

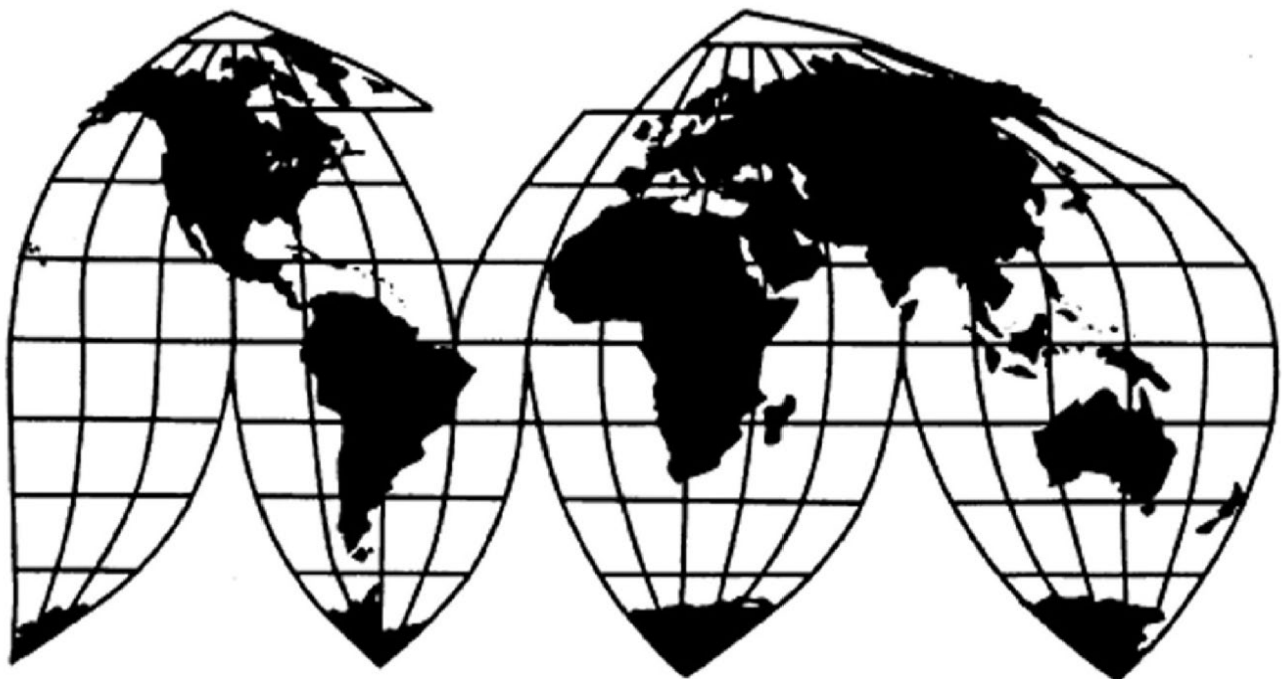
Choline Salts from China

Investigation Nos. 701-TA-798 and 731-TA-1794 (Preliminary)

Publication 5778

August 2026

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-798 and 731-TA-1794 (Preliminary)

Choline Salts 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 there is a reasonable indication that an industry in the United States is materially injured by reason of imports of choline salts from China, provided for in subheading 2923.10.00 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value (“LTFV”) and subsidized by the government of China.^{2 3}

COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

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

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

² 91 FR 45241, July 20, 2026 and 91 FR 45247, July 20, 2026.

³ Commissioners Amy A. Karpel and Peter-Anthony Pappas not participating.

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

BACKGROUND

On June 24, 2026, BCP Ingredients, Inc. (Montvale, New Jersey) filed petitions with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized imports of choline salts from China and LTFV imports of choline salts from China. Accordingly, effective June 24, 2026, the Commission instituted countervailing duty investigation No. 701-TA-798 and antidumping duty investigation No. 731-TA-1794 (Preliminary).

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of June 29, 2026 (91 FR 39120). The Commission conducted its conference on July 15, 2026. All persons who requested the opportunity were permitted to participate.

Views of the Commission

Based on the record in the preliminary phase of these investigations, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of choline salts from China that are allegedly sold in the United States at less than fair value and subsidized by the government of China.¹

I. The Legal Standard for Preliminary Determinations

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

II. Background

BCP Ingredients, Inc. (“BCP”), a domestic producer of choline salts, filed the petitions in these investigations on June 24, 2026. Petitioner appeared at the staff conference accompanied by counsel and submitted a postconference brief. No respondent party has appeared in these investigations.

U.S. industry data are based on the questionnaire responses of two producers, accounting for all known U.S. production of choline salts in 2026.⁴ U.S. import data are based on questionnaire responses from 34 U.S. importers, accounting for *** percent of total subject imports from China and approximately *** percent of nonsubject imports in 2025 under HTS subheading 2923.10.00.⁵ The Commission received no responses to its questionnaire from any foreign producers in China.⁶

¹ Commissioners Amy A. Karpel and Peter-Anthony Pappas did not participate in these investigations.

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

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

⁴ Confidential Report, Memorandum INV-YY-109, August 3, 2026 (“CR”) at 1.4; Public Report, *Choline Salts from China*, Inv. Nos. 701-TA-798 and 731-TA-1794 (Preliminary), USITC Pub. 5778 (Aug. 2026) (“PR”) at 1.4.

⁵ CR/PR at 1.4, 4.1.

⁶ CR/PR at 7.3.

III. Domestic Like Product

In determining whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the “domestic like product” and the “industry.”⁷ 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.”⁸ In turn, the Tariff Act defines “domestic like product” as “a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation.”⁹

By statute, the Commission’s “domestic like product” analysis begins with the “article subject to an investigation,” *i.e.*, the subject merchandise as determined by the U.S. Department of Commerce (“Commerce”).¹⁰ 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.”¹¹ The Commission then defines the domestic like product in light of the imported articles Commerce has identified.¹² 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.¹³ No single factor is

⁷ 19 U.S.C. § 1677(4)(A).

⁸ 19 U.S.C. § 1677(4)(A).

⁹ 19 U.S.C. § 1677(10).

¹⁰ 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).

¹¹ *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).

¹² *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).

¹³ *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; (Continued...)

dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.¹⁴ The Commission looks for clear dividing lines among possible like products and disregards minor variations.¹⁵ The Commission may, where appropriate, include domestic articles in the domestic like product in addition to those described in the scope.¹⁶

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

The merchandise covered by this investigation is certain choline salts, in all forms and purities, that are capable of delivering the nutrient choline. Subject choline salts may or may not contain additives such as a vegetable or mineral carrier or an anti-caking agent and may or may not be coated or encapsulated, such as in a lipid. For choline salts that contain non-choline salt components, such as a carrier or coating, the entire article is covered, including the non-choline salt content, provided that the choline salt content constitutes at least 30 percent by weight.

Choline salts are organic compounds and quaternary ammonium salts. Subject merchandise includes, but is not limited to, the following choline salts in their aqueous, crystallized, dried, or encapsulated forms:

- Choline chloride, which exists as a colorless aqueous solution and as a white, crystalline powder which may or may not be mixed with vegetable, inorganic, or fat-based carriers. It has the molecular formula $CH_3CH_2N^+(CH_3)_3Cl^-$. It may also be referred to as (2-hydroxyethyl) trimethylammonium chloride, and its molecular formula may also be expressed as $C_5H_{14}NO.Cl$ or $C_5H_{14}ClNO$. The Chemical Abstracts Service (CAS) registry number for choline

(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).

¹⁴ See, e.g., S. Rep. No. 96-249 at 90-91 (1979).

¹⁵ See, e.g., *Nippon*, 19 CIT at 455; *Torrington*, 747 F. Supp. at 748-49; see also S. Rep. No. 96-249 at 90-91 (Congress has indicated that the like product standard should not be interpreted in "such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not 'like' each other, nor should the definition of 'like product' be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.").

¹⁶ See, e.g., *Pure Magnesium from China and Israel*, Inv. Nos. 701-TA-403 and 731-TA-895-96 (Final), USITC Pub. 3467 at 8 n.34 (Nov. 2001); *Torrington*, 747 F. Supp. at 748-49 (holding that the Commission is not legally required to limit the domestic like product to the product advocated by the petitioner, co-extensive with the scope).

chloride is 67–48–1; the Flavoring Extract Manufacturers' Association (FEMA) number is 4500; the PubChem number is 6209; and the European Community (EC) number is 200–655–4;

- Choline bitartrate, which is a white crystalline powder with the molecular formula $(\text{CH}_3)_3\text{NCH}_2\text{CH}_2\text{OH}^+\text{HOOC}^-\text{CH}(\text{OH})^-\text{CH}(\text{OH})^-\text{COO}^-$. It may be referred to as (2- hydroxyethyl) trimethylammonium-L-(+)- tartrate salt, and its molecular formula may also be expressed as $\text{C}_5\text{H}_{14}\text{NO} \cdot \text{C}_4\text{H}_5\text{O}_6$ or $\text{C}_9\text{H}_{19}\text{NO}_7$. Choline bitartrate has the CAS registry number 87–67–2; the PubChem number 6900; and the EC number 201–763– 4;

- Choline dihydrogen citrate, which is a white crystalline powder with the molecular formula $\text{C}_{11}\text{H}_{21}\text{NO}_8$ and may be referred to as (2-hydroxyethyl) trimethylammonium citrate. Choline dihydrogen citrate has the CAS registry number 77–91–8; the PubChem number 66170; and the EC number 201–068– 6.

This investigation covers choline salts for which the reaction of trimethylamine and ethylene oxide occurs in the subject country. The merchandise subject to this investigation includes choline salts in their aqueous or dried form that are processed in a third country, including, but not limited to, refining, drying, encapsulating, blending, or any other processing that would not otherwise remove the merchandise from the scope of this investigation if performed in the country of manufacture of the in-scope choline salt. Choline salts subject to this investigation are not excluded when commingled with choline salts from sources not subject to this investigation. Only the subject component of such commingled products is covered by the scope of this investigation.

Excluded from the scope of this investigation is choline hydroxide, which has the molecular formula $\text{C}_5\text{H}_{15}\text{NO}_2$, the CAS registry number 123–41–1, the PubChem number 31255, and the EC number 204–625–1. Also excluded is choline salicylate, which has the molecular formula $\text{C}_{12}\text{H}_{19}\text{NO}_4$, the CAS registry number 2016–36–6, the PubChem number 54686350, and the EC number 217–948–8.

Also excluded from the scope of the investigation are any products already covered by the scope of any extant antidumping and/or countervailing duty orders, including 2,4-Dichlorophenoxyacetic Acid from India and the People's Republic

of China: Antidumping Duty Orders, 90 FR 22243 (May 27, 2025), and including 2,4-Dichlorophenoxyacetic Acid from the People's Republic of China and India: Countervailing Duty Orders, 90 FR 22232 (May 27, 2025).

The choline salts subject to this investigation are classified under the Harmonized Tariff Schedule of the United States (HTSUS) subheading 2923.10.0000. Subject choline salts of dried choline chloride may also enter under HTSUS subheadings 2309.90.1005, 2309.90.1015, 2309.90.1020, 2309.90.1030, 2309.90.1032, 2309.90.1035, 2309.90.1045, 2309.90.1050, 2309.90.9500, and 3824.99.9397. Although the HTSUS subheadings and CAS registry numbers are provided for convenience and customs purposes, the written description of the scope of this investigation is dispositive.¹⁷

Choline salts are primarily used to supplement choline, an essential nutrient in animal and human diets, through its use in animal feed, infant formula, and other nutraceutical products as dietary supplements.¹⁸ The merchandise defined within the scope includes three choline salts: choline chloride ("CC"), choline bitartrate ("CBT"), and choline dihydrogen citrate ("CDHC"). Choline chloride is by far the most common choline salt on the market, accounting for *** percent of U.S. shipments by weight in 2025.¹⁹

Choline salts are sold in a variety of forms to improve flow characteristics and to provide a diversity of reliable delivery mechanisms. Forms include colorless aqueous solutions of choline salts ("liquid"), choline salts dried onto carriers like silica or agricultural waste ("dry"), and high-purity choline salts ("powdered" or "crystallized"). Additionally, dry or powdered choline salts may be encapsulated within a coating material or pressed into pills. The variety of forms sold allows suitability for a variety of applications. For example, liquid and dry choline chloride are primarily used as supplements to animal feed, while crystallized choline chloride and powdered CBT and CDHC are primarily used as supplements to products for human consumption.²⁰

A. Arguments of the Parties

Petitioner's Argument. Petitioner argues that the Commission should define a single domestic like product that is coextensive with the scope, contending that domestically

¹⁷ *Certain Choline Salts From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation*, 91 Fed. Reg. 45241, 45245 (July 20, 2026); *Certain Choline Salts From the People's Republic of China: Initiation of Countervailing Duty Investigation*, 91 Fed. Reg. 45247, 45250-45251 (July 20, 2026). Commerce's scope is the same for the antidumping and countervailing duty investigations.

¹⁸ CR/PR at 1.3.

¹⁹ CR/PR at 1.12.

²⁰ CR/PR at 1.13 to 1.14.

produced choline chloride, CBT, and CDHC constitute a grouping of products that is identical to the subject merchandise within the scope.²¹

Petitioner argues that all in-scope choline salts are formed through a series of chemical reactions in a process called ethoxylation involving trimethylamine (“TMA”), an acid, and ethylene oxide.²² Petitioner asserts that the resulting products have similar physical appearances, and that choline chloride crystals, CBT, and CDHC are all white or off-white powders when the water is removed.²³ Petitioner argues that all in-scope choline salts have a similar end use, which is to deliver choline as a nutrient to humans or animals, and that customers perceive all choline salts to serve this purpose.²⁴ Petitioner contends that food grade (for humans) choline salts are interchangeable with each other, and that feed grade (for animals) choline salts are interchangeable with each other. It states that food grade and feed grade choline salts are also interchangeable, in that food grade choline salts can be used in animal feed, although it may not be economical to do so.²⁵ Petitioner contends that all choline salts can be produced in the same facility.²⁶ It asserts that most choline salts are sold to distributors or producers of downstream products.²⁷

Petitioner contends that TMA is the cost driver for all in-scope choline salts, regardless of form or grade.²⁸ It asserts that choline products within a food or feed grade are priced within the same range. Petitioner states that food grade products, which contain higher choline concentrations and require additional processing, are generally more expensive than feed grade products, but argues that higher price points for food grade products do not alter the “homogeneity” of in-scope choline salts.²⁹

Petitioner argues that two choline salt chemicals expressly excluded from the scope – choline hydroxide and choline salicylate – are not like in-scope choline salts, and should not be defined to be part of the domestic like product. It contends that neither of these chemicals are used for animal or human nutrition, but rather have distinct applications, are perceived differently by customers and producers, and are not interchangeable with in-scope choline salts. Moreover, it asserts that choline hydroxide is a hazardous chemical, with distinct characteristics and manufacturing process.³⁰

Petitioner further argues that two other chemicals that are not choline salts and are not included in the scope definition – Alpha GPC (or choline alfoscerate) and citicoline (or CDP

²¹ Petitioner’s Postconference Brief at 4.

²² Petitioner’s Postconference Brief at 4-5; Conference Tr. at 9, 27 (Lin).

²³ Petitioner’s Postconference Brief at 4-5; Conference Tr. at 27 (Lin).

²⁴ Petitioner’s Postconference Brief at 5-6; Conference Tr. at 27 (Lin).

²⁵ Petitioner’s Postconference Brief at 6; Conference Tr. at 27 (Lin).

²⁶ Conference Tr. at 27 (Lin).

²⁷ Petitioner’s Postconference Brief at 7-8; Conference Tr. at 27 (Lin).

²⁸ Petitioner’s Postconference Brief at 10; Petitions, Volume I, at 61; Conference Tr. at 27-28 (Lin), 64 (Bedell).

²⁹ Petitioner’s Postconference Brief at 10; Petitions, Volume I, at 61; Conference Tr. at 27-28 (Lin).

³⁰ Petitions, Volume I, at 61-62. Petitioner asserts that choline hydroxide is a corrosion inhibitor and herbicide ingredient, while choline salicylate is an anti-inflammatory pain reliever used to decrease swelling. *Id.* at 61.

choline) – have distinct molecular chemical compositions, physical characteristics, and manufacturing processes, and should not be defined to be within the domestic like product.³¹

B. Analysis

Based on the record, we define a single domestic like product consisting of choline salts, coextensive with Commerce's scope.

There appear to be domestically produced products like each of the imported products covered by the scope of the Petitions. We accordingly move on to address whether the domestically produced products corresponding to the scope definition form a single domestic like product.

Physical Characteristics and Uses. All choline salts meeting the scope description consist of a positively charged choline ion and negatively charged ion derived from an acid. All of these choline salts in their pure form tend to attract and retain water from their environment and are, therefore, sold in liquid, dry, or crystallized forms that improve their flow characteristics.³²

The record indicates that all in-scope choline salts are formed through a series of chemical reactions involving TMA, an acid, and ethylene oxide. The acid involved in the chemical reactions determines which choline salt is produced; use of hydrochloric acid will yield choline chloride, tartaric acid will yield CBT, and citric acid will yield CDHC.³³

Choline salts covered by the scope description all have a similar end use, to deliver choline as a nutrient to humans or animals. Choline chloride crystals, CBT, and CDHC can all be used for human consumption and generally have a higher concentration of choline than choline salts used for animal feed, but both food grade and feed grade choline salts have the same chemical composition.

Manufacturing Facilities, Production Processes and Employees. Synthesis of a choline salt consists of two reactions that combine TMA, an acid, and ethylene oxide in one reactor. In the first reaction, TMA and the acid form a trimethylammonium salt. In the second reaction, the trimethylammonium salt and ethylene oxide form the choline salt, in a reaction referred to as "ethoxylation." The synthesis produces aqueous solutions of choline salts.³⁴ The record does not indicate any known commercial way to produce choline salts other than through the ethoxylation process.³⁵

The record indicates that all choline salts covered by the scope definition can be produced in the same facility, albeit with different equipment and a different production team for some products. Specifically, BCP produces the full range of food and feed grade choline salts at its Verona, Missouri facility, including all three choline salt products.³⁶ With respect to

³¹ Petitions, Volume I, at 62-64; Conference Tr. at 50-51 (Roling); 85 (Bedell). Petitioner asserts that Alpha GC is used to improve degenerative cognitive ability and treat diseases such as Alzheimer's and dementia, while citicoline is a type of choline supplement used for treating neurodegenerative diseases. Petitions, Volume I, at 62-63.

³² CR/PR at 1.12 to 1.13.

³³ Conference Tr. at 9 (Lin).

³⁴ CR/PR at 1.14 to 1.15.

³⁵ Conference Tr. at 47, 72 (Bedell); CR/PR at 1.15.

³⁶ Petitioner's Postconference Brief at 9.

feed grade choline, ***, while for food grade choline, *** are required for choline chloride crystals, CBT, and CDHC, so ***.³⁷

Channels of Distribution. Petitioner contends that most choline salts are sold to distributors or producers of downstream products. For example, it states that food grade choline salts are sold to producers of infant formula and multi-nutrition supplements, while feed grade choline salts are sold to pet food producers, large agricultural feed ingredient suppliers, and large integrated farms.³⁸ During the 2023 to 2025 period, a majority of U.S. producers' U.S. shipments went to agricultural end users, ranging from *** percent in 2023 to *** percent in 2025, while a substantial share went to distributors, ranging from *** percent in 2025 to *** percent in 2023, and a smaller share went to nutraceutical end users, ranging from *** percent in 2023 to *** percent in 2024.³⁹

Interchangeability. Petitioner contends that food grade choline salts are interchangeable with each other, and feed grade choline salts are interchangeable with each other, and food grade and feed grade choline salts are also interchangeable.⁴⁰ Food grade choline salts can be used in animal feed, and are used in certain high-end and special needs pet food products; BCP sells crystallized CC and CBT through its branded pet food product line, PetShure.⁴¹ However, economic considerations may limit the use of food grade choline salts for animal feed uses, since food grade product is usually more expensive because of the higher concentration of choline and related additional processing costs.⁴² Petitioner does not indicate whether feed grade choline salts may be used in food grade applications, so any interchangeability may be one-way.

Producer and Customer Perceptions. Petitioner states that it perceives all choline salt products (choline chloride, CBT, and CDHC) covered by the scope description as forming a group of choline salt products that have the same general physical characteristics and end uses, serve the same essential purpose, are produced in the same facility, and are generally interchangeable, with no clear dividing line between them.⁴³ While there is no independent evidence in the record regarding customer perceptions, Petitioner contends that customers perceive all choline salts to serve the same essential purpose of delivering the nutrient choline.⁴⁴

Price. As noted, Petitioner asserts that choline products within their respective food or feed grade are priced within the same range. It states that food grade products, which contain higher choline concentrations and require additional processing, are generally more expensive than feed grade products.⁴⁵ The Commission's pricing data show a marked gap between high-

³⁷ Petitioner's Postconference Brief at 9; Petitions, Volume I, at 60; see Conference Tr. at 27 (Lin); 34 (Bedell).

³⁸ Petitioner's Postconference Brief at 7-8; Conference Tr. at 27 (Lin).

³⁹ CR/PR at Table 2.3.

⁴⁰ Conference Tr. at 27 (Lin); Petitioner's Postconference Brief at 6.

⁴¹ Conference Tr. at 27 (Lin); Petitioner's Postconference Brief at 6.

⁴² Petitioner's Postconference Brief at 6.

⁴³ Petitioner's Postconference Brief at 4-9.

⁴⁴ Petitioner's Postconference Brief at 8.

⁴⁵ Petitioner's Postconference Brief at 10; Petitions, Volume I, at 61; Conference Tr. at 27-28 (Lin).

concentration product 3 and lower concentration products 1 and 2. During the January 2023-March 2026 investigation period, U.S. producers' prices for product 1 (choline chloride, dry, vegetable carrier, 60 percent) ranged between \$*** per kilogram and \$*** per kilogram. Prices for product 2 (choline chloride, dry, silicon dioxide/mineral carrier, 50 percent) ranged between \$*** per kilogram and \$*** per kilogram. Prices for product 3 (choline bitartrate, dry, 98 percent plus) ranged between \$*** per kilogram and \$*** per kilogram.⁴⁶

Conclusion. In the preliminary phase of these investigations, the available information on the record supports Petitioner's contention that the domestically produced choline salts meeting the scope definition (choline chloride, CBT, and CDHC) constitute a grouping of products that is like the subject merchandise within Commerce's scope, with no clear dividing line between any of them. The record indicates that choline chloride, CBT, and CDHC have similar physical characteristics and end uses. As noted, they are all formed through a series of chemical reactions involving TMA, an acid, and ethylene oxide.⁴⁷ All of these choline salts have a similar end use, to deliver choline as a nutrient to humans or animals, and food grade and feed grade choline salts have the same chemical composition.⁴⁸ The available information indicates that all of them are generally interchangeable, although economic considerations may limit the use of food grade choline salts for animal feed uses.⁴⁹

All of these choline salts can be produced in the same facility, although different equipment and different employees may be necessary for some choline salt products.⁵⁰ The record indicates that during the investigation period, U.S. shipments of choline salts went to distributors, agricultural end users for feed grade product (e.g., pet food producers, large agricultural feed ingredient suppliers, and large integrated farms), and nutraceutical end users for food grade product (producers of infant formula and multi-nutrition supplements).⁵¹ The record indicates that U.S. producer BCP perceives all choline salts within the scope definition to be a grouping of products with the same or similar general physical characteristics and end uses, and no clear dividing line between them.⁵²

As noted, Petitioner contends that choline products within their respective food or feed grade are priced within the same range.⁵³ The pricing data suggest that higher choline concentration products (which are characteristically food grade products) command higher prices than lower concentration products (which are characteristically feed grade products). On balance, we conclude that in light of the many other similarities and overlaps, there are no clear dividing lines among choline salt products.

