelating Agents, IHS, May 2017, p. 12.

¹⁰ Gluconates include gluconic acid, sodium gluconate, and other gluconates but ***; *Chemical Economics Handbook*: Chelating Agents, IHS, May 2017, p. 12.

¹¹ Ibid.

¹² Ibid.

¹³ Includes gluconates and glucoheptonates, glucoheptonates do no fall within the scope of this investigation.

¹⁴ Conference transcript, p. 136 (Torres).

¹⁵ Source: Chemical Economics Handbook: Chelating Agents, IHS, May 2017, p. 90.

¹⁶ Conference transcript p. 93 (Zinkhon)

¹⁷ Mihwa does not supply GDL; Mihwa Co. Ltd. "Products," http://mhchem.co.kr/products-e.htm, retrieved December 27, 2017.

Table VII-9 GNA products: Consumption of hydroxycarboxylic acids and salts by major region and application-2016^a (metric tons, 100% dry sodium salt basis)

* * * * * * *

Table VII-10
GNA products: Global exports by exporter, 2014-16

	Calendar year			
Exporter	2014	2015	2016	
-	Quantity (1,000 dry pounds)			
United States	39,033	42,622	39,457	
China	427,851	452,353	500,655	
France	66,356	74,703	67,345	
All other major reporting				
exporters	04.000	25.225	04.454	
Japan	24,028	25,025	24,454	
Thailand	7,933	10,475	22,492	
Italy	19,949	19,482	18,758	
United Kingdom	14,195	14,702	17,105	
Germany	16,096	16,872	15,191	
Belgium	11,973	12,702	13,435	
Taiwan	12,509	14,737	10,270	
Netherlands	11,439	10,529	10,243	
Spain	8,251	11,102	8,437	
Indonesia	7	2,106	7,894	
All other exporters	25,265	18,026	22,846	
Total global exports	684,886	725,437	778,583	
	,	Value (1,000 dollars)		
United States	128,345	149,094	162,031	
China	774,989	943,314	924,157	
France	29,018	27,305	25,042	
All other major reporting				
exporters				
Japan	70,289	61,379	51,992	
Thailand	5,802	6,975	20,357	
Italy	46,262	45,222	55,198	
United Kingdom	39,008	35,260	39,485	
Germany	139,035	128,820	148,373	
Belgium	27,851	24,340	28,406	
Taiwan	9,575	10,425	6,144	
Netherlands	44,322	43,137	40,572	
Spain	35,288	44,721	40,123	
Indonesia	254	968	2,996	
All other exporters	673,343	575,276	515,259	
Total global exports	2,023,382	2,096,236	2,060,136	

Table continued on next page.

Table VII-10—Continued GNA products: Global exports by exporter, 2014-16

		Calendar year	
Exporter	2014	2015	2016
-	Unit value (dollars per dry pound)		
United States	3.29	3.50	4.11
China	1.81	2.09	1.85
France	0.44	0.37	0.37
All other major reporting exporters			
Japan	2.93	2.45	2.13
Thailand	0.73	0.67	0.91
Italy	2.32	2.32	2.94
United Kingdom	2.75	2.40	2.31
Germany	8.64	7.64	9.77
Belgium	2.33	1.92	2.11
Taiwan	0.77	0.71	0.60
Netherlands	3.87	4.10	3.96
Spain	4.28	4.03	4.76
Indonesia	34.04	0.46	0.38
All other exporters	26.65	31.91	22.55
Total global exports	2.95	2.89	2.65
	Sha	are of quantity (perce	ent)
United States	5.7	5.9	5.1
China	62.5	62.4	64.3
France	9.7	10.3	8.6
All other major reporting exporters			
Japan	3.5	3.4	3.1
Thailand	1.2	1.4	2.9
Italy	2.9	2.7	2.4
United Kingdom	2.1	2.0	2.2
Germany	2.4	2.3	2.0
Belgium	1.7	1.8	1.7
Taiwan	1.8	2.0	1.3
Netherlands	1.7	1.5	1.3
Spain	1.2	1.5	1.1
Indonesia	0.0	0.3	1.0
All other exporters	3.7	2.5	2.9
Total global exports	100.0	100.0	100.0

Source: Official exports statistics under HS subheadings 2918.16 and 2832.20 as reported by various national statistical authorities in the IHS/GTA database, accessed December 13, 2017.

APPENDIX A

FEDERAL REGISTER NOTICES

The Commission makes available notices relevant to its investigations and reviews on its website, www.usitc.gov. In addition, the following tabulation presents, in chronological order, Federal Register notices issued by the Commission and Commerce during the current proceeding.

