

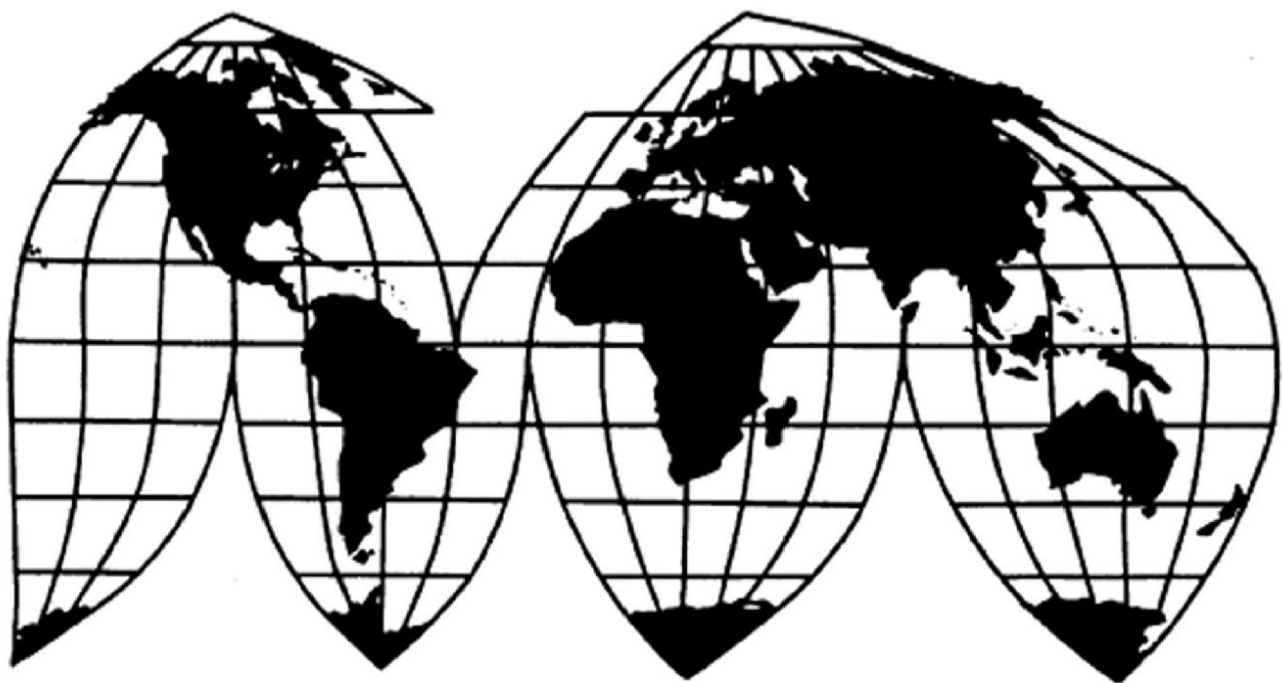
Hexamine (Hexamethylenetetramine) from China

Investigation Nos. 701-TA-737 and 731-TA-1712 (Final)

Publication 5660

September 2025

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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Note.—Information that would reveal confidential operations of individual firms may not be published. Such information is identified by brackets ([]) in confidential reports and is deleted and replaced with asterisks (***) in public reports. Zeroes, null values, and undefined calculations are suppressed and shown as em dashes (—) in tables. If using a screen reader, we recommend increasing the verbosity setting.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-737 and 731-TA-1712 (Final)

Hexamine (Hexamethylenetetramine) from China

DETERMINATIONS

On the basis of the record¹ developed in the subject investigations, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that an industry in the United States is materially injured by reason of imports of hexamine from China, provided for in subheading 2933.69.50 of the Harmonized Tariff Schedule of the United States, that have been found by the U.S. Department of Commerce (“Commerce”) to be sold in the United States at less than fair value (“LTFV”) and subsidized by the government of China.^{2 3}

BACKGROUND

The Commission instituted these investigations effective September 30, 2024, following receipt of petitions filed with the Commission and Commerce by Bakelite Synthetics (Atlanta, Georgia). The Commission scheduled the final phase of the investigations following notification of preliminary determinations by Commerce that imports of hexamine from China were subsidized within the meaning of section 703(b) of the Act (19 U.S.C. 1671b(b)) and sold at LTFV within the meaning of 733(b) of the Act (19 U.S.C. 1673b(b)). Notice of the scheduling of the final phase of the Commission’s investigations and of a public hearing 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 May 22, 2025 (90 FR 21948 and as revised in 90 FR 31241, July 14, 2025). The Commission conducted its hearing on July 18, 2025. All persons who requested the opportunity were permitted to participate.

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

² 90 FR 33922 and 33923 (July 18, 2025).

³ Commissioner David S. Johanson determines that that an industry in the United States is threatened with material injury by reason of imports of hexamine from China that have been found by Commerce to be sold in the United States at LTFV and subsidized by the government of China.

Views of the Commission

Based on the record in the final phase of these investigations, we determine that an industry in the United States is materially injured by reason of imports of hexamethylenetetramine (“hexamine”) from China found by the U.S. Department of Commerce (“Commerce”) to be sold in the United States at less than fair value (“LTFV”) and subsidized by the government of China.

I. Background

Staggered Investigation Schedules. Although the antidumping duty petitions for hexamine from China, Germany, India, and Saudi Arabia and the countervailing duty petitions for hexamine from China and India were all filed on the same day, September 30, 2024, the investigation schedules became staggered when the U.S. Department of Commerce (“Commerce”) did not postpone the final determinations for its antidumping and countervailing duty investigations regarding China,¹ while it did postpone its final determinations for its antidumping duty investigations regarding the other three subject countries,² and aligned the final determination for its countervailing duty investigation regarding India with that of its corresponding antidumping duty investigation.³ This necessitates earlier Commission determinations in the final phase antidumping and countervailing duty investigations on hexamine from China than in the trailing investigations.⁴ Pursuant to the statutory cumulation

¹ Hexamethylenetetramine From the People's Republic of China: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With Final Antidumping Duty Determination, 90 Fed. Reg. 11,508 (Mar. 7, 2025).

² Hexamethylenetetramine From India: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination and Extension of Provisional Measures, 90 Fed. Reg. 19,178 (May 6, 2025); Hexamethylenetetramine From the Kingdom of Saudi Arabia: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures, 90 Fed. Reg. 19,180 (May 6, 2025); Hexamethylenetetramine From Germany: Preliminary Affirmative Determination of Sales at Less-Than-Fair-Value, Postponement of Final Determination, and Extension of Provisional Measures, 90 Fed. Reg. 19,186 (May 6, 2025).

³ Hexamethylenetetramine From India: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With Final Antidumping Duty Determination, 90 Fed. Reg. 11,512, 11,514 (March 7, 2025).

Commerce also aligned its countervailing duty investigation regarding China with that of its corresponding antidumping duty investigation. *Hexamethylenetetramine From the People's Republic of China: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With Final Antidumping Duty Determination*, 90 Fed. Reg. 11,508 (Mar. 7, 2025).

⁴ Commerce is currently scheduled to issue its final antidumping duty determinations in the trailing investigations regarding Germany, India, and Saudi Arabia, and final countervailing duty (Continued...)

provision on staggered investigations, the record for each of these investigations will be the same except that, prior to the Commission’s determinations in the antidumping duty investigations regarding Germany, India, and Saudi Arabia, and the countervailing duty investigation regarding India, the Commission shall include the final Commerce antidumping and countervailing duty determinations, and the parties’ final comments concerning Commerce’s later determinations, in the record.⁵

Parties to the Investigation. The petitions in these investigations were filed on September 30, 2024, by Bakelite LLC (“Bakelite” or “Petitioner”). Petitioner submitted prehearing and posthearing briefs and final comments, and representatives appeared at the hearing with counsel.⁶

Two respondent entities participated actively in the final phase of these investigations. Kanoria Chemicals & Industries Limited (“KCIL”), an Indian producer and exporter of subject merchandise, submitted a prehearing brief.⁷ Counsel for General Authority for Foreign Trade (“GAFT”), an agency of the government of Saudi Arabia, appeared at the hearing and submitted prehearing and posthearing briefs and final comments.⁸

Data Coverage. The period of investigation in the final phase of these investigations is January 2022 through March 2025 (“POI”). U.S. industry data are based on the questionnaire responses of one domestic producer, accounting for all known U.S. production of in-scope hexamine in 2024.⁹ U.S. import data are based on the questionnaire responses of eleven U.S.

determination in the trailing investigation regarding India, no later than 135 days from May 6, 2025, or by Thursday, September 18, 2025. *See, e.g., Hexamethylenetetramine From India: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination and Extension of Provisional Measures*, 89 Fed. Reg. 19,178, 19,179-19,180 (May 6, 2025).

The Commission’s final determinations in those trailing investigations must be made within 45 days after Commerce’s affirmative final determinations, or no later than Monday, November 3, 2025. *See* 19 U.S.C. §§ 1671d(b)(2)(B), 1673d(b)(2)(B).

⁵ *See* 19 U.S.C. § 1677(7)(G)(iii).

⁶ Bakelite Prehearing Br., EDIS Doc. No. 856594 (July 11, 2025); Bakelite Posthearing Br., EDIS Doc. No. 857784 (July 25, 2025); Bakelite Final Comments, EDIS Doc. No. 859502 (Aug. 13, 2025).

⁷ KCIL Prehearing Br., EDIS Doc. No. 856579 (July 11, 2025). KCIL was the sole respondent entity to participate in the preliminary phase of these investigations. Counsel for KCIL filed written testimony ahead of the hearing, EDIS Doc. No. 857035 (July 17, 2025), and was scheduled to appear at the hearing, but was unable to do so due to illness. KCIL did not file a posthearing brief or final comments.

⁸ GAFT Prehearing Br., EDIS Doc. No. 856607 (July 11, 2025); GAFT Posthearing Br., EDIS Doc. No. 857804 (July 25, 2025); GAFT Final Comments, EDIS Doc. No. 859516 (Aug. 13, 2025).

⁹ Confidential Staff Report, INV-XX-105 (Aug. 6, 2025) (“CR”); *Hexamine (Hexamethylenetetramine) from China, Germany, India, and Saudi Arabia*, Inv. Nos. 701-TA-737-738 and 731-TA-1712-1715 (Final), USITC Pub. 5660 (Aug. 2025) (“PR”) at 3.1. In the preliminary and final phases of these investigations, staff sent a U.S. producer questionnaire to ***, identified by Petitioner as a potential U.S. producer of hexamine. This firm reported that its ***. *Id.* at n.1.

importers, estimated to have accounted for a large majority of total subject imports in 2024, including *** percent of subject imports from China, *** percent of subject imports from Germany, *** percent of subject imports from India, and *** percent of subject imports from Saudi Arabia.¹⁰ Responding U.S. importers are also believed to account for *** percent of nonsubject imports in 2024.¹¹ The Commission received four responses to its questionnaires from foreign producers of subject merchandise as follows:

- one firm in Germany, accounting for *** percent of production of subject merchandise in Germany in 2024;
- two firms in India, believed to account for *** percent of production of subject merchandise in India in 2024; and
- one firm in Saudi Arabia, accounting for *** percent of production of subject merchandise in Saudi Arabia in 2024.¹²

The Commission did not receive responses from any foreign producers in China in either phase of these investigations.¹³

II. Domestic Like Product

A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of subject merchandise, the Commission first defines the “domestic like product” and the “industry.”¹⁴ 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.”¹⁵ In turn, the Tariff Act defines “domestic like product” as “a product which is

¹⁰ CR/PR at 4.1-4.2. Staff calculated coverage figures for all subject imports and for individual subject imports from China, India, and Saudi Arabia by comparing subject and total import quantities as reported in questionnaire responses to subject and total import quantities as reported in official U.S. import statistics. Staff believes that the Customs data may overstate import volumes with respect to Germany and nonsubject imports and has calculated import coverage for Germany based on proprietary, Customs-edited records. *Id.* at notes 5, 7. The use of a different calculation methodology to estimate coverage for Germany explains the apparent mismatch in estimates of total coverage and individual country coverage.

¹¹ CR/PR at 4.1-4.2 & n.6.

¹² CR/PR at Table 7.1.

¹³ CR/PR at Table 7.1.

¹⁴ 19 U.S.C. § 1677(4)(A).

¹⁵ 19 U.S.C. § 1677(4)(A).

like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation.”¹⁶

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 Commerce.¹⁷ 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.”¹⁸ The Commission then defines the domestic like product in light of the imported articles Commerce has identified.¹⁹ 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.²⁰ No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.²¹ The

¹⁶ 19 U.S.C. § 1677(10).

¹⁷ 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).

¹⁸ *Cleo Inc. v. United States*, 501 F.3d 1291, 1298 (Fed. Cir. 2007); *see also Hitachi Metals, Ltd. v. United States*, Case No. 19-1289, slip op. at 8-9 (Fed. Circ. Feb. 7, 2020) (the statute requires the Commission to start with Commerce’s subject merchandise in reaching its own like product determination).

¹⁹ *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).

²⁰ *See, e.g., Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); *NEC Corp. v. Department of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int’l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int’l Trade 1990), *aff’d*, 938 F.2d 1278 (Fed. Cir. 1991) (“every like product determination ‘must be made on the particular record at issue’ and the ‘unique facts of each case’”). The Commission generally considers a number of factors, including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. *See Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int’l Trade 1996).

²¹ *See, e.g., S. Rep. No. 96-249 at 90-91 (1979).*

Commission looks for clear dividing lines among possible like products and disregards minor variations.²²

B. Product Description

Commerce has defined the imported merchandise within the scope of these investigations as:

{H}examine in granular form, with a particle size of 5 millimeters or less, whether stabilized or unstabilized, whether or not blended, mixed, pulverized, or grounded with other products, containing 50 percent or more hexamine by weight.

Hexamine is the common name for hexamethylene tetramine (Chemical Abstract Service #100-97-0), and is also referred to as 1,3,5,7-tetraazaadamantanemethenamine; HMT; HMTA; 1,3,5,7-tetraazatricyclo{3.3.1.1^{3,7}}decane; 1,3,5,7-tetraaza adamantane; hexamethylenamine. Hexamine has the chemical formula C₆ H₁₂ N₄.

Granular hexamine that has been blended with other product(s) is included in this scope when the resulting mix contains 50 percent or more of hexamine by weight, regardless of whether it is blended with inert additives, co-reactants, or any additives that undergo self-condensation.

Subject merchandise includes merchandise matching the above description that has been processed in a third country, including by commingling, diluting, adding or removing additives, or performing any other processing that would not otherwise remove the merchandise from the scope of the investigations if performed in the subject country.

Merchandise covered by the scope of the investigations can be classified in the Harmonized Tariff Schedule (HTSUS) of the United States under the subheading 2933.69.5000. The HTSUS subheading and Chemical Abstracts Service registry

²² *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.”).

number are provided for convenience and customs purposes only; however, the written description of the scope is dispositive.²³

Hexamine is a solid white powder that is highly water soluble and stable at room temperature.²⁴ Hexamine's properties make it useful as a reactant or catalyst in a variety of applications.²⁵ In explosives and munitions, hexamine is used to form Research Department Explosive ("RDX"), a high-detonation explosive with military and civilian applications.²⁶ In phenolic resins, hexamine is both a curing agent and a catalyst promoting polymerization.²⁷ In rubber and tire manufacturing, hexamine functions as an acceleration and curing agent in vulcanization and as a performance enhancer, and it gives tires additional abrasion resistance and durability.²⁸ Hexamine is also used in fuel tablets, biocides, refractory and friction materials, and as a corrosion inhibitor for metal surfaces.²⁹

C. Arguments of the Parties

Petitioner's Arguments. Petitioner argues that the Commission should define a single domestic like product consisting of granular hexamine coextensive with the scope of these investigations.³⁰

²³ Hexamethylenetetramine From the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value, 90 Fed. Reg. 33,922, 33,923 (July 18, 2025); Hexamethylenetetramine From the People's Republic of China: Final Affirmative Countervailing Duty Determination, 90 Fed. Reg. 33,923, 33,924 (July 18, 2025); Hexamethylenetetramine From the Kingdom of Saudi Arabia: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures, 90 Fed. Reg. 19,180, 19,182 (May 6, 2025); Hexamethylenetetramine From India: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination and Extension of Provisional Measures, 90 Fed. Reg. 19,178, 19,180 (May 6, 2025); Hexamethylenetetramine From Germany: Preliminary Affirmative Determination of Sales at Less-Than-Fair-Value, Postponement of Final Determination, and Extension of Provisional Measures, 90 Fed. Reg. 19,186, 19,187-19,188 (May 6, 2025); Hexamethylenetetramine From India: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With Final Antidumping Duty Determination, 90 Fed. Reg. 11,512, 11,514 (March 7, 2025). The scope in both countervailing duty investigations is identical to the scope in the antidumping investigations.

²⁴ CR/PR at 1.13.

²⁵ CR/PR at 1.13.

²⁶ CR/PR at 1.13.

²⁷ CR/PR at 1.13.

²⁸ CR/PR at 1.13.

²⁹ CR/PR at 1.13-1.14.

³⁰ Bakelite Prehearing Br. at 4-5. A representative for KCIL testified at the staff conference that "hexamine is hexamine. It's a general chemical product having the same chemical composition." See Transcript of the Preliminary Conference at 54 (Ohja).

Respondents' Arguments. GAFT does not dispute the domestic like product definition proposed by Petitioner.³¹ KCIL does not address this issue in its brief.

D. Analysis

In the preliminary phase of these investigations, the Commission defined a single domestic like product consisting of granular hexamine, coextensive with Commerce's scope.³² Applying its traditional six-factor like product analysis, the Commission found that the evidence on the record indicated that all granular hexamine possesses similar physical characteristics, has the same range of end uses, is produced through the same production processes at the same manufacturing facility using the same employees, is perceived to be a single product category by market participants, and is sold within the same general range of prices.³³ Based on the preponderance of similarities among all types of hexamine and in the absence of any contrary argument, the Commission defined a single domestic like product consisting of all granular hexamine, coextensive with Commerce's scope.³⁴

In the final phase of these investigations, no parties requested that the Commission gather data or other information related to the definition of the like product,³⁵ and the record contains no new information suggesting that the Commission should revisit its definition of the domestic like product from the preliminary phase of the investigations. We therefore define a single domestic like product consisting of granular hexamine, coextensive with the scope of these investigations.

III. 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."³⁶ 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.

³¹ GAFT Prehearing Br. at 3.

³² *Hexamine (Hexamethylenetetramine) from China, Germany, India, and Saudi Arabia*, Inv. Nos. 701-TA-737-738 and 731-TA-1712-1715 (Preliminary), USITC Pub. 5563 (Nov. 2024) ("*Preliminary Determinations*") at 7-9.

³³ *Preliminary Determinations*, USITC Pub. 5563 at 7-9.

³⁴ *Preliminary Determinations*, USITC Pub. 5563 at 8-9.

³⁵ CR/PR at 1.17.

³⁶ 19 U.S.C. § 1677(4)(A).

There are no related party or other domestic industry issues in these investigations. Therefore, consistent with our definition of the domestic like product, we define the domestic industry to include all domestic producers of granular hexamine.

IV. Negligible Imports

Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible. 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B); *see also* 15 C.F.R. § 2013.1 (developing countries for purposes of 19 U.S.C. § 1677(36)). The statute further provides that subject imports from a single country which comprise less than 3 percent of total such imports of the product may not be considered negligible if there are several countries subject to investigation with negligible imports and the sum of such imports from all those countries collectively accounts for more than 7 percent of the volume of all such merchandise imported into the United States. 19 U.S.C. § 1677(24)(A)(ii). In the case of countervailing duty investigations involving developing countries (as designated by the United States Trade Representative), the statute indicates that the negligibility limits are 4 percent and 9 percent, rather than 3 percent and 7 percent. 19 U.S.C. § 1677(24)(B).

The Commission's questionnaire response data indicate that from September 2023 to August 2024, the 12-month period preceding the filing of the petitions, subject imports from China accounted for *** percent of total U.S. imports of hexamine, subject imports from Germany accounted for *** percent of total U.S. imports of hexamine, subject imports from India accounted for *** percent of total U.S. imports of hexamine, and subject imports from Saudi Arabia accounted for *** percent of total U.S. imports of hexamine.³⁷ As subject imports from each subject country are above the statutory threshold, we find that imports from each subject country are not negligible.

³⁷ CR/PR at Table 4.4. The volume of imports from China and India subject to the antidumping and countervailing duty investigations is the same.

V. Cumulation

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

- (1) the degree of fungibility between subject imports from different countries and between subject imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
- (2) the presence of sales or offers to sell in the same geographic markets of subject imports from different countries and the domestic like product;
- (3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and
- (4) whether the subject imports are simultaneously present in the market.³⁸

While no single factor is necessarily determinative, and the list of factors is not exhaustive, these factors are intended to provide the Commission with a framework for determining whether the subject imports compete with each other and with the domestic like product.³⁹ Only a “reasonable overlap” of competition is required.⁴⁰

³⁸ See *Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan*, Inv. Nos. 731-TA-278-280 (Final), USITC Pub. 1845 (May 1986), *aff'd*, *Fundicao Tupy, S.A. v. United States*, 678 F. Supp. 898 (Ct. Int’l Trade), *aff'd*, 859 F.2d 915 (Fed. Cir. 1988).

³⁹ See, e.g., *Wieland Werke, AG v. United States*, 718 F. Supp. 50 (Ct. Int’l Trade 1989).

⁴⁰ The Statement of Administrative Action (SAA) to the Uruguay Round Agreements Act (URAA), expressly states that “the new section will not affect current Commission practice under which the statutory requirement is satisfied if there is a reasonable overlap of competition.” H.R. Rep. No. 103-316, Vol. I at 848 (1994) (*citing Fundicao Tupy, S.A. v. United States*, 678 F. Supp. at 902; *see Goss Graphic Sys., Inc. v. United States*, 33 F. Supp. 2d 1082, 1087 (Ct. Int’l Trade 1998) (“cumulation does not require two products to be highly fungible”); *Wieland Werke, AG*, 718 F. Supp. at 52 (“Completely overlapping markets are not required.”)).

A. Arguments of the Parties

Petitioner's Argument. Petitioner argues that the Commission should cumulate subject imports from all four subject countries.⁴¹ It contends that subject imports from China, India, Germany, and Saudi Arabia and the domestic like product are fungible.⁴² Petitioner submits that hexamine from all subject countries and the domestic like product is an intermediate input in the production of chemicals used in the manufacture of plastics, resins, and rubber and, thus, is universally used in the same applications.⁴³ It contends that subject imports from all subject countries and the domestic like product are sold through overlapping channels of distribution.⁴⁴ It observes that the vast majority of the domestic like product and subject imports were sold to end users, including users in the *** industries.⁴⁵ Last, Petitioner claims that imports of hexamine from each subject country and domestically produced hexamine products overlapped geographically and were simultaneously present in the U.S. market during the period of investigation.⁴⁶

Respondents' Argument. Respondents did not address cumulation for present material injury.

B. Analysis

We consider subject imports on a cumulated basis because the statutory criteria for cumulation are satisfied. Petitioner filed the antidumping duty petitions with respect to all four countries and the countervailing duty petitions with respect to China and India on the same day, September 30, 2024.⁴⁷ Furthermore, the record in the final phase of these investigations supports finding a reasonable overlap of competition between subject imports from China, Germany, India, and Saudi Arabia, and between subject imports from each source and the domestic like product, for the reasons discussed below.

Fungibility. The record indicates that domestically produced hexamine and imports of hexamine from each subject country are generally fungible.⁴⁸ Petitioner reported that subject imports from each subject country were *** interchangeable with each other as well as with

⁴¹ Bakelite Prehearing Br. at 7.

⁴² Bakelite Prehearing Br. at 8.

⁴³ Bakelite Prehearing Br. at 8.

⁴⁴ Bakelite Prehearing Br. at 9.

⁴⁵ Bakelite Prehearing Br. at 9.

⁴⁶ Bakelite Prehearing Br. at 9.

⁴⁷ See Petition, EDIS Doc. No. 833603 (Sep. 30, 2024). None of the statutory exceptions to cumulation apply in these investigations.

⁴⁸ See, e.g., CR/PR at 2.12.

domestically produced hexamine.⁴⁹ Most U.S. importers reported that subject imports are *** interchangeable with domestically produced hexamine.⁵⁰ U.S. purchasers reported that subject imports and domestically produced hexamine are *** interchangeable in most comparisons.⁵¹ Furthermore, the record shows that subject imports from each subject country overlapped with domestically produced hexamine in terms of hexamine content.⁵²

Majorities of responding U.S. purchasers also reported that domestically produced hexamine and subject imports from each country were comparable on all of the 15 purchasing factors listed in the questionnaire, except for delivery time, which purchasers reported as superior for domestically produced hexamine.⁵³ Moreover, there was overlap between domestically produced hexamine and imports of hexamine from all four subject countries in the pricing products.⁵⁴

Channels of Distribution. During the POI, Petitioner sold its hexamine products mainly to end users in the “petrochemical and plastic end users” and “all other end users” channels of distribution.⁵⁵ U.S. importers similarly sold hexamine from all four subject sources mainly in the petrochemical and plastic users channel of distribution, followed by the all other end users channel.⁵⁶

Geographic Overlap. Petitioner reported selling hexamine to all regions in the contiguous United States.⁵⁷ Imports from all four subject countries were sold in the Northeast and Midwest regions of the United States.⁵⁸ Official import statistics also indicate that subject imports from the four subject countries entered the United States through ports located in the East in 2024.⁵⁹

⁴⁹ CR/PR at Table 2.13.

⁵⁰ CR/PR at Table 2.14.

⁵¹ CR/PR at Table 2.15.

⁵² CR/PR at Table 4.5. Hexamine products are sold on the basis of purity. As a percent of U.S. shipments, 45.3 percent or more from each subject source and the domestic producer were greater than 99 percent pure in 2024. *Id.*

⁵³ CR/PR at Table 2.12.

⁵⁴ CR/PR at Tables 5.4-5.6.

⁵⁵ CR/PR at Table 2.2.

⁵⁶ CR/PR at Table 2.2.

⁵⁷ CR/PR at Table 2.3.

⁵⁸ CR/PR at Table 2.3.

⁵⁹ CR/PR at Table 4.6. Subject imports did not enter the United States through the Western border. *Id.*

Simultaneous Presence in the Market. As reflected by the pricing data, the domestic like product was present in the U.S. market throughout the POI.⁶⁰ Imports from each subject source were present in all but two of the 39 months of the POI.⁶¹

Conclusion. The record indicates that subject imports from each of the subject countries are generally fungible with the domestic like product and each other. The record also indicates that significant volumes of imports from each of the subject countries and the domestic like product overlapped in the “petrochemical and plastic users” channel of distribution, with additional overlap also occurring in the “all other end users” channel, albeit to a lesser degree. Further, imports from each of the subject countries and the domestic like product overlapped in two geographic regions and were simultaneously present in the U.S. market during the POI. Because there is a reasonable overlap of competition between and among subject imports from each subject country and the domestic like product, we cumulate subject imports from China, Germany, India, and Saudi Arabia for purposes of our material injury analysis.

VI. Material Injury by Reason of Subject Imports

Based on the record in the final phase of these investigations, we find that an industry in the United States is materially injured by reason of imports of hexamine from China that Commerce has found to be sold in the United States at LTFV and subsidized by the government of China.

A. Legal Standards

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.⁶² 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.⁶³ The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.”⁶⁴ In

⁶⁰ CR/PR at Tables 5.4-5.6.

⁶¹ CR/PR at Table 4.7. Subject imports from China entered in 9 months of the POI, U.S. imports from Germany entered in 31 months, U.S. imports from India entered in 16 months, and U.S. imports from Saudi Arabia entered in 17 months. *Id.*

⁶² 19 U.S.C. §§ 1671d(b), 1673d(b).

⁶³ 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).

⁶⁴ 19 U.S.C. § 1677(7)(A).

assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.⁶⁵ 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.”⁶⁶

Although the statute requires the Commission to determine whether the domestic industry is “materially injured or threatened with material injury by reason of” unfairly traded imports,⁶⁷ 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.⁶⁸ 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.⁶⁹

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

⁶⁵ 19 U.S.C. § 1677(7)(C)(iii).

⁶⁶ 19 U.S.C. § 1677(7)(C)(iii).

⁶⁷ 19 U.S.C. §§ 1671d(b), 1673d(b).

⁶⁸ *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).

⁶⁹ 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.⁷⁰ In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.⁷¹ 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.⁷² It is clear that the existence of injury caused by other factors does not compel a negative determination.⁷³

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

⁷⁰ 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.

⁷¹ 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.”).

⁷² S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

⁷³ *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.”⁷⁴ 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.”⁷⁵ The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed “rigid adherence to a specific formula.”⁷⁶

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.⁷⁷ Congress has delegated this factual finding to the Commission because of the agency’s institutional expertise in resolving injury issues.⁷⁸

B. Conditions of Competition and the Business Cycle

The following conditions of competition inform our analysis of whether there is material injury by reason of subject imports.

1. Captive Production

We next consider the applicability of the statutory captive production provision.⁷⁹ Petitioner argued in the preliminary phase of these investigations that the captive production

⁷⁴ *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 *Swift-Train v. United States*, 793 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission’s causation analysis as comports with the Court’s guidance in *Mittal*.

⁷⁵ *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.

⁷⁶ *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.”).

⁷⁷ We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

⁷⁸ *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.”).

⁷⁹ The captive production provision, 19 U.S.C. § 1677(7)(C)(iv), as amended by the Trade Preferences Extension Act of 2015, provides:

(iv) CAPTIVE PRODUCTION – If domestic producers internally transfer significant production of the domestic like product for the production of a downstream article and sell significant
(Continued...)

provision does not apply to these investigations because hexamine is not the predominant input into the relevant downstream product, phenolic resins.⁸⁰ The Commission adopted this reasoning, and concluded that the captive consumption provision did not apply.⁸¹ In the final phase of these investigations, Petitioner does not address this issue and presents arguments based on data for both the merchant market and the total market.⁸²

GAFT argued in its prehearing brief that should the Commission determine not to apply the captive production provision in the final phase of these investigations, it should nevertheless continue to recognize the existence of a significant volume of captive production as a relevant condition of competition.⁸³

The captive production provision can be applied only if, as a threshold matter, significant production of the domestic like product is internally transferred and significant production is sold in the merchant market. We determine that the threshold criterion for application of the captive production provision has been met. During the 2022 to 2024 period, Petitioner internally consumed between *** and *** percent of its annual hexamine production and sold between *** percent and *** percent of its annual production on the merchant market; its internal consumption and merchant market sales accounted for *** percent and *** percent, respectively, of its domestic production in interim 2025.⁸⁴

We also determine that the first statutory criterion has been met. This criterion focuses on whether any of the domestic like product that is transferred internally for further processing

production of the domestic like product in the merchant market, and the Commission finds that-

- (I) the domestic like product produced that is internally transferred for processing into that downstream article does not enter the merchant market for the domestic like product, and
- (II) the domestic like product is the predominant material input in the production of that downstream article.

The SAA indicates that where a domestic like product is transferred internally for the production of another article coming within the definition of the domestic like product, such transfers do not constitute internal transfers for the production of a “downstream article” for purposes of the captive production provision. SAA at 853.

⁸⁰ Bakelite Postconf. Br., EDIS Doc. No. (835594) (Oct. 24, 2024), Exh. 1, Answer to Staff Question 1 (at the first three unnumbered pages).

⁸¹ *Preliminary Determinations*, USITC Pub. 5563 at 19-20.

⁸² *See, e.g.*, Tr. At 21-22 (Boninsegni) (“we saw declines in gross profit, operating income, and net income, whether measured by sales in the total market or merchant market”), 29 (Lutz) (“{t}he merchant market has been cited by the Saudi government as being the relevant metric, and it reflects the most direct competition between the domestic industry and subject imports, although the trends are almost identical in the total market”).

⁸³ GAFT Prehearing Br. at 4, *citing Galvanized Steel Wire from China and Mexico*, Inv. Nos. 701-TA-479 and 731-TA-1183-1184 (Final), USITC Pub. 4323 (May 2012) at 16.

⁸⁴ *Calculated from CR/PR* at Tables 3.3, 3.5, C.1.

is in fact sold on the merchant market.⁸⁵ Petitioner, the sole domestic producer, reported that it did not divert hexamine that was to be internally consumed to the merchant market.⁸⁶

In applying the second statutory criterion, we generally consider whether the domestic like product is the predominant material input into a downstream product by referring to its share of the raw material cost of the downstream product.⁸⁷

In these investigations, Petitioner reported that hexamine accounts for *** percent of the value of the downstream powder phenolic resins it produced from hexamine.⁸⁸ Thus, this criterion is not satisfied.

Accordingly, as the second statutory criterion was not satisfied, we find that the captive production provision does not apply and will focus our analysis on the total hexamine market.⁸⁹

2. Demand Considerations

U.S. demand for hexamine is driven by demand for the downstream products for which it is used, namely phenolic polymers, munitions, rubbers and tires, petrochemicals, cleaning products, formaldehyde-based resins, resin-coated frack sands, rubber moldings, and shell sand.⁹⁰ Demand for some of these products follow general economic conditions.⁹¹

⁸⁵ See, e.g., *Hot-Rolled Steel Products from Argentina and South Africa*, Inv. Nos. 701-TA-404, 731-TA-898, 905 (Final), USITC Pub. 3446 at 15-16 (Aug. 2001); *Certain Cold-Rolled Steel Products from Argentina, Brazil, China, Indonesia, Japan, Russia, Slovakia, South Africa, Taiwan, Turkey and Venezuela*, Inv. Nos. 701-TA-393 and 731-TA-829-40 (Final) (Remand), USITC Pub. 3691 at 2 & n.19 (May 2004).

⁸⁶ Bakelite U.S. producer questionnaire response at II-12; CR/PR at 3.9.

⁸⁷ See generally, e.g., *Polyethylene Terephthalate Film, Sheet and Strip from Brazil, China, Thailand, and the United Arab Emirates*, Inv. Nos. 731-TA-1131-1134 (Final), USITC Pub. 4040 at 17 n.103 (October 2008); *Polyethylene Terephthalate Film, Sheet, and Strip from India and Taiwan*, Inv. Nos. 701-TA-415 and 731-TA-933-934 (Final), USITC Pub. 3518 at 11 & n.51 (June 2002). The Commission has construed “predominant” material input to mean the main or strongest element, and not necessarily a majority, of the inputs by value. See *Polyvinyl Alcohol from Germany and Japan*, Inv. Nos. 731-TA-1015-16 (Final), USITC Pub. 3604 at 15 n.69 (June 2003).

⁸⁸ CR/PR at 3.10, Table 3.6. Hexamine, as a share of the total quantity of the downstream product, at *** percent, was even less than its share of the total value of the downstream product. *Id.*

⁸⁹ While Petitioner’s internal consumption may still be considered as a condition of competition in the U.S. market, we observe that the merchant market and total market data generally show the same trends, including declining apparent U.S. consumption, a shift in market share from Petitioner and nonsubject imports to subject imports, and declines in Petitioner’s performance indicators over the POI. *Compare* CR/PR at Tables C.1 *with* C.2. Accordingly, we find that the industry’s internal consumption, as a condition of competition in the U.S. market, does not warrant separate considerations of merchant market data throughout the injury analysis.

⁹⁰ CR/PR at 2.10.

⁹¹ CR/PR at 2.10. Petitioner reported that the U.S. market was ***, describing demand as **. *Id.* at 2.11. Six of eight responding U.S. importers and all responding U.S. purchasers reported that the market was not subject to business cycles. *Id.*

Petitioner reported a *** trend in U.S. demand for hexamine during the POI.⁹² Most responding U.S. importers and U.S. purchasers reported that demand for hexamine did not change during the period.⁹³ However, a plurality of purchasers reported a downward trend in demand for end use products.⁹⁴

Apparent U.S. consumption by quantity decreased by *** percent between 2022 and 2024, from *** pounds in 2022 to *** pounds in 2023, and *** pounds in 2024.⁹⁵ It was *** percent lower in January through March 2025 (“interim 2025”), at *** pounds, than in January through March 2024 (“interim 2024”), at *** pounds.⁹⁶

3. Supply Considerations

Petitioner was the largest supplier of hexamine to the U.S. market throughout the POI, followed by nonsubject imports in 2022 and 2023, and by cumulated subject imports in 2024 and in the interim periods.⁹⁷

Petitioner produces hexamine at its Riegelwood, North Carolina facility.⁹⁸ It argues that it reported substantial excess capacity throughout the POI and possessed sufficient practical capacity to supply the entire U.S. market.⁹⁹ Its ability to respond to changes in demand is enhanced by *** but mitigated by its *** and ***.¹⁰⁰

Petitioner was the largest source of supply of hexamine to the U.S. market throughout the POI. Its share of apparent U.S. consumption declined throughout the POI, from *** percent in 2022 to *** percent in 2023, and *** percent in 2024.¹⁰¹ It supplied a smaller share of the market in interim 2025, at *** percent, than in interim 2024, at *** percent.¹⁰²

Petitioner’s practical capacity was constant at *** pounds during the full years of the POI, and *** pounds during the interim periods.¹⁰³ Its production declined throughout the POI.¹⁰⁴ Petitioner’s practical capacity utilization for hexamine was low and, driven by

⁹² CR/PR at Table 2.6.

⁹³ CR/PR at Table 2.6.

⁹⁴ CR/PR at Table 2.6.

⁹⁵ CR/PR at Tables 4.8, C.1.

⁹⁶ CR/PR at Tables 4.8, C.1.

⁹⁷ CR/PR at Tables 4.8, C.1.

⁹⁸ Bakelite U.S. producer questionnaire response at I-2a.

⁹⁹ Tr. at 27 (Lutz). Information on the record indicates that Petitioner’s practical capacity exceeded apparent U.S. consumption in every segment of the POI. *Id.*

¹⁰⁰ CR/PR at 2.7-2.8.

¹⁰¹ CR/PR at Tables 4.8, C.1.

¹⁰² CR/PR at Tables 4.8, C.1.

¹⁰³ CR/PR at Tables 3.3, C.1.

¹⁰⁴ CR/PR at Tables 3.3, C.1.

production trends, declined throughout the POI, from *** percent in 2022 to *** percent in 2023, and *** percent in 2024.¹⁰⁵ Its practical capacity utilization was lower in interim 2025, at *** percent, than in interim 2024, at *** percent.¹⁰⁶

Cumulated subject imports were the smallest source of supply to the U.S. market from 2022 and 2023, then the second largest source in 2024 and the interim periods.¹⁰⁷ Cumulated subject imports' share of apparent U.S. consumption increased throughout the POI, from *** percent in 2022 to *** percent in 2023, and *** percent in 2024.¹⁰⁸ They supplied a larger share of the market in interim 2025, at *** percent, than in interim 2024, at *** percent.¹⁰⁹

Nonsubject imports were the second largest source of supply to the U.S. market in 2022 and 2023, then the smallest source of supply in 2024 and the interim periods.¹¹⁰ Nonsubject imports' share of apparent U.S. consumption declined throughout the POI, from *** percent in 2022 to *** percent in 2023, and *** percent in 2024.¹¹¹ Nonsubject imports supplied less of the market in interim 2025, at *** percent, than in interim 2024, at *** percent.¹¹² Russia accounted for almost all nonsubject imports in 2022 and 2023.¹¹³ Imports from Russia exited the U.S. market in 2023, after Russian authorities seized control of Metafrax Chemicals, the largest producer of hexamine in Russia.¹¹⁴ U.S. shipments of imported hexamine from Russia continued in 2024 and interim 2025 as importers sold off existing inventories.¹¹⁵ The remaining U.S. shipments of nonsubject imports in 2024 and interim 2025 were from Spain.¹¹⁶

¹⁰⁵ CR/PR at Tables 3.3, C.1.

¹⁰⁶ CR/PR at Tables 3.3, C.1.

¹⁰⁷ CR/PR at Tables 4.8, C.1.

¹⁰⁸ CR/PR at Tables 4.8, C.1.

¹⁰⁹ CR/PR at Tables 4.8, C.1.

¹¹⁰ CR/PR at Tables 4.8, C.1.

¹¹¹ CR/PR at Tables 4.8, C.1.

¹¹² CR/PR at Tables 4.8, C.1.

¹¹³ CR/PR at Tables 4.8, C.1. As a share of apparent U.S. consumption by quantity, Russia accounted for *** percent in 2022, *** percent in 2023, and *** percent in 2024. *Id.* Nonsubject imports from Russia supplied less of the market in interim 2025, at *** percent, than in interim 2024, at *** percent. *Id.* Nonsubject imports from all other sources supplied *** percent of the market in 2022, *** percent in 2023, and *** percent in 2024. *Id.* They supplied more of the market in interim 2025, at *** percent, than in interim 2024, at *** percent. *Id.*

¹¹⁴ CR/PR at 2.1. There is no indication that any specific sanctions apply to imports of hexamine from Russia other than the general application of column 2 duties.

¹¹⁵ CR/PR at 4.27 n.31. As a share of apparent U.S. consumption by quantity, U.S. shipments of nonsubject imports from Russia accounted for *** percent in 2024, and *** percent in interim 2025. *Id.*

¹¹⁶ CR/PR at 4.27 n.31 and 4.31 n.36. In addition to nonsubject imports from Russia, U.S. importers reported importing hexamine from *** during the POI. *Id.* at 2.9 n.12, Table 4.1 at Note, and 4.7 n.17. Petitioner stated that it was unaware of any hexamine producers in ***, and suggested that (Continued...)