⁴⁶ CR/PR at 5.6, Table 5.8. Products 1 and 2 are choline chloride products, while product 3 is a choline bitartrate (CBT) product. *Id.* at 5.6. The Commission's pricing data accounted for approximately *** percent of U.S. producers' U.S. shipments of choline salts in 2025. *Id.*

⁴⁷ Conference Tr. at 9 (Lin).

⁴⁸ Petitioner's Postconference Brief at 5; Conference Tr. at 27-28 (Lin).

⁴⁹ Conference Tr. at 27 (Lin); Petitioner's Postconference Brief at 6.

⁵⁰ Petitioner's Postconference Brief at 9; Petitions, Volume I, at 60; see Conference Tr. at 27 (Lin); 34 (Bedell).

⁵¹ CR/PR at Table 2.3; Petitioner's Postconference Brief at 7-8; Conference Tr. at 27 (Lin).

⁵² Petitioner's Postconference Brief at 4-9.

⁵³ Petitioner's Postconference Brief at 10; Petitions, Volume I, at 61; Conference Tr. at 27-28 (Lin).

No party has argued that the domestic like product should be expanded beyond the scope to include two choline salt chemicals expressly excluded from the scope – choline hydroxide and choline salicylate – or two non-choline salt chemicals that are not included within the scope definition – Alpha GPC (or choline alfoscerate) and citicoline (or CDP choline). The available information supplied by petitioner indicates that all of these chemicals have different physical characteristics or end uses from choline salts meeting the scope description, with some other distinctions in manufacturing processes, interchangeability, and customer perceptions.⁵⁴ Thus, we do not define the domestic like product to include any of these products outside the scope definition.

Accordingly, we define a single domestic like product consisting of choline salts, coextensive with Commerce's scope.

IV. Domestic Industry

The domestic industry is defined as the domestic “producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.”⁵⁵ 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.

Based on the information in the record of these preliminary phase investigations, BCP and Taminco US LLP (“Taminco”) are the only known U.S. producers of choline salts. Petitioner argues that the Commission should define a single domestic industry consisting of firms that react TMA and ethylene oxide to produce the domestic like product in the United States.⁵⁶ Petitioner asserts that there is no other commercial industrial way to produce choline salts except by this chemical process, and that firms that do not follow this process are not producers of choline salts.⁵⁷ Petitioner states that BCP and Taminco are the only U.S. producers of choline salts, because they are the only U.S. suppliers of choline salts that ethoxylate TMA in the United States.⁵⁸

⁵⁴ Petitions, Volume I, at 61-64.

⁵⁵ 19 U.S.C. § 1677(4)(A).

⁵⁶ Petitioner's Postconference Brief at 11. As previously discussed, there is actually a two-stage process, in which TMA and an acid are combined in the first reaction to produce a TMA salt. In the second reaction, the ethoxylation process, the TMA salt is combined with ethylene oxide to form the choline salt. CR/PR at 1.14 to 1.15.

⁵⁷ Conference Tr. at 47-48 (Bedell, Rolig); 72 (Bedell).

⁵⁸ Petitions, Vol. I, at 8. Petitioner states that certain other firms may sell choline salts in the United States and represent themselves to be domestic producers of choline salts, but argues that none of these firms are in fact domestic producers of choline salts, because none of them ethoxylate TMA in the United States. As support for this statement, Petitioner asserts that, unlike BCP and Taminco, these companies are not on the U.S. Environmental Protection Agency database of companies that handle ethylene oxide, which it contends would be necessary if they were engaged in ethoxylation in the United States. Petitions, Vol. 1 at 8-10; Petitioner's Response to General Issues Supplemental Questions, July 2, (Continued...)

No responding U.S. producer reported importing or purchasing subject merchandise during the investigation period.⁵⁹ There is no information on the record indicating that Taminco or BCP is subject to the related parties provision.⁶⁰

In accordance with our definition of the domestic like product, we define a single domestic industry consisting of all domestic producers of choline salts.

V. Negligible Imports

Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible.⁶¹ In the case of countervailing duty investigations involving developing countries (as designated by the United States Trade Representative), the statute indicates that the negligibility limit is 4 percent rather than 3 percent.⁶²

Imports from China accounted for *** percent of total imports of choline salts by quantity from June 2025 through May 2026, the 12-month period prior to the filing of the petitions.⁶³ Accordingly, we find that imports from China are not negligible in either the antidumping or countervailing duty investigation.

VI. Reasonable Indication of Material Injury by Reason of Subject Imports

A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.⁶⁴ 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.⁶⁵ The statute defines “material injury” as “harm which is not inconsequential,

2026, at 11-12; Conference Tr. at 48-49 (Rolig). In any final phase of these investigations, we intend to examine whether there are any additional domestic producers of choline salts besides BCP and Taminco.

⁵⁹ CR/PR at 3.2, 3.8.

⁶⁰ See Petitioner’s Postconference Brief, Response to Staff Questions, at 12-13.

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

⁶² 19 U.S.C. § 1677(24)(B). China is not on USTR’s list of developing countries for purposes of applicability of the 4 percent negligibility limit. See *Designations of Developing Countries and Least Developed Countries Under the Countervailing Duty Law*, 85 Fed. Reg. 7613 (USTR Feb. 10, 2020).

⁶³ CR/PR at Table 4.6.

⁶⁴ 19 U.S.C. §§ 1671b(a), 1673b(a).

⁶⁵ 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).

immaterial, or unimportant.”⁶⁶ In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.⁶⁷ 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.”⁶⁸

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is “materially injured or threatened with material injury by reason of” unfairly traded imports,⁶⁹ 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.⁷⁰ 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.⁷¹

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 injury threshold.⁷² In performing its examination, however, the Commission need not isolate

⁶⁶ 19 U.S.C. § 1677(7)(A).

⁶⁷ 19 U.S.C. § 1677(7)(C)(iii).

⁶⁸ 19 U.S.C. § 1677(7)(C)(iii).

⁶⁹ 19 U.S.C. §§ 1671b(a), 1673b(a).

⁷⁰ *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).

⁷¹ 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).

⁷² 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- (Continued...)”).

the injury caused by other factors from injury caused by unfairly traded imports.⁷³ 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.⁷⁴ It is clear that the existence of injury caused by other factors does not compel a negative determination.⁷⁵

Assessment of whether material injury to the domestic industry is “by reason of” subject imports “does not require the Commission to address the causation issue in any particular way” as long as “the injury to the domestic industry can reasonably be attributed to the subject imports.”⁷⁶ 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

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.

⁷³ 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.”).

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

⁷⁵ *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.”).

⁷⁶ *Mittal Steel*, 542 F.3d at 876 & 78; *see also id.* at 873 (“While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured ‘by reason of’ subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.”) *citing United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its decision in *Swiff-Train v. United States*, 793 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission’s causation analysis as comporting with the Court’s guidance in *Mittal*.

sources to the subject imports.”⁷⁷ The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed “rigid adherence to a specific formula.”⁷⁸

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.⁷⁹ Congress has delegated this factual finding to the Commission because of the agency’s institutional expertise in resolving injury issues.⁸⁰

B. Conditions of Competition and the Business Cycle

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

1. Demand Conditions

U.S. demand for choline salts depends on demand for downstream products using choline salts, although some firms reported that choline salt is in fact the end use product.⁸¹ According to a BCP witness, the overwhelming majority of choline salts goes to the animal nutrition market; although choline salts are used in nearly all infant formula, the volume of choline salts going to the human nutrition market is much smaller.⁸²

Both responding U.S. producers reported that U.S. demand for choline salts had a steady increase during the investigation period, while 17 of 29 responding importers reported no change in U.S. demand during the period.⁸³ BCP witnesses testified that the U.S. choline salts market is a stable, mature market with relatively low growth, with demand tending to track overall feed tonnage in the United States.⁸⁴ According to a BCP witness, demand for choline salts is often tracked using the level or tonnage of broiler chickens produced.⁸⁵ U.S. broiler chicken production increased by 3.4 percent from 2023 to 2025.⁸⁶

⁷⁷ *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.

⁷⁸ *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.”).

⁷⁹ We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

⁸⁰ *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.”).

⁸¹ CR/PR at 2.6.

⁸² CR/PR at 2.6; Conference Tr. at 56 (Bedell).

⁸³ CR/PR at Table 2.6.

⁸⁴ CR/PR at 2.7; Conference Tr. at 55-56 (Painter, Bedell).

⁸⁵ CR/PR at 2.7; Conference Tr. at 55 (Painter).

⁸⁶ CR/PR at 2.7, Table 2.7.

Apparent U.S. consumption declined irregularly by *** percent from 2023 to 2025, falling from *** metric tons in 2023 to *** metric tons in 2024, and then remaining essentially unchanged at *** metric tons in 2025; it was *** percent higher in January-March (“interim”) 2026, at *** metric tons, compared with *** metric tons in interim 2025.⁸⁷

2. Supply Conditions

The domestic industry was the largest supplier to the U.S. market during the investigation period, followed by subject imports, and then nonsubject imports.⁸⁸

There are two known U.S. producers in the domestic industry, BCP (which is owned by Balchem Corporation) and Taminco (which is owned by Eastman Chemical Company).⁸⁹ BCP operates a plant in Verona, Missouri, producing the full range of choline salts products, including both dry and liquid forms of choline salts.⁹⁰ A plant producing choline salts in St. Gabriel, Louisiana operates under the ownership of the St. Gabriel CC Company, Inc., which is a joint venture between BCP and Taminco, with BCP holding a two-thirds ownership stake, and Taminco holding the remaining one-third share.⁹¹ The St. Gabriel plant produces liquid choline salts (aqueous choline chloride).⁹² BCP accounted for *** percent of U.S. production of choline salts in 2025, while Taminco accounted for *** percent.⁹³

The domestic industry’s practical capacity increased irregularly by *** percent from 2023 to 2025, rising from *** metric tons in 2023 to *** metric tons in 2024, and then falling to *** metric tons in 2025; practical capacity was *** in interim 2026, at *** metric tons, compared with *** metric tons in interim 2025.⁹⁴ The industry’s capacity utilization declined by *** percentage points from 2023 to 2025, falling from *** percent in 2023 to *** percent in 2024 and *** percent in 2025; capacity utilization was *** percentage points lower in interim 2026, at *** percent, compared with *** percent in interim 2025.⁹⁵

The domestic industry’s share of apparent U.S. consumption declined by *** percentage points from 2023 to 2025, falling from *** percent in 2023 to *** percent in 2024, and *** percent in 2025; its market share was *** percentage points lower in interim 2026, at *** percent, compared with *** percent in interim 2025.⁹⁶

Subject imports’ share of apparent U.S. consumption increased by *** percentage points from 2023 to 2025, rising from *** percent in 2023 to *** percent in 2024 and ***

⁸⁷ CR/PR at Tables 4.7, C.1.

⁸⁸ CR/PR at Tables 4.7, C.1.

⁸⁹ CR/PR at Table 3.1; Conference Tr. at 14 (Bedell), 20 (Painter).

⁹⁰ CR/PR at 3.1 to 3.2; Conference Tr. at 34 (Bedell).

⁹¹ CR/PR at 3.1. BCP is responsible for the day-to-day operation and maintenance of the St. Gabriel facility. Petitioner’s Postconference Brief, Response to Staff Questions, at 1.

⁹² CR/PR at 3.1 to 3.2; Conference Tr. at 34 (Bedell).

⁹³ CR/PR at Table 3.1.

⁹⁴ CR/PR at Tables 3.5, C.1.

⁹⁵ CR/PR at Tables 3.5, C.1.

⁹⁶ CR/PR at Tables 4.7, C.1.

percent in 2025; subject import market share was *** percentage points higher in interim 2026, at *** percent, compared with *** percent in interim 2025.⁹⁷

Nonsubject imports' share of apparent U.S. consumption increased irregularly by *** percentage points from 2023 to 2025, falling from *** percent to *** percent in 2024, and then rising to *** percent in 2025; nonsubject market share was *** percentage points higher in interim 2026, at *** percent, compared with *** percent in interim 2025.⁹⁸ The largest sources of nonsubject imports during the 2023 to 2025 period were Belgium, Italy, and India.⁹⁹

Both U.S. producers and 29 of 32 responding U.S. importers reported that they had not experienced supply constraints during the investigation period.¹⁰⁰

3. Substitutability and Other Conditions

We find that there is a high degree of substitutability between subject imports and the domestic like product.¹⁰¹ *** U.S. producers responded that subject imports and the domestic like product were always interchangeable, while 14 of 18 responding U.S. importers reported that subject imports and the domestic like product were always or frequently interchangeable.¹⁰² Aqueous choline chloride accounted for the majority of U.S. producers' shipments of choline salts by quantity in 2025, while dry choline chloride accounted for the majority of U.S. shipments of subject imports.¹⁰³ A BCP witness testified that dry and liquid choline salts are generally interchangeable.¹⁰⁴

Based on the record of these preliminary phase investigations, we find that price appears to be an important factor in purchasing decisions for choline salts, along with other factors.¹⁰⁵ The two responding purchasers reported that the top factors these firms considered in their purchasing decisions were supplier relationship, customer requirement, and quality.¹⁰⁶ However, other record evidence indicates that nonprice factors are of limited significance for market participants in purchasing decisions for choline salts. Fourteen of 19 responding U.S. importers reported that nonprice differences were only sometimes or never significant in purchasing decisions, while one responding U.S. producer reported that they are ***

⁹⁷ CR/PR at Tables 4.7, C.1.

⁹⁸ CR/PR at Tables 4.7, C.1.

⁹⁹ CR/PR at 2.4.

¹⁰⁰ CR/PR at 2.5. Two importers reported temporary inventory constraints during the period, while another importer reported that customer demand issues combined with quality standards temporarily disrupted a customer-specific supply chain that was not industry-wide. *Id.*

¹⁰¹ CR/PR at 2.9.

¹⁰² CR/PR at Table 2.9.

¹⁰³ In 2025, *** percent of U.S. producers' U.S. shipments of choline salts by quantity was aqueous choline chloride; *** percent was dry choline chloride; *** percent was CBT; *** percent was CDHC; and *** percent was other product forms. CR/PR at Table 3.7. In 2025, *** percent of U.S. shipments of subject imports by quantity was dry choline chloride; *** percent was aqueous choline chloride; *** percent was CBT; and *** percent was CDHC. *Id.* at Table 4.5.

¹⁰⁴ Conference Tr. at 58-59 (Bedell).

¹⁰⁵ We intend to obtain more information in any final phase of these investigations on the importance of price in purchasing decisions for choline salts.

¹⁰⁶ CR/PR at Table 2.8.

significant, and one reported that they are *** significant.¹⁰⁷ Moreover, one of the two responding purchasers reported that the primary reason for *** of its purchases of subject imports during the investigation period (*** metric tons) was the lower price of subject imports compared with that of the domestic like product.¹⁰⁸

Both the domestic like product and subject imports were primarily sold from inventory. U.S. producers reported that *** of their U.S. commercial shipments were sold from inventory, with an average lead time of *** days.¹⁰⁹ U.S. importers reported that 80.6 percent of their U.S. commercial shipments were sold from U.S. inventory, with an average lead time of 20 days; 8.9 percent were sold from foreign inventory, with an average lead time of 75 days; and 10.5 percent were produced to order, with an average lead time of 63 days.¹¹⁰

Raw materials, as a share of U.S. producers' cost of goods sold ("COGS"), ranged from *** percent to *** percent during 2023 to 2025, and were *** percent in January to March 2026.¹¹¹ U.S. producers and importers reported that the price of raw materials fluctuated or did not change since January 1, 2023.¹¹² TMA is the cost driver for all choline salts; methanol and ammonia react to form TMA.¹¹³ The price of methanol increased substantially from January 2023 to March 2026 while the price of ammonia declined from January to September 2023, and then slowly increased through March 2026. Overall, the price of methanol increased by 63.6 percent and the price of ammonia decreased by 12.9 percent during January 2023 to March 2026.¹¹⁴

The two U.S. producers reported setting prices using transaction-by-transaction negotiations, contracts, and set price lists.¹¹⁵ U.S. producer *** reported selling most of its choline salts under long-term and annual contracts, while U.S. producer *** reported selling the majority of its choline salts as spot sales or under short-term contracts.¹¹⁶ A substantial majority of responding U.S. importers (24 of 31) reported using transaction-by-transaction negotiations, followed by contracts (11), set price list (9), and other (5).¹¹⁷ U.S. importers reported selling the vast majority of their sales as spot sales or under short-term contracts.¹¹⁸ Some sales of choline salts have been conducted through public "reverse auctions," in which a customer indicates a volume requirement, and suppliers (which may include domestic and

¹⁰⁷ CR/PR at Table 2.10.

¹⁰⁸ CR/PR at Tables 5.13, 5.14.

¹⁰⁹ CR/PR at 2.10.

¹¹⁰ CR/PR at 2.10.

¹¹¹ CR/PR at 5.1.

¹¹² CR/PR at 5.1.

¹¹³ CR/PR at 5.1.

¹¹⁴ CR/PR at 5.1, Tables 5.1 to 5.2, Figure 5.1.

¹¹⁵ CR/PR at Table 5.3.

¹¹⁶ CR/PR at 5.5. Long-term contracts accounted for *** percent of U.S. producers' commercial U.S. shipments in 2025, annual contracts accounted for *** percent, short-term contracts accounted for *** percent and spot sales accounted for *** percent. CR/PR at Table 5.4.

¹¹⁷ CR/PR at Table 5.3.

¹¹⁸ CR/PR at 5.5. Spot sales accounted for *** percent of U.S. importers' commercial U.S. shipments in 2025, short-term contracts accounted for *** percent, and annual contracts accounted for *** percent. CR/PR at Table 5.4.

subject suppliers) bid for the volumes until the lowest price is reached.¹¹⁹ Petitioner BCP states that it has offered rebates to customers in response to pricing pressure from low-priced imports in an effort to preserve customer relationships.¹²⁰

Effective September 24, 2018, choline salts originating in China were 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 choline salts increased to 25 percent.¹²¹

Between February 2025 and February 2026, choline salts originating in China were subject to duties under the International Emergency Economic Powers Act (“IEEPA”), but effective February 20, 2026, all duties under IEEPA were terminated.¹²² Choline salts originating in China were not subject to tariffs initiated in February 2026 under section 122 of the Trade Act of 1974.¹²³ Choline salts originating in China are not subject to tariffs initiated in July 2026 under section 301 of the Trade Act of 1974.¹²⁴

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.”¹²⁵

The volume of subject imports increased by *** percent from 2023 to 2025, rising from *** metric tons in 2023 to *** metric tons in 2024 and *** metric tons in 2025; it was *** percent higher in interim 2026, at *** metric tons, compared with *** metric tons in interim 2025.¹²⁶

The market share of subject imports increased by *** percentage points from 2023 to 2025, rising from *** percent in 2023 to *** percent in 2024 and *** percent in 2025; subject import market share was *** percentage points higher in interim 2026, at *** percent, compared with *** percent in interim 2025.¹²⁷ Subject imports gained *** percentage points of market share between 2023 and 2025 period at the expense of the domestic industry.¹²⁸

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

¹¹⁹ CR/PR at 5.4; Conference Tr. at 60-61 (Painter).

¹²⁰ CR/PR at 5.5; Conference Tr. at 23 (Painter).

¹²¹ CR/PR at 1.9.

¹²² CR/PR at 1.10 to 1.11.

¹²³ CR/PR at 1.10.

¹²⁴ CR/PR at 1.10.

¹²⁵ 19 U.S.C. § 1677(7)(C)(i).

¹²⁶ CR/PR at Tables 4.2, 4.3.

¹²⁷ CR/PR at Tables 4.7, C.1.

¹²⁸ CR/PR at Tables 4.7, C.1. As a ratio to U.S. production, subject imports increased by *** percentage points between 2023 and 2025, rising from *** percent in 2023 to *** percent in 2024 and *** percent in 2025; the ratio was *** percentage points higher in interim 2026, at *** percent, compared with *** percent in interim 2025. CR/PR at Tables 4.2, 4.3.

D. Price Effects of the Subject Imports

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

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

(II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.¹²⁹

As discussed in section IV.B.3 above, we find that there is a high degree of substitutability between subject imports and the domestic like product, and that price appears to be an important factor in purchasing decisions for choline salts along with other factors.

The Commission collected quarterly quantity and f.o.b. pricing data on sales of three choline salts products shipped to unrelated U.S. customers during the investigation period.¹³⁰ U.S. producer BCP and 16 importers provided usable pricing data for sales of the requested products, although not all firms reported pricing data for all products for all quarters.¹³¹ The reported pricing data accounted for approximately *** percent of U.S. producers' U.S. shipments of choline salts in 2025, and 81.8 percent of U.S. shipments of subject imports from China.¹³²

Subject imports undersold the domestic like product in 35 of 39 quarterly comparisons (89.7 percent), with underselling margins ranging from *** percent to *** percent, and averaging *** percent.¹³³ By volume, there were *** kilograms of subject imports in these 35 quarters, accounting for *** percent of reported subject import sales volume in the Commission's pricing data.¹³⁴

We have also considered lost sales. Of two responding purchasers, both reported that they purchased subject imports during the investigation period instead of the domestic like product, and that subject import prices were lower than those for the domestic like product. One of these purchasers reported that price was a primary reason for the decision to purchase

¹²⁹ 19 U.S.C. § 1677(7)(C)(ii).

¹³⁰ CR/PR at 5.6. The three pricing products are:

Product 1.-- Choline chloride, dry, vegetable carrier, 60%

Product 2.-- Choline chloride, dry, silicon dioxide/mineral carrier, 50%

Product 3.-- Choline bitartrate, dry, 98%+

Id.

