Vanillin from China

Investigation Nos. 701-TA-728 and 731-TA-1697 (Preliminary)

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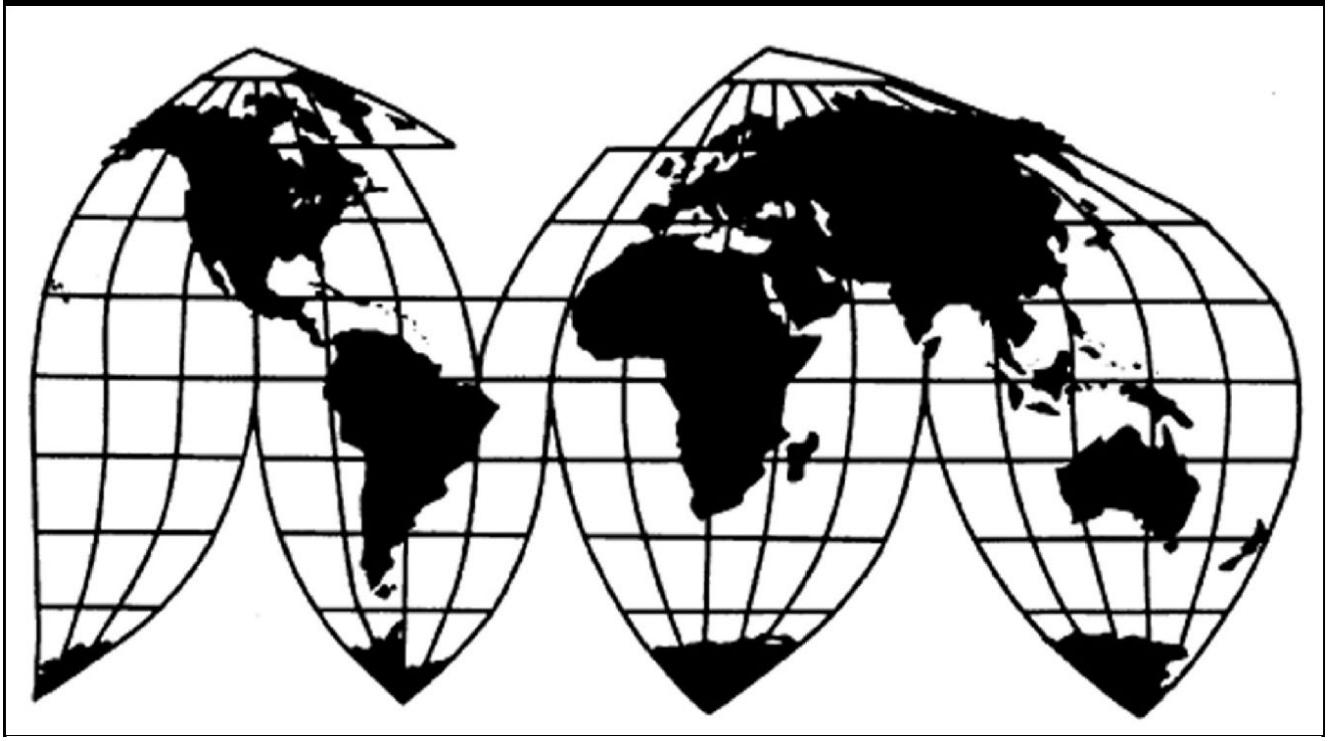
U.S. International Trade Commission



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U.S. International Trade Commission

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Note.—Information that would reveal confidential operations of individual concerns may not be published. Such information is identified by brackets in confidential reports and is deleted and replaced with asterisks (***) in public reports.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-728 and 731-TA-1697 (Preliminary)

Vanillin from China

DETERMINATIONS

On the basis of the record[1] 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 materially injured by reason of imports of vanillin from China, provided for in subheadings 2912.41.00 and 2912.42.00 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 imports of the subject merchandise from China that are alleged to be subsidized by the government of China.[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 § 207.21 of the Commission's rules, upon notice from the U.S. Department of Commerce ("Commerce") of affirmative preliminary determinations in the investigations under §§ 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 §§ 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. Any other party may file an entry of appearance for the final phase of the investigations after publication of the final phase notice of scheduling. 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,

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

[2] 89 FR 54421; 89 FR 54424 (July 1, 2024).

who are parties to the investigations. As provided in section 207.20 of the Commission's rules, the Director of the Office of Investigations will circulate draft questionnaires for the final phase of the investigations to parties to the investigations, placing copies on the Commission's Electronic Document Information System (EDIS, https://edis.usitc.gov), for comment.

BACKGROUND

On June 5, 2024, Solvay USA LLC, Baton Rouge, Louisiana, filed petitions with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized imports of vanillin from China and LTFV imports of vanillin from China. Accordingly, effective June 5, 2024, the Commission instituted countervailing duty investigation No. 701-TA-728 and antidumping duty investigation No. 731-TA-1697 (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* on June 11, 2024 (89 FR 49192). The Commission conducted its conference on June 26, 2024. All persons who requested the opportunity were permitted to participate.

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 materially injured by reason of imports of vanillin products (as defined below) from China that are allegedly sold in the United States at less than fair value ("LTFV") and subsidized by the government of China.

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.[1] 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."[2]

[1] 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, 2*0 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.

[2] 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).

II. Background

The petitions in these investigations were filed on June 5, 2024 by Solvay USA LLC ("Petitioner" or "Solvay").[3] Solvay appeared at the staff conference on June 26, 2024, accompanied by counsel, and submitted a postconference brief.[4]

No respondent entities participated in these investigations. A group of companies calling themselves the Fragrance & Flavor Industry Members filed comments after the staff conference.[5]

Data Coverage. U.S. industry data are based on the questionnaire response of Solvay, which accounted for all or virtually all U.S. production of vanillin products in 2023.[6] U.S. import data are based on official U.S. Commerce statistics.[7] U.S. purchaser data are based on the questionnaire responses of five firms that responded to the Commission's lost sales and lost revenue survey.[8] Foreign producer/exporter data are based on the questionnaire responses of five producers and/or exporters whose exports accounted for approximately *** percent of U.S. imports of vanillin products from China in 2023.[9] The record also contains data from 21 importers, who accounted for 80.5 percent of U.S. imports (based on official U.S. Commerce statistics) from China and 80.1 percent of nonsubject imports in 2023.[10]

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

[3] Solvay is a U.S. producer of ethylvanillin and methylvanillin that accounted for effectively all U.S. production of vanillin products in 2023. Confidential Report INV-WW-078 (July 15, 2024) ("CR") and *Vanillin from China*, Inv. Nos. 701-TA-728 and 731-TA-1697, USITC Pub. 5527 (July 2024) (Preliminary) ("PR") at III-1. A U.S. importer, ***. *Id.* In comparison, Solvay's practical production capacity in 2023 was *** pounds. CR at Table III-5. ***. While Staff corresponded with ***, Staff was not able to obtain additional information about the company's production in the limited time available. Therefore, except as noted, *** is not included in the analysis provided in the remainder of this Memorandum.

[4] *See* Solvay's Confidential Post Conf. Br., EDIS Doc. 824850 (July 1, 2024) (Petitioner's Post Conf. Br.").

[5] Comments of Fragrance & Flavor Industry Members, EDIS Doc. No. 824877 (July 1, 2024) ("Fragrance & Flavor Industry Members Comments"). The signatories to the comments consisted of the following companies: Arylessence, Bedoukian Research Inc., dsm-firmenich, Global Essence, Givaudan, IFF, Robertet USA, Sheng Yuan, and the Lermond Company.

[6] CR at I-4.

[7] CR at I-4.

[8] CR at V-15.

[9] CR at VII-3.

[10] CR/PR at IV-1.

subject merchandise, the Commission first defines the "domestic like product" and the "industry."[11] 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."[12] 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."[13]

By statute, the Commission's "domestic like product" analysis begins with the "article subject to an investigation," *i.e.*, the subject merchandise as determined by the U.S. Department of Commerce ("Commerce").[14] Therefore, Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value is "necessarily the starting point of the Commission's like product analysis."[15] The Commission then defines the domestic like product in light of the imported articles Commerce has identified.[16] 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.[17] No single factor is

[11] 19 U.S.C. § 1677(4)(A).

[12] 19 U.S.C. § 1677(4)(A).

[13] 19 U.S.C. § 1677(10).

[14] 19 U.S.C. § 1677(10). 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. *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).

[15] *Cleo Inc. v. United States*, 501 F.3d 1291, 1298 (Fed. Cir. 2007); *see also Hitachi Metals, Ltd. v. United States*, 949 F.3d 710, 717 (Fed. Cir. 2020) (the statute requires the Commission to start with Commerce's subject merchandise in reaching its own like product determination).

[16] *Cleo*, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); *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); *Torrington Co. v. United States*, 747 F. Supp. 744, 748-52 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991) (affirming the Commission's determination defining six like products in investigations where Commerce found five classes or kinds).

[17] *See, e.g.*, *Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); *NEC Corp. v. Dep't 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 (Continued…)

dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[18] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[19] The Commission may, where appropriate, include domestic articles in the domestic like product in addition to those described in the scope.[20]

A. Scope Definition

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

> The merchandise covered by the investigation is vanillin, with the molecular formula $C_8 H_8 O_3$ or $C_9 H_{10} O_3$. For purposes of this investigation, vanillin consists of natural vanillin, synthetic vanillin, bio-sourced synthetic vanillin (biovanillin) (each also known as 4-Hydroxy-3-methoxybenzaldehyde), and ethylvanillin (also known as 3-Ethoxy-4-hydroxybenzaldehyde). Vanillin covered by this investigation is a chemical compound with the Chemical Abstracts Service (CAS) number 121-33-5 or 121-32-4. Vanillin is covered by the investigation regardless of whether it is in a crystalline powder or crystal form. Vanillin is covered by the scope of the investigation, irrespective of purity, particle size, or physical form.[21]

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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).

[18] *See*, *e.g.*, S. Rep. No. 96-249 at 90-91 (1979).

[19] *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.").

[20] *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).

[21] Vanillin from the People's Republic of China: Initiation of Countervailing Duty Investigation, 89 Fed. Reg. 54421, 54424 (July 1, 2024); Vanillin from the People's Republic of China: Initiation of Less-Than-Fair- Value Investigation, 89 Fed. Reg. 54424, 54429 (July 1, 2024).

Unless otherwise indicated, we use the term "vanillin" to refer to methylvanillin and "vanillin products" to refer to all of the products included within the scope.

Methylvanillin (or "vanillin") and ethylvanillin (a chemical homologue of vanillin) are the compounds that give vanilla beans their flavor and fragrance.[22] Because demand for vanillin products far exceeds what could be produced from vanilla beans, most vanillin is synthetic.[23] Petitioner produces synthetic methylvanillin and synthetic ethylvanillin in three steps. First, Petitioner makes pyrocatechol through the reaction of phenol with hydrogen peroxide.[24] Next, Petitioner produces either guaiacol or guetol depending on whether the production run (or "campaign") is for vanillin or ethylvanillin, respectively.[25] Finally, guaiacol or guetol are converted to vanillylmandelic acid or mandelic acid, respectively, which are then converted to vanillin or ethylvanillin.[26] The final products are small crystals with a shelf life of approximately five years.[27]

Vanillin and ethylvanillin are food grade and are used to provide vanilla flavor and fragrance in products including food, beverages, perfumes, vitamins, and laundry detergents.[28] Petitioner's vanillin products have FSSC-22000 certification for food safety.[29]

B. Party Arguments

Petitioner argues that the Commission should define a single domestic like product consisting of natural vanillin, synthetic vanillin, biovanillin, and ethylvanillin coextensive with the scope of the investigations.[30] It contends that all vanillin products share the same basic

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[22] CR at I-6. Vanillin's molecular formula is $C_8H_8O_3$ while ethylvanillin's is $C_9H_{10}O_3$. Ethylvanillin contains the same functional chemical group and characteristics as vanillin. *Id.* Ethylvanillin has two to four times more intense flavor and aroma than vanillin. CR at I-7, n.19.

Natural vanillin and biovanillin are also included within the scope. As noted above, ***. CR at III-1, n.1.

The current record indicates that biovanillin is not produced in the United States. Vanillin is distinct from vanilla extract, which may include vanillin but is a mixture of multiple compounds, and it is imported under a different HTS category. CR at I-6, n.16.

[23] CR at I-6.

[24] CR at I-7.

[25] CR at I-7. Production runs are referred to as "campaigns." *Id.* Petitioner uses the same production facility and equipment to make vanillin and ethylvanillin. Petitioner can only make one product at a time. CR at I-7.

[26] CR at I-7.

[27] CR at I-7.

[28] CR at I-6.

[29] CR at I-6.

[30] Petitioner's Post Conf. Br. at 5.

physical characteristics and end uses.[31] Petitioner further asserts that all vanillin products are produced in common facilities with similar processes and the same employees, are sold at similar prices and through similar channels of distribution, and are largely considered interchangeable for end uses.[32] Petitioner adds that all vanillin products are food grade and food safe, and are ultimately used for the same purpose of imparting a vanilla flavor or aroma.[33]

According to Petitioner, pricing is similar across vanillin products, with only about a dollar per pound difference between synthetic vanillin and ethylvanillin, which is ultimately mitigated in end use by proportionally lower quantities of ethylvanillin needed to impart the desired flavor or fragrance.[34] Although natural vanillin, synthetic vanillin, and biovanillin share the same chemical formula ($C_8H_8O_3$), ethylvanillin—which Petitioner characterizes as a chemical homologue of vanillin—has a slightly different formulation ($C_9H_{10}O_3$).[35] Petitioner acknowledges marginal differences in scent and flavor between vanillin and ethylvanillin, but largely attributes any differentiation between the two groups in end use to formulation concerns, noting that customers will typically hesitate to change their recipes if the present formulation works well.[36]

C. Analysis

Based on the record, and in the absence of any contrary argument, we define a single domestic like product consisting of all vanillin products, coextensive with the scope.

As an initial point, we note that the scope covers biovanillin, which the current record indicates is not produced in the United States.[37] When an article covered by the scope is not produced domestically, the Commission must include the "most similar" article that is domestically produced.[38] Based on the limited information available on the current record, we

[31] Petitioner's Post Conf. Br. at 6.

[32] Transcript of Preliminary Conference ("Tr.") at 19 (Mr. Pickard), EDIS Doc. 824536 (June 27, 2024); Petitioner's Post Conf. Br. at 7-9.

[33] Petitioner's Post Conf. Br. at 7.

[34] Tr. at 9 (Mr. Kraemer); *Id.* at 32-33 (Ms. Jorge).

[35] Petitioner's Post Conf. Br. at 7.

[36] Tr. at 31-32 (Mr. Kraemer). The Commission did not receive any other comments on the definition of the domestic like product.

[37] CR at I-8. Although Petitioner was unaware of any natural vanillin production in the United States, ***. CR at III-1, n.1.

[38] *See Crystalline Silicon Photovoltaic Cells and Modules from China*, Inv. Nos. 701-TA-481 and 731-TA-1190 (Preliminary), USITC Pub. 4295 at 11 & n.57 (Dec. 2011) (citing prior Commission determinations).

find that the domestically produced products "most similar" to biovanillin are the other vanillin products that are domestically produced: vanillin, ethylvanillin, and natural vanillin. In particular, we note that the best available evidence indicates that the vanillin molecule in biovanillin is the same as the molecule in natural vanillin and synthetic vanillin.[39]

Physical Characteristics and Uses. Vanillin and natural vanillin gain their vanilla flavor and fragrance from the same molecule that is found naturally in vanilla beans – $C_8 H_8 O_3$.[40] Vanillin and ethylvanillin are chemical homologues, containing the same functional chemical groups and characteristics.[41] Ethylvanillin is more potent than vanillin, meaning that customers may use less ethylvanillin to achieve a desired flavor or fragrance. Petitioner asserts that this fact makes the final cost of using vanillin or ethylvanillin the same.[42]

Manufacturing Facilities, Production Processes, and Employees. Vanillin and ethylvanillin are produced in the same production facilities, on the same equipment, by the same workers.[43] The production processes for both products are similar and vary only slightly depending on whether the campaign is for vanillin or ethylvanillin.[44]

The limited information available suggests that the production of natural vanillin differs from the production of vanillin and ethylvanillin.[45] Natural vanillin is made by an extraction process, using the vanilla plant.[46] In addition, natural vanillin appears to be produced by *** in different production facilities, on different equipment, and with different employees than vanillin and ethylvanillin.[47]

Channels of Distribution. Vanillin and ethylvanillin are sold in the same channels of distribution, either through distributors or directly to customers.[48] Petitioner sold *** to

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[39] CR at I-8.

[40] CR at I-6 and I-8. The natural vanillin produced in the United States is made by ***. CR at III-1, n.1. One importer commented on other countries producing natural vanillin using clove and turmeric, but there is no evidence that they are used to produce natural vanillin in the United States. CR at Table V-12.

[41] CR at I-6.

[42] CR at II-12. The pricing product data show that ethylvanillin was priced lower than vanillin throughout the POI, *compare* CR at Table V-5 *with* Table V-6.

[43] CR at I-7.

[44] CR at I-7.

[45] DeCarlo, Samantha, "Alright Stop, Collaborate and Listen: Vanillin, Not Vanilla," USITC, February 2022 at 7. https://www.usitc.gov/publications/332/alright_stop_collaborate_and_listen_vanillin_not.htm; CR at I-7. Natural vanillin is distinct from vanilla extract, which may contain vanillin but also contains other compounds and falls under a distinct HTS heading. CR at I-6, n.16.

[46] Only ***. CR at III-1, n.1.

[47] CR at III-1, n.1. The record contains no information on the production process for biovanillin.

[48] CR at I-7.

fragrance end users, with the remainder of U.S. shipments being split among distributors, food end users, and other end users.[49] The current record does not indicate the channels through which natural vanillin is sold.

Interchangeability. Petitioner reported that vanillin and ethylvanillin are *** interchangeable, while a plurality of importers said they sometimes are interchangeable.[50] Vanillin and ethylvanillin are both used to impart a vanilla flavor or fragrance to the end product.[51] Although ethylvanillin is more potent than vanillin, the record indicates that ethylvanillin may be used in place of vanillin, albeit in smaller quantities.[52] With respect to natural vanillin, the current record indicates that consumer preferences may dictate the choice of natural vanillin over vanillin or ethylvanillin, suggesting there is at least some degree of interchangeability.[53]

Producer and Customer Perceptions. Petitioner produces both vanillin and ethylvanillin and reported that both can be used in the same end-use applications.[54] The current record contains limited information on customer perceptions of natural vanillin. One purchaser noted ***.[55]

Price. The pricing data for vanillin and ethylvanillin indicate that the U.S. price of product 1 (vanillin) was generally higher than the U.S. price of product 2 (ethylvanillin).[56] The record does not contain pricing information for natural vanillin, but one purchaser indicated that natural vanillin can be significantly more expensive than vanillin or ethylvanillin.[57]

Conclusion. Based on the information available on the current record, vanillin and ethylvanillin share common physical characteristics and are capable of imparting vanilla fragrance or flavor. The record evidence shows they are produced in the same manufacturing facility, with the same equipment, process, and production workers. Further, both vanillin and ethylvanillin are sold through the same channels of distribution, can often be used in the same end-use applications, and can often be used interchangeably. In view of the foregoing, we find that the record supports defining vanillin and ethylvanillin as a single like product.

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[49] CR at Table II-2.

[50] CR at Table II-9.

[51] Tr. at 8 (Mr. Kraemer). A few importers noted differences that meant reformulation would be necessary to substitute vanillin for ethylvanillin and vice versa. CR at II-11 to II-12.

[52] CR at II-12.

[53] CR at I-8.

[54] CR at II-12; Tr. at 8 (Mr. Kraemer); Tr. at 12 (Ms. Jorge).

[55] CR at Table V-12.

[56] CR at Table V-6.

[57] CR at Table V-11.

With respect to natural vanillin, the limited evidence available suggests the physical characteristics and the ability to impart vanilla flavor and fragrance are similar to vanillin and ethylvanillin, while the manufacturing facilities, process, and employees may be different. The record does not contain sufficient information to draw conclusions about the extent to which natural vanillin is sold through the same or different channels of distribution or is interchangeable with vanillin and ethylvanillin. Nor does the record contain sufficient information regarding producer and customer perceptions or the price of natural vanillin.[58]

Although the available information is mixed, based on the lack of contrary argument and the similarity of physical characteristics to impart vanilla flavor and fragrance,[59] for purposes of these preliminary investigations, we define a single domestic like product consisting of all vanillin products coextensive with the scope.

II. 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."[60] 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.

We consider whether any producer of the domestic like product should be excluded from the domestic industry pursuant to Section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are

[58] In their comments on the questionnaires in any final phase of these investigations pursuant to 19 C.F.R. § 207.20(b), the parties are invited to comment on the appropriate definition of the domestic like product and on ways to improve the collection of reliable pricing data, including the appropriateness of the pricing products.

[59] CR at I-8. We intend to seek additional information regarding natural vanillin in any final phase of these investigations.

[60] 19 U.S.C. § 1677(4)(A).

themselves importers.[61] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[62]

The record indicates that *** is subject to possible exclusion from the domestic industry under the related party provision in the preliminary phase of these investigations because the firm imported subject merchandise during the POI .[63] [64] [65] Although the Commission did not receive any comments on this issue, we discuss below whether appropriate circumstances exist to exclude either domestic producer from the domestic industry.

Solvay. Solvay is the sole petitioner and produced the overwhelming majority of vanillin products produced in the United States in 2023, accounting for essentially 100 percent of U.S. production.[66] Solvay *** in 2021, 2022, and in the first quarter of 2024.[67] The ratio of its *** to its domestic production was *** percent in 2021, *** percent in 2022, and *** percent in

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[61] *See Torrington Co. v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int'l Trade 1992), *aff'd mem.*, 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331-32 (Ct. Int'l Trade 1989), *aff'd mem.,* 904 F.2d 46 (Fed. Cir. 1990); *Empire Plow Co. v. United States*, 675 F. Supp. 1348, 1352 (Ct. Int'l Trade 1987).

[62] 19 U.S.C. § 1677(4)(B). The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude a related party include the following:

(1) the percentage of domestic production attributable to the importing producer;

(2) the reason the U.S. producer has decided to import the product subject to investigation (whether the firm benefits from the LTFV sales or subsidies or whether the firm must import in order to enable it to continue production and compete in the U.S. market);

(3) whether inclusion or exclusion of the related party will skew the data for the rest of the industry;

(4) the ratio of import shipments to U.S. production for the imported product; and

(5) whether the primary interest of the importing producer lies in domestic production or importation. *Changzhou Trina Solar Energy Co. v. USITC*, 100 F. Supp.3d 1314, 1326-31 (Ct. Int'l. Trade 2015), *aff'd*, 839 F.3d 1377 (Fed. Cir. 2018); *see also Torrington Co.*, 790 F. Supp. at 1168.

[63] CR at III-2.

[64] Solvay also may qualify as a related party under the statute because it is ***. CR at Table III-3. A domestic producer may be deemed a related party if it controls or is controlled by an exporter or importer of subject merchandise, if a third party controls the domestic producer and an exporter or importer of subject merchandise, or if the domestic producer and an exporter or importer of subject merchandise control a third party and there is reason to believe this relationship causes the producer to act differently than a nonrelated producer. 19 U.S.C. § 1677(4)(B)(ii). Solvay has reported that is *** and that it is ***, but has not provided additional detail regarding ***. CR at Table III-3. We intend to investigate this issue further in any final phase of these investigations.

[65] *** is also subject to possible exclusion under the related parties provision because it is an importer of subject merchandise. CR at III-1, n.1. As noted above, *** accounts for less than *** percent of U.S. production and its inclusion or exclusion will not affect the Commission's analysis. Accordingly, we do not find appropriate circumstances exist to exclude *** from the domestic industry.

[66] CR Table III-1.

[67] CR Table III-10. Solvay *** pounds of subject merchandise in 2021, *** pounds in 2022, and *** pounds in interim 2024. CR at Table III-10.

the first quarter of 2024.[68] Solvay reported that it ***.[69] Solvay being the sole U.S. producer and a petitioner, the low ratio of Solvay's *** to ***, and the absence of any argument to the contrary, indicate that Solvay's primary interest lies in domestic production rather than ***. There is also no indication in the record that its domestic production operations benefited from its *** to such an extent that its inclusion in the domestic industry would skew industry data. For these reasons, and in the absence of any contrary argument, we find that appropriate circumstances do not exist to exclude Solvay from the domestic industry.

In sum, consistent with our definition of the domestic like product, we define the domestic industry as all domestic producers of vanillin.

III. Reasonable Indication of Material Injury by Reason of Subject Imports[70]

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.[71] 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 domestic producers of the domestic like product, but only in the context of U.S. production operations.[72] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[73] In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant

[68] CR Table III-10.

[69] CR at III-10.

[70] Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product shall be deemed negligible if they account for less than three 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. *See* 19 U.S.C. §§ 1673b(a), 1677(24)(A)(i).

During the 12-month period preceding filing of the petition (June 2023 through May 2024), subject imports from China accounted for 69.3 percent of total imports of vanillin. CR/PR at Table IV-8. Because subject imports from China are above the statutory threshold, we find that vanillin from China subject to the antidumping and countervailing duty investigations is not negligible.

[71] 19 U.S.C. §§ 1671b(a), 1673b(a).

