

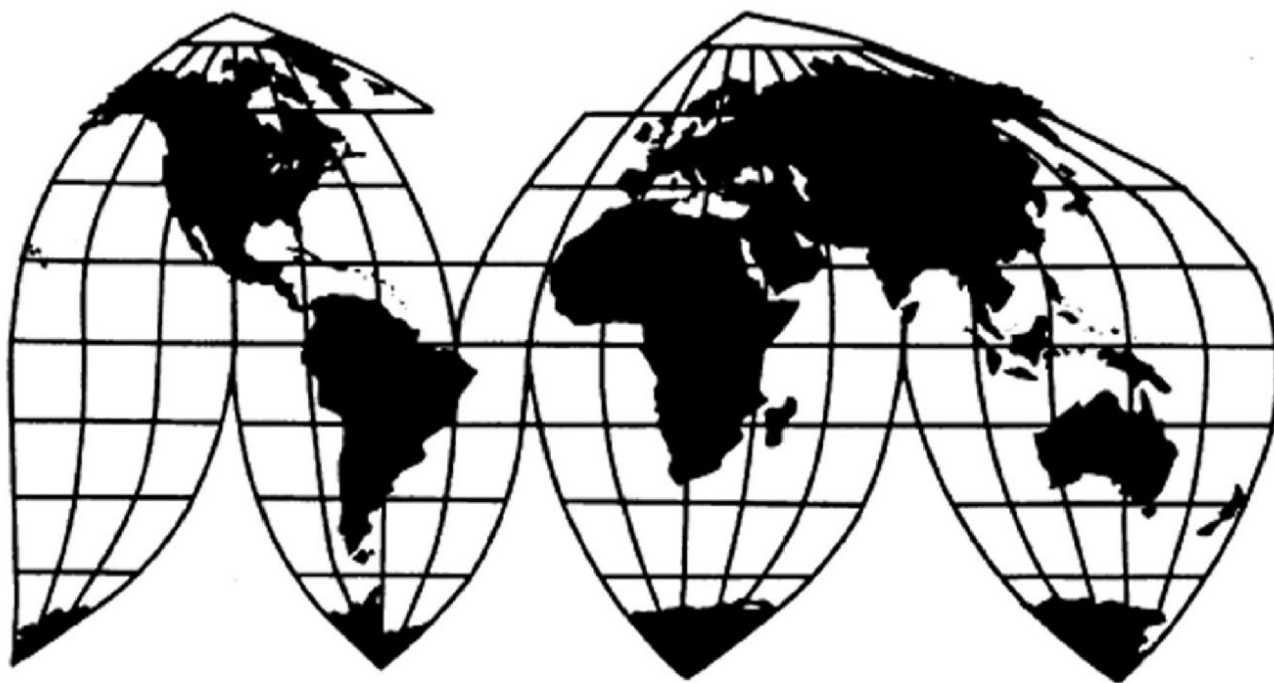
Corrosion Inhibitors from China

Investigation Nos. 701-TA-638 and 731-TA-1473 (Review)

Publication 5769

July 2026

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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Note.—Information that would reveal confidential operations of individual firms may not be published.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

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-638 and 731-TA-1473 (Review)

Corrosion Inhibitors from China

DETERMINATIONS

On the basis of the record¹ developed in the subject five-year reviews, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that revocation of the antidumping and countervailing duty orders on corrosion inhibitors from China would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

BACKGROUND

The Commission instituted these reviews on February 2, 2026 (91 FR 4617), and determined on May 8, 2026, that it would conduct expedited reviews (91 FR 35267, June 10, 2026).

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

Views of the Commission

Based on the record in these five-year reviews, we determine under section 751(c) of the Tariff Act of 1930, as amended (the “Tariff Act”), that revocation of the antidumping and countervailing duty orders on corrosion inhibitors from China would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

I. Background

Original Investigations. In response to petitions filed on February 5, 2020, by Wincom, Inc. (“Wincom”), the Commission determined in March 2021 that an industry in the United States was materially injured by reason of subject imports of corrosion inhibitors from China.¹ The U.S. Department of Commerce (“Commerce”) issued antidumping and countervailing duty orders covering the subject merchandise on March 19, 2021.²

Current Reviews. On February 2, 2026, the Commission instituted these five-year reviews.³ The Commission received a response to the notice of institution from Wincom, a domestic producer of corrosion inhibitors.⁴ The Commission did not receive a response from any respondent interested party.⁵ On May 8, 2026, the Commission found the domestic interested party group response to be adequate and the respondent interested party group response to be inadequate.⁶ Finding no other circumstances that would warrant conducting full reviews, the Commission determined that it would conduct expedited reviews of the orders.⁷ Wincom submitted final comments pursuant to 19 C.F.R. § 207.62(d)(1) arguing that the Commission should reach affirmative determinations.⁸

¹ *Corrosion Inhibitors from China*, Inv. Nos. 701-TA-638 and 731-TA-1473 (Final), USITC Pub. 5169 at 3 (Mar. 2021) (“*Original Determinations*”).

² *Certain Corrosion Inhibitors from the People’s Republic of China: Antidumping Duty and Countervailing Duty Orders*, 86 Fed. Reg. 14869 (Mar. 19, 2021).

³ *Corrosion Inhibitors from China; Institution of Five-Year Reviews*, 91 Fed. Reg. 4617 (Feb. 2, 2026).

⁴ *Response to the Notice of Institution of the Domestic Producer Wincom, Inc.*, EDIS Doc. 874344 (Mar. 4, 2026) (“*Domestic Response*”); *Wincom’s Response to the Commission’s Follow-Up Questions*, EDIS Doc. 875383 (Mar. 13, 2026) (“*Domestic Suppl. Resp.*”).

⁵ *Explanation of Commission Determinations on Adequacy*, EDIS Doc. 882722 (May 20, 2026).

⁶ *Explanation of Commission Determinations on Adequacy*, EDIS Doc. 882722 (May 20, 2026).

⁷ *Explanation of Commission Determinations on Adequacy*, EDIS Doc. 882722 (May 20, 2026); *accord Corrosion Inhibitors from China; Scheduling of Expedited Five-Year Reviews*, 91 Fed. Reg. 35267 (June 10, 2026).

⁸ *Final Comments of Wincom, Inc.*, EDIS Doc. 887156 (July 7, 2026) (“*Domestic Final Comments*”).

U.S. industry data in these reviews are based on information provided in the response to the notice of institution by Wincom, which accounted for all U.S. production of corrosion inhibitors in 2025.⁹ U.S. import data are based on official Commerce statistics.¹⁰ Foreign industry data and related information are based on information from the original investigations, information submitted by Wincom in its response to the notice of institution, and publicly available information.¹¹

II. Domestic Like Product and Industry

A. Domestic Like Product

In making its determination under section 751(c) of the Tariff Act, the Commission defines the “domestic like product” and the “industry.”¹² 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 under this subtitle.”¹³ The Commission’s practice in five-year reviews is to examine the domestic like product definition from the original investigation and consider whether the record indicates any reason to revisit the prior findings.¹⁴

Commerce has defined the imported merchandise within the scope of the antidumping and countervailing duty orders as follows:

The merchandise covered by the *Order* is tolyltriazole and benzotriazole. This includes tolyltriazole and benzotriazole of all grades and forms, including their

⁹ Confidential Report, INV-YY-061 (Apr. 27, 2026) (“CR”) at 1.18; Public Report, *Corrosion Inhibitors from China*, Inv. Nos. 701-TA-638 and 731-TA-1473 (Review), USITC Pub. 5769 (July 2026) (“PR”) at 1.18. Wincom uses toll producers to produce crude benzotriazole (“BTA”) and tolyltriazole (“TTA”), which Wincom then purifies and sells to purchasers. *Id.* at 1.11–1.17; *Domestic Response* at 6 n.26. Wincom’s toll producers ***. CR/PR at 1.18 n.80; *Domestic Response* at 6 n.26.

¹⁰ Import data are compiled from official Commerce statistics under Harmonized Tariff Schedule of the United States (“HTS”) statistical reporting numbers 2933.99.8210 and 2933.99.8220. CR/PR at Table 1.6 note.

¹¹ CR/PR at 1.25. Additionally, the Commission sent purchaser questionnaires to five firms identified by Wincom as top U.S. purchasers of corrosion inhibitors, but none responded. *Id.* at D.3.

¹² 19 U.S.C. §§ 1677(4)(A), (10).

¹³ 19 U.S.C. § 1677(10); see, e.g., *Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); *NEC Corp. v. Dep’t of Com.*, 36 F. Supp. 2d 380, 383 (Ct. Int’l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int’l Trade 1996); *Torrington Co. v. United States*, 747 F. Supp. 744, 748–49 (Ct. Int’l Trade 1990), *aff’d*, 938 F.2d 1278 (Fed. Cir. 1991); see also S. Rep. No. 249, 96th Cong., 1st Sess. 90–91 (1979).

¹⁴ See, e.g., *Internal Combustion Industrial Forklift Trucks from Japan*, Inv. No. 731-TA-377 (Second Review), USITC Pub. 3831 at 8–9 (Dec. 2005); *Crawfish Tail Meat from China*, Inv. No. 731-TA-752 (Review), USITC Pub. 3614 at 4 (July 2003); *Steel Concrete Reinforcing Bar from Turkey*, Inv. No. 731-TA-745 (Review), USITC Pub. 3577 at 4 (Feb. 2003).

sodium salt forms. Tolyltriazole is technically known as Tolyltriazole IUPAC 4,5 methyl benzotriazole. It can also be identified as 4,5 methyl benzotriazole, tolutriazole, TTA, and TTZ.

Benzotriazole is technically known as IUPAC 1,2,3-Benzotriazole. It can also be identified as 1,2,3-Benzotriazole, 1,2-Aminozophenylene, 1H-Benzotriazole, and BTA.

All forms of tolyltriazole and benzotriazole, including but not limited to flakes, granules, pellets, prills, needles, powder, or liquids, are included within the scope of the *Order*.

The scope includes tolyltriazole/sodium tolyltriazole and benzotriazole/sodium benzotriazole that are combined or mixed with other products. For such combined products, only the tolyltriazole/sodium tolyltriazole and benzotriazole/sodium benzotriazole component is covered by the scope of the *Order*. Tolyltriazole and sodium tolyltriazole that have been combined with other products is included within the scope, regardless of whether the combining occurs in third countries.

Tolyltriazole, sodium tolyltriazole, benzotriazole and sodium benzotriazole that is otherwise subject to the *Order* is not excluded when commingled with tolyltriazole, sodium tolyltriazole, benzotriazole, or sodium benzotriazole from sources not subject to the *Order*. Only the subject merchandise component of such commingled products is covered by the scope of the *Order*.