¹³¹ CR/PR at 5.6.

¹³² CR/PR at 5.6.

¹³³ CR/PR at Table 5.11.

¹³⁴ CR/PR at Table 5.11. Subject imports oversold the domestic like product in four of 39 quarterly comparisons, with overselling margins ranging from *** percent to *** percent, and averaging *** percent. *Id.* There were *** kilograms of subject imports in those four quarters, accounting for *** percent of reported subject import sales volume in the Commission's pricing data. *Id.*

subject imports rather than the domestic like product.¹³⁵ This purchaser estimated that the quantity of subject imports that it purchased instead of the domestic like product totaled *** metric tons.¹³⁶

Based on the foregoing, including the high degree of substitutability between subject imports and the domestic like product, and the apparent importance of price in purchasing decisions for choline salts, we find that subject imports significantly undersold the domestic like product. This underselling contributed to a market share shift from the domestic industry between 2023 and 2025. As previously noted, subject imports gained *** percentage points of market share between 2023 and 2025 at the expense of the domestic industry.¹³⁷

We have also considered price trends during the investigation period. In general, prices of domestically produced choline salts increased during the January 2023 to March 2026 investigation period, while prices for choline salts imported from China decreased.¹³⁸ The reporting domestic producer's price increases ranged from *** to *** percent during January 2023 to March 2026, while import price decreases ranged from *** to *** percent.¹³⁹

The domestic industry's COGS-to-net-sales ratio declined irregularly by *** percentage points from 2023 to 2025, increasing from *** percent in 2023 to *** percent in 2024, and then falling to *** percent in 2025; it was *** percentage points lower in interim 2026, at *** percent, compared with *** percent in interim 2025.¹⁴⁰

In sum, based on the record in the preliminary phase of these investigations, we find that subject imports significantly undersold the domestic like product, contributing to subject imports gaining *** percentage points of market share between 2023 and 2025 at the expense of the domestic industry. Thus, we find that subject imports had significant price effects.

E. Impact of the Subject Imports¹⁴¹

Section 771(7)(C)(iii) of the Tariff Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic

¹³⁵ CR/PR at 5.18, Table 5.14.

¹³⁶ CR/PR at Table 5.14. A second purchaser reported that subject imports were priced lower than the domestic like product, and also reported purchasing subject imports instead of the domestic like product, but reported that price was not a primary reason for its purchases of subject imports. CR/PR at Tables 5.13, 5.14.

¹³⁷ CR/PR at Tables 4.7, C.1.

¹³⁸ CR/PR at 5.13.

¹³⁹ The U.S. producer's prices increased by *** percent over the investigation period for product 1; *** percent for product 2; and *** percent for product 3. CR/PR at Table 5.8. Import prices fell by *** percent over the investigation period for product 1; *** percent for product 2; and *** percent for product 3. *Id.*

Of the two responding purchasers, one reported that U.S. producers did not reduce prices in order to compete with lower-priced subject imports from China, while the other purchaser reported that it did not know whether this had occurred. CR/PR at 5.18.

¹⁴⁰ CR/PR at Tables 6.1, C.1.

¹⁴¹ In its notice initiating the antidumping duty investigation on choline salts from China, Commerce reported estimated dumping margins for imports from China of 129.43 to 229.44 (Mexico (Continued...))

factors which have a bearing on the state of the industry.” These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”¹⁴²

Between 2023 and 2025, the domestic industry experienced declines in production, capacity utilization, employment, U.S. shipments, market share, and almost all financial indicators.

Although the domestic industry’s capacity increased slightly between 2023 and 2025, it experienced substantial declines in production and capacity utilization. The domestic industry’s practical capacity increased irregularly by *** percent from 2023 to 2025, rising from *** metric tons in 2023 to *** metric tons in 2024, and then falling to *** metric tons in 2025; practical capacity was *** percent higher in interim 2026, at *** metric tons, compared with *** metric tons in interim 2025.¹⁴³ Production declined by *** percent from 2023 to 2025, falling from *** metric tons in 2023 to *** metric tons in 2024 and *** metric tons in 2025; production was *** percent lower in interim 2026, at *** metric tons, compared with *** metric tons in interim 2025.¹⁴⁴ Capacity utilization declined by *** percentage points from 2023 to 2025, falling from *** percent in 2023 to *** percent in 2024 and *** percent in 2025; capacity utilization was *** percentage points lower in interim 2026, at *** percent, compared with *** percent in interim 2025.¹⁴⁵

Most U.S. producers’ employment indicators declined from 2023 to 2025. The number of production and related workers (“PRWs”) declined by *** percent from 2023 to 2025, falling from *** PRWs in 2023 to *** PRWs in 2024 and *** PRWs in 2025; the number of PRWs was *** PRWs in interim 2025 and interim 2026.¹⁴⁶ Hours worked decreased by *** percent from 2023 to 2025, falling from *** hours in 2023 to *** hours in 2024 and *** hours in 2025; hours worked were *** percent higher in interim 2026, at *** hours, compared with *** hours in interim 2025.¹⁴⁷ Wages paid declined irregularly by *** percent from 2023 to 2025, falling from \$*** in 2023 to \$*** in 2024, and then increasing to \$*** in 2025; wages paid were *** percent higher in interim 2026, at \$***, compared with \$*** in interim 2025.¹⁴⁸ Productivity declined by *** percent from 2023 to 2025, falling from *** metric tons per hour in 2023 to *** metric tons per hour in 2024 and *** metric tons per hour in 2025; productivity was ***

surrogate); 73.39 percent to 147.26 percent (Malaysia surrogate); and 189.49 to 313.82 percent (Turkiye surrogate). *Certain Choline Salts From the People’s Republic of China: Initiation of Less-Than-Fair-Value Investigation*, 91 Fed. Reg. 45241, 45243 (July 20, 2026).

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

¹⁴³ CR/PR at Tables 3.5, C.1.

¹⁴⁴ CR/PR at Tables 3.5, C.1.

¹⁴⁵ CR/PR at Tables 3.5, C.1.

¹⁴⁶ CR/PR at Tables 3.9, C.1.

¹⁴⁷ CR/PR at Tables 3.9, C.1.

¹⁴⁸ CR/PR at Tables 3.9, C.1.

percent lower in interim 2026, at *** metric tons per hour, compared with *** metric tons per hour in interim 2025.¹⁴⁹

The domestic industry's end-of-period inventories declined irregularly by *** percent from 2023 to 2025, falling from *** metric tons in 2023 to *** metric tons in 2024, and increasing to *** metric tons in 2025; end of period inventories were *** percent higher in interim 2026, at *** metric tons, compared with *** metric tons in interim 2025.¹⁵⁰

The domestic industry's U.S. shipments and market share declined between 2023 and 2025. The industry's U.S. shipments fell by *** percent from 2023 to 2025, from *** metric tons in 2023 to *** metric tons in 2024 and *** metric tons in 2025; U.S. shipments were *** percent higher in interim 2026, at *** metric tons, compared with *** metric tons in interim 2025.¹⁵¹ The industry's market share declined by *** percentage points from 2023 to 2025, falling from *** percent in 2023 to *** percent in 2024, and *** percent in 2025; its market share was *** percentage points lower in interim 2026, at *** percent, compared with *** percent in interim 2025.¹⁵²

Most of the domestic industry's financial indicators declined between 2023 and 2025. Net sales value declined irregularly by *** percent from 2023 to 2025, falling from \$*** in 2023 to \$*** in 2024, and then rising to \$*** in 2025; net sales value was *** percent higher in interim 2026, at \$***, compared with \$*** in interim 2025.¹⁵³ Gross profits increased irregularly by *** percent from 2023 to 2025; falling from \$*** in 2023 to \$*** in 2024, and rising to \$*** in 2025; gross profit was *** percent higher in interim 2026, at \$***, compared with \$*** in interim 2025.¹⁵⁴ Operating income declined by *** percent from 2023 to 2025, falling from \$*** in 2023 to \$*** in 2024 and 2025; operating income was *** percent higher in interim 2026, at \$***, compared with \$*** in interim 2025.¹⁵⁵ The industry's ratio of operating income to net sales declined by *** percentage points from 2023 to 2025, falling from *** percent in 2023 to *** percent in 2024 and *** percent in 2025; operating income as a ratio to net sales was *** percentage points higher in interim 2026, at *** percent, compared with *** percent in interim 2025.¹⁵⁶ Net income declined by *** percent from 2023 to 2025, falling from \$*** in 2023 to \$*** in 2024 and \$*** in 2025; net income was *** percent higher in interim 2026, at \$***, compared with \$*** in interim 2025.¹⁵⁷ The industry's ratio of net income to net sales declined by *** percentage points from 2023 to 2025, falling from *** percent in 2023 to *** percent in 2024 and *** percent in 2025; net income to net sales was *** percentage points higher in interim 2026, at *** percent, compared with *** percent in interim 2025.¹⁵⁸ Net assets declined irregularly by *** percent from 2023 to 2025, falling from

¹⁴⁹ CR/PR at Tables 3.9, C.1.

¹⁵⁰ CR/PR at Tables 3.8, C.1.

¹⁵¹ CR/PR at Tables 3.6, C.1.

¹⁵² CR/PR at Tables 4.7, C.1.

¹⁵³ CR/PR at Tables 6.1, C.1.

¹⁵⁴ CR/PR at Tables 6.1, C.1.

¹⁵⁵ CR/PR at Tables 6.1, C.1.

¹⁵⁶ CR/PR at Tables 6.1, C.1.

¹⁵⁷ CR/PR at Tables 6.1, C.1.

¹⁵⁸ CR/PR at Tables 6.1, C.1.

\$*** in 2023 to \$*** in 2024, and increasing to \$*** in 2025.¹⁵⁹ Return on assets declined from *** percent in 2023 to *** percent in 2024 and *** percent in 2025.¹⁶⁰

The domestic industry's capital expenditures declined by *** percent from 2023 to 2025, falling from \$*** in 2023 to \$*** in 2024, and then falling to \$*** in 2025; capital expenditures were *** percent higher in interim 2026, at \$*** in interim 2026, compared with \$*** in interim 2025.¹⁶¹ The industry's research and development expenses increased by *** percent from 2023 to 2025, rising from \$*** in 2023 to \$*** in 2024, and \$*** in 2025; they were *** percent higher, at \$*** in interim 2026, compared with \$*** in 2025.¹⁶²

As previously discussed, significant underselling by increasing volume of low-priced subject imports contributed to a market share shift of *** percentage points from the domestic industry to subject imports between 2023 and 2025.¹⁶³ The decline in the domestic industry's market share led to declines in the domestic industry's production, capacity utilization, employment, and U.S. shipments, and revenues.¹⁶⁴

We have also considered whether there are other factors that may have had an impact on the domestic industry to ensure that we are not attributing injury from such other factors to subject imports. Nonsubject imports had a small but increasing presence during the investigation period.¹⁶⁵ However, the shift in market share from the domestic industry to subject imports from China is distinct from nonsubject imports' gain in market share.¹⁶⁶ Therefore, the injury resulting from the shift in market share from the domestic industry to subject imports is not attributable to increasing nonsubject imports. Moreover, the available average unit values ("AUVs") indicate that the AUVs of nonsubject imports were *** higher than those of both subject imports and the domestic industry during the investigation period.¹⁶⁷ These AUV data suggest that nonsubject imports were priced higher than subject imports and the domestic like product, indicating that the significant underselling by subject imports that contributed to a market share shift of *** percentage points toward subject

¹⁵⁹ CR/PR at Tables 6.10, C.1.

¹⁶⁰ CR/PR at Table 6.11.

¹⁶¹ CR/PR at Tables 6.6, C.1.

¹⁶² CR/PR at Tables 6.8, C.1.

¹⁶³ CR/PR at Tables 4.7, C.1.

¹⁶⁴ CR/PR at Table C.1.

¹⁶⁵ CR/PR at Table C.1. Nonsubject imports' share of apparent U.S. consumption increased irregularly by *** percentage points from 2023 to 2025; falling from *** percent in 2023 to *** percent in 2024 and then rising to *** percent in 2025; their market share was *** percentage points higher in interim 2029, at *** percent, compared with *** percent in interim 2025. CR/PR at Tables 4.7, C.1.

¹⁶⁶ CR/PR at Table C.1.

¹⁶⁷ In 2023, the AUV for U.S. shipments of nonsubject imports was \$*** per metric ton, *** as the AUV for subject imports of \$*** per metric tons, as well as the AUV for U.S. producers' U.S. shipments of \$*** per metric ton. Similarly, in 2024, the AUV for nonsubject imports was \$*** per metric ton, *** as the AUV for subject imports of \$*** per metric ton, as well as the AUV for U.S. producers' U.S. shipments of \$*** per metric ton. In 2025, the AUV for nonsubject imports was \$*** per metric ton, *** higher than the AUV for subject imports of \$*** per metric ton, as well as the AUV for U.S. producers' U.S. shipments of \$*** per metric ton. CR/PR at Table C.1.

imports between 2023 and 2025, which we have found caused injury to the domestic industry, is distinct from any effects of the higher-priced nonsubject imports.¹⁶⁸

We have also considered U.S. demand. We recognize that apparent U.S. consumption declined by *** percent between 2023 and 2025.¹⁶⁹ However, this *** decline in apparent U.S. consumption does not necessarily establish a decline in U.S. demand during the period, given the reports of market participants that demand was stable or increased during the investigation period.¹⁷⁰ Moreover, the decline in apparent U.S. consumption does not explain the significant underselling by subject imports or the domestic industry's loss of *** percentage points of market share to low-priced subject imports between 2023 and 2025.¹⁷¹ Thus, declining apparent U.S. consumption does not explain the injury to the domestic industry that we have attributed to subject imports.

In sum, based on the record in the preliminary phase of these investigations, we conclude that subject imports had a significant impact on the domestic industry.

VII. Conclusion

For the reasons stated above, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of subject imports of choline salts from China that are allegedly subsidized and sold in the United States at less than fair value.

¹⁶⁸ CR/PR at Table C.1.

¹⁶⁹ CR/PR at Tables 4.7, C.1.

¹⁷⁰ See section Vi.B.1 above.

¹⁷¹ CR/PR at table C.1.

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 BCP Ingredients, Inc. (“BCP”), Montvale, New Jersey, on June 24, 2026, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value (“LTFV”) imports of certain choline salts (“choline salts”)¹ from China. Table 1.1 presents information relating to the background of these investigations.²

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

Effective date	Action
June 24, 2026	Petitions filed with Commerce and the Commission; institution of the Commission investigations (91 FR 39120, June 29, 2026)
July 14, 2026	Commerce’s notice of initiation (91 FR 45241, July 20, 2026 (AD), 91 FR 45247, July 20, 2026 (CVD)
July 15, 2026	Commission’s conference
August 7, 2026	Commission’s vote
August 10, 2026	Commission’s determinations
August 14, 2026	Commission’s views

Statutory criteria

Section 771(7)(B) of the Tariff Act of 1930 (the “Act”) (19 U.S.C. § 1677(7)(B)) provides that in making its determinations of injury to an industry in the United States, the Commission—

shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . .

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 A list of witnesses who appeared at the conference is presented in appendix B of this report.

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

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that—⁴

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

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

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

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

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

Organization of report

Part 1 of this report presents information on the subject merchandise, alleged 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 U.S. producers. 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.

Market summary

Choline salts are primarily used to supplement choline, an essential nutrient, in animal and human diets through its use in animal feed, infant formula, and other nutraceutical products as dietary supplements.⁶ The sole U.S. producers of choline salts are petitioner BCP and Taminco US LLC ("Taminco"),⁷ while leading producers of choline salts outside the United States include *** of China.⁸ The leading U.S. importers of choline salts from China responding to the Commission's questionnaire are ***. Leading importers of product from nonsubject countries responding to the Commission's questionnaire include ***. Two U.S. purchasers responded to the Lost Sales Lost Revenue Survey, ***; *** is also an importer of choline salts.

⁶ Petitions, pp. 21, 24, and 57. A niche market for choline salts is the industrial use as a clay stabilizer for fracturing fluids in the oil and gas industry. Petitions, pp. 24 and 31; conference transcript, p. 84 (Bedell).

⁷ Petitions, p. 8.

⁸ Chemical Economics Handbook, Vitamins, November 2025, app. II, p. 227.

Apparent U.S. consumption of choline salts totaled approximately *** metric tons *** in 2025. Currently, two firms are known to produce choline salts in the United States. U.S. producers' U.S. shipments of choline salts totaled *** metric tons *** in 2025, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from subject sources totaled *** metric tons *** in 2025 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from nonsubject sources totaled *** metric tons *** in 2025 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

Summary data and data sources

A summary of data collected in these investigations is presented in appendix C, table C.1. The Commission's questionnaires collected data for the years 2023 to 2025 and interim periods January through March of 2025 ("interim 2025") and January through March of 2026 ("interim 2026"). Except as noted, U.S. industry data are based on questionnaire responses of two firms that accounted for all known U.S. production of choline salts during 2025. U.S. imports are based on questionnaire responses of 34 firms that accounted for *** percent of U.S. imports from China and approximately *** percent of imports from nonsubject countries in 2025.

Previous and related investigations

The Commission conducted investigations regarding choline chloride from Canada and the United Kingdom in 1984. Commerce determined that choline chloride from the United Kingdom was not being sold, nor was likely to be sold, in the United States at LTFV.⁹ Following affirmative determinations by Commerce¹⁰ and the Commission,¹¹ an antidumping duty order was issued on U.S. imports of choline chloride from Canada.¹² Effective January 8, 1988, the antidumping duty order on U.S. imports of choline chloride from Canada was revoked.¹³

The Commission also completed antidumping and countervailing duty investigations on 2,4-Dichlorophenoxyacetic Acid (“2,4-D”) from China and India in 2025. Following affirmative determinations by Commerce and the Commission, antidumping and countervailing duty orders on 2,4-D were issued on U.S. imports from China and India.¹⁴ Excluded from the scope of these antidumping and countervailing duty investigations on choline salts from China are any products already covered by the scope of the extant antidumping and countervailing duty orders on 2,4-D from China and India.¹⁵

⁹ 49 FR 36535, September 18, 1984.

¹⁰ 49 FR 36532, September 18, 1984.

¹¹ 49 FR 44561, November 7, 1984.

¹² 49 FR 45469, November 16, 1984.

¹³ 54 FR 41316, October 6, 1989; 54 FR 48793, November 27, 1989.

¹⁴ The weighted-average dumping margins ranged from 127.21 percent for China and 6.10 to 25.85 percent for India. The countervailable subsidy rates ranged from 26.50 to 169.63 percent for China and 5.29 to 6.32 percent for India. 90 FR 22232, May 27, 2025; 90 FR 22243, May 27, 2025.

¹⁵ 91 FR 45241, July 20, 2026; 91 FR 45247, July 20, 2026.

Nature and extent of alleged subsidies and sales at LTFV

Alleged subsidies

On June 20, 2026, Commerce published a notice in the Federal Register of the initiation of its countervailing duty investigation on choline salts from China.¹⁶

Alleged sales at LTFV

On July 20, 2026, Commerce published a notice in the Federal Register of the initiation of its antidumping duty investigation on choline salts from China.¹⁷ Commerce has initiated antidumping duty investigations based on estimated dumping margins ranging from 73.39 to 313.82 percent for choline salts from China.¹⁸

¹⁶ For further information on the alleged subsidy programs, see Commerce's notice of initiation and related CVD Initiation Checklist. 91 FR 45247, July 20, 2026.

¹⁷ 91 FR 45241, July 20, 2026.

¹⁸ The estimated dumping margins for choline salts from China covered by Commerce's notice of initiation range from (1) China (Mexico surrogate)—129.43 to 229.44 percent; (2) China (Malaysia surrogate)—73.39 to 147.26 percent; and (3) China (Turkey surrogate)—189.49 to 313.82 percent. 91 FR 45241, July 20, 2026.

The subject merchandise

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:¹⁹

The merchandise covered by this investigation is certain choline salts, in all forms and purities, that are capable of delivering the nutrient choline. Subject choline salts may or may not contain additives such as a vegetable or mineral carrier or an anti-caking agent and may or may not be coated or encapsulated, such as in a lipid. For choline salts that contain non-choline salt components, such as a carrier or coating, the entire article is covered, including the non-choline salt content, provided that the choline salt content constitutes at least 30 percent by weight.

Choline salts are organic compounds and quaternary ammonium salts. Subject merchandise includes, but is not limited to, the following choline salts in their aqueous, crystallized, dried, or encapsulated forms:

- Choline chloride, which exists as a colorless aqueous solution and as a white, crystalline powder which may or may not be mixed with vegetable, inorganic, or fat-based carriers. It has the molecular formula $CH_3CH_2CH_2OH^+Cl^-$. It may also be referred to as (2-hydroxyethyl) trimethylammonium chloride, and its molecular formula may also be expressed as $C_5H_{14}NO.Cl$ or $C_5H_{14}ClNO$. The Chemical Abstracts Service (CAS) registry number for choline chloride is 67-48-1; the Flavoring Extract Manufacturers' Association (FEMA) number is 4500; the PubChem number is 6209; and the European Community (EC) number is 200-655-4;
- Choline bitartrate, which is a white crystalline powder with the molecular formula $(CH_3)_3NCH_2CH_2OH^+HOOC^-CH(OH)^-CH(OH)^-COO^-$. It may be referred to as (2-hydroxyethyl) trimethylammonium-L-(+)-tartrate salt, and its molecular formula may also be expressed as $C_5H_{14}NO.C_4H_5O_6$ or $C_9H_{19}NO_7$. Choline bitartrate has the CAS registry number 87-67-2; the PubChem number 6900; and the EC number 201-763-4;
- Choline dihydrogen citrate, which is a white crystalline powder with the molecular formula $C_{11}H_{21}NO_8$ and may be referred to as (2-hydroxyethyl) trimethylammonium citrate. Choline dihydrogen

¹⁹ 91 FR 45241, July 20, 2026; 91 FR 45247, July 20, 2026.

citrate has the CAS registry number 77-91-8; the PubChem number 66170; and the EC number 201-068-6.

This investigation covers choline salts for which the reaction of trimethylamine and ethylene oxide occurs in the subject country. The merchandise subject to this investigation includes choline salts in their aqueous or dried form that are processed in a third country, including, but not limited to, refining, drying, encapsulating, blending, or any other processing that would not otherwise remove the merchandise from the scope of this investigation if performed in the country of manufacture of the in-scope choline salt. Choline salts subject to this investigation are not excluded when commingled with choline salts from sources not subject to this investigation. Only the subject component of such commingled products is covered by the scope of this investigation.