Petitioner reported that it did not experience supply constraints during the POI.¹¹⁷ Four of seven responding U.S. importers and four of six responding U.S. purchasers reported that they had not experienced supply constraints during the POI.¹¹⁸ Three importers reported experiencing supply constraints in 2022, one reported constraints occurring in 2023, and two reported constraints occurring in 2024.¹¹⁹ One purchaser reported experiencing supply constraints from Petitioner between 2022 through 2024 due to “supply chain shortages,” and another reported constraints from subject foreign producers/exporters or importers between 2024 and 2025 due to capacity constraints.¹²⁰

4. Substitutability and Other Conditions

We find that there is a moderate-to-high degree of substitutability between domestically produced hexamine and hexamine imported from subject sources. As we noted above in section V.B, most responding market participants reported that subject imports from each subject country were *** interchangeable with domestically produced hexamine.¹²¹ In addition, most U.S. purchasers reported that domestically produced hexamine is comparable with imported hexamine on all factors except delivery time.¹²² With respect to delivery time, there were reported differences in delivery time with the majority of purchasers reporting that domestically produced hexamine is superior to subject imports with respect to delivery time.¹²³ While respondents argue that there are non-price reasons for purchasing subject imports, they do not cite delivery time as a factor lowering the degree of substitutability between subject imports and domestically produced hexamine nor does Petitioner. Given the physical

hexamine produced in Saudia Arabia was transshipped through *** to the U.S. market. Bakelite Posthearing Br. at Att. 1, pp.8-9. However, there is no indication that Commerce has made an affirmative transshipment finding, or even initiated such an investigation, with respect to imports of hexamine from ***, and ***. *Id.* at 4.7. As such, there is not sufficient record support for Petitioner’s assertion that hexamine produced in Saudia Arabia was being transshipped through *** to the U.S. market. Additionally, three U.S. purchasers reported that they had marketing/pricing knowledge of nonsubject imports from the Netherlands. *Id.* at 2.2 n.6.

¹¹⁷ CR/PR at 2.9.

¹¹⁸ CR/PR at 2.9.

¹¹⁹ CR/PR at Table 2.5.

¹²⁰ CR/PR at 2.9 and Table 2.5. One of the two purchasers that reported experiencing supply constraints also reported constraints due to the filing of the petitions, indicating that their suppliers had “withheld shipments due to unknown petition penalties.” *Id.* at 2.9.

¹²¹ CR/PR at Tables 2.13-2.15.

¹²² CR/PR at Table 2.12.

¹²³ CR/PR at Table 2.9. During the POI, Petitioner reported selling *** its commercial U.S. shipments of hexamine from inventory, with lead times of *** days. CR/PR at 2.14. Conversely, responding U.S. importers reported that *** their commercial U.S. shipments of hexamine were produced-to-order, with lead times averaging *** days. *Id.*

similarities observed in these investigations¹²⁴ between domestically produced hexamine and subject imports and the responses of market participants in these final phase investigations concerning the interchangeability of domestic and subject hexamine, we find that the degree of substitutability is closer to a high degree of substitutability despite reported differences in delivery time. Moreover, as we discuss in more detail in section VI.E below, we are not convinced that Petitioner's role as a phenolic resins producer is a significant non-price factor that affected its ability to compete for sales of hexamine during the POI.

We also find that price is an important factor in purchasing decisions for hexamine. Price/cost, quality, and availability/supply were responding purchasers' top three most often cited purchasing factors.¹²⁵ Market participants generally reported that there are sometimes significant non-price factors.¹²⁶

Petitioner reported selling most of its hexamine through *** and a substantial share through *** in 2024.¹²⁷ U.S. importers reported selling *** their hexamine in the spot market.¹²⁸

Petitioner reported that it supplied hexamine pursuant to two long-term contracts during the POI, one of which expired on *** and was not renewed.¹²⁹ These contracts each contain a price adjustment addendum requiring the seller to adjust prices on a quarterly basis to track movements in methanol and ammonia price indices.¹³⁰

¹²⁴ CR/PR at Tables 2.10, 2.12, 2.13.

¹²⁵ CR/PR at Table 2.8. Responding purchasers identified quality as the most frequently cited first-most important factor (3 firms), followed by price/cost (4 firms), and availability/supply (3 firms). *Id.* Price was the most frequently reported second-most important factor (four firms) followed by availability/supply as the most frequently reported third-most important factor (4 firms apiece). *Id.*

¹²⁶ CR/PR at Tables 2.16-2.18. Petitioner reported that non-price differences were *** significant with respect to the domestic like product and subject imports from China, India, and Saudi Arabia, and *** significant between U.S.-produced hexamine and subject imports from Germany. *Id.* at Table 2.16. Responding U.S. importers and U.S. purchasers generally reported that non-price differences were *** significant with respect to the domestic like product and subject imports from each subject country. *Id.* at Tables 2.17-2.18. U.S. importer *** identified tariff and quality concerns as significant nonprice factors with respect to subject imports from China, and supply availability and transportation as significant nonprice factors with respect to subject imports from Germany. *Id.* at 2.21.

¹²⁷ CR/PR at Table 5.3.

¹²⁸ CR/PR at Table 5.3.

¹²⁹ Bakelite Posthearing Br. at 8-10, Exh. 1, Answers to Commission Questions, at 24. According to Petitioner, the *** remaining contract represented *** percent of its sales in 2024 by volume. *Id.*

¹³⁰ Bakelite Posthearing Br., Exh. 6 (containing the supply contract with ***); Bakelite Prehearing Br., Exh. 4, Att. 5 (containing the supply contract with ***).

The primary raw materials used to produce hexamine are ammonia and formaldehyde.¹³¹ Prices for ammonia peaked in the second quarter of 2022, declined to a period low in the third quarter of 2023, then stabilized in the third quarter of 2024 at a level approximately half of that observed at the start of the POI.¹³² Additionally, Petitioner’s formaldehyde costs declined from \$*** in 2022 to \$*** in 2023, and \$*** in 2024.¹³³ They were lower in interim 2025, at \$***, than in interim 2024, at \$***.¹³⁴ Raw material costs were the largest component of the Petitioner’s cost of goods sold (“COGS”) during the 2022 to 2024 calendar year period.¹³⁵ As a ratio to total net sales, Petitioner’s raw material costs declined from *** percent in 2022 to *** percent in 2023, *** percent in 2024, and were lower in interim 2025, at *** percent, than in interim 2024, at *** percent.¹³⁶

Hexamine is imported into the United States under HTSUS statistical reporting number 2933.69.50 at a general duty rate of 6.3 percent *ad valorem*.¹³⁷ Effective May 10, 2019, hexamine from China became subject to additional duties of 25 percent *ad valorem* pursuant to section 301 of the Trade Act of 1974 (19 U.S.C. § 2411 *et seq.*).¹³⁸ Effective March 4, 2025, imports of hexamine from China are subject to additional duties of 20 percent *ad valorem* under the International Emergency Economic Powers Act (50 U.S.C. § 1701 *et seq.*) (“IEEPA”).¹³⁹ Moreover, effective May 14, 2025, imports of hexamine from China are subject to an additional 10 percent *ad valorem* duty under IEEPA.¹⁴⁰

Effective April 5, 2025, hexamine from Saudi Arabia is subject to an additional 10.0 percent *ad valorem* duty under IEEPA.¹⁴¹ Effective August 7, 2025, hexamine from Germany is subject to an additional 8.7 percent *ad valorem* duty under IEEPA.¹⁴² Effective that same day,

¹³¹ CR/PR at 5.1.

¹³² CR/PR at Table 5.1. Petitioner reported that formaldehyde accounted for approximately *** of its raw material costs in 2024, with ammonia accounting for the remaining ***. *Id.* at 5.1.

¹³³ Bakelite U.S. producer questionnaire response at III-9a.

¹³⁴ Bakelite U.S. producer questionnaire response at III-9a.

¹³⁵ CR/PR at Table 6.1. Raw materials as a share of COGS declined from *** percent in 2022 to *** percent in 2024 and were *** percent in interim 2025 compared with *** percent in interim 2024. *Id.*

¹³⁶ CR/PR at Table 6.1.

¹³⁷ CR/PR at 1.11.

¹³⁸ CR/PR at 1.11.

¹³⁹ See Further Amended Notice of Implementation of Additional Duties on Products of the People's Republic of China Pursuant to the President's Executive Order 14195, Imposing Duties To Address the Synthetic Opioid Supply Chain in the People's Republic of China, 90 Fed. Reg. 11,426 (Mar. 6, 2025); CR/PR at 1.11.

¹⁴⁰ CR/PR at 1.12.

¹⁴¹ CR/PR at 1.11.

¹⁴² CR/PR at 1.11.

hexamine from India is subject to an additional 25.0 percent *ad valorem* duty under IEEPA.¹⁴³

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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.”¹⁴⁵

The volume of cumulated subject imports increased by 121.2 percent from 2022 to 2024, from 1.9 million pounds in 2022 to 2.1 million pounds in 2023 and 4.1 million pounds in 2024.¹⁴⁶ It was 1.2 percent higher in interim 2025, at 774,000 pounds, than in interim 2024, at 765,000 pounds.¹⁴⁷ Cumulated subject imports’ market share increased by *** percentage points by quantity in this period, from *** percent in 2022 to *** percent in 2023, and *** percent in 2024.¹⁴⁸ It was *** percentage points higher in interim 2025, at *** percent, than in interim 2024, at *** percent.¹⁴⁹

We find that the volume of cumulated subject imports and the increase in volume were significant in absolute terms and relative to consumption in the United States during the POI.

D. Price Effects of the Subject Imports

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

- (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
- (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.¹⁵⁰

¹⁴³ CR/PR at 1.11-1.12.

¹⁴⁴ The record for the antidumping and countervailing duty investigations with respect to hexamine from China closed on August 11, 2025. Accordingly, the record does not include any additional duties announced after this date.

¹⁴⁵ 19 U.S.C. § 1677(7)(C)(i).

¹⁴⁶ CR/PR at Table 4.2.

¹⁴⁷ CR/PR at Table 4.2.

¹⁴⁸ CR/PR at Tables 4.8, C.1.

¹⁴⁹ CR/PR at Tables 4.8, C.1

¹⁵⁰ 19 U.S.C. § 1677(7)(C)(ii).

As previously discussed in section VI.B.4 above, we find that the domestic like product and cumulated subject imports have a moderate-to-high degree of substitutability, and that price is an important factor in purchasing decisions.

The Commission collected quarterly quantity and f.o.b. value pricing data on sales of three types of hexamine shipped to unrelated U.S. customers during the POI.¹⁵¹ One U.S. producer and seven U.S. importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.¹⁵² The pricing data reported by these firms accounted for 100.0 percent of the U.S. producer's U.S. commercial shipments of domestically produced hexamine in 2024, virtually all of U.S. shipments of subject imports from China, Germany, and Saudi Arabia, and *** percent of U.S. shipments of subject imports from India.¹⁵³

Subject imports undersold the domestic like product in 42 of 61 quarterly comparisons, or 68.9 percent of the time, with underselling margins ranging between 1.7 and 58.4 percent, and averaging 23.8 percent.¹⁵⁴ Subject imports oversold the domestic like product in the remaining 19 quarterly comparisons, or 31.1 percent of the time, with overselling margins ranging between 0.3 and 393.3, and averaging 58.0 percent.¹⁵⁵ The volume of subject import sales in quarters with underselling was *** pounds, representing 77.8 percent of the total volume of subject imports in the pricing products, compared to *** pounds in the quarters with overselling, representing 22.2 percent of the total.¹⁵⁶ The frequency of underselling and volume of subject imports associated with underselling increased at the end of the POI. Subject imports undersold the domestic like product in 19 out of 26 instances in 2024 and all six available instances in interim 2025, and the volume of reported cumulated subject import sales in quarterly comparisons in which there was underselling increased from *** pounds in 2022, to *** pounds in 2023, and *** pounds in 2024.¹⁵⁷ Further, the volume of subject imports that

¹⁵¹ CR/PR at 5.4. The three pricing products are:

Product 1. – “Unstabilized” hexamine, with a hexamine content above 99% by weight;

Product 2. – “Stabilized” hexamine, with a hexamine content above 95% but less than or equal to 99% by weight; and

Product 3. – “Stabilized” hexamine, with a hexamine content equal to or below 95% by weight.

Id.

¹⁵² CR/PR at 5.5.

¹⁵³ CR/PR at 5.5. Commercial shipments do not include the U.S. producer's captive consumption of a portion of its production of hexamine. Pricing coverage is based on U.S. shipments reported in the questionnaires.

¹⁵⁴ CR/PR Table 5.10.

¹⁵⁵ CR/PR Table 5.10.

¹⁵⁶ *Derived from* CR/PR Table 5.10.

¹⁵⁷ CR/PR at Table 5.12.

undersold the domestic like product in the single quarter of interim 2025, at *** pounds, is nearly equivalent to the total amount of underselling in the full years of 2022 and 2023.¹⁵⁸ Thus, the quarterly price comparison data show that subject imports predominantly and increasingly undersold the domestic like product in terms of the number of quarterly comparisons and in terms of volume.

We have also considered information regarding lost sales. Four of six U.S. purchasers reported purchasing subject imports instead of the domestic product during the POI.¹⁵⁹ All four purchasers reported that subject imports were priced lower than the domestic like product, with all four reporting that they purchased subject imports instead of the domestic like product based on price, accounting for *** pounds of hexamine. This total represented *** percent of total reported purchases of subject imports over the full years of the POI (*** pounds) and *** percent of the total volume of purchases of hexamine from all sources reported by purchasers over the full years of the POI (***).¹⁶⁰ The other two purchasers reported that price was not a primary reason for purchasing subject imports instead of the domestic product.^{161 162}

Based on the moderate-to-high degree of substitutability between cumulated subject imports and the domestic like product, the importance of price in purchasing decisions, and the prevalence of underselling and lost sales, we find that subject imports significantly undersold the domestic like product. Subject import underselling enabled subject imports to not only gain market share from Petitioner, but also prevented Petitioner from gaining any of the market share ceded by withdrawing nonsubject imports from Russia despite Petitioner having the capacity to supply substantial additional volume of a moderately-to-highly substitutable product. During the 2022 to 2024 period, Petitioner's market share declined by *** percentage points, from *** percent in 2022 to *** percent in 2024, which went entirely to subject

¹⁵⁸ *Derived from* CR/PR at Table 5.12.

¹⁵⁹ CR/PR at Table 5.15.

¹⁶⁰ *Derived from* CR/PR at Tables 5.14, 5.15.

¹⁶¹ CR/PR at Table 5.15.

¹⁶² Petitioner appended e-mail correspondence with customers showing that it was engaged in negotiations to conclude long-term supply contracts with U.S. purchasers *** and ***, among others, and renew a supply contract with *** during the POI. Bakelite Prehearing Br., Exh. 4. Although Bakelite characterizes this correspondence as "intelligence regarding subject import prices," Bakelite Posthearing Br., Exh. 1 at 9, none of these emails explicitly identify subject merchandise as a lower-priced alternative to domestically produced hexamine. Moreover, *** was the only purchaser to report purchasing *** pounds of lower-priced subject imports instead of the domestic like product based primarily on price. CR/PR at Table 5.15. *** did not report purchasing subject imports instead of the domestic like product, whereas *** did not submit a U.S. purchaser questionnaire response. *Id.* They nevertheless demonstrate that Petitioner faced pressure from purchasers to lower prices that were credible enough to result in the termination of negotiations followed by instances of lost sales to subject imports.

imports.¹⁶³ While interim 2025 data is confined to a single quarter, the data was consistent with the increasing underselling and market share loss trends witnessed during the 2022 to 2024 period, with universal underselling that caused Petitioner to lose *** percentage points of market share to subject imports.¹⁶⁴ Further, as discussed above, nonsubject imports from Russia almost completely exited the U.S. market by the end of 2023. In 2022, imports of hexamine from Russia constituted almost all nonsubject imports, and accounted for *** percent of the market, which declined to *** percent in 2023 and *** percent in 2024.¹⁶⁵ Subject imports took *** of the market share ceded by imports from Russia, with their share of apparent U.S. consumption nearly *** from *** percent in 2023 to *** percent in 2024 – nonsubject imports from Spain picked up the remaining share of the market ceded by nonsubject imports from Russia.¹⁶⁶ By interim 2025, subject imports market share grew to *** percent.¹⁶⁷

We have also considered whether cumulated subject imports depressed or suppressed prices to a significant degree. Between the first quarter of 2022 and the first quarter of 2025, reported prices for domestically produced products 1 through 3 were, respectively, ***, ***, and *** percent higher at the end of the POI than at the beginning.¹⁶⁸ Prices for products 1 and 2 imported from Germany, the only source for which pricing data were available throughout the POI, increased by *** and *** percent, respectively.¹⁶⁹ Indexed data also show that, on a cumulated basis, subject import prices for products 1 and 2 fluctuated over the POI but increased overall by *** and *** percent, respectively.¹⁷⁰ We note that one of six responding U.S. purchasers reported that the U.S. producer lowered its prices by *** percent during the POI to compete with lower-priced subject imports.¹⁷¹

¹⁶³ CR/PR at Tables 4.8, C.1.

¹⁶⁴ CR/PR at Tables 5.12, C.1.

¹⁶⁵ CR/PR at Tables 4.8, C.1. As previously discussed, U.S. shipments of nonsubject imports from Russia accounted for just *** percent of apparent U.S. consumption in interim 2025. *Id.* at 4.27 n.31.

¹⁶⁶ CR/PR at Tables 4.8, C.1.

¹⁶⁷ CR/PR at Tables 4.8, C.1. As discussed in section VI.E below, we disagree with respondents' contention that subject imports' gain in market share is accounted for by non-price reasons.

¹⁶⁸ CR/PR Tables 5.7-5.8.

¹⁶⁹ CR/PR at Table 5.7.

¹⁷⁰ CR/PR at Table 5.9. There were limited subject imports reported for pricing product 3. *Id.* at Table 5.6.

¹⁷¹ CR/PR at Table 5.17.

Petitioner’s average ratio of COGS to net sales declined from 2022 to 2024.¹⁷² The decline in the COGS-to-net-sales ratio during this period was primarily driven by total raw material costs, which declined from \$*** in 2022 to \$*** in 2024.¹⁷³ Petitioner’s unit COGS in the total market decreased irregularly from 2022 to 2024.¹⁷⁴ The industry’s net sales average unit values (“AUVs”) also decreased irregularly during this period.¹⁷⁵

In sum, we find that cumulated subject imports significantly undersold the domestic like product, which not only prevented Petitioner from gaining any of the *** percentage points of market share ceded by nonsubject imports from Russia from 2022 to 2024 but also resulted in Petitioner losing sales and market share to subject imports during the period. We accordingly find that the cumulated subject imports had significant price effects.¹⁷⁶

E. Impact of the Subject Imports¹⁷⁷

Section 771(7)(C)(iii) of the Tariff Act provides that examining the impact of subject imports, the Commission “shall evaluate all relevant economic factors which have a bearing on

¹⁷² CR/PR at Tables 6.1, C.1. Petitioner’s COGS-to-net-sales ratio declined from *** percent in 2022 to *** percent in 2023, and *** percent in 2024. *Id.* It was slightly higher in interim 2025, at *** percent, than in interim 2024, at *** percent. *Id.*

¹⁷³ CR/PR at Table 6.1. Total raw material costs were lower in interim 2025, at \$*** than in interim 2024, at \$***. *Id.*

¹⁷⁴ CR/PR at Table 6.1. Petitioner’s unit COGS declined from \$*** in 2022 to \$*** in 2023, then increased to \$*** in 2024. *Id.* It was higher in interim 2025, at \$***, than in interim 2024, at \$***. *Id.*

¹⁷⁵ CR/PR at Table 6.1. Petitioner’s net sales AUV declined from \$*** in 2022 to \$*** in 2023, then increased to \$*** in 2024. *Id.* It was higher in interim 2025, at \$***, than in interim 2024, at \$***. *Id.*

¹⁷⁶ GAFT contends, citing *Grain-Oriented Electrical Steel from Germany, Japan, and Poland (“GOES”)*, that the Commission should reach the same conclusion on the underselling record to find that “{n}otwithstanding the observed underselling, there were not significant changes in the domestic industry’s market share.” GAFT Prehearing Br. at 18, citing *Grain-Oriented Electrical Steel from Germany, Japan, and Poland*, Inv. Nos. 731-TA-1233, 1234, and 1236 (Final), USITC Pub. 4491 (Sep. 2014) (“GOES”) at 24. *GOES* is distinguishable from these investigations. First, the market share shift the Commission found not to be significant in *GOES* was smaller than the market share shift observed in these investigations. Second, no major nonsubject suppliers of *GOES* vacated the U.S. market in those investigations, affording domestic and subject suppliers a unique opportunity to substantially increase their sales and market share. Third, the Commission found that the decline in production reported by the domestic industry was entirely attributable to a decline in export shipments. See *GOES*, USITC Pub. 4491 (Sep. 2014) at 29-30. Exports do not explain Petitioner’s declining production here.

¹⁷⁷ The statute instructs the Commission to consider the “magnitude of the dumping margin” in an antidumping proceeding as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determination of sales at LTFV, Commerce found dumping margins of 405.19 percent for imports from the China-wide entity. *Hexamethylenetetramine From the People’s Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value*, 90 Fed. Reg. 33,922 (Continued...)

the state of the industry.”¹⁷⁸ 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 debts, research and development, and factors affecting domestic prices. No single factor is dispositive, and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”¹⁷⁹

Petitioner’s trade indicators generally declined during the POI. As discussed above in section VI.B.2, Petitioner’s practical capacity was constant throughout the POI.¹⁸⁰ Its production declined throughout the POI.¹⁸¹ Resultingly, Petitioner’s practical capacity utilization for hexamine production was relatively low and declined throughout the POI.¹⁸²

Several of Petitioner’s employment indicators were stable or improved during the POI. Its number of production-related workers (“PRWs”),¹⁸³ total hours worked,¹⁸⁴ hours worked per PRW,¹⁸⁵ and unit labor costs¹⁸⁶ were virtually unchanged during the period. Wages paid and

(July 18, 2025); CR/PR at Table 1.4. We take into account in our analysis the fact that Commerce has made final findings that all subject producers in China are selling subject imports in the United States at LTFV. In addition to this consideration, our impact analysis has considered other factors affecting domestic prices. Our analysis of the significant underselling of subject imports, described in both the price effects discussion and below, is particularly probative to an assessment of the impact of the subject imports.

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

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

¹⁸⁰ CR/PR at Tables 3.3, C.1. Petitioner’s practical capacity was constant at *** pounds during the full years of the POI and *** pounds during the interim periods. *Id.*

¹⁸¹ CR/PR at Tables 3.3, C.1. Petitioner’s production declined from *** pounds in 2022 to *** in 2023, and *** pounds in 2024. *Id.* It was lower in interim 2025, at *** pounds, than in interim 2024, at *** pounds. *Id.*

¹⁸² CR/PR at Tables 3.3, C.1. Petitioner’s practical capacity utilization declined from *** percent in 2022 to *** percent in 2023, and *** percent in 2024. *Id.* It was lower in interim 2025, at *** percent, than in interim 2024, at *** percent. *Id.*

¹⁸³ CR/PR at Tables 3.8, C.1. The number of PRWs was *** throughout the POI. *Id.*

¹⁸⁴ CR/PR at Tables 3.8, C.1. Petitioner reported *** total hours worked in each full year of the POI, and *** total hours worked during the interim periods. *Id.*

¹⁸⁵ CR/PR at Table 3.8. Petitioner reported *** hours worked per PRW in each full year of the POI, and *** hours worked per PRW during the interim periods. *Id.*

¹⁸⁶ CR/PR at Tables 3.8, C.1. On a dollars per pound basis, unit labor costs were \$*** in each segment of the POI, except for interim 2025, where they slightly increased to \$***. *Id.*

hourly wages both increased during the POI.¹⁸⁷ Petitioner's productivity, measured on a pounds per hour basis, was the only employment-related indicator to decline over the period.¹⁸⁸

Petitioner's total U.S. shipments by quantity declined throughout the POI.¹⁸⁹ Additionally, as discussed in section VI.B.3 above, its market share declined throughout the POI.¹⁹⁰

Petitioner's end-of-period inventories increased irregularly during the POI.¹⁹¹ As a ratio to total shipments, its end-of-period inventories increased during the POI.¹⁹²

Several of Petitioner's financial indicators deteriorated during the POI although it remained profitable.¹⁹³ Petitioner's net sales revenue declined throughout the POI.¹⁹⁴ Its gross

¹⁸⁷ CR/PR at Tables 3.8, C.1. Petitioner reported wages paid of \$*** in 2022 and 2023, and \$*** in 2024. *Id.* Petitioner's wages paid were higher in interim 2025, at \$***, than in interim 2024, at \$***. *Id.*

¹⁸⁸ CR/PR at Tables 3.8, C.1. Petitioner's productivity declined from *** in 2022 to *** in 2023, and *** in 2024. *Id.* Its productivity was lower in interim 2025, at ***, than in interim 2024, at ***. *Id.*

¹⁸⁹ CR/PR at Tables 3.4, C.1. Petitioner's total U.S. shipments declined from *** pounds in 2022 to *** pounds in 2023, and *** pounds in 2024. *Id.* They were higher in interim 2025, at *** pounds, than in interim 2024, at *** pounds. *Id.*

¹⁹⁰ CR/PR at Tables 4.8, C.1. Petitioner's share of apparent U.S. consumption declined from *** percent in 2022 to *** percent in 2023, and *** percent in 2024. *Id.* It was lower in interim 2025, at *** percent, than in interim 2024, at *** percent. *Id.*

¹⁹¹ CR/PR at Tables 3.7, C.1. Petitioner's end-of-period inventories declined from *** pounds in 2022 to *** pounds in 2023, then increased to *** pounds in 2024. *Id.* They were higher in interim 2025, at *** pounds, than in interim 2024, at *** pounds. *Id.*

¹⁹² CR/PR at Tables 3.7, C.1. Petitioner's ratio of end-of-period inventories to total shipments increased from *** percent in 2022 and 2023 to *** percent in 2024. *Id.* It was higher in interim 2025, at *** percent, than in interim 2024, at *** percent. *Id.*

¹⁹³ The fact that the domestic industry was profitable during the POI does not preclude an affirmative determination because the record demonstrates that the domestic industry would have performed materially better if subject imports had not significantly increased, gained share from the domestic industry, and prevented it from capturing market share when nonsubject imports from Russia largely exited the market. *See* 19 U.S.C. § 1677(7)(J) (the existence of a profitable industry, or one whose performance has improved, does not foreclose an affirmative material injury determination).

¹⁹⁴ CR/PR at Tables 6.1, C.1. Petitioner's net sales revenues declined from \$*** in 2022 to \$*** in 2023, and \$*** in 2024. *Id.* They were lower in interim 2025, at \$***, than in interim 2024, at \$***. *Id.*

profits declined irregularly during this period.¹⁹⁵ Its operating¹⁹⁶ and net income¹⁹⁷ indicators mostly declined throughout the POI.¹⁹⁸ Its ratio of operating income to net sales fluctuated within a narrow band during the POI,¹⁹⁹ whereas its ratio of net income to net sales declined.²⁰⁰

Petitioner's capital expenditures increased irregularly during the POI.²⁰¹ Its research and development ("R&D") expenditures also increased irregularly during the period.²⁰² Petitioner's net assets declined throughout the POI.²⁰³ Its return on assets declined irregularly during this period.²⁰⁴ Finally, Petitioner reported negative effects on investment due to subject imports.²⁰⁵

As discussed above, significant volumes of cumulated subject imports undersold the domestic like product to a significant degree, which not only prevented Petitioner from gaining any of the *** percentage points of market share ceded by nonsubject imports from Russia from 2022 to 2024 but also resulted in Petitioner losing sales and market share to increasing subject imports during the period. Consequently, Petitioner's production, capacity utilization, productivity, and U.S. shipments were all lower than they would otherwise have been, and its end-of-period-inventories higher than they would otherwise have been, during the POI had the

¹⁹⁵ CR/PR at Tables 6.1, C.1. Petitioner's gross profits declined from \$*** in 2022 to \$*** in 2023, then increased slightly to \$*** in 2024. *Id.* They were lower in interim 2025, at \$***, than in interim 2024, at \$***. *Id.*

¹⁹⁶ CR/PR at Tables 6.1, C.1. Petitioner's operating income declined from \$*** in 2022 to \$*** in 2023 and 2024. *Id.* Its operating income was lower in interim 2025, at \$***, than in interim 2024, at \$***. *Id.*

¹⁹⁷ CR/PR at Tables 6.1, C.1. Petitioner's net income declined from \$*** in 2022 to \$*** in 2023, and \$*** in 2024. *Id.* Its net income was lower in interim 2025, at \$***, than in interim 2024, at \$***. *Id.*

¹⁹⁸ CR/PR at Tables 6.1, C.1.

¹⁹⁹ CR/PR at Tables 6.1, C.1. Petitioner's ratio of operating income to net sales increased from *** percent in 2022 to *** percent in 2023, and *** percent in 2024. *Id.* It was lower in interim 2025, at *** percent, than in interim 2024, at *** percent. *Id.*

²⁰⁰ CR/PR at Tables 6.1, C.1. Petitioner's ratio of net income to net sales declined from *** percent in 2022 to *** percent in 2023, and *** percent in 2024. *Id.* It was lower in interim 2025, at *** percent, than in interim 2024, at *** percent. *Id.*

²⁰¹ CR/PR at Tables 6.7, C.1. Petitioner's capital expenditures declined from \$*** in 2022 to \$*** in 2023, then increased to \$*** in 2024. *Id.* They were higher in interim 2025, at \$***, than in interim 2024, at \$***. *Id.*

²⁰² CR/PR at Tables 6.7, C.1. Petitioner's R&D expenditures declined from \$*** to \$***, then increased to \$*** in 2024. *Id.* They were unchanged, at \$***, during the interim periods. *Id.*

²⁰³ CR/PR at Tables 6.7, C.,1. Petitioner's net assets declined from \$*** in 2022 to \$*** in 2023, and \$*** in 2024. *Id.*

²⁰⁴ CR/PR at Table 6.7. Petitioner's return on assets declined from *** percent in 2022 to *** percent in 2023, then increased to *** percent in 2024. *Id.*

²⁰⁵ CR/PR at Tables 6.9, 6.10.

significant and increasing volume of lower priced subject imports not gained a substantial share of the U.S. market. Petitioner's declining output and productivity indicators translated directly into reductions in its financial performance indicators, including its net sales revenues, gross profits, operating income, net income, and net income margin. Thus, we find that cumulated subject imports had a significant adverse impact on Petitioner.

We are unpersuaded by respondents' argument that the peculiarities of the U.S. hexamine market attenuated competition between subject imports and Petitioner during the POI. Respondents argue that the share of the market supplied by imports as a whole was largely consistent, as U.S. purchasers hesitated to source more hexamine from Petitioner as it is allegedly a monopolist with a preference for long-term supply contracts that purportedly experienced supply constraints during the POI and, in certain instances, is in direct competition with its customers in downstream markets for phenolic resins.²⁰⁶ Respondents also contend, unconvincingly, that long-term supply contracts insulated Petitioner from competition with imports, and emphasize that the emergence of Spain as a nonsubject source at the end of the POI suggests that nonsubject sources were poised to replace imports from Russia in the market.²⁰⁷

We observe that the total market share represented by U.S. shipments of imports from all sources increased throughout the POI, from *** percent in 2022 to *** percent in 2023, and *** percent in 2024.²⁰⁸ It was higher in interim 2025, at *** percent, than in interim 2024, at *** percent.²⁰⁹ The increase in the total market share of imports from all sources was driven by U.S. shipments of cumulated subject imports, which increased their share of supply, gaining the market share ceded by nonsubject imports from Russia as they receded from the U.S. market and also gaining market share from domestic producers such that total imports represented a higher share of the market at the end of the POI than the beginning.²¹⁰

We also find that the record undermines respondents' contention that subject imports were pulled into the market for non-price reasons. Subject imports rapidly gained market share during the POI by significantly underselling the domestic like product, and the prevalence of underselling in the pricing data indicate that subject imports did not command a price premium

²⁰⁶ GAFT Posthearing Br. at 2-7. Along similar lines, KCIL contends that subject imports had no adverse impact to Petitioner's operations, as imports from India were pulled into the U.S. market to meet the supply gap caused by Petitioner's purported inability to meet demand in the U.S. market. KCIL Prehearing Br. at 1-7.

²⁰⁷ GAFT Final Comments at 3-10.

²⁰⁸ CR/PR at Tables 4.8, C.1.

²⁰⁹ CR/PR at Tables 4.8, C.1.

²¹⁰ CR/PR at Tables 4.8, C.1.

in the market, which would be expected if respondents' contentions as to nonprice reasons for purchasing subject imports over domestically produced hexamine were correct.²¹¹ In addition, the responses of U.S. purchasers concerning the importance of price in purchasing decisions, summarized in section VI.B.4 above, undermines respondents' contention that the gain in subject imports' market share is accounted for by non-price reasons.²¹²

Insofar as respondents contend that Petitioner was unable or unwilling to supply hexamine to U.S. purchasers during the POI, we observe that the record does not support a finding that Petitioner was significantly constrained in its ability to supply the market during the period. First, it operated at relatively low and decreasing capacity utilization during the POI. As we discussed in Section VI.B.3 above, most market participants did not report supply constraints during the POI, with only one of six responding U.S. purchasers reporting supply constraints experienced with Petitioner from 2022 to 2024.²¹³ Second, while purchaser *** reported sourcing hexamine from subject sources as "****," the record does not support that this accounts for subject imports' growth in market share over the POI. Information provided by Petitioner shows that it was engaged in supply discussions with both *** and ***, another U.S. producer of phenolic resins, during the POI.²¹⁴ *** even reported that it purchased *** pounds of subject imports instead of the domestic like product primarily due to price.²¹⁵ The record as a whole thus does not support that subject imports were pulled into the market due to purchasers' reluctance to purchase from Petitioner on account of competition with Bakelite in the downstream phenolic resins market. And, to the extent that purchasers valued the importance of diversifying supply sources, maintaining a diversity of supply sources did not require purchasers to replace Russian imports entirely with subject imports or to gain market share from the domestic producer and to do so at increasing rates of underselling. Last, we observe that, while Petitioner sold most of its hexamine through long-term supply contracts, it reported a substantial portion of sales (**% percent) in the spot market and had increasing end-of-period inventories that it could have directed towards the spot market.²¹⁶ Indeed,

²¹¹ See generally CR/PR at Tables 5.4-5.6, 5.12.

²¹² See CR/PR at Table 2.8.

²¹³ CR/PR at Table 2.5. This purchaser, ***, accounted for **% percent of purchases of hexamine during the POI. *Derived from id.*, at Table 5.14.

²¹⁴ See Bakelite Prehearing Br., Exh. 4.

²¹⁵ CR/PR at Table 5.15.

²¹⁶ CR/PR at Tables 3.7, 5.3. Petitioner reported that it sold **% percent of its hexamine products on the spot market in 2024. *Id.* at Table 5.3. Its inventories in 2024, of *** pounds, were equivalent to **% percent of its total shipments that year. *Id.* at Table 3.7. Moreover, notwithstanding Petitioner's stated preference for long-term supply contracts, Tr. at 31 (Lutz), the record lacks any (Continued...)

Petitioner's appended e-mail correspondence with customers shows that it was willing to make spot sales to customers.²¹⁷ Accordingly, respondents' argument that the peculiarities of the U.S. hexamine market attenuated competition between subject imports and Petitioner is unpersuasive.

We are also not convinced by respondents' contention that Petitioner's long-term supply contracts insulated it from competition with subject imports during the POI. Petitioner reported that it maintained *** such contracts during the POI, one of which was not renewed.²¹⁸ It provided evidence that *** purchased hexamine products at a level *** percent below contractually obligated volume when it terminated its supply contract with Petitioner.²¹⁹ While the remaining contract accounted for a substantial portion of Petitioner's sales in 2024 by volume, there are no guarantees that it will be renewed. Customer correspondence provided by Petitioner demonstrates the precarious nature of long-term supply negotiations undertaken by it during the period with seven customers, most of which collapsed.²²⁰ Moreover, *** contracts in operation during the POI required Petitioner to adjust prices on a quarterly basis to track movements in raw material prices.²²¹ The relative paucity of these contracts and their ties to raw material prices, which generally declined during the POI, and the substantial volume of confirmed lost sales, undermines respondents' contention that contracts insulated Petitioner from competition.²²²

Additionally, the available record information belies respondents' contention that nonsubject imports could have filled the supply gap vacated by Russia's exit from the market towards the end of the POI. Nonsubject imports from sources other than Russia were available in small quantities during the POI.²²³ The record, accordingly, does not show that nonsubject

indication that Petitioner refused to sell hexamine to U.S. purchasers on a spot market basis during the POI.

²¹⁷ Bakelite Prehearing Br., Exh. 4.

²¹⁸ Bakelite Posthearing Br. at 8-10, Exh. 1, Answers to Commission Questions, at 24. According to Petitioner, the *** remaining contract represented *** percent of its sales in 2024 by volume. *Id.*

²¹⁹ Bakelite Posthearing Br. at 9-10; Bakelite Prehearing Br., Exh. 4, Att. 1.

²²⁰ See generally Bakelite Prehearing Br., Exh. 4.

²²¹ Bakelite Posthearing Br., Exh. 6; Bakelite Prehearing Br., Exh. 4, Att. 5. These adjustments include downward adjustments pursuant to certain "price events" specified in both agreements. *Id.*

²²² As we discussed in section VI.D above, confirmed lost sales accounted for *** percent of total reported purchases of subject imports over the full years of the POI (*** pounds) and *** percent of the aggregate *** pounds of imports or purchases of hexamine reported by purchasers during the POI. *Derived from* CR/PR at Tables 5.14, 5.15.

²²³ CR/PR at Tables 4.8, C.1. Insofar as GAFT contends that nonsubject imports from ***, the Netherlands, and *** could have replaced nonsubject imports from Russia in the U.S. market, the limited available information on nonsubject countries in the final phase of these investigations indicates (Continued...)

imports from sources other than Russia were available to absorb most of the *** percentage points of market share ceded by nonsubject imports from Russia during the POI. Moreover, although based on minimal volumes over the POI, U.S. shipment AUVs for nonsubject imports from sources other than Russia were substantially above those of Petitioner's U.S. shipments of domestic hexamine throughout the POI.²²⁴ The record thus does not demonstrate that nonsubject imports could have replaced subject imports without any beneficial effect inuring to Petitioner. Moreover, whether nonsubject imports could have gained market share towards the end of the POI does not change the injurious impact of subject import pricing on Petitioner.

We have also considered whether there are other factors that may have had an adverse impact on Petitioner during the period of investigation to ensure that we are not attributing injury from such other factors to the cumulated subject imports. Neither demand trends nor nonsubject imports explain Petitioner's declining performance.

While apparent U.S. consumption declined by *** percentage points during the 2022 to 2024 calendar year period and was *** percentage points lower in interim 2025 than in interim 2024, Petitioner would have performed substantially better if increasing volumes of low-priced subject imports had not gained a substantial share of the U.S. market during the POI.²²⁵ Nor do demand trends explain the market share shifts from Petitioner to subject imports observed during the POI.²²⁶

Nonsubject imports generally receded from the market during the POI, driven by Russia's exit in 2023. Their share of apparent U.S. consumption declined throughout the POI, from *** percent in 2022 to *** percent in 2023, and *** percent in 2024.²²⁷ They supplied less of the market in interim 2025, at *** percent, than in interim 2024, at *** percent.²²⁸ The

that the nonsubject industries in *** and the Netherlands that produce heterocyclic compounds (excluding melamine) containing an unfused triazine ring (whether or not hydrogenated) in the structure, a product category that includes hexamine, are not among the top exporters for that product category. *Id.* at Table 7.14. Export information for *** is not displayed in Table 7.14, indicating that it is not a significant exporter of heterocyclic compounds.

²²⁴ CR/PR at Table C.1.

²²⁵ CR/PR at Tables 4.8, C.1.

²²⁶ As discussed above in sections VI.C and VI.D, Petitioner lost *** percentage points of market share from 2022 to 2024 to subject imports and supplied *** percentage points less of the market in interim 2025 than in interim 2024 as subject imports continued to increase. CR/PR at Tables 4.8, C.1.

GAFT asserts that Petitioner's declining U.S. shipments tracked consumption trends during the POI. GAFT Prehearing Br. at 24-25. However, Petitioner's U.S. shipments declined by *** percent from 2022 to 2024, and were *** percent lower in interim 2025 than in interim 2024. CR/PR at Tables 3.4, C.1. Petitioner's U.S. shipments thus declined at steeper rates than apparent U.S. consumption during the POI.

²²⁷ CR/PR at Tables 4.8, C.1.

²²⁸ CR/PR at Tables 4.8, C.1.

record also indicates that the AUVs of U.S. shipments of nonsubject imports were higher than the AUVs of U.S. shipments of cumulated subject imports and the domestic producer in 2024 and interim 2025, after imports from Russia exited the U.S. market.²²⁹

In sum, we find that a significant and increasing volume of lower priced cumulated subject imports gained market share at Petitioner's expense, which significantly impacted Petitioner by causing its performance to be worse than it would otherwise have been.

VII. Conclusion

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

²²⁹ CR/PR at Tables 4.8, C.1.

Separate Views Of Commissioner David S. Johanson

I join Sections I through VI.B. of the majority’s opinion. I write separately as I find that the domestic producer of hexamine, Bakelite, is not materially injured by reason of subject imports but is threatened with material injury by reason of subject imports.

I. Present Injury

The principal reasons that I do not find that the domestic producer is materially injured are as follows.

First, the domestic industry was highly profitable throughout the POI. Bakelite’s hexamine operating profit margin was not only high but increasing for the three-year POI, even as subject imports gained *** percentage points of market share.¹ Bakelite’s hexamine operations had an operating profit margin of *** percent in 2022, *** percent in 2023, and *** percent in 2024; Bakelite’s operating profit margin was *** percent in the first quarter of 2024 and *** percent in the first quarter of 2025.² Bakelite’s hexamine net profit margin decreased but only slightly: it was *** percent in 2022, *** percent in 2023, *** percent in 2024; it was *** percent in the first quarter of 2024 and *** percent in the first quarter of 2025.³

In absolute terms Bakelite’s hexamine operating profit decreased *** percent from 2022 to 2024, and its net profit decreased *** percent.⁴ Yet, these results were strong in an industry that experienced declining apparent consumption and declining demand, ***.⁵

Bakelite does not describe any of the typical indicators of “material injury” in import injury investigations such as ***.⁶ Instead, Bakelite describes capital projects related to hexamine production that it contends subject imports forced it to postpone. First, Bakelite

¹ CR/PR at Table C.1.