Citation	Title	Link
82 FR 57614, December 6, 2017	Sodium Gluconate, Gluconic Acid, and Derivative Products From China and France; Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations	https://www.gpo.gov/fdsys/pkg/FR- 2017-12-06/pdf/2017-26268.pdf
83 FR 499, January 4, 2018	Sodium Gluconate, Gluconic Acid, and Derivative Products From the People's Republic of China: Initiation of Countervailing Duty Investigation	https://www.gpo.gov/fdsys/pkg/FR- 2018-01-04/pdf/2017-28431.pdf
83 FR 516, January 4, 2018	Sodium Gluconate, Gluconic Acid, and Derivative Products From France and the People's Republic of China: Initiation of Less-Than-Fair-Value Investigations	https://www.gpo.gov/fdsys/pkg/FR- 2018-01-04/pdf/2017-28430.pdf

APPENDIX B CALENDAR OF THE PUBLIC STAFF CONFERENCE

CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

Those listed below appeared as witnesses at the United States International Trade Commission's preliminary conference:

Subject: Sodium Gluconate, Gluconic Acid, and Derivative Products

from China and France

Inv. Nos.: 701-TA-590 and 731-TA-1397-1398 (Preliminary)

Date and Time: December 21, 2017 - 9:30 a.m.

Sessions were held in connection with these preliminary phase investigations in Courtroom A (Room 100), 500 E Street, SW., Washington, DC.

OPENING REMARKS:

Petitioner (**David M. Spooner**, Barnes & Thornburg LLP)
Respondents (**Frederick P. Waite**, Vorys, Sater, Seymour and Pease LLP)

In Support of the Imposition of Antidumping and Countervailing Duty Orders:

Barnes & Thornburg LLP Washington, DC on behalf of

PMP Fermentation Products, Inc. ("PMP")

Randy Niedermeier, President & CEO, PMP

Jim Zinkhon, Director of Corporate Planning & Sales, PMP

Bruce Malashevich, President & CEO, Economic Consulting Services

David M. Spooner)
Christine J. Sohar Henter) – OF COUNSEL
Nicholas Galbraith)

In Opposition to the Imposition of Antidumping and Countervailing Duty Orders:

Vorys, Sater, Seymour and Pease LLP
Washington, DC
on behalf of

Jungbunzlauer S.A.
Jungbunzlauer, Inc.
(collectively "JBL")

Dan Rainville, President and General Manager, Jungbunzlauer, Inc.

Carlos Torres Pineda, Sales Director North America, Jungbunzlauer, Inc.

Frederick P. Waite
)
- OF COUNSEL
Kimberly R. Young
)

REBUTTAL/CLOSING REMARKS:

Petitioner (**David M. Spooner**, Barnes & Thornburg LLP)
Respondents (**Frederick P. Waite**, Vorys, Sater, Seymour and Pease LLP)

-END-

APPENDIX C SUMMARY DATA

Table C-1
GNA products: Summary data concerning the U.S. market, 2014-16, January to September 2016, and January to September 2017
(Quantity=1,000 dry pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per dry pound; Period changes=percent--exceptions noted)