A combination or mixture is excluded from the *Order* if the total tolyltriazole or benzotriazole component of the combination or mixture (regardless of the source or sources) comprises less than 5 percent of the combination or mixture, on a dry weight basis.

Notwithstanding the foregoing language, a tolyltriazole or benzotriazole combination or mixture that is transformed through a chemical reaction into another product, such that, for example, the tolyltriazole or benzotriazole can no longer be separated from the other products through a distillation or other process is excluded from the *Order*.

Tolyltriazole has the Chemical Abstracts Service (CAS) registry number 299385–43–1. Tolyltriazole is classified under Harmonized Tariff Schedule of the United States (HTSUS) subheading 2933.99.8220.

Sodium Tolyltriazole has the CAS registry number 64665–57–2 and is classified under HTSUS subheading 2933.99.8290.

Benzotriazole has the CAS registry number 95–14–7 and is classified under HTSUS subheading 2933.99.8210.

Sodium Benzotriazole has the CAS registry number 15217–42–2. Sodium Benzotriazole is classified under HTSUS subheading 2933.99.8290.

Although the HTSUS subheadings and CAS registry numbers are provided for convenience and customs purposes, the written description of the scope of the *Order* is dispositive.¹⁵

The scope encompasses solid TTA, sodium (*i.e.*, liquid) TTA, solid BTA, and sodium (*i.e.*, liquid) BTA.¹⁶ When solid or liquid BTA or TTA is combined or mixed with other products, only the BTA or TTA component is covered by the scope.¹⁷ Collectively, solid and liquid BTA and TTA are referred to as corrosion inhibitors.¹⁸

Corrosion inhibitors are used to protect metals and elements – including copper, copper alloys, zinc, cobalt, silver, aluminum, and steel – from corrosion.¹⁹ The two most important applications for corrosion inhibitors are in the water treatment and engine cooling industries,

¹⁵ *Certain Corrosion Inhibitors from the People's Republic of China: Final Results of the Expedited First Sunset Review of the Antidumping Duty Order*, 91 Fed. Reg. 29114 (May 19, 2026); *Certain Corrosion Inhibitors from the People's Republic of China: Final Results of the Expedited First Sunset Review of the Countervailing Duty Order*, 91 Fed. Reg. 29112 (May 19, 2026); U.S. Dep't of Commerce, *Issues and Decision Memorandum for the Final Results of the Expedited First Sunset Review of the Antidumping Duty Order on Certain Corrosion Inhibitors from the People's Republic of China*, EDIS Doc. 887635 at 2–3 (May 14, 2026); U.S. Dep't of Commerce, *Issues and Decision Memorandum for the Final Results of the Expedited First Sunset Review of the Countervailing Duty Order on Certain Corrosion Inhibitors from the People's Republic of China*, EDIS Doc. 887635 at 2–3 (May 14, 2026). The scope of the orders under review is substantially the same as in the original investigations. Commission staff determined that the CAS registry number for tolyltriazole listed in the scope (“299385–43–1”) should be 29385–43–1. CR/PR at 1.5 n.10.

¹⁶ CR/PR at 1.8. To produce BTA or TTA, first a crude version of these products, containing impurities, is created. *Id.* at 1.13, 1.16. In the United States, this crude process is performed by Wincom's toll producers. *Id.* at 1.13. These crude products are then purified for commercial sale. In the United States, this purification process is performed by Wincom, using a patented methodology. *Id.* at 1.13, Figure 1.2.

In the original investigations, certain domestic firms used purified BTA and TTA as their starting materials for downstream products. The activities of these firms included taking solid BTA or TTA and adding water with caustic to produce a liquid product and taking solid BTA or TTA and mixing it with other chemicals to produce tablets or blends. *Id.* at 1.11. The Commission ultimately determined that these firms did not engage in sufficient production-related activities to qualify as domestic producers. *Id.* at 1.11 n.43; *Original Determinations*, USITC Pub. 5169 at 12–16.

¹⁷ *Original Determinations*, USITC Pub. 5169 at 7 & n.19.

¹⁸ CR/PR at 1.8.

¹⁹ CR/PR at 1.8.

which together account for at least half of their total use.²⁰ Corrosion inhibitors are also used in automotive fluids, metalworking fluids, aircraft and runway de-icers, lubricants, cleaners, direct treatment, circuit boards, inks and coatings, and blends.²¹

We have considered our analysis of the domestic like product in the original investigations.²² In particular, we note that in the original determinations, the Commission found that, although there were some limitations on interchangeability and differences in prices, the record did not indicate a clear dividing line between BTA and TTA in terms of physical properties, uses, production processes, and channels of distribution.²³ Specifically, the Commission found that BTA and TTA overlapped in many end-use applications, the record indicated that BTA and TTA could be produced domestically using similar processes, and most market participants reported that BTA and TTA were sold using comparable channels of distribution.²⁴ Accordingly, the Commission defined a single domestic like product coextensive with the scope of the investigations.²⁵

In these reviews, Wincom asks the Commission to define the domestic like product as it did in the original investigations.²⁶ The record does not contain any new information suggesting that the pertinent characteristics and uses of corrosion inhibitors have changed since the original investigations. Consequently, we again define a single domestic like product consisting of corrosion inhibitors, coextensive with Commerce's scope.

B. Domestic Industry

Section 771(4)(A) of the Tariff Act defines the relevant industry 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."²⁷ 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.

²⁰ CR/PR at 1.10.

²¹ CR/PR at Table 1.2.

²² *Original Determinations*, USITC Pub. 5169 at 7–8.

²³ *Original Determinations*, USITC Pub. 5169 at 7.

²⁴ *Original Determinations*, USITC Pub. 5169 at 7–8.

²⁵ *Original Determinations*, USITC Pub. 5169 at 8.

²⁶ *Domestic Response* at 24.

²⁷ 19 U.S.C. § 1677(4)(A). The definitions in 19 U.S.C. § 1677 are applicable to the entire subtitle containing the antidumping and countervailing duty laws, including 19 U.S.C. §§ 1675 and 1675a. See 19 U.S.C. § 1677.

We have considered our analysis of the domestic industry in the original investigations.²⁸ In particular, we note that in the original investigations, the Commission found that firms that processed solid BTA or solid TTA by adding caustic soda and water to produce liquid BTA or liquid TTA and firms that mixed or blended BTA or TTA with other products (collectively, “processors”) did not engage in production-related activities sufficient to qualify them as domestic producers.²⁹ The Commission also found that, although Wincom imported subject merchandise during the period of investigation, appropriate circumstances did not exist to exclude the firm from the domestic industry under the related parties provision.³⁰ Accordingly, the Commission defined the domestic industry as all domestic producers of the domestic like product – namely, Wincom and its toll producers.³¹

In these reviews, Wincom contends that the Commission should adopt the domestic industry definition from the original investigations.³² The record does not contain any new information that would warrant revisiting the finding in the original investigations that processors do not engage in sufficient production-related activities to be included in the domestic industry.³³

We next consider whether any producer of the domestic like product should be excluded from the domestic industry pursuant to section 771(4)(B) of the Tariff Act.³⁴ This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject

²⁸ *Original Determinations*, USITC Pub. 5169 at 8–18.

²⁹ *Original Determinations*, USITC Pub. 5169 at 16. Considering the six sufficient production-related activities factors, the Commission found that processors’ operations did not require complex technical expertise and were less sophisticated than those of domestic producers; their reported capital investments were comparable to those of domestic producers but likely overstated; the employment levels of and value added by processors were ***; and these firms sourced ***. *Id.* at 15–16; *Confidential Views of the Commission (Final)*, EDIS Doc. 874022 at 19–20 (Mar. 2021) (“*Confidential Views*”).

³⁰ *Original Determinations*, USITC Pub. 5169 at 17. Specifically, the Commission found that the evidence showed that Wincom’s primary concern lay in domestic production, and exclusion of its data would provide an unrepresentative depiction of the domestic industry. *Id.*

³¹ *Original Determinations*, USITC Pub. 5169 at 18.

³² *Domestic Response* at 24.

³³ Additionally, there are no data concerning any processor’s production operations on the record that could be included in the domestic industry data because no processor responded to the Commission’s notice of institution.

³⁴ 19 U.S.C. § 1677(4)(B).

merchandise, or which are themselves importers.³⁵ Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.³⁶

The record indicates that Wincom imported subject merchandise during the period of review and therefore is subject to possible exclusion from the domestic industry under the related parties provision (19 U.S.C. § 1677(4)(B)(i)).³⁷ Wincom and its toll producers accounted for all U.S. production of corrosion inhibitors in 2025, and Wincom claims that it is the only firm that sells corrosion inhibitors commercially in the United States.³⁸ It imported *** pounds of subject merchandise in 2025, accounting for *** percent of total subject imports that year.³⁹ By comparison, the firm produced *** pounds of corrosion inhibitors in 2025.⁴⁰ The ratio of

³⁵ See *Torrington Co v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int'l Trade 1992), *aff'd without opinion*, 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331–32 (Ct. Int'l Trade 1989), *aff'd mem.*, 904 F.2d 46 (Fed. Cir. 1990); *Empire Plow Co. v. United States*, 675 F. Supp. 1348, 1352 (Ct. Int'l Trade 1987).

³⁶ The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude a related party include the following:

- (1) the percentage of domestic production attributable to the importing producer;
- (2) the reason the U.S. producer has decided to import the product subject to investigation (whether the firm benefits from the LTFV sales or subsidies or whether the firm must import in order to enable it to continue production and compete in the U.S. market);
- (3) whether inclusion or exclusion of the related party will skew the data for the rest of the industry;
- (4) the ratio of import shipments to U.S. production for the imported product; and
- (5) whether the primary interest of the importing producer lies in domestic production or importation.

Changzhou Trina Solar Energy Co. v. USITC, 100 F. Supp. 3d 1314, 1326–31 (Ct. Int'l Trade 2015), *aff'd*, 879 F.3d 1377 (Fed. Cir. 2018); see also *Torrington Co.*, 790 F. Supp. at 1168.

³⁷ *Domestic Response* at 23; *Domestic Suppl. Resp.* at 3; accord CR/PR at 1.22, B.3.

³⁸ CR/PR at 1.18, 1.21, Table B.1; *Domestic Response* at 6.

³⁹ *Domestic Response*, Exhibit 1e; *Domestic Suppl. Resp.*, Exhibit 1; CR/PR at 1.21 & B.3. Wincom imported *** subject merchandise in 2025 than it imported during the period of investigation. See *Confidential Views* at 22 (noting that Wincom imported between *** and *** pounds annually between 2017 and 2019 and *** pounds from January to September 2020). Wincom reported that it imports subject merchandise “***.” *Domestic Response* at 23.

⁴⁰ *Domestic Response*, Exhibit 1d.