[72] 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 … and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[73] 19 U.S.C. § 1677(7)(A).

economic factors that bear on the state of the industry in the United States.[74] 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."[75]

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,[76] 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.[77] 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.[78]

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 inflating an otherwise tangential cause of injury into one that satisfies the statutory material

[74] 19 U.S.C. § 1677(7)(C)(iii).

[75] 19 U.S.C. § 1677(7)(C)(iii).

[76] 19 U.S.C. §§ 1671b(a), 1673b(a).

[77] *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).

[78] The Federal Circuit, in addressing the causation standard of the statute, 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 further ratified in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), where 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).

injury threshold.[79] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[80] 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.[81] It is clear that the existence of injury caused by other factors does not compel a negative determination.[82]

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

[79] SAA at 851-52 ("{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.

[80] 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.").

[81] S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

[82] *See Nippon Steel Corp*., 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.").

imports."[83] The Commission ensures that it has "evidence in the record" to "show that the harm occurred 'by reason of' the LTFV imports," and that it is "not attributing injury from other sources to the subject imports." [84] The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[85]

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.[86] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[87]

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 by reason of subject imports.

1. Demand Conditions

U.S. demand for vanillin products is driven primarily by demand for the ultimate end-use products in which it is used, including vanilla flavoring, other flavoring, fragrance compounds, food and beverage products, and smokeless tobacco.[88] Demand for those products generally tracks Gross Domestic Product ("GDP"). Seasonally adjusted real GDP experienced its largest

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[83] *Mittal Steel*, 542 F.3d at 876 &78; *see also id.* at 873 ("While the Commission may not enter an 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*.

[84] *Mittal Steel*, 542 F.3d at 873 (quoting from *Gerald Metals*, 132 F.3d at 722), 877-79. We note that one relevant "other factor" may involve the presence of significant volumes of price-competitive nonsubject imports in the U.S. market, particularly when a commodity product is at issue. In appropriate cases, the Commission collects information regarding nonsubject imports and producers in nonsubject countries in order to conduct its analysis.

[85] *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.").

[86] We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

[87] *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.").

[88] CR/PR at II-7.

increase over the period of investigation in 2021, with small decreases in the first half of 2022.[89] GDP increased more modestly in the first quarter of 2024.[90] A large majority of importers reported the market was subject to business cycles and that COVID-19 increased demand.[91] Petitioner reported that vanilla beans and vanilla extract were substitutes in food products while almost all importers reported there are no substitutes for vanillin and ethylvanillin.[92]

Petitioner reported that demand for vanillin products had *** since January 1, 2021.[93] The responses by U.S. importers were mixed, with eight reporting that demand steadily increased or fluctuated up and five reporting that demand fluctuated down (with the remaining five reporting no change).[94]

Apparent U.S. consumption of vanillin products declined irregularly over the POI, increasing from *** pounds in 2021 to *** pounds in 2022, and declining to *** pounds in 2023, a level *** percent lower than in 2021.[95] Apparent U.S. consumption was *** percent higher in January to March 2024 ("interim 2024"), at *** pounds, as compared with *** pounds in January to March 2023 ("interim 2023").[96]

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[89] CR/PR at II-8.

[90] CR/PR at II-8.

[91] CR/PR at II-7. Importers also reported a seasonal element to demand for industries like confectionary and baking. CR/PR at II-7.

[92] CR/PR at II-10.

[93] CR/PR at Table II-5.

[94] CR/PR at Table II-5.

[95] CR/PR at Tables IV-9 & C-1.

[96] CR/PR at Table IV-9 & C-1. The current record contains limited information about the factors driving demand during the POI, and it is possible that the apparent consumption figures in the record (which are based on imports rather than shipments of imports) may not fully reflect actual demand in the U.S. market.

Petitioner argues there was a build-up of inventories of subject merchandise in the early part of the POI with a subsequent sell off in the latter part of the period. Petitioner's Post Conf. Br. at 12-14. The Fragrance and Flavor Industry Members argued that consumers stocked up on products containing vanillin from 2020-2021 and producers of vanillin containing products, like scented candles, diffusers, and cleaning products, "scrambled" to keep up with demand, but the demand bubble burst in 2022, leaving manufacturers with "massive" inventory overages. Fragrance & Flavor Industry Members Comments at 2.

The record shows that end-of-period inventories of both subject and nonsubject imports held by importers increased in 2022 and declined in 2023; it also shows that importers' inventories of subject imports declined between interim periods but their inventories of nonsubject imports increased (although both inventory figures were higher in interim 2024 than in 2023). Ending inventories of subject merchandise increased from *** pounds in 2021 to *** pounds in 2022, and then declined to *** pounds in 2023, a decline of *** pounds; they declined from *** pounds in interim 2023 to *** (Continued…)

2. Supply Conditions

The domestic industry was the second largest source of supply in the U.S. market during the POI.[97] The domestic industry's share of apparent U.S. consumption declined irregularly from *** percent in 2021 to *** percent in 2022 and increased to *** percent in 2023, for an overall decline of *** percentage points during the period.[98] The domestic industry's share of apparent consumption was *** percentage points lower in interim 2024 than in interim 2023.[99]

Petitioner reported that it was ***.[100] There were no other reported changes to the domestic industry's operations over the POI.

Subject imports were the largest source of supply to the U.S. market throughout the POI.[101] Subject imports' share of apparent U.S. consumption increased by *** percentage points during the POI, from *** percent in 2021 to *** percent in 2022 and *** percent in 2023.[102] Subject imports' share of apparent U.S. consumption was *** percentage points lower in interim 2024 than in interim 2023.[103]

Nonsubject imports were the third largest source of supply to the U.S. market during the POI.[104] Nonsubject imports' share of apparent U.S. consumption declined by *** percentage points during the POI, from *** percent in 2021 to *** percent in 2022 and *** percent in 2023.[105] Nonsubject imports' share of apparent U.S. consumption was ***

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pounds in interim 2024, or by *** pounds. Calculated from CR/PR at Table C-1. Ending inventories of nonsubject merchandise increased from *** pounds in 2021 to *** pounds in 2022, and then declined to *** pounds in 2023, a decline of *** pounds; they increased from *** pounds in interim 2023 to *** pounds in interim 2024, or by *** pounds. Calculated from CR/PR at Table C-1. Both Solvay and FFI indicate that purchasers had inventory overhangs at points in the POI, and also note that some purchasers purchased directly from Chinese producers/exporters. The current record does not contain information on import inventories held by purchasers.

In any final phase of these investigations, we intend to explore the effect that inventories of both subject and nonsubject merchandise, and changes in those inventories, had on the U.S. market, and how to best assess U.S. consumption and demand. We also intend to explore the reasons for the sharp increase in apparent U.S. consumption in interim 2024, when consumption was *** percent higher than in interim 2023. CR/PR at Tables IV-9 & C-1.

[97] CR/PR at Table IV-9.

[98] CR/PR at Table IV-9.

[99] CR/PR at Table IV-9. The domestic industry's share of apparent U.S. consumption was *** percent in interim 2023 compared with *** percent in interim 2024. *Id.*

[100] CR/PR at Table III-4.

[101] CR/PR at Table IV-9.

[102] CR/PR at Table IV-9.

[103] CR/PR at Table IV-9. Subject imports' share of apparent U.S. consumption was *** percent in interim 2023 compared with *** percent in interim 2024. *Id.*

[104] CR/PR at Table IV-9.

[105] CR/PR at Table IV-9.

percentage points higher in interim 2024 than in in interim 2023.[106] The largest sources of nonsubject imports during the POI were Norway, Indonesia, and Brazil.[107]

3. Substitutability and Other Conditions

Based on the record in the preliminary phase of these investigations, we find that there is a moderate-to-high degree of substitutability between domestically produced vanillin products and subject imports.[108] *** and most responding importers (12 of 17) reported that the domestic like product and subject imports were always or frequently interchangeable.[109]

The record in the preliminary phase of this investigation also indicates that price is an important factor in purchasing decisions for vanillin products, among other important factors. All of the purchasers responding to the Commission's lost sales and lost revenue survey reported price as one of the top three factors, and price was the most often-cited second most important factor.[110] *** and 7 of 17 of responding U.S. importers reported that differences other than price were only sometimes or never significant in choosing between purchasing domestically produced vanillin products and subject imports.[111] The 10 remaining responding U.S. importers reported that there were always or frequently significant differences other than price.

On September 1, 2019, vanillin from China imported under HTS subheading 2912.41.0000 became subject to an additional 10 percent *ad valorem* duty under section 301 of the Trade Act of 1974, as amended ("Section 301").[112] Effective February 2020, this additional duty decreased from 10 percent to 7.5 percent *ad valorem*.[113] On September 24, 2018, ethylvanillin from China imported under HTS subheading 2912.42.0000 became subject to an additional 10 percent *ad valorem* duty under Section 301.[114] Effective May 10, 2019, this additional duty increased from 10 percent to 25 percent *ad valorem*.[115]

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[106] CR/PR at Table IV-9. Nonsubject imports' share of apparent U.S. consumption was *** percent in interim 2023 and *** percent in interim 2024. *Id.*

[107] CR/PR at II-6.

[108] CR/PR at II-10 & Table II-8.

[109] CR/PR at Table II-8. We intend to further examine the degree of substitutability between subject imports and the domestic like product, and the interchangeability between different types of vanillin products, in any final phase of these investigations.

[110] CR/PR at Table II-7. Quality was the most often cited top factor (3 of 5 purchasers), followed by price (1 of 5 purchasers) and all other factors (1 of 5 purchasers). *Id.*

[111] CR/PR at Table II-10.

[112] CR/PR at I-5.

[113] CR/PR at I-5.

[114] CR/PR at I-5 to I-6.

[115] CR/PR at I-6. The general rate of duty for vanillin is 5.5 percent *ad valorem*. CR/PR at I-5.

Responding U.S. producers and importers reported shipments through similar channels of distribution. Shipments to fragrance end users accounted for *** percent of the domestic industry's U.S. shipments and *** percent of subject import U.S. shipments in 2023. Food end users, other end users, and distributors accounted for remaining shipments.[116] For 2023, petitioner reported that *** percent of its U.S. shipments were made through spot sales with the remainder divided evenly among long-term contracts, annual contracts, and short-term contracts; importers reported that most of their U.S. shipments were made pursuant to annual contracts (*** percent) and spot sales (*** percent). [117]

The primary raw material used to produce vanillin and ethylvanillin is glyoxylic acid, followed by phenol, caustic soda, and other material inputs.[118] Raw material costs were the largest component of U.S. producers' total cost of goods sold ("COGS") during the POI, increasing as a share of the domestic industry's total COGS from *** percent in 2021 to *** percent in 2022 and *** percent in 2023; this ratio was *** percent in interim 2024, as opposed to *** percent in interim 2023.[119]

C. 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."[120]

The volume of subject imports decreased irregularly 2021 to 2023, going from 6.8 million pounds in 2021 to 7.7 million pounds 2022 and 5.1 million pounds in 2023, for an overall decline of 25 percent.[121] The volume of subject imports was 66.3 percent higher in interim 2024, at 1.7 million pounds, than in interim 2023, at 1.0 million pounds.[122]

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[116] CR/PR at Table II-2.

[117] CR/PR at Table V-4. Petitioner stated that historically it sold most vanillin under annual or longer-term contracts but over the past three years customers are only agreeing to shorter duration contracts and that more sales are on a spot basis. Tr. at 14-15 (Ms. Jorge); Solvay's U.S. Producers' Questionnaire Response at IV-6. Petitioner provided no documentary support for the existence of this trend, despite an express request for such information from Commission staff. Tr. at 71 (Ms. Davis). In any final phase of these investigations, we intend to examine the degree to which there was a shift from long-term contracts to spot pricing, the reasons for any such shift, and the effects that any such shift may have had on the U.S. market.

[118] CR/PR at Table VI-3.

[119] CR/PR at Table VI-1.

[120] 19 U.S.C. § 1677(7)(C)(i).

[121] CR/PR at Tables IV-2 & C-1.

[122] CR/PR at Tables IV-2 & C-1.

Subject imports as a share of apparent U.S. consumption increased by *** percentage points from 2021 to 2023, from *** percent of apparent U.S. consumption in 2021 to *** percent in 2022 and *** percent in 2023.[123] Subject imports' share of apparent U.S. consumption was lower in interim 2024, at *** percent, than in interim 2023, at *** percent.[124]

Based on the record in the preliminary phase of this investigation, we find that the volume of subject imports was significant in absolute terms and relative to apparent U.S. consumption and the increase in that volume relative to U.S. consumption was significant.[125]

D. Price Effects of the 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
>
> (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.[126]

As addressed in section IV.B.4. above, we have found that there is a moderate-to-high degree of substitutability between domestically produced vanillin products and subject imports, and that price is an important factor in purchasing decisions, among other important factors.

We have examined several sources of data for our underselling analysis, including pricing data, import purchase cost data, and information concerning lost sales. The Commission collected quarterly pricing data from U.S. producers and importers for the total quantity and f.o.b. values of two pricing products shipped to unrelated U.S. customers during the POI.[127] Petitioner and 13 importers provided usable pricing data, although not all firms

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[123] CR/PR at Tables IV-9 & C-1.

[124] CR/PR at Tables IV-9 & C-1.

[125] Subject imports as a ratio to U.S. production increased by nearly *** percentage points from 2021 to 2023, from *** percent in 2021 to *** percent in 2022 and *** percent in 2023. Derived from CR/PR at Table C-1. Subject imports were higher in relation to U.S. production in interim 2024, at *** percent, compared with interim 2023, at *** percent. *Id.*

[126] 19 U.S.C. § 1677(7)(C)(ii).

[127] CR/PR at V-7. The two pricing products are as follows:

Product 1.-- Synthetic vanillin (excluding biosynthetic), or 4-Hydroxy-3 methoxybenzaldehyde, with the chemical formula C8H8O3.

(Continued…)

reported pricing for all products for all quarters.[128] Pricing data reported by these firms accounted for *** percent of U.S. producers' U.S. shipments of vanillin products and *** percent of U.S. imports from China in 2023.[129]

These pricing data indicate that subject imports oversold domestically produced vanillin and ethylvanillin in 23 of 26 quarterly comparisons, involving *** pounds of subject imports, at margins ranging from *** to *** percent and averaging *** percent.[130] Subject imports undersold domestically produced vanillin and ethylvanillin in 3 of 26 quarterly comparisons, involving *** pounds of subject imports, at margins ranging from *** to *** percent and averaging *** percent.[131] Thus, over the POI subject imports undersold the domestic like product in 11.5 percent of quarterly comparisons, with *** percent of the reported sales volume of subject imports in the quarters of underselling.[132]

The Commission also collected import purchase cost data for the same two pricing products from firms that directly imported these products for their own internal use or retail sale. Purchase cost data reported by eight direct importers for these pricing products accounted for *** percent of subject imports in 2023.[133]

The purchase cost data indicate that landed duty-paid costs for subject imports were above the sales price for the domestic like product in 16 of 26 instances, corresponding to reported subject import purchases of *** pounds, with price-cost differentials ranging between from *** percent to *** percent and averaging *** percent.[134] The landed duty-paid costs for subject imports were below the sales price for the domestic like product in 10 of 26 instances, corresponding to reported subject import purchases of ***, with price-cost differentials ranging from *** percent to *** percent and averaging *** percent.[135] Thus, subject import purchase costs were lower than the domestic sales prices in only 38.5 percent of quarterly comparisons, corresponding to *** percent of the volume of subject import purchases.[136]

Product 2.-- Ethylvanillin, or 3-Ethoxy-4-hydroxybenzaldehyde, with the chemical formula C9H10O3.

In any final phase of these investigations, we invite parties to comment on the definitions of the pricing products, including whether they need to be revised to ensure responding firms understand that natural vanillin and biovanillin are excluded from the definitions.

[128] CR/PR at V-7.

[129] CR/PR at V-7.

[130] CR/PR at Table V-7.

[131] CR/PR at Table V-7.

[132] Calculated from CR/PR at Table V-8.

[133] CR/PR at V-8.

[134] CR/PR at Table V-9.

[135] CR/PR at Table V-9.

[136] CR/PR at Table V-9.

We recognize that the import purchase cost data may not reflect the total cost of importing and therefore requested that importers provide additional information regarding the costs and benefits of directly importing vanillin products. Five importers providing usable purchase cost data reported they incurred additional costs beyond the landed duty-paid costs, while eight reported that they did not incur such additional costs.[137] One importer estimated the total additional cost incurred was an additional 1 percent above the landed-duty paid value, while another estimated it was 25 percent above.[138]

U.S. importers were also asked whether the cost of vanillin products that they imported was lower than the price of purchasing vanillin products from a U.S. producer or importer. Five importers reported that the cost of importing directly was lower than purchasing from a U.S. producer or importer, even when including any additional costs of importing.[139] Three importers estimated that they saved between *** percent of the purchase price by importing directly, including additional costs of importing, rather than purchasing from a U.S. producer.[140]

We have also considered U.S. purchaser responses regarding lost sales and revenue. One of the five responding purchasers reported purchasing subject imports instead of the domestic like product during the POI.[141] This purchaser reported that subject imports were not priced lower than domestic product, explaining that it purchased imported rather than U.S. produced product ***.[142] One of the five purchasers reported that U.S. producers did not lower prices in order to compete with lower-priced subject imports; the others reported they did not know.[143]

Although subject imports predominantly oversold the domestic like product in the quarterly price comparisons and landed duty-paid costs for subject imports were predominantly below the sales price for the domestic like product, we cannot conclude that subject imports did not significantly undersell the domestic like product during the POI. In particular, we observe that instances of subject imports underselling the domestic like product

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[137] CR/PR at V-7.

[138] CR/PR at V-7 to V-8. Importers described inland freight, import logistics costs, brokerage, import duties, drayage costs, chassis rentals, and additional port fees. *Id*. Thirteen importers indicated that they either compare costs of importing to the cost of purchasing from a U.S. producer or to that of purchasing from a U.S. importer in determining whether to import vanillin products. *Id*.

[139] CR/PR at V-8.

[140] CR/PR at V-8.

[141] CR/PR at Table V-11.

[142] CR/PR at Table V-11. This was not the only purchaser who experienced difficulty receiving price quotes from Petitioner. CR/PR at V-4 to V-5. We intend to examine Petitioner's sales process further in any final phase of these investigations.

[143] CR/PR at V-15.

and of landed duty-paid costs for subject imports being priced below the domestic like product increased as the period progressed.[144] Specifically, such instances in 2023 and interim 2024 totaled *** percent of the reported sales volume of subject imports during that time period.[145] Thus, given the high degree of substitutability between subject imports and the domestic like product, the importance of price in purchasing decisions, and the data showing that by both measures underselling increased in the latter part of the POI, and in the absence of any argument to the contrary, we cannot conclude for purposes of the preliminary phase of these investigations that subject imports did not significantly undersell the domestic like product during the POI.

We have also considered price trends. During the POI, Solvay's prices for both pricing products increased through the fourth quarter of 2022, but then decreased for the remainder of the period, albeit to a level in the first quarter of 2024 greater than in the first quarter of 2021.[146] In contrast, the prices for subject imports of products 1 and 2 peaked in the second half of 2022, but then declined to their lowest levels of the POI in the first quarter of 2024, with prices for product 1 and 2 respectively *** percent and *** percent below prices in the first quarter of 2021.[147] Notably, domestic prices were decreasing in 2023 and interim 2024 as subject import prices also declined and instances of subject imports underselling the domestic like product or of landed duty-paid costs for subject imports being priced below the domestic like product increased.

Additionally, we have examined whether subject imports prevented price increases which otherwise would have occurred to a significant degree. The record shows that the domestic industry's ratio of COGS to net sales increased irregularly from 2021 to 2023, decreasing from *** percent in 2021 to *** percent in 2022 and increasing to *** percent in 2023, for a *** percentage point increase over the period.[148] The domestic industry's ratio of COGS to net sales was higher in interim 2024, at *** percent, than in interim 2023, at ***

[144] *See* Tables IV-2, V-5, V-6.

[145] Calculated from Tables V-5, V-6.

[146] CR/PR at Tables V-5 and V-6. Domestic prices for pricing product 1 increased by *** percent from the first quarter of 2021 to the first quarter of 2024, and domestic prices for pricing product 2 increased by *** percent over this time. *Id.* at Table V-7.

[147] CR/PR at Table V-7.

[148] CR/PR at Tables VI-1 & C-1.

percent.[149] [150] Again, we observe that the industry's ratio of COGS to net sales deteriorated in 2023 and interim 2024 as subject import prices declined and instances of subject imports underselling the domestic like product or of landed duty-paid costs for subject imports being priced below the domestic like product increased.

In light of the foregoing evidence, for purposes of these preliminary determinations, we cannot conclude that subject imports did not depress or suppress prices for the domestic like product to a significant degree during the POI.

In sum, based on the record of the preliminary phase of this investigation, and in particular the trends toward the end of the POI, we cannot conclude that subject imports did not significantly undersell the domestic like product, and we cannot conclude that it did not depress or suppress domestic producer prices to a significant degree. Accordingly, we cannot conclude that subject imports did not have significant adverse price effects. Given the prevalence of overselling over the POI, and the limited evidence on this record that subject imports had significant price effects, we intend to closely examine pricing and price effects in any final phase of these investigations.

E. Impact of the Subject Imports[151]

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 ("R&D"), and factors affecting

[149] CR/PR at Table VI-1. From 2021 to 2022, the domestic industry's per unit net sales value increased by $*** per pound from 2021 to 2022 and the industry's per unit COGS increased by $***, while apparent U.S. consumption increased by *** percent. CR/PR at Tables VI-2 and C-1. From 2022 to 2023, the domestic industry's per unit net sales value increased by $*** per pound from 2022 to 2023 and the industry's per unit COGS increased by $***, while apparent U.S. consumption declined by *** percent. *Id.* The domestic industry's per unit sales value was $*** per pound lower in interim 2024 than in interim 2023 while the industry's per unit COGS were only $*** per pound lower; apparent consumption was *** percent higher in interim 2024 compared to interim 2024. *Id.*

[150] The domestic industry's ratio of COGS to net sales appears to follow the same trend as the raw material price for phenol and caustic soda, two of the primary inputs. CR/PR at Figure V-1.

[151] Commerce initiated investigations based on estimated dumping margins of 1,173.85 and 1,231.35 percent. *Vanillin from the People's Republic of China: Initiation of Less-Than-Fair-Value Investigations*, 89 Fed. Reg. 54424, 54427 (July 1, 2024).

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."[152]

During the POI, the domestic industry's production, capacity, capacity utilization, and shipments generally declined, inventories increased, and employment indicators declined. The industry's financial indicators, including its gross profit, operating income, net income, and operating and net income margins all declined.

The domestic industry's practical capacity decreased by *** percent from 2021 to 2023, and was *** percent higher in the interim period comparison.[153] The industry's production declined by *** percent from 2021 to 2023, but was *** percent higher in interim 2024 as compared to interim 2023.[154] Its capacity utilization declined by *** percentage points over the three full years of POI, from *** percent in 2021, to *** percent in 2022 and *** percent in 2023; capacity utilization was *** percentage points higher in interim 2024 than in interim 2023.[155]

The domestic industry's number of production and related workers ("PRWs"), hourly wages, wages paid, hourly wages, and productivity decreased from 2021 to 2023, with performance in interim 2024 somewhat better than in interim 2023.[156] Its total hours worked also decreased irregularly during the period.[157] The domestic industry's productivity declined irregularly from 2021 to 2023.[158]

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[152] 19 U.S.C. § 1677(7)(C)(iii).

[153] CR/PR at Table C-1. The domestic industry's practical capacity decreased from *** pounds in 2021 and 2022 to *** pounds in 2023. CR/PR at Table III-5. The domestic industry's practical capacity in each of the interim periods was *** pounds. *Id.*

[154] CR/PR at Table C-1. The domestic industry's production decreased from *** pounds in 2021 to *** pounds in 2022 and *** pounds in 2023. CR/PR at Table III-5. Production was higher in interim 2024, at *** pounds, than in interim 2023, at *** pounds. *Id.*

[155] CR/PR at Table III-5. In interim 2023, capacity utilization was *** percent and in interim 2024, it was *** percent. *Id.*

[156] CR/PR at Table III-12. The domestic industry's number of PRWs decreased from *** PRWs in 2021 to *** PRWs in 2022 and *** PRWs in 2023; the number of PRWs was lower in interim 2024, at ***, than in interim 2023, at ***. *Id.* Wages paid decreased from $*** in 2021 to $*** in 2022 and $*** in 2023; they were $*** in interim 2023 and $*** in interim 2024. *Id.* Hourly wages decreased from $*** per hour in 2021 to $*** per hour in 2021 and increased to $*** per hour in 2023; they were $*** per hour in interim 2023 and $*** per hour in interim 2024. *Id.*

[157] CR/PR at Table III-12. Total hours worked declined from *** in 2021 and 2022 to *** in 2023; they were *** hours in interim 2023 and *** hours in interim 2024. *Id*.