² CR/PR at Table C.1.

³ CR/PR at Table C.1.

⁴ CR/PR at Table C.1.

⁵ CR/PR at 2.11, 6.1 n.3, & Tables 2.6 & C.1. I recognize that the percentage decrease in profits was greater than the percentage decrease in apparent consumption, which decreased *** percent from 2022 to 2024, CR/PR at Table C.1. Yet the domestic industry nevertheless remained highly profitable.

⁶ CR/PR at Table 6.9; Bakelite Producer QR II-2a. Bakelite notes that ***. CR/PR at 3.2.

asserts that replacement of a formaldehyde reactor costing ***.⁷ This postponement ***.⁸ Second, Bakelite states that it must replace its ***.⁹

.¹⁰ Bakelite apparently instead chose to incur more moderate but slowly increasing capital expenditures on hexamine which Bakelite characterizes as “.”¹¹

Moreover, I find it questionable whether *** was postponed due to subject imports of hexamine as Bakelite claims. ***, but Bakelite emphasizes that it has more than enough hexamine capacity to satisfy the entire U.S. hexamine market, which in any event is declining, so it is plausible that ***.¹²

Bakelite’s attribution of responsibility to subject imports for postponement of its *** is equally unclear. ***; in contrast, subject imports have not been alleged or found to be unfairly traded until 2023 and represented a small share of the U.S. hexamine market until imports from Russia ceased in 2024.¹³ Bakelite gave no indication as to why it would decide to conduct a *** during the POI as opposed to an earlier time.

Although a certain level of profitability is needed to ensure an optimum level of new investment depending on the characteristics of an industry, Bakelite’s efforts to show that its high profits fell below that level during the POI are not persuasive. With the hexamine industry experiencing declining demand, Bakelite could already supply the entire market. Bakelite was increasing its capital expenditures *** and was also increasing its research and development expenditures. As such, Bakelite would not need a particularly high level of profits to finance any new investment. In any case, whatever that level of investment might be, the record indicates

⁷ CR/PR at Table 6.10; Hrg. Tr. 16 (Roderick) (“We’ve been forced to put off capital expenditures including critical upgrades to equipment used in our formaldehyde process.”); Hrg. Tr. 50 (Boninsegni) (“{W}e deferred investment, for example, on our formaldehyde reactors. At the moment, we are running with one less reactor than we usually do because we are not having the demand to sustain this type of equipment.”).

⁸ CR/PR at Table 6.10.

⁹ CR/PR at Table 6.10.

¹⁰ *Calculated from* CR/PR at Table C.1.

¹¹ CR/PR at Tables 6.8, C.1. It is also not clear what effect if any the postponement of these investments had on Bakelite’s operations.

¹² See Bakelite Prehearing Br. 31; Bakelite Posthearing Br. 2; see also Hrg. Tr. 50 (Boninsegni) (attributing current closure of one formaldehyde reactor to “lack of demand to sustain this type of investment”). I note that formaldehyde has other uses besides hexamine production that may have influenced investment decisions.

¹³ CR/PR at Table C.1; Hexamethylenetetramine From the People's Republic of China, Germany, India, and Saudi Arabia: Initiation of Less-Than-Fair-Value Investigations, 89 Fed. Reg. 87,545 (Dep’t Commerce Nov. 4, 2024); Hexamethylenetetramine From the People's Republic of China, Germany, India, and Saudi Arabia: Initiation of Countervailing Duty Investigations, 89 Fed. Reg. 87,560 (Dep’t Commerce Nov. 4, 2024).

that Bakelite was comfortably exceeding this level at all times during the POI given its high operating and net profit margins.¹⁴ In fact, Bakelite's net profit was *** times as great as its combined capital plus research and development expenses in 2022, *** times as great in 2023, *** times as great in 2024, and *** times as great in the first quarter of 2025, suggesting that Bakelite was consistently using its ample hexamine profits to a large extent for other purposes.¹⁵

A second reason that I do not find present material injury is that I place less weight on the one-quarter interim data, and to the extent I do consider it, it suggests that declining consumption caused by *** was a larger cause of any impact on Bakelite's profitability in this period than were subject imports.

Bakelite emphasizes the reduction in Bakelite's hexamine market share "reached a peak" in the first quarter of 2025.¹⁶ Indeed, in the first quarter of 2025 cumulated subject imports' market share was *** percentage points higher and the domestic producer's share was *** percentage points lower as compared to interim 2024.¹⁷ Furthermore, comparing the interim periods, the domestic industry's operating profit was *** percent lower and its net profit was *** percent lower.¹⁸

The Commission, however, generally does not ascribe much significance to results of a single-quarter interim period.¹⁹ Quarterly data are subject to lags due to different contract and sale terms, seasonality, and other fluctuations, and post-petition interim periods especially may reflect temporary post-petition effects that may not persist or may not have arisen but for the petitions themselves. For example, petitions may result in temporary import surges if importers seek to delay the effects of duties. In this case, additionally, International Emergency Economic Powers Act (IEEPA) tariffs were imposed on China starting February 4, 2025, and on Germany, India, and Saudi Arabia starting April 5, 2025, making the relevance of first-quarter 2025 data to current conditions even more uncertain.²⁰

Moreover, this investigation presents an unusual feature. Bakelite filed its petitions on September 30, 2024.²¹ Starting in the fourth quarter of 2024 and continuing into the first

¹⁴ See CR/PR at Table C.1.

¹⁵ Calculated from CR/PR at Table C.1.

¹⁶ Bakelite Posthearing Br. 5.

¹⁷ CR/PR at Table C.1.

¹⁸ CR/PR at Table C.1.

¹⁹ See, e.g., *Electrolytic Manganese Dioxide from China and Australia*, Inv. Nos. 731-TA-1124-25 (Preliminary), USITC Pub. 3955 at 17 (Oct. 2007) ("Ordinarily, we are reluctant to place great weight on comparisons of partial-year periods.").

²⁰ CR/PR at 1.11.

²¹ CR/PR at 1.1.

quarter of 2025, Bakelite ***.²² This was accompanied by sharply reduced apparent consumption, which was *** percent lower in the first quarter of 2025 than in the first quarter of 2024.²³ Although apparent consumption was steadily declining throughout the POI as the result of decreasing demand, the drop in apparent consumption in the first quarter of 2025 was particularly abrupt and large. In fact, based on the interim period comparison, the reduction in apparent consumption of *** pounds dwarfed the increase in U.S. shipments of subject imports of *** pounds, suggesting that the drop in consumption had a much larger impact on the market than did the increase in subject imports.²⁴

Again, I place less weight on single-quarter data, but the interim period record suggests that this drop in apparent consumption was a likely result of ***. While price competition from unfairly traded subject imports could explain a shift in market share from domestic production to subject imports, it would not explain an abrupt decrease in apparent consumption as some purchasers stopped buying hexamine altogether; if anything, subject imports would tend to have the opposite effect if they gave purchasers a lower-cost alternative.

Third, additional evidence of the lack of material injury to Bakelite's hexamine operations by reason of subject imports comes from the domestic producer's employment indicators. Throughout the POI, the domestic industry's workforce and hours worked did not change, even in interim 2025, while total wages and hourly wages increased slightly.²⁵ Bakelite's hexamine workforce did not increase when demand and consumption rose in 2022 and did not decrease when demand and consumption fell later in the POI, even in the first quarter of 2025. Subject imports caused no material injury to Bakelite's hexamine workforce during the POI.

Fourth, I find unconvincing Bakelite's argument that it suffered material injury because its market share was materially lower than it would have been but for unfairly traded subject imports.

Bakelite argues that it was materially injured because, when hexamine from Russia exited the U.S. market, Bakelite was unable to gain greater market share than it otherwise would have without unfair competition. According to Bakelite, "{w}hen a major non-subject supplier exits the U.S. market, it is reasonable to expect that the domestic industry will gain

²² CR/PR at Table 5.8 & Figure 5.5. *** The average unit values of Bakelite's domestic commercial shipments was \$*** per pound in interim 2025, up *** percent from \$*** per pound in interim 2024 and the ***, and its unit operating profit of \$*** per pound in interim 2025 was *** percent higher than its unit operating income in 2024 of \$*** per pound and also ***.

²³ CR/PR at Table C.1.

²⁴ Calculated from CR/PR at Table C.1.

²⁵ CR/PR at Table C.1; Hrg. Tr. 22 (Boninsegni).

greater market share—absent unfairly traded subject imports.”²⁶ Bakelite cites several previous Commission decisions that it asserts “affirmed” this “principle.”²⁷

Yet each of the decisions that Bakelite cites have involved situations in which the Commission previously found the domestic industry to be injured by subject imports of a product and the industry is still struggling to return to its pre-injury condition during a subsequent “follow-on” investigation. For example, in *Quartz Surface Products from India and Turkey*, imports from China had been previously placed under order, but subsequently a new wave of imports from India and Turkey that were subject to a second investigation was “holding domestic producers at a market share that was less than the market share they held at the beginning of the POI, when they were experiencing the injurious effects of dumped and subsidized nonsubject imports from China.”²⁸

²⁶ Bakelite Posthearing Br. at 1 & Answers at 25.

²⁷ Bakelite Posthearing Br. 1 & n.1 & answers at 25-27. Bakelite cites to *Quartz Surface Products from India and Turkey*, Inv. Nos. 701-TA-624-625 & 731-TA-1450-1451 (Final), USITC Pub. 5061 (June 2020); *Mattresses from Bosnia and Herzegovina, Bulgaria, Burma, Italy, Philippines, Poland, Slovenia, and Taiwan*, Inv. Nos. 731-TA-1629-163 (Final), USITC Pub. 5520 (June 2024); *Aluminum Foil from Armenia, Brazil, Oman, Russia, and Turkey*, Inv. Nos. 701-TA-658-659 and 731-TA-1538-1542 (Final) (Nov. 2021); *Common Alloy Aluminum Sheet from Bahrain, Brazil, Croatia, Egypt, Germany, India, Indonesia, Italy, Oman, Romania, Serbia, Slovenia, South Africa, Spain, Taiwan, and Turkey*, Inv. Nos. 701-TA-639 and 641-42 and 731-TA-1475-1479, 1481-1483, and 1485-1492 (Final) (April 2021); and *Certain Ammonium Nitrate from Ukraine*, Inv. No. 731-TA-894 (Final), USITC Pub. 3448 (Aug. 2001).

²⁸ *Quartz Surface Products from India and Turkey*, Inv. Nos. 701-TA-624-625 & 731-TA-1450-1451 (Final), USITC Pub. 5061, at 33 (June 2020). See also *Mattresses from Bosnia and Herzegovina, Bulgaria, Burma, Italy, Philippines, Poland, Slovenia, and Taiwan*, Inv. Nos. 731-TA-1629-1631, 1633, 1636-1638, and 1640 (Final), USITC Pub. 5520, at 51 (June 2024) (“The increasing volume of subject imports that undersold the domestic like product prevented the domestic industry from gaining more market share as nonsubject imports retreated from the market in 2021 after the Mattresses II orders.”); *Aluminum Foil from Armenia, Brazil, Oman, Russia, and Turkey*, Inv. Nos. 701-TA-658-659 and 731-TA-1538-1542, at 36-37 (Final) (Nov. 2021) (underselling by subject imports “prevented domestic producers from gaining any of the market share ceded by imports from China after imposition of antidumping and countervailing duty orders”); *Common Alloy Aluminum Sheet from Bahrain, Brazil, Croatia, Egypt, Germany, India, Indonesia, Italy, Oman, Romania, Serbia, Slovenia, South Africa, Spain, Taiwan, and Turkey*, Inv. Nos. 701-TA-639 and 641-42 and 731-TA-1475-1479, 1481-1483, and 1485-1492, at 39 (Final) (April 2021) (“Although imports from China largely exited the U.S. market following institution of antidumping and countervailing duty investigations and imposition of duties, the domestic industry gained only a slight *** percentage points of U.S. market share over the three full years of the POI.”); *Certain Ammonium Nitrate from Ukraine*, Inv. No. 731-TA-894 (Final), USITC Pub. 3448, at 11 (Aug. 2001) (“In the {previous} antidumping duty investigation of ammonium nitrate from Russia, the Commission found that imports from Russia had held a significant share of the U.S. market in 1999. The increase of subject imports of ammonium nitrate from Ukraine to the U.S. market between 1999 and 2000 prevented the domestic industry from capturing any additional market share notwithstanding the virtual disappearance of imports of ammonium nitrate from Russia in the U.S. market in 2000.”).

It is speculative that Bakelite's hexamine operations would have gained significantly more market share following Russia's exit from the U.S. market but for the arrival of imports from the subject countries. As GAFT points out, companies that had previously purchased subject imports from Russia rather than Bakelite are those most likely to prefer alternative sources to Bakelite.²⁹ One possible alternative would have been other nonsubject imports. Record evidence indicates that hexamine was imported during the POI from Spain, the Netherlands, and ***.³⁰

Additionally, the record does not indicate that purchasers would necessarily have turned to Bakelite hexamine but for unfairly traded imports, because underselling by imported hexamine could have persisted even without unfair trade. Imports from Russia undersold the domestic like product in 13 of 18 instances but have not been alleged to have been unfairly traded.³¹ Furthermore, the preliminary dumping margins and subsidy rates for certain subject sources are considerably lower than the average margins of underselling from those sources, suggesting that not all of the underselling resulted from unfair trade.³² Subject products from all subject sources also sold in the U.S. market sometimes at higher prices than domestic products.³³ Finally, purchasers, particularly the most price-sensitive or those with access to other downstream product opportunities, would have had the option not to buy hexamine in the United States at all, as happened in the first quarter of 2025.

Even if Bakelite had gained further market share as imports from Russia receded, I do not find that its failure to do so would have constituted a significant adverse impact to an industry producing hexamine in the United States in light of Bakelite's high profits and the impacts of these high profits on Bakelite's hexamine operations, in which profits on hexamine were consistently *** greater than capital expenditures and research and development expenses for hexamine production.³⁴ Bakelite did not invest in additional hexamine-related

²⁹ GAFT final comments 4.

³⁰ CR/PR at 2.9 n.12, 4.3 & Table 4.2. Although hexamine imports from those countries had small or very low market shares in the US market and sold at relatively high AUVs during the POI, and these countries are not among the world's largest exporters of heterocyclic compounds excluding melamine, the same was true of imports of hexamine from Saudi Arabia early in the POI. CR/PR at Tables 7.14, C.1. Yet, Saudi Arabia then became a leading alternative source of hexamine for U.S. importers.

³¹ CR/PR at Table D.3.

³² CR/PR at Tables 1.3, 1.6, 1.7, 5.10, and 5.11.

³³ CR/PR at Table 5.11.

³⁴ Bakelite asserts that material injury can exist even when an industry is profitable or financial indicators show improvement because 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." Bakelite Posthearing Br. (Continued...)

capital projects during the POI, though it could have done so given its high operating and net income profits. Nor did Bakelite add more workers when demand increased in 2022 or lay off any when its market share decreased later in the POI; Bakelite did not *** for its production workers. Under these circumstances even higher profits would not have significantly changed its incentives.

For these reasons, I conclude that the domestic industry producing hexamine has not suffered present material injury by reason of subject imports. I next address threat of material injury.

II. Threat of Injury

For the following reasons, I find that the domestic industry is threatened with material injury by reason of subject imports of hexamine from China. I note that this finding does not apply to subject imports from Germany, India, and Saudi Arabia.³⁵

A. Legal Standards

Section 771(7)(F) of the Tariff Act directs the Commission to determine whether the domestic industry is threatened with material injury by reason of the subject imports by analyzing whether “further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted.”³⁶ The Commission may not make such a determination “on the basis of mere conjecture or supposition” and considers the threat factors “as a whole” in making its determination whether dumped or subsidized imports are imminent and whether material injury by reason of subject imports would occur unless an order issues.³⁷ In considering the existence of threat of material injury, I consider all factors set forth as relevant in the statute.³⁸

1-2 (quoting 19 U.S.C. sec. 1677(7)(J)). Yet, the word “merely” contemplates that profitability, not to mention the level and trends in profitability, are considerations among other factors.

³⁵ On May 6, 2025, Commerce postponed its final AD determinations with respect to Germany, India, and Saudi Arabia for up to 135 days, which will in turn postpone the date of the Commission’s determinations as to those countries. *See supra* Section I; CR/PR at 1.1 & Appendix A.

³⁶ 19 USC 1677(7)(F)(ii).

³⁷ 19 USC 1677(7)(F)(ii).

³⁸ *See* 19 USC 1677(F)(i). These factors are as follows:

(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,

(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of

(Continued...)

B. Cumulation

The statute provides that where the conditions for cumulation for present injury are met, “{t}o the extent practicable ... the Commission may cumulatively assess the volume and price effects” of subject imports for purposes of a threat analysis.³⁹ In deciding whether to assess subject imports cumulatively for threat purposes, the Commission typically considers whether subject imports from different countries are likely to compete under similar or different conditions of competition in the U.S. market.⁴⁰

In this case, the statutory factors for cumulation have been met.⁴¹ Three additional factors, however, suggest that subject imports from China may compete under different conditions than subject imports from the other three subject sources.

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,
(VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,
...
(VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and
(IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).

19 U.S.C. § 1677(7)(F)(i).

To organize my analysis, I discuss the applicable statutory threat factors using the same volume/price/impact framework that applies to our material injury analysis. Thus, I discuss factors (I), (II), (III), (V), and (VI) in the analysis of subject import volume; factor (IV) in the analysis of import price effects; and factors (VIII) and (IX) in the analysis of impact. Factor (VII) concerning agricultural products does not apply in this investigation.

³⁹ 19 USC 1677(7)(H); *see supra* Section V (discussing cumulation for present injury purposes).

The statute includes certain exceptions not relevant here.

⁴⁰ *See, e.g., T.B. Wood’s Inc. v. United States*, 355 F. Supp. 3d 1265, 1283-84 (Ct. Int’l Trade 2018). Factors considered have included, *e.g.*, differences in volume and capacity trends of subject imports, *e.g., Polyethylene Terephthalate Film, Sheet and Strip from Brazil, China, Thailand, and the United Arab Emirates*, Inv. Nos. 731-TA-1131-1134 (Final), USITC Pub. 4040, at 33 (Oct. 2008); and whether different countries are subject to Section 201 duties, *Certain Cold-Rolled Steel Products from Australia, India, Japan, Sweden, and Thailand*, Inv. Nos. 731-TA-965, 971-972, 979, and 981 (Final), USITC Pub. 3536 at 40-41 (Sept. 2002).

⁴¹ *See supra* Section V.

First, subject imports from China had a very small and declining share of the U.S. market during the POI, while subject imports from the other subject sources had larger and increasing market shares, particularly in 2024 and interim 2025.⁴²

Second, the tariff treatment of subject imports from China differs from the tariff treatment of subject imports from other subject sources. Subject imports from China have been subject to a section 301 duty of 25 percent throughout the POI.⁴³ Starting on February 4, 2025, subject imports from all four subject countries have also been subject to additional duties under the International Emergency Economic Powers Act (“IEEPA”) at different and varying rates.⁴⁴

Third, Commerce has found that subject imports from China have several times higher subsidy rates and dumping margins than subject imports from any other source, and nearly a hundred times higher than hexamine from Saudi sources or Indian producer Kanoria.⁴⁵ These differences may reflect or cause other differences in conditions of competition, such as differences in capacity or propensity to undersell.

For a number of reasons, however, I will use my discretion to consider subject imports from all four sources under investigation cumulatively for purposes of my threat determination as to China.

First, IEEPA tariffs are very recent so that their duration and effect are unpredictable. Accordingly, I do not consider them dispositive for my cumulation analysis at this time. Similarly, at this stage Commerce determinations are preliminary except as to China, so I also do not give differences in subsidy rates and dumping margins much weight for cumulation purposes at this time.

Second, the Commission has received questionnaire responses from producers/exporters from Germany, India, and Saudi Arabia but none from China.⁴⁶ This makes it particularly difficult to assess what other differences or similarities may exist in conditions of competition between imports from China and imports from other subject sources, such as the

⁴² See CR/PR at Table C.1.

⁴³ CR/PR at 1.11.

⁴⁴ CR/PR at 1.11 to 1.12. As of the close of the record on August 11, 2025, subject imports from China were subject to IEEPA tariffs totaling 30 percent, while the IEEPA rates applicable to Germany, India, and Saudi Arabia were 8.7 percent, 25 percent, and 10 percent, respectively. CR/PR at Table 1.8.

⁴⁵ Commerce has found all subject imports from China to be subsidized at a rate of 420.73 percent, and to be dumped at a margin of 405.19 percent. CR/PR at Tables 1.2, 1.4. Preliminary subsidy rates applicable to India range from 2.32 percent to 139.55 percent, CR/PR Table 1.3, while dumping margins applicable to other countries range from 1.31 percent to 103.79 percent, CR/PR Tables 1.5 to 1.7.

⁴⁶ CR/PR at Table 7.1.

excess capacity in the various foreign industries. The limited available information regarding hexamine exports from China suggests that China has a very large hexamine capacity and exports more than twice the volume of chemicals in the HTS category that includes hexamine as did the rest of the world combined.⁴⁷

Accordingly, despite differences in import trends and (apparently) in tariff treatment, and absent any argument to the contrary, I exercise my discretion to consider subject imports from China cumulatively with imports from the other three subject sources for purposes of my determinations regarding China.

C. Likely Volume

The volume of cumulated subject imports was significant both absolutely and relative to U.S. consumption during the POI – although, as discussed above, the significance of the increase in subject imports during the POI was diminished by the fact that it came at the expense of subject imports from Russia, not Bakelite’s hexamine production. From 2022 to 2024 U.S. shipments of cumulated subject imports increased 186.7 percent by volume and their market share increased from *** percent to *** percent.⁴⁸ These trends continued over the interim periods: the volume of U.S. shipments of cumulated subject imports was 6.8 percent greater in the first quarter of 2025 than it had been in the first quarter of 2024, and cumulated subject imports’ market share was *** percent compared to *** percent.⁴⁹

Evidence as to whether subject import volume will continue to increase, however, is mixed. The parties agree that the increase in subject imports was largely a response to a one-time event, the withdrawal of Russian hexamine from the U.S. market leading up to and following Russia’s attack on Ukraine.⁵⁰ This had essentially run its course by 2024, as imports from Russia *** in 2024 and shipments of hexamine from Russia out of inventory *** in the first quarter of 2025.⁵¹

Subject imports also gained market share in 2024 and interim 2025, after imports from Russia had ceased. Yet, elevated shipments of subject imports at the end of the POI were accompanied by unusual conditions, as described above.

Foreign producer capacity data also present a mixed picture. The Commission received questionnaire responses from foreign producers accounting for *** hexamine production and

⁴⁷ CR/PR at Table 7.14; Petitioner Prehearing Br. 45.

⁴⁸ CR/PR at Table C.1.

⁴⁹ CR/PR at Table C.1.

⁵⁰ GAFT Posthearing Br. 8 (citing Hrg. Tr. 42 (Roderick) (“This was a one-time event where Russia had left the market.”)).

⁵¹ CR/PR at 4.6 n.14 and Table C.1.

exports to the United States from Germany and Saudi Arabia, and for the majority of hexamine production and exports to the United States from India.⁵² Most foreign producers reported and projected high capacity utilization rates. The German producer reported or projected capacity utilization ratios above *** percent from 2024 through 2026, while the Saudi producer reported or projected capacity utilization rates ranging from *** percent through *** percent in this period.⁵³ Indian producers reported lower capacity collective utilization rates, but these rates were increasing from *** percent in 2024 to a projected *** percent in 2025, and to a projected *** percent in 2026.⁵⁴

Collectively, the cumulated subject industries' capacity utilization rate increased from *** percent in 2022 to *** percent in 2024; it was *** percent in interim 2024 and *** percent in interim 2025; it is projected to be *** percent in 2025 and *** percent in 2026.⁵⁵ Although these capacity utilization rates were high and increasing they exclude China because no Chinese producers have responded to questionnaires. Chinese exporters' high dumping margins, vast exports, and lack of participation suggest they have excess capacity which could fuel increased exports in the future despite their low levels during the POI.

The cumulated foreign industries exported approximately *** percent to *** percent of their total shipments, of which a small but increasing percentage has gone to the U.S. market: *** percent in 2022, *** percent in 2023, *** percent in 2024, *** percent in interim 2024 and *** percent in interim 2025.⁵⁶ Responding foreign producers project that share to decrease to *** percent in 2025 and to *** percent in 2026.⁵⁷

Foreign producers' hexamine inventories fluctuated somewhat but ended the POI at nearly the same level at which they began it.⁵⁸ U.S. importers' U.S. inventories of subject imports also fluctuated: they were *** pounds in 2022, *** pounds in 2023, *** pounds in 2024, *** pounds in interim 2024 and *** pounds in interim 2025.⁵⁹ Subsidy rates relating to China were based on facts available with adverse inferences, including export subsidies; Commerce also preliminarily determined that Kanoria received export subsidies, although

⁵² CR/PR at Table 7.1.

⁵³ CR/PR at Table 7.8.

⁵⁴ CR/PR at Table 7.8.

⁵⁵ CR/PR at Table 7.8.

⁵⁶ CR/PR at Table 7.7.

⁵⁷ CR/PR at Table 7.7.

⁵⁸ CR/PR at Table 7.10. Cumulated subject producers' inventories were (in pounds) *** in 2022, *** 2023, *** in 2024, *** in interim 2024, and *** in interim 2025; they are projected to be *** in 2025 and *** in 2026. CR/PR at Table 7.10. As a share of total shipments these inventories fluctuated between a low of *** percent in 2023 and a high of *** percent in 2022. CR/PR at Table 7.10.

⁵⁹ CR/PR at Table 7.12.

Kanoria's preliminary total CVD rate of 2.32 percent was quite low.⁶⁰ Reported arranged imports of subject merchandise totaled *** pounds in the second quarter of 2025, *** pounds in the third quarter, and ***.⁶¹ There are no known third-country trade actions relating to hexamine, and no foreign hexamine producer reported any production of alternative products using the same equipment and/or labor as those used to produce hexamine.⁶²

In addition to the factors usually considered in a threat analysis, changes in tariff treatment could affect import levels in the imminent future. ***.⁶³ Nevertheless, as I have noted, current IEEPA tariffs are of uncertain duration and effect and Commerce's calculated dumping margins and subsidy rates are preliminary, so I will not place significant weight on them at this time.

On balance, in light of the large or unreported excess capacity available in China, I find for purposes of this determination that the volume of cumulated subject imports are more likely than not to increase in the imminent future to levels significantly above those observed in the POI.

D. Likely Price Effects

During the POI cumulated subject imports undersold the domestic like product in 42 of 61 instances involving *** pounds of subject imports with average margins of underselling of 23.8 percent, and oversold the domestic like product in 19 instances involving *** pounds of subject imports with average margins of 58.0 percent.⁶⁴ Imposition of IEEPA tariffs following the first quarter 2025 interim period could affect these margins, but any impact these tariffs may have is presently quite recent and uncertain. Accordingly, I find that cumulated subject imports will likely continue to undersell domestic like product in the imminent future and that this underselling will contribute to significant increases in nonsubject import volume.

E. Likely Impact

As discussed above, up until now cumulated subject imports have not had a significant adverse impact on the domestic industry. Prior to the first quarter of 2025 they gained only a very small amount of market share and did nothing to disturb the profitability or employment of Bakelite's hexamine operations. In the first quarter of 2025 subject imports appeared to have

⁶⁰ CR/PR at Tables 1.2, 1.3, 1.6 & notes thereto.

⁶¹ CR/PR at Table 7.13.

⁶² CR/PR at 7.21, 7.28.

⁶³ ***.

⁶⁴ CR/PR at 5.16.

a greater impact but that was only for a brief period, was accompanied by unusual conditions, and left the ability of Bakelite to invest in its operations undisturbed.

Nevertheless, in light of my findings above that cumulated subject imports will likely continue to increase in volume in the imminent future and that underselling will continue, I find that subject imports threaten to cause material injury to the domestic hexamine industry.

Part 1: 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 Bakelite Synthetics (Atlanta, Georgia) on September 30, 2024, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized imports of hexamine (hexamethylenetetramine)¹ from China and India and less-than-fair-value (“LTFV”) imports from China, Germany, India, and Saudi Arabia. Table 1.1 presents information relating to the background of these investigations.^{2 3}

Table 1.1 Hexamine: Information relating to the background and schedule of this proceeding

Effective date	Action
September 30, 2024	Petitions filed with Commerce and the Commission; institution of the Commission investigations (89 FR 80929, October 4, 2024)
October 21, 2024	Commerce’s notices of initiation (89 FR 87545 and 87560, November 4, 2024)
November 14, 2024	Commission’s preliminary determinations (89 FR 91786, November 20, 2024)
March 7, 2025	Commerce’s preliminary CVD determinations with respect to China and India, and alignment of final CVD determinations with final AD determinations (90 FR 11508 and 11512)
May 6, 2025	Commerce’s preliminary AD determinations with respect to China, Germany, India, and Saudi Arabia; postponement of final determinations with respect to Germany, India, and Saudi Arabia (90 FR 19182, 19186, 19178, and 19180); scheduling of final phase of Commission investigations (90 FR 21948, May 22, 2025)
July 18, 2025	Commerce’s final China AD and CVD determinations (90 FR 33922 and 33923)
July 18, 2025	Commission’s hearing
August 15, 2025	Commission’s China AD and CVD votes
September 3, 2025	Commission’s China AD and CVD views

¹ See the section entitled “The subject merchandise” in Part 1 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 Appendix B presents witnesses who appeared at the Commission’s hearing.

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 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

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

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.

Organization of report

Part 1 of this report presents information on the subject merchandise, subsidy rates/dumping margins, and domestic like product. Part 2 of this report presents information on conditions of competition and other relevant economic factors. Part 3 presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. Parts 4 and 5 present the volume of subject imports and pricing of domestic and imported products, respectively. Part 6 presents information on the financial experience of the U.S. producer. Part 7 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.

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

Market summary

Hexamine is generally used to manufacture phenolic resins, tires, explosives, and other industrial products.⁶ The petitioner, Bakelite, is the sole U.S. producer of hexamine in granular form. The petitioner indicated that there is generally only one major producer in three of the subject foreign industries (Prefere Paraform GmbH & Co. in Germany, Kanoria Chemicals & Industries Limited in India, and Methanol Chemicals Company (Chemanol) in Saudi Arabia) with several major producers of hexamine in China.⁷ The leading U.S. importer of hexamine from China is ***, the leading importer of hexamine from Germany is ***, the leading importers of hexamine from India are ***, and the leading importers of hexamine from Saudi Arabia are **. Leading importers of hexamine from nonsubject countries include **. U.S. purchasers of hexamine are firms that consume hexamine to manufacture downstream products, primarily plastics; leading purchasers include **.

⁶ Petition, vol. 1, pp. 7–9.

⁷ Conference transcript, p. 21 (Roderick).

Apparent U.S. consumption of hexamine in the total market was approximately *** pounds (\$***) in 2024.⁸ The petitioner, Bakelite, is the only known source of in-scope hexamine production in the United States. Bakelite’s U.S. shipments of hexamine totaled *** pounds (\$***) in 2024 and accounted for *** percent of apparent U.S. consumption of the total market by quantity (*** percent by value).⁹ U.S. shipments of imports from subject sources totaled 4.4 million pounds (\$4.3 million) in 2024 and accounted for *** percent of apparent U.S. consumption of the total market by quantity (*** percent by value). U.S. shipments of imports from nonsubject sources totaled approximately *** pounds (\$***) in 2024 and accounted for *** percent of apparent U.S. consumption of the total market by quantity (*** percent by value).¹⁰

Summary data and data sources

A summary of data collected in these investigations is presented in appendix C (table C.1 for the total market and table C.2 for the merchant market). The Commission’s questionnaires collected data for the years 2022 to 2024 and interim periods January through March of 2024 (“interim 2024”) and January through March of 2025 (“interim 2025”). Except as noted, U.S. industry data are based on the questionnaire response of one firm that accounted for all known U.S. production of in-scope hexamine during 2024. U.S. imports are based on the questionnaire responses of 11 responding U.S. importers.

Previous and related investigations

Hexamine has not been the subject of any prior countervailing duty or antidumping duty investigations in the United States.

⁸ Apparent U.S. consumption of hexamine in the merchant market was approximately *** pounds (\$***) in 2024.

⁹ Bakelite’s U.S. commercial shipments of hexamine totaled *** pounds (\$***) in 2024 and accounted for *** percent of apparent U.S. consumption of the merchant market by quantity (*** percent by value).

¹⁰ U.S. shipments of imports from subject sources accounted for *** percent of apparent U.S. consumption of the merchant market by quantity (*** percent by value) in 2024. U.S. shipments of U.S. imports from nonsubject sources accounted for *** percent of apparent U.S. consumption of the merchant market by quantity (*** percent by value) in 2024.

Nature and extent of subsidies and sales at LTFV

Subsidies

On July 18, 2025, Commerce published a notice in the Federal Register of its final determinations of countervailable subsidies for producers and exporters of hexamine from China.¹¹ Table 1.2 presents Commerce’s findings of subsidization of hexamine in China.

Table 1.2 Hexamine: Commerce’s final subsidy determinations with respect to imports from China

Company	Subsidy rate (percent ad valorem)
Changzhou Highassay Chemical Co	420.73
China Bluestar International Chemical Co., Ltd	420.73
Fengchen Group Co., Ltd	420.73
Hutubi Ruiyuantong Chemicals Co., Ltd	420.73
Jiangsu Guotai Guomian Trading	420.73
Jiaozuo Runhua Chemical Industry Co	420.73
Qingdao Sun Chemical Corp. Ltd	420.73
Runhua Chemical Industry	420.73
Shandong Aojin Chemical Technology Co., Ltd	420.73
All others	420.73

Source: 90 FR 33923, July 18, 2025.

Note: All rates are based on facts available with adverse inferences. For further information on programs determined to be countervailable, see Commerce’s associated Issues and Decision Memorandum.

On March 7, 2025, Commerce published a notice in the Federal Register of its preliminary determinations of countervailable subsidies for producers and exporters of hexamine from India.¹² Table 1.3 presents Commerce’s findings of subsidization of hexamine in India.

¹¹ 90 FR 33923, July 18, 2025.

¹² 90 FR 11512, March 7, 2025.

Table 1.3 Hexamine: Commerce’s preliminary subsidy determinations with respect to imports from India

Entity	Preliminary countervailable subsidy rate (percent)
Kanoria Chemicals and Industries Limited	2.32
Horizon Chemicals	139.55
Micro Labs Ltd	139.55
Shreenathji Rasayan Private Limited	139.55
Rajsha Chemicals Pvt. Ltd	139.55
All Others	2.32

Source: 90 FR 11512, March 7, 2025.

Note: Commerce preliminarily finds Vardhan Limited to be cross-owned with Kanoria Chemicals and Industries Limited. Rates for Horizon Chemicals, Micro Labs Ltd., Shreenathji Rasayan Private Limited, and Rajsha Chemicals Pvt. Ltd are based on facts available with adverse inferences. For further information on programs determined to be countervailable, see Commerce’s associated Issues and Decision Memorandum.

Sales at LTFV

On July 18, 2025, Commerce published notice in the Federal Register of its final determination of sales at LTFV with respect to imports from China.¹³ Table 1.4 presents Commerce's dumping margins with respect to imports of hexamine from China.

Table 1.4 Hexamine: Commerce's final weighted-average LTFV margins with respect to imports from China

Exporter/producer	Weighted-average dumping margin (percent)	Cash deposit rate (adjusted for subsidy offset) (percent)
China-wide Entity	405.19	394.65

Source: 90 FR 33922, July 18, 2025.

Note: The dumping margin rate is based on facts available with adverse inferences.

On May 6, 2025, Commerce published notices in the Federal Register of its preliminary determinations of sales at LTFV with respect to imports from Germany, India, and Saudi Arabia.¹⁴ Tables 1.5 through 1.7 present Commerce's dumping margins with respect to imports of hexamine from Germany, India, and Saudi Arabia, respectively.

Table 1.5 Hexamine: Commerce's preliminary weighted-average LTFV margins with respect to imports from Germany

Exporter/producer	Preliminary estimated weighted-average dumping margin (percent)
Prefere Paraform GmbH & Co Kg	52.14
Fiberpipe GFK Vertriebsgesellschaft	80.66
All Others	52.14

Source: 90 FR 19186, May 6, 2025.

Note: The rate for Fiberpipe GFK Vertriebsgesellschaft is based on facts available with adverse inferences.

¹³ 90 FR 33922, July 18, 2025.

¹⁴ 90 FR 19182, 19186, 19178, and 19180, May 6, 2025.

Table 1.6 Hexamine: Commerce’s preliminary weighted-average LTFV margins with respect to imports from India

Exporter/producer	Preliminary weighted-average dumping margin (percent)	Preliminary cash deposit rate (adjusted for subsidy offset(s)) (percent)
Kanoria Chemicals and Industries Limited	3.28	1.31
Horizon Chemicals	105.76	103.79
Micro Labs Limited	105.76	103.79
Shreenathji Rasayan Private Limited	105.76	103.79
Rajsha Chemicals Pvt. Ltd	105.76	103.79
All Others	3.28	1.31

Source: 90 FR 19178, May 6, 2025.

Note: Weighted-average dumping margins for Horizon Chemicals, Micro Labs Limited, Shreenathji Rasayan Private Limited, and Rajsha Chemicals Pvt. Ltd. are based on facts available with adverse inferences. The cash deposit rates for Kanoria and all others are adjusted for export subsidies.

Table 1.7 Hexamine: Commerce’s preliminary weighted-average LTFV margins with respect to imports from Saudi Arabia

Exporter/producer	Preliminary dumping margin (percent)
Methanol Chemicals Company	4.96
All Others	4.96

Source: 90 FR 19180, May 6, 2025.

The subject merchandise

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:¹⁵

The scope of these investigations covers hexamine in granular form, with a particle size of 5 millimeters or less, whether stabilized or unstabilized, whether or not blended, mixed, pulverized, or grounded with other products, containing 50 percent or more hexamine by weight.

Hexamine is the common name for hexamethylene tetramine (Chemical Abstract Service #100-97-0), and is also referred to as 1,3,5,7-tetraazaadamantanemethenamine; HMT; HMTA; 1,3,5,7-tetraazatricyclo {3.3.1.1^{3,7}} decane; 1,3,5,7-tetraaza adamantane; hexamethylenamine. Hexamine has the chemical formula C₆ H₁₂ N₄.

Granular hexamine that has been blended with other product(s) is included in this scope when the resulting mix contains 50 percent or more of hexamine by weight, regardless of whether it is blended with inert additives, co-reactants, or any additives that undergo self-condensation.

Subject merchandise includes merchandise matching the above description that has been processed in a third country, including by commingling, diluting, adding or removing additives, or performing any other processing that would not otherwise remove the merchandise from the scope of the investigation if performed in the subject country.

¹⁵ 90 FR 11508 and 11512, March 7, 2025; and 90 FR 19182, 19186, 19178, and 19180, May 6, 2025.

Tariff treatment

Hexamine is currently provided for in Harmonized Tariff Schedule of the United States (“HTS”) subheading 2933.69.50. The general rate of duty is 6.3 percent for HTS subheading 2933.69.50.¹⁶ Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

Effective September 24, 2018, hexamine originating in China was subject to an additional 10 percent ad valorem duty under section 301 of the Trade Act of 1974. Effective May 10, 2019, the section 301 duty for hexamine was increased to 25 percent.¹⁷

Effective February 4, 2025, hexamine originating in China was subject to an additional 10 percent ad valorem duty under the International Emergency Economic Powers Act (“IEEPA”), and on March 4, 2025, that additional duty increased to 20 percent ad valorem.¹⁸

Effective April 5, 2025, hexamine originating in Germany or Saudi Arabia was subject to an additional 10 percent ad valorem duty as part of tariffs initiated in April 2025 under IEEPA.¹⁹ Effective August 7, 2025, the additional duty for hexamine originating in Germany was adjusted to 8.7 percent.²⁰

Effective April 5, 2025, hexamine originating in India was subject to an additional 10 percent ad valorem duty as part of tariffs initiated in April 2025 under IEEPA. Effective April 9, 2025, India was instead assigned an individualized country reciprocal duty of 26 percent ad valorem. Effective April 10, 2025, individualized country reciprocal duties were suspended and the reciprocal duty rate for hexamine originating in India was returned to 10 percent ad

¹⁶ USITC, HTS (2025) Revision 8, Publication 5613, April 2025, p. 29.6.129.

¹⁷ 83 FR 47974, September 21, 2018; 84 FR 20459, May 9, 2019. See also HTS headings 9903.88.03 and 9903.88.04 and U.S. notes 20(e), 20(f), and 20(g) to subchapter III of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2025) Revision 8, Publication 5613, April 2025, pp. 99.3.46, to 99.3.71, 99.3.352. Goods exported from China to the United States prior to May 10, 2019, and entering the United States prior to June 1, 2019, were not subject to the escalated 25 percent duty (84 FR 21892, May 15, 2019).

¹⁸ 90 FR 9121, February 7, 2025; 90 FR 11426, March 6, 2025; 90 FR 11463, March 7, 2025. See also HTS heading 9903.01.20 and U.S. note 2(s) and HTS heading 9903.01.24 and U.S. note 2(u) to subchapter III of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2025) Revision 8, Publication 5613, April 2025, pp. 99.3.3 to 99.3.4, 99.3.297 to 99.3.298.

¹⁹ 90 FR 15041, April 7, 2025. See also HTS heading 9903.01.25 and U.S. note 2(v) to subchapter III of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2025) Revision 8, Publication 5613, April 2025, pp. 99.3.1 to 99.3.10, 99.3.278.