Excluded from the scope of this investigation is choline hydroxide, which has the molecular formula $C_5H_{15}NO_2$, the CAS registry number 123-41-1, the PubChem number 31255, and the EC number 204-625-1. Also excluded is choline salicylate, which has the molecular formula $C_{12}H_{19}NO_4$, the CAS registry number 2016-36-6, the PubChem number 54686350, and the EC number 217-948-8.

Also excluded from the scope of the investigation are any products already covered by the scope of any extant antidumping and/or countervailing duty orders, including 2,4-Dichlorophenoxyacetic Acid from India and the People's Republic of China: Antidumping Duty Orders, 90 FR 22243 (May 27, 2025), and including 2,4-Dichlorophenoxyacetic Acid from the People's Republic of China and India: Countervailing Duty Orders, 90 FR 22232 (May 27, 2025).

Tariff treatment

Choline salts are currently imported under Harmonized Tariff Schedule of the United States (“HTS”) statistical reporting number 2923.10.0000.²⁰ The general rate of duty is 3.7 percent ad valorem for HTS subheading 2923.10.00.²¹ Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

Below is a summary of additional tariffs applied to choline salts from China. Table 1.2 provides a summary of additional tariffs in place as of August 3, 2026. Historical information is summarized beneath the table.

Table 1.2 Choline salts: Additional tariffs on imports originating in China as of August 3, 2026

Duty rates in percent ad valorem

Additional tariff type	Duty rate (percent)
Section 301 specific to China	25
Total additional ad valorem rate	25

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 below for historical changes to the additional tariffs.

Section 301 tariffs

Country specific section 301 tariffs

Effective September 24, 2018, choline salts originating in China were 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 choline salts increased to 25 percent.²²

²⁰ This tariff classification also contains products outside of the scope of these investigations.

²¹ The subject merchandise in this proceeding may also be imported under the following HTS statistical reporting numbers: 2309.90.1005, 2309.90.1015, 2309.90.1020, 2309.90.1030, 2309.90.1032, 2309.90.1035, 2309.90.1045, 2309.90.1050, 2309.90.95.00, and 3824.99.9397. USITC, HTS (2026) Revision 14, Publication 5772, July 2026, pp. 23.4, 23.6, 29.93, and 38.26.

²² 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 3 of chapter 99 and related tariff provisions for this duty treatment USITC, HTS (2026) Revision 14, Publication 5772, July 2026, pp. 99.3.97 to 99.3.105 and 99.3.500 to 99.3.501. 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).

Tariffs initiated in July 2026 under Section 301

Choline salts originating in China are not subject to tariffs initiated in July 2026 under section 301 of the Trade Act of 1974.²³

Section 122 tariffs

Choline salts originating in China were not subject to tariffs initiated in February 2026 under section 122 of the Trade Act of 1974.²⁴

Tariffs initiated under the International Emergency Economic Powers Act (“IEEPA”)²⁵

Effective February 20, 2026, all tariffs initiated under IEEPA were terminated. Below is a history of the IEEPA tariffs relevant to choline salts originating in China that were in effect until February 20, 2026.²⁶

Country specific IEEPA tariffs

Effective February 4, 2025, choline salts originating in China were subject to an additional 10 percent ad valorem duty under IEEPA, and on March 4, 2025, that additional duty increased to 20 percent ad valorem. However, effective November 10, 2025, that additional

²³ Certain articles for use in pharmaceutical applications, including choline salts, are not subject to the tariffs initiated in July 2026 under section 301. 91 FR 47717, July 28, 2026. See also HTS heading 9903.05.89 and U.S. note 52(e) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 14, Publication 5772, July 2026, pp. 99.3.391 to 99.3.393 and 99.3.477.

²⁴ Choline salts were included in a list of products not subject to tariffs initiated under section 122 that were in effect from February 24, 2026, through July 23, 2026. 91 FR 9339, February 25, 2026. See also HTS heading 9903.03.03 and U.S. note 2(aa)(ii) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 14, Publication 5772, July 2026, pp. 99.3.51 to 99.3.53 and 99.3.462.

²⁵ Multiple tariffs were enacted under the authority of the International Emergency Economic Powers Act (“IEEPA”), including tariffs that applied to countries that may not be subject in this proceeding. Tariffs specific to Canada, China, and Mexico were initiated in February 2025. Tariffs initiated in April 2025 under IEEPA were applied globally. Tariffs specific to Brazil were initiated in July 2025. Tariffs specific to India were initiated in August 2025 and terminated effective February 7, 2026. Tariffs under IEEPA were amended over time. All tariffs initiated under IEEPA were terminated effective February 20, 2026. 91 FR 9437, February 25, 2026.

²⁶ 91 FR 9437, February 25, 2026.

duty was reduced back to 10 percent. As noted previously, effective February 20, 2026, tariffs initiated under IEEPA and the associated duties imposed under IEEPA were terminated.²⁷

Tariffs initiated in April 2025 under IEEPA

Choline salts originating in China were not subject to tariffs initiated in April 2025 under IEEPA. As noted previously, effective February 20, 2026, tariffs initiated under IEEPA and the associated duties imposed under IEEPA were terminated.²⁸

²⁷ 90 FR 9121, February 7, 2025; 90 FR 11426, March 6, 2025; 90 FR 11463, March 7, 2025; 90 FR 50725, November 7, 2025; 91 FR 9437, February 25, 2026. 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 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 14, Publication 5772, July 2026, pp. 99.3.3 to 99.3.4 and 99.3.425 to 99.3.426.

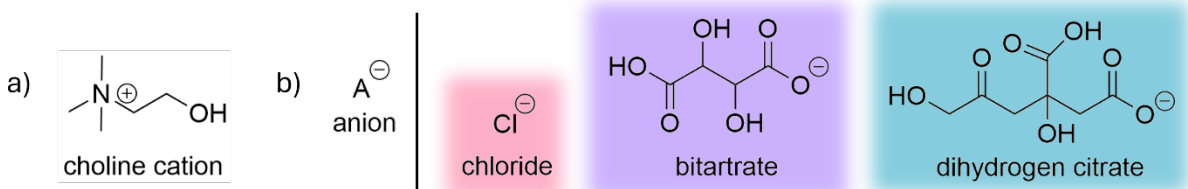
²⁸ Choline salts were included in a list of products in HTS U.S. note 2(v)(iii)(a) to subchapter III of chapter 99 that are not subject to tariffs initiated in April 2025 under IEEPA. 90 FR 15041, April 7, 2025; 91 FR 9437, February 25, 2026. See also HTS headings 9903.01.25 and 9903.01.32 and U.S. note 2(v)(iii)(a) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 14, Publication 5772, July 2026, pp. 99.3.5 to 99.3.8 and 99.3.426 to 99.3.427.

The product

Description and applications

Salts are chemical compounds that include both a positively charged “cation” and a negatively charged “anion.”²⁹ Choline salts contain the choline cation $(\text{CH}_3)_3\text{NCH}_2\text{CH}_2\text{OH}^+$, where the positive charge is located on the nitrogen. Each product contains the choline cation, shown in figure 1.1 as part “a,” while the anion changes, as shown in part “b.”³⁰ The merchandise defined within the scope are three choline salts: choline chloride (“CC”), choline bitartrate (“CBT”), and choline dihydrogen citrate (“CDHC”).³¹ CC is the most common choline salt on the market, accounting for *** percent of U.S. shipments by weight in 2025. CBT is less common, accounting for only *** percent. CDHC is the least common of the three choline salts, accounting for only *** percent.³²

Figure 1.1: Choline salts: Chemical structures of the choline cation and its potential anions



Source: Adapted from webpages on MilliporeSigma for CC, CBT, and CDHC.

Choline salts are hygroscopic solids, where “hygroscopic” is a quality meaning that a material attracts and retains water from its environment. This hygroscopy can cause pure choline salts to become clumpy or even runny as the salt takes on environmental moisture,

²⁹ PlusChem, “The Chemistry of Salts: A Beginner’s Guide to Understanding Their Properties and Uses,” May 4, 2023, <https://pluschem.com/blog/the-chemistry-of-salts/>.

³⁰ The choline cation is also known as (2-hydroxyethyl)-trimethylammonium. Petitions, vol. 1, pp. 18 to 19; Gidding, Curtis E., “Choline,” Kirk-Othmer Encyclopedia of Chemical Technology, John Wiley & Sons, Ltd., 2000, p. 1, <https://doi.org/10.1002/0471238961.0308151207090404.a01>.

³¹ The Chemical Abstracts Service (CAS) numbers (nos.) are 67-48-1 (CC), 87-67-2 (CBT), and 77-91-8 (CDHC). The scope explicitly includes but is not limited to these three choline salts; the only explicit exceptions to the scope are choline hydroxide, choline salicylate, and any products already covered by the scope of any extant antidumping and/or countervailing duty orders. 91 FR 45241, July 20, 2026; 91 FR 45247, July 20, 2026; 2,4-Dichlorophenoxyacetic Acid (“2,4-D”) from China and India, Investigation Nos. 701-TA-710–711 and 731-TA-1673–1674 (Final), Publication 5618, May 2025, p. 1.9.

³² Conference transcript, p. 72 (Bedell); Petitioner’s postconference brief, preliminary staff conference questions, pp. 17 to 18.

which is unfavorable for certain storage and delivery applications.³³ Choline salts are therefore sold in a variety of forms to improve flow characteristics and to provide a diversity of reliable delivery mechanisms. Forms include colorless aqueous solutions of choline salts (“liquid”), choline salts dried onto carriers like silica or agricultural waste (“dry”), and high-purity choline salts (“powdered” or “crystallized”).³⁴ Additionally, dry or powdered choline salts may be encapsulated within a coating material or pressed into pills.³⁵ The variety of forms sold allows suitability for a variety of applications; for example, liquid and dry CC are primarily used as supplements to animal feed, while crystallized CC and powdered CBT and CDHC are primarily used as supplements to products for human consumption.³⁶ Supplementation to animal feed, which represents the overwhelming majority of the market, requires storing and handling large amounts of the choline salt, meaning that optimizing the flow characteristics of the material is prioritized. Supplementation to products for human consumption, which represents a smaller portion of the market, instead prioritizes characteristics like high choline density, processability into pill form, and taste.³⁷ As noted, CC accounted for *** of all U.S. shipments of the subject choline salts by weight in 2025, with liquid and dry CC combined accounting for ***.³⁸

Choline is an essential nutrient for both humans and animals, and choline salts are used in animal feed, infant formula, and other nutraceutical products as dietary supplements.³⁹ It is essential due to its role in many critical biological structures and processes. Choline is a precursor material for major components of cell membranes called phospholipids (for example, phosphatidylcholine and sphingomyelin).⁴⁰ The positively charged nitrogen of choline increases the phospholipid’s solubility. This enables the lipid’s dissolution into the bloodstream and

³³ Conference transcript, pp. 11 (Lin) and 83 (Painter).

³⁴ Choline salts dried onto a carrier take on the color of their carrier. Petitions, vol. 1, pp. 33 to 35; Petitioner’s postconference brief, p. 5.

³⁵ Encapsulation is primarily used to produce rumen-protected choline for dairy cow nutrition. Petitions, vol. 1, p. 22.

³⁶ Petitions, vol. 1, pp. 17 and 23.

³⁷ Conference transcript, pp. 56 and 73 (Bedell) and 83 (Painter and Rolig).

³⁸ Petitioner’s postconference brief, preliminary staff conference questions, pp. 17 to 18.

³⁹ Burns, Brianne C., Jitendra D. Belani, Hailey N. Wittorf, Eugen Brailoiu, and Gabriela C. Brailoiu, “Choline—An Essential Nutrient with Health Benefits and a Signaling Molecule,” *International Journal of Molecular Sciences* 26, no. 15 (July 24, 2025): 7159, <https://doi.org/10.3390/ijms26157159>; Petitions, vol. 1, pp. 15 to 16.

⁴⁰ Petitions, vol. 1, p. 15.

allows the transportation of lipids throughout the body.⁴¹ Choline is also a precursor material for acetylcholine, a neurotransmitter vital for maintaining memory, mood, muscle control, and other brain and nervous system functions. Additionally, it plays varied roles in cell membrane signaling, metabolism, gene expression, and early brain development.⁴² Overall, choline is essential for liver, cardiovascular, and brain health.⁴³ When used in feed for chickens, pigs, cattle, and other animals, choline enhances growth, physical fitness, and disease resistance.⁴⁴ It also improves milk production in cows and egg-laying rates in chickens. The most common use for choline salts in products for human consumption is for infant formula.⁴⁵

Liquid CC has other minor uses outside of dietary supplementation; it can be used as a clay stabilizer for fracturing fluids in the oil industry, where the stabilizer prevents clay swelling and particle migration that impair oil flow.⁴⁶ Ongoing research also highlights CC as a solvent component with promising applications for metal processing and synthesis media.⁴⁷

Choline salts explicitly excluded from the scope (choline hydroxide, choline salicylate, and the 2,4-D choline salt covered by the extant antidumping and countervailing duty orders) have different properties and uses as pharmaceuticals, cleaning agents, or herbicides.⁴⁸

Manufacturing processes

Synthesis of a choline salt consists of two reactions that combine trimethylamine ($\text{N}(\text{CH}_3)_3$), an acid (HA), and ethylene oxide ($\text{CH}_2\text{CH}_2\text{O}$) in one reactor.⁴⁹ The particular acid used

⁴¹ Gidding, Curtis E., "Choline," Kirk-Othmer Encyclopedia of Chemical Technology, John Wiley & Sons, Ltd., 2000, p. 2, <https://doi.org/10.1002/0471238961.0308151207090404.a01>; Alberts, Bruce, Alexander Johnson, Julian Lewis, Martin Raff, Keith Roberts, and Peter Walter. "The Lipid Bilayer." In *Molecular Biology of the Cell*. 4th edition. Garland Science, 2002. <https://www.ncbi.nlm.nih.gov/books/NBK26871/>.

⁴² Petitions, vol. 1, p. 15.

⁴³ Petitions, vol. 1, p. 23.

⁴⁴ Petitions, vol. 1, p. 15.

⁴⁵ Petitioner's postconference brief, p. 8.

⁴⁶ Alaskar, Sarah, "Clay Stabilizers: A Tug of War Between Performance and Sustainability," *Journal of Petroleum Technology*, July 18, 2023, <https://jpt.spe.org/clay-stabilizers-a-tug-of-war-between-performance-and-sustainability>.

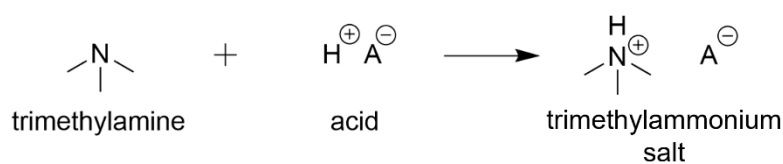
⁴⁷ Smith, Emma L., Andrew P. Abbott, and Karl S. Ryder, "Deep Eutectic Solvents (DESs) and Their Applications," *Chemical Reviews* 114, no. 21 (November 12, 2014): 11060–82, <https://doi.org/10.1021/cr300162p>.

⁴⁸ Petitions, vol. 1, pp. 36 to 38; 2,4-Dichlorophenoxyacetic Acid ("2,4-D") from China and India, Investigation Nos. 701-TA-710–711 and 731-TA-1673–1674 (Final), Publication 5618, May 2025, p. 1.9.

⁴⁹ Conference transcript, p. 69 (Bedell); Petitions, vol. 1, p. 33.

determines the identity of the resulting choline salt.⁵⁰ In the first reaction, trimethylamine and the acid form a trimethylammonium salt ($\text{HN}(\text{CH}_3)_3^+\text{A}^-$, figure 1.2).

Figure 1.2 Choline salts: Reaction of trimethylamine and acid to produce trimethylammonium salt



Source: Adapted from petitions, vol. 1, p. 33.

Note: The acid is denoted by HA, where “A⁻” is an anion that varies depending on the desired final product.

In the second reaction, the trimethylammonium salt and ethylene oxide form the choline salt ($(\text{CH}_3)_3\text{NCH}_2\text{CH}_2\text{OH}^+\text{A}^-$, figure 1.3), in a reaction referred to as “ethoxylation.”

Figure 1.3 Choline salts: Reaction of trimethylammonium salt and ethylene oxide to produce choline salt



Source: Adapted from petitions, vol. 1, p. 33.

The synthesis produces aqueous solutions of choline salts.⁵¹ The only byproduct of the choline salt reaction is water, and there are no significant side products or impurities.⁵² There are no alternative commercial-scale syntheses for choline salts.⁵³

Aqueous solutions of CC can be concentrated to 70 percent or 75 percent w/w (weight per weight) through the removal of water and sold as a liquid. The liquid can also be dried onto a carrier (50 percent on silica or 60 percent to 80 percent on agricultural waste). Dried product can also be encapsulated within a coating.⁵⁴ CC can also be crystallized, removed from the liquid, mixed with a flow aid like silica, and dried to yield high-purity crystalline material. CBT

⁵⁰ CC, CBT, and CDHC are respectively produced by use of hydrochloric acid, tartaric acid, and citric acid. Petitions, vol. 1, pp. 18 to 19 and 33.

⁵¹ Petitions, vol. 1, p. 33.

⁵² Conference transcript, p. 70 (Bedell).

⁵³ Conference transcript, pp. 47 and 71 to 72 (Bedell).

⁵⁴ “w/w” (weight per weight) refers to a measurement of mass expressed as a share of the total mass of the solution. For example, 75 grams of choline salt in 100 grams of solution would be a concentration of 75 percent. Petitions, vol. 1, pp. 33 to 35.

can undergo a similar crystallization process to yield high-purity powdered material, which can be sold in that form or encapsulated within a coating. CDHC can also undergo a similar crystallization process to yield high-purity powdered material and sold in that powdered form (see table 1.3).⁵⁵

Table 1.3 Choline salts: Forms sold for each choline salt

Choline salt	Liquid	Dried onto carrier	Powdered	Crystallized	Encapsulated	Notes
CC	✓	✓	×	✓	✓	Crystallized form is 98 percent pure
CBT	×	×	✓	×	✓	Powdered form is 99 percent pure
CDHC	×	×	✓	×	×	Powdered form is 98 percent pure or higher

Source: Petitioner's postconference brief, pp. 4 to 5.

Trimethylamine is the input whose end-use is most focused on the choline market. In 2024, a majority (***) of U.S. trimethylamine consumption was in choline production (***)⁵⁶. Trimethylamine is also the cost driver for all choline salt production.⁵⁷

U.S. choline salt production is not vertically integrated and the petitioner purchases trimethylamine, acids, and ethylene oxide. The petitioner believes that Chinese choline salt producers also purchase these input materials.⁵⁸

The petitioner argues that companies must perform ethoxylation of the trimethylammonium salt to be considered a choline salt producer and that purification and form-changing procedures are not considered choline salt production.⁵⁹

⁵⁵ Petitions, vol. 1, p. 16.

⁵⁶ Alkylamines (C1-C6), Chemical Economics Handbook, May 2024, pp. 29 to 31.

⁵⁷ Petitioner's postconference brief, p. 10.

⁵⁸ Conference transcript, pp. 70 to 71 (Bedell).

⁵⁹ "Form-changing procedure" refers to a procedure that transforms one form into another, such as adding liquid CC to a carrier and then drying it. Petitions, vol. 1, p. 33.

Domestic like product issues

No issues with respect to the domestic like product have been raised in these investigations. The petitioner proposes the Commission should define a single like product co-extensive with the scope of these investigations, as defined by Commerce in its notices of initiation.⁶⁰

⁶⁰ Petitioner's postconference brief, p. 4.

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

U.S. market characteristics

Choline salt is an organic chemical compound that is used for supplementation of choline in animal and human diets. Choline chloride (“CC”) and choline bitartrate (“CBT”) are primarily used as nutrients in human food and dietary supplements in animal feed, while choline dihydrogen citrate (“CDHC”) is primarily used as a human food additive.¹ Dry CC is sold to distributors, feed mills, premix companies, and pet food producers. Choline salts are also used in the nutraceutical sector for human consumption and are added to infant formula, nutritional supplements, and multivitamins.² The U.S. Food and Drug Administration (“FDA”) specifically regulates CC and CBT under separate yet similar frameworks for human food and animal feed and has classified CC and CBT as general recognized as safe (“GRAS”) substances. CDHC is not expressly listed as GRAS when used in human food applications.³ CC, CBT, and CDHC production for human food applications may be subject to Safe Quality Food (“SQF”) Program certification.⁴ CC and CBT for animal feed applications may be subject to Feed Additive and PreMixture Quality System (“FAMI-QS”) certification.⁵

¹ Petitions, p. 24.

² Petitions, pp. 15, 21 to 18.

³ GRAS substances are exempt from the Federal Food, Drug, and Cosmetic Act’s (“FFDCA”) statutory premarket review and approval requirements for food additives. A substance is GRAS if it is “generally recognized, among qualified experts, as having been adequately shown to be safe under the conditions of its intended use, or unless the use of the substance is otherwise excepted from the definition as a food additive.” Petitions, p. 25.

⁴ The SQF program is a voluntary third-party certification that is designed to ensure food safety by requiring certified sites to implement a documented food safety management system based on the international recognized Hazard Analysis Critical Control Point (“HACCP”) framework and good manufacturing practices. Petitions, p. 26.

⁵ FAMI-QS is a voluntary third-party certification for specialty animal feed ingredients and premixes that aligns with HACCP food safety principles. Petitions, p. 29.

Both U.S. producers and most responding importers (20 of 28) indicated that the market was not subject to distinctive conditions of competition. Eight importers reported that the market was subject to distinct conditions of competition, citing raw material prices, production costs, supply availability, production capacity, changes in dietary supplement demand, competition from Chinese imports, increased ocean freight rates, and tariffs. Importer *** reported that United States Pharmacopeia (“USP”) and food grade choline salts are impacted by other industrial applications that do not need USP or food grade certification, the volume of which may be exponentially large compared to nutraceuticals, and the introduction of new choline chloride alternatives such as Kolin Plus and Cholisure-H. Importer *** reported that BCP is the primary domestic manufacturer of choline for animal nutrition, setting pricing based on internal strategy, and imported choline fills the difference between BCP’s sales and total demand. It continued that BCP has set pricing below the world average at times and, more recently, above the world average.

Overall, apparent U.S. consumption in 2025 was lower than in 2023. However, apparent U.S. consumption in interim 2026 was higher than in interim 2025.

Impact of section 301 tariffs and new or modified tariffs

U.S. producers and importers were asked to report the impact of section 301 tariffs and new or modified tariffs on overall demand, supply, prices, or raw material costs (tables 2.1 and 2.2). While a majority of importers reported that they did not know the impact of section 301 tariffs and new or modified tariffs, both U.S. producers and 13 importers reported that the section 301 tariffs had an impact on the U.S. choline salts market and one producer and 11 importers reported that new or modified tariffs had an impact on the U.S. choline salts market. Firms reported that the section 301 tariffs increased costs for Chinese-origin product, resulting in higher pricing and tight supply of choline salts imported from China. In addition, firms reported the new or modified tariffs since 2025 have increased uncertainty in the market.