[158] CR/PR at Table III-12. Productivity decreased from *** pounds per hour in 2021 to *** pounds per hour in 2022 and *** pounds per hour in 2023. *Id*. Productivity was higher in interim 2024, at *** pounds per hour, than in interim 2024, at *** pounds per hour. *Id.*

The domestic industry's U.S. shipments decreased by *** percent from 2021 to 2023.[159] The industry's market share decreased irregularly, falling from *** percent in 2021 to *** percent in 2022, then increasing to *** percent in 2023, for an overall decline of *** percentage points during the POI.[160] The domestic industry's market share was down across interim periods, at *** percent in interim 2024 compared to *** percent in interim 2023.[161]

The domestic industry's end-of-period inventories increased by *** percent during the three full years of the POI.[162] As a ratio to total shipments, the domestic industry's end-of-period inventories increased from *** percent in 2021 to *** percent in 2022 and *** percent in 2023, for an overall increase of *** percentage points for the POI.[163] The ratio of ending inventories to shipments was down across interim periods, at *** percent in interim 2024 compared to *** percent in interim 2023.[164]

The domestic industry's financial performance indicia generally improved in 2022 but deteriorated in 2023, for an overall decline from 2021 to 2023, and were generally worse in interim 2024 compared to interim 2023. The industry's net sales revenues increased by *** percent in 2022 then declined by *** percent in 2023, for an overall decline of *** percent from 2021 to 2023; it was *** percent higher in interim 2024 compared to interim 2023.[165] Its gross profit improved in 2022 but worsened in 2023, for an overall decline of *** percent during the POI; it was *** percent lower in interim 2024 than in interim 2023.[166] The domestic industry's operating income increased from 2021 to 2022 and then declined in 2023, for an

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[159] CR/PR at Tables III-7 & C-1. The domestic industry's U.S. shipments declined from *** pounds in 2021 to *** pounds in 2022 and *** pounds in 2023; they were *** pounds in interim 2024. *Id.*

The quantity of the domestic industry's export shipments *** exceeded its domestic shipments but their AUVs were consistently lower throughout the POI; export shipments also declined by *** more than did domestic shipments in the full years of the POI. CR/PR at Table C-1. In any final phase of these investigations, we intend to gather more information about these export sales (along with transfers to foreign related firms) and consider how they affected the domestic industry's financial performance during the POI.

[160] CR/PR at Table C-1.

[161] CR/PR at Table C-1.

[162] CR/PR at Tables III-11 & C-1. The domestic industry's end-of-period inventories increased from *** pounds in 2021 to *** pounds in 2022 and *** pounds in 2023. *Id*. Ending inventories were lower in interim 2024, at *** pounds, than in interim 2023, at ***. *Id.*

[163] CR/PR at Tables III-9 & C-1.

[164] CR/PR at Tables III-9 & C-1.

[165] CR/PR at Table C-1. The domestic industry's net sales by value increased from $*** in 2021 to $*** in 2022 and declined to $*** in 2023. CR/PR at Table VI-1. The domestic industry's net sales value was higher in interim 2024, at *** than in interim 2023, at $*** million. *Id.*

[166] CR/PR at Table C-1.

overall decline of *** percent from 2021 to 2023; its operating income of $*** in interim 2023 became an operating loss of $*** in interim 2024.[167] As a ratio to net sales, the industry's operating income increased from *** percent in 2021 to *** percent in 2022, and then declined to *** percent in 2023, for an overall decrease of *** percentage points from 2021 to 2023; the ratio of operating income to net sales was negative *** percent in interim 2024 as compared to *** percent in interim 2023.[168]

The domestic industry's capital expenditures declined from $*** in 2021 to $*** in 2022, and increased to $*** in 2023, for an overall decline of *** percent.[169] Capital expenditures were $*** in interim 2023 and $*** in interim 2024.[170] The industry's R&D expenses decreased by *** percent from 2021 to 2023.[171] Its operating return on assets decreased irregularly, increasing from *** percent in 2021 to *** percent in 2022 and decreasing to *** percent in 2023.[172] The sole domestic producer reported negative effects on its investment and growth and development due to subject imports.[173]

In conclusion, we have found that the volume of subject imports was significant in absolute terms and relative to apparent U.S. consumption and significantly increased relative to apparent U.S. consumption, gaining *** percentage points of market share over the full three years of the POI. We cannot conclude that subject imports did not significantly undersell the domestic like product, particularly toward the end of the POI, when instances of subject imports underselling the domestic like product and of landed duty-paid costs for subject imports being priced below the domestic like product increased in 2023 and interim 2024, and combined accounted for *** percent of the reported sales volume of subject imports during that time period.[174] Further, we cannot conclude that low-priced subject imports did not depress domestic prices or prevent price increases that would have otherwise occurred during

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[167] The domestic industry's gross profit increased from $*** in 2021 to $*** in 2022 and declined to $*** in 2023. The domestic industry's gross profit was lower in interim 2024 at $*** compared to $*** in interim 2023. The domestic industry's operating income increased from $*** in 2021 to $*** in 2022 and declined to $*** in 2023. The domestic industry's operating income was lower interim 2024 at *** compared to *** in interim 2023.The domestic industry's net income matched its operating income. CR/PR at Table VI-1.

[168] CR/PR at Table C-1. The ratio of the industry's net income to sales was the same as that of operating income to net sales. *Id.*

[169] CR/PR at Tables VI-5 & C-1.

[170] CR/PR at Tables VI-5 & C-1.

[171] The domestic industry's R&D expenses decreased from $*** in 2021 to $*** in 2022, and were $*** in 2023 and both interim periods. CR/PR at Table VI-5.

[172] CR/PR at Table VI-5.

[173] CR/PR at Table VI-7.

[174] Calculated from Tables V-5, V-6.

this time. As a consequence, we cannot conclude that the domestic industry's production, capacity utilization, U.S. shipments, market share, revenues, operating income, and net income were not lower than they would have been but for subject imports. Accordingly, we cannot conclude that subject imports did not have a significant impact on the domestic industry.

We have also considered whether there are other factors that may have had an impact on the domestic industry to ensure that we are not attributing injury from such other factors to subject imports. As discussed in Section V.B.2 above, nonsubject imports were the third largest source of supply to the U.S. market throughout the POI. Nonsubject imports declined during the full three years of the POI and their share of apparent U.S. consumption also declined, while their AUVs were consistently above those of subject imports.[175] Although nonsubject imports' share of apparent U.S. consumption was higher in interim 2024 than interim 2023, the AUVs of nonsubject imports were *** above those of subject imports.[176] We therefore find, for purposes of these preliminary determinations, that nonsubject imports do not explain the injury to the industry during the POI.

We have also considered trends in apparent U.S. consumption.[177] Apparent U.S. consumption increased by *** percent in 2022 but sharply declined, by *** percent, in 2023, for an overall decline of *** percent; it then rose sharply, by *** percent, between interim periods.[178] The record, however, is unclear on how closely linked the industry's condition is to changes in apparent consumption and demand, and also does not explain why apparent U.S. consumption was *** percent higher in interim 2024 compared to interim 2024. As discussed above, in any final phase of these investigations we will further examine apparent U.S. consumption and demand, and how changes in demand affected the domestic industry. However, we cannot find, based on the current limited record, that declining demand in 2023 fully accounts for the injury we have attributed to subject imports for purposes of these preliminary investigations, as a significant volume of subject imports at increasingly lower

[175] The volume of nonsubject imports was *** pounds in 2021, *** pounds in 2022, and *** pounds in 2023. CR/PR at Table C-1. Nonsubject imports were higher in interim 2024, at *** pounds, than in interim 2023, at *** pounds. *Id.*

Nonsubject imports' share of apparent U.S. consumption was *** percent in 2021, *** percent in 2022, *** percent in 2023, *** percent in interim 2023, and *** percent in interim 2024. *Id.*

[176] Nonsubject imports' AUV was $*** per pound in interim 2024 while subject imports' AUV was $*** in that same period. *Id.*

[177] The Fragrance and Flavor Industry Members argued that a temporary spike in demand caused by COVID-19 and a return to normal market conditions explains the domestic industry's condition. Fragrance & Flavor Industry Members Comments at 2-3.

[178] CR/PR at Table C-1.

prices toward the end of the POI may have placed downward pricing pressure on the domestic like product.

IV. Conclusion

For the reasons stated above, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of China from China that are allegedly sold in the United States at LTFV and subsidized by the government of China.

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 Solvay USA LLC ("Solvay"), Baton Rouge, Louisiana, on June 5, 2024, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value ("LTFV") imports of vanillin[1] from China. Table I-1 presents information relating to the background of these investigations.[2] [3]

Table I-1
Vanillin: Information relating to the background and schedule of this proceeding

Effective date	Action
June 5, 2024	Petitions filed with Commerce and the Commission; institution of the Commission investigations (89 FR 49192, June 11, 2024)
June 25, 2024	Commerce's CVD notice of initiation (89 FR 54421, July 1, 2024);
June 25, 2024	Commerce's AD notice of initiation (89 FR 544424, July 1, 2024)
June 26, 2024	Commission's conference
July 19, 2024	Commission's vote
July 22, 2024	Commission's determinations
July 29, 2024	Commission's views

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. . . may consider such other economic factors as are relevant to the*

[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.

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--[4]

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.

[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 and 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

Vanillin, also referred to as methylvanillin, is the key molecule found in the vanilla flower, specifically the beans within the pods, that gives off the vanilla fragrance and flavor.[6] Today, vanillin is typically produced synthetically. It is generally used in flavorings, foods, perfumes, and pharmaceuticals. The only U.S. producer of vanillin is Solvay[7], while leading producers of vanillin in China include ***. The leading U.S. importers of vanillin from China are ***.[8] Leading importers of product from nonsubject countries (primarily Norway, France, and Indonesia) include ***. Leading U.S. purchasers include ***.

Apparent U.S. consumption of vanillin totaled approximately *** pounds ($***) in 2023. Currently, one firm is known to produce vanillin in the United States. U.S. producer's U.S. shipments of vanillin totaled *** ($***) in 2023, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from China totaled 5.1 million pounds ($43.5. million) in 2023 and

[6] DeCarlo, Samantha, "Alright Stop, Collaborate and Listen: Vanillin, Not Vanilla," USITC, February 2022, p. 6, https://www.usitc.gov/publications/332/alright_stop_collaborate_and_listen_vanillin_not.htm. Conference transcript, p. 5 (Kramer). Petition p. 3.

[7] Conference transcript, p. 18 (Pickard). ***. See part III for additional details.

[8] Conference transcript, pp. 22-23 (Pickard).

accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from nonsubject sources totaled 1.8 million pounds ($38.8 million) in 2023 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 the questionnaire response of one firm that accounted for all or virtually all U.S. production of vanillin during 2023. U.S. imports are based on official import statistics.

Previous and related investigations

Vanillin has not been the subject of any prior countervailing nor antidumping duty investigations in the United States.

Nature and extent of alleged subsidies and sales at LTFV

Alleged subsidies

On July 1, 2024, Commerce published a notice in the Federal Register of the initiation of its countervailing duty investigation on vanillin from China.[9]

Alleged sales at LTFV

On July 1, 2024, Commerce published a notice in the Federal Register of the initiation of its antidumping duty investigation on vanillin from China[10] Commerce has initiated antidumping duty investigations based on estimated dumping margins of 1,173.85 and 1,231.35 percent for vanillin from China.

[9] For further information on the alleged subsidy programs see Commerce's notice of initiation and related CVD Initiation Checklist. 89 FR 54421, July 1, 2024.

[10] 89 FR 54425, July 1, 2024.

The subject merchandise

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:[11]

> *The merchandise covered by the investigation is vanillin, with the molecular formula* $C_8H_8O_3$ or $C_9H_{10}O_3$. *For purposes of this investigation, vanillin consists of natural vanillin, synthetic vanillin, bio-sourced synthetic vanillin (biovanillin) (each also known as 4-Hydroxy-3- methoxybenzaldehyde), and ethylvanillin (also known as 3-Ethoxy-4- hydroxybenzaldehyde). Vanillin covered by this investigation is a chemical compound with the Chemical Abstracts Service (CAS) number 121–33–5 or 121–32–4. Vanillin is covered by the investigation regardless of whether it is in a crystalline powder or crystal form. Vanillin is covered by the scope of the investigation, irrespective of purity, particle size, or physical form.*

Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to these investigations is imported under statistical reporting numbers 2912.41.0000 and 2912.42.0000 of the Harmonized Tariff Schedule of the United States ("HTS"). The 2024 general rate of duty is 5.5 percent ad valorem. Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

Effective September 1, 2019, vanillin imported under HTS 2912.41.0000 originating in China is subject to an additional 10 percent ad valorem duty under Section 301 of the Trade Act of 1974. [12] Effective February 2020, this additional duty decreased from 10 percent to 7.5 percent ad valorem.[13] Effective September 24, 2018, ethylvanillin imported under HTS 2912.42.0000 originating in China is subject to an additional 10 percent ad valorem duty under

[11] 89 FR 54421, 89 FR 54424, July 1, 2024.

[12] 84 FR 43304, August 20, 2019. See also HTS heading 9903.88.15 and U.S. notes 20(r) and 20(s) to subchapter III of chapter 99. USITC, HTS (2024) Revision 4, USITC Publication 5521, July 2024, pp. 99-III-87–99-III-101.

[13] 85 FR 3741, January 22, 2020.

Section 301 of the Trade Act of 1974, as provided for in subheading 9903.88.03.[14] Effective May 10, 2019, this additional duty increased from 10 percent to 25 percent ad valorem.[15]

The product

Description and applications

There are two vanillin products: vanillin (also known as "methylvanillin") and ethylvanillin.[16] Vanillin (molecular formula $C_8H_8O_3$) is the compound that gives vanilla beans their flavor and fragrance.[17] However, demand for vanillin far exceeds what could be produced from vanilla beans, so most vanillin is synthetic.[18] Ethylvanillin (molecular formula $C_9H_{10}O_3$) is a homologue of vanillin, containing the same functional chemical group and characteristics, with petitioner reporting that they are often interchangeable.[19] Vanillin and ethylvanillin are typically food grade and are used to provide vanilla flavor and fragrance in products including food, beverages, perfumes, vitamins, and laundry detergents.[20] Petitioner's vanillin products have FSSC-22000 certification for food safety and vanillin products imported from China likely have similar certification.[21] Petitioner reports its final product is typically 99.95 percent or higher purity.[22] Imported vanillin products likely have similar purity levels, due to requirements for food safety certification and additional customer requirements.[23] Synthetic vanillin and

[14] 83 FR 47974, September 21, 2018. HTS heading 9903.88.03 and U.S. notes 20(e) and 20(f) to subchapter III of chapter 99. USITC, HTS (2024) Revision 4, USITC Publication 5521, July 2024, pp. 99-III-27–99-III-51.

[15] 84 FR 20459, May 9, 2019.

[16] Note that the similarly named product vanilla extract may include vanillin, but is a mixture of multiple compounds, and, as a separated product, is imported under HTS 1302.19.9140. DeCarlo, Samantha, "Alright Stop, Collaborate and Listen: Vanillin, Not Vanilla," USITC, February 2022, p. 7. https://www.usitc.gov/publications/332/alright_stop_collaborate_and_listen_vanillin_not.htm.

[17] Conference transcript, p. 5 (Kraemer).

[18] Petition, p. 3.

[19] Petitioner's post-conference brief, p. 1. Conference transcript, pp. 19 (Pickard), 12 (Jorge). Ethylvanillin has 2–4 times more intense flavor and aroma. Conference transcript, p. 31 (Kraemer).

[20] Conference transcript, pp. 8 (Kraemer), 12 (Jorge), 19 (Pickard) and 77 (Kraemer).

[21] Conference transcript, pp. p. 64 (Kraemer), 65 (Jorge). FSSC is a certification "…to ensure the provision of safe food, feed, and packaging to the consumer goods industry." FSSC company website, www.fssc.com. Petitioner states that FSSC-22000 has requirements for product quality and also processes, including pest control, facilities, product handling, and packaging. Conference transcript, pp. 72–73 (Kraemer).

[22] The main impurity for vanillin is ethylvanillin, and the main impurity for ethylvanillin is vanillin. Conference transcript, p. 44 (Kraemer).

[23] Conference transcript, p. 57 (Kraemer).

ethylvanillin are sold in the same channels of distribution, either through distributors or directly to customers.[24]

Manufacturing processes

Production of synthetic vanillin typically follows three major steps.[25] First, phenol is reacted with hydrogen peroxide, using perchloric acid as a catalyst. This reaction produces pyrocatechol, which is used to produce vanillin and the coproduct hydroquinone, which can be sold.[26] In place of this first step, pyrocatechol can be purchased instead of produced.[27]

In the second step, pyrocatechol undergoes either methylation to produce guaiacol, (along with the coproduct veratrole), or ethylation to produce guetol (and the coproduct orthodiethoxybenze, commonly referred to as ODEB).[28] In the third step, the intermediate products guaiacol and guetol are reacted with glyoxylic acid to produce vanillylmandelic acid and mandelic acid, respectively. Oxidative decarboxylation is then used to convert vanillylmandelic acid to vanillin or mandelic acid to ethylvanillin. The final products are composed of small crystals, which are packaged for delivery to customers and have a shelf life of at least five years.[29] Petitioner states that it employs the same workers using the same production facility and same equipment to produce both vanillin and ethylvanillin.[30] Petitioner does not make other products using the machinery that makes vanillin and ethylvanillin.[31]

Vanillin and ethylvanillin are typically produced in a continuous production process.[32] Petitioner's facilities can only produce one product, either vanillin or ethylvanillin, at a time.[33] Shifting between vanillin and ethylvanillin requires shutting down production to clean machinery thoroughly. [34] To minimize shutdown duration, petitioner limits the number of production runs, called "campaigns" to two per year.[35] Campaigns can vary by length and are geared towards producing 90 days of inventory.[36]

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[24] Conference transcript, p. 8 (Kraemer).
[25] Petition, p. 4.
[26] Conference transcript, p. 61 (Kraemer).
[27] Conference transcript, p. 61 (Kraemer).
[28] Conference transcript, p. 76 (Kraemer).
[29] Conference transcript, pp. 6–7 (Kraemer), 33–34 (Kraemer).
[30] Conference transcript, p. 9 (Kraemer), p. 19 (Pickard).
[31] Conference transcript, p. 50 (Kraemer).
[32] Petition, p. 4.
[33] Conference transcript, p. 6 (Kraemer).
[34] Conference transcript, p. 50. (Kraemer).
[35] Conference transcript, pp. 6 (Kraemer).
[36] Conference transcript, pp. 6, 33 (Kraemer).

In addition to synthetic production such as that used by the petitioner, there are other methods to produce vanillin. As mentioned above, a limited quantity of vanillin is available naturally through extraction from vanilla beans. A third type of production is biosynthesis, which uses microbial transformation (e.g., fermentation) to process vanillin precursors from other sources in which they occur naturally, such as corn, turmeric, and rice bran.[37] In some cases biosynthetic vanillin (also known as biovanillin) is accepted as natural by regulators in the EU and the United States.[38] Vanillin molecules are the same regardless of production method and the choice of extracted or biosynthetic vanillin likely depends on consumer preferences. [39] According to petitioner, there is no known production of natural vanillin or biovanillin in the United States.[40]

Domestic like product issues

No issues with respect to domestic like product have been raised in these investigations. The petitioner proposes that the Commission should define a single like product coextensive with the scope in these investigations.[41] There is no assertion of an alternative definition of the domestic like product.

[37] DeCarlo, Samantha, "Alright Stop, Collaborate and Listen: Vanillin, Not Vanilla," USITC, February 2022, p. 7. https://www.usitc.gov/publications/332/alright_stop_collaborate_and_listen_vanillin_not.htm.

[38] DeCarlo, Samantha, "Alright Stop, Collaborate and Listen: Vanillin, Not Vanilla," USITC, February 2022, p. 10. https://www.usitc.gov/publications/332/alright_stop_collaborate_and_listen_vanillin_not.htm.

[39] Conference transcript, p. 8 (Kraemer). DeCarlo, Samantha, "Alright Stop, Collaborate and Listen: Vanillin, Not Vanilla," US ITC, February 2022, p. 10. https://www.usitc.gov/publications/332/alright_stop_collaborate_and_listen_vanillin_not.htm.

[40] Conference transcript, p. 26 (Kraemer), pp. 26-27 (Pickard).

[41] Petition, p. 8.

Part II: Conditions of competition in the U.S. market

U.S. market characteristics

U.S. producer Solvay identified *** as a distinct condition of competition, while 5 of 17 responding importers indicated that the market was subject to distinctive conditions of competition. Specifically, importer *** reported that some U.S. companies prefer Chinese suppliers because they have 90 days or greater payment terms, but that it needed financing with greater U.S. interest rates, and therefore cannot afford greater than 90 day payment terms. It also added that larger companies use buying power with other products to negotiate lower prices from China. Importer *** reported that there are few suppliers, concentrated in China, with a high barrier to entry.

Apparent U.S. consumption of vanillin, by quantity, increased by *** percent from 2021 to 2022, decreased by *** percent from 2022 to 2023, overall decreasing by *** percent during 2021-23. Apparent U.S. consumption was *** percent higher in interim 2024 than in interim 2023.

Impact of section 301 tariffs

U.S. producer Solvay and importers were asked to report the impact of section 301 tariffs on overall demand, supply, prices, or raw material costs (table II-1). As shown in the table, Solvay reported that ***, and most importers reported that they had. *** reported that 7.5 percent duties were imposed on methylvanillin and 25 percent duties were imposed on ethylvanillin. Importer *** reported that it imported less materials with the tariffs in place, while *** reported that changes in the 301 tariffs were quickly reflected in the market price in the United States, but did not have a big impact on demand for vanillin produced in China and did not affect market shares between imported and domestic product in the past five years. Importer *** reported that after the tariff was increased, foreign customers purchased directly from China to bypass the middleman. Several importers reported that the tariffs ultimately increased the cost of the product.

Table II-1
Vanillin: Count of firms' responses regarding the impact of the 301 tariffs on Chinese origin products

Count in number of firms reporting

Item	Firm type	Yes	No	Don't Know
Impact on U.S. market from 301 tariffs	U.S. producer	***	***	***
Impact on U.S. market from 301 tariffs	Importers	11	5	5

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

Channels of distribution

U.S. producer Solvay sold mainly to *** while importers sold mainly to food and fragrance end users, as shown in table II-2.

Table II-2
Vanillin: Share of U.S. shipments by source, channel of distribution, and period

Shares in percent

Source	Channel	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
United States	Distributors	***	***	***	***	***
United States	Food end users	***	***	***	***	***
United States	Fragrance end users	***	***	***	***	***
United States	Other end users	***	***	***	***	***
United States	All end users	***	***	***	***	***
China	Distributors	***	***	***	***	***
China	Food end users	***	***	***	***	***
China	Fragrance end users	***	***	***	***	***
China	Other end users	***	***	***	***	***
China	All end users	***	***	***	***	***
Nonsubject sources	Distributors	***	***	***	***	***
Nonsubject sources	Food end users	***	***	***	***	***
Nonsubject sources	Fragrance end users	***	***	***	***	***
Nonsubject sources	Other end users	***	***	***	***	***
Nonsubject sources	All end users	***	***	***	***	***
All imports	Distributors	***	***	***	***	***
All imports	Food end users	***	***	***	***	***
All imports	Fragrance end users	***	***	***	***	***
All imports	Other end users	***	***	***	***	***
All imports	All end users	***	***	***	***	***

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

Geographic distribution

U.S. producer Solvay reported selling vanillin to *** (table II-3). Importers reported selling to all regions except for "Other". For U.S. producer Solvay, *** percent of sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers sold *** percent within 100 miles of their U.S. point of shipment, *** percent between 101 and 1,000 miles, and *** percent over 1,000 miles.

Table II-3
Vanillin: Count of U.S. producers' and U.S. importers' geographic markets

Region	U.S. producers	China
Northeast	***	14
Midwest	***	12
Southeast	***	13
Central Southwest	***	7
Mountain	***	2
Pacific Coast	***	10
Other	***	0
All regions (except Other)	***	1
Reporting firms	1	15

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

Note: Other U.S. markets include AK, HI, PR, and VI.

Supply and demand considerations

U.S. supply

Table II-4 provides a summary of the supply factors regarding vanillin from U.S. producers and from subject countries.

Table II-4
Vanillin: Supply factors that affect the ability to increase shipments to the U.S. market, by country

Quantity in pounds; ratio and share in percent

Factor	Measure	United States	China
Capacity 2021	Quantity	***	***
Capacity 2023	Quantity	***	***
Capacity utilization 2021	Ratio	***	***
Capacity utilization 2023	Ratio	***	***
Inventories to total shipments 2021	Ratio	***	***
Inventories to total shipments 2023	Ratio	***	***
Home market shipments 2023	Share	***	***
Non-US export market shipments 2023	Share	***	***
Ability to shift production (firms reporting “yes”)	Count	***	***

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

Note: Responding U.S. producer Solvay accounted for *** U.S. production of vanillin in 2023. Responding foreign producer/exporter firms accounted for less than 25 percent of U.S. imports of vanillin from China during 2023. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from each subject country, please refer to Part I, “Summary Data and Data Sources.”

Domestic production

Based on available information, U.S. producer Solvay has the ability to respond to changes in demand with large changes in the quantity of shipments of domestically produced vanillin to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and inventories.

U.S. capacity decreased by *** percent between 2021 and 2023 while production decreased by *** percent, leading to a capacity utilization decrease of *** percentage points. This decrease primarily occurred between 2022 and 2023, with production decreasing by *** percent and capacity utilization decreasing by *** percentage points. U.S. producer Solvay reported export shipments equal to *** percent of its production in 2023 and stated that its primary export markets are ***.[1] U.S. producer Solvay ***.

Subject imports from China

Based on limited available information, producers of vanillin from China have the ability to respond to changes in demand with large changes in the quantity of shipments of vanillin to the U.S. market. The main contributing factor to this degree of responsiveness of supply is the availability of unused capacity.