²⁰ Effective August 7, 2025, goods originating from EU nations with a general rate of duty of less than 15 percent were assigned an additional duty such that the sum of the general rate of duty and the additional rate of duty is 15 percent. 90 FR 37963, August 6, 2025.

valorem.²¹ Effective August 7, 2025, India was assigned an individualized country duty of 25 percent.²²

Effective April 5, 2025, hexamine originating in China was subject to an additional 10 percent ad valorem reciprocal duty under IEEPA. That reciprocal duty rose to 84 percent ad valorem effective April 9, 2025, and rose again to 125 percent effective April 10, 2025. However, effective May 14, 2025, the duty rate for reciprocal tariffs on products originating in China was reduced to 10 percent.²³

Table 1.8 Hexamine: Additional tariff treatment for China, Germany, India, Saudi Arabia

Tariffs in percent ad valorem

Additional tariff	China	Germany	India	Saudi Arabia
Section 301	25	Not applicable	Not applicable	Not applicable
IEEPA – China specific	20	Not applicable	Not applicable	Not applicable
Tariffs initiated in April 2025 under IEEPA	10	8.7	25	10
Total additional ad valorem rate	55	8.7	25	10

Source: Federal Register notices and other sources cited in this section (Tariff treatment).

Note: Duty rates in the table reflect the duty rates as of the writing of this report. See the text above for historical changes to the additional tariffs.

Note: IEEPA tariffs are referred to in the table by the date of first implementation, not by the date of subsequent changes to the duty rate. However, the duty rates reported in the text are the duty rates as of the writing of this report.

²¹ Individualized country reciprocal duties for all countries other than China were suspended until July 9, 2025. 90 FR 15041, April 7, 2025; and 90 FR 15625, April 15, 2025. See also HTS headings 9903.01.25 and 9903.01.XX and U.S. note 2(v) to subchapter III of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2025) Revision 8, Publication 5613, April 2025, pp. 99.3.1 to 99.3.10, 99.3.278.

²² 90 FR 37963, August 6, 2025.

²³ The reciprocal duty is in addition to the 20 percent *ad valorem* duty under IEEPA that went into effect on March 4, 2025, for China. 90 FR 15041, April 7, 2025; 90 FR 15509, April 14, 2025; 90 FR 15625, April 15, 2025; and 90 FR 21831, May 21, 2025. See also HTS headings 9903.01.25 and 9903.01.63 and U.S. note 2(v) to subchapter III of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2025) Revision 8, Publication 5613, April 2025, pp. 99.3.1 to 99.3.10, 99.3.278.

The product

Description and applications

Hexamethylenetetramine (C₆H₁₂N₄, CAS number 100-97-0), commonly referred to as hexamine, is a crystalline organic compound. It is a highly water soluble, solid white powder that is stable at room temperature.²⁴ Hexamine's properties make it useful as a reactant or catalyst in a variety of applications across several different industries. Major uses for hexamine include:²⁵

- Explosives and munitions: Hexamine is nitrated with nitric acid to form Research Department Explosive (RDX), a stable, high detonation velocity explosive that has both military and civilian applications.
- Phenolic resins: Hexamine is both a curing agent and a catalyst promoting polymerization in producing phenolic resins. The use of hexamine enables resins to solidify and gain strength under heat, adding durability, stability, and heat-resistance to resin products. These properties are important in a variety of industrial applications, including electrical insulation, construction, and automobile manufacturing.
- Rubber and Tires:²⁶ Hexamine functions as an accelerator and curing agent in the vulcanization of rubber. Hexamine improves the performance of rubber products by encouraging cross-linking of rubber chains. Hexamine also gives tires additional abrasion resistance and durability.
- Energy: Hexamine fuel tablets, which are portable, easily ignitable and clean burning, are used for heating, cooking, or as emergency fuel when other energy supplies are unavailable or impractical to use.
- Biocides: Hexamine is used to inhibit the growth of bacteria and fungi in applications such as water treatment, coatings, and personal care products.
- Refractory and Friction materials: Hexamine's heat resistance and stability make it useful in high-temperature refractory materials (used in kilns, incinerators, and furnaces) and as a binder in friction materials such as brake pads and clutch facings.

²⁴ Petition, vol. 1, p. 3.

²⁵ Petition, vol. 1, pp. 7 to 9.

²⁶ Hexamine used in tire production is often of less than 95 percent concentration. Petition, vol. 1, p. 12.

- Polymers: Similar to some of its uses in rubber and tire production, hexamine serves as a crosslinker in certain polymers. Hexamine enhances the structural integrity of specialty polymers and coatings that require thermal stability and mechanical strength.
- Metal Finishing: Hexamine serves as a corrosion inhibitor for metal surfaces, protecting against oxidation and degradation during industrial usage, notably in construction, manufacturing, and automobiles.

Manufacturing processes

Hexamine is produced from a chemical reaction involving ammonia (NH₃) and formaldehyde (CH₂O or HCHO).²⁷ Petitioner produces its own formaldehyde via catalytic oxidation of methanol (CH₃OH or MeOH) (figure 1.1), which yields gaseous formaldehyde and water (CH₃OH + O₂ → CH₂O + H₂O).²⁸ The formaldehyde gas then goes into an absorption column where it is condensed and absorbed into water.²⁹ The resulting solution has a concentration of approximately 50 percent formaldehyde.³⁰

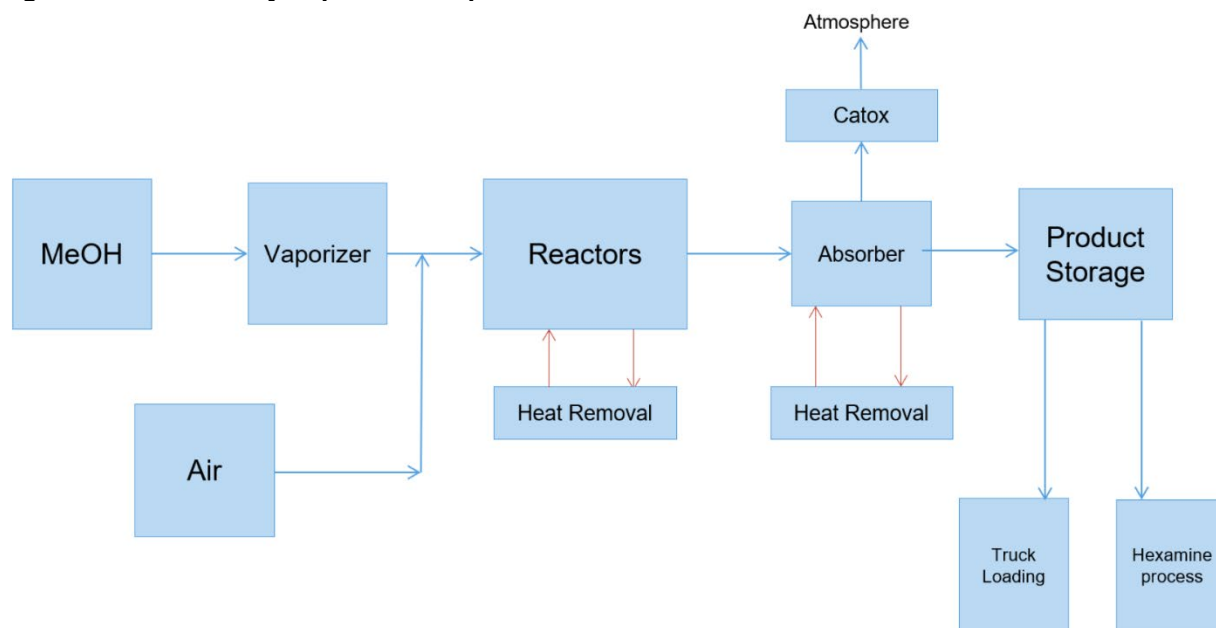
²⁷ Petition, vol. 1, pp. 3 to 4.

²⁸ The chemical reaction to produce formaldehyde occurs inside a reactor at a controlled temperature of approximately 350°C using a metal oxide catalyst (e.g., iron-molybdenum). The temperature is regulated via a thermal fluid such as oil or steam which absorbs excess heat. Conference transcript p. 12 (Bazinet), Petition, vol. 1, pp. 4–5. An alternative method of industrial production of formaldehyde is referred to as the silver catalyst process. Gerberich, H.R., Seaman, G.C. and (2013). Formaldehyde. In Kirk-Othmer Encyclopedia of Chemical Technology, (Ed.). <https://doi.org/10.1002/0471238961.0615181307051802.a01.pub3>

²⁹ Conference transcript, p. 13 (Bazinet).

³⁰ Petition, vol. 1, p. 5.

Figure 1.1 Formaldehyde production process



Source: Petition, vol. 1, p. 4.

As seen in figure 1.2, formaldehyde (HCHO) is then mixed inside a reactor with anhydrous ammonia (NH₃) as part of the initial step to produce hexamine: $6\text{CH}_2\text{O} + 4\text{NH}_3 \rightarrow \text{C}_6\text{H}_{12}\text{N}_4 + 6\text{H}_2\text{O}$.³¹ The heat of the resulting exothermic reaction must be controlled to ensure the quality of the final product.³² The main byproduct of this reaction is water (H₂O),³³ which must be recovered and applied to other uses or disposed of in accordance with local laws and regulations.³⁴ As the reaction proceeds, hexamine begins to precipitate out of the solution, creating solid crystals under controlled cooling conditions; the hexamine solution is then processed through a crystallizer unit (see Second Effect and First Effect in figure 1.2) in which evaporation takes place to lower the water content.³⁵

³¹ Petition, vol. 1, p. 5.

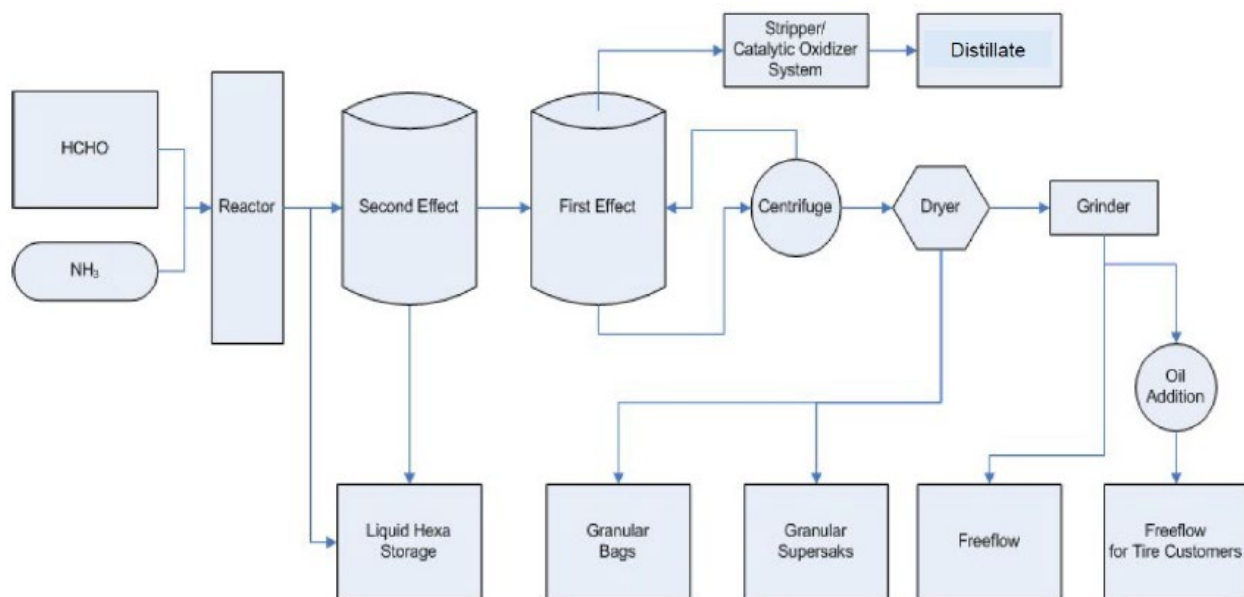
³² Petition, vol. 1, p. 5.

³³ Petition, vol. 1, p. 5.

³⁴ Conference transcript, p. 30 (Bazinet).

³⁵ Conference transcript, p. 13 (Bazinet).

Figure 1.2 Hexamine production process



Source: Petition, vol. 1, p. 5.

After the crystallization process, the resulting “slurry” mixture is sent to a centrifuge to separate the hexamine crystals from water and any other unreacted materials.³⁶ The extracted crystals are sent to a dryer unit to remove any residual moisture.³⁷ If the moisture is properly controlled, hexamine in its solid form can have a shelf life of a year or longer.³⁸ In cases where a smaller particle size is required, the hexamine crystals can be ground into a fine powder.³⁹ Hexamine is packaged into containers ranging from 50-pound bags to 2,000-pound supersacks.⁴⁰

Before packaging, petitioner may also further finish hexamine into several different liquid and solid products, as the petitioner produces liquid products with hexamine diluted to various concentrations.⁴¹ The highest possible concentration of hexamine in water is 40 to 45 percent, as precipitation starts to occur above that concentration.⁴² Petitioner also sells hexamine in the following solid forms: granular hexamine (pure or high concentration), hexamine with a stabilizer to prevent clumping or improve product flow, and hexamine with

³⁶ Conference transcript, p. 13 (Bazinet).

³⁷ Petition, vol. 1, p. 6.

³⁸ Conference transcript, p. 38 (Bazinet).

³⁹ Petition, vol. 1, p. 6.

⁴⁰ Petition, vol. 1, p. 6.

⁴¹ Conference transcript, p. 39 (Roderick).

⁴² Conference transcript, p. 26 (Bazinet).

additives to both improve product flow and suppress dust (resulting in a lower concentration of hexamine).⁴³

Both the petitioner and the Indian respondent, Kanoria Chemicals & Industries Limited (“Kanoria”), manufacture their own formaldehyde. Similar to the petitioner, Kanoria also begins hexamine production by producing formaldehyde from methanol⁴⁴ and produces both pure granular hexamine and granular hexamine with additives for the U.S. market.⁴⁵

Domestic like product issues

No issues with respect to the domestic like product have been raised in these investigations. In the preliminary phase of these investigations, the Commission defined a single domestic like product consisting of hexamine, coextensive with the scope.⁴⁶ In the final phase of these investigations, no parties requested data or other information necessary for the analysis of the domestic like product. In its prehearing brief, the petitioner argued that the Commission should find a single domestic like product (i.e., granular hexamine coextensive with the scope as defined by Commerce).⁴⁷ Respondent General Authority for Foreign Trade of Saudi Arabia (“GAFT”) noted in its prehearing brief that it does not dispute the domestic like product proposed by the petitioner.⁴⁸ Respondent Kanoria made no arguments with respect to the domestic like product in its prehearing brief.

⁴³ Petition, vol. 1, pp. 11 to 12, conference transcript, pp. 32 to 33, 39 (Roderick). Additives include silica, diisodecyl phthalate, or benzoic acid.

⁴⁴ Conference transcript, pp. 56 to 57 (Ojha).

⁴⁵ Conference transcript, pp. 57 to 58 (Ojha).

⁴⁶ Hexamine from China, Germany, India, and Saudi Arabia, Inv. Nos. 701-TA-737-738 and 731-TA-1712-1715 (Preliminary), USITC Publication 5563, November 2024 (“Preliminary publication”), p. 7.

⁴⁷ Petitioner prehearing brief, July 11, 2025, p. 4.

⁴⁸ Respondent GAFT prehearing brief, July 11, 2025, p. 3.

Part 2: Conditions of competition in the U.S. market

Hexamine is a crystalline organic compound derived from ammonia and formaldehyde that is commonly used in products such as explosives and munitions, resins, rubber and tires, and other applications. Bakelite, the sole U.S. producer of granular hexamine, sells hexamine to various end-users and uses hexamine to manufacture and sell phenolic resins.¹ In 2021, Russia (a nonsubject country in these investigations) was the largest source of U.S. imports of hexamine, but imports from Russia began to decline ahead of the Russian invasion of Ukraine and continued to decline until Russia exited the U.S. market entirely in 2023.² According to Bakelite, there are several producers of hexamine in China while Germany, India, and Saudi Arabia each have one major producer.³

The sole U.S. producer, Bakelite, indicated that the market *** subject to distinctive conditions of competition. Specifically, U.S. producer Bakelite reported that “***.” Most responding importers (6 of 8) and purchasers (4 of 5) reported that the market was not subject to distinctive conditions of competition, although purchaser *** reported otherwise, indicating that “***.”

Apparent U.S. consumption of hexamine in the total market by quantity declined by *** percent from January 2022 to December 2024 and was *** percent lower during interim 2025 compared with interim 2024.

U.S. purchasers

The Commission received six usable questionnaire responses from firms that had purchased hexamine between January 2022 and March 2025.^{4 5 6} One responding purchaser is

¹ Preliminary publication, p. 2.1.

² Russian authorities seized control of Metafrax Chemicals, the largest producer of hexamine in Russia, in 2023. Ibid.

³ Ibid.

⁴ The following firms provided purchaser questionnaire responses: ***, ***, ***, ***, ***, and ***.

⁵ Of the six responding purchasers, five purchased the domestic hexamine, two purchased imports of the subject merchandise from China, three purchased imports of hexamine from Germany, three purchased imports of hexamine from India, three purchased imports of hexamine from Saudi Arabia, two purchased imports of hexamine from nonsubject Russia, and one purchased imports of hexamine from “unknown” sources.

⁶ Six purchasers indicated they had marketing/pricing knowledge of domestic product, three of product imported from China, three of product imported from Germany, four of product imported from India, four of product imported from Saudi Arabia, and three of product imported from nonsubject countries (specifically, Russia and the Netherlands).

a ***, one is a ***, one is a ***, another is a ***, one is a ***, and one is a ***.⁷ In general, responding U.S. purchasers were located in the Midwest and Southeast. The largest responding purchaser was ***, followed by ***.⁸

Impact of section 301 tariffs and new or modified tariffs

The U.S. producer, importers, and purchasers were asked to report the impact of section 301 tariffs and new or modified tariffs on overall demand, supply, prices, or raw material costs (table 2.1). The U.S. producer reported *** impact on the U.S. market from 301 tariffs *** from new and modified tariffs. Most responding importers (6 of 8) and purchasers (4 of 6) reported that they did not know if the section 301 tariffs had an impact on the market. Four of eight responding importers and one of six responding purchasers reported that new or modified tariffs had an impact on the hexamine market.

⁷ Shell sand is a foundry product used in a casting process that utilizes a heated metal pattern to form a hardened shell of sand and resin, which is then used to create metal casting molds or cores.

⁸ *** reported the firm is owned by ***.

Table 2.1 Hexamine: Count of firms' responses regarding the impact of the 301 tariffs and new or modified tariffs on China origin products

Item	Firm type	No	Yes	Don't know
Impact on U.S. market from section 301 tariffs	U.S. producers	***	***	***
Impact on U.S. market from section 301 tariffs	Importers	1	1	6
Impact on U.S. market from section 301 tariffs	Purchasers	2	0	4
Impact of new or modified tariffs	U.S. producers	***	***	***
Impact of new or modified tariffs	Importers	0	4	4
Impact of new or modified tariffs	Purchasers	1	1	4

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

Channels of distribution

The U.S. producer sold mainly to ***, while importers sold mainly to ***, as shown in table 2.2.

Table 2.2 Hexamine: Share of U.S. shipments by source, channel of distribution, and period

Shares in percent; interim is January through March

Source	Channel	2022	2023	2024	Interim 2024	Interim 2025
United States	Distributors	***	***	***	***	***
United States	Tire and rubber end users	***	***	***	***	***
United States	Petrochemical and plastic end users	***	***	***	***	***
United States	All other end users	***	***	***	***	***
China	Distributors	***	***	***	***	***
China	Tire and rubber end users	***	***	***	***	***
China	Petrochemical and plastic end users	***	***	***	***	***
China	All other end users	***	***	***	***	***
Germany	Distributors	***	***	***	***	***
Germany	Tire and rubber end users	***	***	***	***	***
Germany	Petrochemical and plastic end users	***	***	***	***	***
Germany	All other end users	***	***	***	***	***
India	Distributors	***	***	***	***	***
India	Tire and rubber end users	***	***	***	***	***
India	Petrochemical and plastic end users	***	***	***	***	***
India	All other end users	***	***	***	***	***
Saudi Arabia	Distributors	***	***	***	***	***
Saudi Arabia	Tire and rubber end users	***	***	***	***	***
Saudi Arabia	Petrochemical and plastic end users	***	***	***	***	***
Saudi Arabia	All other end users	***	***	***	***	***

Table continued.

Table 2.2 (Continued) Hexamine: Share of U.S. shipments by source, channel of distribution, and period

Shares in percent; interim is January through March

Source	Channel	2022	2023	2024	Interim 2024	Interim 2025
Subject	Distributors	***	***	***	***	***
Subject	Tire and rubber end users	***	***	***	***	***
Subject	Petrochemical and plastic end users	***	***	***	***	***
Subject	All other end users	***	***	***	***	***
Russia (nonsubject)	Distributors	***	***	***	***	***
Russia (nonsubject)	Tire and rubber end users	***	***	***	***	***
Russia (nonsubject)	Petrochemical and plastic end users	***	***	***	***	***
Russia (nonsubject)	All other end users	***	***	***	***	***
All other sources	Distributors	***	***	***	***	***
All other sources	Tire and rubber end users	***	***	***	***	***
All other sources	Petrochemical and plastic end users	***	***	***	***	***
All other sources	All other end users	***	***	***	***	***
Nonsubject	Distributors	***	***	***	***	***
Nonsubject	Tire and rubber end users	***	***	***	***	***
Nonsubject	Petrochemical and plastic end users	***	***	***	***	***
Nonsubject	All other end users	***	***	***	***	***
All imports	Distributors	***	***	***	***	***
All imports	Tire and rubber end users	***	***	***	***	***
All imports	Petrochemical and plastic end users	***	***	***	***	***
All imports	All other end users	***	***	***	***	***

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 "—".

Geographic distribution

The U.S. producer reported selling hexamine to *** regions in the contiguous United States and subject importers reported selling to all regions except the Mountains region (table 2.3). For the U.S. producer, *** 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. Five importers reported that a vast majority, between 90 and 100 percent, of sales were delivered between 101 and 1,000 miles of their firm’s U.S. point of shipment, two reported that all sales were within 100 miles of their firm’s U.S. point of shipment, and one importer reported that all sales were over 1,000 miles of their firm’s U.S. point of shipment.

Table 2.3 Hexamine: Count of U.S. producer’s and U.S. importers’ geographic markets

Count in number of firms reporting

Region	U.S. producer	China	Germany	India	Saudi Arabia	Subject sources
Northeast	***	***	***	2	***	5
Midwest	***	***	***	1	***	4
Southeast	***	***	***	0	***	3
Central Southwest	***	***	***	1	***	1
Mountains	***	***	***	0	***	0
Pacific Coast	***	***	***	0	***	2
Other	***	***	***	0	***	0
All regions (except Other)	***	***	***	0	***	0
Reporting firms	1	2	2	4	2	8

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 2.4 provides a summary of the supply factors regarding hexamine from the U.S. producer and from subject countries.⁹ Producers in *** have greater capacity than the U.S. producer, and this capacity has increased from 2022 to 2024. The capacity utilization rates for the U.S. producer were lower than those for all subject countries. Between 2022 and 2024, the U.S. producer’s capacity utilization decreased and foreign producers’ capacity utilization rates increased for the responding subject producers.

⁹ The Commission received two questionnaires from foreign producers in India, one from a foreign producer in Germany, and one from a foreign producer in Saudi Arabia. No foreign producers from China responded.

Table 2.4 Hexamine: 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	Germany	India	Saudi Arabia	Subject Suppliers
Capacity 2022	Quantity	***	***	***	***	***	***
Capacity 2024	Quantity	***	***	***	***	***	***
Capacity utilization 2022	Ratio	***	***	***	***	***	***
Capacity utilization 2024	Ratio	***	***	***	***	***	***
Inventories to total shipments 2022	Ratio	***	***	***	***	***	***
Inventories to total shipments 2024	Ratio	***	***	***	***	***	***
Home market shipments 2024	Share	***	***	***	***	***	***
Non-US export market shipments 2024	Share	***	***	***	***	***	***
Ability to shift production	Count	***	***	***	***	***	***

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

Note: The U.S. producer accounted for all of U.S. production of hexamine in 2024. Responding foreign producer/exporter firms in Germany and Saudi Arabia are believed to account for *** production of hexamine in their respective countries in 2024, while the two responding subject producers in India are estimated to account for *** of production of hexamine in 2024. No responses were received from firms in China. 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 Parts 3 and 7.

Domestic production

Based on available information, U.S. hexamine producer Bakelite has the ability to respond to changes in demand with large changes in the quantity of shipments of U.S.-produced hexamine to the U.S. market. The main contributing factors to this degree of responsiveness of supply is the U.S. producer's ***.¹⁰ Factors mitigating responsiveness of supply include

¹⁰ Regarding supply constraints, Bakelite reports that it ***.

Subject imports from Germany

Based on available information, the producer of hexamine from Germany has the ability to respond to changes in demand with moderate to large changes in the quantity of shipments of hexamine to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the ability to shift shipments from alternate markets to the U.S. market. Factors mitigating responsiveness of supply include a very high capacity utilization rate, an inability to shift production to or from other products, and limited availability of inventories.

Subject imports from India

Based on available information, producers of hexamine from India have the ability to respond to changes in demand with small to moderate changes in the quantity of shipments of hexamine to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the ability to shift shipments from alternate markets or inventories to the U.S. market and the availability of unused capacity. Factors mitigating responsiveness of supply include the high level of home market shipments, an inability to shift production from alternate products, and low inventory levels.

Subject imports from Saudi Arabia

Based on available information, the producer in Saudi Arabia has the ability to respond to changes in demand with large changes in the quantity of shipments of hexamine to the U.S. market. The main contributing factors to this degree of responsiveness of supply is the ability to shift shipments from alternate markets to the U.S. market. Factors mitigating responsiveness of supply include the high capacity utilization rate, an inability to shift production from alternate products, and low inventory levels.

¹¹ For more information regarding the U.S. producer's ***, see Part 3.

Imports from nonsubject sources

According to questionnaire data and official import statistics, Russia was the largest source of U.S. imports of hexamine in 2022 and 2023; however, imports from Russia began to decline ahead of the Russian invasion of Ukraine and continued to decline until Russia exited the U.S. market entirely by July 2023. Russia accounted for *** percent of nonsubject source imports in 2023, according to data submitted in response to Commission questionnaires. In 2024, nonsubject imports accounted for *** percent of total reported U.S. imports.¹²

Supply constraints

U.S. producer Bakelite reported that it *** supply constraints since January 1, 2022. Four of seven responding importers reported that they had not experienced supply constraints since January 1, 2022. Of those that reported they had experienced supply constraints, three reported the constraints occurred during 2022, one reported they occurred during 2023, two during 2024, and two during 2025 (table 2.5). Constraints reported by importers included ***. Importer *** reported that the producer in Germany *** has been in tight supply for hexamine *** due to the merchandise from Russia being effectively blocked in the European market, which increased demand in the EU market; this has led to less material available to export to the U.S. market and longer lead times.

Two responding purchasers reported that they had experienced supply constraints, with one reporting supply constraints from the domestic producers between 2022 through 2024 and the other purchaser reporting supply constraints from subject foreign producers or importers between 2024 and 2025. Constraints purchasers experienced by domestic producers were for “orders subject to fulfillment based on supply chain shortages” and the constraints they experienced from subject producers or importers were due to capacity constraints. One purchaser reported that supply constraints arose due to the petition filed on September 30, 2024, reporting that their suppliers had “withheld shipments due to unknown petition penalties”.

¹² Importers reported *** as nonsubject sources.

Table 2.5 Hexamine: Count of firms' responses regarding timing of supply constraints, by firm type and source

Count in number of firms reporting

Firm type	Source	2022	2023	2024	January 1, 2025 - present
U.S. producers	Domestic	***	***	***	***
Importers	Imported	3	1	2	2
Purchasers	Domestic	1	1	1	0
Purchasers	Imported	0	0	1	1

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

New suppliers

No purchasers reported that new suppliers had entered the U.S. market since January 1, 2022.

U.S. demand

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

End uses and cost share

U.S. demand for hexamine depends on the demand for U.S.-produced downstream products, some of which follow general economic conditions.¹³

Firms reported end uses including phenolic polymers, munitions, rubbers and tires, petrochemicals, cleaning products, formaldehyde-based resins, resin-coated frack sands, rubber moldings, and shell sand. In these reported end uses, hexamine accounts for a wide range in the cost of the end-use products in which it is used. Firms reported cost shares for these end uses as: cleaning products (***) percent), formaldehyde-based resins (***) percent), munitions (***) percent), phenolic polymers (***) to (***) percent), resin-coated frack sands(***) percent), rubber moldings (***) percent), shell sand (***) percent), and tires and rubber (***) to (***) percent).

¹³ Preliminary publication, p. 2.8.

Business cycles

The U.S. producer reported that the market ***. Bakelite described demand as “***”. Six of eight importers, and all responding purchasers indicated that the market was not subject to business cycles. Importer *** reported that demand depends on demand for end use products, stating that “our customers’ demand is subject to increases and decreases in demand based on the sales of their finished products.”

Demand trends

Most firms reported no change or a decrease in U.S. demand for hexamine since January 1, 2022 (table 2.6). U.S. producer Bakelite reported *** in U.S. demand for hexamine since January 1, 2022, describing the principal factors affecting the change in demand as “***.” Purchaser *** reported that demand for hexamine ***.

Table 2.6 Hexamine: Count of firms’ responses regarding overall domestic and foreign demand, by firm type

Count in number of firms reporting

Market	Firm type	Steadily Increase	Fluctuate upward	No change	Fluctuate downward	Steadily decrease
Domestic demand	U.S. producer	***	***	***	***	***
Domestic demand	Importers	1	0	4	2	1
Domestic demand	Purchasers	0	0	2	1	0
Foreign demand	U.S. producer	***	***	***	***	***
Foreign demand	Importers	0	0	2	1	0
Foreign demand	Purchasers	1	0	1	1	0
Demand for end use products	Purchasers	0	0	2	3	1

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

Substitute products

U.S. producer Bakelite reported that there *** substitutes for hexamine, and all responding importers and almost all purchasers (5 of 6) reported that there were no substitutes for hexamine. Purchaser *** reported that ***.

Substitutability issues

This section assesses the degree to which U.S.-produced hexamine and imports of hexamine from subject countries can be substituted for one another by examining the importance of certain purchasing factors and the comparability of hexamine from domestic and imported sources based on those factors. Based on available data, staff believes that there is a moderate degree of substitutability between domestically produced hexamine and hexamine imported from subject sources.¹⁴ Factors contributing to this level of substitutability include similarities in reported quality between domestically produced hexamine and hexamine produced in subject countries and little preference for a particular country of origin or producers. Factors reducing substitutability include higher lead times for hexamine produced in subject sources, some quality differences between domestically produced hexamine and hexamine produced in China (as reported by importer ***, for example), and purchaser preferences for hexamine from subject and nonsubject countries over domestic hexamine due to competition with U.S. producer Bakelite in downstream product sales.

Factors affecting purchasing decisions

Purchaser decisions based on source

As shown in table 2.7, most purchasers and their customers only sometimes or never make purchasing decisions based on the producer or country of origin.

Table 2.7 Hexamine: Count of purchasers' responses regarding frequency of purchasing decisions based on producer and country of origin

Count in number of firms reporting

Firm making decision	Decision based on	Always	Usually	Sometimes	Never
Purchaser	Producer	0	1	1	4
Customer	Producer	0	0	0	4
Purchaser	Country	0	0	2	3
Customer	Country	0	0	0	4

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

¹⁴ The degree of substitution between domestic and imported hexamine depends upon the extent of product differentiation between the domestic and imported products and reflects how easily purchasers can switch from domestically produced hexamine to the hexamine 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.).

Importance of purchasing domestic product

All responding purchasers reported that their purchases did not require purchasing U.S.-produced product.

Most important purchase factors

The most often cited top three factors firms consider in their purchasing decisions for hexamine were price/cost (6 firms), quality (5 firms), and availability/supply (5 firms) as shown in table 2.8. Quality was the most frequently cited first-most important factors (cited by 3 firms); price/cost was the most frequently reported second-most important factor (4 firms); and availability/supply was the most frequently reported third-most important factor (4 firms). Other reported factors include lead times and downstream competition with the seller.

Table 2.8 Hexamine: Count of ranking of factors used in purchasing decisions as reported by purchasers, by factor

Count in number of firms reporting

Factor	First	Second	Third	Total
Price / Cost	1	4	1	6
Quality	3	2	0	5
Availability / Supply	1	0	4	5
All other factors	1	0	1	NA

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

Note: Other factors include downstream competition with the seller.

Importance of specified purchase factors

Purchasers were asked to rate the importance of 16 factors in their hexamine purchasing decisions (table 2.9). The factors rated as very important by more than half of responding purchasers were availability, product consistency, quality meeting industry standards (6 firms each), price, purity, and reliability of supply (5 firms each), and delivery times (4 firms). Factors reported as somewhat important by a majority of firms include quality exceeding industry standards (5 firms), discounts offered (4 firms), payment terms (4 firms), product range (4 firms), technical support/service (4 firms), and U.S. transportation costs (4 firms).

Table 2.9 Hexamine: Count of purchasers' responses regarding importance of purchase factors, by factor

Count in number of firms reporting

Factor	Very important	Somewhat important	Not important
Availability	6	0	0
Delivery terms	2	3	1
Delivery time	4	2	0
Discounts offered	0	4	2
Minimum quantity requirements	0	2	4
Packaging	2	3	1
Payment terms	2	4	0
Price	5	1	0
Product consistency	6	0	0
Product range	0	4	2
Purity	5	1	0
Quality meets industry standards	6	0	0
Quality exceeds industry standards	0	5	1
Reliability of supply	5	1	0
Technical support/service	0	4	2
U.S. transportation costs	1	4	1

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

Lead times

U.S. producer, Bakelite, reported that *** percent of its commercial shipments in 2024 were from inventory, with an average lead time of *** days. ***, responding importers reported that *** percent of their commercial shipments were produced-to-order, with lead times averaging *** days.

Supplier certification

Three of six responding purchasers (***, ***, and ***) require their suppliers to become certified or qualified to sell hexamine to their firm. One purchaser, ***, reported that a foreign supplier *** had failed in its attempt to qualify hexamine since 2022, stating “***.” Three responding purchasers reported that hexamine purchasers undergo a negotiation process on terms including product availability, quality, delivery times, sources, and price.

Minimum quality specifications

As can be seen from table 2.10, five responding purchasers reported that domestically produced product always met minimum quality specifications. Half or more of responding purchasers reported that the hexamine imported from India and Saudi Arabia always met

minimum quality specifications. Two purchasers reported that hexamine from China always meets firms’ customers’ minimum quality specifications (and the remaining three purchasers reported that they did not know about Chinese suppliers’ ability to meet minimum quality specifications).

Table 2.10 Hexamine: Count of purchasers’ responses regarding suppliers’ ability to meet minimum quality specifications, by source

Count in number of firms reporting

Source of purchases	Always	Usually	Sometimes	Rarely or never	Don't Know
United States	5	1	0	0	0
China	2	0	0	0	3
Germany	3	0	0	0	3
India	3	1	0	0	2
Saudi Arabia	3	1	0	0	1
Nonsubject sources	1	0	0	0	1

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

Note: Purchasers were asked how often domestically produced or imported hexamine meets minimum quality specifications for their own or their customers’ uses.

Changes in purchasing patterns

Four out of six responding purchasers reported that they had changed suppliers since January 1, 2022. Specifically, firms reported that they added or increased purchases from importer Magnum International, German producer Brenntag, and Sovereign Chemical to increase security of supply.

Purchasers were also asked about changes in their purchasing patterns from different countries since January 1, 2022 (table 2.11). Two purchasers reported that their purchase pattern regarding U.S.-produced hexamine remained unchanged, although *** reported that purchase volumes increased in 2022, due to ocean freight issues disrupting supply chains. Two purchasers reported increased purchases of product from subject sources to qualify supply, “build relationships,” and obtain new suppliers.

Table 2.11 Hexamine: Count of purchasers' responses regarding changes in purchase patterns from U.S., subject, and nonsubject countries

Count in number of firms reporting

Source of purchases	Steadily Increase	Fluctuate upward	No change	Fluctuate downward	Steadily Decrease	Did not purchase
United States	1	1	2	0	1	0
China	0	0	0	0	2	3
Germany	1	0	1	0	1	0
India	1	2	0	0	0	0
Saudi Arabia	1	0	0	1	1	1
Russia	0	0	0	1	1	2
Other nonsubject sources	0	0	0	0	0	2
Sources unknown	0	0	0	1	0	1

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

Purchase factor comparisons of domestic products, subject imports, and nonsubject imports

Purchasers were asked a number of questions comparing hexamine produced in the United States, subject countries, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 16 factors (table 2.12) for which they were asked to rate the importance.

Most purchasers reported that U.S.-produced hexamine and hexamine imported from China, Germany, India, Saudi Arabia, and nonsubject sources were comparable on all factors except on delivery time, which purchasers reported as superior for U.S.-produced hexamine.

Table 2.12 Hexamine: Count of purchasers' responses comparing U.S.-produced and imported product, by factor and country pair

Count in number of firms reporting

Factor	Country pair	Superior	Comparable	Inferior
Availability	U.S. vs China	1	1	0
Delivery terms	U.S. vs China	1	1	0
Delivery time	U.S. vs China	1	1	0
Discounts offered	U.S. vs China	0	2	0
Minimum quantity requirements	U.S. vs China	0	2	0
Packaging	U.S. vs China	0	2	0
Payment terms	U.S. vs China	0	2	0
Price ¹	U.S. vs China	0	1	1
Product consistency	U.S. vs China	0	2	0
Product range	U.S. vs China	0	2	0
Purity	U.S. vs China	0	2	0
Quality meets industry standards	U.S. vs China	0	2	0
Quality exceeds industry standards	U.S. vs China	0	2	0
Reliability of supply	U.S. vs China	0	2	0
Technical support/service	U.S. vs China	0	2	0
U.S. transportation costs	U.S. vs China	0	2	0

Table continued.

Table 2.12 (Continued) Hexamine: Count of purchasers' responses comparing U.S.-produced and imported product, by factor and country pair

Count in number of firms reporting

Factor	Country pair	Superior	Comparable	Inferior
Availability	U.S. vs Germany	1	2	0
Delivery terms	U.S. vs Germany	0	3	0
Delivery time	U.S. vs Germany	3	0	0
Discounts offered	U.S. vs Germany	0	2	0
Minimum quantity requirements	U.S. vs Germany	0	3	0
Packaging	U.S. vs Germany	0	3	0
Payment terms	U.S. vs Germany	0	3	0
Price	U.S. vs Germany	1	1	1
Product consistency	U.S. vs Germany	1	2	0
Product range	U.S. vs Germany	0	3	0
Purity	U.S. vs Germany	1	2	0
Quality meets industry standards	U.S. vs Germany	0	3	0
Quality exceeds industry standards	U.S. vs Germany	0	2	0
Reliability of supply	U.S. vs Germany	1	2	0
Technical support/service	U.S. vs Germany	0	2	0
U.S. transportation costs	U.S. vs Germany	0	2	1

Table continued.

Table 2.12 (Continued) Hexamine: Count of purchasers' responses comparing U.S.-produced and imported product, by factor and country pair

Count in number of firms reporting

Factor	Country pair	Superior	Comparable	Inferior
Availability	U.S. vs India	1	3	0
Delivery terms	U.S. vs India	0	4	0
Delivery time	U.S. vs India	3	1	0
Discounts offered	U.S. vs India	0	3	0
Minimum quantity requirements	U.S. vs India	0	4	0
Packaging	U.S. vs India	0	4	0
Payment terms	U.S. vs India	0	4	0
Price	U.S. vs India	0	2	2
Product consistency	U.S. vs India	0	4	0
Product range	U.S. vs India	0	4	0
Purity	U.S. vs India	0	4	0
Quality meets industry standards	U.S. vs India	0	4	0
Quality exceeds industry standards	U.S. vs India	0	3	0
Reliability of supply	U.S. vs India	1	3	0
Technical support/service	U.S. vs India	0	3	0
U.S. transportation costs	U.S. vs India	0	3	1

Table continued.

Table 2.12 (Continued) Hexamine: Count of purchasers' responses comparing U.S.-produced and imported product, by factor and country pair

Count in number of firms reporting

Factor	Country pair	Superior	Comparable	Inferior
Availability	U.S. vs Saudi Arabia	1	2	0
Delivery terms	U.S. vs Saudi Arabia	0	3	0
Delivery time	U.S. vs Saudi Arabia	3	0	0
Discounts offered	U.S. vs Saudi Arabia	0	2	0
Minimum quantity requirements	U.S. vs Saudi Arabia	0	3	0
Packaging	U.S. vs Saudi Arabia	0	3	0
Payment terms	U.S. vs Saudi Arabia	0	3	0
Price	U.S. vs Saudi Arabia	1	1	1
Product consistency	U.S. vs Saudi Arabia	1	2	0
Product range	U.S. vs Saudi Arabia	0	3	0
Purity	U.S. vs Saudi Arabia	1	2	0
Quality meets industry standards	U.S. vs Saudi Arabia	0	3	0
Quality exceeds industry standards	U.S. vs Saudi Arabia	0	2	0
Reliability of supply	U.S. vs Saudi Arabia	1	2	0
Technical support/service	U.S. vs Saudi Arabia	0	2	0
U.S. transportation costs	U.S. vs Saudi Arabia	0	2	1

Table continued.