Table 2.1 Choline salts: Count of firms' responses regarding the impact of the 301 tariffs on Chinese origin products

Firm type	Yes	No	Don't know
U.S. producers	2	0	0
Importers	13	2	15

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

Table 2.2 Choline salts: Count of firms' responses regarding the impact of new or modified tariffs

Firm type	Yes	No	Don't know
U.S. producers	1	1	0
Importers	11	4	16

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

Channels of distribution

U.S. producers and importers sold mainly to agricultural end users and distributors, as shown in table 2.3. Importers shifted sales of nonsubject product from a majority sold to distributors and agricultural end users in 2023 to a majority sold to nutraceutical end users in 2025.

Table 2.3 Choline salts: Share of U.S. shipments by source, channel of distribution, and period

Shares in percent; interim is January through March

Source	Channel	2023	2024	2025	Interim 2025	Interim 2026
United States	Distributor	***	***	***	***	***
United States	Nutraceutical end users	***	***	***	***	***
United States	Agricultural end users	***	***	***	***	***
United States	Other end users	***	***	***	***	***
China	Distributor	***	***	***	***	***
China	Nutraceutical end users	***	***	***	***	***
China	Agricultural end users	***	***	***	***	***
China	Other end users	***	***	***	***	***
Nonsubject sources	Distributor	***	***	***	***	***
Nonsubject sources	Nutraceutical end users	***	***	***	***	***
Nonsubject sources	Agricultural end users	***	***	***	***	***
Nonsubject sources	Other end users	***	***	***	***	***
All import sources	Distributor	***	***	***	***	***
All import sources	Nutraceutical end users	***	***	***	***	***
All import sources	Agricultural end users	***	***	***	***	***
All import sources	Other end users	***	***	***	***	***

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

Geographic distribution

U.S. producers and importers reported selling choline salts to all regions in the contiguous United States (table 2.4). For U.S. producers, *** percent of sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers sold 20.7 percent within 100 miles of their U.S. point of shipment, 60.5 percent between 101 and 1,000 miles, and 18.9 percent over 1,000 miles.

Table 2.4 Choline salts: Count of U.S. producers' and U.S. importers' geographic markets

Region	U.S. producers	China
Northeast	***	8
Midwest	***	12
Southeast	***	5
Central Southwest	***	11
Mountain	***	10
Pacific Coast	***	11
Other	***	4
All regions (except Other)	***	2
Reporting firms	2	25

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 2.5 provides a summary of the supply factors regarding choline salts from U.S. producers. No foreign producers responded to the Commission's questionnaire.

U.S. producers' practical capacity fluctuated but increased overall during 2023 to 2025 while production declined, leading to a decline in capacity utilization. Inventories, as a share of total shipments, increased slightly and exports declined during 2023 to 2025. Major export markets were ***. U.S. producer *** reported that it cannot produce other products on the same equipment as choline salts; factors affecting *** ability to shift production include specialized production equipment, product-specific manufacturing processes, and specialized training and technical expertise required to manufacture choline salts.

Nonsubject imports accounted for *** percent of total U.S. imports in 2025. The largest sources of nonsubject imports from 2023 to 2025 were Belgium, Italy, and India.⁶

⁶ Dataweb search for HTS number 2923.10.0000, imports for consumption, 2023 to 2025. <https://dataweb.usitc.gov/trade/search/Import/HTS>, retrieved July 23, 2026.

Table 2.5 Choline salts: Supply factors that affect the ability to increase shipments to the U.S. market, by country

Quantity in metric tons; ratio and share in percent

Factor	Measure	United States
Capacity 2023	Quantity	***
Capacity 2025	Quantity	***
Capacity utilization 2023	Ratio	***
Capacity utilization 2025	Ratio	***
Inventories to total shipments 2023	Ratio	***
Inventories to total shipments 2025	Ratio	***
Home market shipments 2025	Share	***
Non-US export market shipments 2025	Share	***
Ability to shift production (firms reporting “yes”)	Count	***

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

Note: Responding U.S. producers accounted for all U.S. production of choline salts in 2025. No foreign producer/exporter firms responded to the Commissions questionnaire. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from China, please refer to Parts 3 and 7.

Supply constraints

Both U.S. producers and most responding importers (29 of 32) reported that they had not experienced supply constraints since January 1, 2023. Of those importers that reported they had experienced supply constraints, two reported the constraints occurred during 2023, 2024, and 2025, and three reported constraints occurred during 2026. Two importers, ***, reported constraints due to temporary inventory shortages during 2023 to 2026. Importer *** reported that forecast and customer demand issues combined with strict quality standards for mycotoxin temporarily disrupted a customer specific supply chain in 2026 that was not industry wide.

U.S. demand

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

End uses and cost share

U.S. demand for choline salts depends on the demand for U.S.-produced downstream products. Several firms reported that choline salt was itself the end-use product. Petitioner stated that the overwhelming majority of choline salt produced goes to the animal nutrition market. It also stated that the human nutrition market is an important market as choline salts are used in nearly all infant formula, but the volume is relatively small.⁷

Reported end uses for choline salt and reported shares of the cost of the end-use products in which it is used are as follows:

- Animal feed (0.1 to 100 percent),
- Dietary or nutraceutical supplements (5 to 100 percent),
- Oil and gas clay stabilizer and shale inhibitor (100 percent),
- Nutritional premixes (5 to 15 percent), and
- Pet food (1 percent)

Business cycles

Both U.S. producers and most responding importers (24 of 27) indicated that the market was not subject to business cycles. Three importers reported that the market was subject to business cycles, two of which cited oil and gas industry activity.

⁷ Conference transcript, p. 56 (Bedell).

Demand trends

Most firms reported no change or an increase in U.S. demand for choline salts since January 1, 2023 (table 2.6). Petitioner stated that the choline salts market is very mature with expected low growth that tends to trace overall feed tonnage produced or utilized in the United States.⁸ Firms that reported demand steadily increased or fluctuated upward stated that demand is driven by the dietary supplements markets, which depends on animal and human population growth. Importer *** reported that demand is tied primarily to laboratory research activity, project timing, and individual customer requirements, which can result in irregular purchasing patterns but not a consistent cyclical trend.

Table 2.6 Choline salts: Count of firms' responses regarding overall domestic and foreign demand, by firm type

Market	Firm type	Steadily increase	Fluctuate upward	No change	Fluctuate downward	Steadily decrease
Domestic demand	U.S. producers	***	***	***	***	***
Domestic demand	Importers	4	5	17	0	3
Foreign demand	U.S. producers	***	***	***	***	***
Foreign demand	Importers	4	4	12	0	1

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

A leading indicator of demand in the choline salts market is broiler chicken production.⁹ Annual broiler chicken production increased by 3.4 percent from 2023 to 2025 (table 2.7 and figure 2.1)

Table 2.7 Demand: Annual broiler chicken production, 2023 to 2025

Quantity in 1,000 pounds

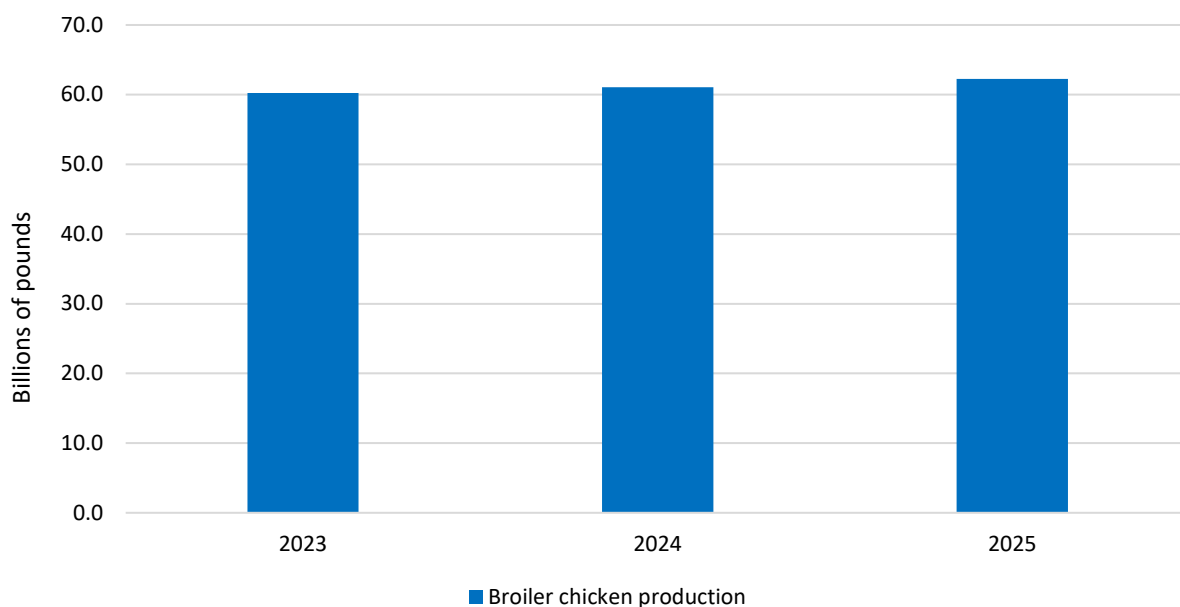
Year	Broiler chicken production
2023	60,222,100
2024	61,068,000
2025	62,245,000

Source: USDA, NASS Quick Stats, <https://quickstats.nass.usda.gov/results/AB435F6A-BB8B-30B4-B607-838781E11557>, retrieved July 17, 2026.

⁸ Conference transcript, pp. 55 to 56 (Painter).

⁹ Conference transcript, p. 56 (Painter).

Figure 2.1 Demand: Annual broiler chicken production, 2023 to 2025



Source: USDA, NASS Quick Stats, <https://quickstats.nass.usda.gov/results/AB435F6A-BB8B-30B4-B607-838781E11557>, retrieved July 17, 2026.

Substitute products

Substitutes for choline salts are limited. Both U.S. producers reported that there were substitutes while most responding importers (21 of 28) reported that there were not substitutes for choline salts. Reported substitutes include Alpha-GPC for dietary supplements; Kolin Plus, Cholisure-H, and betaines for animal feed production and nutrition; and calcium chloride, potassium chloride, and TMAC for clay stabilizers. Petitioner stated that some substitutes such as betaine, are partial substitutes for choline salts and there is no direct substitute that performs all the functions that choline does.¹⁰

¹⁰ Conference transcript, p. 58 (Bedell).

Substitutability issues

This section assesses the degree to which U.S.-produced choline salts and imports of choline salts from subject countries can be substituted for one another by examining the importance of certain purchasing factors and the comparability of choline salts from domestic and imported sources based on those factors. Based on available data, staff believes that there is a high degree of substitutability between domestically produced choline salts and choline salts imported from subject sources.¹¹ Factors contributing to this level of substitutability include similar lead times for choline salts from inventory, interchangeability between domestic and subject sources, and limited significant factors other than price.

Factors affecting purchasing decisions

Most important purchase factors

Purchasers responding to the lost sales lost revenue allegations¹² were asked to identify the main purchasing factors their firm considered in their purchasing decisions for choline salts. The most often cited top three factors firms consider in their purchasing decisions for choline salts were supplier relationship (2 firms), customer requirement (2 firms), and quality (1 firm) as shown in table 2.8. Supplier relationship was the most frequently cited first-most important factor (cited by 2 firms);¹³ customer requirement was the most frequently reported second-most important factor (2 firms);¹⁴ and quality was the most frequently reported third-most important factor (1 firm).

¹¹ The degree of substitution between domestic and imported choline salts depends upon the extent of product differentiation between the domestic and imported products and reflects how easily purchasers can switch from domestically produced choline salts to the choline salts 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.).

¹² This information is compiled from responses by purchasers identified by Petitioner to the lost sales lost revenue allegations. See Part 5 for additional information.

¹³ Specifically, purchaser *** reported “manufacturer and relationship – our preference is the domestic producer” and purchaser *** reported “exclusive contract with domestic producer (buyer to seller).”

¹⁴ Specifically, purchaser *** reported “customer contract requirements/requests” and purchaser *** reported “only west coast gets small amounts due to price and customer request (quality approval).”

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

Factor	First	Second	Third	Total
Supplier relationship	2	0	0	2
Customer requirement	0	2	0	2
Quality	0	0	1	1

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

Note: No other factors were reported.

Lead times

Choline salts are primarily sold from inventory. U.S. producers reported that *** of their commercial shipments were sold from inventory, with lead times averaging *** days; *** was produced to order. U.S. importers reported that 80.6 percent of their commercial shipments were sold from U.S. inventory and 8.9 percent sold from foreign inventory, with lead times averaging 20 days and 75 days, respectively. The remaining 10.5 percent of their commercial shipments were produced-to-order, with lead times averaging 63 days.

Comparison of U.S.-produced and imported choline salts

In order to determine whether U.S.-produced choline salts can generally be used in the same applications as imports from China, U.S. producers and importers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table 2.9, most responding firms reported that domestically produced choline salts and choline salts imported from China are always or frequently interchangeable. Reported factors that limit interchangeability include quality, availability, creditability, and source-specific marketing claims. Importers *** reported that products are generally interchangeable if they meet the same specifications and regulatory requirements, but some customers have preferences based on supplier qualification, quality certifications, or country of origin. Similarly, importer *** reported that products are only interchangeable if all parameters of a certificate of analysis match the customers' requirement.

Table 2.9 Choline salts: Count of U.S. producers and importers reporting the interchangeability between product produced in the United States and in other countries, by country pair

Country pair	Firm type	Always	Frequently	Sometimes	Never
United States vs. China	U.S. producer	***	***	***	***
United States vs. Other	U.S. producer	***	***	***	***
China vs. Other	U.S. producer	***	***	***	***
United States vs. China	Importers	7	7	4	0
United States vs. Other	Importers	5	5	5	1
China vs. Other	Importers	5	3	5	0

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

In addition, U.S. producers and importers were asked to assess how often differences other than price were significant in sales of choline salts from the United States, subject, or nonsubject countries. As seen in table 2.10, most responding firms reported that there are sometimes or never significant factors other than price between domestically produced choline salts and choline salts imported from China. Reported significant factors include product quality, supplier reliability, regulatory compliance, delivery lead times, and freight and logistics. U.S. producer and importer *** reported that availability (long lead times) and transportation network are frequently significant factors between U.S.-produced choline salts and choline salts imported from China. It also reported that one of the most significant barriers to entry for liquid choline imports is establishing a reliable supply chain network to deliver product in the United States. Importer *** reported that the USDA Animal and Plant Health Inspection Service published documentation recommending special treatment of imported ingredients like choline salts to address the increased biosecurity risk of importing animal feed ingredients from overseas, which leads to additional cost and resulted in structural changes in the industry.

Table 2.10 Choline salts: Count of U.S. producers and importers reporting the significance of differences other than price between product produced in the United States and in other countries, by country pair

Country pair	Firm type	Always	Frequently	Sometimes	Never
United States vs. China	U.S. producer	***	***	***	***
United States vs. Other	U.S. producer	***	***	***	***
China vs. Other	U.S. producer	***	***	***	***
United States vs. China	Importers	2	3	10	4
United States vs. Other	Importers	3	3	7	4
China vs. Other	Importers	4	2	6	1

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

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 responses of two firms that accounted for all U.S. production of choline salts during 2025.¹

U.S. producers

The Commission issued a U.S. producer questionnaire to two firms based on information contained in the petitions. Two firms provided usable data on their operations. Table 3.1 lists U.S. producers of choline salts, their production locations, positions on the petitions, and shares of total production.

Table 3.1 Choline salts: U.S. producers, their positions on the petitions, production locations, and shares of reported production, 2025

Firm	Position on petitions	Production location(s)	Share of production
BCP	Petitioner	Verona, MO St. Gabriel, LA	***
Taminco	***	St. Gabriel, LA	***
All firms	Various	Various	100.0

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

The St. Gabriel plant operates under the ownership of the St. Gabriel CC Company, LLC, which is a joint venture between BCP and Taminco (now owned by Eastman Chemical Company ("Eastman")) with BCP holding a two-thirds ownership stake and Taminco holding the remaining one-third share. Accordingly, BCP generally receives up to two-thirds of the facility's production, while Taminco receives the remaining third, although the shares may be adjusted at the agreement of the partners.² The St. Gabriel joint venture plant produces liquid choline

¹ Petitioner states that BCP and Taminco are the only producers of choline salts in the United States because they are the only U.S. suppliers that ethoxylate trimethylamine ("TMA") (i.e., react TMA and ethylene oxide) in the United States. Petitions, p. 8.

² Petitions, pp. 4 to 5.

salts (i.e., aqueous choline chloride), whereas BCP's Verona facility produces the full range of both the dry and liquid forms of choline salts.³

Table 3.2 presents information on BCP's ownership, related and/or affiliated firms.⁴ As indicated in table 3.2, BCP is not related to any foreign producers of the subject merchandise in China and is not related to U.S. importers of the subject merchandise from China. In addition, as discussed in greater detail below, neither U.S. producer directly imports choline salts from China and neither purchases choline salts from China through U.S. importers.

Table 3.2 Choline salts: U.S. producers' ownership, related and/or affiliated firms

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

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

There were no major developments in the U.S. choline salts industry since January 1, 2023 identified by the petitioner in these investigations and no relevant information from other sources was found.

Producers in the United States were asked to report any change in the character of their operations or organization relating to the production of choline salts since January 1, 2023. One of two producers indicated in its questionnaire that it had experienced such changes. Table 3.3 presents the changes identified by this producer.

Table 3.3 Choline salts: U.S. producers' reported changes in operations, since January 1, 2023

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

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

³ Conference transcript, pp. 34 to 36 (Bedell); petitioner's postconference brief, p. 9.

⁴ Taminco did not respond to this question in the producer questionnaire. In its petitions, BCP identified Taminco as a related party because of the ownership of various Chinese subsidiaries, including Taminco Choline Chloride (Shanghai) Co., Ltd. ("Taminco Shanghai"), by its parent company Eastman. BCP indicated that based on its understanding, Taminco Shanghai is currently not an active producer of the subject merchandise in China. Petitions, p. 66; Petitioner's postconference brief, preliminary staff conference questions, pp. 12 to 13.

U.S. production, capacity, and capacity utilization

Table 3.4 presents U.S. producers' installed and practical capacity and production on the same equipment. Installed overall capacity and practical overall capacity fluctuated year to year, ending higher in 2025 than in 2023, and were higher in interim 2026 compared to interim 2025. Installed overall production and capacity utilization, as well as practical overall production and capacity utilization, decreased year to year, ending lower in 2025 than in 2023, and were lower in interim 2026 compared to interim 2025. The U.S. producers reported the production of no products other than choline salts on the same production lines and, as such, practical overall and practical choline salts capacity, production, and capacity utilization are the same. Neither U.S. producer provided a description of the constraints that set the limit on its practical overall capacity.

Table 3.4 Choline salts: U.S. producers' installed and practical capacity and production on the same equipment as in-scope production, by period

Capacity and production in metric tons; utilization in percent; interim is January through March

Item	Measure	2023	2024	2025	Interim 2025	Interim 2026
Installed overall	Capacity	***	***	***	***	***
Installed overall	Production	***	***	***	***	***
Installed overall	Utilization	***	***	***	***	***
Practical overall	Capacity	***	***	***	***	***
Practical overall	Production	***	***	***	***	***
Practical overall	Utilization	***	***	***	***	***
Practical Choline salts	Capacity	***	***	***	***	***
Practical Choline salts	Production	***	***	***	***	***
Practical Choline salts	Utilization	***	***	***	***	***

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

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

Table 3.5 and figure 3.1 present U.S. producers' production, capacity, and capacity utilization, by firm. U.S. producers' aggregate practical choline salts capacity fluctuated year to year, ending higher in 2025 than in 2023, and was higher in interim 2026 compared to interim 2025. BCP, the larger of the two producers, accounting for *** percent of U.S. production in 2025, reported an increase in capacity from 2023 to 2025 and higher capacity in interim 2026 compared with interim 2025, whereas, Taminco reported a decline in capacity from 2023 to 2025, and its capacity was lower in interim 2026 compared with interim 2025. U.S. producers' aggregate choline salts production and capacity utilization decreased year to year, ending lower in 2025 than in 2023, and were lower in interim 2026 compared to interim 2025.

Table 3.5 Choline salts: U.S. producers' output, by firm and period

Practical capacity

Capacity in metric tons; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 3.5 (Continued) Choline salts: U.S. producers' output, by firm and period

Production

Production in metric tons; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 3.5 (Continued) Choline salts: U.S. producers' output, by firm and period

Capacity utilization

Capacity utilization in percent; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Note: Capacity utilization ratio represents the ratio of the U.S. producer's production to its production capacity.

Table continued.

Table 3.5 (Continued) Choline salts: U.S. producers' output, by firm and period

Share of production

Share in percent; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	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 3.1 Choline salts: U.S. producers' output, by period

* * * * *

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

Alternative products

No producers reported production of other products on the same equipment used to produce choline salts.

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

Table 3.6 presents U.S. producers' U.S. shipments, export shipments, and total shipments. U.S. shipments accounted for the majority of U.S. producers' total shipments from 2023 to 2025 and in both interim periods.⁵ The quantity of U.S. shipments decreased year to year, ending lower in 2025 than in 2023, but was higher in interim 2026 compared to interim 2025. The value and average unit value of their U.S. shipments fluctuated year to year, ending higher in 2025 than in 2023, and were higher in interim 2026 compared to interim 2025.

Table 3.6 Choline salts: U.S. producers' shipments, by destination and period

Quantity in metric tons; value in 1,000 dollars; unit value in dollars per metric ton; shares in percent; interim is January through March

Item	Measure	2023	2024	2025	Interim 2025	Interim 2026
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.

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 "—".

⁵ The U.S. producers reported ***.

By quantity, export shipments accounted for a minority share of U.S. producers' total shipments in each year from 2023 to 2025 and both interim periods.⁶ The quantity and value of export shipments decreased year to year, ending lower in 2025 than in 2023, and were lower in interim 2026 compared to interim 2025. Export shipments also declined as a share of total shipments from 2023 to 2025, and were lower in interim 2026 compared with interim 2025. The average unit value of exports increased year to year, ending higher in 2025 than in 2023, and was higher in interim 2026 compared to interim 2025.

Table 3.7 presents U.S. producers' U.S. shipments by product form. In 2025, aqueous choline chloride accounted for the majority of U.S. producers' U.S. shipments by quantity.