Chinese capacity decreased by *** percentage points between 2021 and 2023 while production decreased by *** percent, leading to a capacity utilization decrease of *** percentage points. Although foreign producers did not identify other export markets, exports to all other markets were more than *** times exports to U.S. markets, by quantity. No foreign producer identified other products that responding foreign producers reportedly can produce on the same equipment as vanillin.

Imports from nonsubject sources

Nonsubject imports accounted for 25.7 percent of total U.S. imports in 2023. The largest sources of nonsubject imports during January 2021 - March 2024 were Norway, Indonesia, and Brazil.

[1] Email from *** July 10, 2024.

Supply constraints

U.S. producer Solvay *** and 12 of 19 responding importers reported that they had not experienced supply constraints since January 1, 2021. Of the 7 responding importers reporting supply constraints, importers cited supply shortages during 2022 of less than 9 months, force majeures from manufacturers, the shutdown of manufacturer *** in China, U.S. and Chinese manufacturer production issues in 2021-22, and supply chain delays and no availability due to COVID-19 plant closings. U.S. importer *** added that supply constraints happen once in a while if inbound shipments arrive later than scheduled or if more product was sold than expected during a given period.

U.S. demand

Based on available information, the overall demand for vanillin is likely to experience small changes in response to changes in price. The main contributing factors are the limited availability of substitute products, including the inability of vanilla extract (a potential substitute) to fulfill demand, and the small cost share of vanillin in most of its ultimate end-use products, such as in the food and beverage, pharmaceutical, and personal care product industries.

End uses and cost share

U.S. demand for vanillin depends on the demand for U.S.-produced downstream products. Reported end uses include vanilla flavoring, other flavoring, fragrance compounds, food and beverage products, and smokeless tobacco.

Vanillin accounts for a small share of the cost of the ultimate end-use products in which it is used. Reported cost shares for some end uses were as follows: *** percent for vanilla flavors, *** percent for smokeless tobacco, *** percent and *** percent for flavors, and *** percent for fragrance compounds.

Business cycles

*** U.S. producer and 12 of 18 responding importers indicated that the market was subject to business cycles. Specifically, U.S. importers reported that vanillin and ethylvanillin fluctuated largely due to the COVID-19 pandemic and that when the demand for candles went up during the COVID-19 pandemic, there was an associated increase in vanillin demand. Importers also reported that industries like confectionary and baking have seasonal demands,

and that seasonal use of vanilla products affect sales for vanillin. Lastly, importer *** reported that economic slowdowns result in less sales, importer *** reported a general increase in demand, importer *** reported that the market changed from low supply and high demand in 2021 to high supply and low demand in 2023, and *** reported that the food market is relatively stable, while the home and personal care markets are slightly more subject to economic cycles but overall are also considered non-cyclical.

Demand trends

The U.S. producer of vanillin reported that U.S. demand for vanillin had *** since January 1, 2021, while pluralities of importers (five each) reported that U.S. demand for vanillin had fluctuated up or fluctuated down (table II-5).

Table II-5
Vanillin: Count of firms' responses regarding overall domestic and foreign demand, by firm type

Market	Firm type	Steadily Increased	Fluctuated Up	No change	Fluctuated Down	Steadily Decreased
Domestic demand	U.S. producer	***	***	***	***	***
Domestic demand	Importers	2	6	5	5	0
Foreign demand	U.S. producer	***	***	***	***	***
Foreign demand	Importers	2	5	4	5	0

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

Demand for vanillin is driven by demand for the ultimate end-use products in which it is used, which generally tracks Gross Domestic Product ("GDP").[2] As shown in table II-6, seasonally adjusted Real GDP experienced its largest increases over the period in 2021, with small decreases in the first half of 2022. GDP increased more moderately in the first quarter of 2024.

[2] Conference transcript, p. 20 (Pickard).

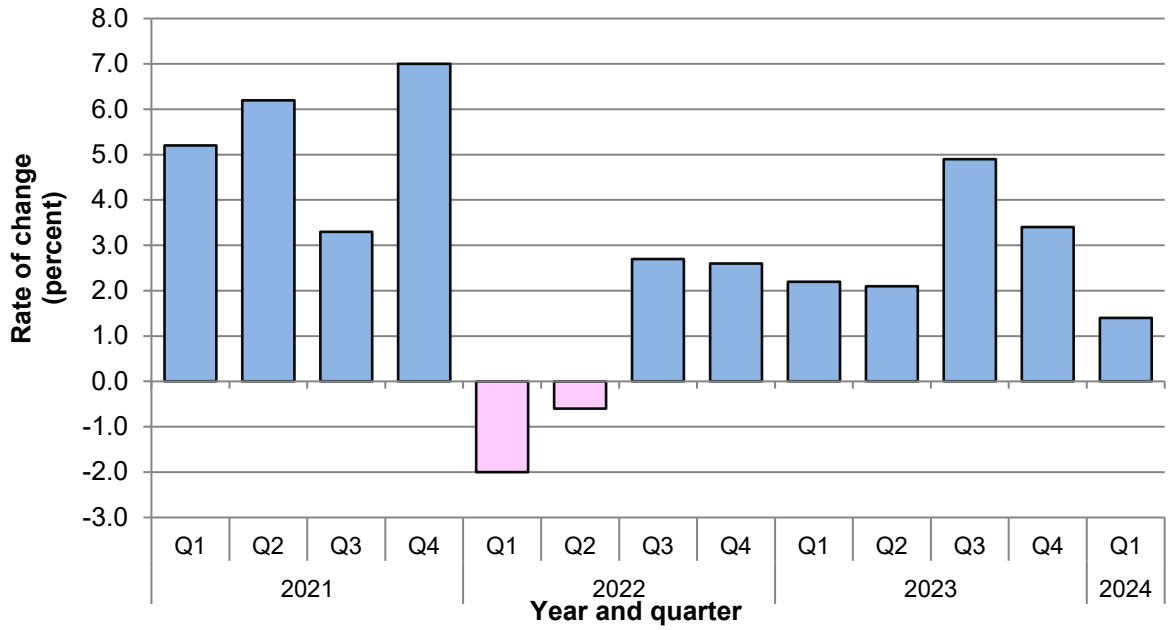
Table II-6
Vanillin: Percent change from preceding period in Real Gross Domestic Product, seasonally adjusted at annual rates, Jan 2021 - Mar 2024

Change in percent; NA is not available.

Quarter	2021	2022	2023	2024
Q1	5.2	(2.0)	2.2	1.4
Q2	6.2	(0.6)	2.1	NA
Q3	3.3	2.7	4.9	NA
Q4	7.0	2.6	3.4	NA

Source: Bureau of Economic Analysis, "Table 1.1.1. Percent Change from Preceding Period in Real Gross Domestic Product", https://www.bea.gov/data/gdp/gross-domestic-product, retrieved June 27, 2024.

Figure II-1
Vanillin: Percent change from preceding period in Real Gross Domestic Product, seasonally adjusted at annual rates, Jan 2021 - Mar 2024



Source: Bureau of Economic Analysis, "Table 1.1.1. Percent Change from Preceding Period in Real Gross Domestic Product", https://www.bea.gov/data/gdp/gross-domestic-product, retrieved June 27, 2024.

Substitute products

Almost all U.S. importers reported that there were no substitutes for vanillin, while *** reported that vanilla beans and vanilla extract were substitutes for vanillin in food products, but that price changes in the substitutes did not affect prices for vanillin. However, U.S. producer Solvay stated that there is insufficient global production of vanilla extract to supply all the end users, and that vanillin does not compete directly with vanilla extract.[3]

Substitutability issues

This section assesses the degree to which U.S.-produced vanillin and imports of vanillin from China can be substituted for one another by examining the importance of certain purchasing factors and the comparability of vanillin from domestic and imported sources based on those factors. Based on available data, staff believes that there is a moderate-to-high degree of substitutability between the same type of domestically produced vanillin and vanillin imported from subject sources.[4] Factors contributing to this level of substitutability include interchangeability between domestic and subject sources. Factors reducing substitutability include different lower average lead times for domestically produced vanillin compared to vanillin produced in China, as well as significant factors other than price that firms consider, such as quality, availability, and specific product formulation. Substitutability may differ between vanillin types.

Factors affecting purchasing decisions

Purchasers responding to lost sales lost revenue allegations[5] were asked to identify the main purchasing factors their firm considered in their purchasing decisions for vanillin. The major purchasing factors identified by firms include price, quality, and availability/supply.

[3] Conference transcript, pp. 55-56 (Jorge).

[4] The degree of substitution between domestic and imported vanillin depends upon the extent of product differentiation between the domestic and imported products and reflects how easily purchasers can switch from domestically produced vanillin to the vanillin imported from subject countries (or vice versa) when prices change. The degree of substitution may include such factors as quality differences (e.g., grade standards, defect rates, etc.), and differences in sales conditions (e.g., lead times between order and delivery dates, reliability of supply, product services, etc.).

[5] This information is compiled from responses by purchasers identified by Petitioners to the lost sales lost revenue allegations. See Part V for additional information.

Most important purchase factors

The most often cited top three factors firms consider in their purchasing decisions for vanillin were price/cost (5 firms), quality (3 firms), and availability/supply (2 firms), as shown in table II-7. The most frequently reported first-most important factors were quality (3 firms) and price/cost and willingness to quote/sell to their firm (1 firm each); price/cost was the most frequently reported second-most important factor (cited by 2 firms), followed by ability to meet demand needs and decades-long relationships with producers (1 firm each); and price/cost was the most frequently reported third-most important factor (2 firms).

Table II-7
Vanillin: Count of ranking of factors used in purchasing decisions as reported by purchasers, by factor

Factor	First	Second	Third	Total
Price / Cost	1	2	2	5
Quality	3	0	0	3
Availability / Supply	0	1	1	2
All other factors	1	2	2	NA

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

Lead times

Vanillin is primarily sold from inventory. U.S. producer Solvay reported that *** of its commercial shipments were sold from inventories, with lead times averaging *** days, and U.S. importers reported that *** percent of commercial shipments were sold from inventories, with lead times averaging *** days. The remaining *** percent of commercial shipments came from inventories, with lead times averaging *** days.

Comparison of U.S.-produced and imported vanillin

In order to determine whether U.S.-produced vanillin can generally be used in the same applications as imports from China, U.S. producers and importers were asked whether vanillin can always, frequently, sometimes, or never be used interchangeably. As shown in tables II-8 to II-10, the U.S. producer of vanillin reported that it can *** be used interchangeably across sources. While importers' responses were mixed, most responding importers reported that vanillin can always or frequently be used interchangeably across sources.

Table II-8
Vanillin: Count of U.S. producer Solvay and importers reporting the interchangeability between product produced in the United States and in other countries, by country pair

Count in number of firms reporting.

Country pair	Firm Type	Always	Frequently	Sometimes	Never
United States vs. China	U.S. producer	***	***	***	***
United States vs. Other	U.S. producer	***	***	***	***
China vs. Other	U.S. producer	***	***	***	***
United States vs. China	U.S. importer	7	5	4	1
United States vs. Other	U.S. importer	5	6	5	0
China vs. Other	U.S. importer	4	6	4	0

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

Product interchangeability

In addition, U.S. producer Solvay and importers were asked to assess how often ethylvanillin and synthetic vanillin (methylvanillin) could be physically used in the same end-use applications. As shown in table II-9, U.S. producer Solvay reported that it *** can, while a plurality of importers reported that it sometimes can. Solvay stated that ethylvanillin is stronger than vanillin, so in the final formulation, a customer may use a lower rate of ethylvanillin, making the final cost the same per pound between ethylvanillin and vanillin.[6] Importer *** reported that vanillin and ethylvanillin are two different molecules with their own Chemical Abstract Service numbers and distinct molecular formulas. It reported that natural and synthetic vanillin are different materials with respect to production processes and price points. It also added that vanillin can be derived naturally and synthetically while ethylvanillin can only be derived synthetically, and that ethylvanillin is known to be 3-4 times stronger in intensity than vanillin, with specific flavor and fragrance profiles that differ from one another. Vanillin can sometimes yield vanilla notes with some woody and/or clove-like undertones, while ethylvanillin is more of a creamy vanilla profile. Importer *** reported that they are not interchangeable but may at times be used in the same formulations as separate ingredients. Similarly, importers *** reported that vanillin and ethylvanillin have different potencies and profiles and can never be directly substituted without reformulating.

[6] Conference transcript, pp. 32-33 (Jorge).

Table II-9
Vanillin: Count of U.S. producer Solvay and importers reporting the interchangeability between ethylvanillin and synthetic vanillin

Count in number of firms reporting.

Product pair	Firm Type	Always	Frequently	Sometimes	Never
Ethylvanillin vs. Methylvanillin	U.S. producer	***	***	***	***
Ethylvanillin vs. Methylvanillin	U.S. importer	2	4	7	3

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

In addition, U.S. producer Solvay and importers were asked to assess how often differences other than price were significant in sales of vanillin from the United States, subject, or nonsubject countries. As seen in table II-10, U.S. producer Solvay reported that they were *** significant and most responding importers reported that they were always or frequently significant between the United States and China, but responses were mixed when comparing the United States and nonsubject countries and China and nonsubject countries.

Table II-10
Vanillin: Count of U.S. producer Solvay and importers reporting the significance of differences other than price between product produced in the United States and in other countries, by country pair

Count in number of firms reporting.

Country pair	Firm Type	Always	Frequently	Sometimes	Never
United States vs. China	U.S. producer	***	***	***	***
United States vs. Other	U.S. producer	***	***	***	***
China vs. Other	U.S. producer	***	***	***	***
United States vs. China	U.S. importer	7	3	4	3
United States vs. Other	U.S. importer	4	4	4	2
China vs. Other	U.S. importer	4	3	3	2

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

Part III: U.S. producers' 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 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 responses of the one petitioning firm, Solvay, that accounted for virtually all of U.S. production of vanillin during 2023.[1]

U.S. producer

The Commission issued a U.S. producer questionnaire to one firm based on information contained in the petition. One firm provided usable data on their operations. Table III-1 lists U.S. producer Solvay's, location, position on the petition, and share of total production.

[1] The petitioner reported they were the sole producer of vanillin in the United States. Conference transcript, pp. 18-19, (Pickard). ***. Email from ***, July 1, 2024.

Table III-1
Vanillin: U.S. producer Solvay's position on the petition, location of production, and share of reported production, 2023

Shares in percent

Firm	Position on petition	Production location(s)	Share of reported production
Solvay	Petitioner	Baton Rouge, LA	100.0

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

Note: See footnote 1 on previous page.

Table III-2 presents information on the U.S. producer Solvay's ownership, related and/or affiliated firms. Solvay is related to a foreign producer of the subject merchandise, Solvay Zhenjiang[2]. In addition, as discussed in greater detail below, Solvay imports the subject merchandise.

Table III-2
Vanillin: U.S. producer Solvay's ownership, related and/or affiliated firms

Reporting firm	Relationship type and related firm	Details of relationship
Solvay	***	***
Solvay	***	***
Solvay	***	***
Solvay	***	***

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

Note: NA denotes the details are not available.

Table III-3 presents events in the U.S. industry since January 1, 2021.

Table III-3
Vanillin: Important industry events since 2021

Item	Firm	Event
Plant closure	Solvay	In February 2023, Solvay announced the termination of vanillin production at its Saint-Fons, France facility.

Source: Conference transcript, p. 15 (Jorge). "Fin de la production de vanilline à Saint-Fons: près de 50 emplois menaces" (End of vanillin production at Saint-Fons: nearly 50 jobs threatened). Franceinfo: February 14, 2024. https://france3-regions.francetvinfo.fr/auvergne-rhone-alpes/rhone/lyon/fin-de-la-production-de-vanilline-a-saint-fons-pres-de-50-emplois-menaces-292431.html.

Producers in the United States were asked to report any change in the character of their operations or organization relating to the production of vanillin since 2021. Solvay indicated in

[2] Conference transcript, p. 15, (Jorge).

its questionnaire that they had experienced such changes. Table III-4 presents the changes identified by Solvay.[3]

Table III-4
Vanillin: U.S. producer Solvay's reported changes in operations, since January 1, 2021

Item	Firm name and narrative response on changes in operations
Other	***

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

U.S. production, capacity, and capacity utilization

Table III-5 presents the U.S. producer's installed and practical capacity and production on the same equipment. Solvay did not report any production of out-of-scope vanillin on the same machinery.[4] Solvay's installed overall capacity remained constant during 2021-23 but was *** percent higher in January-March 2024 ("interim 2024") than in January-March 2023 ("interim 2023"). Installed overall capacity utilization decreased overall by *** percentage points during 2021-23, with most of the decrease occurring from 2022-23. Installed overall capacity utilization was *** percentage points higher, however, in interim 2024 than in interim 2023. Practical vanillin capacity remained steady from 2021-22 before decreasing by *** percent from 2022 to 2023 and was *** percent higher in interim 2024 than in interim 2023.[5]

Practical vanillin production decreased overall by *** percent during 2021-23, with most occurring from 2022 to 2023 (a *** percent decline). However, production of vanillin was *** percent higher in interim 2024 than in interim 2023, reportedly as a result of ***.[6] Practical vanillin capacity utilization therefore decreased in each year, overall decreasing by *** percentage points during 2021-23 but was *** percentage points higher in interim 2024 than in interim 2023.

[3] ***. Email from ***, July 1, 2024.

[4] Conference transcript, p. 25 (Kramer).

[5] Solvay reported that changes in practical vanillin capacity are a result of ***. Email from ***, July 10, 2024.

[6] Email from ***, July 1, 2024.

Table III-5
Vanillin: U.S. producer Solvay's installed and practical capacity, production, and utilization on the same equipment as subject production, by period

Capacity and production in 1,000 pounds; utilization in percent

Item	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Installed overall	Capacity	***	***	***	***	***
Installed overall	Production	***	***	***	***	***
Installed overall	Utilization	***	***	***	***	***
Practical overall	Capacity	***	***	***	***	***
Practical overall	Production	***	***	***	***	***
Practical overall	Utilization	***	***	***	***	***
Practical Vanillin	Capacity	***	***	***	***	***
Practical Vanillin	Production	***	***	***	***	***
Practical Vanillin	Utilization	***	***	***	***	***

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

Table III-6 presents U.S. producers' reported narratives regarding practical capacity constraints.

Table III-6
Vanillin: U.S. producer Solvay's reported constraints to practical overall capacity, since January 1, 2021

Item	Firm name and narrative response on constraints to practical overall capacity
Other constraints	***

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

Figure III-1
Vanillin: U.S. producer Solvay's capacity, production, and capacity utilization, by period

* * * * * * *

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

Alternative products

Solvay did not report production of other products using the same equipment to produce vanillin.

U.S. producer's U.S. shipments and exports

Table III-7 presents U.S. producer Solvay's U.S. shipments, export shipments, and total shipments. U.S. shipments accounted for the minority of Solvay's total shipments from 2021 to 2023 and interim 2023 and interim 2024.[7] The quantity of U.S. shipments decreased year to year, ending *** percent lower in 2023 than in 2021. The decrease coincided with the decrease in Solvay's production from 2022 to 2023 (table III-10). U.S. shipments, by quantity, was *** percent higher in interim 2024 compared to interim 2023. The value of Solvay's U.S. shipments fluctuated year to year, increasing by *** percent from 2021 to 2022, ***

[7] ***. Please see Part IV for more information.

***,[8] then decreasing by *** percent from 2022 to 2023, ending *** percent lower in 2023 than in 2021. The value of U.S. shipments was *** percent higher in interim 2024 compared to interim 2023.

The average unit value of Solvay's U.S. shipments increased from 2021 to 2022 as value increased, while quantity decreased. The average unit value of U.S. shipments then decreased from 2022 to 2023, overall increasing by *** percent from 2021 to 2023. The unit values were *** percent lower in interim 2024 compared to interim 2023.[9]

By quantity, export shipments accounted for a majority but declining share of U.S. producers' total shipments in each year from 2021 to 2023.[10] The quantity of export shipments decreased yearly, decreasing overall by *** percent during 2021-23, with the largest decrease (*** percent) occurring from 2022 to 2023. Export shipments, by quantity, were *** percent higher in interim 2024 than in interim 2023.[11] The value of Solvay's export shipments increased by *** percent from 2021 to 2022 and decreased by *** percent from 2022 to 2023, ending 2023 *** percent lower than in 2021. The value of export shipments in interim 2024 was *** percent higher than in interim 2023. The unit value of Solvay's export shipments, which was consistently lower than those of U.S. shipments, increased each year, increasing by 34.7 percent during 2021-2023 but was *** percent lower in interim 2024 compared to interim 2023.

[8] Solvay stated that this reflects ***. Email from ***, July 1, 2024.

[9] ***. Email from ***, July 1, 2024.

[10] Solvay's primary export markets are to ***. Email from ***, July 9, 2024, email from ***, July 10, 2024.

[11] Solvay reported that the quantity of exports increased from interim 2023 to interim 2024 because ***. Email from ***, July 10, 2024.

Table III-7
Vanillin: U.S. producer Solvay's total shipments, by destination and period

Quantity in 1,000 pounds; value in 1,000 dollars; unit values in dollars per pound; shares in percent

Item	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
U.S. shipments	Quantity	***	***	***	***	***
Export shipments	Quantity	***	***	***	***	***
Total shipments	Quantity	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***
Export shipments	Value	***	***	***	***	***
Total shipments	Value	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***
Export shipments	Unit value	***	***	***	***	***
Total shipments	Unit value	***	***	***	***	***
U.S. shipments	Share of quantity	***	***	***	***	***
Export shipments	Share of quantity	***	***	***	***	***
Total shipments	Share of quantity	100.0	100.0	100.0	100.0	100.0
U.S. shipments	Share of value	***	***	***	***	***
Export shipments	Share of value	***	***	***	***	***
Total shipments	Share of value	100.0	100.0	100.0	100.0	100.0

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

Table III-8 presents Solvay's U.S. shipments by vanillin product type and channel of distribution. The majority of Solvay's U.S. shipments of vanillin were to *** in every period, which increased overall during 2021-23, with a period high of accounting for *** percent of all vanillin in 2023. The second largest share of Solvay's U.S. shipments were to *** in each period except for 2022, in which other end users[12] accounted for the second largest share.

Over *** of Solvay's U.S. shipments of methylvanillin were to *** in 2021 and 2022 but decreased from 2022 to 2023 so that the largest share of U.S. shipments of methylvanillin was to *** in 2023. *** accounted for the largest share of U.S. shipments in interim 2023 while *** were the largest share in interim 2024.

*** accounted for the largest share of Solvay's U.S. shipments of ethylvanillin in each year during 2021-23 and the interim periods, ranging from a low of *** percent in 2022 and a high of *** percent in interim 2023. The second largest end use for Solvay's ethylvanillin was *** in every period except for interim 2023 when *** were reported.

[12] Other end users were described as ***. Solvay's U.S. producer questionnaire, question II-9.

Ethylvanllin to *** accounted for the largest share of all vanillin of all channels in each period followed by *** end users.

Table III-8
Vanillin: U.S. producer Solvay's U.S. shipments, by product type, channel of distribution, and period

Quantity in 1,000 pounds; share of product type in percent

Product type and channel of distribution	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Methylvanillin: Distributors	Quantity	***	***	***	***	***
Methylvanillin: Food end users	Quantity	***	***	***	***	***
Methylvanillin: Fragrance end users	Quantity	***	***	***	***	***
Methylvanillin: Other end users	Quantity	***	***	***	***	***
Methylvanillin: All channels	Quantity	***	***	***	***	***
Ethylvanillin: Distributors	Quantity	***	***	***	***	***
Ethylvanillin: Food end users	Quantity	***	***	***	***	***
Ethylvanillin: Fragrance end users	Quantity	***	***	***	***	***
Ethylvanillin: Other end users	Quantity	***	***	***	***	***
Ethylvanillin: All channels	Quantity	***	***	***	***	***
All vanillin: Distributors	Quantity	***	***	***	***	***
All vanillin: Food end users	Quantity	***	***	***	***	***
All vanillin: Fragrance end users	Quantity	***	***	***	***	***
All vanillin: Other end users	Quantity	***	***	***	***	***
All vanillin: All channels	Quantity	***	***	***	***	***
Methylvanillin: Distributors	Share 1	***	***	***	***	***
Methylvanillin: Food end users	Share 1	***	***	***	***	***
Methylvanillin: Fragrance end users	Share 1	***	***	***	***	***
Methylvanillin: Other end users	Share 1	***	***	***	***	***
Methylvanillin: All channels	Share 1	100.0	100.0	100.0	100.0	100.0
Ethylvanillin: Distributors	Share 1	***	***	***	***	***
Ethylvanillin: Food end users	Share 1	***	***	***	***	***
Ethylvanillin: Fragrance end users	Share 1	***	***	***	***	***
Ethylvanillin: Other end users	Share 1	***	***	***	***	***
Ethylvanillin: All channels	Share 1	100.0	100.0	100.0	100.0	100.0
All vanillin: Distributors	Share 1	***	***	***	***	***
All vanillin: Food end users	Share 1	***	***	***	***	***
All vanillin: Fragrance end users	Share 1	***	***	***	***	***
All vanillin: Other end users	Share 1	***	***	***	***	***
All vanillin: All channels	Share 1	100.0	100.0	100.0	100.0	100.0

Table continued.