Table 2.12 (Continued) Hexamine: Count of purchasers' responses comparing U.S.-produced and imported product, by factor and country pair

Count in number of firms reporting

Factor	Country pair	Superior	Comparable	Inferior
Availability	U.S. vs. Nonsubject	1	2	0
Delivery terms	U.S. vs. Nonsubject	0	3	0
Delivery time	U.S. vs. Nonsubject	3	0	0
Discounts offered	U.S. vs. Nonsubject	0	2	0
Minimum quantity requirements	U.S. vs. Nonsubject	0	3	0
Packaging	U.S. vs. Nonsubject	0	3	0
Payment terms	U.S. vs. Nonsubject	0	3	0
Price	U.S. vs. Nonsubject	1	1	1
Product consistency	U.S. vs. Nonsubject	1	2	0
Product range	U.S. vs. Nonsubject	0	3	0
Purity	U.S. vs. Nonsubject	1	2	0
Quality meets industry standards	U.S. vs. Nonsubject	0	3	0
Quality exceeds industry standards	U.S. vs. Nonsubject	0	2	0
Reliability of supply	U.S. vs. Nonsubject	1	2	0
Technical support/service	U.S. vs. Nonsubject	0	2	0
U.S. transportation costs	U.S. vs. Nonsubject	0	2	1

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

Note: With respect to cost/price factors, a rating of superior means that the cost/price for the first source in the country pair is generally lower. For example, if a firm reported "U.S. superior" for price, it meant that the U.S. product was generally priced lower than the imported product.

Comparison of U.S.-produced and imported hexamine

In order to determine whether U.S.-produced hexamine can generally be used in the same applications as imports from China, Germany, India, and Saudi Arabia, the U.S. producer, importers, and purchasers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in tables 2.13, Bakelite reported that hexamine is *** interchangeable in most comparisons. As shown in table 2.14, importers' responses regarding interchangeability varied, with more firms responding that the product is sometimes interchangeable. Importer ***, for example, reported that hexamine from China is "frequently of lower quality," and interchangeability would depend on the customers' intended end-use application. Table 2.15 shows that most purchasers report that hexamine is always or frequently interchangeable in most comparisons.

Table 2.13 Hexamine: Count of U.S. producer 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	Always	Frequently	Sometimes	Never
United States vs. China	***	***	***	***
United States vs. Germany	***	***	***	***
United States vs. India	***	***	***	***
United States vs. Saudi Arabia	***	***	***	***
China vs. Germany	***	***	***	***
China vs. India	***	***	***	***
China vs. Saudi Arabia	***	***	***	***
Germany vs. India	***	***	***	***
Germany vs. Saudi Arabia	***	***	***	***
India vs. Saudi Arabia	***	***	***	***
United States vs. Other	***	***	***	***
China vs. Other	***	***	***	***
Germany vs. Other	***	***	***	***
India vs. Other	***	***	***	***
Saudi Arabia vs. Other	***	***	***	***

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

Table 2.14 Hexamine: Count of 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	Always	Frequently	Sometimes	Never
United States vs. China	0	1	1	0
United States vs. Germany	1	1	1	0
United States vs. India	0	1	1	0
United States vs. Saudi Arabia	0	1	1	1
China vs. Germany	0	0	2	0
China vs. India	0	0	1	0
China vs. Saudi Arabia	0	0	1	0
Germany vs. India	1	1	0	0
Germany vs. Saudi Arabia	0	0	1	0
India vs. Saudi Arabia	0	0	1	0
United States vs. Other	0	1	1	0
China vs. Other	0	0	0	0
Germany vs. Other	1	0	0	0
India vs. Other	1	0	0	0
Saudi Arabia vs. Other	0	0	0	0

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

Table 2.15 Hexamine: Count of purchasers 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	Always	Frequently	Sometimes	Never
United States vs. China	2	0	1	0
United States vs. Germany	1	2	0	0
United States vs. India	1	3	0	0
United States vs. Saudi Arabia	2	2	0	0
China vs. Germany	0	0	1	0
China vs. India	0	0	1	0
China vs. Saudi Arabia	0	0	0	0
Germany vs. India	1	1	1	0
Germany vs. Saudi Arabia	1	0	1	0
India vs. Saudi Arabia	1	1	0	0
United States vs. Other	0	2	0	0
China vs. Other	0	0	0	0
Germany vs. Other	0	0	1	0
India vs. Other	0	2	0	0
Saudi Arabia vs. Other	1	2	0	0

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

In addition, the U.S. producer, importers, and purchasers were asked to assess how often differences other than price were significant in sales of hexamine from the United States, subject, or nonsubject countries. As seen in tables 2.16 to 2.18, generally importers and purchasers report that there are sometimes significant factors other than price. U.S. producer Bakelite reported that hexamine produced in ***. Importer *** reported that customers are “moving away from material of Chinese origin” due to tariff and quality concerns. It added that supply availability and transportation are important factors when comparing product from the U.S. and Germany.

Table 2.16 Hexamine: Count of U.S. producers 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	Always	Frequently	Sometimes	Never
United States vs. China	***	***	***	***
United States vs. Germany	***	***	***	***
United States vs. India	***	***	***	***
United States vs. Saudi Arabia	***	***	***	***
China vs. Germany	***	***	***	***
China vs. India	***	***	***	***
China vs. Saudi Arabia	***	***	***	***
Germany vs. India	***	***	***	***
Germany vs. Saudi Arabia	***	***	***	***
India vs. Saudi Arabia	***	***	***	***
United States vs. Other	***	***	***	***
China vs. Other	***	***	***	***
Germany vs. Other	***	***	***	***
India vs. Other	***	***	***	***
Saudi Arabia vs. Other	***	***	***	***

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

Table 2.17 Hexamine: Count of 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 firm reporting

Country pair	Always	Frequently	Sometimes	Never
United States vs. China	1	0	1	0
United States vs. Germany	0	1	2	0
United States vs. India	0	1	1	0
United States vs. Saudi Arabia	1	1	1	0
China vs. Germany	0	0	2	0
China vs. India	0	0	1	0
China vs. Saudi Arabia	0	0	1	0
Germany vs. India	0	0	2	0
Germany vs. Saudi Arabia	0	0	1	0
India vs. Saudi Arabia	0	0	1	0
United States vs. Other	0	0	1	0
China vs. Other	0	0	0	0
Germany vs. Other	0	0	1	0
India vs. Other	0	0	1	0
Saudi Arabia vs. Other	0	0	0	0

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

Table 2.18 Hexamine: Count of purchasers 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	Always	Frequently	Sometimes	Never
United States vs. China	2	0	1	0
United States vs. Germany	1	1	1	0
United States vs. India	1	1	2	0
United States vs. Saudi Arabia	1	1	2	0
China vs. Germany	2	0	0	0
China vs. India	1	0	0	0
China vs. Saudi Arabia	0	0	0	0
Germany vs. India	1	0	2	0
Germany vs. Saudi Arabia	0	0	2	0
India vs. Saudi Arabia	0	0	2	0
United States vs. Other	1	1	1	0
China vs. Other	0	0	0	0
Germany vs. Other	0	0	1	0
India vs. Other	0	0	2	0
Saudi Arabia vs. Other	0	0	2	0

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

Elasticity estimates

This section discusses elasticity estimates; parties did not comment on these estimates.

U.S. supply elasticity

The domestic supply elasticity for hexamine measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of hexamine. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced hexamine. Analysis of these factors above indicates that the U.S. industry has the ability to greatly increase or decrease shipments to the U.S. market; an estimate in the range of 6 to 8 is suggested.

U.S. demand elasticity

The U.S. demand elasticity for hexamine measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of hexamine. This estimate depends on factors discussed above such as the existence, availability, and commercial viability of substitute products, as well as the component share of the hexamine in the production of any downstream products. Bakelite stated that hexamine is essential in its customers' operations

and lacks substitutes.¹⁵ Based on the available information, the aggregate demand for hexamine is likely to be moderately inelastic; a range of -0.25 to -0.5 is suggested.

Substitution elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.¹⁶ Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (e.g., availability, sales terms/discounts/promotions, etc.). Based on available information, the elasticity of substitution between U.S.-produced hexamine and imported hexamine is likely to be in the range of in of 3 to 5. Factors contributing to this level of substitutability include: similarities in reported quality between domestically produced hexamine and hexamine produced in subject countries and little preference for particular country of origin or producers. Factors reducing substitutability include: higher lead times for hexamine produced in subject sources, quality differences between domestically produced hexamine and hexamine produced in China, and purchaser preferences for hexamine from subject and nonsubject countries.¹⁷

¹⁵ Hearing transcript, p. 11 (Brochmann).

¹⁶ The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and the domestic like products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject products (or vice versa) when prices change.

¹⁷ On this point, purchasing firm *** added it “***.”

Part 3: 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 1 of this report and information on the volume and pricing of imports of the subject merchandise is presented in Part 4 and Part 5. Information on the other factors specified is presented in this section and/or Part 6 and (except as noted) is based on the questionnaire response of one firm that accounted for all U.S. production of in-scope hexamine during 2024.

U.S. producers

The Commission issued a U.S. producer questionnaire to the petitioner, the sole U.S. producer of in-scope hexamine, who provided a questionnaire response.¹ Table 3.1 lists the petitioner, its production location, position on the petition, and its share of total production.

Table 3.1 Hexamine: U.S. producer, their position on the petition, production location, and share of reported production, 2024

Firm	Position on petition	Production location	Share of production
Bakelite	Petitioner	Riegelwood, NC	100.0

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

¹ The petitioner named one other company as a potential U.S. producer of hexamine in the petition: ***. During the preliminary phase of this proceeding, the company provided a certified response indicating that it had not produced in-scope hexamine during the investigation period. During the final phase, a company representative again responded, “***.”

Table 3.2 presents information on Bakelite’s ownership as indicated in its questionnaire response.

Table 3.2 Hexamine: U.S. producers’ ownership, related and/or affiliated firms

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

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

Bakelite was asked to report any change in the character of its operations or organization relating to the production of hexamine since 2022, to which it replied that it had experienced *** as follows: “***.”

U.S. production, capacity, and capacity utilization

Table 3.3 presents U.S. producer Bakelite's installed and practical capacity measures and production using the same equipment/employees.² Bakelite reported its installed overall capacity was *** at *** pounds for the full year periods (and *** pounds for the interim periods).³ Bakelite ***, thus the company's ***. The company estimated that its practical capacity (in-scope and overall) was also *** at *** pounds for the full year periods (*** pounds for the interim periods).⁴

Bakelite's in-scope hexamine production decreased *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Its hexamine production was *** percent lower across the interim periods (*** pounds compared to *** pounds). Resultingly, Bakelite's installed overall capacity utilization ratio decreased *** percentage points across the period (from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024). It was *** percentage points lower across the interim periods (*** percent compared to *** percent). Bakelite's practical capacity utilization ratio decreased *** percentage points from 2022 to 2024 (from *** percent in 2022 to *** percent in 2023 and to *** percent in

² Installed or "theoretical" overall capacity measures the level of production a firm could have attained based solely on existing capital investments and not considering other constraints such as availability of material inputs, labor force, and normal downtime. The two practical capacity measures take into consideration both existing capital investment as well as non-capital investment constraints. Practical overall capacity measures firms' capacity to produce hexamine as well as any other products produced using the same equipment/machinery, whereas practical hexamine capacity measures only the practical capacity of a firm to produce hexamine based on that firms' actual product mixes over the period.

³ Bakelite reported that it calculated the installed capacity figure as follows: "****."

⁴ Bakelite reported that it calculated its practical capacity figures as follows: "****." The company reported that it would need to do the following to achieve its reported installed capacity: "****."

2024). Practical capacity utilization was *** percentage points lower across the interim periods (*** percent compared to *** percent).

Table 3.3 Hexamine: U.S. producer Bakelite's installed and practical capacity and production on the same equipment as in-scope production, by period

Capacity and production in 1,000 pounds; utilization in percent; interim period is January through March

Item	Measure	2022	2023	2024	Interim 2024	Interim 2025
Installed overall	Capacity	***	***	***	***	***
Installed overall	Production	***	***	***	***	***
Installed overall	Utilization	***	***	***	***	***
Practical overall	Capacity	***	***	***	***	***
Practical overall	Production	***	***	***	***	***
Practical overall	Utilization	***	***	***	***	***
Practical hexamine	Capacity	***	***	***	***	***
Practical hexamine	Production	***	***	***	***	***
Practical hexamine	Utilization	***	***	***	***	***

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

Figure 3.1 Hexamine: U.S. producer Bakelite's practical capacity, production, and capacity utilization, by period

* * * * *

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

Alternative products

During the preliminary phase, Bakelite reported the production of out-of-scope aqueous hexamine (“OOS aqueous hexamine”) using the same machinery and/or employees as used to produce in-scope hexamine. OOS aqueous hexamine is less than 50 percent hexamine by weight, and thus out-of-scope. However, during the final phase, the company did not report the production of any alternative products using the same machinery and/or equipment in its capacity table. The company indicated:

“***.”

Bakelite provided the following estimates of its shipments of liquid hexamine in pounds during the investigation period and noted:

“***.”⁵

⁵ Email correspondence with ***.

U.S. producers' U.S. shipments and exports

Bakelite's total shipments

Table 3.4 presents Bakelite's U.S. shipments, export shipments, and total shipments. U.S. shipments accounted for the vast majority of Bakelite's total shipments, accounting for *** percent or more of the company's total shipments by quantity and *** percent or more of its total shipments by value across the reporting periods (with export shipments representing the remaining *** percent or less by quantity and *** percent or less by value of shipments).

Bakelite's U.S. shipments, by quantity, decreased by *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Bakelite's U.S. shipments were *** percent lower in interim 2025 than interim 2024 (*** pounds compared to *** pounds). The company's U.S. shipments decreased *** percent by value from 2022 to 2024 (decreasing from *** in 2022 to \$*** in 2023 and to \$*** in 2024). The value of Bakelite's U.S. shipments was *** percent lower across the interim periods (\$*** compared to \$***). Bakelite's U.S. shipment unit values decreased irregularly from 2022 to 2024 (decreasing from \$*** per pound in 2022 to \$*** per pound in 2023 before increasing to \$*** per pound in 2024). U.S. shipment unit values were \$*** per pound higher in interim 2025 than interim 2024 (\$*** per pound compared to \$*** per pound).

Bakelite's total shipments, by quantity, decreased *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Total shipments were *** percent lower in interim 2025 compared to interim 2024 (*** pounds compared to *** pounds). The value of Bakelite's total shipments decreased *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to \$*** in 2023 and to \$*** in 2024). The value of the company's total shipments was *** percent lower across the interim periods (\$*** compared to \$***). Bakelite's total shipment unit values also decreased irregularly from 2022 to 2024 (decreasing from \$*** per pound in 2022 to \$*** per pound in 2023 before increasing to \$*** per pound in 2024). Bakelite's total shipment unit values were \$*** per pound higher in interim 2025 than interim 2024 (\$*** per pound compared to \$*** per pound).

Table 3.4 Hexamine: U.S. producer Bakelite’s total shipments, by destination and period

Quantity in 1,000 pounds; value in 1,000 dollars; unit value in dollars per pound; shares in percent; interim period is January through March

Item	Measure	2022	2023	2024	Interim 2024	Interim 2025
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.

Bakelite’s U.S. shipments

Table 3.5 presents Bakelite’s U.S. shipments by type and period. Commercial U.S. shipments accounted for the majority of Bakelite’s U.S. shipments representing between *** and *** percent of the company’s U.S. shipments by quantity (and between *** and *** percent by value) across reporting periods. Internal consumption accounted for the remainder of the company’s U.S. shipments in each reporting period accounting for between *** and *** percent of U.S. shipments of hexamine by quantity (and between *** and *** percent by value).⁶

Bakelite’s commercial U.S. shipments by quantity decreased *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024) and were *** percent lower in interim 2025 than in interim 2024 (*** pounds compared to *** pounds). The value of Bakelite’s commercial U.S. shipments decreased *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to slightly greater than \$*** in 2023 and to slightly less than \$*** in 2024). The value of Bakelite’s U.S. commercial shipments was *** percent lower across the interim periods (\$*** compared to \$***). Bakelite’s U.S. commercial shipment unit values decreased irregularly from 2022 to 2024 (decreasing from \$*** per pound in 2022 to \$*** per pound in 2023 before increasing to \$*** per pound in 2024). The company’s U.S.

⁶ Bakelite reported that it internally consumed its hexamine to produce ***.

commercial shipment unit values were higher in interim 2025 than interim 2024 (\$*** per pound compared to \$*** per pound).

Bakelite’s internal consumption by quantity decreased by *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Internal consumption was *** percent across the interim periods (*** pounds compared to *** pounds). The value of Bakelite’s internal consumption decreased *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to \$*** in 2023 and to \$*** in 2024) and was *** percent lower in interim 2025 compared to interim 2024 (\$*** compared to \$***). The unit values of Bakelite’s internal consumption decreased irregularly by \$*** per pound from 2022 to 2024 (decreasing from \$*** per pound in 2022 to \$*** per pound in 2023 before increasing to \$*** per pound in 2024). Bakelite’s internal consumption unit value was \$*** per pound higher across the interim periods (\$*** per pound compared to \$*** per pound).

Table 3.5 Hexamine: U.S. producer Bakelite’s U.S. shipments, by type and period

Quantity in 1,000 pounds; value in 1,000 dollars; unit values in dollars per pound; interim period is January through March

Item	Measure	2022	2023	2024	Interim 2024	Interim 2025
Commercial U.S. shipments	Quantity	***	***	***	***	***
Internal consumption	Quantity	***	***	***	***	***
Transfers to related firms	Quantity	***	***	***	***	***
U.S. shipments	Quantity	***	***	***	***	***
Commercial U.S. shipments	Value	***	***	***	***	***
Internal consumption	Value	***	***	***	***	***
Transfers to related firms	Value	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***
Commercial U.S. shipments	Unit value	***	***	***	***	***
Internal consumption	Unit value	***	***	***	***	***
Transfers to related firms	Unit value	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***
Commercial U.S. shipments	Share of quantity	***	***	***	***	***
Internal consumption	Share of quantity	***	***	***	***	***
Transfers to related firms	Share of quantity	***	***	***	***	***
U.S. shipments	Share of quantity	***	***	***	***	***
Commercial U.S. shipments	Share of value	***	***	***	***	***
Internal consumption	Share of value	***	***	***	***	***
Transfers to related firms	Share of value	***	***	***	***	***
U.S. shipments	Share of value	100.0	100.0	100.0	100.0	100.0

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Captive consumption

Section 771(7)(C)(iv) of the Act states that—⁷

If domestic producers internally transfer significant production of the domestic like product for the production of a downstream article and sell significant production of the domestic like product in the merchant market, and the Commission finds that—

- (I) the domestic like product produced that is internally transferred for processing into that downstream article does not enter the merchant market for the domestic like product, and*
- (II) the domestic like product is the predominant material input in the production of that downstream article,*

then the Commission, in determining market share and the factors affecting financial performance . . ., shall focus primarily on the merchant market for the domestic like product.

Transfers and sales

As reported in table 3.5, internal consumption accounted for between *** and *** percent of Bakelite’s U.S. shipments of hexamine by quantity (***) .

First statutory criterion in captive consumption

The first requirement for application of the captive consumption provision is that the domestic like product that is internally transferred for processing into that downstream article not enter the merchant market for the domestic like product. Bakelite reported internal consumption of hexamine for the production of ***. Bakelite did not report diverting hexamine intended for internal consumption to the merchant market.

⁷ Amended by PL 114–27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

Second statutory criterion in captive consumption

The second criterion of the captive consumption provision concerns whether the domestic like product is the predominant material input in the production of the downstream article that is captively produced. With respect to the downstream articles resulting from captive production, Bakelite estimated that hexamine comprises *** percent of the finished cost and *** percent of the weight of the downstream product (***) as shown in table 3.6.

Table 3.6 Hexamine: U.S. producer Bakelite's contribution to downstream product

Share in percent

Material input	Share of value	Share of quantity
Hexamine	***	***
All other material inputs	***	***
All material inputs	100.0	100.0

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

U.S. producers' inventories

Table 3.7 presents Bakelite's end-of-period inventories and the ratio of these inventories to its production, U.S. shipments, and total shipments. Bakelite's end-of-period inventories increased irregularly by *** percent from 2022 to 2024 and were *** percent higher across the interim periods. Resultingly, end-of-period inventories as a ratio to Bakelite's U.S. production, U.S. shipments, and total shipments increased irregularly from 2022 to 2024 by ***, ***, and *** percentage points, respectively. These ratios were ***, ***, and *** percentage points higher across the interim periods, respectively.

Table 3.7 Hexamine: U.S. producers' inventories and their ratio to select items, by period

Quantity in 1,000 pounds; ratios in percent; interim period is January through March

Item	2022	2023	2024	Interim 2024	Interim 2025
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.

U.S. producers' imports from subject sources

Bakelite reported that ***.

U.S. producers' purchases of imports from subject sources

Bakelite reported that ***.

U.S. employment, wages, and productivity

Table 3.8 shows Bakelite’s employment-related data. With respect to employment trends, Bakelite reported that its employment indicators were “***.” Bakelite reported its average production and related workers (PRWs) employed to be constant at *** PRWs across each of the full year and interim periods of the investigation period. The company reported those PRWs worked *** hours in each of the full year periods and *** hours in both interim periods. Resultingly, Bakelite’s reported hours worked per PRW was also constant. As noted on page 3.2, Bakelite reported, “***.” The company’s reported total wages paid increased *** percent from 2022 to 2024 (approximately \$*** in both 2022 and 2023 to \$*** in 2024). Hourly wages increased *** percent from 2022 to 2024 (increasing from \$*** per hour in 2022 and 2023 to \$*** per hour in 2024). Bakelite’s hourly wages were also *** percent higher across the interim periods (\$*** per hour compared to \$*** per hour). Bakelite’s productivity per worker as measured in pounds per hour decreased *** percent from 2022 to 2024 (decreasing from *** pounds per hour in 2022 to *** pounds per hour in 2023 and to *** pounds per hour in 2024). Reported productivity was *** percent lower in interim 2025 than interim 2024 (*** pounds per hour compared to *** pounds per hour). Bakelite’s unit labor costs increased *** percent from 2022 to 2024 (increasing from \$*** per thousand pounds in 2022 to \$*** per thousand pounds in 2023 and \$*** per thousand pounds in 2024). Unit labor costs were *** percent higher in interim 2025 than interim 2024 (\$*** per thousand pounds compared to \$*** per thousand pounds).⁸

Table 3.8 Hexamine: U.S. producers’ employment related information, by period

Interim period is January through March

Item	2022	2023	2024	Interim 2024	Interim 2025
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.

⁸ These figures are presented in dollars per pound as opposed to dollars per thousand pounds in table 3.8 and are thus rounded to approximately *** per pound in the full year and interim 2024 periods and to \$*** in the interim 2025 period.

Part 4: U.S. imports, apparent U.S. consumption, and market shares

U.S. importers

The Commission issued importer questionnaires to 22 firms believed to be importers of subject hexamine, as well as to U.S. producer, Bakelite.¹ Usable questionnaire responses were received from ten firms: Bradex; Continental Tire the Americas, LLC (“Continental”); Cross World; InterAtlas; Lanxess Corporation (“Lanxess”); Magnum International, Inc. (“Magnum”); Maxam North America, Inc. (“Maxam”); Neuchem; Riverside Specialty Chemicals Inc. (“Riverside”); and Seatex LLC (“Seatex”).^{2 3}

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

² Additionally, five firms submitted a response certifying that their firm had not imported hexamine since January 1, 2022: ***.

³ ***.

Questionnaire responses are estimated to represent the following shares of U.S. imports of hexamine during 2024:⁴

- China: *** percent
- Germany: *** percent⁵
- India: *** percent
- Saudi Arabia: *** percent
- Subject sources: *** percent⁶
- Nonsubject sources: *** percent⁷

⁴ Questionnaire coverage estimates have been calculated by comparing quantities of U.S. imports as reported in questionnaire responses to quantities of U.S. imports as reported in official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 2933.69.5000, accessed on June 23, 2025, with corrections from Census dated May 12, 2025, except for the Germany and nonsubject coverage estimate calculations as described in footnotes 5 and 7.

⁵ ***.

⁶ ***.

⁷ ***.

Table 4.1 presents the U.S. importers that have provided questionnaire responses, their headquarters, and the shares of imports within each source for 2024.

Table 4.1 Hexamine: U.S. importers, their headquarters, and share of imports within each source, 2024

Share in percent

Firm	Headquarters	China	Germany	India	Saudi Arabia	Subject sources
BIMEX	Brodheadsville, PA	***	***	***	***	***
Bradex	Bradford, ON	***	***	***	***	***
Continental	Fort Mill, SC	***	***	***	***	***
Cross World	Cape May, NJ	***	***	***	***	***
InterAtlas	St. Catharines, ON	***	***	***	***	***
Lanxess	Pittsburgh, PA	***	***	***	***	***
Magnum	Crown Point, IN	***	***	***	***	***
MAXAM	Mooreville, NC	***	***	***	***	***
Neuchem	Sparks, NV	***	***	***	***	***
Riverside	Haskell, NJ	***	***	***	***	***
Seatex	Rosenberg, TX	***	***	***	***	***
All firms	Various	100.0	100.0	100.0	100.0	100.0

Table continued.

Table 4.1 (Continued) Hexamine: U.S. importers, their headquarters, and share of imports within each source, 2024

Share in percent

Firm	Headquarters	Russia	All other sources	Nonsubject sources	All import sources
BIMEX	Brodheadsville, PA	***	***	***	***
Bradex	Bradford, ON	***	***	***	***
Continental	Fort Mill, SC	***	***	***	***
Cross World	Cape May, NJ	***	***	***	***
InterAtlas	St. Catharines, ON	***	***	***	***
Lanxess	Pittsburgh, PA	***	***	***	***
Magnum	Crown Point, IN	***	***	***	***
MAXAM	Mooreville, NC	***	***	***	***
Neuchem	Sparks, NV	***	***	***	***
Riverside	Haskell, NJ	***	***	***	***
Seatex	Rosenberg, TX	***	***	***	***
All firms	Various	—	100.0	100.0	100.0

Source: Compiled from data in response to Commission questionnaires.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Note: ***.

U.S. imports

Table 4.2 presents data for U.S. imports of hexamine by source and period as reported in questionnaire responses.⁸ Total U.S. imports of hexamine, by quantity, decreased *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Total U.S. imports were *** percent higher in interim 2025 than in interim 2024 (*** pounds compared to *** pounds).⁹ By value, total U.S. imports of hexamine irregularly decreased *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to approximately \$*** in 2023 and 2024). The value of U.S. imports was *** percent higher across the interim periods (\$*** compared to \$***).

⁸ ***.

⁹ U.S. import quantities and values reported in hundreds of thousands are rounded numbers.

Subject imports, by quantity, increased 121.2 percent from 2022 to 2024 (increasing from 1.9 million pounds in 2022 to 2.1 million pounds in 2023 and to 4.1 million pounds in 2024)¹⁰ and were 1.2 percent higher across the interim periods (774,000 pounds compared to 765,000 pounds).¹¹ By value, subject imports increased 95.6 percent from 2022 to 2024 (increasing from \$1.6 million in 2022 to \$3.2 million in 2024).¹² Subject imports were 13.3 percent higher across the interim periods by value (\$640,000 compared to \$565,000).¹³

¹⁰ U.S. imports from Saudi Arabia increased by *** percent from 2022 to 2024 and were thus responsible for the bulk of the increase in subject imports (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). U.S. imports from India also increased (albeit irregularly) *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 before increasing to *** pounds in 2024). Comparatively, U.S. imports of hexamine from China and Germany both decreased irregularly. U.S. imports from China decreased irregularly *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 before decreasing to *** pounds in 2024). U.S. imports from Germany decreased irregularly *** percent (decreasing from *** pounds in 2022 to *** pounds in 2023 before increasing to *** pounds in 2024).

¹¹ U.S. imports from India and Saudi Arabia were higher across the interim periods, while U.S. imports from China and Germany were lower. U.S. imports from India were *** percent higher across interim periods (*** pounds compared to *** pounds), and U.S. imports from Saudi Arabia were *** percent higher across interim periods (*** pounds compared to *** pounds). U.S. imports from Germany were *** percent lower across interim periods (*** pounds compared to *** pounds), while there were *** reported U.S. imports of hexamine from China in interim 2025 compared to *** pounds in interim 2024.

¹² By value, U.S. imports of hexamine from Saudi Arabia increased *** percent from 2022 to 2024 (increasing from \$*** in 2022 to \$*** in 2023 and to \$*** in 2024). The value of U.S. imports of hexamine from India increased *** percent irregularly from 2022 to 2024 (decreasing from \$*** in 2022 to \$*** in 2023 before increasing to \$*** in 2024). The value of U.S. imports of hexamine from Germany decreased irregularly by *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to \$*** in 2023 before increasing to \$*** in 2024). The value of U.S. imports of hexamine from China decreased irregularly by *** percent from 2022 to 2024 (increasing from \$*** in 2022 to \$*** in 2023 before decreasing to \$*** in 2024).

¹³ There were *** reported U.S. imports of hexamine from China in interim 2025 compared to \$*** worth of imports from China in interim 2024. The value of U.S. imports of hexamine from Germany, India, and Saudi Arabia were all higher across the interim periods. U.S. imports from Germany were *** percent higher across interim periods by value (\$*** compared to \$***). U.S. imports from India were *** percent higher across the interim periods (\$*** compared to \$***). U.S. imports from Saudi Arabia were *** percent higher across the interim periods (\$*** compared to \$***).

U.S. imports of hexamine from nonsubject sources decreased *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). U.S. imports of hexamine from nonsubject sources were *** percent higher across the interim periods (*** pounds compared to *** pounds). By value, U.S. nonsubject imports decreased *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to \$*** in 2023 and to \$*** in 2024).¹⁴ The value of nonsubject imports was *** percent higher across the interim periods (\$*** compared to \$***).

Resultingly, nonsubject imports (nearly all from Russia) were the leading source of U.S. imports of hexamine, by quantity, in 2022 and 2023. U.S. imports from Russia accounted for *** percent of total U.S. imports in 2022, and this share decreased to *** percent in 2023 by quantity (*** percent of the share of the total value in 2022 decreasing to *** percent in 2023). Following Russia's exit from the market, subject imports increased to *** percent of total U.S. imports, by quantity, in 2024 (*** percent by value). Saudi Arabia was the largest subject source in 2024 (*** percent of all 2024 imports by quantity and *** percent by value), followed by India (*** percent of all 2024 imports by quantity and *** percent by value), Germany (*** percent of all 2024 imports by quantity and *** percent by value), and China (*** percent of all 2024 imports by quantity and *** percent by value).

¹⁴ Russia was previously the largest source of U.S. imports of hexamine; however, imports from Russia began to decline ahead of Russia's invasion of Ukraine and continued to decline until Russia exited the U.S. market entirely in 2023 after Russian authorities seized control of Metafrax Chemicals, the largest producer of hexamine in Russia. U.S. imports of hexamine from Russia decreased from *** pounds (\$***) in 2022 to *** pounds (\$***) in 2023 and decreased to zero in 2024 and interim 2025.

Average unit values (“AUVs”) of imports from subject sources decreased from 2022 to 2024 (decreasing from \$0.87 per pound in 2022 to \$0.80 per pound in 2023 and to \$0.77 per pound in 2024).¹⁵ AUVs of imports from subject sources were higher across the interim periods (\$0.83 per pound compared to \$0.74 per pound).¹⁶ AUVs of imports from nonsubject sources increased irregularly from 2022 to 2024 (decreasing from \$*** per pound in 2022 to \$*** per pound in 2023 before increasing to \$*** per pound in 2024).¹⁷ AUVs of imports from nonsubject sources were higher in interim 2025 than interim 2024 (\$*** per pound compared to \$*** per pound). AUVs of imports from all sources increased irregularly from 2022 to 2024 (decreasing from \$*** per pound in 2022 to \$*** per pound in 2023 before increasing to \$*** per pound). AUVs of imports from all import sources were higher across the interim periods (\$*** per pound compared to \$*** per pound).

¹⁵ AUVs of imports from all individual subject sources were lower in 2024 than in 2022. AUVs of imports from China decreased irregularly (decreasing from \$*** per pound in 2022 to \$*** per pound in 2023 before increasing to \$*** per pound in 2024). AUVs of imports from Germany decreased from \$*** per pound in 2022 to \$*** per pound in 2023 and to \$*** per pound in 2024. AUVs of imports from India decreased irregularly (increasing from \$*** per pound in 2022 to \$*** per pound in 2023 before decreasing to \$*** per pound in 2024). AUVs of imports from Saudi Arabia decreased irregularly over the full year periods (decreasing from \$*** per pound in 2022 to \$*** per pound in 2023 before increasing to \$*** per pound in 2024).

¹⁶ There were zero reported U.S. imports of hexamine from China in interim 2025. AUVs of imports from Germany, India, and Saudi Arabia were all higher in interim 2025 than interim 2024 (\$*** per pound compared to \$*** per pound for Germany, \$*** per pound compared to \$*** per pound for India, and \$*** per pound compared to \$*** per pound for Saudi Arabia).

¹⁷ As previously noted, virtually all nonsubject imports in 2022 and 2023 were from Russia, whereas all nonsubject imports in 2024 reported in questionnaire responses were from Spain. Petitioner stated that it was unaware of hexamine production in Spain. Hearing transcript, pp. 66, 80 (Kanna). ***.

Table 4.2 Hexamine: U.S. imports by source and period

Quantity in 1,000 pounds; value in 1,000 dollars; unit values in dollars per pound; interim period is January through March

Source	Measure	2022	2023	2024	Interim 2024	Interim 2025
China	Quantity	***	***	***	***	***
Germany	Quantity	***	***	***	***	***
India	Quantity	***	***	***	***	***
Saudi Arabia	Quantity	***	***	***	***	***
Subject sources	Quantity	1,862	2,069	4,119	765	774
Russia	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
China	Value	***	***	***	***	***
Germany	Value	***	***	***	***	***
India	Value	***	***	***	***	***
Saudi Arabia	Value	***	***	***	***	***
Subject sources	Value	1,617	1,649	3,164	565	640
Russia	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
China	Unit value	***	***	***	***	***
Germany	Unit value	***	***	***	***	***
India	Unit value	***	***	***	***	***
Saudi Arabia	Unit value	***	***	***	***	***
Subject sources	Unit value	0.87	0.80	0.77	0.74	0.83
Russia	Unit value	***	***	***	***	***
All other sources	Unit value	***	***	***	***	***
Nonsubject sources	Unit value	***	***	***	***	***
All import sources	Unit value	***	***	***	***	***

Table continued.

Table 4.2 (Continued) Hexamine: U.S. imports by source and period

Share and ratio in percent; ratio represents the ratio to U.S. production; interim period is January through March

Source	Measure	2022	2023	2024	Interim 2024	Interim 2025
China	Share of quantity	***	***	***	***	***
Germany	Share of quantity	***	***	***	***	***
India	Share of quantity	***	***	***	***	***
Saudi Arabia	Share of quantity	***	***	***	***	***
Subject sources	Share of quantity	***	***	***	***	***
Russia	Share of quantity	***	***	***	***	***
All other sources	Share of quantity	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***
All import sources	Share of quantity	100.0	100.0	100.0	100.0	100.0
China	Share of value	***	***	***	***	***
Germany	Share of value	***	***	***	***	***
India	Share of value	***	***	***	***	***
Saudi Arabia	Share of value	***	***	***	***	***
Subject sources	Share of value	***	***	***	***	***
Russia	Share of value	***	***	***	***	***
All other sources	Share of value	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	100.0	100.0	100.0	100.0	100.0
China	Ratio	***	***	***	***	***
Germany	Ratio	***	***	***	***	***
India	Ratio	***	***	***	***	***
Saudi Arabia	Ratio	***	***	***	***	***
Subject sources	Ratio	***	***	***	***	***
Russia	Ratio	***	***	***	***	***
All other sources	Ratio	***	***	***	***	***
Nonsubject sources	Ratio	***	***	***	***	***
All import sources	Ratio	***	***	***	***	***

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Figure 4.1 Hexamine: U.S. import quantities and average unit values, by source and period

* * * * *

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

Table 4.3 Hexamine: Changes in U.S. imports by source and period

Changes (Δ) in percent (%); interim period is January through March

Source	Measure	2022 to 2024	2022 to 2023	2023 to 2024	Interim 2024 to 2025
China	% Δ Quantity	▼***	▲***	▼***	▼***
Germany	% Δ Quantity	▼***	▼***	▲***	▼***
India	% Δ Quantity	▲***	▼***	▲***	▲***
Saudi Arabia	% Δ Quantity	▲***	▲***	▲***	▲***
Subject sources	% Δ Quantity	▲121.2	▲11.1	▲99.1	▲1.2
Russia	% Δ Quantity	▼***	▼***	▼***	***
All other	% Δ Quantity	▲***	▼***	▲***	▲***
Nonsubject sources	% Δ Quantity	▼***	▼***	▼***	▲***
All import sources	% Δ Quantity	▼***	▼***	▼***	▲***
China	% Δ Value	▼***	▲***	▼***	▼***
Germany	% Δ Value	▼***	▼***	▲***	▲***
India	% Δ Value	▲***	▼***	▲***	▲***
Saudi Arabia	% Δ Value	▲***	▲***	▲***	▲***
Subject sources	% Δ Value	▲95.6	▲2.0	▲91.8	▲13.3
Russia	% Δ Value	▼***	▼***	▼***	***
All other	% Δ Value	▲***	▼***	▲***	▲***
Nonsubject sources	% Δ Value	▼***	▼***	▼***	▲***
All import sources	% Δ Value	▼***	▼***	▲***	▲***
China	% Δ Unit value	▼***	▼***	▲***	▼***
Germany	% Δ Unit value	▼***	▼***	▼***	▲***
India	% Δ Unit value	▼***	▲***	▼***	▲***
Saudi Arabia	% Δ Unit value	▼***	▼***	▲***	▲***
Subject sources	% Δ Unit value	▼(11.5)	▼(8.2)	▼(3.6)	▲12.0
Russia	% Δ Unit value	▼***	▼***	▼***	***
All other	% Δ Unit value	▲***	▼***	▲***	▲***
Nonsubject sources	% Δ Unit value	▲***	▼***	▲***	▲***
All import sources	% Δ Unit value	▲***	▼***	▲***	▲***

Table continued.

Table 4.3 (Continued) Hexamine: Changes in U.S. imports by source and period

Changes (Δ) in percentage point (ppt); interim period is January through March

Source	Measure	2022 to 2024	2022 to 2023	2023 to 2024	Interim 2024 to 2025
China	ppt Δ Quantity	▲***	▲***	▼***	▼***
Germany	ppt Δ Quantity	▲***	▼***	▲***	▼***
India	ppt Δ Quantity	▲***	▼***	▲***	▲***
Saudi Arabia	ppt Δ Quantity	▲***	▲***	▲***	▲***
Subject sources	ppt Δ Quantity	▲***	▲***	▲***	▼***
Russia	ppt Δ Quantity	▼***	▼***	▼***	***
All other	ppt Δ Quantity	▲***	▼***	▲***	▲***
Nonsubject sources	ppt Δ Quantity	▼***	▼***	▼***	▲***
All import sources	ppt Δ Quantity	***	***	***	***
China	ppt Δ Value	▼***	▲***	▼***	▼***
Germany	ppt Δ Value	▲***	▼***	▲***	▼***
India	ppt Δ Value	▲***	▼***	▲***	▲***
Saudi Arabia	ppt Δ Value	▲***	▲***	▲***	▲***
Subject sources	ppt Δ Value	▲***	▲***	▲***	▼***
Russia	ppt Δ Value	▼***	▼***	▼***	***
All other	ppt Δ Value	▲***	▼***	▲***	▲***
Nonsubject sources	ppt Δ Value	▼***	▼***	▼***	▲***
All import sources	ppt Δ Value	***	***	***	***
China	ppt Δ Ratio	▲***	▲***	▼***	▼***
Germany	ppt Δ Ratio	▲***	▼***	▲***	▲***
India	ppt Δ Ratio	▲***	▼***	▲***	▲***
Saudi Arabia	ppt Δ Ratio	▲***	▲***	▲***	▲***
Subject sources	ppt Δ Ratio	▲***	▲***	▲***	▲***
Russia	ppt Δ Ratio	▼***	▼***	▼***	***
All other	ppt Δ Ratio	▲***	▼***	▲***	▲***
Nonsubject sources	ppt Δ Ratio	▼***	▼***	▼***	▲***
All import sources	ppt Δ Ratio	▼***	▼***	▼***	▲***

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

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.

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.¹⁸ 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 such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.¹⁹

As shown in table 4.4, U.S. imports from China accounted for *** percent, U.S. imports from Germany accounted for *** percent, U.S. imports from India accounted for *** percent, and U.S. imports from Saudi Arabia accounted for *** percent of total U.S. imports of hexamine, by quantity, from September 2023 through August 2024. U.S. imports from subject sources accounted for *** percent of total U.S. imports of hexamine by quantity during the negligibility period.

Table 4.4 Hexamine: U.S. imports in the twelve-month period preceding the filing of the petitions, September 2023 through August 2024

Quantity in 1,000 pounds; share in percent

Source of imports	Quantity	Share of quantity
China	***	***
Germany	***	***
India	***	***
Saudi Arabia	***	***
Russia	***	***
All other sources	***	***
All sources	***	100.0

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

¹⁸ 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)).

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

Cumulation considerations

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

Fungibility

The Commission collected data on U.S. shipments by hexamine content level with the following breakout options: greater than 50 percent to 91 percent purity hexamine, between 91 percent and 95 percent purity hexamine, greater than 95 percent to 99 percent purity hexamine, and greater than 99 percent to 100 percent purity hexamine. Shipments vary by hexamine content as additives can be included in shipments depending on the customers' end-use needs for reasons such as improving particle flow, preventing agglomeration, and for dust suppression purposes.

Table 4.5 and figure 4.2 present U.S. shipments by level of hexamine content/presence of additives as reported by U.S. producer Bakelite and by U.S. importers. As shown in the table and figure, the vast majority of Bakelite's 2024 U.S. shipments were of greater than 99 percent purity hexamine (***) percent of U.S. shipments) followed by 95 to 99 percent purity hexamine (***) percent of U.S. shipments). Bakelite also reported the remaining *** percent of its 2024 U.S. shipments were of 91 to 95 percent purity hexamine.