Table 3.7 Choline salts: U.S. producers' U.S. shipments in 2025, by product form

Quantity in metric tons; value in 1,000 dollars; unit value in dollars per metric tons; shares in percent

Product form	Quantity	Value	Unit value	Share of quantity	Share of value
Aqueous choline chloride	***	***	***	***	***
Dry choline chloride	***	***	***	***	***
Choline bitartrate	***	***	***	***	***
Choline dihydrogen citrate	***	***	***	***	***
Other product forms	***	***	***	***	***
All product forms	***	***	***	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 "—".

⁶ ***.

U.S. producers' inventories

Table 3.8 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments. U.S. producers' end-of-inventories fluctuated year to year, ending lower in 2025 than in 2023, but were higher in interim 2026 compared to interim 2025.⁷ Choline salts have a shelf life for typically two years.⁸

Table 3.8 Choline salts: U.S. producers' inventories and their ratio to select items, by period

Quantity in metric tons; ratio in percent; interim is January through March

Item	2023	2024	2025	Interim 2025	Interim 2026
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

No responding U.S. producer reported imports of choline salts from China since January 1, 2023.

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

No responding U.S. producer reported purchases of choline salts.

⁷ ***.

⁸ Conference transcript, p. 66 (Bedell).

U.S. employment, wages, and productivity

Table 3.9 shows U.S. producers' employment-related data. The number of production and related workers (PRWs), total hours worked, wages paid, and productivity decreased overall from 2023 to 2025, and the hourly wages and unit labor costs increased overall. Over the interim periods, the number of PRWs remained unchanged, while productivity was lower in interim 2026 compared with interim 2025 and the total hours worked, wages paid, hourly wages, and unit labor costs were higher.

Table 3.9 Choline salts: U.S. producers' employment related information, by period

Interim is January through March

Item	2023	2024	2025	Interim 2025	Interim 2026
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 (metric tons per 1,000 hours)	***	***	***	***	***
Unit labor costs (dollars per metric tons)	***	***	***	***	***

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

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

U.S. importers

The Commission issued importer questionnaires to 308 firms believed to be importers of subject choline salts, as well as to all U.S. producers of choline salts.¹ Usable questionnaire responses were received from 34 companies, representing *** percent of U.S. imports from China, and *** percent of imports from nonsubject countries in 2025 under HTS subheading 2923.10.00. Table 4.1 lists all responding U.S. importers of choline salts from China and other sources, their locations, and their shares of U.S. imports, in 2025.

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

Table 4.1 Choline salts: U.S. importers, their headquarters, and share of imports within each source, 2025

Share in percent

Firm	Headquarters	China	Nonsubject sources	All import sources
Advancion	Buffalo Grove, IL	***	***	***
AIDP	City Of Industry, CA	***	***	***
Aimtop	Stafford, TX	***	***	***
Alaska Farm Supply	Wasilla, AK	***	***	***
American Tokyo Kasei - TCI	Portland, OR	***	***	***
BCP Ingredients	Verona, MO	***	***	***
Black Label Ingredients	Edgecliff Village, TX	***	***	***
BOCSCI	Shirley, NY	***	***	***
Cepharm	Somerset, NJ	***	***	***
Chementry Industries	Rego Park, NY	***	***	***
Evonik	Piscataway, NJ	***	***	***
Farmina Pet Food USA	Reidsville, NC	***	***	***
FNF Ingredients Canada	St Marys, ON	***	***	***
Freemen Nutra Group	Edison, NJ	***	***	***
GHW USA	Missouri City, TX	***	***	***
H&M USA INC	Syosset, NY	***	***	***
Hanley International	Belmont, MA	***	***	***
HL-Pharma USA Corp	Santa Ana, CA	***	***	***
Inscience Solution	Allen, TX	***	***	***
Kemin Industries	Des Moines, IA	***	***	***
Key-in Nutrition	Ontario, CA	***	***	***
Lilotree	Redmond, WA	***	***	***
Meadows Chemical	Houston, TX	***	***	***
Pharmhe Global	Santa Ana, CA	***	***	***
Provimi North America	Lewisburg, OH	***	***	***
Rocanda	Casper, WY	***	***	***
SEM Minerals	Quincy, IL	***	***	***
Sigma-Aldrich	St Louis, MO	***	***	***
Sunrise Chemical	Chino, CA	***	***	***
Taminco US	St. Gabriel, LA	***	***	***
Uniprime International	Boca Raton, FL	***	***	***
Vitaland Nutrition	Diamond Bar, CA	***	***	***
W.L.T. Distributors	Oak Bluff, MB	***	***	***
YZNZ	Irvine, CA	***	***	***
All firms	Various	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 "—".

Note: ***.

U.S. imports

Tables 4.2 and 4.3 and figure 4.1 present data for U.S. imports of choline salts from China and all other sources. From 2023 to 2025, imports of choline salts from both China and nonsubject sources increased overall both in terms of volume and value, while unit values decreased overall from nonsubject sources and increased overall from China.² Specifically, subject imports from China increased from 2023 to 2024 (as the unit value decreased) and increased in 2025 to a level above that reported in 2023 (as the unit value increased to a level above that reported in 2023). Imports and the unit values of imports of choline salts from China in interim 2026 were higher than in interim 2025, while nonsubject sources were lower.³ Throughout the period of investigation, the unit values of subject imports from China were consistently lower than the unit values of imports from nonsubject sources. Subject U.S. imports of choline salts from China consistently made up the majority share of total imports of choline salts, although the share of total U.S. imports held by China declined overall from 2023 to 2025, and was lower in interim 2026 than in the same period in 2025. The ratio of subject imports of choline salts from China to U.S. production increased overall from 2023 to 2025 and was higher in interim 2026 compared to interim 2025.

² The increase in nonsubject imports was driven by increases in U.S. imports of choline salts from ***.

³ ***.

Table 4.2 Choline salts: U.S. imports by source and period

Quantity in metric tons; value in 1,000 dollars; unit value in dollars per metric tons; interim is January through March

Source	Measure	2023	2024	2025	Interim 2025	Interim 2026
China	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
China	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
China	Unit value	***	***	***	***	***
Nonsubject sources	Unit value	***	***	***	***	***
All import sources	Unit value	***	***	***	***	***
China	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	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***
All import sources	Share of value	100.0	100.0	100.0	100.0	100.0
China	Ratio	***	***	***	***	***
Nonsubject sources	Ratio	***	***	***	***	***
All import sources	Ratio	***	***	***	***	***

Source: Compiled from 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 "—".

Note: Share of quantity is the share of U.S. imports by quantity; share of value is the share of U.S. imports by value; ratio are U.S. imports to production.

Figure 4.1 Choline salts: 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 Choline salts: Change in U.S. imports by source and periodChanges (Δ) in percent (%) or percentage point (ppt)

Source	Measure	2023 to 2025	2023 to 2024	2024 to 2025	Interim 2025 to 2026
China	% Δ Quantity	▲ ***	▲ ***	▲ ***	▲ ***
Nonsubject sources	% Δ Quantity	▲ ***	▲ ***	▲ ***	▲ ***
All import sources	% Δ Quantity	▲ ***	▲ ***	▲ ***	▲ ***
China	% Δ Value	▲ ***	▲ ***	▲ ***	▲ ***
Nonsubject sources	% Δ Value	▲ ***	▲ ***	▲ ***	▲ ***
All import sources	% Δ Value	▲ ***	▲ ***	▲ ***	▲ ***
China	% Δ Unit value	▲ ***	▼ ***	▲ ***	▲ ***
Nonsubject sources	% Δ Unit value	▼ ***	▲ ***	▼ ***	▼ ***
All import sources	% Δ Unit value	▼ ***	▲ ***	▼ ***	▼ ***
China	ppt Δ Quantity	▼ ***	▼ ***	▼ ***	▼ ***
Nonsubject sources	ppt Δ Quantity	▲ ***	▲ ***	▲ ***	▲ ***
All import sources	ppt Δ Quantity	***	***	***	***
China	ppt Δ Value	▼ ***	▼ ***	▲ ***	▼ ***
Nonsubject sources	ppt Δ Value	▲ ***	▲ ***	▼ ***	▲ ***
All import sources	ppt Δ Value	***	***	***	***
China	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.

Table 4.4. presents U.S. producers' and/or their affiliates' U.S. imports by source and period. ***. These imports accounted for an increasing share of total nonsubject imports from 2023 to 2025 such that by 2025, U.S. producers' imports of choline salts from nonsubject sources accounted for a majority of such imports.

Table 4.4 Choline salts: U.S. producers' and/or their affiliates' U.S. imports, by source and period

Quantity in metric tons; value in 1,000 dollars; unit value in dollars per metric tons; ratio in percent; interim is January through March

Source	Measure	2023	2024	2025	Interim 2025	Interim 2026
China	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
China	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
China	Unit value	***	***	***	***	***
Nonsubject sources	Unit value	***	***	***	***	***
All import sources	Unit value	***	***	***	***	***
China	Ratio	***	***	***	***	***
Nonsubject sources	Ratio	***	***	***	***	***
All import sources	Ratio	***	***	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—". Ratio represents U.S. producers' imports to total U.S. imports from that particular source.

Table 4.5 presents U.S. imports' U.S. shipments, by product form and source. In 2025, dry choline chloride accounted for the majority of U.S. shipments from China, while aqueous choline chloride accounted for the majority of the quantity of U.S. shipments from nonsubject sources in 2025.⁴ The lowest unit values of the forms reported for both imports from China and nonsubject sources were for aqueous choline chloride and the highest unit values were for choline dihydrogen citrate from China and choline bitartrate from nonsubject sources.

⁴ There were no imports of choline dihydrogen citrate from nonsubject sources in 2025.

Table 4.5 Choline salts: U.S. importers' U.S. shipment by product form and source, 2025

Quantity in metric tons; value in 1,000 dollars; unit value in dollars per metric tons; shares in percent

Product form	Source	Quantity	Value	Unit value	Share quantity	Share of value
Aqueous choline chloride	China	***	***	***	***	***
Dry choline chloride	China	***	***	***	***	***
Choline bitartrate	China	***	***	***	***	***
Choline dihydrogen citrate	China	***	***	***	***	***
All product forms	China	***	***	***	100.0	100.0
Aqueous choline chloride	Nonsubject	***	***	***	***	***
Dry choline chloride	Nonsubject	***	***	***	***	***
Choline bitartrate	Nonsubject	***	***	***	***	***
Choline dihydrogen citrate	Nonsubject	***	***	***	***	***
All product forms	Nonsubject	***	***	***	100.0	100.0
Aqueous choline chloride	All import sources	***	***	***	***	***
Dry choline chloride	All import sources	***	***	***	***	***
Choline bitartrate	All import sources	***	***	***	***	***
Choline dihydrogen citrate	All import sources	***	***	***	***	***
All product forms	All import sources	***	***	***	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 "—".

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.⁵ Negligible imports are generally defined in the Act, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.⁶ Imports from China accounted for *** percent of total imports of choline salts by quantity from June 2025 through May 2026.

Table 4.6 Choline salts: U.S. imports in the twelve-month period preceding the filing of the petitions, June 2025 through May 2026

Quantity in metric tons; share in percent

Source of imports	Quantity	Share of quantity
China	***	***
Nonsubject sources	***	***
All import sources	***	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 "—".

⁵ Sections 703(a)(1), 705(b)(1), 733(a)(1), and 735(b)(1) of the Act (19 U.S.C. §§ 1671b(a)(1), 1671d(b)(1), 1673b(a)(1), and 1673d(b)(1)).

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

Apparent U.S. consumption and market shares

Quantity

Table 4.7 and figure 4.2 present data on apparent U.S. consumption and U.S. market shares by quantity for choline salts. Apparent consumption fluctuated year to year, ending lower in 2025 than in 2023, but was higher in interim 2026 than in interim 2025.⁷

During 2023 to 2025, the U.S. producers' market share decreased while U.S. imports from China and nonsubject sources market share increased. Likewise, the U.S. producers held a lower market share in interim 2026 than in interim 2025, while subject and nonsubject U.S. imports held higher market shares.

Table 4.7 Choline salts: Apparent U.S. consumption and market shares based on quantity, by source and period

Quantity in metric tons; shares in percent; interim is January through March

Source	Measure	2023	2024	2025	Interim 2025	Interim 2026
U.S. producers	Quantity	***	***	***	***	***
China	Quantity	***	***	***	***	***
Nonsubject sources	Quantity	***	***	***	***	***
All import sources	Quantity	***	***	***	***	***
All sources	Quantity	***	***	***	***	***
U.S. producers	Share	***	***	***	***	***
China	Share	***	***	***	***	***
Nonsubject sources	Share	***	***	***	***	***
All import sources	Share	***	***	***	***	***
All sources	Share	100.0	100.0	100.0	100.0	100.0

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 "—".

⁷ Petitioner states that U.S. demand for choline salts, which is driven primarily by the overall feed tonnage produced in the United States, has remained relatively stable during the period examined in these investigations. Petitioner's postconference brief, pp. 18 to 19.

Figure 4.2 Choline salts: Apparent U.S. consumption based on quantity, by source and period

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires

Value

Table 4.8 and figure 4.3 present data on apparent U.S. consumption and U.S. market shares by value for choline salts. Apparent consumption fluctuated year to year, ending higher in 2025 than in 2023 and was higher in interim 2026 than in interim 2025. During 2023 to 2025, U.S. producers' market share decreased, while the shares held by imports from China and nonsubject sources increased. Likewise, the U.S. producers held a lower market share in interim 2026 than in interim 2025, while subject and nonsubject U.S. imports held higher market shares.

Table 4.8 Choline salts: Apparent U.S. consumption and market shares based on value, by source and period

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

Source	Measure	2023	2024	2025	Interim 2025	Interim 2026
U.S. producers	Value	***	***	***	***	***
China	Value	***	***	***	***	***
Nonsubject sources	Value	***	***	***	***	***
All import sources	Value	***	***	***	***	***
All sources	Value	***	***	***	***	***
U.S. producers	Share	***	***	***	***	***
China	Share	***	***	***	***	***
Nonsubject sources	Share	***	***	***	***	***
All import sources	Share	***	***	***	***	***
All sources	Share	100.0	100.0	100.0	100.0	100.0

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 4.3 Choline salts: Apparent U.S. consumption based on value, by source and period

* * * * *

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

Part 5: Pricing data

Factors affecting prices

Raw material costs

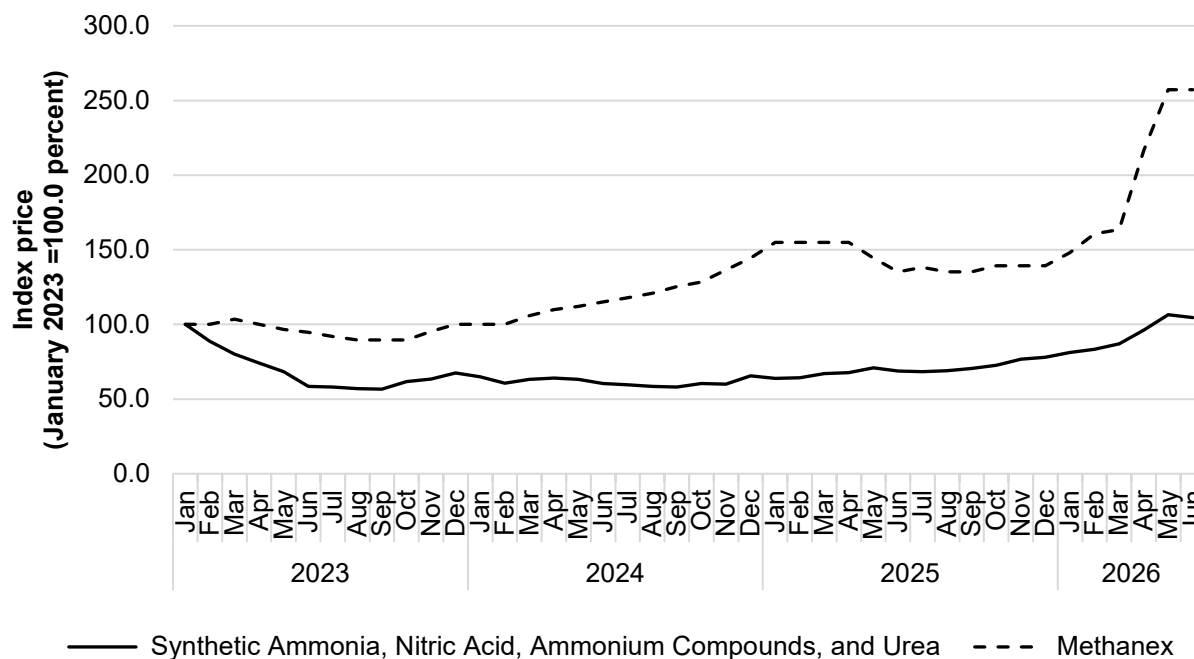
Choline salts are formed in a series of reaction processes. First, methanol and ammonia react to form trimethylamine (“TMA”), which is then reacted to form a salt, which is further reacted with ethylene oxide to form a choline salt. The acid reacted with TMA determines the kind of choline salt produced: hydrochloric acid forms choline chloride (“CC”), tartaric acid forms choline bitartrate (“CBT”), and citric acid forms choline dihydrogen citrate (“CDHC”). The process of producing choline salts consumes natural gas and electricity but does not produce any by-products other than water.¹

Raw materials, as a share of U.S. producers’ cost of goods sold (“COGS”), ranged from *** percent to *** percent during 2023 to 2025, and were *** percent in January to March 2026. U.S. producers and importers reported that the price of raw materials fluctuated or did not change since January 1, 2023. TMA is the cost driver for all choline salts.² The price of methanol increased substantially from January 2023 to March 2026 while the price of ammonia declined from January to September 2023 then slowly increased through March 2026 (figure 5.1 and tables 5.1 and 5.2). Overall, the price of methanol increased by 63.6 percent and the price of ammonia decreased by 12.9 percent during January 2023 to March 2026. The price of methanol and ammonia increased substantially from March 2026 to June 2026, with methanol increasing by 57.2 percent and ammonia increasing by 20 percent.

¹ Petitions, p. 33.

² Petitions, p. 61.

Figure 5.1 Raw materials: Indexed average regional posted contract prices for methanol and producer price index for synthetic ammonia, nitric acid, ammonium compounds, and urea, monthly, not seasonally adjusted, January 2023 to June 2026



Sources: Methanex Methanol Price Sheet, <https://www.methanex.com/wp-content/uploads/MxAvgPrice-Jun-30-2026.xlsx>, retrieved on July 20, 2026. U.S. Bureau of Labor Statistics, Producer Price Index by Commodity: Chemicals and Allied Products: Synthetic Ammonia, Nitric Acid, Ammonium Compounds, and Urea (WPU0652013A), <https://fred.stlouisfed.org/series/WPU0652013A>, retrieved from Federal Reserve Bank of St. Louis (FRED) on July 20, 2026.

Table 5.1 Raw materials: Indexed average regional posted contract prices for methanol, monthly, not seasonally adjusted, January 2023 to June 2026

Index in percent, 2023 Q1=100.0 percent

Month	2023	2024	2025	2026
January	100.0	100.0	154.9	148.0
February	100.0	100.0	154.9	160.7
March	103.5	105.8	154.9	163.6
April	100.0	109.8	154.9	216.8
May	96.5	112.1	144.5	257.2
June	94.8	115.0	135.3	257.2
July	91.9	117.9	138.2	NA
August	89.6	120.8	135.3	NA
September	89.6	125.4	135.3	NA
October	89.6	128.3	139.3	NA
November	95.4	136.4	139.3	NA
December	100.0	144.5	139.3	NA

Source: Methanex Methanol Price Sheet, <https://www.methanex.com/wp-content/uploads/MxAvgPrice-Jun-30-2026.xlsx>, retrieved on July 20, 2026.

Table 5.2 Raw materials: Producer price index for synthetic ammonia, nitric acid, ammonium compounds, and urea, monthly, not seasonally adjusted, January 2023 to June 2026

Index in percent, 2023 Q1=100.0 percent

Month	2023	2024	2025	2026
January	100.0	65.0	63.8	81.1
February	88.8	60.6	64.3	83.4
March	80.0	63.2	67.2	87.1
April	74.2	64.0	67.6	96.2
May	68.3	63.2	71.0	106.5
June	58.5	60.3	68.8	104.5
July	58.0	59.7	68.4	NA
August	57.1	58.5	69.0	NA
September	56.6	58.0	70.5	NA
October	61.6	60.4	72.6	NA
November	63.4	59.9	76.6	NA
December	67.5	65.5	78.1	NA

Source: U.S. Bureau of Labor Statistics, Producer Price Index by Commodity: Chemicals and Allied Products: Synthetic Ammonia, Nitric Acid, Ammonium Compounds, and Urea (WPU0652013A), <https://fred.stlouisfed.org/series/WPU0652013A>, retrieved from Federal Reserve Bank of St. Louis (FRED) on July 20, 2026.

Transportation costs to the U.S. market

Transportation costs for choline salts shipped from China to the United States averaged 10.9 percent during 2025. These estimates were derived from official import data and represent the transportation and other charges on imports.³

U.S. inland transportation costs

Both responding U.S. producers and a majority of importers (17 of 29) reported that they typically arrange transportation to their customers; U.S. producer *** and 13 importers reported that their customers arrange transportation. U.S. producers reported that their U.S. inland transportation costs ranged from 8.0 to 22.0 percent while most responding importers reported costs of 2.0 to 15.0 percent.

Pricing practices

Pricing methods

U.S. producers and importers reported setting prices using transaction-by-transaction negotiations, contracts, and set price lists (table 5.3). Petitioner also described “reverse auctions,” which are public forums where a customer will indicate a volume requirement and suppliers bid for those volumes until the lowest price is reached.⁴

Table 5.3 Choline salts: Count of U.S. producers’ and importers’ reported price setting methods

Method	U.S. producers	Importers
Transaction-by-transaction	***	24
Contract	***	11
Set price list	***	9
Other	***	5
Responding firms	2	31

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.

³ The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2025 and then dividing by the customs value based on the HTS statistical reporting number 2923.10.0000, accessed July 21, 2026.

⁴ Conference transcript, pp. 60 to 61 (Painter).

U.S. producer *** reported selling most of its choline salts under long-term and annual contracts while U.S. producer *** and importers reported selling the vast majority of their choline salts as spot sales or under short-term contracts (table 5.4). U.S. producer *** reported that its annual and long-term contracts allow for price negotiation, fix price and quantity, and are indexed to raw material costs. Its long-term contracts typically last for 2 years.

Table 5.4 Choline salts: U.S. producers' and importers' shares of commercial U.S. shipments by type of sale, 2025

Share in percent

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

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

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

Sales terms and discounts

U.S. producers and importers quote prices on an f.o.b. (U.S. producer BCP and 19 importers) or delivered basis (both U.S. producers and 9 importers). U.S. producer BCP offers quantity discounts and “competitive rebates due to pricing pressure from lower-priced imports from China”. Most responding importers (20 of 30) do not have a discount policy, ten offer quantity discounts, three offer total volume discounts, one offers tiered pricing, and one offers customer or account-specific discounts but does not have a product-specific discount for choline salts.