Wincom's subject imports to its U.S. production was *** percent in 2025.⁴¹ Wincom supports continuation of the orders.⁴²

As in the original investigations, we find that Wincom's primary interest during the period of review appears to be in domestic production, particularly considering its ratio of subject imports to domestic production, its status as the original petitioner and the domestic interested party in these reviews, its support for continuation of the orders, and its indication that it imported corrosion inhibitors from China ***.⁴³ In addition, the information available does not indicate that Wincom's inclusion in the domestic industry would skew industry data in a way that would mask injury. Thus, we conclude that appropriate circumstances do not exist to exclude Wincom from the domestic industry pursuant to the related parties provision.

Accordingly, consistent with our definition of the domestic like product, we define the domestic industry as all domestic producers of corrosion inhibitors.

III. Revocation of the Antidumping and Countervailing Duty Orders Would Likely Lead to Continuation or Recurrence of Material Injury Within a Reasonably Foreseeable Time

A. Legal Standards

In a five-year review conducted under section 751(c) of the Tariff Act, Commerce will revoke an antidumping or countervailing duty order unless: (1) it makes a determination that dumping or subsidization is likely to continue or recur and (2) the Commission makes a determination that revocation of the antidumping or countervailing duty order "would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time."⁴⁴ The Statement of Administrative Action ("SAA") to the Uruguay Round Agreements Act states that "under the likelihood standard, the Commission will engage in a counterfactual analysis; it must decide the likely impact in the reasonably foreseeable future of an important change in the status quo – the revocation or termination of a proceeding and the elimination of its restraining effects on volumes and prices of imports."⁴⁵ Thus, the likelihood standard is

⁴¹ CR/PR at 1.21. Although this ratio is ***, it is *** than the ratios of Wincom's subject imports to production in the original investigations. *See Confidential Views* at 22 (noting ratios ranging between *** and *** percent during the period of investigation).

⁴² CR/PR at B.3 n.1; *Domestic Final Comments* at 4.

⁴³ CR/PR at B.3 n.1; *Domestic Response* at 23; *Domestic Final Comments* at 4.

⁴⁴ 19 U.S.C. § 1675a(a).

⁴⁵ SAA, H.R. Doc. No. 103-316, vol. I, at 883–84 (1994). The SAA states that "{t}he likelihood of injury standard applies regardless of the nature of the Commission's original determination (material injury, threat of material injury, or material retardation of an industry). Likewise, the standard applies to suspended investigations that were never completed." *Id.* at 883.

prospective in nature.⁴⁶ The U.S. Court of International Trade has found that “likely,” as used in the five-year review provisions of the Act, means “probable,” and the Commission applies that standard in five-year reviews.⁴⁷

The statute states that “the Commission shall consider that the effects of revocation or termination may not be imminent, but may manifest themselves only over a longer period of time.”⁴⁸ According to the SAA, a “‘reasonably foreseeable time’ will vary from case-to-case, but normally will exceed the ‘imminent’ timeframe applicable in a threat of injury analysis in original investigations.”⁴⁹

Although the standard in a five-year review is not the same as the standard applied in an original investigation, it contains some of the same fundamental elements. The statute provides that the Commission is to “consider the likely volume, price effect, and impact of imports of the subject merchandise on the industry if the orders are revoked or the suspended investigation is terminated.”⁵⁰ It directs the Commission to take into account its prior injury determination, whether any improvement in the state of the industry is related to the order or the suspension agreement under review, whether the industry is vulnerable to material injury if an order is revoked or a suspension agreement is terminated, and any findings by Commerce

⁴⁶ While the SAA states that “a separate determination regarding current material injury is not necessary,” it indicates that “the Commission may consider relevant factors such as current and likely continued depressed shipment levels and current and likely continued {sic} prices for the domestic like product in the U.S. market in making its determination of the likelihood of continuation or recurrence of material injury if the order is revoked.” SAA at 884.

⁴⁷ See *NMB Sing. Ltd. v. United States*, 288 F. Supp. 2d 1306, 1352 (Ct. Int’l Trade 2003) (“‘likely’ means probable within the context of 19 U.S.C. § 1675(c) and 19 U.S.C. § 1675a(a)”), *aff’d mem.*, 140 F. App’x 268 (Fed. Cir. 2005); *Nippon Steel Corp. v. United States*, 26 CIT 1416, 1419 (2002) (same); *Usinor Industeel, S.A. v. United States*, 26 CIT 1402, 1404 nn.3, 6 (2002) (“more likely than not” standard is “consistent with the court’s opinion;” “the court has not interpreted ‘likely’ to imply any particular degree of ‘certainty’”); *Indorama Chems. (Thai.) Ltd. v. United States*, 26 CIT 1059, 1070 (2002) (“standard is based on a likelihood of continuation or recurrence of injury, not a certainty”); *Usinor v. United States*, 26 CIT 767, 794 (2002) (“‘likely’ is tantamount to ‘probable,’ not merely ‘possible’”).

⁴⁸ 19 U.S.C. § 1675a(a)(5).

⁴⁹ SAA at 887. Among the factors that the Commission should consider in this regard are “the fungibility or differentiation within the product in question, the level of substitutability between the imported and domestic products, the channels of distribution used, the methods of contracting (such as spot sales or long-term contracts), and lead times for delivery of goods, as well as other factors that may only manifest themselves in the longer term, such as planned investment and the shifting of production facilities.” *Id.*

⁵⁰ 19 U.S.C. § 1675a(a)(1).

regarding duty absorption pursuant to 19 U.S.C. § 1675(a)(4).⁵¹ The statute further provides that the presence or absence of any factor that the Commission is required to consider shall not necessarily give decisive guidance with respect to the Commission's determination.⁵²

In evaluating the likely volume of imports of subject merchandise if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider whether the likely volume of imports would be significant either in absolute terms or relative to production or consumption in the United States.⁵³ In doing so, the Commission must consider "all relevant economic factors," including four enumerated factors: (1) any likely increase in production capacity or existing unused production capacity in the exporting country; (2) existing inventories of the subject merchandise, or likely increases in inventories; (3) the existence of barriers to the importation of the subject merchandise into countries other than the United States; and (4) 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.⁵⁴

In evaluating the likely price effects of subject imports if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider whether there is likely to be significant underselling by the subject imports as compared to the domestic like product and whether the subject imports are likely to enter the United States at prices that otherwise would have a significant depressing or suppressing effect on the price of the domestic like product.⁵⁵

In evaluating the likely impact of imports of subject merchandise if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider all relevant economic factors that are likely to have a bearing on the state of the industry in the United States, including but not limited to the following: (1) likely declines in output, sales, market share, profits, productivity, return on investments, and utilization of

⁵¹ 19 U.S.C. § 1675a(a)(1). Commerce has not made any duty absorption findings since the imposition of the antidumping duty order. U.S. Dep't of Commerce, *Issues and Decision Memorandum for the Final Results of the Expedited First Sunset Review of the Antidumping Duty Order on Certain Corrosion Inhibitors from the People's Republic of China*, EDIS Doc. 887635 at 4 (May 14, 2026).

⁵² 19 U.S.C. § 1675a(a)(5). Although the Commission must consider all factors, no one factor is necessarily dispositive. SAA at 886.

⁵³ 19 U.S.C. § 1675a(a)(2).

⁵⁴ 19 U.S.C. § 1675a(a)(2)(A–D).

⁵⁵ See 19 U.S.C. § 1675a(a)(3). The SAA states that "{c}onsistent with its practice in investigations, in considering the likely price effects of imports in the event of revocation and termination, the Commission may rely on circumstantial, as well as direct, evidence of the adverse effects of unfairly traded imports on domestic prices." SAA at 886.

capacity; (2) likely negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment; and (3) likely negative effects on the existing development and production efforts of the industry, including efforts to develop a derivative or more advanced version of the domestic like product.⁵⁶ All relevant economic factors are to be considered within the context of the business cycle and the conditions of competition that are distinctive to the industry. As instructed by the statute, we have considered the extent to which any improvement in the state of the domestic industry is related to the orders under review and whether the industry is vulnerable to material injury upon revocation.⁵⁷

No respondent interested party participated in these expedited reviews. The record, therefore, contains limited new information regarding the subject industry in China. There also is limited information on the corrosion inhibitors market in the United States during the period of review. Accordingly, for our determinations, we rely as appropriate on the facts available from the original investigations and the limited new information on the record in these five-year reviews.

B. Conditions of Competition and the Business Cycle

In evaluating the likely impact of the subject imports on the domestic industry if an order is revoked, the statute directs the Commission to consider all relevant economic factors “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”⁵⁸ We have considered our findings regarding the conditions of competition in the original investigations.⁵⁹ The following conditions of competition inform our determinations.

1. Demand Conditions

The information available indicates that corrosion inhibitors continue to be used for corrosion protection of various metals in a number of industries, primarily the water treatment and engine cooling industries, and that demand continues to derive from demand for

⁵⁶ 19 U.S.C. § 1675a(a)(4).

⁵⁷ The SAA states that in assessing whether the domestic industry is vulnerable to injury if the order is revoked, the Commission “considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they may also demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.” SAA at 885.

⁵⁸ 19 U.S.C. § 1675a(a)(4).

⁵⁹ *Original Determinations*, USITC Pub. 5169 at 21–26.

downstream products or services.⁶⁰ Wincom anticipates that demand for corrosion inhibitors will grow for the foreseeable future.⁶¹

Apparent U.S. consumption was *** percent lower in 2025, at *** pounds, than in 2019, the last full year of the period of investigation, at *** pounds.⁶²

2. Supply Conditions

The domestic industry was the second largest source of corrosion inhibitors in the U.S. market in 2025, accounting for *** percent of apparent U.S. consumption by quantity.⁶³ During the period of review, Wincom began producing BTA in addition to its production of TTA.⁶⁴ Texmark Chemical Inc., which toll produced crude TTA for Wincom during the original investigations, ***.⁶⁵ Additionally, ***.⁶⁶

Subject imports were the largest source of corrosion inhibitors in the U.S. market in 2025, accounting for *** percent of apparent U.S. consumption by quantity.⁶⁷

Nonsubject imports were the third largest supplier of corrosion inhibitors to the U.S. market in 2025, accounting for *** percent of apparent U.S. consumption by quantity.⁶⁸ The leading sources of nonsubject imports in 2025 were India and Vietnam.⁶⁹

3. Substitutability and Other Conditions

The record in these reviews contains no new information to indicate that the degree of substitutability between the domestic like product and subject imports, or the importance of price in purchasing decisions, have changed since the original investigations. Wincom contends that “there continues to be a strong degree of substitutability between the domestic like product and the subject imports from China” and that “[p]rice continues to be a critical factor in

⁶⁰ CR/PR at 1.8–1.11; *Domestic Response* at 10–11; *Original Determinations*, USITC Pub. 5169 at 21–22. As discussed above, corrosion inhibitors are used to protect metals such as copper, copper alloys, zinc, cobalt, silver, aluminum, and steel in industries such as the industrial water treatment, automotive fluids, metalworking fluids, de-icer (aircraft and runway), lubricants, cleaners, direct treatment, circuit boards, inks and coatings, and blends industries. CR/PR at 1.8, Table 1.2.