Comparatively, *** percent of U.S. shipments of hexamine from subject sources were of greater than 99 percent purity hexamine followed by 95 to 99 percent purity hexamine (***) percent of U.S. shipments), and U.S. shipments of 50 to 91 percent purity hexamine (***) percent of U.S. shipments).²⁰ Approximately *** percent of U.S. shipments from nonsubject sources were of 95 to 99 percent purity hexamine with the remaining *** percent of U.S. shipments from nonsubject sources being greater than 99 percent purity hexamine.

²⁰ *** the reported 2024 U.S. shipments of U.S. imports from China were of greater than 99 percent purity hexamine. Approximately *** percent of 2024 U.S. shipments of U.S. imports from Germany were of greater than 99 percent purity hexamine with the remaining *** percent being between 95 and 99 percent purity hexamine. Approximately *** percent of U.S. shipments of U.S. imports from India in 2024 were of greater than 99 percent purity hexamine followed by 95 to 99 percent purity hexamine (***) percent) and 50 to 91 percent purity hexamine (***) percent). Approximately *** percent of 2024 U.S. shipments of imports from Saudi Arabia were of greater than 99 percent purity hexamine with the remaining *** percent being between 95 and 99 percent purity.

Table 4.5 Hexamine: U.S. producers' and U.S. importers' U.S. shipments, by source and hexamine molecule content, 2024

Quantity in 1,000 pounds

Source	Greater than 50 and less than or equal to 91 percent	Greater than 91 and less than or equal to 95 percent	Greater than 95 and less than or equal to 99 percent	Greater than 99 and less than or equal to 100 percent	All concentrations
U.S. producers	***	***	***	***	***
China	***	***	***	***	***
Germany	***	***	***	***	***
India	***	***	***	***	***
Saudi Arabia	***	***	***	***	***
Subject sources	***	***	***	***	***
Russia	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
All sources	***	***	***	***	***

Table continued.

Table 4.5 (Continued) Hexamine: U.S. producers' and U.S. importers' U.S. shipments, by source and hexamine molecule content, 2024

Share across in percent

Source	Greater than 50 and less than or equal to 91 percent	Greater than 91 and less than or equal to 95 percent	Greater than 95 and less than or equal to 99 percent	Greater than 99 and less than or equal to 100 percent	All concentrations
U.S. producers	***	***	***	***	100.0
China	***	***	***	***	100.0
Germany	***	***	***	***	100.0
India	***	***	***	***	100.0
Saudi Arabia	***	***	***	***	100.0
Subject sources	***	***	***	***	100.0
Russia	***	***	***	***	100.0
All other sources	***	***	***	***	100.0
Nonsubject sources	***	***	***	***	100.0
All import sources	***	***	***	***	100.0
All sources	***	***	***	***	100.0

Table continued.

Table 4.5 (Continued) Hexamine: U.S. producers' and U.S. importers' U.S. shipments, by source and hexamine content level, 2024

Share down in percent

Source	Greater than 50 and less than or equal to 91 percent	Greater than 91 and less than or equal to 95 percent	Greater than 95 and less than or equal to 99 percent	Greater than 99 and less than or equal to 100 percent	All concentrations
U.S. producers	***	***	***	***	***
China	***	***	***	***	***
Germany	***	***	***	***	***
India	***	***	***	***	***
Saudi Arabia	***	***	***	***	***
Subject sources	***	***	***	***	***
Russia	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
All sources	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 "—".

Figure 4.2 Hexamine: U.S. producers' and U.S. importers' U.S. shipments, by source and hexamine content level, 2024

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires

Geographical markets

Table 4.6 presents U.S. import quantities of hexamine as reported under HTS statistical reporting number 2933.69.5000 by source and border of entry region during 2024. In 2024, official import statistics show that approximately 62.9 percent of U.S. imports of hexamine from subject sources entered through customs entry districts in the East region²¹ of the United States followed by the North region (35.7 percent)²² and the South region (1.4 percent)²³ with no U.S. imports of hexamine reported as having entered through the West region.²⁴

All U.S. imports of hexamine from China and Saudi Arabia and the majority of imports from India (69.9 percent) entered through the East border in 2024. Comparatively, the vast majority of imports from Germany entered through the North border (91.3 percent) with the remainder entering through the South and East borders in 2024. Approximately 30.1 percent of U.S. imports of hexamine from India entered through the North border in 2024.

²¹ The eastern border of entry encompasses the following customs entry districts: Washington, DC; Savannah, Georgia; Portland, Maine; Baltimore, Maryland; Boston, Massachusetts; Charlotte, North Carolina; Buffalo and Ogdensburg, New York; Philadelphia, Pennsylvania; San Juan, Puerto Rico; Charleston, South Carolina; Norfolk, Virginia; and St. Albans, Vermont.

²² The northern border encompasses the following customs entry districts: Chicago, Illinois; Detroit, Michigan; St. Louis, Missouri; Duluth and Minneapolis, Minnesota; Great Falls, Montana; Pembina, North Dakota; and Cleveland, Ohio.

²³ The southern border encompasses the following customs entry districts: Mobile, Alabama; New Orleans, Louisiana; Miami and Tampa, Florida; and Dallas-Fort Worth, El Paso, Houston-Galveston, and Laredo, Texas.

²⁴ The western border encompasses the following customs entry districts: Anchorage, Alaska; Los Angeles, San Diego, and San Francisco, California; Honolulu, Hawaii; Columbia-Snake, Oregon; and Seattle, Washington.

Table 4.6 Hexamine: U.S. imports by source and by border of entry, 2024

Quantity in 1,000 pounds

Source	East	North	South	West	All borders
China	79	—	—	—	79
Germany	51	1,244	68	—	1,362
India	1,032	445	—	—	1,476
Saudi Arabia	1,812	—	—	—	1,812
Subject sources	2,974	1,688	68	—	4,730
Russia	—	—	—	—	—
All other sources	1,602	—	2	—	1,604
Nonsubject sources	1,602	—	2	—	1,604
All import sources	4,576	1,688	70	—	6,334

Table continued.

Table 4.6 (Continued) Hexamine: U.S. imports by source and by border of entry, 2024

Share in percent

Source	East	North	South	West	All borders
China	100.0	—	—	—	100.0
Germany	3.7	91.3	5.0	—	100.0
India	69.9	30.1	—	—	100.0
Saudi Arabia	100.0	—	—	—	100.0
Subject sources	62.9	35.7	1.4	—	100.0
Russia	—	—	—	—	—
All other sources	99.9	—	0.1	—	100.0
Nonsubject sources	99.9	—	0.1	—	100.0
All import sources	72.2	26.7	1.1	—	100.0

Table continued.

Table 4.6 (Continued) Hexamine: U.S. imports by source and by border of entry, 2024

Share in percent

Source	East	North	South	West	All borders
China	1.7	—	—	—	1.3
Germany	1.1	73.7	96.8	—	21.5
India	22.5	26.3	—	—	23.3
Saudi Arabia	39.6	—	—	—	28.6
Subject sources	65.0	100.0	96.8	—	74.7
Russia	—	—	—	—	—
All other sources	35.0	—	3.2	—	25.3
Nonsubject sources	35.0	—	3.2	—	25.3
All import sources	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 statistical reporting number 2933.69.5000, accessed June 23, 2025. Imports are based on the imports for consumption data series.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”. There were no U.S. imports from Russia after June 2023.

Presence in the market

Table 4.7 and figures 4.3 and 4.4 present monthly U.S. imports for subject countries and nonsubject sources as reported in questionnaire responses. U.S. imports of hexamine from subject sources entered the country in 34 of the 39 months between January 2022 and March 2025.²⁵ U.S. imports from nonsubject sources entered in 19 of the 39 months between January 2022 and March 2025.²⁶ In total, imports of hexamine from all sources were present in all but two of the months between January 2022 and March 2025.

²⁵ U.S. imports from China entered in 9 of the 39 months, U.S. imports from Germany entered in 31 of the 39 months, U.S. imports from India entered in 16 of the 39 months, and U.S. imports from Saudi Arabia entered in 17 of the 39 months between January 2022 and March 2025.

²⁶ U.S. imports from nonsubject source Russia entered in 13 of the 18 months between January 2022 and June 2023 but were not present at all in the U.S. market in the months after June 2023. U.S. imports from sources other than subject sources or Russia were present in 9 of the 39 months between January 2022 and March 2025.

Table 4.7 Hexamine: U.S. imports, by month and source

Quantity in 1,000 pounds

Year	Month	China	Germany	India	Saudi Arabia	Subject sources
2022	January	***	***	***	***	***
2022	February	***	***	***	***	***
2022	March	***	***	***	***	***
2022	April	***	***	***	***	***
2022	May	***	***	***	***	***
2022	June	***	***	***	***	***
2022	July	***	***	***	***	***
2022	August	***	***	***	***	***
2022	September	***	***	***	***	***
2022	October	***	***	***	***	***
2022	November	***	***	***	***	***
2022	December	***	***	***	***	***
2023	January	***	***	***	***	***
2023	February	***	***	***	***	***
2023	March	***	***	***	***	***
2023	April	***	***	***	***	***
2023	May	***	***	***	***	***
2023	June	***	***	***	***	***
2023	July	***	***	***	***	***
2023	August	***	***	***	***	***
2023	September	***	***	***	***	***
2023	October	***	***	***	***	***
2023	November	***	***	***	***	***
2023	December	***	***	***	***	***

Table continued

Table 4.7 (Continued) Hexamine: U.S. imports, by month and source

Quantity in 1,000 pounds

Year	Month	Russia	All other sources	Nonsubject sources	All import sources
2022	January	***	***	***	***
2022	February	***	***	***	***
2022	March	***	***	***	***
2022	April	***	***	***	***
2022	May	***	***	***	***
2022	June	***	***	***	***
2022	July	***	***	***	***
2022	August	***	***	***	***
2022	September	***	***	***	***
2022	October	***	***	***	***
2022	November	***	***	***	***
2022	December	***	***	***	***
2023	January	***	***	***	***
2023	February	***	***	***	***
2023	March	***	***	***	***
2023	April	***	***	***	***
2023	May	***	***	***	***
2023	June	***	***	***	***
2023	July	***	***	***	***
2023	August	***	***	***	***
2023	September	***	***	***	***
2023	October	***	***	***	***
2023	November	***	***	***	***
2023	December	***	***	***	***

Table continued.

Table 4.7 (Continued) Hexamine: U.S. imports, by month and source

Quantity in 1,000 pounds

Year	Month	China	Germany	India	Saudi Arabia	Subject sources
2024	January	***	***	***	***	***
2024	February	***	***	***	***	***
2024	March	***	***	***	***	***
2024	April	***	***	***	***	***
2024	May	***	***	***	***	***
2024	June	***	***	***	***	***
2024	July	***	***	***	***	***
2024	August	***	***	***	***	***
2024	September	***	***	***	***	***
2024	October	***	***	***	***	***
2024	November	***	***	***	***	***
2024	December	***	***	***	***	***
2025	January	***	***	***	***	***
2025	February	***	***	***	***	***
2025	March	***	***	***	***	***

Table continued.

Table 4.7 (Continued) Hexamine: U.S. imports, by month and source

Quantity in 1,000 pounds

Year	Month	Russia	All other sources	Nonsubject sources	All import sources
2024	January	***	***	***	***
2024	February	***	***	***	***
2024	March	***	***	***	***
2024	April	***	***	***	***
2024	May	***	***	***	***
2024	June	***	***	***	***
2024	July	***	***	***	***
2024	August	***	***	***	***
2024	September	***	***	***	***
2024	October	***	***	***	***
2024	November	***	***	***	***
2024	December	***	***	***	***
2025	January	***	***	***	***
2025	February	***	***	***	***
2025	March	***	***	***	***

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Figure 4.3 Hexamine: U.S. imports from individual subject sources, by source and month

* * * * *

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

Figure 4.4 Hexamine: U.S. imports from aggregated subject and nonsubject sources, by month

* * * * *

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

Apparent U.S. consumption and market shares

Total market

Total market by quantity

Table 4.8 and figure 4.5 present data on apparent U.S. consumption and U.S. market shares by quantity for the total market for hexamine. Total apparent U.S. consumption of hexamine decreased *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Total apparent U.S. consumption was *** percent lower across the interim periods (*** pounds compared to *** pounds).

U.S. producer Bakelite's total U.S. shipments decreased *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Bakelite's total market share decreased *** percentage points from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024). Bakelite's U.S. shipments were *** percent lower across the interim periods (*** pounds compared to *** pounds), and the company's share of apparent U.S. consumption was *** percentage points lower across the interim periods (*** percent compared to *** percent).

U.S. shipments of subject imports increased 186.7 percent from 2022 to 2024 (increasing from 1.5 million pounds in 2022 to 1.7 million pounds in 2023 and to 4.4 million pounds in 2024).²⁷ Subject imports' share of total apparent U.S. consumption increased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024).²⁸ U.S. shipments of subject imports were 6.8 percent higher across the interim periods (880,000 pounds compared to 825,000 pounds),²⁹ and subject imports' share of apparent U.S. consumption was *** percentage points higher across the interim periods (*** percent compared to *** percent).³⁰

²⁷ U.S. shipments of imports from China decreased irregularly by *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 before decreasing to *** pounds in 2024). U.S. shipments of imports from Germany decreased irregularly by *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 before increasing to *** pounds in 2024). U.S. shipments of imports from India increased irregularly by *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 before increasing to *** pounds in 2024). U.S. shipments of imports from Saudi Arabia increased *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024).

²⁸ The total market share represented by U.S. shipments of imports from China increased from *** percent in 2022 to *** percent in 2023 before decreasing back to *** percent in 2024. The total market share represented by U.S. shipments of imports from Germany increased irregularly by *** percentage points from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). The total market share represented by U.S. shipments of imports from India increased irregularly by *** percentage points from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). The total market share represented by U.S. shipments of imports from Saudi Arabia increased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024).

²⁹ U.S. shipments of imports from Germany were *** percent lower across the interim periods (*** pounds compared to *** pounds). U.S. shipments of imports from India were *** percent higher across the interim periods (*** pounds compared to *** pounds). U.S. shipments of imports from Saudi Arabia were *** percent lower across the interim periods (*** pounds compared to *** pounds). There were *** U.S. shipments of imports from China in interim 2025 compared to *** pounds of U.S. shipments of imports from China in interim 2024.

³⁰ The total market share represented by U.S. shipments of imports from China was *** percentage points lower across the interim periods (*** percent compared to *** percent). The total market share represented by U.S. imports from Germany was *** percentage points higher across the interim periods (*** percent compared to *** percent). The total market share represented by U.S. imports from India was *** percentage points higher across the interim periods (*** percent compared to *** percent). The total market share represented by U.S. imports from Saudi Arabia was *** percentage points higher across the interim periods (*** percent compared to *** percent).

U.S. shipments of nonsubject imports decreased *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024).³¹ Nonsubject imports' total market share decreased *** percentage points from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024). Nonsubject import shipments were *** percent lower across the interim periods (*** pounds compared to *** pounds), and nonsubject imports' total market share was *** percentage points lower across the interim periods (*** percent compared to *** percent).

³¹ Virtually all the U.S. shipments of nonsubject imports were from Russia in 2022 and 2023, but U.S. imports of hexamine from Russia dropped to *** in 2024 and interim 2025. U.S. shipments from inventories of imports from Russia accounted for *** percent of apparent consumption in 2024 and *** percent of apparent consumption in interim 2025. The remaining U.S. shipments of nonsubject imports in 2024 and interim 2025 were reported by *** who reported importing the hexamine from ***. U.S. shipments of imports from *** (all of which was reported as ***) accounted for *** and *** percent of apparent consumption in 2024 and interim 2025, respectively.

Table 4.8 Hexamine: Apparent U.S. total market consumption and market shares based on quantity data, by source and period

Quantity in 1,000 pounds; shares in percent; interim period is January through March

Source	Measure	2022	2023	2024	Interim 2024	Interim 2025
U.S. producers	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Germany	Quantity	***	***	***	***	***
India	Quantity	***	***	***	***	***
Saudi Arabia	Quantity	***	***	***	***	***
Subject sources	Quantity	1,518	1,683	4,353	825	880
Russia	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
All sources	Quantity	***	***	***	***	***
U.S. producers	Share	***	***	***	***	***
China	Share	***	***	***	***	***
Germany	Share	***	***	***	***	***
India	Share	***	***	***	***	***
Saudi Arabia	Share	***	***	***	***	***
Subject sources	Share	***	***	***	***	***
Russia	Share	***	***	***	***	***
All other sources	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.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Figure 4.5 Hexamine: Apparent U.S. total market consumption and market shares based on quantity data, by source and period

* * * * *

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

Total market by value

Table 4.9 and figure 4.6 present data on apparent U.S. consumption and U.S. market shares by value for the total market for hexamine. Total apparent U.S. consumption of hexamine decreased *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to \$*** in 2023 and to \$*** in 2024). Total apparent U.S. consumption was *** percent lower across the interim periods (\$*** compared to \$***).

The value of U.S. producer Bakelite's total U.S. shipments decreased *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to \$*** in 2023 and to \$*** in 2024). Bakelite's total market share decreased irregularly by *** percentage points from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). The value of Bakelite's U.S. shipments was *** percent lower across the interim periods (\$*** compared to \$***), and the company's total market share was *** percentage points lower across the interim periods (*** percent compared to *** percent).

The value of U.S. shipments of subject imports increased 174.5 percent from 2022 to 2024 (increasing from \$1.6 million in 2022 to \$1.8 million in 2023 and to \$4.3 million in 2024).³² Subject imports' total market share increased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024).³³ U.S. shipments of subject imports were 10.4 percent higher across the interim periods

³² The value of U.S. shipments of imports from China decreased irregularly by *** percent from 2022 to 2024 (increasing from \$*** in 2022 to \$*** in 2023 before decreasing to \$*** in 2024). The value of U.S. shipments of imports from Germany decreased irregularly by *** percent over the period (decreasing from \$*** in 2022 to \$*** in 2023 before increasing to \$*** in 2024). The value of U.S. shipments of imports from India increased irregularly by *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to \$*** in 2023 before increasing to \$*** in 2024). The value of U.S. shipments of imports from Saudi Arabia increased *** percent from 2022 to 2024 (increasing from \$*** in 2022 to \$*** in 2023 and to \$*** in 2024).

³³ The share of the value of apparent U.S. consumption represented by U.S. shipments of imports from China increased from *** percent in 2022 to *** percent in 2023 before decreasing back to *** percent in 2024). Germany's share of total apparent U.S. consumption by value was *** from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing back to *** percent in 2024). U.S. imports from India's share of total apparent U.S. consumption by value increased *** percentage points irregularly from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). U.S. imports from Saudi Arabia's share of total apparent U.S. consumption by value increased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024).

by value (\$866,000 compared to \$784,000),³⁴ and subject imports' total market share was *** percentage points higher across the interim periods (*** percent compared to *** percent).³⁵

The value of U.S. shipments of nonsubject imports decreased *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to \$*** in 2023 and to \$*** in 2024).³⁶ Nonsubject imports' total market share decreased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 before decreasing to *** percent in 2024). The value of U.S. shipments of nonsubject imports was *** percent lower across the interim periods (\$*** compared to \$***), and nonsubject imports' total market share was *** percentage points lower across the interim periods (*** percent compared to *** percent).

³⁴ The value of U.S. shipments of imports from China was *** in interim 2025 compared to \$*** in interim 2024. The value of U.S. shipments of imports from Germany was *** percent higher across the interim periods (\$*** compared to \$***). The value of U.S. shipments of imports from India was *** percent higher across the interim periods (\$*** compared to \$***). The value of U.S. shipments of imports from Saudi Arabia was *** percent lower across the interim periods (\$*** compared to \$***).

³⁵ The total market share represented by U.S. shipments of imports from China was *** percentage points lower across the interim periods (*** percent compared to *** percent). The total market share represented by U.S. shipments of imports from Saudi Arabia was *** percentage points lower across the interim periods (*** percent compared to *** percent). Comparatively, the total market shares held by U.S. shipments of imports from Germany and India were both higher across the interim periods. The total market share represented by U.S. shipments of imports from Germany was *** percentage points higher across the interim periods (*** percent compared to *** percent), while the total market share represented by U.S. shipments of imports from India was *** percentage points higher across the interim periods (*** percent compared to *** percent).

³⁶ As previously noted, virtually all the U.S. shipments of nonsubject imports were from Russia in 2022 and 2023, but U.S. imports of hexamine from Russia dropped to *** in the 2024 and interim 2025 periods. The value of U.S. shipments from inventories of imports from Russia accounted for *** percent of apparent consumption in 2024 and *** percent of apparent consumption in interim 2025 by value. The remaining U.S. shipments of nonsubject imports in 2024 and interim 2025 were reported by *** who reported importing the hexamine from ***. U.S. shipments of imports from *** (all of which was reported as ***) accounted for *** and *** percent of apparent consumption by value in 2024 and interim 2025, respectively.

Table 4.9 Hexamine: Apparent U.S. total market consumption and total shares based on value data, by source and period

Value in 1,000 dollars; shares in percent; interim period is January through March

Source	Measure	2022	2023	2024	Interim 2024	Interim 2025
U.S. producers	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Germany	Value	***	***	***	***	***
India	Value	***	***	***	***	***
Saudi Arabia	Value	***	***	***	***	***
Subject sources	Value	1,550	1,831	4,255	784	866
Russia	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
All sources	Value	***	***	***	***	***
U.S. producers	Share	***	***	***	***	***
China	Share	***	***	***	***	***
Germany	Share	***	***	***	***	***
India	Share	***	***	***	***	***
Saudi Arabia	Share	***	***	***	***	***
Subject sources	Share	***	***	***	***	***
Russia	Share	***	***	***	***	***
All other sources	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.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Figure 4.6 Hexamine: Apparent U.S. total market consumption and market shares based on value data, by source and period

* * * * *

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

Merchant market

Merchant market by quantity

Table 4.10 and figure 4.7 present data on apparent U.S. consumption and U.S. market shares by quantity for hexamine for the merchant market. Apparent U.S. merchant market consumption decreased *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Apparent U.S. merchant market consumption was *** percent lower across the interim periods (*** pounds compared to *** pounds).

U.S. producer Bakelite's commercial U.S. shipments decreased *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 before increasing to *** pounds in 2024). Bakelite's share of the merchant market decreased *** percentage points from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024). Bakelite's commercial U.S. shipments were *** percent lower across the interim periods (*** pounds compared to *** pounds), and the company's share of the merchant market was *** percentage points lower across the interim periods (*** percent compared to *** percent).

Subject imports' share of the merchant market increased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024).³⁷ Subject imports' share of the merchant market was *** percentage points higher across the interim periods (*** percent compared to *** percent).³⁸

Nonsubject imports' share of the merchant market decreased *** percentage points from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024). Nonsubject imports' share of the merchant market was *** percentage points lower in interim 2025 than interim 2024 (*** percent compared to *** percent).

³⁷ The share of the merchant market represented by U.S. shipments of imports from China increased from *** percent in 2022 to *** percent in 2023 before decreasing to *** percent in 2024. The share of the merchant market represented by U.S. shipments of imports from Germany increased *** percentage points irregularly from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). The share of the merchant market represented by U.S. shipments of imports from India increased *** percentage points irregularly from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). The share of the merchant market represented by U.S. shipments of imports from Saudi Arabia increased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024).

³⁸ Shares for U.S. shipments of imports from Germany, India, and Saudi Arabia were higher across the interim periods, while the share for U.S. shipments of imports from China was lower. Germany's share was *** percentage points higher across the interim periods (*** percent compared to *** percent). India's share of apparent U.S. consumption was *** percentage points higher across the interim periods (*** percent compared to *** percent). Saudi Arabia's share of apparent U.S. consumption was *** percentage points higher across the interim periods (*** percent compared to *** percent). China's merchant market share was *** percentage points lower across the interim periods (*** percent compared to *** percent).

Table 4.10 Hexamine: Apparent U.S. merchant market consumption and market shares based on quantity data, by source and period

Quantity in 1,000 pounds; shares in percent; interim period is January through March

Source	Measure	2022	2023	2024	Interim 2024	Interim 2025
U.S. producers	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Germany	Quantity	***	***	***	***	***
India	Quantity	***	***	***	***	***
Saudi Arabia	Quantity	***	***	***	***	***
Subject sources	Quantity	1,518	1,683	4,353	825	880
Russia	Quantity	***	***	***	***	***
All other sources	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
All sources	Quantity	***	***	***	***	***
U.S. producers	Share	***	***	***	***	***
China	Share	***	***	***	***	***
Germany	Share	***	***	***	***	***
India	Share	***	***	***	***	***
Saudi Arabia	Share	***	***	***	***	***
Subject sources	Share	***	***	***	***	***
Russia	Share	***	***	***	***	***
All other sources	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.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Figure 4.7 Hexamine: Apparent U.S. merchant market consumption and market shares based on quantity data, by source and period

* * * * *

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

Merchant market by value

Table 4.11 and figure 4.8 present data on apparent U.S. consumption and U.S. market shares by value for hexamine for the merchant market. Apparent U.S. merchant market consumption decreased *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to \$*** in 2023 before increasing to \$*** in 2024). Apparent U.S. merchant market consumption was *** percent lower across the interim periods (\$*** compared to \$***).

The value of U.S. producer Bakelite's commercial U.S. shipments decreased *** percent from 2022 to 2024 (decreasing from \$*** in 2022 to slightly greater than \$*** in 2023 and to slightly less than \$*** in 2024). Bakelite's share of the merchant market decreased irregularly by *** percentage points from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). Bakelite's commercial U.S. shipments were *** percent lower across the interim periods (\$*** compared to \$***), and the company's share of the merchant market was *** percentage points lower across the interim periods (*** percent compared to *** percent).

Subject imports' share of the merchant market increased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024).³⁹ Subject imports' share of the merchant market was *** percentage points higher across the interim periods (*** percent compared to *** percent).⁴⁰

Nonsubject imports' share of the merchant market decreased *** percentage points irregularly from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 before decreasing to *** percent in 2024). Nonsubject imports' share of the merchant market was *** percentage points lower across the interim periods (*** percent compared to *** percent).

³⁹ The share of the merchant market represented by U.S. shipments of imports from China increased from *** percent in 2022 to *** percent in 2023 before decreasing to *** percent in 2024). The share of the merchant market represented by U.S. shipments of imports from Germany decreased *** percentage points irregularly from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). The share of the merchant market represented by U.S. shipments of imports from India increased *** percentage points irregularly from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). The share of the merchant market apparent represented by U.S. shipments of imports from Saudi Arabia increased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024).

⁴⁰ Shares of apparent U.S. merchant market consumption for Germany and India were higher across the interim periods, while the shares for Saudi Arabia and China were lower. The share of the merchant market represented by U.S. shipments of imports from Germany was *** percentage points higher across the interim periods (*** percent compared to *** percent). The share of the merchant market represented by U.S. shipments of imports from India was *** percentage points higher across the interim periods (*** percent compared to *** percent). The share of the merchant market represented by U.S. shipments of imports from China was *** percentage points lower in across the interim periods (*** percent compared to *** percent). The share of the merchant represented by U.S. shipments of imports from Saudi Arabia was *** percentage points lower across the interim periods (*** percent compared to *** percent).

Table 4.11 Hexamine: Apparent U.S. merchant market consumption and total shares based on value data, by source and period

Value in 1,000 dollars; shares in percent; interim period is January through March

Source	Measure	2022	2023	2024	Interim 2024	Interim 2025
U.S. producers	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Germany	Value	***	***	***	***	***
India	Value	***	***	***	***	***
Saudi Arabia	Value	***	***	***	***	***
Subject sources	Value	1,550	1,831	4,255	784	866
Russia	Value	***	***	***	***	***
All other sources	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
All sources	Value	***	***	***	***	***
U.S. producers	Share	***	***	***	***	***
China	Share	***	***	***	***	***
Germany	Share	***	***	***	***	***
India	Share	***	***	***	***	***
Saudi Arabia	Share	***	***	***	***	***
Subject sources	Share	***	***	***	***	***
Russia	Share	***	***	***	***	***
All other sources	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.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Figure 4.8 Hexamine: Apparent U.S. merchant market consumption and market shares based on value data, by source and period

* * * * *

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

Part 5: Pricing data

Factors affecting prices

Raw material costs

Hexamine is produced from a mixture of ammonia and formaldehyde.¹ As shown in figure 5.1 and table 5.1, prices for ammonia peaked in the early part of 2022 before decreasing to a low in the latter half of 2023, and then stabilizing at a somewhat higher level since the latter half of 2024. Bakelite reported that the cost of hexamine closely follows the cost of raw materials.²

U.S. producer Bakelite reported that raw materials, as a share of its cost of goods sold (“COGS”), declined from *** percent in 2022 to *** percent in 2024, and were *** percent in interim 2025 compared with *** percent in interim 2024. Bakelite reported that formaldehyde accounted for approximately *** of its raw material costs in 2024, and ammonia accounted for the remaining ***.

Figure 5.1 Raw materials: * average prices by month, January 2022 to February 2025**

* * * * *

Source: ***, accessed June 20, 2025.

¹ Preliminary publication, p V-1.

² Ibid.

Table 5.1 Raw materials: * average prices, by month, January 2022 to February 2025**

Dollars per pound, NA denotes data is not available

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

Source: ***, accessed June 20, 2025.

Transportation costs to the U.S. market

Transportation costs for hexamine shipped from subject countries to the United States as a share of landed duty paid values averaged 19.9 percent for China, 14.1 percent for Germany, 15.2 percent for India, and 10.8 percent for Saudi Arabia during 2024. These estimates were derived from official import data and represent the transportation and other charges on imports.³

U.S. inland transportation costs

U.S. producer Bakelite reported that it typically *** transportation ***, and most importers (6 of 8) reported that they typically arrange transportation to their customers. U.S. producer Bakelite reported that its U.S. inland transportation costs averaged *** percent while most importers reported costs of 5 to 10 percent.⁴

³ The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2024 and then dividing by the customs value based on the HTS statistical reporting number 2933.69.5000.

⁴ In addition, importer *** reported inland transportation costs of 22 percent.

Pricing practices

Pricing methods

U.S. producer Bakelite reported setting prices using ***, and importers reported setting prices using transaction-by-transaction negotiations (table 5.2). Importer *** reported that it generally adds a “reasonable” margin to its costs when determining price.

Table 5.2 Hexamine: Count of U.S. producer’s and importers’ reported price setting methods

Method	U.S. producer	U.S. importers
Transaction-by-transaction	***	5
Contract	***	0
Set price list	***	0
Other	***	3
Responding firms	1	7

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 Bakelite reported selling most of its hexamine through *** and a substantial share through **. Importers reported selling *** their sales in the spot market (table 5.3).

Table 5.3 Hexamine: U.S. producer’s and importers’ shares of commercial U.S. shipments by type of sale, 2024

Share in percent

Sale type	U.S. producer	Subject U.S. importers
Long-term contracts	***	***
Annual contract	***	***
Short-term contracts	***	***
Spot sales	***	***
All sales types	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.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

U.S. producer Bakelite reported that ***. Bakelite reported having ***.

***. *** of six purchasers reported changes in their frequency of purchases since 2022, citing a decline in demand. *** purchasers reported contacting between one and two suppliers before making a purchase, while ***, ***, and *** reported contacting between one to three, one to four, and two to three suppliers, respectively.

Sales terms and discounts

Bakelite typically quotes prices on *** basis and most importers typically quote prices on a delivered basis. Bakelite reported that it ***. Most importers (6 of 7) reported that they do not have a discount policy, and importer *** reported that it may give case-by-case price reductions during negotiations.

Price leadership

One purchaser reported that Bakelite is the price leader and that it implemented inconsistent price increases prior to the filing of the petitions.

Price data

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following hexamine products shipped to unrelated U.S. customers during January 2022 to March 2025.

Product 1.— “Unstabilized” Hexamine, with a hexamine content above 99% by weight.

Product 2.— “Stabilized” Hexamine, with a hexamine content above 95% but less than or equal to 99% by weight.

Product 3.— “Stabilized” Hexamine, with a hexamine content equal to or below 95% by weight.

U.S. producer Bakelite and seven importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.⁵ Pricing data reported by these firms accounted for *** of the U.S. producer’s U.S. shipments of hexamine, virtually all of U.S. shipments of subject imports from China, Germany, and Saudi Arabia, and *** percent of U.S. shipments of subject imports from India. Pricing data reported for nonsubject Russia accounted for virtually all U.S. shipments of hexamine from Russia.⁶ Price data for products 1 to 3 are presented in tables 5.4 to 5.6 and figures 5.2 to 5.4. Nonsubject Russia prices are presented in Appendix D.

Table 5.4 Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by source and quarter

Price in dollars per pound, quantity in pounds, margin in percent

Period	U.S. price	U.S. quantity	China price	China quantity	China margin	Germany price	Germany quantity	Germany margin
2022 Q1	***	***	***	***	***	***	***	***
2022 Q2	***	***	***	***	***	***	***	***
2022 Q3	***	***	***	***	***	***	***	***
2022 Q4	***	***	***	***	***	***	***	***
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***

Table continued.

⁵ 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.

⁶ Pricing coverage is based on U.S. shipments reported in questionnaires.

Table 5.4 (Continued) Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by source and quarter

Price in dollars per pound, quantity in pounds, margin in percent

Period	U.S. price	U.S. quantity	India price	India quantity	India margin	Saudi Arabia price	Saudi Arabia quantity	Saudi Arabia margin
2022 Q1	***	***	***	***	***	***	***	***
2022 Q2	***	***	***	***	***	***	***	***
2022 Q3	***	***	***	***	***	***	***	***
2022 Q4	***	***	***	***	***	***	***	***
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***

Table continued.

Table 5.4 (Continued) Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by source and quarter

Price in dollars per pound, quantity in pounds, margin in percent

Period	U.S. price	U.S. quantity	Subject price	Subject quantity	Subject margin
2022 Q1	***	***	***	***	***
2022 Q2	***	***	***	***	***
2022 Q3	***	***	***	***	***
2022 Q4	***	***	***	***	***
2023 Q1	***	***	***	***	***
2023 Q2	***	***	***	***	***
2023 Q3	***	***	***	***	***
2023 Q4	***	***	***	***	***
2024 Q1	***	***	***	***	***
2024 Q2	***	***	***	***	***
2024 Q3	***	***	***	***	***
2024 Q4	***	***	***	***	***
2025 Q1	***	***	***	***	***

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

Note: Product 1: “Unstabilized” Hexamine, with a hexamine content above 99% by weight.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Figure 5.2 Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by source and quarter

Price of product 1

* * * * *

Volume of product 1

* * * * *

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

Note: Product 1: "Unstabilized" Hexamine, with a hexamine content above 99% by weight.

Table 5.5 Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by source and quarter

Price in dollars per pound, quantity in pounds, margin in percent

Period	U.S. price	U.S. quantity	China price	China quantity	China margin	Germany price	Germany quantity	Germany margin
2022 Q1	***	***	***	***	***	***	***	***
2022 Q2	***	***	***	***	***	***	***	***
2022 Q3	***	***	***	***	***	***	***	***
2022 Q4	***	***	***	***	***	***	***	***
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***

Table continued.

Table 5.5 (Continued) Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by source and quarter

Price in dollars per pound, quantity in pounds, margin in percent

Period	U.S. price	U.S. quantity	India price	India quantity	India margin	Saudi Arabia price	Saudi Arabia quantity	Saudi Arabia margin
2022 Q1	***	***	***	***	***	***	***	***
2022 Q2	***	***	***	***	***	***	***	***
2022 Q3	***	***	***	***	***	***	***	***
2022 Q4	***	***	***	***	***	***	***	***
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***

Table continued.

Table 5.5 (Continued) Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by source and quarter

Price in dollars per pound, quantity in pounds, margin in percent

Period	U.S. price	U.S. quantity	Subject price	Subject quantity	Subject margin
2022 Q1	***	***	***	***	***
2022 Q2	***	***	***	***	***
2022 Q3	***	***	***	***	***
2022 Q4	***	***	***	***	***
2023 Q1	***	***	***	***	***
2023 Q2	***	***	***	***	***
2023 Q3	***	***	***	***	***
2023 Q4	***	***	***	***	***
2024 Q1	***	***	***	***	***
2024 Q2	***	***	***	***	***
2024 Q3	***	***	***	***	***
2024 Q4	***	***	***	***	***
2025 Q1	***	***	***	***	***

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

Note: Product 2: “Stabilized” Hexamine, with a hexamine content above 95% but less than or equal to 99% by weight.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Figure 5.3 Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, by source and quarter

Price of product 2

* * * * *

Volume of product 2

* * * * *

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

Note: Product 2: "Stabilized" Hexamine, with a hexamine content above 95% but less than or equal to 99% by weight.

Table 5.6 Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), by source and quarter

Price in dollars per pound, quantity in pounds, margin in percent

Period	U.S. price	U.S. quantity	Germany price	Germany quantity	Germany margin
2022 Q1	***	***	***	***	***
2022 Q2	***	***	***	***	***
2022 Q3	***	***	***	***	***
2022 Q4	***	***	***	***	***
2023 Q1	***	***	***	***	***
2023 Q2	***	***	***	***	***
2023 Q3	***	***	***	***	***
2023 Q4	***	***	***	***	***
2024 Q1	***	***	***	***	***
2024 Q2	***	***	***	***	***
2024 Q3	***	***	***	***	***
2024 Q4	***	***	***	***	***
2025 Q1	***	***	***	***	***

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

Note: Product 3: "Stabilized" Hexamine, with a hexamine content equal to or below 95% by weight.

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 5.4 Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 3, by source and quarter

Price of product 3

* * * * *

Volume of product 3

* * * * *

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

Note: Product 3: "Stabilized" Hexamine, with a hexamine content equal to or below 95% by weight.

Price trends

In general, prices for domestic and most imported hexamine increased between January 2022 to March 2025. Table 5.7 summarizes the price trends by country and by product.

Domestic price increases ranged from *** to *** percent during January 2022 to March 2025 while import price increases ranged from *** to *** percent over the period. Tables 5.8 and 5.9 (and figures 5.5 and 5.6) present price indexes for U.S.-produced hexamine and imported hexamine from subject sources, respectively.

Table 5.7 Hexamine: Summary of price data, by product and source, January 2022 to March 2025

Quantity in pounds, price in dollars per pound

Product	Source	Number of quarters	Quantity of shipments	Low price	High price	First quarter price	Last quarter price	Percent change in price over period
Product 1	United States	13	***	***	***	***	***	***
Product 1	China	5	***	***	***	***	***	***
Product 1	Germany	12	***	***	***	***	***	***
Product 1	India	6	***	***	***	***	***	***
Product 1	Saudi Arabia	6	***	***	***	***	***	***
Product 2	United States	13	***	***	***	***	***	***
Product 2	China	4	***	***	***	***	***	***
Product 2	Germany	12	***	***	***	***	***	***
Product 2	India	4	***	***	***	***	***	***
Product 2	Saudi Arabia	9	***	***	***	***	***	***
Product 3	United States	13	***	***	***	***	***	***
Product 3	China	—	***	***	***	***	***	***
Product 3	Germany	3	***	***	***	***	***	***
Product 3	India	—	***	***	***	***	***	***
Product 3	Saudi Arabia	—	***	***	***	***	***	***

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

Note: Percent change column is percentage change from the first quarter 2022 to the first quarter in 2025.
 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 5.8 Hexamine: Indexed U.S. producer prices, by quarter

Index in percent, 2022 Q1= 100.0 percent

Period	Product 1	Product 2	Product 3
2022 Q1	100.0	100.0	100.0
2022 Q2	***	***	***
2022 Q3	***	***	***
2022 Q4	***	***	***
2023 Q1	***	***	***
2023 Q2	***	***	***
2023 Q3	***	***	***
2023 Q4	***	***	***
2024 Q1	***	***	***
2024 Q2	***	***	***
2024 Q3	***	***	***
2024 Q4	***	***	***
2025 Q1	***	***	***

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

Figure 5.5 Hexamine: Indexed U.S. producer prices, by quarter

* * * * *

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

Table 5.9 Hexamine: Indexed subject U.S. importer prices, by quarter

Index in percent, 2022 Q1=100.0 percent

Period	Product 1	Product 2	Product 3
2022 Q1	100.0	100.0	***
2022 Q2	***	***	100.0
2022 Q3	***	***	***
2022 Q4	***	***	***
2023 Q1	***	***	***
2023 Q2	***	***	***
2023 Q3	***	***	***
2023 Q4	***	***	***
2024 Q1	***	***	***
2024 Q2	***	***	***
2024 Q3	***	***	***
2024 Q4	***	***	***
2025 Q1	***	***	***

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

Note: Product 3 is indexed to 2022 Q2.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Figure 5.6 Hexamine: Indexed U.S. importer prices, by quarter

* * * * *

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

Price comparisons

As shown in tables 5.10 to 5.12, prices for product imported from subject countries were below those for U.S.-produced product in 42 of 61 instances (***) pounds); margins of underselling ranged from 1.7 to 58.4 percent and averaged 23.8 percent. In the remaining 19 instances (***) pounds), prices for product from subject countries were between 0.3 and 393.3 percent above prices for the domestic product, and averaged 58.0 percent. The majority of the quarters of underselling (22 of 42) were attributable to imports of hexamine from Germany. Hexamine imports from India and Saudi Arabia also undersold domestic product in a majority of quarters, while product imported from China oversold domestic product in two-thirds (6 of 9) of relevant quarters

As shown in table 5.11, prices for product imported from China were below those for U.S.-produced product in three of nine underselling instances (***) pounds); margins of underselling ranged from *** to *** percent. In six instances (***) pounds), prices for product from China were between *** and *** percent above prices for the domestic product. Prices for product imported from Germany were below those for U.S.-produced product in 22 of 27 underselling instances (***) pounds); margins of underselling ranged from *** to *** percent. In 5 of 19 overselling instances (***) pounds), prices for product from Germany were between *** and *** percent above prices for the domestic product. Prices for product imported from India were below those for U.S.-produced product in 9 of 10 instances (***) pounds); margins of underselling ranged from *** to *** percent. Prices for product imported from Saudi Arabia were below those for U.S.-produced product in 8 out of 15 instances (***) pounds); margins of underselling ranged from *** to *** percent. In the seven overselling instances (***) pounds), prices for product from Saudi Arabia were between *** and *** percent above prices for the domestic product.