Table III-8 Continued
Vanillin: U.S. producer Solvay's U.S. shipments, by product type, channel of distribution, and period

Share of all vanillin in percent

Product type and channel of distribution	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Methylvanillin: Distributors	Share 2	***	***	***	***	***
Methylvanillin: Food end users	Share 2	***	***	***	***	***
Methylvanillin: Fragrance end users	Share 2	***	***	***	***	***
Methylvanillin: Other end users	Share 2	***	***	***	***	***
Methylvanillin: All channels	Share 2	***	***	***	***	***
Ethylvanillin: Distributors	Share 2	***	***	***	***	***
Ethylvanillin: Food end users	Share 2	***	***	***	***	***
Ethylvanillin: Fragrance end users	Share 2	***	***	***	***	***
Ethylvanillin: Other end users	Share 2	***	***	***	***	***
Ethylvanillin: All channels	Share 2	***	***	***	***	***
All vanillin: Distributors	Share 2	***	***	***	***	***
All vanillin: Food end users	Share 2	***	***	***	***	***
All vanillin: Fragrance end users	Share 2	***	***	***	***	***
All vanillin: Other end users	Share 2	***	***	***	***	***
All vanillin: All channels	Share 2	100.0	100.0	100.0	100.0	100.0

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

Note: Share 1 represents the share within each product type by channel. Share 2 represents the share of overall U.S. shipments of each product type and channel combination. Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

U.S. producer's inventories

Table III-9 presents Solvay's end-of-period inventories and the ratio of these inventories to its production, U.S. shipments, and total shipments. Solvay's end-of-period inventories fluctuated year to year between 2021 and 2023, increasing by *** percent from 2021 to 2022 then decreasing by *** percent from 2022 to 2023, ending *** percent higher in 2023 than in 2021. Ending inventories were *** percent lower in interim 2024 than in interim 2023. The ratios of Solvay's end-of-period inventories to its U.S. production, U.S. shipments, and total shipments each increased in every year from 2021 to 2023, ending *** percentage points higher, respectively, in 2023 than in 2021. Contrarily, the ratios of Solvay's end-of-period inventories to its U.S. production, U.S. shipments, and total shipments each were lower in interim 2024 than in interim 2023, ending *** percentage points lower, respectively. The ratios of ending inventories to production and ending inventories to

U.S. shipments were *** percentage points lower in interim 2024 compared to interim 2023, respectively.

Table III-9
Vanillin: U.S. producer Solvay's inventories and its ratio to select items, by period

Quantity in 1,000 pounds; inventory ratios in percent

Item	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
End-of-period inventory quantity	***	***	***	***	***
Inventory ratio to U.S. production	***	***	***	***	***
Inventory ratio to U.S. shipments	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

U.S. producer's imports from subject sources

Solvay's imports of vanillin from China are presented in table III-10. Solvay reported importing vanillin from China in ***, which accounted for between *** percent of its production in those periods.[13] Solvay reported that "there is adequate domestic capacity to meet 100 percent of U.S. demand" and it "decided to import vanillin from China in order to stay competitive with other Chinese producers".[14]

Table III-10
Vanillin: Solvay's U.S. production, U.S. imports from subject sources, and ratio of subject imports to production, by period

Quantity in 1,000 pounds; ratio in percent

Item	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
U.S. production	Quantity	***	***	***	***	***
Imports from China	Quantity	***	***	***	***	***
Imports from China to U.S. production	Ratio	***	***	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

[13] Solvay imports from ***.

[14] Conference transcript, pp. 25-26 (Pickard).

Table III-11 presents Solvay's reason for importing vanillin from China.

Table III-11
Vanillin: U.S. producer Solvay's reasons for imports, by firm

Item	Narrative response on reasons for importing
Solvay's reason for importing	***

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

U.S. producer's purchases of imports from subject sources

No responding U.S. producer reported purchases of vanillin during 2021-23 and both interim periods.

U.S. employment, wages, and productivity

Table III-12 shows Solvay's employment-related data. The number of production-related workers ("PRWs") decreased in each period, overall decreasing by *** percent from 2021 to 2023 and was *** percent lower in interim 2024 than in interim 2023.[15] Productivity decreased by *** percentage points from 2021 to 2023, with nearly all the decrease occurring from 2022 to 2023, but was *** percentage points higher in interim 2024 than in interim 2023. Unit labor costs, conversely, increased every year from 2021 to 2023, ending *** percent higher in 2023 than in in 2021, and were *** percent lower in interim 2024 compared with interim 2023. Total hours worked and wages paid, overall decreased by *** percent and *** percent during 2021-23 and were *** percent and *** percent lower in interim 2023 than in interim 2024. Hours worked per PRW and hourly wages both fluctuated over 2021-23, hours worked per PRW overall increased by *** percent during 2021-23, while hourly wages overall decreased by *** percent. Hours worked per PRW and hourly wages were *** percent and *** percent higher in interim 2024 than in interim 2023, respectively.

[15] Solvay ***. Conference transcript, p. 11 (Kramer).

Table III-12
Vanillin: U.S. producer Solvay's employment related information, by item and period

Item	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Hours worked per PRW (hours)	***	***	***	***	***
Wages paid ($1,000)	***	***	***	***	***
Hourly wages (dollars per hour)	***	***	***	***	***
Productivity (pounds per hour)	***	***	***	***	***
Unit labor costs (dollars per pound)	***	***	***	***	***

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

Part IV: U.S. imports, apparent U.S. consumption, and market shares

U.S. importers

The Commission issued importer questionnaires to 59 firms believed to be importers of subject vanillin, as well as to the U.S. producer of vanillin.[1] Usable questionnaire responses were received from 21 companies, representing 80.5 percent of U.S. imports from China in 2023 under HTS subheading 2912.41.0000 and 2912.42.0000 and 80.1 percent of imports from nonsubject sources.[2] Table IV-1 lists all responding U.S. importers of vanillin from China and other sources, their locations, and their shares of U.S. imports, in 2023.

[1] The Commission issued questionnaires to those firms identified in the petitions; staff research; and proprietary, Census-edited Customs' import records.

[2] Two firms, *** submitted a questionnaire response certifying they did not import vanillin from any country during 2021-23. One firm, *** and one firm ***, a nonsubject importer, submitted a questionnaire too late to be incorporated into the report.

Table IV-1
Vanillin: U.S. importers, their headquarters, and share of imports within each source, 2023

Share in percent

Firm	Headquarters	China	Nonsubject sources	All import sources
Aurochemicals	Washingtonville, NY	***	***	***
Bell	North Brook, IL	***	***	***
Berje	Carteret, NJ	***	***	***
Borregaard	Rothschild, WI	***	***	***
CFS	Urbandale, IA	***	***	***
Elan Chemical	Newark, NJ	***	***	***
Firmenich	Plainsboro, NJ	***	***	***
Givaudan Flavors	Cincinnati, OH	***	***	***
Givaudan Fragrances	Cincinnati, OH	***	***	***
Global Essence	Hamilton, NJ	***	***	***
Ingredis	Plainsboro, NJ	***	***	***
IFF	New York City, NY	***	***	***
Mane	New York, NY	***	***	***
M & U	Branchburg, NJ	***	***	***
Oamic	Armonk, NY	***	***	***
Pearlchem	Parsippany, NJ	***	***	***
Prinova	Carol Stream, IL	***	***	***
ShengYuan	Mount Pocono, PA	***	***	***
Solvay	Baton Rouge, LA	***	***	***
Suzhou-Chem	Wellesley, MA	***	***	***
Tilley	Norwood, NJ	***	***	***
All firms	Various	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

U.S. imports

Table IV-2 presents data for U.S. imports of vanillin from China and all other sources. Imports from China accounted for the majority of total imports in every year during 2021-23 and the interim periods, accounting for over 66.0 percent throughout the period. The quantity of imports from China fluctuated, increasing by 13.3 percent from 2021 to 2022 and decreasing by 33.8 percent from 2022 to 2023, largely reflecting ***, overall decreasing by 25.0 percent during 2021-23. The quantity of imports from China was 66.3 percent higher in interim 2024 compared to interim 2023. Following a similar trend, the quantity of imports from

nonsubject sources fluctuated, overall decreasing by 49.7 percent during 2021-23 and was 160.0 percent higher in interim 2024 than in interim 2023. This was largely due to ***.

The value of U.S. imports from China followed the same trend as quantity, increasing 27.2 percent from 2021 to 2022, decreasing by 57.6 percent from 2022 to 2023, decreasing overall by 46.0 percent. U.S. imports from China, by value, were 83.2 percent higher in interim 2024 than in interim 2023. As a result, the unit value of U.S. imports from China increased by 12.2 percent from 2021 to 2022, decreased by 35.9 percent from 2022 to 2023, overall decreasing by 28.0 percent during 2021-23, and was 10.2 percent higher in interim 2024 compared to interim 2023.

The value of U.S. imports from nonsubject sources, like the value of imports from China, increased 11.5 percent from 2021 to 2022, decreased by 44.4 percent from 2022 to 2023, decreasing overall by 38.0 percent. U.S. imports from nonsubject sources, by value, were 70.9 percent higher in interim 2024 than in interim 2023. The unit value of U.S. imports from nonsubject sources increased by 6.5 percent from 2021 to 2022, decreased by 15.7 percent from 2022 to 2023, and increased overall by 23.2 percentage points during 2021-23 and was 34.3 percent lower in interim 2024 compared to interim 2023.

The ratio of U.S. imports from China to U.S. production increased in each year, ending 2023 *** percentage points higher than 2021, at a peak of *** percent. Interim 2024 was *** percent higher than in interim 2023. The ratio of U.S. imports from nonsubject sources to U.S. production fluctuated during 2021-23, overall decreasing by *** percentage points, and interim 2024 was *** percentage points higher than in interim 2023.

Table IV-2
Vanillin: U.S. imports by source and period

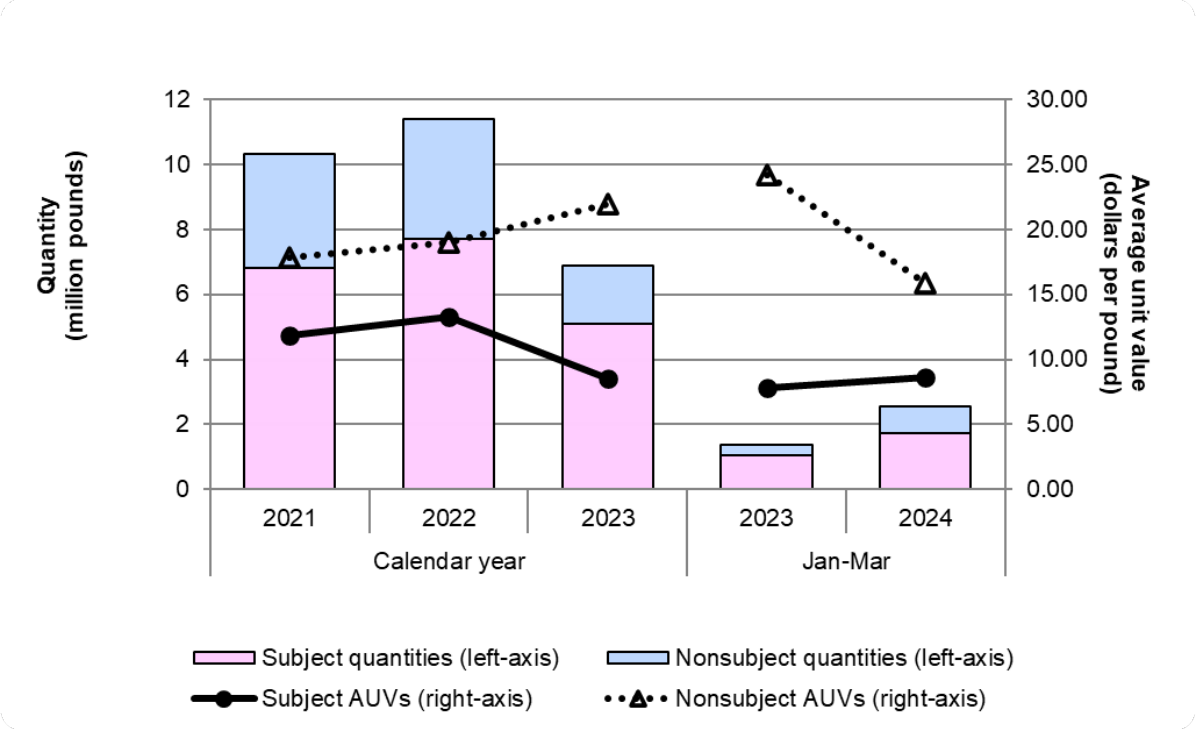
Quantity in 1,000 pounds; value in 1,000 dollars; unit values in dollars per pound; share and ratio in percent

Source	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
China	Quantity	6,812	7,717	5,107	1,037	1,724
Nonsubject sources	Quantity	3,510	3,677	1,766	320	832
All import sources	Quantity	10,321	11,394	6,873	1,357	2,557
China	Value	80,686	102,603	43,537	8,116	14,872
Nonsubject sources	Value	62,542	69,754	38,784	7,733	13,215
All import sources	Value	143,227	172,357	82,321	15,849	28,088
China	Unit value	11.85	13.30	8.52	7.83	8.62
Nonsubject sources	Unit value	17.82	18.97	21.96	24.16	15.88
All import sources	Unit value	13.88	15.13	11.98	11.68	10.99
China	Share of quantity	66.0	67.7	74.3	76.4	67.4
Nonsubject sources	Share of quantity	34.0	32.3	25.7	23.6	32.6
All import sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
China	Share of value	56.3	59.5	52.9	51.2	52.9
Nonsubject sources	Share of value	43.7	40.5	47.1	48.8	47.1
All import sources	Share of value	100.0	100.0	100.0	100.0	100.0
China	Ratio	***	***	***	***	***
Nonsubject sources	Ratio	***	***	***	***	***
All import sources	Ratio	***	***	***	***	***

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting numbers 2912.41.0000 and 2912.42.0000, accessed on July 8, 2024. Imports are based on the imports for consumption data series. Value data reflect landed duty-paid values.

Note: Share of quantity is the share of U.S. imports by quantity; share of value is the share of U.S. imports by value; ratio are U.S. imports to production. Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as “---“.

Figure IV-1
Vanillin: U.S. import quantities and average unit values, by source and period



Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting numbers 2912.41.0000 and 2912.42.0000, accessed on July 8, 2024. Imports are based on the imports for consumption data series. Value data reflect landed duty-paid values.

Table IV-3 presents U.S. imports of methylvanillin, by source and period. U.S. imports of methylvanillin from China accounted for majority of total U.S. imports of methylvanillin. U.S. imports of methylvanillin from China, by quantity, fluctuated over the period, decreasing by 33.2 percent during 2021-23 and was 104.0 percent higher in interim 2024 than in in interim 2023. The quantity of U.S. imports of methylvanillin from nonsubject sources followed the same trend, as they fluctuated over the period, decreasing overall by 49.0 percent during 2021-23 and were 156.6 percent higher in interim 2024 than in interim 2023. The value of U.S. imports of methylvanillin from China and nonsubject sources fluctuated, overall decreasing during 2021-23 by 51.1 percent and 37.4 percent, respectively. The value of U.S. imports of methylvanillin from China and nonsubject sources were 121.7 percent and 69.4 percent higher, respectively, in interim 2024 than in interim 2023. The unit value of U.S. imports of methylvanillin from China was 26.8 percent lower in 2023 than in 2021 and was 8.7 percent higher in interim 2024 than in interim 2023. The unit value of U.S. imports of methylvanillin from nonsubject sources increased in each year, overall increasing by 22.7 percent during 2021-23 and was 34.0 percent lower in interim 2024 than in interim 2023.

Table IV-3
Methylvanillin: U.S. imports, by source and period

Quantity in 1,000 pounds; value in 1,000 dollars; unit values in dollars per pound; share in percent

Source	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
China	Quantity	6,024	6,210	4,024	731	1,490
Nonsubject sources	Quantity	3,449	3,626	1,760	319	818
All import sources	Quantity	9,473	9,836	5,783	1,050	2,309
China	Value	72,675	83,237	35,521	5,835	12,937
Nonsubject sources	Value	61,860	69,096	38,730	7,728	13,091
All import sources	Value	134,535	152,333	74,251	13,563	26,028
China	Unit value	12.06	13.40	8.83	7.99	8.68
Nonsubject sources	Unit value	17.94	19.05	22.01	24.23	15.99
All import sources	Unit value	14.20	15.49	12.84	12.92	11.27
China	Share of quantity	63.6	63.1	69.6	69.6	64.6
Nonsubject sources	Share of quantity	36.4	36.9	30.4	30.4	35.4
All import sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
China	Share of value	54.0	54.6	47.8	43.0	49.7
Nonsubject sources	Share of value	46.0	45.4	52.2	57.0	50.3
All import sources	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 2912.41.0000, accessed on July 8, 2024. Imports are based on the imports for consumption data series. Value data reflect landed duty-paid values.

Note: Share of quantity is the share of U.S. imports by quantity; share of value is the share of U.S. imports by value; ratio are U.S. imports to production. Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table IV-4 presents U.S. imports of ethylvanillin, by source and period. U.S. imports of ethylvanillin from China accounted for the vast majority of total U.S. imports of ethylvanillin. The quantity of U.S. imports of ethylvanillin from China increased in each year, ending 2023 37.5 percent higher than in 2021. U.S. imports of ethylvanillin from China were 23.7 percent lower in interim 2024 than in interim 2023. The quantity of U.S. imports of ethylvanillin from nonsubject sources, however, decreased in each year, ending 89.2 percent lower in 2023 than in 2021. U.S. imports of ethylvanillin from nonsubject sources increased from 1,000 pounds in interim 2023 to 14,000 pounds in interim 2024. The value of U.S. imports of ethylvanillin from China increased from 2021 to 2022 before decreasing from 2022 to 2023, only increasing by 0.1 percent during 2021-23 and was 15.2 percent lower in interim 2024 than in interim 2023. The value of U.S. imports of ethylvanillin from nonsubject sources decreased in each year, decreasing overall by 92.0 percent during 2021-23 and increased from $5,000 in interim 2023 to $124,000 in interim 2024. The unit value of U.S. imports of ethylvanillin from China and nonsubject sources decreased overall by 27.2 percent and 26.6 percent during 2021-23,

respectively. The unit value of U.S. imports of ethylvanillin from China was 11.1 percent higher in interim 2024 than in interim 2023 while the unit value of U.S. imports of ethylvanillin from nonsubject sources was 120.9 percent higher in interim 2024 than in interim 2023.

Table IV-4
Ethylvanillin: U.S. imports, by source and period

Quantity in 1,000 pounds; value in 1,000 dollars; unit values in dollars per pound; share in percent; ratio is the ratio to total U.S. production

Source	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
China	Quantity	788	1,507	1,084	307	234
Nonsubject sources	Quantity	61	50	7	1	14
All import sources	Quantity	849	1,558	1,090	308	248
China	Value	8,011	19,366	8,016	2,282	1,935
Nonsubject sources	Value	682	658	54	5	124
All import sources	Value	8,693	20,024	8,070	2,286	2,059
China	Unit value	10.17	12.85	7.40	7.44	8.27
Nonsubject sources	Unit value	11.21	13.07	8.22	4.05	8.95
All import sources	Unit value	10.24	12.85	7.40	7.43	8.31
China	Share of quantity	92.8	96.8	99.4	99.6	94.4
Nonsubject sources	Share of quantity	7.2	3.2	0.6	0.4	5.6
All import sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
China	Share of value	92.2	96.7	99.3	99.8	94.0
Nonsubject sources	Share of value	7.8	3.3	0.7	0.2	6.0
All import sources	Share of value	100.0	100.0	100.0	100.0	100.0

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 2912.42.0000, accessed on July 8, 2024. Imports are based on the imports for consumption data series. Value data reflect landed duty-paid values.

Note: Share of quantity is the share of U.S. imports by quantity; share of value is the share of U.S. imports by value; ratio are U.S. imports to production. Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table IV-5 presents data on U.S. importers' U.S. shipments from China by product type and channel distribution. The largest share of U.S. importers' U.S. shipments of all vanillin from China shifted from *** in 2021 to *** in 2022 and the interim periods. The largest share of U.S. importers' U.S. shipments of methylvanillin from China were *** in 2021-22, while *** comprised the largest share in 2023 and the interim periods. In contrast, the largest share of U.S. importers' U.S. shipments of ethylvanillin from China were to *** in 2021-22, while *** comprised the largest share in 2023 and the interim periods.

The vast majority of U.S. shipments of imports from both China were imports of methylvanillin in each year and interim periods. The largest share of overall U.S. shipments of all vanillin were imports of methylvanillin to *** in 2021 and 2022 before shifting to *** in 2023 and the interim periods.

Table IV-5
Vanillin: U.S. importers' U.S. shipments from China, by product type, channel of distribution, and period

Quantity in 1,000 pounds; share in percent

Product type and channel of distribution	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Methylvanillin: Distributors	Quantity	***	***	***	***	***
Methylvanillin: Food end users	Quantity	***	***	***	***	***
Methylvanillin: Fragrance end users	Quantity	***	***	***	***	***
Methylvanillin: Other end users	Quantity	***	***	***	***	***
Methylvanillin: All channels	Quantity	4,555	4,155	3,171	749	916
Ethylvanillin: Distributors	Quantity	***	***	***	***	***
Ethylvanillin: Food end users	Quantity	***	***	***	***	***
Ethylvanillin: Fragrance end users	Quantity	***	***	***	***	***
Ethylvanillin: Other end users	Quantity	***	***	***	***	***
Ethylvanillin: All channels	Quantity	380	666	1,052	237	251
All vanillin: Distributors	Quantity	***	***	***	***	***
All vanillin: Food end users	Quantity	***	***	***	***	***
All vanillin: Fragrance end users	Quantity	***	***	***	***	***
All vanillin: Other end users	Quantity	***	***	***	***	***
All vanillin: All channels	Quantity	4,935	4,821	4,223	986	1,167
Methylvanillin: Distributors	Share 1	***	***	***	***	***
Methylvanillin: Food end users	Share 1	***	***	***	***	***
Methylvanillin: Fragrance end users	Share 1	***	***	***	***	***
Methylvanillin: Other end users	Share 1	***	***	***	***	***
Methylvanillin: All channels	Share 1	100.0	100.0	100.0	100.0	100.0
Ethylvanillin: Distributors	Share 1	***	***	***	***	***
Ethylvanillin: Food end users	Share 1	***	***	***	***	***
Ethylvanillin: Fragrance end users	Share 1	***	***	***	***	***
Ethylvanillin: Other end users	Share 1	***	***	***	***	***
Ethylvanillin: All channels	Share 1	100.0	100.0	100.0	100.0	100.0
All vanillin: Distributors	Share 1	***	***	***	***	***
All vanillin: Food end users	Share 1	***	***	***	***	***
All vanillin: Fragrance end users	Share 1	***	***	***	***	***
All vanillin: Other end users	Share 1	***	***	***	***	***
All vanillin: All channels	Share 1	100.0	100.0	100.0	100.0	100.0

Table continued.

Table IV-5 Continued
Vanillin: U.S. importers' U.S. shipments from China, by product type, channel of distribution, and period

Quantity in 1,000 pounds; Share in percent

Product type and channel of distribution	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Methylvanillin: Distributors	Share 2	***	***	***	***	***
Methylvanillin: Food end users	Share 2	***	***	***	***	***
Methylvanillin: Fragrance end users	Share 2	***	***	***	***	***
Methylvanillin: Other end users	Share 2	***	***	***	***	***
Methylvanillin: All channels	Share 2	***	***	***	***	***
Ethylvanillin: Distributors	Share 2	***	***	***	***	***
Ethylvanillin: Food end users	Share 2	***	***	***	***	***
Ethylvanillin: Fragrance end users	Share 2	***	***	***	***	***
Ethylvanillin: Other end users	Share 2	***	***	***	***	***
Ethylvanillin: All channels	Share 2	***	***	***	***	***
All vanillin: Distributors	Share 2	***	***	***	***	***
All vanillin: Food end users	Share 2	***	***	***	***	***
All vanillin: Fragrance end users	Share 2	***	***	***	***	***
All vanillin: Other end users	Share 2	***	***	***	***	***
All vanillin: All channels	Share 2	100.0	100.0	100.0	100.0	100.0

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". Share 1 represents the share within each product type by channel. Share 2 represents the share of overall U.S. shipments of each product type and channel combination.

Table IV-6 presents data on U.S. importers' U.S. shipments from nonsubject sources by product type and channel distribution. The majority of U.S. importers' U.S. shipments of all vanillin from nonsubject sources was ***.[3] Similarly, the largest share of U.S. importers' U.S. shipments of methylvanillin from nonsubject sources was to *** in each year and the interim periods. The largest share of U.S. importers' U.S. shipments of ethylvanillin from nonsubject sources were to *** in 2021 and 2022, while *** equally comprised the largest share in 2023.*** accounted for the vast majority of U.S. shipments in interim 2024[4].

[3] ***. Borregaard importers' questionnaire, II-6b.

[4] There were *** of ethylvanillin from nonsubject sources in interim 2023.

The vast majority of U.S. shipments of imports from nonsubject sources were imports of *** in each year and interim periods. The largest share of overall U.S. shipments of all vanillin was imports of methylvanillin to *** in each year and both interim periods.