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 choline salt products shipped to unrelated U.S. customers during January 2023 to March 2026.

Product 1.-- Choline chloride, dry, vegetable carrier, 60%

Product 2.-- Choline chloride, dry, silicon dioxide/mineral carrier, 50%

Product 3.-- Choline bitartrate, dry, 98%+

U.S. producer BCP and 16 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 approximately *** percent of U.S. producers' U.S. shipments of choline salts and 81.8 percent of U.S. shipments of subject imports from China in 2025.^{6 7} Price data for products 1 to 3 are presented in tables 5.5 to 5.7 and figures 5.2 to 5.4.

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.

⁷ Importers *** reported price data for CDHC, which is not a defined pricing product, under choline chloride product 1, and choline bitartrate, which is defined as product 3, under product 2. Importer *** reported choline bitartrate under product 1 and CDHC under product 3. Staff excluded data reported as CDHC and moved data reported as choline bitartrate to product 3 for these two importers.

Importer *** reported price data of "choline chloride 70%." Staff confirmed these data were in solution and has excluded them from the price data set. Staff email correspondence with ***, July 20, 2026.

Importer *** reported four quarters of price data for product 1 that were exponentially higher per unit than other reported price data for product 1. *** confirmed the average price for this product was approximately \$*** per kilogram. Staff email correspondence with ***, July 16, 2026. Staff excluded these data from the price data set.

Table 5.5 Choline salts: 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 kilogram, quantity in kilograms, margin in percent

Period	U.S. price	U.S. quantity	China price	China quantity	China margin
2023 Q1	***	***	***	***	***
2023 Q2	***	***	***	***	***
2023 Q3	***	***	***	***	***
2023 Q4	***	***	***	***	***
2024 Q1	***	***	***	***	***
2024 Q2	***	***	***	***	***
2024 Q3	***	***	***	***	***
2024 Q4	***	***	***	***	***
2025 Q1	***	***	***	***	***
2025 Q2	***	***	***	***	***
2025 Q3	***	***	***	***	***
2025 Q4	***	***	***	***	***
2026 Q1	***	***	***	***	***

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

Note: Product 1: Choline chloride, dry, vegetable carrier, 60%.

Figure 5.2 Choline salts: 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: Choline chloride, dry, vegetable carrier, 60%.

Table 5.6 Choline salts: 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 kilogram, quantity in kilograms, margin in percent

Period	U.S. price	U.S. quantity	China price	China quantity	China margin
2023 Q1	***	***	***	***	***
2023 Q2	***	***	***	***	***
2023 Q3	***	***	***	***	***
2023 Q4	***	***	***	***	***
2024 Q1	***	***	***	***	***
2024 Q2	***	***	***	***	***
2024 Q3	***	***	***	***	***
2024 Q4	***	***	***	***	***
2025 Q1	***	***	***	***	***
2025 Q2	***	***	***	***	***
2025 Q3	***	***	***	***	***
2025 Q4	***	***	***	***	***
2026 Q1	***	***	***	***	***

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

Note: Product 2: Choline chloride, dry, silicon dioxide/mineral carrier, 50%.

Figure 5.3 Choline salts: 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: Choline chloride, dry, silicon dioxide/mineral carrier, 50%.

Table 5.7 Choline salts: 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 kilogram, quantity in kilograms, margin in percent

Period	U.S. price	U.S. quantity	China price	China quantity	China margin
2023 Q1	***	***	***	***	***
2023 Q2	***	***	***	***	***
2023 Q3	***	***	***	***	***
2023 Q4	***	***	***	***	***
2024 Q1	***	***	***	***	***
2024 Q2	***	***	***	***	***
2024 Q3	***	***	***	***	***
2024 Q4	***	***	***	***	***
2025 Q1	***	***	***	***	***
2025 Q2	***	***	***	***	***
2025 Q3	***	***	***	***	***
2025 Q4	***	***	***	***	***
2026 Q1	***	***	***	***	***

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

Note: Product 3: Choline bitartrate, dry, 98%+.

Figure 5.4 Choline salts: 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: Choline bitartrate, dry, 98%+.

Price trends

In general, prices of domestically produced choline salts increased while prices for choline salts imported from China decreased during January 2023 to March 2026. Table 5.8 summarizes the price trends, by country and by product. As shown in the table, domestic price increases ranged from *** to *** percent during January 2023 to March 2026 while import price decreases ranged from *** to *** percent.

Table 5.8 Choline salts: Summary of price data, by product and source, January 2023 to March 2026

Quantity in kilograms, price in dollars per kilogram

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	13	***	***	***	***	***	***
Product 2	United States	13	***	***	***	***	***	***
Product 2	China	13	***	***	***	***	***	***
Product 3	United States	13	***	***	***	***	***	***
Product 3	China	13	***	***	***	***	***	***

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

Note: Percent change column is percentage change from the first quarter 2023 to the first quarter in 2026.

Table 5.9 Choline salts: Indexed U.S. producer prices, by quarter

Index in percent, 2023 Q1=100.0 percent

Period	Product 1	Product 2	Product 3
2023 Q1	100.0	100.0	100.0
2023 Q2	***	***	***
2023 Q3	***	***	***
2023 Q4	***	***	***
2024 Q1	***	***	***
2024 Q2	***	***	***
2024 Q3	***	***	***
2024 Q4	***	***	***
2025 Q1	***	***	***
2025 Q2	***	***	***
2025 Q3	***	***	***
2025 Q4	***	***	***
2026 Q1	***	***	***

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

Table 5.10 Choline salts: Indexed U.S. importer prices, by quarter

Index in percent, 2023 Q1=100.0 percent

Period	Product 1	Product 2	Product 3
2023 Q1	100.0	100.0	100.0
2023 Q2	***	***	***
2023 Q3	***	***	***
2023 Q4	***	***	***
2024 Q1	***	***	***
2024 Q2	***	***	***
2024 Q3	***	***	***
2024 Q4	***	***	***
2025 Q1	***	***	***
2025 Q2	***	***	***
2025 Q3	***	***	***
2025 Q4	***	***	***
2026 Q1	***	***	***

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

Figure 5.5 Choline salts: Indexed U.S. producer prices, by quarter

* * * * *

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

Figure 5.6 Choline salts: Indexed U.S. importer prices, by quarter

* * * * *

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

Price comparisons

As shown in tables 5.11 and 5.12, prices for product imported from China were below those for U.S.-produced product in 35 of 39 instances (***) kilograms); margins of underselling ranged from *** to *** percent. In the remaining 4 instances (***) kilograms), prices for product from China were between *** and *** percent above prices for the domestic product.

Table 5.11 Choline salts: Instances of underselling and overselling and the range and average of margins, by product

Quantity in kilograms; margin in percent

Product	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
Product 1	Underselling	13	***	***	***	***
Product 2	Underselling	12	***	***	***	***
Product 3	Underselling	10	***	***	***	***
Total, all products	Underselling	35	***	***	***	***
Product 1	Overselling	—	***	***	***	***
Product 2	Overselling	1	***	***	***	***
Product 3	Overselling	3	***	***	***	***
Total, all products	Overselling	4	***	***	***	***

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 Choline salts: Instances of underselling and overselling and the range and average of margins, by year

Quantity in kilograms; margin in percent

Year	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
2023	Underselling	10	***	***	***	***
2024	Underselling	10	***	***	***	***
2025	Underselling	12	***	***	***	***
2026	Underselling	3	***	***	***	***
Total, all years	Underselling	35	***	***	***	***
2023	Overselling	2	***	***	***	***
2024	Overselling	2	***	***	***	***
2025	Overselling	—	***	***	***	***
2026	Overselling	—	***	***	***	***
Total, all years	Overselling	4	***	***	***	***

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

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

Lost sales and lost revenue

The Commission requested that U.S. producers of choline salts report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of choline salts from China during January 2023 to March 2026. Of the two responding U.S. producers, *** reported that it had to reduce prices and that it had lost sales; neither producer reported rolling back announced price increases. Petitioner BCP submitted lost sales and lost revenue allegations and identified four firms with which it lost sales or revenue (one consisting of lost revenue allegations and three consisting of both types of allegations).

Staff contacted four purchasers and received responses from two purchasers. Responding purchasers reported purchasing 33.8 metric tons of choline salts during January 2023 to March 2026 (table 5.13). During 2025, responding purchasers purchased 85.8 percent from U.S. producers and 14.2 percent from China. Purchasers were asked about changes in their purchasing patterns from different sources since 2023. Purchaser *** reported that its purchases from domestic producers fluctuated down because it lost some key business and its customer required it to shift volume to a foreign supplier and its purchases of choline salts imported from China fluctuated up due to direction from its customer. Purchaser *** reported that its purchases of domestic product steadily increased and there was no change to its purchases of choline salts imported from China.

Table 5.13 Choline salts: Purchasers' reported purchases and imports, by firm and source

Quantity in metric tons, share in percent

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

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

Note: "All other quantity" 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.

Of the two responding purchasers, both reported that, since 2023, they had purchased imported choline salts from China instead of U.S.-produced product and both of these purchasers reported that subject import prices were lower than U.S.-produced product. One of these purchasers (***) reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product and estimated the quantity of choline salts from China purchased instead of domestic product was *** metric tons (table 5.14). Purchaser *** identified customer requirements as non-price reasons for purchasing imported rather than U.S.-produced product.

Table 5.14 Choline salts: Purchasers' responses to purchasing subject imports instead of domestic product, by firm

Quantity in kilograms

Purchaser	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Quantity	Explanation
***	***	***	***	***	***
***	***	***	***	***	***
All firms	Yes: 2; No: 0	Yes: 2; No: 0	Yes: 1; No: 1	***	

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

Of the two responding purchasers, one reported that U.S. producers had not reduced prices in order to compete with lower-priced imports from China and one reported that it did not know.

In responding to the lost sales lost revenue survey, some purchasers provided additional information on purchases and market dynamics. Purchaser *** reported that its customers will often dictate from whom it will purchase and the demand of the customer is the only reason that it imported choline. Purchaser *** reported that the contract with the domestic producer is exclusive (buyer to seller).

Part 6: Financial experience of U.S. producers

Background¹

U.S. producers BCP and Taminco provided usable financial results on their choline salt operations. Both U.S. producers reported financial data for a fiscal year ending December 31 on the basis of GAAP.

BCP and Taminco share ownership of a joint venture, St. Gabriel LLC (“SGCC”) that produces aqueous choline chloride, an in-scope product that can be sold or processed into other in-scope products, in St. Gabriel, Louisiana.² SGCC *** and its operations are accounted for in the financial results of BCP and Taminco.³ SGCC invoices the joint venture partners for expenses monthly, in proportion to their offtake of its choline chloride production.⁴ Each partner’s offtake of production is based on their share of ownership (66.7 percent for BCP, 33.3 percent for Taminco), but can be adjusted by agreement between the two partners. The joint venture partners ***.⁵ SGCC does not invoice the partners for depreciation.⁶

While Taminco’s only production of subject choline salts is at SGCC, BCP also produces subject merchandise at a wholly-owned facility in Verona, Missouri. The Verona plant produces aqueous choline chloride; dried, crystallized, and encapsulated choline chloride; and crystallized CBT and CDHC. At its Verona plant, BCP ***.⁷

¹ The following abbreviations are used in the tables and/or text of this section: generally accepted accounting principles (“GAAP”), 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 Petitions, pp. 3 to 4.

³ Petitions, p. 4.

⁴ Petitions, pp. 5 to 6.

⁵ Petitions, p. 4; petitioner’s post-conference brief, preliminary staff conference questions, p. 2.

⁶ In accordance with the equity method of accounting, BCP records its portions of SGCC’s depreciation in its other income/expenses. Taminco also records its share of SGCC’s depreciation in accordance with the equity method of accounting. Petitions, p. 6.

⁷ Petitions, p. 3.

Figure 6.1 presents each responding firm’s share of the total reported net sales quantity in 2025.⁸

Figure 6.1 Choline salts: U.S. producers’ share of net sales quantity in 2025, by firm

* * * * *

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

Operations on choline salts

Table 6.1 presents aggregated data on U.S. producers’ operations in relation to choline salts, while table 6.2 presents corresponding changes in AUVs. Table 6.3 presents selected company-specific financial data.

⁸ Commercial sales accounted for the majority of net sales for all periods examined. Producers reported that transfers to related parties accounted for *** percent of net sales and reported no internal consumption. U.S. producer questionnaire responses, section 2.9.

Table 6.1 Choline salts: U.S. producers' results of operations, by item and period

Quantity in metric tons; value in 1,000 dollars; ratios in percent; interim is January through March

Item	Measure	2023	2024	2025	Interim 2025	Interim 2026
Total net sales	Quantity	***	***	***	***	***
Total net sales	Value	***	***	***	***	***
COGS: Raw materials	Value	***	***	***	***	***
COGS: Direct labor	Value	***	***	***	***	***
COGS: Other factory	Value	***	***	***	***	***
COGS: Total	Value	***	***	***	***	***
Gross profit or (loss)	Value	***	***	***	***	***
SG&A expenses	Value	***	***	***	***	***
Operating income or (loss)	Value	***	***	***	***	***
Other expense / (income), net	Value	***	***	***	***	***
Net income or (loss)	Value	***	***	***	***	***
Depreciation/amortization	Value	***	***	***	***	***
Cash flow	Value	***	***	***	***	***
COGS: Raw materials	Ratio to NS	***	***	***	***	***
COGS: Direct labor	Ratio to NS	***	***	***	***	***
COGS: Other factory	Ratio to NS	***	***	***	***	***
COGS: Total	Ratio to NS	***	***	***	***	***
Gross profit	Ratio to NS	***	***	***	***	***
SG&A expense	Ratio to NS	***	***	***	***	***
Operating income or (loss)	Ratio to NS	***	***	***	***	***
Net income or (loss)	Ratio to NS	***	***	***	***	***

Table continued.

Table 6.1 (Continued) Choline salts: U.S. producers' results of operations, by item and period

Shares in percent; unit values in dollars per metric ton; count in number of firms reporting; interim is January through March

Item	Measure	2023	2024	2025	Interim 2025	Interim 2026
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
Total net sales	Unit value	***	***	***	***	***
COGS: Raw materials	Unit value	***	***	***	***	***
COGS: Direct labor	Unit value	***	***	***	***	***
COGS: Other factory	Unit value	***	***	***	***	***
COGS: Total	Unit value	***	***	***	***	***
Gross profit or (loss)	Unit value	***	***	***	***	***
SG&A expenses	Unit value	***	***	***	***	***
Operating income or (loss)	Unit value	***	***	***	***	***
Net income or (loss)	Unit value	***	***	***	***	***
Operating losses	Count	***	***	***	***	***
Net losses	Count	***	***	***	***	***
Data	Count	2	2	2	2	2

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

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

Note: ***. Staff ***.

Table 6.2 Choline salts: Changes in AUVs between comparison periods

Changes in percent; interim is January through March

Item	2023–25	2023–24	2024–25	Interim 2025–26
Total net sales	▲ ***	▼ ***	▲ ***	▲ ***
COGS: Raw materials	▲ ***	▼ ***	▲ ***	▼ ***
COGS: Direct labor	▲ ***	▲ ***	▲ ***	▲ ***
COGS: Other factory	▲ ***	▲ ***	▼ ***	▲ ***
COGS: Total	▲ ***	▼ ***	▲ ***	▼ ***

Table continued.

Table 6.2 (Continued) Choline salts: Changes in AUVs between comparison periods

Changes in dollars per metric ton; interim is January through March

Item	2023–25	2023–24	2024–25	Interim 2025–26
Total net sales	▲ ***	▼ ***	▲ ***	▲ ***
COGS: Raw materials	▲ ***	▼ ***	▲ ***	▼ ***
COGS: Direct labor	▲ ***	▲ ***	▲ ***	▲ ***
COGS: Other factory	▲ ***	▲ ***	▼ ***	▲ ***
COGS: Total	▲ ***	▼ ***	▲ ***	▼ ***
Gross profit or (loss)	▲ ***	▼ ***	▲ ***	▲ ***
SG&A expense	▲ ***	▲ ***	▲ ***	▲ ***
Operating income or (loss)	▼ ***	▼ ***	▲ ***	▲ ***
Net income or (loss)	▼ ***	▼ ***	▲ ***	▲ ***

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

Note: 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.

Table 6.3 Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Net sales quantity

Quantity in metric tons; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Net sales value

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

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

COGS

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

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Gross profit or (loss)

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

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

SG&A expenses

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

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Operating income or (loss)

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

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Net income or (loss)

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

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

COGS to net sales ratio

Ratios in percent; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Gross profit or (loss) to net sales ratio

Ratios in percent; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

SG&A expenses to net sales ratio

Ratios in percent; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Operating income or (loss) to net sales ratio

Ratios in percent; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Net income or (loss) to net sales ratio

Ratios in percent; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit net sales value

Unit values in dollars per metric ton; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit raw material costs

Unit values in dollars per metric ton; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit direct labor costs

Unit values in dollars per metric ton; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit other factory costs

Unit values in dollars per metric ton; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit COGS

Unit values in dollars per metric ton; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit gross profit or (loss)

Unit values in dollars per metric ton; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit SG&A expenses

Unit values in dollars per metric ton; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit operating income or (loss)

Unit values in dollars per metric ton; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

Table continued.

Table 6.3 (Continued) Choline salts: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit net income or (loss)

Unit values in dollars per metric ton; interim is January through March

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

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 "—".

Net sales

As shown in table 6.1, total net sales quantity decreased from 2023 to 2025 and was lower in interim 2026 than in interim 2025.⁹ Net sales value decreased from 2023 to 2024, then increased from 2024 to 2025, with an overall decrease from 2023 to 2025. Net sales value was higher in interim 2026 than in interim 2025. Net sales AUVs decreased from 2023 to 2024, then increased from 2024 to 2025, with an overall increase from 2023 to 2025. Net sales AUVs were higher in interim 2026 than in interim 2025.

On a company-specific basis, net sales quantity for both producers decreased from 2023 to 2025 (although for Taminco net sales quantity in 2024 was higher than in 2023) and was lower in interim 2026 than in interim 2025. Net sales value for BCP decreased from 2023 to 2024, then increased from 2024 to 2025, with an overall decrease. For Taminco, net sales value decreased from 2023 to 2025. For both producers, net sales value was higher in interim 2026 than in interim 2025.

Net sales AUVs were higher for *** than for *** throughout the period examined. BCP's AUVs increased irregularly from 2023 to 2025 and were higher in interim 2026 than in interim 2025. For Taminco, AUVs decreased from 2023 to 2024, then increased from 2024 to 2025, with an overall decrease from 2023 to 2025. Taminco's net sales AUVs were higher in interim 2026 than in interim 2025.

⁹ Net sales quantities reported in tables 6.1 and 6.3 differ from shipment quantities in table 3.6. The difference ranges from *** percent of shipments in 2023 to *** percent of shipments in interim 2026. These differences are due to ***. *** U.S. producer questionnaire response, section 3.14b.

Cost of goods sold and gross profit or loss¹⁰

Raw materials accounted for between *** percent (in interim 2026) and *** percent (in 2025) of aggregate COGS during the period examined. On a per metric ton basis, raw material costs decreased from 2023 to 2024, then increased from 2024 to 2025, with an overall increase. Unit raw material costs were lower in interim 2026 than in interim 2025.

Table 6.4 presents raw materials, by type, in 2025.

Table 6.4 Choline salts: U.S. producers' raw material costs in 2025

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

Item	Value	Share of value
Trimethylamine (TMA)	***	***
Acids (hydrochloric, tartaric, and citric)	***	***
Ethylene oxide	***	***
Choline salt carriers	***	***
Other material inputs	***	***
All raw materials	***	100.0

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

Other factory costs accounted for between *** percent (in 2025) and *** percent (in interim 2026) of aggregate COGS during the period examined. Other factory costs decreased from 2023 to 2025, but were higher in interim 2026 than in interim 2025. Other factory costs per metric ton increased irregularly from 2023 to 2025 and were higher in interim 2026 than in interim 2025. As a ratio to net sales, other factory costs decreased irregularly from 2023 to 2025, but were higher in interim 2026 than in interim 2025.

Direct labor accounted for between *** percent (in interim 2025) and *** percent (in 2024) of COGS during the period examined. Direct labor costs increased irregularly from 2023 to 2025 and were higher in interim 2026 than in interim 2025. Unit direct labor costs increased from 2023 to 2025 and were higher in interim 2026 than in interim 2025. As a ratio to net sales, direct labor costs increased irregularly from 2023 to 2025 and were higher in interim 2026 than in interim 2025.

The industry's total COGS decreased irregularly from 2023 to 2025 and was lower in interim 2026 than in interim 2025. Per unit COGS increased irregularly from 2023 to 2025, but were lower in interim 2026 than in interim 2025. The industry's COGS to net sales ratio decreased irregularly from 2023 to 2025 and was lower in interim 2026 than in interim 2025.

¹⁰ ***. Staff ***.

Gross profit increased irregularly from 2023 to 2025 and was higher in interim 2026 than in interim 2025. Both gross profit per metric ton and as a ratio to net sales followed the same trend, increased irregularly from 2023 to 2025 and were higher in interim 2026 than in interim 2025.

BCP's gross profit, like that of the industry as a whole, increased irregularly from 2023 to 2025 and was higher in interim 2026 than in interim 2025. Taminco's gross profit declined irregularly from 2023 to 2025, but was higher in interim 2026 than in interim 2025. The differences in the gross profit trends between the two companies may be due to *** and reported that operations for its other choline salt products generated ***.¹¹

¹¹ Petitions, pp. 75 to 76.

SG&A expenses and operating income or loss

The industry's SG&A expenses increased from 2023 to 2025 and were higher in interim 2026 than in interim 2025. The SG&A expense ratio (SG&A expenses divided by net sales revenue) increased from 2023 to 2025, but was lower in interim 2026 than in interim 2025.

The two producers reported different trends in SG&A expenses. BCP reported an increase from 2023 to 2025 and higher SG&A expenses in interim 2026 than in interim 2025.¹² Taminco reported SG&A expenses decreased irregularly from 2023 to 2025 and were lower in interim 2026 than in interim 2025.¹³

Table 6.1 shows that industry operating income decreased irregularly from 2023 to 2025, but was higher in interim 2026 than in interim 2025. As a ratio to net sales, operating income decreased from 2023 to 2025, but was higher in interim 2026 than in interim 2025. On a per metric ton basis, operating income decreased irregularly from 2023 to 2025, but was higher in interim 2026 than in interim 2025. Both firms reported that operating income decreased irregularly from 2023 to 2025, but was higher in interim 2026 than in interim 2025.