⁶¹ *Domestic Response* at 11. Wincom stated that “supply and demand conditions in the U.S. corrosion {inhibitors} market have not changed significantly since the Orders were imposed.” *Id.* at 24.

⁶² CR/PR at Tables 1.7 & C-1.

⁶³ CR/PR at Table 1.7.

⁶⁴ CR/PR at Table 1.4; *Domestic Response* at 6 n.26. Wincom produced only TTA during the original investigations. *Original Determinations*, USITC Pub. 5169 at I-16 to I-17, I-19.

⁶⁵ CR/PR at Table 1.4; *Domestic Response* at 6 n.26.

⁶⁶ CR/PR at Table 1.4; *Domestic Response* at 6 n.26. According to Wincom, ***. *Domestic Response* at 6 n.26.

⁶⁷ CR/PR at Table 1.7.

⁶⁸ CR/PR at Table 1.7.

⁶⁹ CR/PR at Table 1.6.

purchasing decisions in the U.S. market for corrosion inhibitors.”⁷⁰ Accordingly, we again find that there is at least a moderate degree of substitutability between subject imports and the domestic like product and that price is an important factor in purchasing decisions.^{71 72}

C. Likely Volume of Subject Imports

We have considered our findings regarding the volume of subject imports in the original investigations.⁷³ In the original determinations, the Commission concluded that the volume of subject imports was significant in absolute terms and relative to apparent U.S. consumption.⁷⁴ During the original period of investigation, the volume of subject imports was 10.6 million pounds in 2017, 14.0 million pounds in 2018, 11.9 million pounds in 2019, 8.4 million pounds in interim 2019, and 8.8 million pounds in interim 2020.⁷⁵ During the period of review, the volume of subject imports fluctuated from 9.5 million pounds in 2020 to 7.6 million pounds in 2021, 8.8 million pounds in 2022, 5.7 million pounds in 2023, 7.3 million pounds in 2024, and 6.2 million pounds in 2025.⁷⁶ Subject imports accounted for *** percent of apparent U.S. consumption by quantity in 2025, compared to *** percent in 2019.⁷⁷ The record thus indicates that even with the disciplining effect of the orders in place, subject imports nonetheless maintained a substantial presence in the U.S. market throughout the period of review.

The record in these reviews contains limited information on the subject industry in China. The information available, however, indicates that subject producers have the ability and incentive to increase their exports of corrosion inhibitors to the U.S. market if the orders were revoked. Wincom identified eight possible producers and exporters of corrosion inhibitors in China and submitted information indicating that subject producers possess substantial capacity.⁷⁸ Data from Global Trade Atlas (“GTA”) show that China was the second largest global exporter of heterocyclic compounds with nitrogen hetero-atoms under HS subheading 2933.99, which includes corrosion inhibitors and out-of-scope products, throughout

⁷⁰ *Domestic Response* at 12–13.

⁷¹ *See Original Determinations*, USITC Pub. 5169 at 24–26.

⁷² Between February 4, 2025, and February 20, 2026, corrosion inhibitors from China were subject to varying levels of additional duties under the International Emergency Economic Powers Act. CR/PR at 1.7.

⁷³ *Original Determinations*, USITC Pub. 5169 at 26–27.

⁷⁴ *Original Determinations*, USITC Pub. 5169 at 26–27.

⁷⁵ *Original Determinations*, USITC Pub. 5169 at 26.

⁷⁶ CR/PR at Table 1.6.

⁷⁷ CR/PR at Tables 1.7 & C-1.

⁷⁸ *Domestic Response* at 15–17, 23, Exhibits 1b & 3.

the period of review, accounting for 12.7 percent of global exports by value in 2025.⁷⁹ These data indicate that China exported 389.2 million pounds (\$3.6 billion) of such merchandise in 2025.⁸⁰

Record evidence also indicates that the U.S. market remains attractive to subject producers. As noted above, subject imports maintained a substantial presence in the U.S. market during the period of review under the disciplining effect of the orders, accounting for *** percent of apparent U.S. consumption by quantity in 2025, indicating that subject producers and exporters have distribution networks and customers in the United States.⁸¹ According to GTA data, in 2025, the United States was the fourth largest destination market for Chinese exports of heterocyclic compounds with nitrogen hetero-atoms under HS subheading 2933.99, which includes corrosion inhibitors and out-of-scope products.⁸²

Given the foregoing, including the significant volume and market share of subject imports during the original investigations, the continued and already significant presence of subject imports in the U.S. market during the period of review while under the disciplining effect of the orders, the available information about the subject industry in China, including its substantial capacity and export activities, and the attractiveness of the U.S. market, we find that the volume of subject imports would likely be significant, both in absolute terms and relative to consumption in the United States, if the orders were revoked.⁸³

D. Likely Price Effects

We have considered our findings regarding the price effects of subject imports in the original investigations.⁸⁴ In particular, in the original investigations, the Commission found significant underselling based on the importance of price in purchasing decisions, the pervasive underselling observed in the available pricing data, and a substantial volume of lost sales due primarily to price.⁸⁵ It noted that domestic prices declined over the period of investigation as subject imports universally undersold the domestic like product despite increases in apparent U.S. consumption and the domestic industry's average unit cost of goods sold, and concluded

⁷⁹ CR/PR at Table 1.9.

⁸⁰ CR/PR at Tables 1.8–1.9.

⁸¹ CR/PR at Table 1.7; *accord Domestic Response* at 16–18.

⁸² CR/PR at Table 1.8.

⁸³ The record of these expedited reviews contains no information concerning the potential for product-shifting in the subject industry or inventories of subject merchandise. The information available indicates that corrosion inhibitors from China have not been subject to other antidumping or countervailing duty investigations outside of the United States. CR/PR at 1.26.

⁸⁴ *Original Determinations*, USITC Pub. 5169 at 27–31.

⁸⁵ *Original Determinations*, USITC Pub. 5169 at 27–29.

that subject imports depressed prices for the domestic like product to a significant degree.⁸⁶ The Commission also observed that the domestic industry's ratio of cost of goods sold to net sales increased over the period of investigation, and concluded that subject imports suppressed prices for the domestic like product to a significant degree.⁸⁷ On these bases, the Commission found that subject imports had significant price effects on the domestic industry.⁸⁸

As discussed above, we continue to find that there is at least a moderate degree of substitutability between subject imports and the domestic like product and that price is an important factor in purchasing decisions.

The record in these expedited reviews does not contain new product-specific pricing information. Based on the available information, including the at least moderate degree of substitutability between the domestic like product and subject imports and the importance of price in purchasing decisions, we find that, if the orders were revoked, significant volumes of subject imports would likely significantly undersell the domestic like product, as they did in the original investigations. Absent the discipline of the orders, the significant volumes of low-priced subject imports would likely take sales and market share from the domestic industry and/or force the domestic industry to lower prices or restrain any necessary price increases, thereby significantly depressing or suppressing prices for the domestic like product. Consequently, we find that if the orders were revoked, subject imports would likely have significant price effects.

E. Likely Impact

We have considered our findings regarding the impact of subject imports in the original investigations.⁸⁹ The record in these expedited reviews contains limited information concerning the domestic industry's performance since the original investigations.

In considering whether the domestic industry is in a vulnerable condition, we observe that the domestic industry's performance in 2025 was strong and an improvement when compared to 2019, the final year investigated in the original investigations. The domestic industry's capacity of *** pounds, production of *** pounds, and capacity utilization of *** percent in 2025 were higher than in 2019.⁹⁰ The domestic industry's *** pounds of U.S. shipments and *** percent share of apparent U.S. consumption by quantity in 2025 were also

⁸⁶ *Original Determinations*, USITC Pub. 5169 at 29–30.

⁸⁷ *Original Determinations*, USITC Pub. 5169 at 30–31.

⁸⁸ *Original Determinations*, USITC Pub. 5169 at 31.

⁸⁹ *Original Determinations*, USITC Pub. 5169 at 32–35.

⁹⁰ CR/PR at Tables 1.5 & C-1. In 2019, the domestic industry's capacity and production were *** pounds and *** pounds, respectively, with a capacity utilization of *** percent. *Id.*

higher than in 2019.⁹¹ The domestic industry's net sales revenue of \$*** and the \$*** per pound average unit value of U.S. shipments in 2025 were higher than in 2019.⁹² The industry's gross profit of \$***, operating income of \$***, and operating margin of *** percent in 2025 were also higher than in 2019.⁹³

Based on the information available on the record, we find that revocation of the orders would likely result in a significant volume of subject imports that would likely significantly undersell the domestic like product. Given the at least moderate degree of substitutability between subject imports and the domestic like product and the importance of price in purchasing decisions, significant volumes of low-priced subject imports would likely capture sales and market share from the domestic industry and/or significantly depress or suppress prices for the domestic like product. Accordingly, if the orders were revoked, subject imports would likely have a significant impact on the production, shipments, sales, market share, and revenues of the domestic industry, which, in turn, would have a direct adverse impact on the industry's profitability and employment, as well as its ability to raise capital and make and maintain necessary capital investments.

We have also considered the role of factors other than subject imports, including the presence of nonsubject imports, so as to not attribute likely injury from other factors to subject imports. The information available indicates that nonsubject imports have substantially increased their presence in the U.S. market since the original investigations; their share of apparent U.S. consumption by quantity was higher in 2025, at *** percent, than in 2019, at *** percent.⁹⁴ However, their share of apparent U.S. consumption in 2025 remained below subject imports' *** percent share.⁹⁵ Further, despite the increase in nonsubject import volume and market share during the period of review, the domestic industry had strong performance indicators during the period. Consequently, we find that any future effects of nonsubject imports would not preclude the likely effects attributable to subject imports absent the orders.

⁹¹ CR/PR at Tables 1.5, 1.7 & C-1. In 2019, the domestic industry's U.S. shipments totaled *** pounds, with a *** percent share of apparent U.S. consumption by quantity. *Id.*

⁹² CR/PR at Tables 1.5 & C-1. The domestic industry's net sales were \$*** in 2019, with a \$*** per pound average unit value of U.S. shipments. *Id.*

⁹³ CR/PR at Tables 1.5 & C-1. In 2019, the domestic industry's gross profit was \$***, with an operating *** of \$*** and operating margin of *** percent. *Id.*

⁹⁴ CR/PR at Tables 1.7 & C-1.

⁹⁵ CR/PR at Table 1.7.