Table IV-6
Vanillin: U.S. importers' U.S. shipments from nonsubject sources, by product type, channel of distribution, and period

Quantity in 1,000 pounds; Share in percent

Product type and channel of distribution	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Methylvanillin: Distributors	Quantity	***	***	***	***	***
Methylvanillin: Food end users	Quantity	***	***	***	***	***
Methylvanillin: Fragrance end users	Quantity	***	***	***	***	***
Methylvanillin: Other end users	Quantity	***	***	***	***	***
Methylvanillin: All channels	Quantity	***	***	***	***	***
Ethylvanillin: Distributors	Quantity	***	***	***	***	***
Ethylvanillin: Food end users	Quantity	***	***	***	***	***
Ethylvanillin: Fragrance end users	Quantity	***	***	***	***	***
Ethylvanillin: Other end users	Quantity	***	***	***	***	***
Ethylvanillin: All channels	Quantity	***	***	***	***	***
All vanillin: Distributors	Quantity	***	***	***	***	***
All vanillin: Food end users	Quantity	***	***	***	***	***
All vanillin: Fragrance end users	Quantity	***	***	***	***	***
All vanillin: Other end users	Quantity	***	***	***	***	***
All vanillin: All channels	Quantity	***	***	***	***	***
Methylvanillin: Distributors	Share 1	***	***	***	***	***
Methylvanillin: Food end users	Share 1	***	***	***	***	***
Methylvanillin: Fragrance end users	Share 1	***	***	***	***	***
Methylvanillin: Other end users	Share 1	***	***	***	***	***
Methylvanillin: All channels	Share 1	100.0	100.0	100.0	100.0	100.0
Ethylvanillin: Distributors	Share 1	***	***	***	***	***
Ethylvanillin: Food end users	Share 1	***	***	***	***	***
Ethylvanillin: Fragrance end users	Share 1	***	***	***	***	***
Ethylvanillin: Other end users	Share 1	***	***	***	***	***
Ethylvanillin: All channels	Share 1	100.0	100.0	100.0	***	100.0
All vanillin: Distributors	Share 1	***	***	***	***	***
All vanillin: Food end users	Share 1	***	***	***	***	***
All vanillin: Fragrance end users	Share 1	***	***	***	***	***
All vanillin: Other end users	Share 1	***	***	***	***	***
All vanillin: All channels	Share 1	100.0	100.0	100.0	100.0	100.0

Table continued.

Table IV-6 Continued
Vanillin: U.S. importers' U.S. shipments from nonsubject sources, by product type, channel of distribution, and period

Quantity in 1,000 pounds; Share in percent

Product type and channel of distribution	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Methylvanillin: Distributors	Share 2	***	***	***	***	***
Methylvanillin: Food end users	Share 2	***	***	***	***	***
Methylvanillin: Fragrance end users	Share 2	***	***	***	***	***
Methylvanillin: Other end users	Share 2	***	***	***	***	***
Methylvanillin: All channels	Share 2	***	***	***	***	***
Ethylvanillin: Distributors	Share 2	***	***	***	***	***
Ethylvanillin: Food end users	Share 2	***	***	***	***	***
Ethylvanillin: Fragrance end users	Share 2	***	***	***	***	***
Ethylvanillin: Other end users	Share 2	***	***	***	***	***
Ethylvanillin: All channels	Share 2	***	***	***	***	***
All vanillin: Distributors	Share 2	***	***	***	***	***
All vanillin: Food end users	Share 2	***	***	***	***	***
All vanillin: Fragrance end users	Share 2	***	***	***	***	***
All vanillin: Other end users	Share 2	***	***	***	***	***
All vanillin: All channels	Share 2	100.0	100.0	100.0	100.0	100.0

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". Share 1 represents the share within each product type by channel. Share 2 represents the share of overall U.S. shipments of each product type and channel combination.

Table IV-7 presents data on U.S. importers' U.S. shipments from all import sources by product type and channel of distribution.

Table IV-7
Vanillin: U.S. importers' U.S. shipments from all import sources, by product type, channel of distribution, and period

Quantity in 1,000 pounds; Share in percent

Product type and channel of distribution	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Methylvanillin: Distributors	Quantity	***	***	***	***	***
Methylvanillin: Food end users	Quantity	***	***	***	***	***
Methylvanillin: Fragrance end users	Quantity	***	***	***	***	***
Methylvanillin: Other end users	Quantity	***	***	***	***	***
Methylvanillin: All channels	Quantity	***	***	***	***	***
Ethylvanillin: Distributors	Quantity	***	***	***	***	***
Ethylvanillin: Food end users	Quantity	***	***	***	***	***
Ethylvanillin: Fragrance end users	Quantity	***	***	***	***	***
Ethylvanillin: Other end users	Quantity	***	***	***	***	***
Ethylvanillin: All channels	Quantity	***	***	***	***	***
All vanillin: Distributors	Quantity	***	***	***	***	***
All vanillin: Food end users	Quantity	***	***	***	***	***
All vanillin: Fragrance end users	Quantity	***	***	***	***	***
All vanillin: Other end users	Quantity	***	***	***	***	***
All vanillin: All channels	Quantity	***	***	***	***	***
Methylvanillin: Distributors	Share 1	***	***	***	***	***
Methylvanillin: Food end users	Share 1	***	***	***	***	***
Methylvanillin: Fragrance end users	Share 1	***	***	***	***	***
Methylvanillin: Other end users	Share 1	***	***	***	***	***
Methylvanillin: All channels	Share 1	100.0	100.0	100.0	100.0	100.0
Ethylvanillin: Distributors	Share 1	***	***	***	***	***
Ethylvanillin: Food end users	Share 1	***	***	***	***	***
Ethylvanillin: Fragrance end users	Share 1	***	***	***	***	***
Ethylvanillin: Other end users	Share 1	***	***	***	***	***
Ethylvanillin: All channels	Share 1	100.0	100.0	100.0	100.0	100.0
All vanillin: Distributors	Share 1	***	***	***	***	***
All vanillin: Food end users	Share 1	***	***	***	***	***
All vanillin: Fragrance end users	Share 1	***	***	***	***	***
All vanillin: Other end users	Share 1	***	***	***	***	***
All vanillin: All channels	Share 1	100.0	100.0	100.0	100.0	100.0

Table continued.

Table IV-7 Continued
Vanillin: U.S. importers' U.S. shipments from all import sources, by product type, channel of distribution, and period

Quantity in 1,000 pounds; Share in percent

Product type and channel of distribution	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Methylvanillin: Distributors	Share 2	***	***	***	***	***
Methylvanillin: Food end users	Share 2	***	***	***	***	***
Methylvanillin: Fragrance end users	Share 2	***	***	***	***	***
Methylvanillin: Other end users	Share 2	***	***	***	***	***
Methylvanillin: All channels	Share 2	***	***	***	***	***
Ethylvanillin: Distributors	Share 2	***	***	***	***	***
Ethylvanillin: Food end users	Share 2	***	***	***	***	***
Ethylvanillin: Fragrance end users	Share 2	***	***	***	***	***
Ethylvanillin: Other end users	Share 2	***	***	***	***	***
Ethylvanillin: All channels	Share 2	***	***	***	***	***
All vanillin: Distributors	Share 2	***	***	***	***	***
All vanillin: Food end users	Share 2	***	***	***	***	***
All vanillin: Fragrance end users	Share 2	***	***	***	***	***
All vanillin: Other end users	Share 2	***	***	***	***	***
All vanillin: All channels	Share 2	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.
Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". Share 1 represents the share within each product type by channel. Share 2 represents the share of overall U.S. shipments of each product type and channel combination.

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[5] Negligible imports are generally defined in the Act, 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

[5] 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)).

such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[6] Imports from China accounted for 69.3 percent of total imports of vanillin by quantity during June 2023 through May 2024. Table IV-8 presents U.S. imports from June 2023 through May 2024.

Table IV-8
Vanillin: U.S. imports in the twelve month period preceding the filing of the petition, June 2023 through May 2024

Quantity in 1,000 pounds; share of quantity in percent

Source of imports	Quantity	Share of quantity
China	6,339	69.3
Nonsubject sources	2,813	30.7
All import sources	9,152	100.0

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting numbers 2912.41.0000 and 2912.42.0000, accessed July 8, 2024. Imports are based on the imports for consumption data series.

Apparent U.S. consumption and market shares

Quantity

Table IV-9 and figure IV-2 presents data on apparent U.S. consumption and U.S. market shares by quantity for vanillin. Apparent U.S. consumption, by quantity, increased by *** percent from 2021 to 2022, decreased by *** percent from 2022 to 2023, overall decreasing by *** percent during 2021-23. Apparent U.S. consumption was *** percent higher in interim 2024 than in interim 2023. The decrease in apparent consumption during 2021-23 largely reflects the yearly decreases in U.S. producer's U.S. shipments and imports from nonsubject sources, particularly from 2022 to 2023.[7] The higher quantity of apparent consumption in interim 2024 compared to interim 2023 reflects increases in U.S. producer's U.S. shipments and imports from China and nonsubject sources.

[6] Section 771 (24) of the Act (19 U.S.C § 1677(24)).

[7] For more detailed discussion on the trends in U.S. producer's U.S. shipments, see Part III and for more detailed discussion on trends in subject and nonsubject imports, see the section entitled "U.S. imports."

Table IV-9
Vanillin: Apparent U.S. consumption and market shares based on quantity data, by source and period

Quantity in 1,000 pounds; Share of quantity in percent

Source	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
U.S. producer	Quantity	***	***	***	***	***
China	Quantity	6,812	7,717	5,107	1,037	1,724
Nonsubject sources	Quantity	3,510	3,677	1,766	320	832
All import sources	Quantity	10,321	11,394	6,873	1,357	2,557
All sources	Quantity	***	***	***	***	***
U.S. producer	Share	***	***	***	***	***
China	Share	***	***	***	***	***
Nonsubject sources	Share	***	***	***	***	***
All import sources	Share	***	***	***	***	***
All sources	Share	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting numbers 2912.41.0000 and 2912.42.0000, accessed on July 8, 2024. Imports are based on the imports for consumption data series.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Figure IV-2
Vanillin: Apparent U.S. consumption based on quantity data, by source and period

* * * * * * *

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting numbers 2912.41.0000 and 2912.42.0000, accessed on July 8, 2024. Imports are based on the imports for consumption data series.

U.S. producer's market share, by quantity, fluctuated year to year between 2021 and 2023, decreasing from 2021 to 2022 then increasing from 2022 to 2023, ending *** percentage points lower in 2023 than in 2021. The U.S. producer's market share was *** percentage points lower in interim 2024 than in interim 2023. The market shares of U.S. shipments of imports from China increased in each year, overall increasing by *** percentage points during 2021-23, but was *** percentage points lower in interim 2024 compared to interim 2023. The market share of imports from nonsubject sources decreased in each year, overall decreasing by *** percentage points but was *** percentage points higher in interim 2024 compared to interim 2023.

Value

Table IV-10 and figure IV-3 presents data on apparent U.S. consumption and U.S. market shares by value for vanillin. Apparent U.S. consumption, by value, fluctuated year to year between 2021 and 2023, increasing by *** percent from 2021 to 2022 then decreasing by *** percent from 2022 to 2023, ending *** percent lower in 2023 than 2021. The year-to-year fluctuation in the value of apparent consumption largely reflects the changes in imports from China and nonsubject sources.

Table IV-10
Vanillin: Apparent U.S. consumption and market shares based on value data, by source and period

Value in 1,000 dollars; shares in percent

Source	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
U.S. producer	Value	***	***	***	***	***
China	Value	80,686	102,603	43,537	8,116	14,872
Nonsubject sources	Value	62,542	69,754	38,784	7,733	13,215
All import sources	Value	143,227	172,357	82,321	15,849	28,088
All sources	Value	***	***	***	***	***
U.S. producer	Share	***	***	***	***	***
China	Share	***	***	***	***	***
Nonsubject sources	Share	***	***	***	***	***
All import sources	Share	***	***	***	***	***
All sources	Share	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting numbers 2912.41.0000 and 2912.42.0000, accessed on July 8, 2024. Imports are based on the imports for consumption data series.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as “---“.

Figure IV-3
Vanillin: Apparent U.S. consumption based on value, by source and period

* * * * * * *

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting numbers 2912.41.0000 and 2912.42.0000, accessed on June 11, 2024. Imports are based on the imports for consumption data series.

U.S. producer's market share, by value, fluctuated year to year, decreasing moderately from 2021 to 2022 then increasing by *** percentage points from 2022 to 2023, ending *** percentage points higher in 2023 than in 2021. U.S. producer's market share was *** percentage points lower in interim 2024 than in interim 2023. The market shares of U.S. shipments of imports from China fluctuated, increasing by *** percentage points from 2021 to 2022 and decreasing by *** percentage points from 2022 to 2023, overall decreasing by *** percentage points during 2021-23. The market share U.S. shipments of imports from China was *** percentage points higher in interim 2024 than in interim 2023. The market share of U.S. shipments of imports from nonsubject sources increased by *** percentage points between 2021 to 2023 and was *** percentage points higher in interim 2024 compared to interim 2023.

Table IV-11 presents data on the market for methylvanillin based on quantity data by source.

Table IV-11
Methylvanillin: U.S. producers' U.S. shipments and U.S. imports based on quantity data, by source and period

Quantity in 1,000 pounds; Shares and ratios in percent; Ratio is the ratio to overall U.S. consumption

Source	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
U.S. producer	Quantity	***	***	***	***	***
China	Quantity	6,024	6,210	4,024	731	1,490
Nonsubject sources	Quantity	3,449	3,626	1,760	319	818
All import sources	Quantity	9,473	9,836	5,783	1,050	2,309
All sources	Quantity	***	***	***	***	***
U.S. producer	Share	***	***	***	***	***
China	Share	***	***	***	***	***
Nonsubject sources	Share	***	***	***	***	***
All import sources	Share	***	***	***	***	***
All sources	Share	100.0	100.0	100.0	100.0	100.0
U.S. producer	Ratio	***	***	***	***	***
China	Ratio	***	***	***	***	***
Nonsubject sources	Ratio	***	***	***	***	***
All import sources	Ratio	***	***	***	***	***
All sources	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 2912.41.0000, accessed on July 8, 2024. Imports are based on the imports for consumption data series.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as “---“.

Table IV-12 presents data on the market for ethylvanillin based on quantity data by source.

Table IV-12
Ethylvanillin: U.S. producers' U.S. shipments and U.S. imports based on quantity data, by source and period

Quantity in 1,000 pounds; shares and ratios in percent; ratio is the ratio to overall U.S. consumption

Source	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
U.S. producers	Quantity	***	***	***	***	***
China	Quantity	788	1,507	1,084	307	234
Nonsubject sources	Quantity	61	50	7	1	14
All import sources	Quantity	849	1,558	1,090	308	248
All sources	Quantity	***	***	***	***	***
U.S. producers	Share	***	***	***	***	***
China	Share	***	***	***	***	***
Nonsubject sources	Share	***	***	***	***	***
All import sources	Share	***	***	***	***	***
All sources	Share	100.0	100.0	100.0	100.0	100.0
U.S. producers	Ratio	***	***	***	***	***
China	Ratio	***	***	***	***	***
Nonsubject sources	Ratio	***	***	***	***	***
All import sources	Ratio	***	***	***	***	***
All sources	Ratio	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 2912.42.0000, accessed on June 11, 2024. Imports are based on the imports for consumption data series.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as “---“.

Part V: Pricing data

Factors affecting prices

Raw material costs

Phenol is used as the first input into vanillin and is used with a high percentage concentration of hydrogen peroxide, which uses a catalyst to undergo a complex chemical reaction.[1] U.S. producer Solvay reported that phenol accounted for *** percent and that caustic soda comprised *** percent of the value of its raw material costs in 2023.[2] Prices for phenol increased by *** percent in 2021 and decreased by *** percent in 2022 before increasing by *** percent in 2023. Prices are forecast to decrease by *** percent between May 2024, (the last month for which data are available) and December 2025 (table V-1). Caustic soda prices increased by *** percent in 2021 before increasing by *** percent in 2022 before decreasing by *** percent in 2023. Ultimately, caustic soda prices decreased by *** percent between their peak in November of 2022 and December of 2023, and ended at *** percent higher than prices in January 2021 (table V-2).

Table V-1
Phenol: Raw material prices and projected prices, January 2021 – December 2025

Price in dollars per metric ton

Month	2021	2022	2023	2024	2025
January	***	***	***	***	***
February	***	***	***	***	***
March	***	***	***	***	***
April	***	***	***	***	***
May	***	***	***	***	***
June	***	***	***	***	***
July	***	***	***	***	***
August	***	***	***	***	***
September	***	***	***	***	***
October	***	***	***	***	***
November	***	***	***	***	***
December	***	***	***	***	***

Table continued.

[1] Conference transcript, p. 6 (Kraemer).
[2] For more information, please see Part VI.

Table V-2
Caustic soda: Raw material prices, January 2021 – December 2023

Price in dollars per metric ton

Month	2021	2022	2023
January	***	***	***
February	***	***	***
March	***	***	***
April	***	***	***
May	***	***	***
June	***	***	***
July	***	***	***
August	***	***	***
September	***	***	***
October	***	***	***
November	***	***	***
December	***	***	***

Source: ***, retrieved June 27, 2024.

Note: ***.

Figure V-1
Phenol and caustic soda: Raw material prices and projected prices, January 2021 through December 2025

* * * * * * *

Source: Petitioner's postconference Brief, Exhibit 8, Oil Price Information Service, Chemical Market Analytics, retrieved June 27, 2024.

Note: ***.

Transportation costs to the U.S. market

Transportation costs for vanillin shipped from subject countries to the United States averaged 1.5 percent for China during 2023. These estimates were derived from official import data and represent the transportation and other charges on imports.[3]

[3] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2023 and then dividing by the customs value based on the HTS statistical reporting numbers 2912.41.0000 and 2912.42.0000.

U.S. inland transportation costs

U.S. producer Solvay reported that it *** transportation to its customers, while most responding importers (12 of 20) reported that they typically arrange transportation to their customers.[4] U.S. producers reported that its U.S. inland transportation cost was *** percent, while all but one responding importer reported costs of between 0.5 to 5.0 percent.

Pricing practices

Pricing methods

U.S. producer Solvay reported using ***, while most responding importers reported setting prices using transaction-by-transaction negotiations and contracts (table V-3).

U.S. producer Solvay stated that historically, most vanillin used to be sold on a contract basis, and that its contracts typically varied from one year long to up to two or three years long, and that they had a set minimum volume per year, but that over the past three years, more of its sales are made on a spot basis or on a short-term contract of three or six months. It stated that customers are only agreeing to shorter duration contracts and that every time its customers renegotiate their contracts, the price is driven down.[5] It estimated that about *** percent of its sales were pursuant to contracts in 2021, with *** percent on the spot market, and that in 2023, *** percent of its sales were for contracts, and *** percent were on the spot market. It used *** as an example, reporting that it had represented almost *** percent of annual contract sales, but that it had ***, and that ***.[6] However, U.S. importer *** reported that ***.

[4] U.S. importer *** reported that both it and its customers arrange transportation to its customers' locations.

[5] Conference transcript, p. 14 (Jorge).

[6] ***, July 9, 2024.

Similarly, purchaser *** reported that it is forced to import due to the U.S. producer's continued lack of response to its request for quotes. U.S. producer Solvay stated that there are cases where it declined bids because it is not able to compete fairly, so it knows that it cannot reach the price level or price range the customer is bidding to, and that it could make a second offer, but it knows that the offer will not be accepted. Solvay also added that the total volume requested is lower than the total demand for the customer, because the customer likes to keep domestic supply as a second or third option (as an emergency option).[7]

Table V-3
Vanillin: Count of U.S. producers' and importers' reported price setting methods

Count in number of firms reporting.

Method	U.S. producers	Importers
Transaction-by-transaction	***	14
Contract	***	14
Set price list	***	4
Other	***	2
Responding firms	1	17

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

Note: The sum of responses down may not add up to the total number of responding firms as each firm was instructed to check all applicable price setting methods employed.

U.S. producer Solvay reported selling ***, while importers reported selling a plurality of its vanillin under annual contracts, with the next largest share sold in the spot market (table V-4).

Table V-4
Vanillin: U.S. producers' and importers' shares of commercial U.S. shipments by type of sale, 2023

Share in percent.

Type of sale	U.S. producers	Subject importers
Long-term contracts	***	***
Annual contracts	***	***
Short-term contracts	***	***
Spot sales	***	***
Total	100.0	100.0

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

Note: Because of rounding, figures may not add to the totals shown.

[7] Conference transcript, pp. 70-71 (Jorge).

U.S. producer Solvay reported that its short-term contracts last *** days, and its long-term contracts last *** days. Responding U.S. importers reported that their short-term contracts typically last either 90 days or between 180 and 182.5 days, while their long term contracts last 730 or 1,095 days. U.S. producer Solvay reported that its contract provisions *** a mechanism for price renegotiation during the contract period, and that its one-year and long-term contracts ***, while its short-term contracts ***. Most U.S. importers reported that their short-term and annual contracts do not include a mechanism for price renegotiation, while the majority (2 of 3) reported that their long-term contracts did. Most importers reported that their contracts fix to both price and quantity and are not indexed to raw material costs.

Sales terms and discounts

U.S. producer Solvay reported that it ***. U.S. importers typically quote prices on an f.o.b. basis, and most did not report offering a discount policy.

Price and purchase cost 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 vanillin products shipped to unrelated U.S. customers during January 2021 - March 2024. Firms that imported these products from China for own use were requested to provide import purchase cost data.

Product 1.-- Synthetic vanillin (excluding biosynthetic), or 4-Hydroxy-3 methoxybenzaldehyde, with the chemical formula $C_8H_8O_3$.[8]

Product 2.-- Ethylvanillin, or 3-Ethoxy-4-hydroxybenzaldehyde, with the chemical formula $C_9H_{10}O_3$.[9]

[8] For example, brand name Rhovanil®.

[9] For example, brand name Rhodiarome®.

Price data

U.S. producer Solvay and 13 importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[10] Pricing data reported by these firms accounted for approximately *** of the U.S. producer's shipments of vanillin and *** percent of U.S. imports from China in 2023.

Price and landed-duty purchase cost data for imports from China for products 1 and 2 are presented in tables V-5 to V-6 and figures V-2 to V-3.

Import purchase cost data

Eight importers reported useable import purchase cost data for products 1 and 2. Purchase cost data reported by these firms accounted for *** percent of imports from China in 2023.

Importers reporting import purchase cost data were asked to provide additional information regarding the costs and benefits of directly importing from China.

Five of 13 responding importers reported that they incurred additional costs beyond landed duty-paid costs by importing from China directly rather than purchasing from a U.S. producer or U.S. importer. Of these, two importers (***) estimated the total additional cost incurred; estimates were 25 and 1 percent, respectively, compared to the landed-duty paid value. Firms were also asked to identify specific additional costs they incurred as a result of importing from China. Reported costs include inland freight (1 percent), import logistics costs (2 percent), brokerage, import duties, and drayage costs to get the container from the importing seaport to the distribution warehouse, and also includes chassis rentals and additional port fees.

Eight of 13 responding importers reported that they compare costs of importing to the cost of purchasing from a U.S. producer in determining whether to import from China, all 13 responding importers compare costs to purchasing from a U.S. importer, and two importers reported that they do not compare costs of purchasing from either U.S. producers or importers.

Twelve responding importers identified benefits from importing from China directly instead of purchasing from U.S. producers or importers, including availability, raw material availability, security of supply and supply diversity, insufficient U.S. production to supply the

[10] 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. U.S. producer Solvay stated that there was a dollar per pound difference between the prices of synthetic vanillin and ethylvanillin, ***. Conference transcript, p. 9 (Kraemer) and ***, July 12, 2024.

market, supplier risk mitigation, quality aspects, sustainability aspects, price competitiveness, and that imports are less expensive. One importer, ***, reported that there were no benefits to importing directly.

Firms were also asked whether the cost of importing directly from China of (both excluding and including additional costs) was lower than the price of purchasing vanillin imported from China from a U.S. producer or importer. Five of 11 responding importers reported that they were lower, both excluding and including additional costs.
Three importers estimated that they saved between *** percent of the purchase price by importing directly from China rather than purchasing from the U.S. producer or U.S. importers.[11] U.S. importers *** reported that "***".

[11] Five firms reported that they based their estimates on previous company transactions, two reported basing their estimates on market research, and two reported other bases for their estimates, including total cost, risk, and long term strategies.

Table V-5
Vanillin: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by quarter

Quantity in 1,000 pounds; prices and unit LDP in dollars per pound; margins and differentials in percent.

Period	U.S. price	U.S. quantity	China price	China price quantity	China margin	China unit LDP value	China cost quantity	China differential
2021 Q1	***	***	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***	***	***
2021 Q3	***	***	***	***	***	***	***	***
2021 Q4	***	***	***	***	***	***	***	***
2022 Q1	***	***	***	***	***	***	***	***
2022 Q2	***	***	***	***	***	***	***	***
2022 Q3	***	***	***	***	***	***	***	***
2022 Q4	***	***	***	***	***	***	***	***
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***

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

Note: Product 1: Synthetic vanillin (excluding biosynthetic), or 4-Hydroxy-3-methoxybenzaldehyde, with the chemical formula $C_8H_8O_3$.[12] Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

[12] For example, brand name Rhovanil®.

Figure V-2
Vanillin: Weighted-average prices and quantities of domestic and imported product 1, by quarter

Price of product 1

* * * * * * *

Volume of product 1

* * * * * * *

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

Note: Product 1: Synthetic vanillin (excluding biosynthetic), or 4-Hydroxy-3-methoxybenzaldehyde, with the chemical formula $C_8H_8O_3$.[13]

[13] For example, brand name Rhovanil®.