Table 5.10 Hexamine: Instances of underselling and overselling and the range and average of margins, by product

Quantity in pounds; margin in percent

Product	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
Product 1	Underselling	27	***	***	***	***
Product 2	Underselling	15	***	***	***	***
Product 3	Underselling	—	—	—	—	—
Total, all products	Underselling	42	6,015,273	23.8	1.7	58.4
Product 1	Overselling	2	***	***	***	***
Product 2	Overselling	14	***	***	***	***
Product 3	Overselling	3	***	***	***	***
Total, all products	Overselling	19	1,717,548	(58.0)	(0.3)	(393.3)

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.

Table 5.11 Hexamine: Instances of underselling and overselling and the range and average of margins, by source

Quantity in pounds; margin in percent

Source	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
China	Underselling	3	***	***	***	***
Germany	Underselling	22	***	***	***	***
India	Underselling	9	***	***	***	***
Saudi Arabia	Underselling	8	***	***	***	***
Total, all subject sources	Underselling	42	***	***	***	***
China	Overselling	6	***	***	***	***
Germany	Overselling	5	***	***	***	***
India	Overselling	1	***	***	***	***
Saudi Arabia	Overselling	7	***	***	***	***
Total, all subject sources	Overselling	19	***	***	***	***

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.

Table 5.12 Hexamine: Instances of underselling and overselling and the range and average of margins, by year

Quantity in pounds; margin in percent

Year	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
2022	Underselling	7	***	***	***	***
2023	Underselling	10	***	***	***	***
2024	Underselling	19	***	***	***	***
2025 Q1	Underselling	6	***	***	***	***
Total, all periods	Underselling	42	***	***	***	***
2022	Overselling	3	***	***	***	***
2023	Overselling	9	***	***	***	***
2024	Overselling	7	***	***	***	***
2025 Q1	Overselling	—	***	***	***	***
Total, all periods	Overselling	19	***	***	***	***

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.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Lost sales and lost revenue

In the preliminary phase of the investigations, the Commission requested that the U.S. producer of hexamine report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of hexamine from China, Germany, India, and Saudi Arabia during January 2021 through June 2024. Bakelite, the sole U.S. producer, reported instances of lost sales and also instances of needing to reduce prices or roll back announced price increases. In its lost sales and lost revenue allegations, Bakelite identified *** firms with which it lost sales or revenue (***) consisting of lost sales allegations, (***) consisting of lost revenue allegations, and (***) consisting of both types of allegations). One of the allegations was with respect to imports from ***,⁷ one with respect to imports from ***, one with respect to imports from ***, and one with respect to imports from ***.⁸ In the final phase of the investigations, Bakelite reported that it ***.

⁷ The allegation with respect to purchaser *** noted both *** and *** as the country of origin for the imported product.

⁸ In addition, Bakelite provided *** instances where hexamine imports from *** allegedly caused it to lose sales or reduce prices.

Staff contacted 27 purchasers and received responses from 6 purchasers. Aggregated U.S. purchasers' reported purchases and imports from domestic, subject countries, nonsubject country Russia, and all other sources are shown in table 5.13. Responding purchasers reported purchasing *** pounds of hexamine during January 2022 to March 2025 (table 5.14).

Of the responding purchasers, two firms reported that, since 2022, they had purchased imported hexamine from China, two from Germany, two from India, and two from Saudi Arabia instead of U.S.-produced product (table 5.16).⁹ As shown in table 5.15, purchasers reported that decisions to purchase subject hexamine were due to *** percent were from U.S. producers, *** percent were from China, *** percent were from Germany, *** percent were from India, *** percent were from Saudi Arabia, *** percent were from nonsubject Russia, and *** percent were from unknown sources. One of these purchasers reported that import prices from India were lower than U.S.-produced product, and the purchaser reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. *** reported that China is no longer a supplier and that sanctions impacted its purchases of hexamine from Russia. Purchasers identified higher product quality and the U.S. producer being a direct competitor as non-price reasons for purchasing imported rather than U.S.-produced product.

As shown in table 5.17, one purchaser, reported that the U.S. producer had reduced prices in order to compete with lower-priced imports from China, Germany, India, and Saudi Arabia.¹⁰

⁹ Purchaser *** reported purchases from "sources unknown," with merchandise purchased from firms ***.

¹⁰ *** reported that the U.S. producer's price increased but began fluctuating downward in Q2 and Q3 2025.

Table 5.13 Hexamine: Aggregated U.S. purchasers' reported purchases and imports, by source and period

Quantity in 1,000 pounds; share in percent; ratio in percent; ratio represents the ratio to overall apparent consumption

Source	Measure	2022	2023	2024
Domestic	Quantity	***	***	***
Subject	Quantity	***	***	***
Russia	Quantity	***	***	***
All other nonsubject/unknown	Quantity	***	***	***
Nonsubject/unknown	Quantity	***	***	***
All sources	Quantity	***	***	***
Domestic	Share of quantity	***	***	***
Subject	Share of quantity	***	***	***
Russia	Share of quantity	***	***	***
All other nonsubject/unknown	Share of quantity	***	***	***
Nonsubject/unknown	Share of quantity	***	***	***
All sources	Share of quantity	100.0	100.0	100.0
Domestic	Ratio	***	***	***
Subject	Ratio	***	***	***
Russia	Ratio	***	***	***
All other nonsubject/unknown	Ratio	***	***	***
Nonsubject/unknown	Ratio	***	***	***
All sources	Ratio	***	***	***

Table continued.

Table 5.13 Hexamine (Continued): Aggregated U.S. purchasers' reported purchases and imports, by source and period

Change in quantity (%Δ) percent; Change in share of quantity (ppt Δ) in percentage points; Change in ratio (ppt Δ) in percentage points; Ratio represents the ratio to overall apparent consumption

Source	Measure	2022 to 2024	2022 to 2023	2023 to 2024
Domestic	%Δ Quantity	▼***	▼***	▼***
Subject	%Δ Quantity	▲***	▲***	▲***
Russia	%Δ Quantity	▼***	▼***	▼***
All other nonsubject/unknown	%Δ Quantity	▲***	▲***	▲***
Nonsubject/unknown	%Δ Quantity	▼***	▼***	▼***
All sources	%Δ Quantity	▼***	▲***	▼***
Domestic	ppt Δ Quantity	▼***	▼***	▲***
Subject	ppt Δ Quantity	▲***	▲***	▲***
Russia	ppt Δ Quantity	▼***	▼***	▼***
All other nonsubject/unknown	ppt Δ Quantity	▲***	▲***	▲***
Nonsubject/unknown	ppt Δ Quantity	▼***	▼***	▼***
All sources	ppt Δ Quantity	***	***	***
Domestic	ppt Δ Ratio	▼***	▼***	▼***
Subject	ppt Δ Ratio	▲***	▲***	▲***
Russia	ppt Δ Ratio	▼***	▼***	▼***
All other nonsubject/unknown	ppt Δ Ratio	▲***	▲***	▲***
Nonsubject/unknown	ppt Δ Ratio	▼***	▼***	▼***
All sources	ppt Δ Ratio	▼***	▲***	▼***

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

Table 5.14 Hexamine: Purchasers' reported purchases and imports, by firm and source

Quantity in 1,000 pounds, share in percent

Purchaser	Domestic quantity	Subject quantity	All other quantity	Change in domestic share 2022-2024	Change in subject country share 2022-2024	Change in all other share 2022-2024
***	***	***	***	***	***	***
***	***	***	***	▼***	▲***	***
***	***	***	***	▼***	▲***	▼***
***	***	***	***	▲***	▼***	***
***	***	***	***	▼***	▲***	▼***
***	***	***	***	▼***	▲***	***
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. Zeroes, null values, and undefined calculations are suppressed and shown as "—".

Table 5.15 Hexamine: Purchasers' responses to purchasing subject imports instead of domestic product, by firm

Quantity in 1,000 pounds

Purchaser	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Quantity	Explanation
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All firms	Yes: 4; No: 1	Yes: 4; No: 0	Yes: 4; No: 1	***	

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

Table 5.16 Hexamine: Purchasers' responses to purchasing subject imports instead of domestic product, by source

Count in number of firms reporting; Quantity in 1,000 pounds

Source	Count of purchasers reporting subject instead of domestic	Count of purchasers reported that imports were priced lower	Count of purchasers reporting that price was a primary reason for shift	Quantity
China	***	***	***	***
Germany	***	***	***	***
India	***	***	***	***
Saudi Arabia	***	***	***	***
Any subject source	***	***	***	***

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Table 5.17 Hexamine: Purchasers' responses to U.S. producer price reductions, by firm

Count in number of firms reporting; Price reduction in percent

Purchaser	Reported producers lowered prices	Estimated percent of U.S. price reduction	Explanation
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All firms	Yes: 1; No: 3	3.0	NA

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Part 6: Financial experience of U.S. producers

Background¹

The petitioner, Bakelite, is the sole U.S. producer of in-scope hexamine. Bakelite reported financial data for a fiscal year ending December 31st and on the basis of GAAP.²

The industry's net sales are composed of commercial sales and internal consumption. During the period examined, January 1, 2022, through March 31, 2025, commercial sales represented *** percent of total net sales quantity and internal consumption represented the remaining *** percent.³

Figure 6.1 presents Bakelite's share of sales quantity in 2024.

¹ The following abbreviations are used in the tables and/or text of this section: generally accepted accounting principles ("GAAP"), 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 The trade and financial sections reconciled. ***. Email from ***, July 6, 2025; Bakelite, "Bakelite Synthetics Announces Agreement to Acquire LRBG Chemicals, Inc." August 28, 2023, <https://bakelite.com/bakelite-synthetics-announces-agreement-to-acquire-lrbg-chemicals-inc/>; LRBG Chemicals, "About Us: Our History," accessed August 5, 2025, <https://lrbgchemicals.com/our-history/>; Bakelite, "Bakelite Synthetics Completes Acquisition of Georgia-Pacific Chemicals," May 27, 2022, <https://bakelite.com/acquisition-of-georgia-pacific-chemicals/>. Staff verified the results of Bakelite with its corporate records. ***. Staff verification report, Bakelite, August 7, 2025.

³ ***. Email from ***, July 6, 2025.

Figure 6.1 Hexamine: U.S. producer Bakelite’s share of sales quantity in 2024, by type

* * * * *

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

Operations on hexamine

Table 6.1 presents data on the U.S. producer’s total operations in relation to hexamine, while table 6.2 presents corresponding changes in AUVs. Financial results for the merchant market are presented in table 6.3, while table 6.4 presents the corresponding changes in AUVs for the merchant market.

Table 6.1 Hexamine: U.S. producer Bakelite’s results of total market operations, by item and period

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

Item	Measure	2022	2023	2024	Interim 2024	Interim 2025
Commercial sales	Quantity	***	***	***	***	***
Internal consumption	Quantity	***	***	***	***	***
Total net sales	Quantity	***	***	***	***	***
Commercial sales	Value	***	***	***	***	***
Internal consumption	Value	***	***	***	***	***
Total net sales	Value	***	***	***	***	***
Raw materials: Formaldehyde	Value	***	***	***	***	***
Raw materials: Ammonia	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	***	***	***	***	***
Interest expense	Value	***	***	***	***	***
All other expenses	Value	***	***	***	***	***
Net income or (loss)	Value	***	***	***	***	***
Depreciation/amortization	Value	***	***	***	***	***
Cash flow	Value	***	***	***	***	***
Raw materials: Formaldehyde	Ratio to NS	***	***	***	***	***
Raw materials: Ammonia	Ratio to NS	***	***	***	***	***
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 6.1 (Continued) Hexamine: U.S. producer Bakelite’s results of total market operations, by item and period

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

Item	Measure	2022	2023	2024	Interim 2024	Interim 2025
Raw materials: Formaldehyde	Share	***	***	***	***	***
Raw materials: Ammonia	Share	***	***	***	***	***
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	***	***	***	***	***
Internal consumption	Unit value	***	***	***	***	***
Total net sales	Unit value	***	***	***	***	***
Raw materials: Formaldehyde	Unit value	***	***	***	***	***
Raw materials: Ammonia	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	1	1	1	1	1

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

Note: Share represents share of COGS. Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Table 6.2 Hexamine: Changes in AUVs between comparison periods for the total market

Changes in percent; interim period is January through March

Item	2022–24	2022–23	2023–24	Interim 2024–25
Commercial sales	▼***	▼***	▲***	▲***
Internal consumption	▼***	▼***	▲***	▲***
Total net sales	▼***	▼***	▲***	▲***
Raw materials: Formaldehyde	▼***	▼***	▼***	▼***
Raw materials: Ammonia	▼***	▼***	▼***	▼***
COGS: Raw materials	▼***	▼***	▼***	▼***
COGS: Direct labor	▼***	▼***	▲***	▲***
COGS: Other factory	▲***	▲***	▲***	▲***
COGS: Total	▼***	▼***	▲***	▲***

Table continued.

Table 6.2 (Continued) Hexamine: Changes in AUVs between comparison periods for the total market

Changes in dollars per pound; interim period is January through March

Item	2022–24	2022–23	2023–24	Interim 2024–25
Commercial sales	▼***	▼***	▲***	▲***
Internal consumption	▼***	▼***	▲***	▲***
Total net sales	▼***	▼***	▲***	▲***
Raw materials: Formaldehyde	▼***	▼***	▼***	▼***
Raw materials: Ammonia	▼***	▼***	▼***	▼***
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: Period changes preceded by a “▲” represent an increase, while period changes preceded by a “▼” represent a decrease.

Table 6.3 Hexamine: U.S. producer Bakelite’s results of merchant market operations, by item and period

Quantity in 1,000 pounds; value in 1,000 dollars; ratios in percent; interim period is January through March

Item	Measure	2022	2023	2024	Interim 2024	Interim 2025
Merchant market sales	Quantity	***	***	***	***	***
Merchant market sales	Value	***	***	***	***	***
Raw materials: Formaldehyde	Value	***	***	***	***	***
Raw materials: Ammonia	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	***	***	***	***	***
Interest expense	Value	***	***	***	***	***
All other expenses	Value	***	***	***	***	***
Net income or (loss)	Value	***	***	***	***	***
Raw materials: Formaldehyde	Ratio to NS	***	***	***	***	***
Raw materials: Ammonia	Ratio to NS	***	***	***	***	***
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 6.3 (Continued) Hexamine: U.S. producer Bakelite’s results of merchant market operations, by item and period

Shares in percent; unit values in dollars per pound; count in number of firms reporting; interim period is January through March

Item	Measure	2022	2023	2024	Interim 2024	Interim 2025
Raw materials: Formaldehyde	Share	***	***	***	***	***
Raw materials: Ammonia	Share	***	***	***	***	***
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
Merchant market sales	Unit value	***	***	***	***	***
Raw materials: Formaldehyde	Unit value	***	***	***	***	***
Raw materials: Ammonia	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	1	1	1	1	1

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

Note: Share represents share of COGS.

Table 6.4 Hexamine: Changes in merchant market AUVs between comparison periods

Changes in percent; interim period is January through March

Item	2022-24	2022-23	2023-24	Interim 2024-25
Merchant market sales	▼***	▼***	▲***	▲***
Raw materials: Formaldehyde	▼***	▼***	▼***	▲***
Raw materials: Ammonia	▼***	▼***	▼***	▲***
COGS: Raw materials	▼***	▼***	▼***	▲***
COGS: Direct labor	▼***	▼***	▲***	▲***
COGS: Other factory	▲***	▲***	▲***	▲***
COGS: Total	▼***	▼***	▲***	▲***

Table continued.

Table 6.4 (Continued) Hexamine: Changes in merchant market AUVs between comparison periods

Changes in dollars per pound; interim period is January through March

Item	2022-24	2022-23	2023-24	Interim 2024-25
Merchant sales	▼***	▼***	▲***	▲***
Raw materials: Formaldehyde	▼***	▼***	▼***	▲***
Raw materials: Ammonia	▼***	▼***	▼***	▲***
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: Period changes preceded by a “▲” represent an increase, while period changes preceded by a “▼” represent a decrease.

Net sales

Total market

As shown in table 6.1, both the quantity and value of the industry's total market net sales decreased between 2022 and 2024, and the quantity and value were lower in interim 2025 when compared with the same period in 2024.⁴

The industry's total net sales AUV decreased from \$*** per pound in 2022 to \$*** per pound in 2024. The industry's net sales AUV was higher in interim 2025, at \$*** per pound, than in interim 2024, at \$*** per pound.

Merchant market

The merchant market sales trends were similar to the trends for total market net sales for 2022 to 2024. As shown in table 6.3, the industry's merchant market sales, by both quantity and value, decreased between 2022 and 2024. Additionally, the merchant market net sales quantity and value were lower in interim 2025 than in interim 2024.⁵

The industry's merchant market net sales AUV decreased from \$*** per pound in 2022 to \$*** and was higher in interim 2025, at \$*** per pound, than in interim 2024, at \$*** per pound.

⁴ Net sales quantity for the total market decreased by *** percent and net sales value decreased by *** percent between 2022 and 2024. Net sales quantity was *** percent lower in interim 2025 compared with interim 2024. In the same interim periods, the net sales value was *** percent lower.

⁵ Merchant market sales quantity decreased by *** percent and merchant sales value decreased by *** percent between 2022 and 2024. Merchant market sales quantity was *** percent lower in interim 2025 compared with interim 2024. In the same interim periods, the merchant market sales value was *** percent lower.

Cost of goods sold and gross profit or loss

Total market

Raw material costs, direct labor, and other factory costs accounted for ***, ***, and *** percent of total market COGS, respectively, in 2024. Total raw material costs decreased from \$*** in 2022 to \$*** in 2024, and were lower in interim 2025, at \$*** than in interim 2024, at \$***. On a per-pound basis, raw material costs decreased from \$*** in 2022 to \$*** in 2024 and were lower in interim 2025, at \$***, than in interim 2024, at \$***.⁶

The industry's cost of direct labor decreased from \$*** in 2022 to \$*** in 2024 but was higher in interim 2025 (\$***) than in interim 2024 (\$***). The average unit cost of direct labor decreased from \$*** per pound in 2022 to \$*** per pound in 2024 and was higher in interim 2025 than in interim 2024 (\$*** per pound compared to \$*** per pound).

Other factory costs increased from \$*** in 2022 to \$*** in 2024 and were higher in interim 2025, at \$***, than in interim 2024, at \$***. On a per-pound basis, other factory costs increased from \$*** per pound in 2022 to \$*** per pound in 2024. Other factory costs were higher on a per-pound basis in interim 2025, at \$***, than in interim 2024, at \$***.⁷

Total COGS decreased by *** percent, from \$*** in 2022 to \$*** in 2024 and was lower in interim 2025, at \$***, than in interim 2024 at \$***. Gross profit irregularly decreased from \$*** in 2022 to \$*** in 2024 and was lower in interim 2025, at \$***, than in interim 2024, at \$***. Total market COGS as a ratio to net sales value decreased from *** percent in 2022 to *** percent in 2024 and was higher in interim 2025, at *** percent, than in interim 2024, at *** percent. Gross profit as a ratio to net sales increased from *** percent to *** percent from 2022 to 2024 and was lower in interim 2025 (***) percent) than in interim 2024 (***) percent).

⁶ Bakelite stated that it had worked a great deal towards reducing its raw material costs by methods such as acquisition and achieving supplier economies of scale. Hearing transcript, pp. 48 to 49 (Boninsegni).

⁷ ***. Email from ***, July 6, 2025.

Merchant market

Raw material costs, direct labor, and other factory costs accounted for ***, ***, and *** percent of merchant market COGS, respectively, in 2024. Total raw material costs decreased from \$*** in 2022 to \$*** in 2024 and were lower in interim 2025, at \$***, than in interim 2024, at \$***. On a per-pound basis, merchant market raw material costs decreased from \$*** in 2022 to \$*** in 2024 but were higher in interim 2025, at \$***, than in interim 2024, at \$***.

The industry's cost of direct labor for the merchant market decreased from \$*** in 2022 to \$*** in 2024 but was higher in interim 2025 (\$***) than in interim 2024 (\$***). The average unit cost of direct labor decreased from \$*** per pound in 2022 to \$*** per pound in 2024 and was higher in interim 2025 (\$*** per pound) than in interim 2024 (\$*** per pound).

Other factory costs for the merchant market increased from \$*** in 2022 to \$*** in 2024 and were higher in interim 2025, at \$***, than in interim 2024, at \$***. On a per-pound basis, other factory costs increased from \$*** in 2022 to \$*** in 2024. They were higher on a per-pound basis in interim 2025, at \$***, than in interim 2024, at \$***.

Merchant market COGS decreased by *** percent, from \$*** in 2022 to \$*** in 2024. COGS was *** percent lower in interim 2025, at \$***, than in interim 2024, at \$***. There was an overall decrease in gross profit from \$*** in 2022 to \$*** in 2024, and it was lower in interim 2025, at \$***, than in interim 2024, at \$***.

Merchant market COGS as a ratio to net sales value decreased from *** percent in 2022 to *** percent in 2024 but was higher in interim 2025, at *** percent, than in interim 2024, at *** percent. Gross profit as a ratio to net sales increased from *** percent to *** percent from 2022 to 2024 but was lower in interim 2025 (***) percent) than in interim 2024 (***) percent).

SG&A expenses and operating income or loss

Total market

Total market SG&A expenses increased overall from \$*** in 2022 to \$*** in 2024 and were higher in interim 2025, at \$***, than in interim 2024, at \$***. The SG&A expense ratio (SG&A expenses as a share of sales) increased from *** percent in 2022 to *** percent in 2024 and were higher in interim 2025, at *** percent, than in interim 2024, at *** percent.⁸

Total market operating income decreased from \$*** in 2022 to \$*** in 2024. Operating income was lower in interim 2025 (\$***) than interim 2024 (\$***). The operating margin (operating income as a ratio to net sales) increased from *** percent in 2022 to *** percent in 2024 and was lower in interim 2025 (*** percent) than in interim 2024 (*** percent).

Merchant market

Merchant market SG&A expenses increased overall from \$*** in 2022 to \$*** in 2024 and were higher in interim 2025, at \$***, than in interim 2024, at \$***. The SG&A expense ratio for the merchant market (SG&A expenses as a share of sales) increased from *** percent in 2022 to *** percent in 2024 and was higher in interim 2025, at *** percent, than in interim 2024, at *** percent.

Merchant market operating income decreased irregularly from \$*** in 2022 to \$*** in 2024. Merchant market operating income was lower in interim 2025, at \$***, than in interim 2024, at \$***. The operating margin (operating income as a ratio to net sales) increased from *** percent in 2022 to *** percent in 2024 and was lower in interim 2025, at *** percent, than in interim 2024, at *** percent.

⁸ ***. Email from ***, July 6, 2025.

All other expenses and net income or loss

Total market

Classified below the total market operating income level are interest expense, other expense, and other income, which are listed in table 6.1.⁹ Interest expense for the total market increased from \$*** in 2022 to \$*** in 2024 and was higher in interim 2025, at \$***, than in interim 2024, at \$***. All other expenses for the total market increased irregularly from \$*** in 2022 to \$*** in 2023 and to \$*** in 2024; they were higher in interim 2025, at \$***, than in interim 2024, at \$***.¹⁰

Total market net income decreased from \$*** in 2022 to \$*** in 2024 and was lower in interim 2025 \$*** than in interim 2024 \$***.

Merchant market

Classified below the total market operating income level are interest expense, other expense, and other income, which are listed in table 6.3.¹¹ Interest expense for the merchant market increased from \$*** in 2022 to \$*** in 2024 and was higher in interim 2025, at \$***, than in interim 2024, at \$***. All other expenses for the merchant market increased irregularly from \$*** in 2022 to \$*** in 2024 and were higher in interim 2025, at \$***, than in interim 2024, at \$***.¹²

Merchant market net income decreased overall from \$*** in 2022 to \$*** in 2024. Merchant market net income was lower in interim 2025 (\$***) than in interim 2024 (\$***).

⁹ ***.

¹⁰ ***. Email from ***, July 6, 2025.

¹¹ ***.

¹² See footnote above referring to interest and all other expenses for the total market.

Variance analysis

A variance analysis for the total hexamine operations of the U.S. producer is presented in table 6.5.¹³ The information for this variance analysis is derived from table 6.1. A variance analysis for the merchant market hexamine operations of the U.S. producer is presented in table 6.6, the information for which is derived from table 6.3.

The total market variance analysis in table 6.6 shows that the decrease in total market operating income between 2022 and 2024 was primarily attributable to unfavorable price and volume variances despite a smaller favorable cost/expense variance. Lower operating income in interim 2025 compared with interim 2024 is primarily attributable to unfavorable cost/expense and volume variances that outweighed a smaller favorable price variance.

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 6.5 Hexamine: Variance analysis on the total market operations of U.S. producer Bakelite between comparison periods

Value in 1,000 dollars; interim period is January through March

Item	2022-24	2022-23	2023-24	Interim 2024-25
Net sales price variance	***	***	***	***
Net sales volume variance	***	***	***	***
Total net sales 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/expense variance	***	***	***	***
Operating income volume variance	***	***	***	***
Operating income total variance	***	***	***	***

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

Note: Unfavorable variances (which are negative) are shown in parentheses, all others are favorable (positive).

The merchant market variance analysis in table 6.6 shows that the increase in merchant market operating income between 2022 and 2024 was primarily attributable to unfavorable cost/expense and price variances that offset a favorable volume variance. Lower merchant market operating income in interim 2025 compared with interim 2024 is primarily attributable to unfavorable price and volume variances that outweighed a favorable cost/expense variance.

Table 6.6 Hexamine: Variance analysis on the merchant market operations of U.S. producer Bakelite between comparison periods

Value in 1,000 dollars; interim period is January through March

Item	2022-24	2022-23	2023-24	Interim 2024-25
Commercial sales price variance	***	***	***	***
Commercial sales volume variance	***	***	***	***
Total commercial sales 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/expense variance	***	***	***	***
Operating income volume variance	***	***	***	***
Operating income total variance	***	***	***	***

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

Note: Unfavorable variances (which are negative) are shown in parentheses, all others are favorable (positive).

Capital expenditures, research and development expenses, assets, and return on assets

Table 6.7 presents Bakelite’s total market capital expenditures, R&D expenses, assets, and return on assets, and the firm’s narrative explanations of the nature, focus, and significance of the items are presented in table 6.8.¹⁴

The industry’s capital expenditures increased overall between 2022 and 2024 and were higher in interim 2025 than interim 2024. R&D expenses increased overall from 2022 to 2024 and were the same in the interim periods. As for assets in the industry, they decreased from 2022 to 2024 and the corresponding ROA *** in *** three yearly periods.

Table 6.7 Hexamine: U.S. producer Bakelite’s capital expenditures, R&D expenses, total net assets, and ROA, by item and period

Value in 1,000 dollars; interim period is January through March

Item	2022	2023	2024	Interim 2024	Interim 2025
Capital expenditures	***	***	***	***	***
R&D expenses	***	***	***	***	***
Total net assets	***	***	***	***	***
Return on assets	***	***	***	***	***

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

Note: NA indicates not applicable. Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

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 6.8 Hexamine: U.S. producer Bakelite's narrative descriptions of its capital expenditures, R&D expenses, and total net assets

Item	Narrative on capital expenditures
Capital expenditures	***
R&D expenses	***
Total net assets	***

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

Capital and investment

The Commission requested the U.S. producer of hexamine to describe any actual or potential negative effects of imports of hexamine from China, Germany, India, and Saudi Arabia on the firm's growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table 6.9 presents the impact in each category and table 6.10 provides the U.S. producer's narrative responses.

Table 6.9 Hexamine: U.S. producer Bakelite’s count indicating actual and anticipated negative effects of imports from subject sources on investment, growth, and development since January 1, 2022, 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 6.10 Hexamine: U.S. producer Bakelite’s narratives relating to actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2022, by effect

Item	Narrative on impact of imports
***	***
***	***

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

Part 7: Threat considerations and information on nonsubject countries

Section 771(7)(F)(i) of the Act (19 U.S.C. § 1677(7)(F)(i)) provides that—

In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors¹⁻⁻

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

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

- (VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,
- (VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),
- (VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and
- (IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).²

Information on the nature of the subsidies was presented earlier in this report; information on the volume and pricing of imports of the subject merchandise is presented in Parts 4 and 5; and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in Part 6. 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."

Subject countries

The Commission issued foreign producers' or exporters' questionnaires to the following number of firms believed to possibly produce and/or export hexamine in their respective foreign industries: 14 in China, 3 in Germany, 7 in India, and 2 in Saudi Arabia.³ Usable responses to the Commission's questionnaire were received from one firm in Germany (Prefere Paraform GmbH & Co. or "Prefere"), two firms in India (Kanoria Chemicals & Industries Limited or "Kanoria" and Shreenathji Rasayan Pvt. Ltd. or "M/S Shreenathji"), and one firm in Saudi Arabia (Methanol Chemicals Company (Chemanol) or "Chemanol").⁴

Table 7.1 presents the number of producers/exporters in each subject foreign industry that responded to the Commission's questionnaire, their estimated shares of total production of hexamine within their respective subject foreign industry during 2024, and the estimated shares that their exports to the United States comprised as a share of the total exports of hexamine to the United States from their respective foreign industries in 2024.

³ These firms were identified through a review of information submitted in the petition and presented in third-party sources. During the staff conference, the petitioner indicated that there is generally only one major producer/exporter in three of the subject foreign industries (Prefere Paraform GmbH & Co. in Germany, Kanoria in India, and Chemanol in Saudi Arabia) with several major producers of hexamine in China. Conference transcript, p. 21 (Roderick).

⁴ Four firms also submitted responses certifying that they had not produced or exported hexamine since January 1, 2022: ***.

Table 7.1 Hexamine: Number of responding producers/exporters, approximate share of production, and exports to the United States as a share of U.S. imports, by subject foreign industry, 2024

Subject foreign industry	Number of responding firms	Approximate share of production (percent)	Exports as a share of U.S. imports from subject country (percent)
China	—	***	***
Germany	1	***	***
India	2	***	***
Saudi Arabia	1	***	***

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 2933.69.5000, accessed on June 23, 2025.

Note: “Approximate share of production” reflects the responding firms’ estimates of their production as a share of total foreign industry production of hexamine in 2024. ***. Since not all firms have perfect knowledge of the industry in their home market, different firms might use different denominators in estimating their firm's share of the total requested. Exports as a share of U.S. imports” reflects a comparison of export data reported by subject producers in response to the Commission’s foreign producer/exporter questionnaire with official Commerce import statistics using primary HTS statistical reporting number 2933.69.5000, accessed on June 23, 2025. ***. Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Table 7.2 presents information on the hexamine operations of the responding subject producers by firm, while table 7.3 presents the information grouped by subject foreign industry.

Table 7.2 Hexamine: Summary data on responding subject foreign producers in 2024, by firm

Quantity in 1,000 pounds; Shares in percent

Producer and subject foreign industry	Production (pounds)	Share of reported production (percent)	Exports to the United States (pounds)	Share of reported exports to the United States (percent)	Total shipments (pounds)	Share of firm's total shipments exported to the United States (percent)
Germany: Prefere	***	***	***	***	***	***
India: Kanoria	***	***	***	***	***	***
India: M/S Shreenathji	***	***	***	***	***	***
Saudi Arabia: Chemanol	***	***	***	***	***	***
All individual producers	***	100.0	***	100.0	***	***

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

Table 7.3 Hexamine: Summary data for subject foreign producers in 2024, by firm

Quantity in 1,000 pounds; Shares in percent

Subject foreign industry	Production (1,000 pounds)	Share of reported production (percent)	Exports to the United States (1,000 pounds)	Share of reported exports to the United States (percent)	Total shipments (1,000 pounds)	Share of firm's total shipments exported to the United States (percent)
China	***	***	***	***	***	***
Germany	***	***	***	***	***	***
India	***	***	***	***	***	***
Saudi Arabia	***	***	***	***	***	***
All subject foreign industries	***	100.0	***	100.0	***	***

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “—”.

Changes in operations

Subject producers were asked to report any change in the character of their operations or organization relating to the production of hexamine since January 1, 2022, and to describe any anticipated changes to the character or nature of their operations relating to the production of hexamine in the near future. Two of the four responding subject producers indicated that they had experienced and/or anticipated changes as shown in table 7.4.

Table 7.4 Hexamine: Reported changes in operations and anticipated changes in operations in the subject countries since January 1, 2022, by type, subject foreign industry, and firm

Item	Subject foreign industry, firm name, and accompanying narrative response regarding changes in operations and anticipated changes
Other	***
Expansions	***
Anticipated changes in operations	***

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

Table 7.5 presents events in the subject countries' industries since January 1, 2022, as reported in public sources.

Table 7.5 Hexamine: Important industry events in the subject foreign industry since 2022

Item	Subject foreign industry	Firm: Event
Supply and marketing agreement	Germany	Prefere Paraform and Evos: Rotterdam B.V. ("Evos"), September 2023: The firms reached an agreement under which Prefere Resins assumed the exclusive supply and marketing of hexamine and other chemicals to Evos' existing customers.
Expansion/ plant opening	India	Kanoria Chemicals & Industries, September 2024: The firm added additional production capacity of 18 metric tons per day to its existing plant in Ankleshwar, Gujarat, India. Kanoria also opened an additional plant to produce the input formaldehyde.

Source: "Prefere Resins to Acquire the Supply and Marketing of Paraformaldehyde and Hexamethylenetetramine from Evos," Prefere Resins website. Accessed October 28, 2024.

<https://prefere.com/en/company/news/Evos-2023>. "Kanoria Chemicals doubles hexamine production with new manufacturing plants in Gujarat," *The Hindu Businessline*, September 6, 2024.

<https://www.thehindubusinessline.com/markets/stock-markets/kanoria-chemicals-doubles-hexamine-production-with-new-manufacturing-plants-in-gujarat/article68612998.ece>.

Installed and practical overall capacity

Table 7.6 presents data on subject producers' installed capacity, practical overall capacity, and practical hexamine capacity and production on the same equipment.⁵ None of the responding subject producers reported any production of alternate products using the same equipment and/or machinery as used to produce in-scope hexamine. As such, the reported overall production and hexamine production figures as well as the practical hexamine and practical overall figures for capacity and capacity utilization were identical in all periods.

From 2022 to 2024, subject producers' practical capacity increased by *** percent (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024).⁶ Subject practical capacity was also *** percent higher in interim 2025 than in interim 2024 (*** pounds compared to *** pounds).⁷ Subject producers' hexamine production increased by *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Hexamine production, however, was *** percent lower across the interim periods (*** pounds compared to *** pounds). As a result of hexamine production increasing more than practical capacity, subject practical capacity utilization increased by *** percentage points from 2022 to 2024 (from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024).⁸ Practical capacity utilization was *** percentage points lower across the interim periods (*** percent compared to *** percent).⁹

⁵ Installed or "theoretical" overall capacity measures the level of production firms could have attained based solely on existing capital investments and not considering other constraints such as availability of material inputs, labor force, and normal downtime. The two practical capacity measures take into consideration both existing capital investment as well as non-capital investment constraints. Practical overall capacity measures firms' capacity to produce hexamine as well as any other products produced using the same equipment/machinery, whereas practical hexamine capacity measures only the practical capacity of firms to produce hexamine based on firms' actual product mixes over the period.

⁶ Responding subject producers' reported that their collective installed capacity increased *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024).

⁷ Installed capacity was collectively *** percent higher in interim 2025 than interim 2024 (*** pounds compared to *** pounds).

⁸ Installed capacity utilization collectively increased *** percentage points from 2022 to 2024 (from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024).

⁹ Installed capacity utilization was collectively *** percentage points lower in interim 2025 than in interim 2024 (*** percent compared to *** percent).

Table 7.6 Hexamine: Producers' in subject foreign industries 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; interim period is January through March

Item	Measure	2022	2023	2024	Interim 2024	Interim 2025
Installed overall	Capacity	***	***	***	***	***
Installed overall	Production	***	***	***	***	***
Installed overall	Utilization	***	***	***	***	***
Practical overall	Capacity	***	***	***	***	***
Practical overall	Production	***	***	***	***	***
Practical overall	Utilization	***	***	***	***	***
Practical hexamine	Capacity	***	***	***	***	***
Practical hexamine	Production	***	***	***	***	***
Practical hexamine	Utilization	***	***	***	***	***

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

Constraints on capacity

Subject producers were asked to describe any constraints that set limits on their firms' overall capacity over the period. Prefere reported *** constraints as follows, "***." ¹⁰ Kanoria reported, "***." ¹¹

¹⁰ Prefere foreign producer questionnaire response at II-3d.

¹¹ Kanoria foreign producer questionnaire response at II-3c.

Operations on hexamine

Aggregate hexamine operations in the subject countries

Table 7.7 presents information on the hexamine operations of the responding subject producers/exporters (aggregate data for all subject foreign industries). The four responding foreign producers reported the majority of their collective shipments were export shipments in all periods (between *** percent and *** percent of total shipments across the periods) with home market shipments representing the remainder (between *** and *** percent of total shipments across the periods).¹²

Subject producers' exports to the United States as a share of their total shipments increased from *** percent of the subject producers' total shipments in 2022 to *** percent of the subject producers' total shipments in interim 2025. Subject producers' exports to the United States increased by *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Exports to the United States were *** percent higher across the interim periods (*** pounds compared to *** pounds). Subject producers projected their exports to the United States would be *** pounds in 2025 and *** pounds in 2026.

Subject producers' exports to all other markets also increased by *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). All other market exports were *** percent higher across the interim periods (*** pounds compared to *** pounds). Subject producers collectively projected their exports to all other markets would increase by *** percent in 2025 compared to 2024 at *** pounds and would increase further to *** pounds in 2026.

¹² The vast majority of subject producers' reported home market shipments were commercial shipments, which accounted for between *** and *** percent of total shipments during 2022 to 2024 and the interim periods.

Table 7.7 Hexamine: Data on subject foreign industries, by item and period

Quantity in 1,000 pounds; interim period is January through March

Item	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
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	***	***	***	***	***	***	***

Table continued.

Table 7.7 (Continued) Hexamine: Data on subject foreign industries, by period

Shares and ratios in percent; interim period is January through March

Item	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
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

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

Practical hexamine capacity and production by subject foreign industry

Table 7.8 presents information on subject producers' production, capacity, and capacity utilization by subject country.

German producer Prefere's practical hexamine capacity increased *** percent from 2022 to 2024 (increasing from *** pounds in 2022 and 2023 to *** pounds in 2024). Prefere's practical capacity was flat across the interim periods at *** pounds. Prefere projected that its practical capacity would be the same in 2025 and 2026 as compared to 2024. Prefere's production increased *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). The company's production was *** percent higher across the interim periods (*** pounds compared to *** pounds). The company projected its hexamine production would be virtually the same in 2025 and 2026 as compared to 2024. Resultingly, Prefere's practical capacity utilization increased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024). The company's practical capacity utilization was *** percentage points higher across the interim periods (*** percent compared to *** percent). Prefere projected its practical capacity utilization would be the same in 2025 and 2026 as its reported 2024 practical capacity utilization.

From 2022 to 2024, the practical hexamine capacity of the subject producers in India increased *** percent (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Subject practical capacity in India was *** percent higher across the interim periods (*** pounds compared to *** pounds).¹³ The Indian firms projected their collective capacity would increase *** percent in 2025 and 2026 as compared to 2024 to *** pounds.¹⁴ The Indian producers' collective production increased *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Production in India was *** percent lower in interim 2025 compared to interim 2024 (*** pounds

¹³ Indian firm Kanoria reported its practical capacity increased from *** pounds in 2022 to *** pounds in 2024 and also increased across the interim periods (*** pounds compared to *** pounds). As noted in the operational changes section, Kanoria reported that it ***. Indian producer M/S Shreenathji reported its practical capacity was flat from 2022 to 2024 and across the interim periods at *** pounds for the full year periods and *** pounds for the interim periods.

¹⁴ Indian firm Kanoria projected its practical capacity would increase to *** pounds in 2025 and 2026, while M/S Shreenathji projected its practical capacity would be the same in 2025 and 2026 as in 2024.

compared to *** pounds).¹⁵ The Indian firms' capacity utilization increased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024). Practical capacity utilization was *** percentage points lower across the interim periods (*** percent compared to *** percent).¹⁶ The Indian producers' projected their collective hexamine production would increase to *** pounds in 2025 and to *** pounds in 2026.¹⁷ The Indian firms projected that their practical capacity utilization would be *** percent in 2025 and *** percent in 2026. Their share of total production increased from *** percent in 2022 to *** percent in 2024.

Saudi producer Chemanol's practical hexamine capacity increased *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in both 2023 and 2024). Chemanol's practical capacity was flat across the interim periods at *** pounds. Chemanol projected that its practical capacity would be the same in 2025 and 2026 as compared to 2024. Chemanol's production increased irregularly by *** percent from 2022 to 2024 (increasing from approximately *** pounds in 2022 and 2023 to *** pounds in 2024). Chemanol's production was *** percent lower across the interim periods (*** pounds compared to *** pounds). The company projected its hexamine production would be lower in 2025 and 2026 as compared to 2024 (*** pounds in 2025 and then increasing to *** pounds in 2026). Resultingly, Chemanol's practical capacity utilization increased irregularly *** percentage points from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). The company's practical capacity utilization was *** percentage points lower across the interim periods (*** percent compared to *** percent). Chemanol projected its practical capacity utilization would be lower at *** percent in 2025 before increasing to *** percent in 2026.

¹⁵ Kanoria reported its production increased from *** pounds in 2022 to *** pounds in 2024 and was higher across the interim periods (*** pounds compared to *** pounds. M/S Shreenathji reported its production increased from *** in 2022 to *** pounds in 2024. It reported its production was lower across the interim periods (*** pounds compared to *** pounds).