Apparent U.S. consumption of corrosion inhibitors, by quantity, was *** percent lower in 2025 than in 2019.⁹⁶ Given that subject imports and the domestic like product are at least moderately substitutable, and that price is important in purchasing decisions, declining U.S. demand for corrosion inhibitors would not prevent low-priced subject imports from significantly increasing their presence in the U.S. market after revocation of the orders; indeed, a declining market would exacerbate the likely adverse impact of subject imports on the domestic industry.

In sum, we conclude that, if the orders were revoked, subject imports from China would be likely to have a significant impact on the domestic industry within a reasonably foreseeable time.

IV. Conclusion

For the foregoing reasons, we determine that revocation of the antidumping and countervailing duty orders on corrosion inhibitors from China would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

⁹⁶ *Calculated from CR/PR at Tables 1.7 & C-1.* Notably, however, apparent U.S. consumption by value was *** percent higher in 2025 than in 2019. *Id.* Additionally, Wincom expects that demand will increase in the foreseeable future. *Domestic Response* at 11.

Information obtained in these reviews

Background

On February 2, 2026, the U.S. International Trade Commission (“Commission”) gave notice, pursuant to section 751(c) of the Tariff Act of 1930, as amended (“the Act”),¹ that it had instituted reviews to determine whether revocation of the antidumping and countervailing duty orders on corrosion inhibitors from China would be likely to lead to continuation or recurrence of material injury.² All interested parties were requested to respond to this notice by submitting certain information requested by the Commission.³ ⁴ Table 1.1 presents information relating to the background and schedule of this proceeding:

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

Effective date	Action
February 2, 2026	Notice of initiation by Commerce (91 FR 4499, February 2, 2026)
February 2, 2026	Notice of institution by Commission (91 FR 4617, February 2, 2026)
May 8, 2026	Commission’s vote on adequacy
May 19, 2026	Commerce’s results of its expedited reviews
July 30, 2026	Commission’s determinations and views

¹ 19 U.S.C. 1675(c).

² 91 FR 4617, February 2, 2026. In accordance with section 751(c) of the Act, the U.S. Department of Commerce (“Commerce”) published a notice of initiation of five-year reviews of the subject antidumping and countervailing duty orders. 91 FR 4499, February 2, 2026. Pertinent Federal Register notices are referenced in app. A, and may be found at the Commission’s website (www.usitc.gov).

³ As part of their response to the notice of institution, interested parties were requested to provide company-specific information. Information regarding responses to the notice of institution is presented in app. B. Summary data compiled in the original investigations are presented in app. C.

⁴ Interested parties were also requested to provide a list of three to five leading purchasers in the U.S. market for the domestic like product and the subject merchandise. Presented in app. D are the responses received from purchaser surveys transmitted to the purchasers identified in this proceeding.

The original investigations

The original investigations resulted from petitions filed on February 5, 2020, with Commerce and the Commission by Wincom Incorporated (“Wincom”), Blue Ash, Ohio.⁵ On March 19, 2021, Commerce determined that imports of corrosion inhibitors from China were being sold at less than fair value (“LTFV”) and subsidized by the Government of China.⁶ The Commission determined on March 12, 2021 that the domestic industry was materially injured by reason of LTFV imports of corrosion inhibitors from China and subsidized imports of corrosion inhibitors from China.⁷ On March 19, 2021, Commerce issued its antidumping duty orders and countervailing duty orders with final weighted-average dumping margins for China ranging from 130.52 to 277.90 percent and its countervailing duty orders with net subsidy rates ranging from 61.62 to 239.21 percent.⁸

Previous and related investigations

Corrosion inhibitors have not been the subject of any prior related antidumping or countervailing duty investigations in the United States.

⁵ Corrosion Inhibitors from China, Inv. Nos. 701-TA-638 731-TA-1473 (Final), USITC Publication 5169, March 2021 (“Original publication”), p. 1.1.

⁶ 86 FR 14869, March 19, 2021.

⁷ 86 FR 14766, March 18, 2021.

⁸ 86 FR 14869, March 19, 2021.

Commerce's five-year reviews

Commerce announced that it would conduct expedited reviews with respect to the orders on imports of corrosion inhibitors from China with the intent of issuing the final results of these reviews based on the facts available not later than June 2, 2026.⁹ Commerce publishes its Issues and Decision Memoranda and its final results concurrently, accessible upon publication at <https://access.trade.gov/public/FRNoticesListLayout.aspx> and subsequently on the Commission's Electronic Document Information System ("EDIS"). Issues and Decision Memoranda contain complete and up-to-date information regarding the background and history of the order, including scope rulings, duty absorption, changed circumstances reviews, and anticircumvention, as well as any decisions that may have been pending at the issuance of this report. Any foreign producers/exporters that are not currently subject to the antidumping and countervailing duty orders on imports of corrosion inhibitors from China are noted in the sections titled "The original investigations" and "U.S. imports," if applicable.

⁹ Letter from Eric Greynolds, Office Director, AD/CVD Operations, Enforcement and Compliance, U.S. Department of Commerce to Nannette Christ, Director of Investigations, March 27, 2026.

The product

Commerce's scope

Commerce has defined the scope as follows:

The merchandise covered by these orders is tolyltriazole and benzotriazole. This includes tolyltriazole and benzotriazole of all grades and forms, including their sodium salt forms. Tolyltriazole is technically known as Tolyltriazole IUPAC 4,5 methyl benzotriazole. It can also be identified as 4,5 methyl benzotriazole, tolutriazole, TTA, and TTZ. Benzotriazole is technically known as IUPAC 1,2,3-Benzotriazole. It can also be identified as 1,2,3-Benzotriazole, 1,2- Aminozenphenylene, IH-Benzotriazole, and BTA. All forms of tolyltriazole and benzotriazole, including but not limited to flakes, granules, pellets, prills, needles, powder, or liquids, are included within the scope of these orders. The scope includes tolyltriazole/sodium tolyltriazole and benzotriazole/sodium benzotriazole that are combined or mixed with other products. For such combined products, only the tolyltriazole/sodium tolyltriazole and benzotriazole/sodium benzotriazole component is covered by the scope of these orders. Tolyltriazole and sodium tolyltriazole that have been combined with other products is included within the scope, regardless of whether the combining occurs in third countries. Tolyltriazole, sodium tolyltriazole, benzotriazole and sodium benzotriazole that is otherwise subject to these orders is not excluded when commingled with tolyltriazole, sodium tolyltriazole, benzotriazole, or sodium benzotriazole from sources not subject to these orders. Only the subject merchandise component of such commingled products is covered by the scope of these orders. A combination or mixture is excluded from these orders if the total tolyltriazole or benzotriazole component of the combination or mixture (regardless of the source or sources) comprises less than 5 percent of the combination or mixture, on a dry weight basis.

Notwithstanding the foregoing language, a tolyltriazole or benzotriazole combination or mixture that is transformed through a chemical reaction into another product, such that, for example, the tolyltriazole or benzotriazole can no longer be separated from the other products through a distillation or other process is excluded from these orders. Tolyltriazole has the Chemical Abstracts Service (CAS) registry number 299385–43–1. Tolyltriazole is classified under Harmonized Tariff Schedule of the United States (HTSUS) subheading 2933.99.8220.¹⁰ Sodium Tolyltriazole has the CAS registry number 64665–57–2 and is classified under HTSUS subheading 2933.99.8290. Benzotriazole has the CAS registry number 95–14–7 and is classified under HTSUS subheading 2933.99.8210. Sodium Benzotriazole has the CAS registry number 15217–42–2. Sodium Benzotriazole is classified under HTSUS subheading 2933.99.8290.¹¹

¹⁰ Staff determined that one of the CAS registry numbers was reported incorrectly by Commerce in its scope. The correct CAS number for tolyltriazole is 29385-43-1.

¹¹ 86 FR 14869, March 19, 2021.

U.S. tariff treatment

Corrosion inhibitors are currently imported under Harmonized Tariff Schedule of the United States (“HTS”) statistical reporting numbers 2933.99.8210, 2933.99.8220, and 2933.99.8290. The 2026 general rate of duty for HTS subheading 2933.99.82 is 6.5 percent ad valorem.¹² Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

Although no additional tariffs applied to corrosion inhibitors from China effective April 7, 2026, below is a summary of the history of additional tariffs related to corrosion inhibitors from China.

Section 301 tariffs

Corrosion inhibitors originating in China are not subject to an additional duty under section 301 of the Trade Act of 1974.¹³

Section 122 tariffs

Corrosion inhibitors originating in China are not subject to tariffs initiated in February 2026 under section 122 of the Trade Act of 1974.¹⁴

¹² Tolyltriazole is currently imported under Harmonized Tariff Schedule of the United States (“HTS”) statistical reporting number 2933.99.8210, benzotriazole under statistical reporting number 2933.99.8220, and sodium tolyltriazole and sodium benzotriazole under 2933.99.8290. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, p. 29.137.

¹³ U.S. notes 20 and 31 to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, pp. 99.3.90 to 99.3.332 and 99.3.340 to 99.3.348.

¹⁴ Corrosion inhibitors were included in a list of products not subject to section 122 tariffs. Section 122 authorizes the President to impose a temporary import surcharge for a period not exceeding 150 days unless such period is extended by an Act of the Congress. 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 4, Publication 5711, February 2026, pp. 99.3.49 to 99.3.55.

Tariffs initiated under the International Emergency Economic Powers Act (“IEEPA”)¹⁵

Effective February 20, 2026, all tariffs initiated under IEEPA were terminated. Below is a history of the IEEPA tariffs relevant to erythritol originating in China that were in effect until February 20, 2026.¹⁶

Country specific IEEPA tariffs

Effective February 4, 2025, corrosion inhibitors 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 duty was reduced back to 10 percent.¹⁷ Effective February 20, 2026, tariffs initiated under IEEPA and the associated duties imposed under IEEPA were terminated.¹⁸

Tariffs initiated in April 2025 under IEEPA

Corrosion inhibitors originating in China were not subject to tariffs initiated in April 2025 under IEEPA.¹⁹ Effective February 20, 2026, tariffs initiated under IEEPA and the associated duties imposed under IEEPA were terminated.²⁰

¹⁵ 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.

¹⁶ 91 FR 9437, February 25, 2026.

¹⁷ 90 FR 9121, February 7, 2025; 90 FR 11426, March 6, 2025; 90 FR 11463, March 7, 2025; 90 FR 50725, November 7, 2025. See also HTS heading 9903.01.20 and U.S. note 2(s) and HTS heading 9903.01.24 and U.S. note 2(u) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, pp. 99.3.3 and 99.3.4.

¹⁸ 91 FR 9437, February 25, 2026.