Table V-6
Vanillin: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by quarter

Quantity in 1,000 pounds; prices and unit LDP in dollars per pound; margins and differentials in percent.

Period	U.S. price	U.S. quantity	China price	China price quantity	China margin	China unit LDP value	China cost quantity	China differential
2021 Q1	***	***	***	***	***	***	***	***
2021 Q2	***	***	***	***	***	***	***	***
2021 Q3	***	***	***	***	***	***	***	***
2021 Q4	***	***	***	***	***	***	***	***
2022 Q1	***	***	***	***	***	***	***	***
2022 Q2	***	***	***	***	***	***	***	***
2022 Q3	***	***	***	***	***	***	***	***
2022 Q4	***	***	***	***	***	***	***	***
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***

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

Note: Product 2: Ethylvanillin, or 3-Ethoxy-4-hydroxybenzaldehyde, with the chemical formula $C_9H_{10}O_3$.[14]
Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.
Zeroes, null values, and undefined calculations are suppressed and shown as "---".

[14] For example, brand name Rhodiarome®.

Figure V-3
Vanillin: Weighted-average prices and quantities of domestic and imported product 2, by quarter

Price of product 2

* * * * * * *

Volume of product 2

* * * * * * *

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

Note: Product 2: Ethylvanillin, or 3-Ethoxy-4-hydroxybenzaldehyde, with the chemical formula C9H10O3.[15]

[15] For example, brand name Rhodiarome®.

Price and purchase cost trends

Table V-7 summarizes the price trends, by country and by product. As shown in the table, domestic price increases were *** percent during January 2021 - March 2024, while import price decreases ranged from *** percent.

Table V-7
Vanillin: Summary of price and purchase cost data, by product and source, January 2021 through March 2024

Prices and unit LDP values in dollars; quantity in 1,000 pounds; change in percent.

Product	Source	Number of quarters	Quantity	Low price/unit LDP value	High price/unit LDP value	First quarter price/unit LDP value	Last quarter price/unit LDP value	Change over period
Product 1	United States	***	***	***	***	***	***	***
Product 1	China price	***	***	***	***	***	***	***
Product 1	China cost	***	***	***	***	***	***	***
Product 2	United States	***	***	***	***	***	***	***
Product 2	China price	***	***	***	***	***	***	***
Product 2	China cost	***	***	***	***	***	***	***

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

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Price and purchase cost comparisons

Price comparisons

As shown in table V-8, prices for product imported from China were below those for U.S.-produced product in 3 of 26 instances (*** pounds); margins of underselling ranged from *** percent. In the remaining 23 instances (*** pounds), prices for product from China were between *** percent above prices for the domestic product.

Table V-8
Vanillin: Instances of underselling and overselling and the range and average of margins, by source

Quantity in 1,000 pounds; margins in percent.

Products	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
Product 1	Underselling	3	***	***	***	***
Product 2	Underselling	---	***	***	***	***
All products	Underselling	3	***	***	***	***
Product 1	Overselling	10	***	***	***	***
Product 2	Overselling	13	***	***	***	***
All products	Overselling	23	***	***	***	***

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

Note: These data include only quarters in which there is a comparison between the U.S. and subject product. Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Price-cost comparisons

As shown in table V-9, landed duty-paid costs for vanillin imported from China were below the sales price for U.S.-produced product in 10 of 26 instances (***); price-cost differentials ranged from *** percent. In the remaining 16 instances (***), landed duty-paid costs for vanillin from China were between *** percent above sales prices for the domestic product.

Table V-9
Vanillin: Instances of lower and higher import purchase costs and the range and average of price-cost differentials, by product

Quantity in 1,000 pounds; price-cost differential in percent.

Products	Type	Number of quarters	Quantity	Average differential	Min differential	Max differential
Product 1	Lower than US	6	***	***	***	***
Product 2	Lower than US	4	***	***	***	***
All products	Lower than US	10	***	***	***	***
Product 1	Higher than US	7	***	***	***	***
Product 2	Higher than US	9	***	***	***	***
All products	Higher than US	16	***	***	***	***

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

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Lost sales and lost revenue

The Commission requested that U.S. producers of vanillin report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of vanillin from China during January 2021 - March 2024. U.S. producer Solvay reported that it had to reduce prices, had lost sales, and submitted lost sales and lost revenue allegations. It identified 20 firms with which it lost sales or revenue (8 consisting lost sales allegations and 12 consisting of both lost sales and lost revenue allegations). All allegations were reported to have occurred in 2023, and 2 allegations consisted of ethylvanillin product (both were for lost sales and lost revenue), 4 consisted of synthetic vanillin (methylvanillin) (2 were for both lost sales and lost revenue, while 2 were for lost sales), and 14 were for both synthetic and ethylvanillin (8 were for both lost sales and lost revenue and 6 were for lost sales).

Staff contacted 20 purchasers and received responses from 5 purchasers. Responding purchasers reported purchasing and importing 18.5 million pounds of vanillin from China during January 2021 - March 2024 (table V-10).

Of the five responding purchasers, one reported that, since 2021, it had purchased imported vanillin from China instead of U.S.-produced product. Purchaser *** identified *** as non-price reasons for purchasing imported rather than U.S.-produced product (table V-11).

Of the five responding purchasers, one reported that the U.S. producer had not reduced prices in order to compete with lower-priced imports from China; four reported that they did not know (table V-12).

Table V-10
Vanillin: Purchasers' reported purchases and imports, by firm and source

Quantity in 1,000 pounds, change in shares in percentage points.

Firm	Domestic quantity	Subject quantity	All other quantity	Change in domestic share	Change in subject share
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All firms	***	***	***	***	***

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

Note: All other includes all other sources and unknown sources. Change is the percentage point change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.

Table V-11
Vanillin: Purchasers' responses to purchasing subject imports instead of domestic product, by firm

Firm	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Narrative on reasons for purchasing imports
***	***	***	***	***
***	***	***	***	***
***	***	***	***	***
***	***	***	***	***
***	***	***	***	***
All firms	Yes--1; No--2	Yes--1; No--0	Yes--0; No--1	NA

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

Note: ***.

Table V-12
Vanillin: Purchasers' responses to purchasing subject imports instead of domestic product, by source

Count in number of firms reporting.

Firm	Producers lowered prices	Narrative on producer price reductions
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
All firms	Yes--0; No--1	NA

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

Note: ***.

Table V-13
Vanillin: Count of changes in purchase patterns from U.S., subject, and nonsubject countries

Count in number of firms reporting.

Source of purchases	Steadily Increase	Fluctuate Up	No change	Fluctuate Down	Steadily Decrease	Did not purchase
United States	0	0	2	0	0	2
China	1	0	0	2	1	1
Nonsubject sources	0	0	0	2	1	1
Sources unknown	0	0	0	1	0	1

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

In responding to the lost sales lost revenue survey, some purchasers provided additional information on purchases and market dynamics. *** reported that it is forced to import due to ***. Purchaser *** reported that it is ***.

Part VI: Financial experience of U.S. producers

Background[1]

The petitioner, Solvay, is the only U.S. producer of vanillin and provided usable financial results on their vanillin operations.[2] Solvay reported financial data on a calendar year and on the basis of IFRS.[3] Commercial domestic and export sales accounted for *** percent of total revenue, respectively, in 2023, and transfers to related firms (all exports) accounted for the remaining *** percent of total revenue.[4]

[1] The following abbreviations are used in the tables and/or text of this section: generally accepted accounting principles ("GAAP"), international financial reporting standard ("IFRS"), fiscal year ("FY"), net sales ("NS"), cost of goods sold ("COGS"), selling, general, and administrative expenses ("SG&A expenses"), average unit values ("AUVs"), research and development expenses ("R&D expenses"), and return on assets ("ROA").

[2] Solvay stated that they were the sole producer of vanillin in the United States. Conference transcript, p. 18 (Pickard). ***. See part III for additional details.

[3] Solvay completed the spin-off of its Specialty Chemical activities into a new company named Syensqo in December 2023. ***. https://cen.acs.org/business/Solvay-completes-spinspecialty-chemicals-new/101/i41 , retrieved July 3, 2024, and email from ***, July 2, 2024.

[4] ***. Emails from ***, July 1, and July 9, 2024.

Operations on vanillin

Table VI-1 presents aggregated data on U.S. producer Solvay's operations in relation to vanillin, while table VI-2 presents corresponding changes in AUVs.

Table VI-1
Vanillin: U.S. producer Solvay's results of operations, by item and period

Quantity in 1,000 pounds; value in $1,000; ratios in percent

Item	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Commercial sales	Quantity	***	***	***	***	***
Transfers to related firms	Quantity	***	***	***	***	***
Total net sales	Quantity	***	***	***	***	***
Commercial sales	Value	***	***	***	***	***
Transfers to related firms	Value	***	***	***	***	***
Total net sales	Value	***	***	***	***	***
COGS: Raw materials	Value	***	***	***	***	***
COGS: Direct labor	Value	***	***	***	***	***
COGS: Other factory	Value	***	***	***	***	***
COGS: Total	Value	***	***	***	***	***
Gross profit or (loss)	Value	***	***	***	***	***
SG&A expenses	Value	***	***	***	***	***
Operating income or (loss)	Value	***	***	***	***	***
Net other expenses or (income)	Value	***	***	***	***	***
Net income or (loss)	Value	***	***	***	***	***
Depreciation/amortization	Value	***	***	***	***	***
Cash flow	Value	***	***	***	***	***
COGS: Raw materials	Ratio to NS	***	***	***	***	***
COGS: Direct labor	Ratio to NS	***	***	***	***	***
COGS: Other factory	Ratio to NS	***	***	***	***	***
COGS: Total	Ratio to NS	***	***	***	***	***
Gross profit	Ratio to NS	***	***	***	***	***
SG&A expense	Ratio to NS	***	***	***	***	***
Operating income or (loss)	Ratio to NS	***	***	***	***	***
Net income or (loss)	Ratio to NS	***	***	***	***	***

Table continued.

Table VI-1 Continued
Vanillin: U.S. producer Solvay's results of operations, by item and period

Shares in percent; unit values in dollars per pound; count in number of firms reporting

Item	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
COGS: Raw materials	Share	***	***	***	***	***
COGS: Direct labor	Share	***	***	***	***	***
COGS: Other factory	Share	***	***	***	***	***
COGS: Total	Share	100.0	100.0	100.0	100.0	100.0
Commercial sales	Unit value	***	***	***	***	***
Transfers to related firms	Unit value	***	***	***	***	***
Total net sales	Unit value	***	***	***	***	***
COGS: Raw materials	Unit value	***	***	***	***	***
COGS: Direct labor	Unit value	***	***	***	***	***
COGS: Other factory	Unit value	***	***	***	***	***
COGS: Total	Unit value	***	***	***	***	***
Gross profit or (loss)	Unit value	***	***	***	***	***
SG&A expenses	Unit value	***	***	***	***	***
Operating income or (loss)	Unit value	***	***	***	***	***
Net income or (loss)	Unit value	***	***	***	***	***
Operating losses	Count	***	***	***	***	***
Net losses	Count	***	***	***	***	***
Data	Count	***	***	***	***	***

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

Note: Shares represent the share of COGS. Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table VI-2
Vanillin: Changes in AUVs between comparison periods

Changes in percent

Item	2021-23	2021-22	2022-23	Jan-Mar 2023-24
Commercial sales	▲***	▲***	▲***	▼***
Transfers to related firms	▲***	▲***	▲***	▼***
Total net sales	▲***	▲***	▲***	▼***
COGS: Raw materials	▲***	▲***	▲***	▼***
COGS: Direct labor	▼***	▼***	▲***	▲***
COGS: Other factory	▲***	▼***	▲***	▲***
COGS: Total	▲***	▲***	▲***	▼***

Table continued.

Table VI-2 Continued
Vanillin: Changes in AUVs between comparison periods

Changes in dollars per pound

Item	2021-23	2021-22	2022-23	Jan-Mar 2023-24
Commercial sales	▲***	▲***	▲***	▼***
Transfers to related firms	▲***	▲***	▲***	▼***
Total net sales	▲***	▲***	▲***	▼***
COGS: Raw materials	▲***	▲***	▲***	▼***
COGS: Direct labor	▼***	▼***	▲***	▲***
COGS: Other factory	▲***	▼***	▲***	▲***
COGS: Total	▲***	▲***	▲***	▼***
Gross profit or (loss)	▼***	▲***	▼***	▼***
SG&A expense	▲***	▲***	▲***	▼***
Operating income or (loss)	▼***	▲***	▼***	▼***
Net income or (loss)	▼***	▲***	▼***	▼***

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

Note: Percentages and unit values shown as “0.0” or “0.00” represent values greater than zero, but less than “0.05” or “0.005,” respectively. Zeroes, null values, and undefined calculations are suppressed and shown as “---”. Period changes preceded by a “▲” represent an increase, while period changes preceded by a “▼” represent a decrease.

Net sales

Total net sales quantity includes commercial sales and transfers to related firms accounting for *** percent of total net sales quantity, respectively, in 2023. Total net sales quantity decreased overall by *** percent from 2021 to 2023, and was *** percent higher in January-March 2024 compared with January-March 2023.[5] While sales value also decreased overall by *** percent, it increased by *** percent from 2021 to 2022 (despite a *** percent decrease in sales quantity that same period), then decreased by *** percent from 2022 to 2023. Net sales value was *** percent higher in January-March 2024 compared with January-March 2023 (***). On an average per pound basis, total net sales value increased from $*** in 2021 to $*** in 2022 and $*** in 2023, and was lower in January-March 2024 at $*** compared with January-March 2023 at $***.[6] [7]

Cost of goods sold and gross profit or loss

Raw material costs, direct labor, and other factory costs accounted for *** percent of total COGS, respectively, in 2023.

Raw material costs, the largest component of COGS in all years, decreased irregularly by *** percent from 2021 to 2023, and were *** percent higher in January-March 2024

[5] ***. Solvay also stated that in 2022, demand was driven by the COVID-19 pandemic and then crashed in 2023 which magnified the "problem of overstock". Email from ***, June 25, 2024 and conference transcript p.41 (Jorge)

[6] *** Email from ***, June 25, 2024.

[7] ***. Email from ***, June 25, 2024.

compared with January-March 2023.[8] On an average per pound basis, raw material costs increased from $*** in 2021 to $*** in 2023, and were lower in January-March 2024 at $*** compared with January-March 2023 at $***. As a ratio to net sales, raw material costs increased from *** percent in 2021 to *** percent in 2023, and were lower in January-March 2024 at *** percent compared with January-March 2023 at *** percent.

Table VI-3 presents details on specific raw material inputs as a share of total raw material costs in 2023. The table shows that glyoxylic acid and phenol are the primary raw material inputs for vanillin accounting for *** percent, respectively, followed by caustic soda and other material inputs accounting for *** percent, respectively. Perchloric acid accounted for the remaining *** percent.[9]

Table VI-3
Vanillin: U.S. producers Solvay's raw material costs in 2023

Value in $1,000; share of value in percent

Item	Value	Share of value
Glyoxylic acid	***	***
Phenol	***	***
Caustic soda	***	***
Other material inputs	***	***
Perchloric acid	***	***
All raw materials	***	100.0

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

Note: ***

Direct labor costs, the smallest component COGS in all years, decreased overall by *** percent from 2021 to 2023, and were *** percent higher in January-March 2024 compared with January-March 2023. On an average per pound basis, direct labor costs decreased irregularly from $*** in 2021 to $*** in 2023, and were higher in January-March 2024 at $*** compared with January-March 2023 at $***. As a ratio to net sales, direct labor costs

[8] ***. Email from ***, June 25, 2024.

[9] ***. Purchases were reported in a manner consistent with the company's accounting books and records. Solvay's U.S. producer questionnaire response, sections III-6, III-7a and III-7b.

decreased irregularly from *** percent in 2021 to *** percent in 2023, and were higher in January-March 2024 at *** percent compared with *** percent in January-March 2023.

Other factory costs, the second largest component of COGS in all years, decreased overall by *** percent from 2021 to 2023, and were *** percent higher in January-March 2024 compared with January-March 2023.[10] On an average per pound basis, other factory costs increased irregularly from $*** in 2021 to $*** in 2023, and were higher in January-March 2024 at $*** compared with January-March 2023 at $***. As a ratio to net sales, other factory costs decreased irregularly from *** percent in 2021 to *** percent in 2023, and were higher in January-March 2024 at *** percent compared with January-March 2023 at *** percent.

Total COGS decreased irregularly by *** percent from 2021 to 2023, and was *** percent higher in January-March 2024 compared with January-March 2023. On an average per pound basis, total COGS increased from $*** in 2021 to $*** in 2023, and was lower in January-March 2024 at $*** compared with January-March 2023 at $***. As a ratio to net sales, total COGS decreased from *** percent in 2021 to *** percent in 2022 then increased to *** percent in 2023, and was higher in January-March 2024 at *** percent compared with January-March 2023 at *** percent.

As shown in table VI-1, gross profit increased from $*** in 2021 to $*** in 2022, then decreased to $*** in 2023 (reflecting the decline in sales volume, and the increase in sales AUVs that was less than total COGS). Gross profit was slightly lower in January-March 2024 at $*** compared with January-March 2023 at $***. As a ratio to net sales, gross profit decreased overall from *** percent in 2021 to *** percent in 2023, and was lower in January-March 2024 at *** percent compared with January-March 2023 at *** percent.

SG&A expenses and operating income or loss

SG&A expenses increased overall by *** percent from 2021 to 2023, and were *** percent higher in January-March 2024 compared with January-March 2023.[11] The

[10] ***. Emails from ***, July 1, and July 2, 2024.

[11] ***. Emails from ***, June 26, and July 1, 2024.

corresponding SG&A expense ratio (total SG&A expenses divided by total sales value) increased irregularly from *** percent in 2021 to *** percent in 2023, and was higher in January-March 2024 at *** percent compared with January-March 2023 at *** percent.

As shown in table VI-1, operating income increased from $*** in 2021 to $*** in 2022, then notably decreased to $*** in 2023. Operating income was lower in January-March 2024 at *** compared with January-March 2023 at ***. As a ratio to net sales, operating income decreased irregularly from *** percent in 2021 to *** percent in 2023, and was lower in January-March 2024 at *** percent compared with January-March 2023 at *** percent.

All other expenses and net income or loss

Solvay ***.[12] As a result, ***.

Variance analysis

A variance analysis for the operations of the U.S. producer of vanillin is presented in table VI-4.[13] The information for this variance analysis is derived from table VI-1. The data shows that operating income decreased overall from 2021 to 2023 primarily as a result of an unfavorable cost variance (unit COGS and unit SG&A expenses increased) that was greater than the favorable price variance (unit sales values increased). Between the two comparable January-March periods, the decrease in operating income was primarily due to an unfavorable price variance that outweighed the favorable cost variance.

[12] Email from ***, July 2, 2024.

[13] The Commission's variance analysis is calculated in three parts: Sales variance, cost of sales variance (COGS variance), and SG&A expense 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 expense variance), and a volume variance. The sales or cost/expense variance is calculated as the change in unit price or per-unit 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. Summarized at the bottom of the table, the price variance is from sales; the cost/expense variance is the sum of those items from 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 expense variances. The overall volume component of the variance analysis is generally small.

Table VI-4
Vanillin: Variance analysis on the operation of U.S. producer Solvay between comparison periods

Value in $1,000

Item	2021-23	2021-22	2022-23	Jan-Mar 2023-24
Net sales price variance	***	***	***	***
Net sales volume variance	***	***	***	***
Net sales total variance	***	***	***	***
COGS cost variance	***	***	***	***
COGS volume variance	***	***	***	***
COGS total variance	***	***	***	***
Gross profit variance	***	***	***	***
SG&A cost variance	***	***	***	***
SG&A volume variance	***	***	***	***
SG&A total variance	***	***	***	***
Operating income price variance	***	***	***	***
Operating income cost variance	***	***	***	***
Operating income volume variance	***	***	***	***
Operating income total variance	***	***	***	***

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

Note: These data are derived from the data in table VI-1. Unfavorable variances (which are negative) are shown in parentheses, all others are favorable (positive).

Capital expenditures and research and development expenses

Table VI-5 presents Solvay's capital expenditures, R&D expenses, net assets and operating ROA.[14] Table VI-6 presents Solvay's narrative explanations of the nature, focus, and significance of its capital expenditures, R&D expenses, and any significant changes in asset levels over time. Capital expenditures decreased irregularly from 2021 to 2023, and R&D expenses reported in *** only, also decreased. Total assets decreased irregularly from 2021 to 2023, and the operating ROA increased from *** percent in 2022 to *** percent in 2022, before notably decreasing to *** percent in 2023 (reflecting the decrease in operating profit).

[14] The operating ROA is calculated as operating income divided by total assets. With respect to a firm's overall operations, the total asset value reflects an aggregation of a number of assets which are generally not product specific. Thus, high-level allocations are generally required in order to report a total asset value on a product-specific basis.

Table VI-5
Vanillin: U.S. producers Solvay's capital expenditures, R&D expenses, total net assets, and ROA by item and period

Value in $1,000; ratios in percent

Item	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Capital expenditures	Value	***	***	***	***	***
Research and development expenses	Value	***	***	***	***	***
Total assets	Value	***	***	***	NA	NA
ROA	Ratio	***	***	***	NA	NA

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

Table VI-6
Vanillin: U.S. producer Solvay's narrative descriptions of the firm's capital expenditures, R&D expenses, and total assets by item

Item	Narrative on item
Capital expenditures	***
Research and development expenses	***
Total assets	***

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

Capital and investment

The Commission requested the U.S. producer of vanillin to describe any actual or potential negative effects of imports of vanillin from China on its growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-7 presents Solvay's actual and anticipated negative impact in each category, and table VI-8 provides Solvay's narrative responses.

Table VI-7
Vanillin: U.S. producer Solvay's actual and anticipated negative effects of imports from subject sources on investment, growth, and development since January 1, 2021, by effect

Number of firms reporting

Effect	Category	Count
Cancellation, postponement, or rejection of expansion projects	Investment	***
Denial or rejection of investment proposal	Investment	***
Reduction in the size of capital investments	Investment	***
Return on specific investments negatively impacted	Investment	***
Other investment effects	Investment	***
Any negative effects on investment	Investment	***
Rejection of bank loans	Growth	***
Lowering of credit rating	Growth	***
Problem related to the issue of stocks or bonds	Growth	***
Ability to service debt	Growth	***
Other growth and development effects	Growth	***
Any negative effects on growth and development	Growth	***
Anticipated negative effects of imports	Future	***

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

Table VI-8
Vanillin: U.S. producer Solvay's narratives relating to actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2021, by firm and effect

Item	Firm name and narrative on impact of imports
***	***
***	***
***	***
***	***

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

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 factors*[1]*--*
>
> *(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 37 firms believed to produce and/or export vanillin from China.[3] Usable responses to the Commission's questionnaire were received from five firms: Camlin Fine Sciences ("Camlin"), Kunshan Wictive ("Kunshan"), Till Trading Resources ("Rill Trading"), Solvay (Zhenjiang) Chemicals ("Solvay Zhenjiang")[4], and Shanghai Fuxin Fine Chemical ("Shanghai Fuxin").[5] These firms' exports to the United States accounted for approximately *** percent of U.S. imports of vanillin from China in 2023.[6] According to estimates requested of the responding producers in China, the production of vanillin in China reported in questionnaires accounts for approximately *** percent of overall production of China. Table VII-1 presents information on the vanillin operations of the responding producers and exporters in China[7].

Table VII-1
Vanillin: Summary data for subject foreign producers in China, by firm, 2023

Quantity in 1,000 pounds; shares in percent

Producer	Production quantity	Share of reported production	Exports to the United States quantity	Share of reported exports to the United States	Total shipments quantity	Share of firm's total shipments exported to the United States
Camlin	***	***	***	***	***	***
Solvay (Zhenjiang)	***	***	***	***	***	***
All individual producers	***	100.0	***	100.0	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". Subject producer Camlin ***.

[3] These firms were identified through a review of information submitted in the petition and presented in third-party sources.

[4] Solvay Zhenjiang is related to U.S. producer and petitioner Solvay. Conference transcript, p. 15, (Jorge).

[5] Of the responding firms, Camlin and Solvay Zhenjiang are the only Chinese producers of vanillin while *** reporting being only resellers of vanillin to the United States.

[6] The coverage figure was derived from reported exports to the United States, including resellers and official import stats using statistical reporting numbers 2912.41.0000 and 2912.42.0000.

[7] Camlin ***. Camlin foreign producer questionnaire, question II-9.

Table VII-2 presents summary data for the responding foreign resellers in China.

Table VII-2
Vanillin: Summary data for subject foreign resellers in China, by firm, 2023

Quantity in 1,000 pounds; shares in percent

Reseller	Resales exported to the United States quantity	Share of resales exported to the United States
Kunshan Wictive	***	***
Rill Trading	***	***
Shanghai Fuxin	***	***
All individual resellers	***	100.0

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". Subject producer *** reported production in 2021 but did not report any production in 2022 or 2023.

Table VII-3 presents events in China's industry since January 1, 2021.

Table VII-3
Vanillin: Important industry events in China since 2021

Item	Firm	Event
Construction	Shandong Wenhua Perfume	In 2021, construction began on a facility expected to produce 13,000 tons of vanillin annually.
Capacity expansion	Thrive Chemicals	In 2021, capacity expansion projects began intended to add 1500 tons/year of ethylvanillin production and 2000 tons/year vanillin production.
***	***	***

Source: "Jining Initiations 105 Major Products," *Cultural Jining,* July 23, 2021. In Petition volume 1, exh. I-13. "Development History," *Thrive Chemicals,* Petition volume 1, exh. I-14. ***, Petition, volume 1, exh. I-15.