_			Reported data				Period ch	nanges	
	2014	Calendar year 2015	2016	January to Sept 2016	tember 2017	2014-16	Calendar year 2014-15	2015-16	Jan-Sep 2016-17
U.S. consumption quantity:	***	***	***	***	***	***	***	***	***
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)									
Importers' share (fn1):	***	***	***	***	***	***	***	***	***
ChinaFrance	***	***	***	***	***	***	***	***	***
Subject sources	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
7 III III POT COGNOCO									
U.S. consumption value:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):	***	***	***	***	***	***	***	***	**
China	***	***	***	***	***	***	***	***	***
France	***	***	***	***	***	***	***	***	***
Subject sources.	***	***	***	***	***	***	***	***	**
Nonsubject sources	***	***	***	***	***	***	***	***	***
U.S. imports from:									
China:									
Quantity	10,502	10,553	9,246	7,140	7,945	(12.0)	0.5	(12.4)	11.3
Value	7,303	6,640	4,867	4,009	4,982	(33.4)	(9.1)	(26.7)	24.3
Unit value	\$0.70	\$0.63	\$0.53	\$0.56	\$0.63	(24.3)	(9.5)	(16.3)	11.7
Ending inventory quantity	***	***	***	***	***	***	***	***	***
France									
Quantity	9,605	12,434	9,603	6,909	8,513	(0.0)	29.5	(22.8)	23.2
Value	7,325	9,172	6,966	5,181	5,559	(4.9)	25.2	(24.1)	7.3
Unit value	\$0.76	\$0.74	\$0.73	\$0.75 ***	\$0.65	(4.9)	(3.3)	(1.7)	(12.9)
Ending inventory quantity	•••	•••	***	***	***	***	***	***	
Subject sources:	20.407	22.000	40.040	44.040	40.450	(0.0)	44.0	(40.0)	47.4
Quantity	20,107	22,988	18,849	14,049	16,458	(6.3)	14.3	(18.0)	17.1
Value	14,629	15,812	11,834	9,191	10,541	(19.1)	8.1	(25.2)	14.7
Unit value	\$0.73	\$0.69	\$0.63	\$0.65	\$0.64	(13.7)	(5.5)	(8.7)	(2.1)
Ending inventory quantity Nonsubject sources:									
	1,750	2,060	2,004	1,581	1,771	14.5	17.7	(2.7)	12.0
QuantityValue	1,836	2,374	2,004	1,630	1,758	11.3	29.3	(13.9)	7.9
Unit value	\$1.05	\$1.15	\$1.02	\$1.03	\$0.99	(2.8)	9.9	(11.5)	(3.7)
Ending inventory quantity	ψ1.03 ***	ψ1.13 ***	ψ1.02 ***	***	***	(2.0)	3.3	(11.5)	(5.7)
All import sources:									
Quantity	21,858	25,048	20,853	15,630	18,229	(4.6)	14.6	(16.7)	16.6
Value	16,465	18,186	13,877	10,820	12,299	(15.7)	10.5	(23.7)	13.7
Unit value	\$0.75	\$0.73	\$0.67	\$0.69	\$0.67	(11.7)	(3.6)	(8.3)	(2.5)
Ending inventory quantity	***	***	***	***	***	***	***	***	***
U.S. producers':									
Average capacity quantity	***	***	***	***	***	***	***	***	***
Production quantity	***	***	***	***	***	***	***	***	***
Capacity utilization (fn1)	***	***	***	***	***	***	***	***	***
U.S. shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Export shipments:	***	***	***	***	***	***	***	***	***
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Inventories/total shipments (fn1)	***	***	***	***	***	***	***	***	***
Production workers	***	***	***	***	***	***	***	***	***
	***	***	***	***	***	***	***	***	***
Wages paid (\$1,000)	***	***	***	***	***	***	***	***	***
Hourly wages (dollars) Productivity (dry pounds per hour)	***	***	***	***	***	***	***	***	***
Unit labor costs	***	***	***	***	***	***	***	***	***
Net sales:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value (fn3)	***	***	***	***	***	***	***	***	***
Cost of goods sold (COGS)	***	***	***	***	***	***	***	***	***
Gross profit or (loss)	***	***	***	***	***	***	***	***	***
SG&A expenses	***	***	***	***	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***	***	***	***	***
Net income or (loss)	***	***	***	***	***	***	***	***	***
Capital expenditures	***	***	***	***	***	***	***	***	***
Unit COGS (fn3)	***	***	***	***	***	***	***	***	**
Unit SG&A expenses (fn3)	***	***	***	***	***	***	***	***	***
	***	***	***	***	***	***	***	***	***
Unit operating income or (loss) (fn3)					***	***	***	***	***
Unit net income or (loss) (fn3)	***	***	***	***					
Unit net income or (loss) (fn3) COGS/sales (fn1)	***	***	***	***	***	***	***	***	
Unit net income or (loss) (fn3)									***

fn1.--Reported data are in percent and period changes are in percentage points. fn2.--Undefined. fn3.--In dollars per 1,000 pounds.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics using HTS statistical reporting numbers 2918.16.5010, 2932.20.5020 and 50 percent of 2918.16.1000* accessed December 20, 2017. 50 percent of HTS 2918.16.1000 was used as a conversion rate from liquid to dry weight.