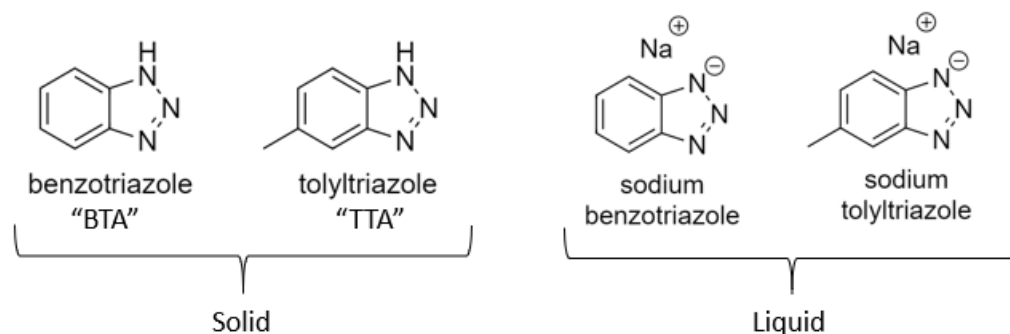
¹⁹ Corrosion inhibitors were included in a list of products in HTS U.S. note 2(v)(iii)(a) to subchapter III of chapter 99 that are not subject to tariffs initiated in April 2025 under IEEPA. 90 FR 15041, April 7, 2025. See also HTS headings 9903.01.25 and 9903.01.32 and U.S. note 2(v)(iii)(a) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, pp. 99.3.5, 99.3.375, and 99.3.376.

²⁰ 91 FR 9437, February 25, 2026.

Description and uses²¹

The imported products subject to these investigations are collectively referred to as corrosion²² inhibitors—the solids benzotriazole (“BTA”) and tolyltriazole (“TTA”)²³ and their liquid forms sodium BTA and sodium TTA (figure 1), which have similar applications.²⁴ Corrosion inhibitors are used to provide corrosion protection of metals and elements of copper, copper alloys, zinc, cobalt, silver, aluminum, and steel.²⁵

Figure 1.1 Corrosion inhibitors: Chemical structures and phases of subject products



Source: Original publication, p. 1.10.

Structurally, the difference between BTA ($C_6H_4N_3$) and TTA ($C_7H_7N_3$) is that the latter has a methyl group on its benzene ring.²⁶ The chemical formulas of both liquids BTA and TTA are the sodium salts: $Na(C_6H_4N_3)$ and $Na(CH_3C_6H_4N_3)$, and in the liquid form, the anions of BTA and TTA are active (as denoted by the negative symbol “-” in figure 1.1).

Both BTA and TTA can be produced and sold as powder, flakes, granules, or crystals.²⁷ The color of solid BTA ranges from white to light tan in color, and solid TTA ranges from white to light brown.²⁸ Domestically produced sodium BTA and sodium TTA (e.g., the liquid forms) are

²¹ Unless otherwise noted, this information is based on Original publication, pp. 1.10 to 1.13.

²² Corrosion is a natural process that converts a refined metal into a more chemically stable form such as oxide, hydroxide, or sulfide. The Electrochemical Society, “What Is Corrosion?” www.electrochem.org/corrosion-science, retrieved April 7, 2026.

²³ BTA (CAS No. 95-14-7) and TTA (CAS No. 29385-43-1) are members of the triazole family of chemicals. There are on the order of dozens of compounds that are in the class of these corrosion inhibitors; however, due to their lower price, TTA and BTA are pragmatic choices. Original publication, p. 1.10.

²⁴ Original publication, p. 1.10.

²⁵ Original publication, p. 1.10.

²⁶ Original publication, p. 1.10.

²⁷ Original publication, p. 1.11.

²⁸ Original publication, p. 1.11.

both solubilized for use in a 40-50 percent concentration.²⁹ Sodium BTA can range from colorless to a pale yellow solution, and sodium TTA's color can range from pale yellow to amber.³⁰

According to Wincom in the original proceeding, solid BTA and TTA make up the majority of subject imports due to being easier to transport than the liquid forms because of freight costs. However, the majority of end users actually require sodium TTA or sodium BTA as the corrosion inhibitor input for their applications as they are aqueous formulations.³¹ Wincom surmises that many purchasers purchase and import solid BTA and solid TTA and make their own sodium BTA and sodium TTA solutions as it is cost effective compared to purchasing the liquid forms.³² BTA, sodium BTA, TTA and sodium TTA are used in a variety of corrosion inhibitor applications and are used in many different industries as shown in table 1.2.

²⁹ Original publication, p. 1.11.

³⁰ Original publication, p. 1.11.

³¹ Original publication, p. 1.11.

³² Adding sodium hydroxide (NaOH), referred to as "caustic soda" or "caustic," to a solution of TTA or BTA in water yields sodium BTA and sodium TTA. The terms "sodium hydroxide" and "caustic" are used interchangeably. Original publication, p. 1.11.

Table 1.2 Corrosion inhibitors: Illustrative applications in industries which utilize BTA, TTA, sodium BTA, and sodium TTA

Application	BTA (solid form)	TTA (solid form)	Sodium BTA (liquid form)	Sodium TTA (liquid form)
Industrial water treatment	X	X	X	X
Automotive fluids	X	X	X	X
Metalworking fluids	X	X	X	X
De-icer (aircraft and runway)	X	X	X	X
Lubricants	X	X		
Cleaners	X	X	X	X
Direct treatment	X	X	X	X
Circuit boards	X	X	X	X
Inks and coatings	X	X	X	X
Blends	X	X	X	X

Note: There is a distinction between the industries which utilize the products and whether the end user ultimately uses solid or liquid in the specific application. The final state of matter used in industries is mostly in the liquid form. It is estimated by Wincom that solid products make up less than 10 percent of the market {compared to products that are in liquid form}. In reference to lubricants, it is far less common to use the liquid sodium salt forms of TTA and BTA in lubricants, and thus the boxes do not have an "X." Lubricants primarily consist of a solvent which is categorized as a base oil. These formulas are made of hydrocarbon. TTA/BTA in their solid acid form would be preferred in lubricants due to the absence of water. Lubricants are used at high temperatures and having water in a formula which evaporates at 100 degrees Celsius is typically unwanted. There are, however, aqueous based lubricants that can utilize the solid and liquid forms of TTA or BTA. For example, some lubricant formulas use a liquid modified benzotriazole, which is a liquid product compatible with hydrocarbon formulas. In terms of blends, they are for applications such as engine coolants, water treatment products, and metal working products. There are firms that mix BTA and TTA together. There are firms that use BTA and TTA interchangeably in certain blends.

Source: Original publication, p. 1.12.

The two most important applications for corrosion inhibitors are in the water treatment industry and the engine cooling industry, which together account for at least half of the total use.³³ BTA and TTA (solid forms) are largely viewed as inputs in the production of sodium BTA and sodium TTA, which are the liquid forms ultimately used for most final applications.³⁴ BTA and TTA are used as corrosion inhibitors in lubricants and in the production of corrosion inhibitor blends.³⁵ In the solid form, granular and flake forms are sometimes used in blending applications because they are free-flowing and low-dusting. Other users prefer the powder or crystal form because they believe the product dissolves more quickly.³⁶ The properties of BTA

³³ Original publication, p. 1.12.

³⁴ It is estimated by Wincom that less than 10 percent of the market is a solid form, as compared to the liquid forms. Original publication, p. 1.12.

³⁵ Original publication, p. 1.13.

³⁶ Original publication, p. 1.13.

are such that it can be used in the end application as a vapor phase corrosion inhibitor, while TTA does not work well in the vapor phase.³⁷ There are firms that mix BTA and TTA together.³⁸

In 2017, Wincom sold three types of TTA – Wintrol CT produced entirely with domestic production, Wintrol T50NA produced entirely with imported solid TTA converted to liquid TTA, and Wintrol CT produced from domestic production with imported solid TTA added ***.³⁹ According to the respondent in the original proceeding, even where BTA and TTA can be used interchangeably in application, they are not interchangeable due to regulatory requirements.⁴⁰ They stated the two chemicals have different health and environmental safety concerns internationally. The industry must use different safety data sheets, labels, and hazards for the two chemicals in order to meet the regulatory requirements.⁴¹

Manufacturing process⁴²

In general, the capitally intensive production process of BTA and sodium BTA has four phases: 1) “Crude Process” or synthesis to produce a crude sodium salt solution that has impurities; 2) “Purification” of the crude product to reduce or eliminate impurities; 3) “Production of the desired commercial form,” which is either the solid or liquid phase; and 4) “Packaging and reconstitution,” as outlined in figure 1.2 for China and the United States.

There are companies that use BTA and/or TTA shown in the final phase of figure 1.2 as the starting material for downstream products. The activities include the following: 1) Taking dry BTA or TTA and adding water with caustic to produce a liquid product; 2) Taking dry BTA or TTA and mixing it with other chemicals to make a dry tablet; 3) Taking dry BTA or TTA and mixing it with other chemicals to form a blend.⁴³

³⁷ Original publication, p. 1.13.

³⁸ Original publication, p. 1.13.

³⁹ Wincom originally mixed domestically produced sodium TTA and imported Chinese TTA because ***. Original publication, p. 1.13.