Changes in operations

Producers in China were asked to report any change in the character of their operations or organization relating to the production of vanillin since 2021. Both producers indicated in their questionnaires that they had experienced such changes. Table VII-4 presents the changes identified by these producers.

Table VII-4
Vanillin: Reported changes in operations in China since January 1, 2021, by reported change category and firm

Item	Firm name and accompanying narrative response regarding changes in operations
Plant openings	***
Plant closings	***
Consolidations	***

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

Operations on vanillin

Table VII-5 presents data on Chinese producers' installed capacity, practical overall capacity, and practical vanillin capacity and production on the same equipment. Neither producer reported any alternative products on same machinery. Installed overall capacity increased modestly during the period, ending 2023 *** percent higher than in 2021 and was relatively constant between interim 2023 and interim 2024.[8]

[8] Camlin *** in its installed or practical overall capacity.

Table VII-5
Vanillin: Producers' in China installed and practical capacity and production on the same equipment as subject production, by period

Capacity and production in 1,000 pounds; utilization in percent

Item	Measure	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Installed overall	Capacity	***	***	***	***	***
Installed overall	Production	***	***	***	***	***
Installed overall	Utilization	***	***	***	***	***
Practical overall	Capacity	***	***	***	***	***
Practical overall	Production	***	***	***	***	***
Practical overall	Utilization	***	***	***	***	***
Practical Vanillin	Capacity	***	***	***	***	***
Practical Vanillin	Production	***	***	***	***	***
Practical Vanillin	Utilization	***	***	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table VII-6 presents Chinese producers' reported capacity constraints since January 1, 2021.

Table VII-6
Vanillin: Producers in China reported constraints to practical overall capacity, since January 1, 2021

Item	Firm name and narrative response on constraints to practical overall capacity
Other constraints	***

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

Table VII-7 presents information on the vanillin operations of the responding producers and exporters in China. ***.[9] Practical vanillin capacity increased in each year, overall increasing by *** percent during 2021-23, and was *** percent higher in interim 2024 than in interim 2023. Capacity is projected to decrease by *** percent from 2023 to 2024 and by *** percent during 2024 to 2025. Production of vanillin in China decreased in each year, overall decreasing by *** percent during 2021-23 but was *** percent higher in interim 2024 than in interim 2023. Production is projected to increase by *** percent from 2023 to 2024 and decrease *** percent from 2024 to 2025. The capacity utilization decreased in each year, remaining below ***,

[9] Camlin reported ***. Camlin foreign producer questionnaire, II-9.

overall decreasing overall by *** percent during 2021-23 but was *** percent higher in interim 2024 than in interim 2023.[10] Capacity utilization was projected to remain constant at *** percent in 2024 and 2025.

Table VII-7
Vanillin: Data on industry in China, by item and period

Quantity in 1,000 pounds

Item	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024	Projection 2024	Projection 2025
Capacity	***	***	***	***	***	***	***
Production	***	***	***	***	***	***	***
End-of-period inventories	***	***	***	***	***	***	***
Internal consumption	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Home market shipments	***	***	***	***	***	***	***
Exports to the United States	***	***	***	***	***	***	***
Exports to all other markets	***	***	***	***	***	***	***
Export shipments	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***
Resales exported to the United States	***	***	***	***	***	***	***
Total exports to the United States	***	***	***	***	***	***	***

Table continued.

[10] Camlin reported a capacity utilization of ***.

Table VII-7 Continued
Vanillin: Data on industry in China, by item and period

Shares and ratios in percent

Item	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024	Projection 2024	Projection 2025
Capacity utilization ratio	***	***	***	***	***	***	***
Inventory ratio to production	***	***	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***	***	***
Internal consumption share	***	***	***	***	***	***	***
Commercial home market shipments share	***	***	***	***	***	***	***
Home market shipments share	***	***	***	***	***	***	***
Exports to the United States share	***	***	***	***	***	***	***
Exports to all other markets share	***	***	***	***	***	***	***
Export shipments share	***	***	***	***	***	***	***
Total shipments share	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Share of total exports to the U.S. exported by producers	***	***	***	***	***	***	***
Share of total exports to the U.S. exported by resellers	***	***	***	***	***	***	***
Adjusted share of total shipments exported to the United States	***	***	***	***	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Export shipments accounted for the majority of Chinese exporters' total shipments from 2021 to 2023, with the vast majority going to ***. Chinese producers' export shipments to non-U.S. markets decreased in every year from 2021 to 2023, ending *** percent lower but were *** percent higher in interim 2024 than in interim 2023. They are projected to increase by *** percent from 2023 to 2024 and by *** percent from 2024 to 2025. Adjusted exports to the United States, which includes resellers, export shipments to the United States decreased in each year, ending *** percent lower in 2023 than in 2021 but were *** percent higher in interim 2024 than in interim 2023. Adjusted exports to the United States are projected to increase by *** percent from 2023 to 2024 but decrease by *** percent from 2024 to 2025. The fluctuations in adjusted exports are driven by ***.[11]

[11] Email from ***, June 27, 2024.

Home market shipments, ***, accounted for the minority of responding Chinese producers' total shipments from 2021 to 2023. Solvay (Zhenjiang) was the only firm to report home market shipments which fluctuated over the period, decreasing by *** percent from 2021 to 2022 before increasing by *** percent from 2022 to 2023, overall decreasing by *** percent during 2021-23. Solvay (Zhenjiang)'s home market shipments were *** percent higher in interim 2024 than in interim 2023 and are projected to increase by *** percent from 2023 to 2024 and stay at that level in 2025. Solvay (Zhenjiang)'s end-of-period inventories decreased in each year, ending *** percent lower in 2023 than in 2021, with most of the decrease occurring from 2021 and 2022. Interim 2024 was *** percent lower than in interim 2023. End-of-period inventories, however, are projected to increase by *** percent from 2023 to 2024 and remain at that level in 2025.

Alternative products

No responding Chinese producer or exporter reported producing alternative products on the same equipment.

Exports

According to GTA, the leading export markets for vanillin, by quantity, from China are the United States, Germany, and India (table VII-8). The United States was the largest export market for vanillin from China in 2021 and 2022 but in 2023, India surpassed the United States to be the largest market for vanillin from China. India accounted for 15.2 percent, followed by the United States which accounted for 14.9 percent of total exports to all markets.

Table VII-8
Vanillin: Exports from China, by destination market and period

Quantity in 1,000 pounds; value in 1,000 dollars

Destination market	Measure	2021	2022	2023
United States	Quantity	7,245	6,962	5,770
India	Quantity	4,301	4,778	5,868
Germany	Quantity	4,703	5,438	5,049
France	Quantity	1,103	861	1,507
Indonesia	Quantity	1,939	2,203	2,168
Singapore	Quantity	2,005	2,250	1,905
Brazil	Quantity	1,474	2,165	1,655
Netherlands	Quantity	1,401	1,950	1,780
Mexico	Quantity	883	1,449	1,352
All other destination markets	Quantity	9,475	11,069	11,552
All destination markets	Quantity	34,529	39,125	38,605
United States	Value	74,060	78,482	38,827
India	Value	27,261	40,564	26,782
Germany	Value	43,359	54,246	26,300
France	Value	11,165	8,727	10,977
Indonesia	Value	12,933	19,139	10,779
Singapore	Value	13,248	21,390	10,589
Brazil	Value	9,144	19,497	8,590
Netherlands	Value	13,362	19,759	8,300
Mexico	Value	6,351	12,549	7,132
All other destination markets	Value	79,792	112,738	62,202
All destination markets	Value	290,676	387,093	210,479

Table continued.

Table VII-8 Continued
Vanillin: Exports from China, by destination market and period

Unit value in dollars per pound; share in percent

Exporter	Measure	2021	2022	2023
United States	Unit value	10.22	11.27	6.73
India	Unit value	6.34	8.49	4.56
Germany	Unit value	9.22	9.98	5.21
France	Unit value	10.13	10.14	7.29
Indonesia	Unit value	6.67	8.69	4.97
Singapore	Unit value	6.61	9.51	5.56
Brazil	Unit value	6.20	9.00	5.19
Netherlands	Unit value	9.54	10.14	4.66
Mexico	Unit value	7.19	8.66	5.27
All other destination markets	Unit value	8.42	10.19	5.38
All destination markets	Unit value	8.42	9.89	5.45
United States	Share of quantity	21.0	17.8	14.9
India	Share of quantity	12.5	12.2	15.2
Germany	Share of quantity	13.6	13.9	13.1
France	Share of quantity	3.2	2.2	3.9
Indonesia	Share of quantity	5.6	5.6	5.6
Singapore	Share of quantity	5.8	5.7	4.9
Brazil	Share of quantity	4.3	5.5	4.3
Netherlands	Share of quantity	4.1	5.0	4.6
Mexico	Share of quantity	2.6	3.7	3.5
All other destination markets	Share of quantity	27.4	28.3	29.9
All destination markets	Share of quantity	100.0	100.0	100.0

Source: Official exports statistics under HS subheadings 2912.41 and 2912.42 as reported by China Customs in the Global Trade Atlas Suite database, accessed June 4, 2024.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". United States is shown at the top, all remaining top export destinations shown in descending order of 2023 data.

U.S. inventories of imported merchandise

Table VII-9 presents data on U.S. importers' reported inventories of vanillin.[12] End-of-period inventories of imports from China fluctuated, increasing by 22.2 percent during 2021 to 2022 and decreased by 37.5 percent from 2022 to 2023, decreasing overall by 23.6 percent

[12] Inventories are underestimated as three importers ***.

during 2021-23. End-of-period inventories of imports from China were 24.4 percent lower in interim 2024 compared to interim 2023. Similarly, end-of-period inventories of nonsubject sources fluctuated over the period, overall decreasing by *** percent during 2021-23 and was *** percent higher in in interim 2024 compared to interim 2023.

Table VII-9
Vanillin: U.S. importers' inventories and their ratio to select items, by source and period

Quantity in 1,000 pounds; ratios in percent

Measure	Source	2021	2022	2023	Jan-Mar 2023	Jan-Mar 2024
Inventories quantity	China	1,252	1,530	957	1,283	970
Ratio to imports	China	20.9	26.7	23.3	40.5	17.4
Ratio to U.S. shipments of imports	China	25.4	31.5	22.7	32.4	20.7
Ratio to total Shipments of imports	China	24.3	30.0	21.2	31.1	20.2
Inventories quantity	Nonsubject	***	***	***	***	***
Ratio to imports	Nonsubject	***	***	***	***	***
Ratio to U.S. shipments of imports	Nonsubject	***	***	***	***	***
Ratio to total Shipments of imports	Nonsubject	***	***	***	***	***
Inventories quantity	All imports	***	***	***	***	***
Ratio to imports	All imports	***	***	***	***	***
Ratio to U.S. shipments of imports	All imports	***	***	***	***	***
Ratio to total Shipments of imports	All imports	***	***	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

The ratios of U.S. importers' end-of-period inventories to their imports from China fluctuated, overall increasing by 2.4 percentage points during 2021-23 but was 23.1 percentage points lower in interim 2024 than in interim 2023. The ratios of U.S. importers' end-of-period inventories to U.S. shipments of imports from China and to total shipments decreased by 2.7 and 3.1 percentage points from 2021 to 2023 and was 11.6 and 10.9 percentage points lower in interim 2024 than in interim 2023, respectively.

The ratios of U.S. importers' end-of-period inventories to their imports from nonsubject sources fluctuated, overall increasing by *** percentage points during 2021-23 and was *** percentage points lower in interim 2024 than in interim 2023. The ratios of U.S. importers' end-of-period inventories to U.S. shipments of imports from nonsubject sources and to total shipments decreased by *** and *** percentage points from 2021 to 2023 and was *** and *** percentage points lower in interim 2024 than in interim 2023, respectively.

U.S. importers' outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of vanillin from China after March 31, 2024. Their reported data is presented in table VII-10. The vast majority of arranged imports are scheduled imports from China, mostly concentrated as scheduled for the second and third quarter of 2024. No firm reported any arranged imports from nonsubject sources for the second half of 2025.

Table VII-10
Vanillin: Arranged imports, by source and by period

Quantity in 1,000 pounds

Source	Apr-Jun 2024	Jul-Sep 2024	Oct-Dec 2024	Jan-Mar 2025	Total
China	***	***	***	***	***
Nonsubect sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

Third-country trade actions

On May 24, 2024, the European Commission initiated an anti-dumping investigation into vanillin (including synthetic vanillin, natural vanillin, bio-sourced synthetic vanillin (biovanillin), and ethylvanillin) originating in China.[13] The investigation was initiated in response to a complaint from Syensqo, which spun off from Solvay in December 2023.[14]

Information on nonsubject countries

In February 2023, Solvay announced the termination of vanillin production at its Saint-Fons, France facility.[15] Other nonsubject producing countries include Norway and India.[16] Table VII-11 presents global export data for vanillin. The largest global exporter was China,

[13] "Notice of initiation of an anti-dumping proceeding concerning imports of vanillin originating in the People's Republic of China." Official Journal of the European Union, May 25, 2024, C/2024/3241. https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:C_202403241.

[14] "Syensqo completes spinoff from Solvay, focuses on US market." Aerospace Manufacturing and Design, December 19, 2023. https://www.aerospacemanufacturinganddesign.com/news/syensqo-completes-spinoff-from-solvay-focuses-us-market/.

[15] Conference transcript, p. 15 (Jorge). "Fin de la production de vanilline à Saint-Fons: près de 50 emplois menaces" (End of vanillin production at Saint-Fons: nearly 50 jobs threatened). Franceinfo: February 14, 2024. https://france3-regions.francetvinfo.fr/auvergne-rhone-alpes/rhone/lyon/fin-de-la-production-de-vanilline-a-saint-fons-pres-de-50-emplois-menaces-2924316.html.

[16] Conference transcript, p. 30 (Jorge).

representing 63.1 percent of global exports by value in 2023, followed by France and Canada, with 8.7 and 8.3 percent, respectively.

Table VII-11
Vanillin: Global exports, by reporting country and by period

Quantity in 1,000 pounds; value in 1,000 dollars

Exporting country	Measure	2021	2022	2023
United States	Quantity	NA	NA	NA
China	Quantity	34,529	39,125	38,605
France	Quantity	11,745	9,739	5,329
Canada	Quantity	4,231	5,689	5,086
Germany	Quantity	2,613	2,929	2,754
Norway	Quantity	3,196	3,255	1,972
Netherlands	Quantity	1,893	1,678	1,909
Sweden	Quantity	658	445	1,310
Spain	Quantity	986	852	910
Singapore	Quantity	589	574	677
India	Quantity	411	168	548
Indonesia	Quantity	911	685	526
All other exporters	Quantity	3,750	3,405	1,568
All reporting exporters	Quantity	65,511	68,545	61,194
United States	Value	60,151	64,858	46,324
China	Value	290,676	387,093	210,479
France	Value	105,182	102,082	52,673
Canada	Value	22,909	29,783	25,570
Germany	Value	28,269	41,055	24,384
Norway	Value	50,598	56,202	32,641
Netherlands	Value	15,367	19,332	11,562
Sweden	Value	9,818	6,601	10,025
Spain	Value	9,567	10,358	6,447
Singapore	Value	5,266	7,117	5,501
India	Value	5,216	5,882	8,143
Indonesia	Value	21,756	15,121	12,582
All other exporters	Value	38,451	55,428	29,502
All reporting exporters	Value	663,226	800,914	475,834

Table continued.

Table VII-11 Continued
Vanillin: Global exports, by reporting country and period

Unit values in dollars per pound; shares in percent

Exporting country	Measure	2021	2022	2023
United States	Unit value	NA	NA	NA
China	Unit value	8.42	9.89	5.45
France	Unit value	8.96	10.48	9.88
Canada	Unit value	5.41	5.24	5.03
Germany	Unit value	10.82	14.02	8.85
Norway	Unit value	15.83	17.26	16.55
Netherlands	Unit value	8.12	11.52	6.06
Sweden	Unit value	14.93	14.85	7.65
Spain	Unit value	9.70	12.15	7.09
Singapore	Unit value	8.94	12.40	8.13
India	Unit value	12.70	35.09	14.87
Indonesia	Unit value	23.87	22.08	23.91
All other exporters	Unit value	10.25	16.28	18.81
All reporting exporters	Unit value	10.12	11.68	7.78
United States	Share of quantity	NA	NA	NA
China	Share of quantity	52.7	57.1	63.1
France	Share of quantity	17.9	14.2	8.7
Canada	Share of quantity	6.5	8.3	8.3
Germany	Share of quantity	4.0	4.3	4.5
Norway	Share of quantity	4.9	4.7	3.2
Netherlands	Share of quantity	2.9	2.4	3.1
Sweden	Share of quantity	1.0	0.6	2.1
Spain	Share of quantity	1.5	1.2	1.5
Singapore	Share of quantity	0.9	0.8	1.1
India	Share of quantity	0.6	0.2	0.9
Indonesia	Share of quantity	1.4	1.0	0.9
All other exporters	Share of quantity	5.7	5.0	2.6
All reporting exporters	Share of quantity	100.0	100.0	100.0

Table continued.

Table VII-11 Continued
Vanillin: Global exports, by reporting country and period

Shares in percent

Exporting country	Measure	2021	2022	2023
United States	Share of value	9.1	8.1	9.7
China	Share of value	43.8	48.3	44.2
France	Share of value	15.9	12.7	11.1
Canada	Share of value	3.5	3.7	5.4
Germany	Share of value	4.3	5.1	5.1
Norway	Share of value	7.6	7.0	6.9
Netherlands	Share of value	2.3	2.4	2.4
Sweden	Share of value	1.5	0.8	2.1
Spain	Share of value	1.4	1.3	1.4
Singapore	Share of value	0.8	0.9	1.2
India	Share of value	0.8	0.7	1.7
Indonesia	Share of value	3.3	1.9	2.6
All other exporters	Share of value	5.8	6.9	6.2
All reporting exporters	Share of value	100.0	100.0	100.0

Source: Official exports statistics under HS subheadings 2912.41 and 2912.42 as reported by various national statistical authorities and official import statistics as reported by various national statistical authorities for Norway in the Global Trade Atlas Suite database, accessed June 4, 2024.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as “---“. United States is shown at the top followed by the countries under investigation, all remaining top exporting countries in descending order of 2023 data. Due to confidentiality, the Global Trade Atlas Suite does not publish the quantity of global exports from the United States.

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
89 FR 49192, June 11, 2024	Vanillin From China; Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations	https://www.govinfo.gov/content/pkg/FR-2024-06-11/pdf/2024-12695.pdf
89 FR 54421, July 1, 2024	Vanillin From the People's Republic of China: Initiation of Countervailing Duty Investigation	https://www.govinfo.gov/content/pkg/FR-2024-07-01/pdf/2024-14458.pdf
89 FR 54424, July 1, 2024	Vanillin From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation	https://www.govinfo.gov/content/pkg/FR-2024-07-01/pdf/2024-14460.pdf

APPENDIX B

LIST OF STAFF CONFERENCE WITNESSES

CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

Those listed below appeared in the United States International Trade Commission's Preliminary Conference:

Subject: Vanillin from China

Inv. Nos.: 701-TA-728 and 731-TA-1697 (Preliminary)

Date and Time: June 26, 2024 - 9:30 a.m.

Sessions were held in connection with these preliminary phase investigations in the Main Hearing Room (Room 101), 500 E Street, SW., Washington, DC.

OPENING REMARKS:

In Support of Imposition (**Daniel B. Pickard,** Buchanan Ingersoll & Rooney, PC)

In Support of the Imposition of the Antidumping and Countervailing Duty Orders:

Buchanan Ingersoll & Rooney, PC
Washington, DC
on behalf of

Solvay USA LLC

Nathan Kraemer, Baton Rouge Plant Manager, Solvay USA LLC

Laila Jorge, Americas Commercial Director, Solvay USA LLC

Daniel B. Pickard)
) – OF COUNSEL
Amanda L. Wetzel)

CLOSING REMARKS:

In Support of Imposition (**Daniel B. Pickard**, Buchanan Ingersoll & Rooney, PC)

APPENDIX C

SUMMARY DATA

Table C-1
Vanillin: Summary data concerning the U.S. market, by item and period
Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted

Item	Reported data: Calendar year 2021	2022	2023	Reported data: Jan-Mar 2023	2024	Period changes: Comparison years 2021-23	2021-22	2022-23	Jan-Mar 2023-24
U.S. consumption quantity:									
Amount	***	***	***	***	***	▼***	▲***	▼***	▲***
Producers' share (fn1)	***	***	***	***	***	▼***	▼***	▲***	▼***
Importers' share (fn1):									
China	***	***	***	***	***	▲***	▲***	▲***	▼***
Nonsubject sources	***	***	***	***	***	▼***	▼***	▼***	▲***
All import sources	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. consumption value:									
Amount	***	***	***	***	***	▼***	▲***	▼***	▲***
Producers' share (fn1)	***	***	***	***	***	▲***	▼***	▲***	▼***
Importers' share (fn1):									
China	***	***	***	***	***	▼***	▲***	▼***	▲***
Nonsubject sources	***	***	***	***	***	▲***	▼***	▲***	▲***
All import sources	***	***	***	***	***	▼***	▲***	▼***	▲***
U.S. imports from:									
China:									
Quantity	6,812	7,717	5,107	1,037	1,724	▼(25.0)	▲13.3	▼(33.8)	▲66.3
Value	80,686	102,603	43,537	8,116	14,872	▼(46.0)	▲27.2	▼(57.6)	▲83.2
Unit value	$11.85	$13.30	$8.52	$7.83	$8.62	▼(28.0)	▲12.2	▼(35.9)	▲10.2
Ending inventory quantity	1,252	1,530	957	1,283	970	▼(23.6)	▲22.2	▼(37.5)	▼(24.4)
Nonsubject sources:									
Quantity	3,510	3,677	1,766	320	832	▼(49.7)	▲4.8	▼(52.0)	▲160.0
Value	62,542	69,754	38,784	7,733	13,215	▼(38.0)	▲11.5	▼(44.4)	▲70.9
Unit value	$17.82	$18.97	$21.96	$24.16	$15.88	▲23.2	▲6.5	▲15.7	▼(34.3)
Ending inventory quantity	***	***	***	***	***	▼***	▲***	▼***	▲***
All import sources:									
Quantity	10,321	11,394	6,873	1,357	2,557	▼(33.4)	▲10.4	▼(39.7)	▲88.4
Value	143,227	172,357	82,321	15,849	28,088	▼(42.5)	▲20.3	▼(52.2)	▲77.2
Unit value	$13.88	$15.13	$11.98	$11.68	$10.99	▼(13.7)	▲9.0	▼(20.8)	▼(5.9)
Ending inventory quantity	***	***	***	***	***	▼***	▲***	▼***	▼***
U.S. producers':									
Practical 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	***	***	***	***	***	▼***	▼***	▼***	▼***
Hours worked (1,000s)	***	***	***	***	***	▼***	***	▼***	▼***
Wages paid ($1,000)	***	***	***	***	***	▼***	▼***	▼***	▼***
Hourly wages (dollars per hour)	***	***	***	***	***	▼***	▼***	▲***	▲***
Productivity (pounds per hour)	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit labor costs	***	***	***	***	***	▲***	▲***	▲***	▼***

Table continued.

Table C-1 Continued
Vanillin: Summary data concerning the U.S. market, by item and period
Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted

Item	Reported data					Period changes			
	Calendar year			Jan-Mar		Comparison years			Jan-Mar
	2021	2022	2023	2023	2024	2021-23	2021-22	2022-23	2023-24
U.S. producers':									
Net sales:									
Quantity	***	***	***	***	***	▼***	▼***	▼***	▲***
Value	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value	***	***	***	***	***	▲***	▲***	▲***	▼***
Cost of goods sold (COGS)	***	***	***	***	***	▼***	▲***	▼***	▲***
Gross profit or (loss) (fn2)	***	***	***	***	***	▼***	▲***	▼***	▼***
SG&A expenses	***	***	***	***	***	▲***	▲***	▲***	▲***
Operating income or (loss) (fn2)	***	***	***	***	***	▼***	▲***	▼***	▼***
Net income or (loss) (fn2)	***	***	***	***	***	▼***	▲***	▼***	▼***
Unit COGS	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit SG&A expenses	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit operating income or (loss) (fn2)	***	***	***	***	***	▼***	▲***	▼***	▼***
Unit net income or (loss) (fn2)	***	***	***	***	***	▼***	▲***	▼***	▼***
COGS/sales (fn1)	***	***	***	***	***	▲***	▼***	▲***	▲***
Operating income or (loss)/sales (fn1)	***	***	***	***	***	▼***	▲***	▼***	▼***
Net income or (loss)/sales (fn1)	***	***	***	***	***	▼***	▲***	▼***	▼***
Capital expenditures	***	***	***	***	***	▼***	▼***	▲***	▼***
Research and development expenses	***	***	***	***	***	▼***	▼***	▼***	***
Total assets	***	***	***	***	***	▼***	▲***	▼***	***

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting numbers 2912.41.0000 and 2912.42.0000, accessed on July 8, 2024. Imports are based on the imports for consumption data series. Value data reflect landed duty-paid values. 508-compliant tables for these data are contained in parts III, IV, VI, and VII of this report.

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "---". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

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