¹⁶ Kanoria's capacity utilization increased from *** percent in 2022 to *** percent in 2024 and was lower across the interim periods (*** percent compared to *** percent). M/S Shreenathji's capacity utilization increased from *** percent in 2022 to *** percent in 2024 and was lower across the interim periods (*** percent compared to *** percent).

¹⁷ Kanoria projected production would increase to *** pounds in both 2025 and 2026. M/S Shreenathji projected its production would increase to *** pounds in 2025 and to *** pounds in 2026.

Table 7.8 Hexamine: Subject foreign industries' output: Practical capacity, by subject foreign industry and period

Practical capacity

Quantity in 1,000 pounds; interim period is January through March

Subject foreign industry	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
China	***	***	***	***	***	***	***
Germany	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***
Saudi Arabia	***	***	***	***	***	***	***
All subject foreign industries	***	***	***	***	***	***	***

Table continued.

Table 7.8 (Continued) Hexamine: Subject foreign industries' output: Production, by subject foreign industry and period

Production

Quantity in 1,000 pounds; interim period is January through March

Subject foreign industry	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
China	***	***	***	***	***	***	***
Germany	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***
Saudi Arabia	***	***	***	***	***	***	***
All subject foreign industries	***	***	***	***	***	***	***

Table continued.

Table 7.8 (Continued) Hexamine: Subject foreign industries' output: Capacity utilization ratio, by subject foreign industry and period

Capacity utilization ratio

Capacity utilization in percent

Subject foreign industry	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
China	***	***	***	***	***	***	***
Germany	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***
Saudi Arabia	***	***	***	***	***	***	***
All subject foreign industries	***	***	***	***	***	***	***

Table continued.

Table 7.8 (Continued) Hexamine: Subject foreign industries' output: Share of production, by subject foreign industry and period

Share of production

Share in percent

Subject foreign industry	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
China	***	***	***	***	***	***	***
Germany	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***
Saudi Arabia	***	***	***	***	***	***	***
All subject foreign industries	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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

Note: Capacity utilization ratio represents the ratio of the subject producer's production to its production capacity.

Hexamine exports, by subject country

Table 7.9 presents information on subject producers' exports of hexamine by subject country.

German producer Prefere's exports to the United States increased *** percent irregularly from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 before decreasing to *** pounds in 2024). Its exports to the United States were *** percent higher across the interim periods (*** pounds compared to *** pounds). The company projected that its exports to the United States would increase *** percent in 2025 compared to 2024 to *** pounds but decrease to *** pounds in 2026. Prefere's total exports increased *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Its total exports were *** percent higher across the interim periods (*** pounds compared to *** pounds). The company projected that its total exports would be *** percent higher in 2025 than its 2024 exports (at *** pounds) but would decrease to *** pounds in 2026. The German company reported that its exports to the United States as a share of its total shipments increased irregularly from 2022 to 2024 (from *** percent in 2022 to *** percent in 2023 before decreasing to *** percent in 2024). Its exports to the United States as a share of its total shipments was *** percentage points higher across the interim periods (*** percent compared to *** percent). Prefere reported the majority of its total shipments as being exports during the period (*** percent or higher in all periods).

The Indian producers' exports to the United States collectively increased *** percent irregularly from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 before increasing to *** pounds in 2024). The Indian producers' exports to the United States were *** percent lower across the interim periods (*** pounds compared to *** pounds). The subject firms in India collectively projected their exports to the United States would be *** pounds in 2025 and 2026. The Indian producers' total exports increased *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Total exports of the Indian producers were *** percent higher across the interim periods (*** pounds compared to *** pounds). The companies projected that their total exports would be *** percent higher in 2025 than 2024 at *** pounds and would increase to *** pounds in 2026.

The Indian producers' exports to the United States as a share of their total shipments increased irregularly *** percentage points from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). Their exports to the United States as a share of their total exports was lower across the interim periods (*** percent compared to *** percent). The Indian firms projected their exports to the United States as a share of total shipments would be *** percent in 2025 and *** percent in 2026. The Indian firms' share of total shipments exported increased from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024). They projected their share of total shipments exported would be *** percent in 2025 and *** percent in 2026.

Saudi producer Chemanol's exports to the United States increased *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Its exports to the United States, however, were *** percent lower across the interim periods (*** pounds compared to *** pounds). The company projected that its exports to the United States would increase *** percent in 2025 compared to 2024 to *** pounds and increase further to *** pounds in 2026. Chemanol's total exports increased *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). Its total exports were *** percent lower across the interim periods (*** pounds compared to *** pounds). The company projected that its total exports would be *** percent lower in 2025 than its 2024 exports (at *** pounds) but would increase to *** pounds in 2026. Chemanol reported that its exports to the United States as a share of its total shipments increased from 2022 to 2024 (from *** percent in 2022 to *** in 2023 and to *** percent in 2024). Its exports to the United States as a share of its total shipments was lower across the interim periods (*** percent compared to *** percent). Chemanol reported virtually all its shipments as being exports (*** percent or higher in all periods).

Table 7.9 Hexamine: Subject foreign industries' exports: Exports to the United States, by subject foreign industry and period

Exports to the United States

Quantity in 1,000 pounds; interim period is January through March

Item	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
China	***	***	***	***	***	***	***
Germany	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***
Saudi Arabia	***	***	***	***	***	***	***
All subject foreign industries	***	***	***	***	***	***	***

Table continued.

Table 7.9 (Continued) Hexamine: Subject foreign industries' exports: Share of total shipments exported to the United States, by subject foreign industry and period

Share of total shipments exported to the United States

Share in percent; interim period is January through March

Item	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
China	***	***	***	***	***	***	***
Germany	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***
Saudi Arabia	***	***	***	***	***	***	***
All subject foreign industries	***	***	***	***	***	***	***

Table continued.

Table 7.9 (Continued) Hexamine: Subject foreign industries' exports: Total exports, by subject foreign industry and period

Total exports

Quantity in 1,000 pounds; interim period is January through March

Item	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
China	***	***	***	***	***	***	***
Germany	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***
Saudi Arabia	***	***	***	***	***	***	***
All subject foreign industries	***	***	***	***	***	***	***

Table continued.

Table 7.9 (Continued) Hexamine: Subject foreign industries' exports: Share of total shipments exported, by subject foreign industry and period

Share of total shipments exported

Share in percent; interim period is January through March

Item	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
China	***	***	***	***	***	***	***
Germany	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***
Saudi Arabia	***	***	***	***	***	***	***
All subject foreign industries	***	***	***	***	***	***	***

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

Hexamine inventories, by subject foreign industry

Table 7.10 presents information on the ending inventories of the responding producers by subject foreign country.

German producer Prefere reported that its end-of-period inventories increased *** percent from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024). The company's end-of-period inventories were *** percent lower across the interim periods (*** pounds). Prefere projected its end-of-period inventories would be *** percent lower in 2025 than 2024, at *** pounds but would increase to *** pounds in 2026. Prefere's ratio of end-of-period inventories to total shipments increased *** percentage points from 2022 to 2024 (increasing from *** percent in 2022 and 2023 to *** percent in 2024). The company's ratio of end-of-period inventories was lower across the interim periods (*** percent compared to *** percent). Based on Prefere's projections, its ratios of end-of-period inventories would be *** percent in 2025 and *** percent in 2026.

The Indian producers' end-of-period inventories increased *** percent irregularly from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 before increasing to *** pounds in 2024). The companies' end-of-period inventories were *** percent higher across the interim periods (*** pounds compared to *** pounds).¹⁸ The Indian producers collectively projected their end of period inventories would be *** percent higher in 2025 than in 2024, at *** pounds but would then decrease slightly to *** pounds in 2026.¹⁹ The Indian firms' ratio of end-of-period inventories to total shipments by period increased irregularly from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024).²⁰ The companies' collective ratio of end-of-period inventories was higher across the interim periods (*** percent compared to *** percent). Based on the Indian firms' projections, the companies' collective ratio of end-of-period inventories would be *** and *** percent in 2025 and 2026, respectively.

¹⁸ The end-of-period inventories for both producers increased irregularly (decreasing from 2022 to 2023 before increasing in 2024). Both firms also reported higher end-of-period inventories across the interim periods.

¹⁹ Kanoria projected its end-of-period inventories would be higher in 2025 and 2026 than its 2024 end-of-period inventories, while M/S Shreenathji projected that its end-of-period inventories would be lower in 2025 and 2026 than its 2024 end-of-period inventories.

²⁰ Kanoria's ratio of end-of-period inventories to total shipments ratios were generally lower than the ratios calculated for M/S Shreenathji (ranging from *** percent to *** percent for Kanoria compared to *** percent to *** percent for M/S Shreenathji).

Saudi producer Chemanol reported that its end-of-period inventories decreased *** percent irregularly from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 before increasing to *** pounds in 2024). The company's end-of-period inventories were *** percent higher across the interim periods (*** pounds compared to *** pounds). Chemanol projected its end of period inventories would be *** percent lower in 2025 than 2024, at *** pounds but would increase to *** pounds in 2026. Chemanol's ratio of end-of-period inventories to total shipments decreased irregularly *** percentage points from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). The company's ratio of end-of-period inventories was higher across the interim periods (*** percent compared to *** percent). Based on Chemanol's projections, the ratio of end-of-period inventories would be *** percent in 2025 and *** percent in 2026.

Resultingly, the responding subject companies' end-of-period inventories collectively decreased *** percent irregularly from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 before increasing to *** pounds in 2024). The subject companies' end-of-period inventories for interim 2024 period were *** percent higher across the interim periods (*** pounds compared to *** pounds). The companies collectively projected their end-of-period inventories would be *** percent higher in 2026 than 2025, at *** pounds and would increase further in 2026 to *** pounds. The ratio of end-of-period inventories to total shipments by period decreased irregularly from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). The subject companies' collective ratio of end-of-period inventories was higher across the interim periods (*** percent compared to *** percent). Based on the projections, the ratio of end-of-period inventories to total shipments would be *** percent in 2025 and *** percent in 2026.

Table 7.10 Hexamine: Subject foreign industries' ending inventories: Ending inventories, by source and period

Quantity in 1,000 pounds; interim period is January through March

Item	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
China	***	***	***	***	***	***	***
Germany	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***
Saudi Arabia	***	***	***	***	***	***	***
All subject foreign industries	***	***	***	***	***	***	***

Table continued.

Table 7.10 (Continued) Hexamine: Subject foreign industries' ending inventories: Ratio of ending inventories to total shipments, by source and period

Ratio in percent; interim period is January through March

Item	2022	2023	2024	Interim 2024	Interim 2025	Projection 2025	Projection 2026
China	***	***	***	***	***	***	***
Germany	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***
Saudi Arabia	***	***	***	***	***	***	***
All subject foreign industries	***	***	***	***	***	***	***

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

Alternative products

The responding producers in Germany, India, and Saudi Arabia did not report any production of alternative products using the same equipment and/or labor as those used to produce hexamine during the period of investigation.

Exports

Table 7.11 presents Global Trade Atlas (“GTA”) data for exports under HS subheading 2933.69 (“Heterocyclic Compounds (Excluding Melamine) Containing an Unfused Triazine Ring (Whether or not Hydrogenated) in the Structure”), a category which contains hexamine and out-of-scope products, from subject countries to the United States and to all destination markets. Exports to the United States collectively reported for the subject foreign industries under this category decreased 14.6 percent irregularly from 2022 to 2024 (decreasing from 211.4 million pounds in 2022 to 107.6 million pounds in 2023 before increasing to 180.6 million pounds in 2024).²¹ Exports to all destination markets collectively reported for the subject foreign industries under this category increased 6.7 percent from 2022 to 2024 (decreasing from 1.4 billion pounds in 2022 to 1.2 billion pounds in 2023 before increasing to 1.5 billion pounds in 2024).²² Resultingly, the share of exports exported to the United States from all subject exporting industries decreased from 15.4 percent of all exports in 2022 to 8.9 percent of exports in 2023 before increasing to 12.4 percent of total exports in 2024.

²¹ Exports to the United States from China, Germany, and India decreased irregularly, while exports to the United States from Saudi Arabia increased across this period.

²² Global exports under this category decreased irregularly for Germany and India, increased irregularly for China, and increased across the period for Saudi Arabia.

Table 7.11 Heterocyclic compounds (excluding melamine) containing an unfused triazine ring (whether or not hydrogenated) in the structure: Global exports from subject exporters: Exports to the United States, by exporter and period

Quantity in 1,000 pounds

Exporter	Measure	2022	2023	2024
China	Quantity	199,345	95,464	160,451
Germany	Quantity	8,794	6,042	7,978
India	Quantity	3,235	1,629	2,902
Saudi Arabia	Quantity	36	4,508	9,279
Subject exporters	Quantity	211,411	107,643	180,610

Table continued.

Table 7.11 (Continued) Heterocyclic compounds (excluding melamine) containing an unfused triazine ring (whether or not hydrogenated) in the structure: Global exports from subject exporters: Exports to all destination markets, by exporter and period

Quantity in 1,000 pounds

Exporter	Measure	2022	2023	2024
China	Quantity	1,238,361	1,070,601	1,316,265
Germany	Quantity	93,830	91,218	91,918
India	Quantity	23,976	24,432	22,567
Saudi Arabia	Quantity	14,038	18,725	31,479
Subject exporters	Quantity	1,370,206	1,204,976	1,462,230

Table continued.

Table 7.11 (Continued) Heterocyclic compounds (excluding melamine) containing an unfused triazine ring (whether or not hydrogenated) in the structure: Global exports from subject exporters: Share of exports exported to the United States, by exporter and period

Share in percent

Exporter	Measure	2022	2023	2024
China	Share	16.1	8.9	12.2
Germany	Share	9.4	6.6	8.7
India	Share	13.5	6.7	12.9
Saudi Arabia	Share	0.3	24.1	29.5
Subject exporters	Share	15.4	8.9	12.4

Source: Official exports statistics and official global imports statistics from Saudi Arabia and Russia (constructed exports) under HS subheading 2933.69.50, as reported by various national statistical authorities in the Global Trade Atlas Suite database, accessed June 20, 2025.

Note: Shares represent the shares exported to the United States out of all destination markets.

U.S. inventories of imported merchandise

Table 7.12 presents data on U.S. importers' reported inventories of hexamine. Overall, U.S. importers reported inventories of imports from subject sources increased *** percent irregularly from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 before decreasing to *** pounds in 2024).²³ U.S. importers' inventories of imports from subject sources were *** percent higher across the interim periods (*** pounds compared to *** pounds).²⁴

The ratio of inventories of imports from subject sources to imports from subject sources decreased *** percentage points irregularly from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 before decreasing to *** percent in 2024).²⁵ The ratio of subject inventories to subject imports was higher across the interim periods (*** percent compared to *** percent).²⁶ The ratio of end-of-period inventories of imports from subject sources to U.S. shipments of imports from subject sources decreased irregularly from 2022 to 2024 (increasing from *** percent in 2022 to *** percent in 2023 before decreasing to

²³ U.S. importers' inventories of imports from India decreased from 2022 to 2024 (decreasing from *** pounds in 2022 and 2023 to *** pounds in 2024). U.S. importers' inventories of imports from Saudi Arabia increased irregularly from 2022 to 2024 (increasing from *** pounds in 2022 to *** pounds in 2023 before decreasing to *** pounds in 2024). U.S. importers did not report holding any inventories of imported hexamine from China in any of the periods and *** pounds in inventories from Germany in 2023 and *** pounds in inventories from Germany in 2024.

²⁴ U.S. importers' inventories of imports from Saudi Arabia were lower across the interim periods (*** pounds compared to *** pounds), higher for India (*** pounds compared to *** pounds), and the same for Germany (*** in both periods). No inventories of imported hexamine from China were reported in either interim period.

²⁵ The ratio of inventories of U.S. imports from Germany to U.S. imports from Germany was *** percent in 2023 and *** percent in 2024. The ratio of inventories of U.S. imports from India to U.S. imports from India increased from *** percent in 2022 to *** percent in 2023 before decreasing to *** percent in 2024. The ratio of inventories of U.S. imports from Saudi Arabia to U.S. imports from Saudi Arabia was *** percent in 2023 and *** percent in 2024. U.S. importers did not report holding any inventories of imported hexamine from China in any of the periods.

²⁶ The inventory to import ratios were higher for Germany and India across the interim periods (*** percent compared to *** percent for Germany and *** percent compared to *** for India) and lower for Saudi Arabia (*** percent compared to *** percent).

*** percent in 2024).²⁷ The ratio of subject inventories to U.S. shipment of subject imports was higher across the interim periods (*** percent compared to *** percent).²⁸

U.S. importers' inventories of nonsubject U.S. imports decreased *** percent from 2022 to 2024 (decreasing from *** pounds in 2022 to *** pounds in 2023 and to *** pounds in 2024).²⁹ The ratio of inventories of nonsubject U.S. imports to nonsubject U.S. imports decreased irregularly from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 before increasing to *** percent in 2024). The ratio of inventories of nonsubject U.S. imports to U.S. shipments of imports from nonsubject sources decreased from 2022 to 2024 (decreasing from *** percent in 2022 to *** percent in 2023 and to *** percent in 2024). U.S. importers' inventories of imports from nonsubject sources were *** in interim 2025 as compared to *** pounds in interim 2024. In interim 2024, the ratios of nonsubject import inventories to nonsubject imports, U.S. shipments of nonsubject imports, and total shipments of nonsubject imports were ***, ***, and *** percent, respectively.

²⁷ The ratio of inventories of U.S. imports from Germany to U.S. shipments of imports from Germany was *** percent in 2023 and *** percent in 2024. The ratio of inventories of U.S. imports from India to U.S. shipments of imports from India increased from *** percent in 2022 to *** percent in 2023 before decreasing to *** percent in 2024. The ratio of inventories of U.S. imports from Saudi Arabia to U.S. shipments of imports from Saudi Arabia was *** percent in 2023 and *** percent in 2024. U.S. importers did not report holding any inventories of imported hexamine from China in any of the periods.

²⁸ The inventory to U.S. shipments of import ratios were higher for Germany, India, and Saudi Arabia across the interim periods (*** percent compared to *** percent, *** percent compared to ***, and *** percent compared to *** percent, respectively) and lower for Saudi Arabia (*** percent compared to *** percent).

²⁹ The vast majority of the reported nonsubject inventories were from Russia. Inventories of imports from Russia had completely left the market as of the interim 2025 period.

Table 7.12 Hexamine: U.S. importers' inventories and their ratio to select items, by source and period

Quantity in pounds; ratio in percent

Measure	Source	2022	2023	2024	Interim 2024	Interim 2025
Inventories quantity	China	***	***	***	***	***
Ratio to imports	China	***	***	***	***	***
Ratio to U.S. shipments of imports	China	***	***	***	***	***
Ratio to total shipments of imports	China	***	***	***	***	***
Inventories quantity	Germany	***	***	***	***	***
Ratio to imports	Germany	***	***	***	***	***
Ratio to U.S. shipments of imports	Germany	***	***	***	***	***
Ratio to total shipments of imports	Germany	***	***	***	***	***
Inventories quantity	India	***	***	***	***	***
Ratio to imports	India	***	***	***	***	***
Ratio to U.S. shipments of imports	India	***	***	***	***	***
Ratio to total shipments of imports	India	***	***	***	***	***
Inventories quantity	Saudi Arabia	***	***	***	***	***
Ratio to imports	Saudi Arabia	***	***	***	***	***
Ratio to U.S. shipments of imports	Saudi Arabia	***	***	***	***	***
Ratio to total shipments of imports	Saudi Arabia	***	***	***	***	***
Inventories quantity	Subject	***	***	***	***	***
Ratio to imports	Subject	***	***	***	***	***
Ratio to U.S. shipments of imports	Subject	***	***	***	***	***
Ratio to total shipments of imports	Subject	***	***	***	***	***
Inventories quantity	Russia	***	***	***	***	***
Ratio to imports	Russia	***	***	***	***	***
Ratio to U.S. shipments of imports	Russia	***	***	***	***	***
Ratio to total shipments of imports	Russia	***	***	***	***	***
Inventories quantity	All other sources	***	***	***	***	***
Ratio to imports	All other sources	***	***	***	***	***
Ratio to U.S. shipments of imports	All other sources	***	***	***	***	***
Ratio to total shipments of imports	All other sources	***	***	***	***	***
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	***	***	***	***	***
Ratio to imports	All	***	***	***	***	***
Ratio to U.S. shipments of imports	All	***	***	***	***	***
Ratio to total Shipments of imports	All	***	***	***	***	***

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

Note: Quantities shown as "0" represent quantities greater than zero but less than 500 pounds. Zeroes, null values, and undefined calculations are suppressed and shown as "—".

U.S. importers' outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of hexamine from China, Germany, India, or Saudi Arabia after March 30, 2025. Of the ten responding U.S. importers, four U.S. importers reported such arranged imports. Their reported data are presented in table 7.13. As shown, responding importers collectively reported *** pounds in arranged imports for the period covering April 2025 through March 2026, *** percent of which are from subject sources. Of the *** pounds in reported arranged imports from subject sources, *** percent were reported as being arranged from Saudi Arabia, *** percent were reported as being arranged from Germany, and *** percent were reported as being arranged from India, while there were *** arranged imports reported from China.

Table 7.13 Hexamine: Arranged imports, by source and by period

Quantity in 1,000 pounds

Source	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Total
China	***	***	***	***	***
Germany	***	***	***	***	***
India	***	***	***	***	***
Saudi Arabia	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

Third-country trade actions

Based on available information, hexamine from the subject countries has not been subject to other antidumping or countervailing duty investigations outside the United States during the period of investigation.³⁰

Information on nonsubject countries

Table 7.14 presents data for global exports of heterocyclic compounds containing an unfused triazine ring under HS 2933.69, a subheading that includes out-of-scope products. Total volume of global exports decreased by 5.9 percent during the period of investigation, with a sharper (19.6 percent) decline from 2022 to 2023. However, the volume of exports increased from China (6.3 percent), the United States (11.8 percent), Saudi Arabia (124.2 percent) and Belgium (65.3 percent) over the entire period.

In 2024, subject countries and the United States combined accounted for an 82.4 percent share of global exports, an increase from 72.7 percent in 2022. China was the largest global exporter during the period of investigation, expanding its share from 65.7 percent in 2022 to 74.2 percent in 2024.

Russia's exports under 2933.69 decreased from 41.5 million pounds in 2022 to 14.5 million pounds in 2024 (65.0 percent).³¹ Petitioner notes that this decline coincided with the build up to the invasion of Ukraine, emphasizing hexamine's use in producing the explosive RDX.³² Spain's exports under 2933.69 decreased from 78.5 million pounds in 2022 to 65.2 million pounds in 2024 (16.0 percent).³³

³⁰ On October 20, 2020 India terminated antidumping duties on hexamine produced in or originating from China and the United Arab Emirates. These duties of \$84.25 per metric ton were initiated in March 2014. WTO Trade Remedies Portal, accessed October 30, 2024. [14/16/2013-1/2 - Investigation details - Trade Remedies Data Portal](#).

³¹ Official global imports statistics from Russia (constructed exports) under HS subheadings 2933.69 as reported by various national statistical authorities in the Global Trade Atlas Suite database, accessed June 20, 2025.

³² Petition, vol. 1, pp. 18 to 19. Petitioner stated that Russia's exit from the U.S. market was not sudden and that "Bakelite and other suppliers and customers of hexamine" had information about Russia's departure from the market in 2021. Hearing transcript, pp. 28 (Lutz), 44 (Groden), and 75 (Roderick); Petitioner's posthearing brief, attachment 1, p. 27.

³³ Petitioner stated that it unaware of hexamine production in Spain. Hearing transcript, pp. 66, 80 (Kanna).

Table 7.14 Heterocyclic compounds (excluding melamine) containing an unfused triazine ring (whether or not hydrogenated) in the structure: Global exports, by reporting country and by period

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

Exporting country	Measure	2022	2023	2024
United States	Quantity	34,404	22,519	38,455
China	Quantity	1,238,361	1,070,601	1,316,265
Germany	Quantity	93,830	91,218	91,918
India	Quantity	23,976	24,432	22,567
Saudi Arabia	Quantity	14,038	18,725	31,479
Subject exporters	Quantity	1,370,206	1,204,976	1,462,230
Spain	Quantity	78,530	60,272	65,199
Japan	Quantity	54,068	39,921	43,701
United Kingdom	Quantity	40,709	36,339	32,061
Belgium	Quantity	13,003	19,476	21,490
France	Quantity	22,172	14,016	14,836
Russia	Quantity	41,478	16,801	14,527
Netherlands	Quantity	40,700	14,898	13,489
All other exporters	Quantity	189,632	86,217	68,148
All reporting exporters	Quantity	1,884,902	1,515,434	1,774,135
United States	Value	134,298	97,021	112,683
China	Value	1,908,910	1,224,621	1,320,516
Germany	Value	289,087	326,420	293,891
India	Value	116,697	117,585	109,831
Saudi Arabia	Value	13,483	11,200	20,733
Subject exporters	Value	2,328,178	1,679,826	1,744,971
Spain	Value	127,725	93,866	88,801
Japan	Value	110,588	77,211	84,803
United Kingdom	Value	34,840	24,706	18,735
Belgium	Value	29,672	56,284	56,771
France	Value	53,820	37,915	37,006
Russia	Value	22,009	6,644	6,089
Netherlands	Value	107,189	61,369	103,735
All other exporters	Value	456,429	359,472	317,085
All reporting exporters	Value	3,404,747	2,494,314	2,570,679

Table continued.

Table 7.14 (Continued) Heterocyclic compounds (excluding melamine) containing an unfused triazine ring (whether or not hydrogenated) in the structure: Global exports, by reporting country and by period

Unit values in dollars per pound; Shares in percent

Exporting country	Measure	2022	2023	2024
United States	Unit value	3.90	4.31	2.93
China	Unit value	1.54	1.14	1.00
Germany	Unit value	3.08	3.58	3.20
India	Unit value	4.87	4.81	4.87
Saudi Arabia	Unit value	0.96	0.60	0.66
Subject exporters	Unit value	1.70	1.39	1.19
Spain	Unit value	1.63	1.56	1.36
Japan	Unit value	2.05	1.93	1.94
United Kingdom	Unit value	0.86	0.68	0.58
Belgium	Unit value	2.28	2.89	2.64
France	Unit value	2.43	2.71	2.49
Russia	Unit value	0.53	0.40	0.42
Netherlands	Unit value	2.63	4.12	7.69
All other exporters	Unit value	2.41	4.17	4.65
All reporting exporters	Unit value	1.81	1.65	1.45
United States	Share of quantity	1.8	1.5	2.2
China	Share of quantity	65.7	70.6	74.2
Germany	Share of quantity	5.0	6.0	5.2
India	Share of quantity	1.3	1.6	1.3
Saudi Arabia	Share of quantity	0.7	1.2	1.8
Subject exporters	Share of quantity	72.7	79.5	82.4
Spain	Share of quantity	4.2	4.0	3.7
Japan	Share of quantity	2.9	2.6	2.5
United Kingdom	Share of quantity	2.2	2.4	1.8
Belgium	Share of quantity	0.7	1.3	1.2
France	Share of quantity	1.2	0.9	0.8
Russia	Share of quantity	2.2	1.1	0.8
Netherlands	Share of quantity	2.2	1.0	0.8
All other exporters	Share of quantity	10.1	5.7	3.8
All reporting exporters	Share of quantity	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 2933.69 as reported by various national statistical authorities in the Global Trade Atlas Suite database, accessed June 5, 2025, and official global imports statistics from Saudi Arabia and Russia under HS subheading 3920.62 as reported by UN comtrade in the Global Trade Atlas Suite database, accessed June 20, 2025.

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 2024 data.

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 80929, October 4, 2024	<i>Hexamine (Hexamethylenetetramine) From China, Germany, India, and Saudi Arabia; Notice of Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations</i>	https://www.govinfo.gov/content/pkg/FR-2024-10-04/pdf/2024-22956.pdf
89 FR 87545, November 4, 2024	<i>Hexamethylenetetramine From the People's Republic of China, Germany, India, and Saudi Arabia: Initiation of Less-Than-Fair-Value Investigations</i>	https://www.govinfo.gov/content/pkg/FR-2024-11-04/pdf/2024-25525.pdf
89 FR 87560, November 4, 2024	<i>Hexamethylenetetramine From the People's Republic of China and India: Initiation of Countervailing Duty Investigations</i>	https://www.govinfo.gov/content/pkg/FR-2024-11-04/pdf/2024-25524.pdf
89 FR 91786, November 20, 2024	<i>Hexamine (Hexamethylenetetramine) From China, Germany, India, and Saudi Arabia; Determinations</i>	https://www.govinfo.gov/content/pkg/FR-2024-11-20/pdf/2024-26998.pdf
90 FR 11508, March 7, 2025	<i>Hexamethylenetetramine From the People's Republic of China: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With Final Antidumping Duty Determination</i>	https://www.govinfo.gov/content/pkg/FR-2025-03-07/pdf/2025-03639.pdf
90 FR 11512, March 7, 2025	<i>Hexamethylenetetramine From India: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With Final Antidumping Duty Determination</i>	https://www.govinfo.gov/content/pkg/FR-2025-03-07/pdf/2025-03644.pdf
90 FR 19182, May 6, 2025	<i>Hexamethylenetetramine From the People's Republic of China: Preliminary Affirmative Determination of Sales at Less Than Fair Value</i>	https://www.govinfo.gov/content/pkg/FR-2025-05-06/pdf/2025-07802.pdf
90 FR 19186, May 6, 2025	<i>Hexamethylenetetramine From Germany: Preliminary Affirmative Determination of Sales at Less-Than-Fair-Value, Postponement of Final Determination, and Extension of Provisional Measures</i>	https://www.govinfo.gov/content/pkg/FR-2025-05-06/pdf/2025-07803.pdf
90 FR 19178, May 6, 2025	<i>Hexamethylenetetramine From India: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination and Extension of Provisional Measures</i>	https://www.govinfo.gov/content/pkg/FR-2025-05-06/pdf/2025-07804.pdf
90 FR 19180, May 6, 2025	<i>Hexamethylenetetramine From the Kingdom of Saudi Arabia: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures</i>	https://www.govinfo.gov/content/pkg/FR-2025-05-06/pdf/2025-07805.pdf

Citation	Title	Link
90 FR 21948, May 22, 2025	<i>Hexamine From China, Germany, India, and Saudi Arabia; Scheduling of the Final Phase of Countervailing Duty and Antidumping Duty Investigations</i>	https://www.govinfo.gov/cont ent/pkg/FR-2025-05-22/pdf/2025-09157.pdf
90 FR 33922, July 18, 2025	<i>Hexamethylenetetramine From the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value</i>	https://www.govinfo.gov/cont ent/pkg/FR-2025-07-18/pdf/2025-13563.pdf
90 FR 33923, July 18, 2025	<i>Hexamethylenetetramine From the People's Republic of China: Final Affirmative Countervailing Duty Determination</i>	https://www.govinfo.gov/cont ent/pkg/FR-2025-07-18/pdf/2025-13564.pdf

APPENDIX B

LIST OF HEARING WITNESSES

CALENDAR OF PUBLIC HEARING

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

Subject: Hexamine (Hexamethylenetetramine) from China, Germany, India, and Saudi Arabia

Inv. Nos.: 701-TA-737-738 and 731-TA-1712-1715 (Final)

Date and Time: July 18, 2025 - 9:30 a.m.

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

OPENING REMARKS:

In Support of Imposition (**Matthew L. Kanna**, Greenberg Traurig, LLP)
In Opposition to Imposition (**Matthew W. Solomon**, White & Case LLP)

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

Greenberg Traurig, LLP
Washington, DC
on behalf of

Bakelite LLC ("Bakelite")

Jesse L. Neese, Director, Strategy and Regulatory Affairs, Bakelite

Jaret Brochmann, Vice President, Sales and Technical Services, Bakelite

Laura Boninsegni, Vice President, FP&A and Regional Finance Leader,
Bakelite

Brad Roderick, Director, Bakelite

Ronald Bazinet, Plant Manager, Bakelite

Stephanie Velez, Assistant Director, Greenberg Traurig, LLP

**In Support of the Imposition of the
Antidumping and Countervailing Duty Orders (continued):**

Ana Leme, Paralegal, Greenberg Traurig, LLP

Jennifer Lutz, Partner, Ion Economics, LLC

Cara Groden, Senior Economic Consultant, Ion Economics, LLC

Matthew L. Kanna)
) – OF COUNSEL
Claudia D. Hartleben)

**In Opposition to the Imposition of the
Antidumping and Countervailing Duty Orders:**

White & Case LLP
Washington, DC
on behalf of

General Authority for Foreign Trade (“GAFT”)

Jay C. Campbell)
) – OF COUNSEL
Matthew W. Solomon)

REBUTTAL/CLOSING REMARKS:

In Support of Imposition (**Claudia D. Hartleben**, Greenberg Traurig, LLP)

In Opposition to Imposition (**Jay C. Campbell**, White & Case LLP)

APPENDIX C
SUMMARY DATA

Table C.1: Hexamine: Summary data concerning the total U.S. market C.3
Table C.2: Hexamine: Summary data concerning the merchant U.S. market C.5

Total market

Table C.1

Hexamine: Summary data concerning the U.S. total 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; Interim period is January through

Item	Reported data					Period change comparisons				
	Calendar year			Interim		Calendar year			Interim	
	2022	2023	2024	2024	2025	2022-24	2022-23	2023-24	2024-25	
U.S. total market consumption quantity:										
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Importers' share (fn1):										
China.....	***	***	***	***	***	▲***	▲***	▼***	▼***	
Germany.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
India.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Saudi Arabia.....	***	***	***	***	***	▲***	▲***	▲***	▲***	
Subject sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***	
Russia.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
All other sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Nonsubject sources.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
All import sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***	
U.S. total market consumption value:										
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▲***	▼***	
Importers' share (fn1):										
China.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
Germany.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
India.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Saudi Arabia.....	***	***	***	***	***	▲***	▲***	▲***	▼***	
Subject sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***	
Russia.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
All other sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Nonsubject sources.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
All import sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***	
U.S. importers' U.S. shipments of imports from:										
China:										
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
Value.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
Unit value.....	***	***	***	***	***	▼***	▼***	▲***	▼***	
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***	
Germany:										
Quantity.....	***	***	***	***	***	▼***	▼***	▲***	▼***	
Value.....	***	***	***	***	***	▼***	▼***	▲***	▲***	
Unit value.....	***	***	***	***	***	▼***	▼***	▼***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***	
India:										
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Unit value.....	***	***	***	***	***	▲***	▲***	▼***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▼***	***	▼***	▲***	
Saudi Arabia:										
Quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***	
Value.....	***	***	***	***	***	▲***	▲***	▲***	▼***	
Unit value.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***	
Subject sources:										
Quantity.....			4,353	825	880	▲186.7	▲10.9	▲158.6	▲6.8	
Value.....	1,518	1,683	4,255	784	866	▲174.5	▲18.1	▲132.4	▲10.4	
Unit value.....	\$1.02	\$1.09	\$0.98	\$0.95	\$0.98	▼(4.2)	▲6.6	▼(10.1)	▲3.5	
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***	
Russia:										
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Value.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Unit value.....	***	***	***	***	***	▲***	▲***	▼***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
All other sources:										
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Unit value.....	***	***	***	***	***	▼***	▼***	▲***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	***	▼***	
Nonsubject sources:										
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Value.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
All import sources:										
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Value.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
Unit value.....	***	***	***	***	***	▲***	▲***	▼***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***	

Table continued.

Table C.1 Continued

Hexamine: Summary data concerning the U.S. total 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; Interim period is January through

Item	Reported data					Period change comparisons				
	Calendar year			Interim		Calendar year			Interim	
	2022	2023	2024	2024	2025	2022-24	2022-23	2023-24	2024-25	
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.....	***	***	***	***	***	▲***	▲***	▲***	▲***	
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. 508-compliant tables for these data are contained in parts 3, 4, 6, and 7 of this report.

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.

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.

Merchant market

Table C.2

Hexamine: Summary data concerning the U.S. merchant 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; Interim period is January through

Item	Reported data					Period change comparisons				
	Calendar year			Interim		Calendar year			Interim	
	2022	2023	2024	2024	2025	2022-24	2022-23	2023-24	2024-25	
U.S. merchant market consumption quantity:										
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Importers' share (fn1):										
China.....	***	***	***	***	***	▲***	▲***	▼***	▼***	
Germany.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
India.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Saudi Arabia.....	***	***	***	***	***	▲***	▲***	▲***	▲***	
Subject sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***	
Russia.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
All other sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Nonsubject sources.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
All import sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***	
U.S. merchant market consumption value:										
Amount.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▲***	▼***	
Importers' share (fn1):										
China.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
Germany.....	***	***	***	***	***	▼***	▼***	▲***	▲***	
India.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Saudi Arabia.....	***	***	***	***	***	▲***	▲***	▲***	▼***	
Subject sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***	
Russia.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
All other sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Nonsubject sources.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
All import sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***	
U.S. importers' U.S. shipments of imports from:										
China:										
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
Value.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
Unit value.....	***	***	***	***	***	▼***	▼***	▲***	▼***	
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***	
Germany:										
Quantity.....	***	***	***	***	***	▼***	▼***	▲***	▼***	
Value.....	***	***	***	***	***	▼***	▼***	▲***	▲***	
Unit value.....	***	***	***	***	***	▼***	▼***	▼***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***	
India:										
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Unit value.....	***	***	***	***	***	▲***	▲***	▼***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▼***	***	▼***	▲***	
Saudi Arabia:										
Quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***	
Value.....	***	***	***	***	***	▲***	▲***	▲***	▼***	
Unit value.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***	
Subject sources:										
Quantity.....			4,353	825	880	▲186.7	▲10.9	▲158.6	▲6.8	
Value.....	1,518	1,831	4,255	784	866	▲174.5	▲18.1	▲132.4	▲10.4	
Unit value.....	\$1.02	\$1.09	\$0.98	\$0.95	\$0.98	▼(4.2)	▲6.6	▼(10.1)	▲3.5	
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***	
Russia:										
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Value.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Unit value.....	***	***	***	***	***	▲***	▲***	▼***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
All other sources:										
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***	
Unit value.....	***	***	***	***	***	▼***	▼***	▲***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	***	▼***	
Nonsubject sources:										
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Value.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
All import sources:										
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Value.....	***	***	***	***	***	▼***	▲***	▼***	▼***	
Unit value.....	***	***	***	***	***	▲***	▲***	▼***	▲***	
Ending inventory quantity.....	***	***	***	***	***	▼***	▼***	▼***	▲***	

Table continued.

Table C.2 Continued

Hexamine: Summary data concerning the U.S. merchant 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; Interim period is January through

Item	Reported data					Period change comparisons				
	Calendar year			Interim		Calendar year			Interim	
	2022	2023	2024	2024	2025	2022-24	2022-23	2023-24	2024-25	
U.S. producers:										
Commercial U.S. shipments:										
Quantity.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Value.....	***	***	***	***	***	▼***	▼***	▼***	▼***	
Unit value.....	***	***	***	***	***	▼***	▼***	▲***	▲***	
Commercial 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).....	***	***	***	***	***	▼***	▼***	▼***	▼***	

Source: Compiled from data submitted in response to Commission questionnaires. 508-compliant tables for these data are contained in parts 3, 4, 6, and 7 of this report.

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.

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.

APPENDIX D
NONSUBJECT PRICING

Two importers reported price data for Russia for products 1 and 2. No price data were reported for product 3. Price data reported by these firms accounted for *** of U.S. shipments from Russia. These price items and accompanying data are comparable to those presented in tables 5.4 to 5.5. Price and quantity data for Russia are shown in tables D.1 to D.2 and in figure D.1 to D.2 (with domestic and subject sources).

In comparing nonsubject country pricing data with U.S. producer pricing data, prices for product imported from Russia were lower than prices for U.S.-produced product in 13 instances and higher in 5 instances. In comparing nonsubject country pricing data with subject country pricing data, prices for product imported from Russia were lower than prices for product imported from subject countries in 14 instances and higher in 19 instances. A summary of price differentials is presented in table D.3.

Table D.1 Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported nonsubject product 1 and margins of underselling/(overselling), by source and quarter

Period	U.S. price	U.S. quantity	Russia price	Russia quantity	Russia margin	Subject price	Subject quantity	Subject margin
2022 Q1	***	***	***	***	***	***	***	***
2022 Q2	***	***	***	***	***	***	***	***
2022 Q3	***	***	***	***	***	***	***	***
2022 Q4	***	***	***	***	***	***	***	***
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***

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

Note: Product 1: “Unstabilized” Hexamine, with a hexamine content above 99% by weight.

Figure D.1 Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by source and quarter

Price of product 1

* * * * *

Volume of product 1

* * * * *

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

Table D.2 Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported nonsubject product 2 and margins of underselling/(overselling), by source and quarter

Period	U.S. price	U.S. quantity	Russia price	Russia quantity	Russia margin	Subject price	Subject quantity	Subject margin
2022 Q1	***	***	***	***	***	***	***	***
2022 Q2	***	***	***	***	***	***	***	***
2022 Q3	***	***	***	***	***	***	***	***
2022 Q4	***	***	***	***	***	***	***	***
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***

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

Note: Product 2: “Stabilized” Hexamine, with a hexamine content above 95% but less than or equal to 99% by weight.

Figure D.2 Hexamine: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, by source and quarter

Price of product 2

* * * * *

Volume of product 2

* * * * *

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

Table D.3 Hexamine: Summary of higher/(lower) unit values for nonsubject price data, by source, January 2022 through March 2025

Comparison source	Benchmark source	Number of quarters lower	Quantity lower	Number of quarters higher	Quantity higher
Russia	United States	***	***	***	***
Russia	China	***	***	***	***
Russia	Germany	***	***	***	***
Russia	India	***	***	***	***
Russia	Saudi Arabia	***	***	***	***

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