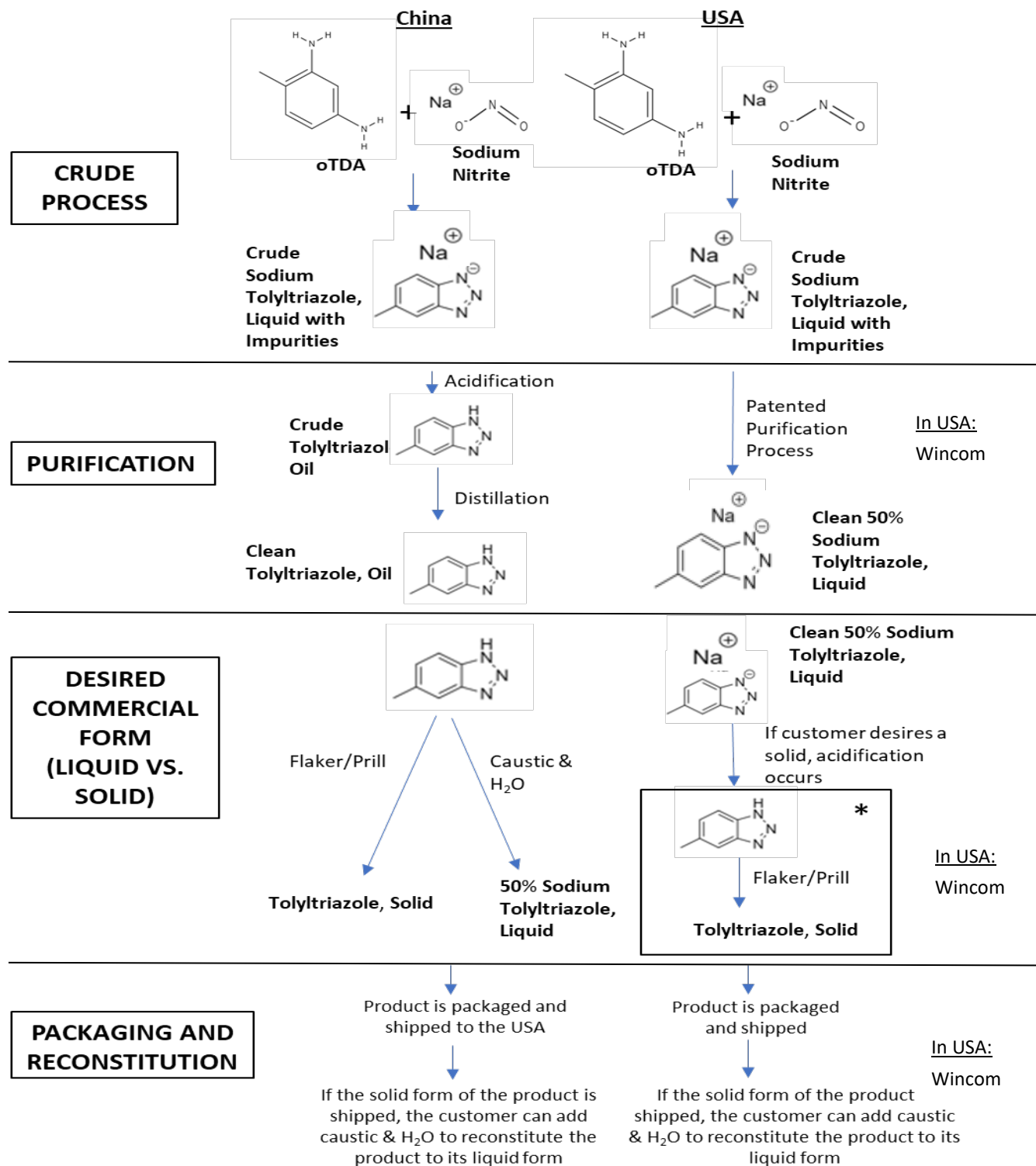
⁴⁰ Original publication, p. 1.13.

⁴¹ Original publication, p. 1.13.

⁴² Unless otherwise noted, this information is based on Original publication, pp. 1.14 to 1.21.

⁴³ These activities were carried out by Nalco Company, LLC (“Nalco”), Suez WTS USA, Inc. (“Suez”), and Dober Chemical Corporation (“Dober”). In the original proceeding, Nalco, Suez, and Dober asserted that they were domestic producers. However, the Commission determined that all three companies did not have sufficient production-related activities to qualify as domestic producers. Original publication views, pp. 10 to 20.

Figure 1.2 Corrosion inhibitors: Tolyltriazole and sodium tolyltriazole manufacturing process in China and the United States



The first part of the production process for TTA or sodium TTA is combining raw materials ortho toluene diamine (“oTDA”) and sodium nitrite in a pressure reactor to produce crude sodium TTA.⁴⁴ Wincom does not perform this part of the manufacturing process, as it requires specialized knowledge, major investment in equipment, proper zoning, and compliance with complex safety standards.⁴⁵ In the United States, production of crude is completed by domestic toll manufacturers. The crude product has impurities and is not sold commercially in the merchant market.⁴⁶ Wincom starts with crude for downstream processing.

The second part of the production process is purification, which is carried out by Wincom, who uses a patented process.⁴⁷ The purification process reduces or eliminates impurities.⁴⁸ Crude product is purified to yield sodium TTA, which is one of the two desired

⁴⁴ **“Crude TTA in liquid form”** is the form of TTA that is produced when ortho toluene diamine and sodium nitrite are reacted under the requisite pressure and temperature conditions and subsequently cooled. Crude TTA in liquid form typically has a Gardner color value > 18 or is not otherwise capable of being rated using the Gardner color scale. Color impurities present within this product intermediate are not removed.

“Crude TTA in solid form” is the form of TTA that is produced when ortho toluene diamine and sodium nitrite are reacted under the requisite pressure and temperature conditions and subsequently cooled. It is then subjected to an acidification process and processed into the solid form. Crude TTA in solid form is brown to black in color. It can be made into a sodium salt solution that can be analyzed on the Gardner color scale. If analyzed as a liquid, Crude TTA in solid form typically has a Gardner color value > 18 or is not otherwise capable of being rated using the Gardner color scale.

“Purified TTA in liquid form” is the form of TTA that is produced by processing crude TTA in a purification process that greatly reduces impurities in the crude TTA and increases the purity level of the liquid TTA. Purified TTA in liquid form typically has a Gardner color scale value lower than or equal to 12.

“Purified TTA in solid form” is the form of TTA that is produced by processing crude TTA in a purification process that greatly reduces the impurities in the crude TTA and increases the purity level of the TTA. It is then subjected to a process that produces the solid form of the product. The purified solid TTA is typically light tan/yellow to off-white in color. If processed into a liquid form, it typically would have a Gardner color scale rating lower than or equal to 12.

⁴⁵ Wincom is located in Cincinnati, Ohio. The use of a high pressure and temperature reactor requires specialized skills, capital, and regulatory compliance (Environmental Protection Agency and Occupational Safety and Health Administration). The reaction carried out; is highly exothermic (gives off heat) and requires cooling towers and other infrastructure. There must also be large volume holding tanks for the raw materials. Original publication, p. 1.16.

⁴⁶ Original publication, p. 1.16.

⁴⁷ The patent is currently in effect. The process is described in U.S. Patent No. 9802905. Original publication, p. 1.16. The patent expiration date is October 28, 2033. Google Patents, retrieved April 7, 2026, <https://patents.google.com/patent/US9309205B2/en>.

⁴⁸ Impurities in this process are ***. Original publication, p. 1.17.

commercial forms of TTA.⁴⁹ This patented purification process reduces the amount of chemical waste during the process and lessens its environmental impact.⁵⁰

The third part in the production process involves manufacturing the product in the customers' desired form.⁵¹ Wincom's patented purification process produces sodium TTA, one of the two desired forms.⁵² Currently, Wincom does not sell TTA, which is the solid form.⁵³ However, Wincom reports it has the ability to produce TTA by acidifying and flaking and/or prilling the sodium TTA (liquid) to TTA (solid).⁵⁴

The last step in the production process involves packaging. Wincom provides its domestic product, sodium TTA, in tank trucks, totes, and drums.⁵⁵

As denoted in figure 1.2, the Chinese manufacturing process begins the same way as in the United States. The same raw materials, oTDA and sodium nitrite, are used to produce crude sodium TTA.⁵⁶

The Chinese purification process involves the acidification and distillation of the crude TTA to produce a purified (clean) TTA oil. It is different from the patented process in the United States. To purify TTA, the Chinese industry uses sulfuric acid for the acidification step, which results in a waste solution of sodium sulfate. The purification process generates a voluminous amount of waste that must be disposed of, which is approximately one pound of sodium sulfate waste for every pound of TTA product.⁵⁷ The U.S. process is more efficient in that it does not generate the sodium sulfate waste. Wincom states that its patented process has fewer steps and is less costly than the Chinese process.⁵⁸

The Chinese industry has produced both desired commercial forms of TTA—TTA (solid) and sodium TTA (liquid). Sodium TTA is produced by adding sodium hydroxide (caustic) and water to the purified TTA oil. The Chinese produced TTA by flaking and/or prilling the purified TTA oil.⁵⁹ The product is usually shipped to the United States as a solid form in paper and

⁴⁹ Original publication, p. 1.17.

⁵⁰ This also reduces the costs associated with the disposal of hazardous waste. Original publication, p. 1.17.

⁵¹ ***.

⁵² Original publication, p. 1.17.

⁵³ Original publication, p. 1.17.

⁵⁴ Original publication, p. 1.17.

⁵⁵ Staff field trip report, Wincom, SantoLubes, and Nalco, Original publication, p. 1.17.

⁵⁶ Original publication, p. 1.17.

⁵⁷ Original publication, p. 1.17.

⁵⁸ Original publication, p. 1.17.

⁵⁹ Original publication, p. 1.18.

woven bags or sacks.⁶⁰ If the manufacturer ships TTA (solid form), the customer can add sodium hydroxide (caustic) and H₂O to reconstitute the product to its liquid form.⁶¹

In the manufacturing process, Wincom notes that the process impurities are ***, which it removes with its purification process. Wincom has technical ability to control the purity of its product, and notes there are some customers who would prefer less purity if it costs less.⁶² Dober and others assert that they cannot use Wincom's product due to its impurities. The following evidence is submitted for the record: 1) Fourier transform infrared spectra (FTIR) of Wincom's Wintrol CT and Dober's NaTT 50 percent;⁶³ 2) Metal analysis by inductively coupled plasma (ICP) of Wincom's Wintrol CT and Dober's NaTT 50 percent;⁶⁴ 3) Gas chromatography (GC) spectra of Wincom's Wintrol CT and Dober's NaTT 50 percent;⁶⁵ 4) Level 7 exhaustive coolant analysis, physical and chemical concentration data by various ASTM methods of Wincom's Wintrol CT only.⁶⁶ The FTIR and GC spectra show that Wincom's Wintrol CT and Dober's NaTT 50 percent are very similar. In terms of completed metals testing, Wincom's Wintrol CT sample had ***, while Dober's imported sample from China had ***.⁶⁷ ⁶⁸ The level 7 exhaustive coolant analysis metals data for Wintrol CT shows ***.⁶⁹ Old World Industries stated that Wintrol CT did not meet its specifications; however, it did not submit spectra or other data to show that the imported product from China or other countries could meet specifications.⁷⁰

⁶⁰ Staff field trip report, Wincom, SantoLubes, and Nalco, Original publication, p. 1.18.

⁶¹ Original publication, p. 1.18.

⁶² Staff field trip report, Wincom, SantoLubes, and Nalco, Original publication, p. 1.18.

⁶³ Original publication, p. 1.18. Dober's sample was the solid TTA imported from China, reconstituted with caustic and water to yield a liquid form of product at 50 percent concentration.

⁶⁴ Original publication, p. 1.18. The metals tested were cadmium, copper, iron, lead, and zinc, all in the aqueous phase.

⁶⁵ Original publication, p. 1.18.

⁶⁶ Original publication, p. 1.18.

⁶⁷ Dober's submitted metals analysis data showed Wintrol CT had *** while Dober's imported TTA with caustic and water added had ***.

⁶⁸ There is ***.

⁶⁹ Data submitted by Old World Industries, an importer, showed for Wincom's Wintrol CT ***, while the ICP metals data submitted by Dober showed ***.

⁷⁰ Original publication, p. 1.18. ***.