All other expenses and net income or loss

In table 6.1, interest expense, other expense, and other income have been consolidated into a single line, other expense/(income). Other income decreased irregularly from 2023 to 2025 and was higher in interim 2026 than in interim 2025.

Net income decreased irregularly from 2023 to 2025, but was higher in interim 2026 than in interim 2025. As a ratio to net sales and on a per unit basis, net income decreased from 2023 to 2025, but was higher in interim 2026 than in interim 2025. Both firms reported that net income decreased irregularly from 2023 to 2025, but was higher in interim 2026 than in interim 2025.

¹² ***. Email from ***, July 17, 2026.

¹³ ***. Email from ***, July 14, 2026.

Variance analysis

A variance analysis for the operations of U.S. producers of choline salts is presented in table 6.5.¹⁴ The information for this variance analysis is derived from table 6.1. The variance analysis shows that from 2023 to 2025, negative trends in cost and volume variances offset the impact of positive trends in price variance on operating income. Both COGS and SG&A had negative cost variances during this time period.

Table 6.5 Choline salts: Variance analysis on the operations of U.S. producers between comparison periods

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

Item	2023-25	2023-24	2024-25	Interim 2025-26
Net sales price variance	***	***	***	***
Net sales volume variance	***	***	***	***
Net sales total variance	***	***	***	***
COGS cost variance	***	***	***	***
COGS volume variance	***	***	***	***
COGS total variance	***	***	***	***
Gross profit variance	***	***	***	***
SG&A cost variance	***	***	***	***
SG&A volume variance	***	***	***	***
SG&A total variance	***	***	***	***
Operating income price variance	***	***	***	***
Operating income cost variance	***	***	***	***
Operating income volume variance	***	***	***	***
Operating income total variance	***	***	***	***

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

Note: These data are derived from the data in table 6.1. Unfavorable variances (which are negative) are shown in parentheses, all others are favorable (positive).

¹⁴ The Commission's variance analysis is calculated in three parts: Net sales variance, COGS variance, and SG&A expense variance. Each part consists of a price variance (in the case of the net 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 variances are calculated as the change in unit price or per-unit cost/expense, respectively, 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 operating income price variance is from sales; the operating income cost/expense variance is the sum of the cost components in the COGS and SG&A expense variances, and the operating income volume variance is the sum of the volume components of the net sales, COGS, and SG&A expense variances.

Capital expenditures and research and development expenses

Table 6.6 presents capital expenditures, by firm, and table 6.8 presents R&D expenses, by firm. Tables 6.7 and 6.9 present the firms' narrative explanations of the nature, focus, and significance of their capital expenditures and R&D expenses, respectively.

Capital expenditures declined from 2023 to 2025, but were higher in interim 2026 than in interim 2025. R&D expenses increased from 2023 to 2025 and were higher in interim 2026 than in interim 2025.

Table 6.6 Choline salts: U.S. producers' capital expenditures, by firm and period

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

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

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

Table 6.7 Choline salts: U.S. producers' narrative descriptions of their capital expenditures, by firm

Firm	Narrative on capital expenditures
BCP	***
Taminco	***

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

Table 6.8 Choline salts: U.S. producers' R&D expenses, by firm and period

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

Firm	2023	2024	2025	Interim 2025	Interim 2026
BCP	***	***	***	***	***
Taminco	***	***	***	***	***
All firms	***	***	***	***	***

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

Table 6.9 Choline salts: U.S. producers' narrative descriptions of their R&D expenses, by firm

Firm	Narrative on R&D expenses
BCP	***
Taminco	***

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

Assets and return on assets

Table 6.10 presents data on the U.S. producers' total assets while table 6.11 presents their operating ROA.¹⁵ Table 6.12 presents U.S. producers' narrative responses explaining their major asset categories and any significant changes in asset levels over time.

Total net assets and ROA decreased from 2023 to 2025 for the U.S. industry.

Table 6.10 Choline salts: U.S. producers' total net assets, by firm and period

Value in 1,000 dollars

Firm	2023	2024	2025
BCP	***	***	***
Taminco	***	***	***
All firms	***	***	***

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

Table 6.11 Choline salts: U.S. producers' ROA, by firm and period

Ratio in percent

Firm	2023	2024	2025
BCP	***	***	***
Taminco	***	***	***
All firms	***	***	***

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

Table 6.12 Choline salts: U.S. producers' narrative descriptions of their total net assets, by firm

Firm	Narrative on assets
BCP	***
Taminco	***

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

¹⁵ 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.

Capital and investment

The Commission requested U.S. producers of choline salts to describe any actual or potential negative effects of imports of choline salts from China on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table 6.13 presents the number of firms reporting an impact in each category and table 6.14 provides the U.S. producers' narrative responses.

Table 6.13 Choline salts: Count of firms indicating actual and anticipated negative effects of imports from subject sources on investment, growth, and development since January 1, 2023, 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 6.14 Choline salts: U.S. producers' narratives relating to actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2023, by firm and effect

Item	Firm name and narrative on impact of imports
Other negative effects on investments	***
Anticipated effects of imports	***
Anticipated effects 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 alleged 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."

The industry in China

The Commission issued foreign producers' or exporters' questionnaires to 97 firms believed to produce and/or export choline salts from China.³ No responses to the Commission's questionnaire were received from foreign producers or exporters of choline salts in China.

Table 7.1 presents select data on the total production, imports, exports, and consumption of choline chloride and other choline salts in China during 2025 as published in the S&P Global Chemical Economics Handbook ("CEH") on vitamins.

Table 7.1 Choline chloride and other choline salts: Production, imports, exports and consumption in China, 2025

Quantity in metric tons; ratio in percent

Item	Measure	China
Production	Quantity	***
Imports	Quantity	***
Exports	Quantity	***
Consumption	Quantity	***
Export orientation	Ratio	***

Source: Compiled from CEH Vitamins report 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 "—". Export orientation is calculated as exports divided by production.

Chinese capacity to produce feed grade choline chloride, the "overwhelming majority" of choline according to conference testimony, was estimated to be *** metric tons in 2023 and 2024 and was forecast to increase to *** metric tons in 2025.⁴ Additionally, Chinese choline chloride production capacity was forecast to continue growing *** percent annually during 2024 to 2030.⁵

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

⁴ QYResearch, "Global Choline Chloride Industry Research Report," 2024, p. 42 (Petitioner's postconference brief, exh. 3). Conference transcript, pp. 56 and 72 (Bedell).

⁵ Petition at Vol. I, pp. 85; QYResearch, "Global Choline Chloride Industry Research Report," 2024, p. 36 (Petitioner's postconference brief, exh. 3).

Chinese producer GHW International, the world's largest producer of choline chloride, reported that it had commenced operation of an upstream methylamine facility in 2023, supporting choline chloride production and a significant increase in chloride sales in 2025.^{6 7}

Producers in China

Table 7.2 presents annual capacity information for the largest producers of choline chloride and other choline salts in China as published in the S&P Global CEH on vitamins and referenced in the petitioner's postconference brief.⁸

⁶ QYResearch, "Global Choline Chloride Industry Research Report," 2024, p. 56.

⁷ GHW International, 2025 Annual Report, p. 13, <https://en.goldenhighway.com/190506152755.html> and Petitions, exh. 1.87.

⁸ Petitioner's postconference brief, exh. PCB 3 (referencing Global Choline Chloride Industry Research Report – Growth Trends and Competitive Analysis 2024 – 2030, 47 (2024) ("QYResearch Report")).

Table 7.2 Choline chloride and other choline salts: Production capacity in China, by firms, 2025

Annual capacity in metric tons

Firm	Annual capacity	Narrative
***	NA	***
***	***	***
***	NA	***
***	***	***
***	NA	***
***	NA	***
***	NA	***
***	***	***
***	NA	***
***	NA	***
***	***	***
***	***	***
***	***	***
***	NA	***
***	***	***
***	***	***

Source: Compiled from CEH Vitamins report 2025; QYResearch Report.

Exports

According to Global Trade Atlas (“GTA”), the leading export markets for choline and choline salts from China are Thailand, Brazil, and Indonesia (table 7.3). In 2025, the United States was China’s ninth top export market for choline and choline salts, accounting for 1.7 percent of total exports from China. China’s largest export markets for choline and choline salts in 2025 were Thailand, accounting for 13.0 percent, followed by Brazil (12.9 percent), and Indonesia (11.4 percent).

Table 7.3 Choline and choline salts: Exports from China, by period

Quantity in metric tons; value in 1,000 dollars

Destination market	Measure	2023	2024	2025
United States	Quantity	1,278	1,318	1,795
Thailand	Quantity	7,736	9,368	13,720
Brazil	Quantity	7,027	14,114	13,614
Indonesia	Quantity	9,261	10,101	12,064
Vietnam	Quantity	5,774	7,918	8,137
Türkiye/Turkey	Quantity	2,192	3,028	5,483
Canada	Quantity	2,409	3,442	4,912
Philippines	Quantity	1,033	4,718	4,439
Taiwan	Quantity	2,983	3,464	3,301
All other destination markets	Quantity	38,330	45,202	38,216
Non-U.S. destination markets	Quantity	76,745	101,354	103,886
All destination markets	Quantity	78,024	102,672	105,681
United States	Value	8,957	11,266	12,198
Thailand	Value	6,459	6,583	8,976
Brazil	Value	5,963	9,710	9,071
Indonesia	Value	6,360	5,805	6,630
Vietnam	Value	8,002	8,524	8,155
Türkiye/Turkey	Value	1,623	1,713	3,267
Canada	Value	1,948	2,661	3,503
Philippines	Value	658	1,566	1,259
Taiwan	Value	2,217	2,279	2,085
All other destination markets	Value	73,392	71,900	65,675
Non-U.S. destination markets	Value	106,620	110,742	108,621
All destination markets	Value	115,577	122,008	120,819

Table continued.

Table 7.3 (Continued) Choline and choline salts: Exports from China, by period

Unit value in dollars per metric ton; share in percent

Destination market	Measure	2023	2024	2025
United States	Unit value	7,008	8,547	6,796
Thailand	Unit value	835	703	654
Brazil	Unit value	848	688	666
Indonesia	Unit value	687	575	550
Vietnam	Unit value	1,386	1,077	1,002
Türkiye/Turkey	Unit value	740	566	596
Canada	Unit value	809	773	713
Philippines	Unit value	637	332	284
Taiwan	Unit value	743	658	632
All other destination markets	Unit value	1,915	1,591	1,719
Non-U.S. destination markets	Unit value	1,389	1,093	1,046
All destination markets	Unit value	1,481	1,188	1,143
United States	Share of quantity	1.6	1.3	1.7
Thailand	Share of quantity	9.9	9.1	13.0
Brazil	Share of quantity	9.0	13.7	12.9
Indonesia	Share of quantity	11.9	9.8	11.4
Vietnam	Share of quantity	7.4	7.7	7.7
Türkiye/Turkey	Share of quantity	2.8	2.9	5.2
Canada	Share of quantity	3.1	3.4	4.6
Philippines	Share of quantity	1.3	4.6	4.2
Taiwan	Share of quantity	3.8	3.4	3.1
All other destination markets	Share of quantity	49.1	44.0	36.2
Non-U.S. destination markets	Share of quantity	98.4	98.7	98.3
All destination markets	Share of quantity	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 2923.10 as reported by China Customs in the Global Trade Atlas Suite database, accessed July 7, 2026. These data may be overstated as HS subheading 2923.10 may contain products outside the scope of these reviews.

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 top destinations markets in descending order of 2025 data.

U.S. inventories of imported merchandise

Table 7.4 presents data on U.S. importers' reported inventories of choline salts. U.S. importers' inventories of imports from China fluctuated year to year, ending higher in 2025 than in 2023, but were lower in interim 2026 compared to interim 2025.⁹ As a ratio to subject imports and shipments of imports, subject inventories declined overall from 2023 to 2025 and were lower in interim 2026 than in interim 2025. U.S. importers' inventories of imports from nonsubject sources increased year to year, ending higher in 2025 than in 2023, and were higher in interim 2026 compared to interim 2025.¹⁰ As a ratio to nonsubject imports and shipments of such imports, nonsubject inventories increased overall from 2023 to 2025 but were lower in interim 2026 than in interim 2025.

⁹ ***.

¹⁰ ***.

Table 7.4 Choline salts: U.S. importers' inventories and their ratio to select items, by source and period

Quantity in metric tons; ratio in percent; interim period is January through March

Measure	Source	2023	2024	2025	Interim 2025	Interim 2026
Inventories quantity	China	***	***	***	***	***
Ratio to imports	China	***	***	***	***	***
Ratio to U.S. shipments of imports	China	***	***	***	***	***
Ratio to total shipments of imports	China	***	***	***	***	***
Inventories quantity	Nonsubject sources	***	***	***	***	***
Ratio to imports	Nonsubject sources	***	***	***	***	***
Ratio to U.S. shipments of imports	Nonsubject sources	***	***	***	***	***
Ratio to total shipments of imports	Nonsubject sources	***	***	***	***	***
Inventories quantity	All import sources	***	***	***	***	***
Ratio to imports	All import sources	***	***	***	***	***
Ratio to U.S. shipments of imports	All import sources	***	***	***	***	***
Ratio to total shipments of imports	All import sources	***	***	***	***	***

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

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

U.S. importers' outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of choline salts from China after March 31, 2026. The responding importers' reported data are presented in table 7.5. China accounted for the majority of total U.S. importers' arranged imports of choline salts. *** accounted for the majority of arranged subject imports from China, followed by ***, whereas *** accounted for the majority of the arranged imports of choline salts from nonsubject sources, followed by ***.

Table 7.5 Choline salts: U.S. importers' arranged imports, by source and period

Quantity in metric tons

Source	Q2 2026	Q3 2026	Q4 2026	Q1 2027	Total
China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

Third-country trade actions

On December 20, 2025, the European Union imposed ad valorem AD duties on imports of choline chloride from China, including Shandong Aocter Feed Additives Co., Ltd., (115.9 percent), Shandong FY Feed Technology Co., Ltd. (90 percent), Shandong Yinfeng Biological Technology Co., Ltd. (90 percent), and 94.9 percent on all other cooperating companies. It imposed an ad valorem AD duty of 115.9 percent on all other imports originating in China.¹¹

India imposed an antidumping duty of \$269 per metric ton on imports of choline chloride in all forms from China on August 25, 2020.¹² On October 26, 2020, India amended the antidumping ruling, excluding choline chloride for food and pharma applications.¹³

¹¹ Commission Implementing Regulation (EU) 2025/2589, December 18, 2025, http://data.europa.eu/eli/reg_impl/2025/2589/oj.

¹² The Gazette of India, “Final Findings in anti-dumping investigation concerning imports of Choline Chloride in all forms” originating in or exported from China PR, Malaysia, and Vietnam,” August 25, 2020, [https://egazette.gov.in/\(S\(5hgtmqddag2eu4wuceara3ti\)\)/default.aspx](https://egazette.gov.in/(S(5hgtmqddag2eu4wuceara3ti))/default.aspx). India also imposed antidumping duties of \$315 per metric ton from Malaysia, and \$94 to \$170 per metric ton from Vietnam.

¹³ The amended ruling also specified a concentration of 61.75 percent and stated that the duty for other concentrations “shall be worked out on a pro rata basis.” The Gazette of India, “Anti-dumping investigation concerning imports of “Choline Chloride in all forms” originating in or exported from China PR, Malaysia, and Vietnam,” October 26, 2020, [https://egazette.gov.in/\(S\(5hgtmqddag2eu4wuceara3ti\)\)/default.aspx](https://egazette.gov.in/(S(5hgtmqddag2eu4wuceara3ti))/default.aspx).

Information on nonsubject countries

Global GTA export data for choline and its salts (HS 2923.10) are presented in table 7.6. Exports under this subheading include both in-scope choline salts and out-of-scope products, such as choline hydroxide and choline salicylate.¹⁴ From 2023 to 2025, the largest global exporter of this product category was China, accounting for 64.0 percent of global exports by quantity in 2025, followed by Belgium, accounting for 27.4 percent. China dominates the global choline chloride industry, accounting for over *** percent of reported capacity outside the United States in 2025, but there is some production in Europe, India, and Southeast Asia.¹⁵

¹⁴ Petitioner’s Postconference brief, Preliminary staff conference questions, p. 3; CROSS ruling NY 876867, August 7, 1992.

¹⁵ Chemical Economics Handbook, Vitamins, Appendix II–Choline, November 2025; QYResearch, “Global Choline Chloride Industry Research Report,” 2024, p. 38 (Petitioner’s postconference brief, exh. 3).

Table 7.6 Choline and choline salts: Global exports by exporter and period

Quantity in metric tons; value in 1,000 dollars

Exporting country	Measure	2023	2024	2025
United States	Quantity	13,107	8,177	3,833
China	Quantity	78,024	102,672	105,681
Belgium	Quantity	44,876	43,730	45,187
India	Quantity	4,719	4,795	4,341
Saudi Arabia	Quantity	12,951	1,687	923
South Africa	Quantity	506	669	828
France	Quantity	—	—	693
Netherlands	Quantity	1,588	1,062	632
South Korea	Quantity	633	530	611
Germany	Quantity	—	603	531
Denmark	Quantity	403	452	418
Japan	Quantity	200	298	316
All other exporters	Quantity	1,310	1,516	1,042
All reporting exporters	Quantity	158,316	166,191	165,035
United States	Value	38,780	22,949	13,807
China	Value	115,577	122,008	120,819
Belgium	Value	54,813	43,839	50,732
India	Value	14,206	12,457	9,617
Saudi Arabia	Value	2,973	1,475	967
South Africa	Value	654	664	720
France	Value	—	—	2,168
Netherlands	Value	9,969	6,702	6,344
South Korea	Value	2,607	3,103	3,897
Germany	Value	—	8,926	8,506
Denmark	Value	939	714	799
Japan	Value	760	1,950	1,993
All other exporters	Value	4,793	5,328	7,222
All reporting exporters	Value	246,071	230,116	227,591

Table continued.

Table 7.6 (Continued) Choline salts: Global exports by exporter and period

Unit values in dollars per metric ton; share in percent

Exporting country	Measure	2023	2024	2025
United States	Unit value	2,959	2,807	3,602
China	Unit value	1,481	1,188	1,143
Belgium	Unit value	1,221	1,002	1,123
India	Unit value	3,010	2,598	2,215
Saudi Arabia	Unit value	230	874	1,048
South Africa	Unit value	1,292	993	870
France	Unit value	—	—	3,126
Netherlands	Unit value	6,278	6,309	10,040
South Korea	Unit value	4,119	5,854	6,382
Germany	Unit value	—	14,798	16,024
Denmark	Unit value	2,330	1,579	1,913
Japan	Unit value	3,803	6,542	6,313
All other exporters	Unit value	3,658	3,515	6,928
All reporting exporters	Unit value	1,554	1,385	1,379
United States	Share of quantity	8.3	4.9	2.3
China	Share of quantity	49.3	61.8	64.0
Belgium	Share of quantity	28.3	26.3	27.4
India	Share of quantity	3.0	2.9	2.6
Saudi Arabia	Share of quantity	8.2	1.0	0.6
South Africa	Share of quantity	0.3	0.4	0.5
France	Share of quantity	—	—	0.4
Netherlands	Share of quantity	1.0	0.6	0.4
South Korea	Share of quantity	0.4	0.3	0.4
Germany	Share of quantity	—	0.4	0.3
Denmark	Share of quantity	0.3	0.3	0.3
Japan	Share of quantity	0.1	0.2	0.2
All other exporters	Share of quantity	0.8	0.9	0.6
All reporting exporters	Share of quantity	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 2923.10 as reported by China Customs in the Global Trade Atlas Suite database, accessed July 7, 2026. These data may be overstated as HS subheading 2923.10 may contain products outside the scope of these reviews.

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 2025 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
91 FR 39120, June 29, 2026	Choline Salts From China; Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations	https://www.govinfo.gov/content/pkg/FR-2026-06-29/pdf/2026-12996.pdf
91 FR 45241, July 20, 2026	Certain Choline Salts From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation	https://www.govinfo.gov/content/pkg/FR-2026-07-20/pdf/2026-14518.pdf
91 FR 45247, July 20, 2026	Certain Choline Salts From the People's Republic of China: Initiation of Countervailing Duty Investigation	https://www.govinfo.gov/content/pkg/FR-2026-07-20/pdf/2026-14519.pdf

APPENDIX B

LIST OF STAFF CONFERENCE WITNESSES

CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

Those listed appeared as witnesses at the United States International Trade Commission's preliminary conference:

Subject: Choline Salts from China
Inv. Nos.: 701-TA-798 and 731-TA-1794 (Preliminary)
Date and Time: July 15, 2026 – 9:30 a.m.

A session was held in connection with these preliminary phase investigations in the Main Hearing Room (Room 101), 500 E Street, SW., Washington, D.C.

OPENING REMARKS:

In Support of Imposition (**Whitney M. Rolig**, Picard Kentz & Rowe LLP)

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

Picard Kentz & Rowe LLP
Washington, D.C.
on behalf of

BCP Ingredients, Inc.

John Bedell, Vice President, Supply Chain Strategy & Project Management,
Balchem Corp.

Jeremy Painter, Vice President, Global Commercial Operations,
Animal Nutrition & Health, Balchem Corp.

Whitney M. Rolig)
) – OF COUNSEL
Sophia J.C. Lin)

CLOSING REMARKS:

In Support of Imposition (**Whitney M. Rolig**, Picard Kentz & Rowe LLP)

APPENDIX C

SUMMARY DATA

Table C.1

Choline salts: Summary data concerning the U.S. market, by item and period

Quantity=metric tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per metric ton; Period changes=percent--exceptions noted; Interim period is January through March

Item	Reported data					Period change comparisons			
	2023	Calendar year 2024	2025	Interim 2025	2026	2023–25	Calendar year 2023–24	2024–25	Interim 2025–26
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▼***	▼***	▲***	▲***
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Importers' share (fn1):									
China.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▼***
Importers' share (fn1):									
China.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▲***	▲***
U.S. importers' U.S. shipments of imports from:									
China:									
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.....	***	***	***	***	***	▲***	▲***	▼***	▲***
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 (metric tons per 1,000 hours)	***	***	***	***	***	▼***	▼***	▼***	▼***
Unit labor costs.....	***	***	***	***	***	▲***	▲***	▲***	▲***

Table continued.

Table C.1 Continued

Choline salts: Summary data concerning the U.S. market, by item and period

Quantity=metric tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per metric ton; Period changes=percent--exceptions noted; Interim period is January through March

Item	Reported data					Period change comparisons			
	Calendar year		2025	Interim		Calendar year		Interim	
	2023	2024		2025	2026	2023–25	2023–24	2024–25	2025–26
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.