APPENDIX D

LIKE PRODUCT INFORMATION

Table D-1 GNA products: pair.	U.S. p	roducers	d' and U.S	S. importe	ers' ratin	gs of the	like pro	duct factors by produc
		*	*	*	*	*	*	*
Table D-2 GNA products:	U.S. p	roducer's	s narrativ	e on the	like pro	duct fact	ors	
		*	*	*	*	*	*	*
Table D-3 GNA products:	U.S. ir	mporters'	' narrativ	e on the	like proc	luct facto	ors	

Table D-4 GDL: U.S. imports by source, 2014-16, January to September 2016, and January to September 2017

2017		Calendar year	January to September				
Item	2014	2015	2016	2016	2017		
		Quantit	y (1,000 dry po	ounds)			
U.S. imports from	222		5.45	450	505		
China	662	575	545	456	535		
France	4,451	6,063	4,198	3,208	4,438		
Subject sources	5,113	6,638	4,743	3,664	4,973		
Nonsubject sources	1,458	1,934	1,878	1,461	1,493		
All import sources	6,571	8,572	6,621	5,124	6,466		
		Valu	ıe (1,000 dolla	rs)			
U.S. imports from China	3,170	2,911	1,960	1,794	2,350		
France	4,252	5,942	3,990	3,103	3,729		
Subject sources	7,423	8,853	5,949	4,897	6,079		
Nonsubject sources	1,455	2,119	1,812	1,405	1,355		
	8,877			6,301			
All import sources	0,077	10,972	7,762		7,434		
11.0 (2000)		Unit value	(dollars per d	ry pouna)			
U.S. imports from China	4.79	5.06	3.60	3.94	4.39		
France	0.96	0.98	0.95	0.97	0.84		
Subject sources	1.45	1.33	1.25	1.34	1.22		
Nonsubject sources	1.00	1.10	0.97	0.96	0.91		
All import sources	1.35	1.28	1.17	1.23	1.15		
		Share o	of quantity (pe	rcent)			
U.S. imports from				•			
China	10.1	6.7	8.2	8.9	8.3		
France	67.7	70.7	63.4	62.6	68.6		
Subject sources	77.8	77.4	71.6	71.5	76.9		
Nonsubject sources	22.2	22.6	28.4	28.5	23.1		
All import sources	100.0	100.0	100.0	100.0	100.0		
	Share of total import quantity of GNA products within each source						
			(percent)		<u></u>		
U.S. imports from China	6.3	5.5	5.9	6.4	6.7		
France	46.3	48.8	43.7	46.4	52.1		
Subject sources	25.4	28.9	25.2	26.1	30.2		
Nonsubject sources	83.3	93.9	93.7	92.4	84.3		
All import sources	30.1	34.2	31.7	32.8	35.5		
Cauraci Official II C impr							

Source: Official U.S. import statistics using HTS statistical reporting number 2932.20.5020, accessed December 20, 2017.

Table D-4 GNA, GA and LG: U.S. imports by source, 2014-16, January to September 2016, and January to September 2017

September 2017		Calendar year	January to September				
Item	2014	2015	2016	2016	2017		
	,	Quanti	ty (1,000 dry po	ounds)			
U.S. imports from							
China	9,840	9,978	8,701	6,684	7,410		
France	5,155	6,371	5,405	3,701	4,075		
Subject sources	14,994	16,349	14,106	10,385	11,485		
Nonsubject sources	292	127	126	120	278		
All import sources	15,286	16,476	14,232	10,505	11,763		
		Va	lue (1,000 dolla	rs)			
U.S. imports from							
China	4,133	3,729	2,908	2,216	2,633		
France	3,073	3,230	2,976	2,078	1,829		
Subject sources	7,206	6,959	5,884	4,294	4,462		
Nonsubject sources	381	255	231	225	403		
All import sources	7,587	7,214	6,115	4,519	4,865		
		Unit value	e (dollars per d	ry pound)			
U.S. imports from							
China	0.42	0.37	0.33	0.33	0.36		
France	0.60	0.51	0.55	0.56	0.45		
Subject sources	0.48	0.43	0.42	0.41	0.39		
Nonsubject sources	1.31	2.01	1.84	1.87	1.45		
All import sources	0.50	0.44	0.43	0.43	0.41		
		Share	of quantity (pe	rcent)			
U.S. imports from China	64.4	60.6	61.1	63.6	63.0		
France	33.7	38.7	38.0	35.2	34.6		
Subject sources	98.1	99.2	99.1	98.9	97.6		
Nonsubject sources	1.9	0.8	0.9	1.1	2.4		
All import sources	100.0	100.0	100.0	100.0	100.0		
·	Share of total import quantity of GNA products within each source						
	(percent)						
U.S. imports from							
China	93.7	94.5	94.1	93.6	93.3		
France	53.7	51.2	56.3	53.6	47.9		
Subject sources	74.6	71.1	74.8	73.9	69.8		
Nonsubject sources	16.7	6.1	6.3	7.6	15.7		
All import sources	69.9	65.8	68.2	67.2	64.5		

Source: Official U.S. import statistics using HTS statistical reporting numbers 2918.16.5010 and 50 percent of 2918.16.1000,* accessed December 20, 2017.