At the time of the original investigations, Wincom did not commercially produce BTA⁷¹ for the merchant market.⁷² Wincom reported it had the ability to produce BTA using the same or similar manufacturing equipment and employees that were used to produce TTA.⁷³ The patented process techniques for production of TTA were applicable to BTA. Currently, Wincom ***, with details in sections further below.⁷⁴

The Chinese industry has produced BTA and sodium BTA. This manufacturing process is similar to the manufacturing process for TTA and sodium TTA. In production of BTA and sodium BTA, orthophenylene diamine (“OPD”) is used as an input in place of oTDA for raw materials during the production of crude. The OPD and sodium nitrite produce crude sodium BTA in liquid form. The crude is then acidified and distilled to clean BTA oil. The oil is then used to produce BTA or sodium BTA. Sodium BTA is produced by adding sodium hydroxide (caustic) and water. BTA is produced by flaking and/or prilling the clean BTA oil. The desired commercial form is then packaged and shipped to the United States. If the solid form of the product is shipped, the customer can add caustic and water to reconstitute the product to its liquid form. Adding caustic and water to a solid product to yield a liquid product does not require complex technical expertise and is commonly known to corrosion inhibitor companies.⁷⁵ Wincom stated that the product solid for liquid transformation (reconstitution) costs a small percentage of overall sales of *** percent.⁷⁶

⁷¹ **“Crude BTA in liquid form”** is the form of BTA that is produced when orthophenylene diamine and sodium nitrite are reacted under the requisite pressure and temperature conditions and subsequently cooled. Crude BTA in liquid form is dark in color. Color impurities present within this prospective product intermediate are not removed.

“Crude BTA in solid form” is the form of BTA that is produced when orthophenylene diamine and sodium nitrite are reacted under the requisite pressure and temperature conditions and subsequently cooled. It is then subjected to an acidification process and processed into the solid form. Crude BTA in solid form is tan to dark in color.

“Purified BTA in liquid form” is the form of BTA that is produced by processing crude BTA in a purification process that greatly reduces the impurities in the crude BTA and increases the purity level of the BTA. Purified BTA in liquid form typically has a Gardner color scale value lower than 12.

“Purified BTA in solid form” is the form of BTA that is produced by processing crude BTA in a purification process that greatly reduces the impurities in the crude BTA and increases the purity level of the BTA. It is then subjected to a process that produces the solid form of the product. The purified solid BTA is typically light tan/yellow to off-white in color and, if put in a liquid form, would typically have a Gardner color scale rating lower than or equal to 12. Original publication, p. 1.19.

⁷² Wincom ***. Original publication, p. 1.19.

⁷³ Original publication, p. 1.19.

⁷⁴ Domestic interested party’s response to the notice of institution, March 4, 2026, p. 6.

⁷⁵ Original publication, p. 1.20.

⁷⁶ Caustic is stated as cheap. Original publication, p. 1.20.

A summary of chemistry activities is shown in Table 1.3.⁷⁷

Table 1.3 Corrosion inhibitors: Chemistry activities of firms in the United States

Firm	Crude Process/Synthesis: React ortho toluene diamine (oTDA) and sodium nitrite	Purification of crude sodium TTA (liquid form)	Start with TTA (solid) or BTA (solid) then add caustic and water	Start with TTA (solid) and/or BTA (solid) then make a blend
Texmark	yes	no	no	no
SantoLubes	yes ¹	no	no	no
Wincom	no	yes	yes	no
Suez	no	no ²	yes ³	yes ⁴
Nalco	no	no	unknown	yes ⁵
Dober	no	no	yes ⁶	yes ⁷

¹ Staff field trip report, Wincom, SantoLubes, and Nalco, Original publication, p. 1.21.

² Suez does not import crude TTA or crude BTA. Original publication, p. 1.21.

³ Suez purchases solid TTA and adds caustic and water to make a liquid TTA solution. Original publication, p. 1.21.

⁴ The majority, approximately *** percent, of the solid TTA purchased goes into making Suez's Halogen Resistant Azole (HRA) corrosion inhibitor product. TTA is added to sodium hypochlorite and other components are added. The remaining percentage goes into liquid TTA products and blends. Suez purchases less than *** percent solid BTA, and it does not purchase liquid BTA or liquid TTA. The firm does not import crude TTA or crude BTA. Original publication, p. 1.21.

⁵ Original publication, p. 1.21.

⁶ Dober starts with solid TTA and adds NaOH (caustic). Original publication, p. 1.21.

⁷ Dober has three product types that have components of BTA and/or TTA. The first is its Smart Release® tablet, which is a dry blend of up to 5 different chemicals comprising *** percent in-scope products. The second type is its supplemental cooling additives dry tablets, which are dry blends comprised of 10-18 different chemicals. The third is its coolant additives liquid products, which are comprised of 10-20 different chemicals comprising *** percent in-scope products. The dry tablets are placed in liquid as the end use. Original publication, p. 1.21.

⁷⁷ As no company other than Wincom responded to Commission's notice of institution for this review, information shown is from the original investigations.

The industry in the United States

U.S. producers

During the final phase of the original investigations, the Commission received U.S. producer questionnaires from three firms, which accounted for *** of production of corrosion inhibitors in the United States during 2019.⁷⁸

In response to the Commission's notice of institution in these current reviews, domestic interested party Wincom indicated that it and its toll producers (***) are the only known U.S. producers of corrosion inhibitors.^{79 80}

⁷⁸ Corrosion Inhibitors from China (Final), Staff Report, INV-TT-021, February 11, 2021 ("Original confidential report"), p. 3.1. During the original investigation, the three responding U.S. producers included firms that either produced corrosion inhibitors for their own accounts or processed the product for the accounts of other firms under a toll agreement. The latter group consisted of U.S. producers Santo Lubes LLC ("SantoLubes") and Texmark Chemicals, Inc. ("Texmark"). The responding tollee included a firm that provided raw materials to the producer, retained title to the product produced, and ultimately sold the corrosion inhibitors to its customers. This group consisted solely of Wincom. Original publication, p. 3.1.

⁷⁹ Domestic interested party's response to the notice of institution, March 4, 2026, p. 23.

⁸⁰ Domestic interested party Wincom indicates that ***. Ibid., p. 6.

Recent developments

Table 1.4 presents events in the U.S. industry since the Commission's original investigations.⁸¹

Table 1.4 Corrosion inhibitors: Developments in the U.S. industry

Item	Firm	Event
Expansion	Wincom	Since the Orders were issued in 2021, Wincom has been able to work with tollers to produce BTA.
Production	Texmark	Since the Orders were issued in 2021, ***.
Production	SantoLubes	***.
Production	***	***.
Merger	Suez	In early 2022, Veolia North America merged with Suez, a processor, and currently is offering water treatment options.
Acquisition	Nalco (Ecolab)	Ecolab, Inc., the parent company of Nalco, a processor, acquired Ovivo's Electronics Ultrapure Water Business in 2025.

Source: Domestic interested party's response to the notice of institution, March 4, 2026; Wincom, "The Copper Bullet," May 13, 2025, <https://wincom-inc.com/the-copper-bullet/>; Veolia, "Suez Merger with Veolia," retrieved April 6, 2026 from <https://www.veolianorthamerica.com/veolia-north-america-and-suez-faq>; PR Newswire, "Veolia completes the combination with Suez & strengthens its position in North America to transform the delivery of environmental services," March 22, 2022, <https://www.prnewswire.com/news-releases/veolia-completes-the-combination-with-suez--strengthens-its-position-in-north-america-to-transform-the-delivery-of-environmental-services-301507781.html>; PSI, "Veolia and Suez: the New Face of the Private Water Giants," March 22, 2022, <https://publicservices.international/resources/news/veolia-and-suez-the-new-face-of-the-private-water-giants?id=12766&lang=en>; Veolia, "Industrial Water and Wastewater Treatment," retrieved on April 6, 2026 from <https://www.veolianorthamerica.com/what-we-do/water-capabilities/industrial-water-and-wastewater-treatment>; Ecolab, "Ecolab Closes Acquisition of Ovivo's Electronics Ultrapure Water Business," December 16, 2025, <https://www.ecolab.com/nalco-water/news/2025/12/ecolab-closes-acquisition-of-ovivo-s-electronics-ultrapure-water-business>.

⁸¹ For recent developments, if any, in tariff treatment, please see "U.S. tariff treatment" section.

U.S. producers' trade and financial data

The Commission asked domestic interested parties to provide trade and financial data in their response to the notice of institution in the current five-year reviews. Table 1.5 presents a compilation of the trade and financial data submitted from all responding U.S. producers and U.S. processors in the original investigations and these first five-year reviews.

Table 1.5 Corrosion inhibitors: Trade and financial data submitted by U.S. producers and U.S. processors, by period

Quantity in 1,000 pounds dry weight; value in 1,000 dollars; unit value in dollars per pound dry weight; ratio in percent

Item	Measure	2017	2018	2019	2025
Capacity (producers)	Quantity	***	***	***	***
Capacity (processors)	Quantity	***	***	***	—
Production (producers)	Quantity	***	***	***	***
Production (processors)	Quantity	***	***	***	—
Capacity utilization (producers)	Ratio	***	***	***	***
Capacity utilization (processors)	Ratio	***	***	***	—
U.S. shipments	Quantity	***	***	***	***
U.S. shipments	Value	***	***	***	***
U.S. shipments	Unit value	***	***	***	***
Net sales	Value	***	***	***	***
COGS	Value	***	***	***	***
COGS to net sales	Ratio	***	***	***	***
Gross profit or (loss)	Value	***	***	***	***
SG&A expenses	Value	***	***	***	***
Operating income or (loss)	Value	***	***	***	***
Operating income or (loss) to net sales	Ratio	***	***	***	***

Source: For the years 2017, 2018, and 2019, data are compiled using data submitted in the Commission's original investigations. For the year 2025, data are compiled using data submitted by domestic interested party Wincom. Domestic interested party's response to the notice of institution, March 4, 2026, exh. 1.

Note: Because of rounding, figure may not add to total shown. Quantities shown as "0" represent values greater than zero, but less than 1,000 pounds. Zeroes, null values, and undefined calculations are suppressed and shown as "—". No U.S. processors participated or submitted data during these first reviews.

Note: For a discussion of data coverage, please see "U.S. producers" section.

Definitions of the domestic like product and domestic industry

The domestic like product is defined as the domestically produced product or products which are like, or in the absence of like, most similar in characteristics and uses with, the subject merchandise. The domestic industry is defined as the U.S. producers as a whole of the domestic like product, or those producers whose collective output of the domestic like product constitutes a major proportion of the total domestic production of the product. Under the related parties provision, the Commission may exclude a U.S. producer from the domestic industry for purposes of its injury determination if “appropriate circumstances” exist.⁸²

The domestic like product is the domestically produced product or products which are like, or in the absence of like, most similar in characteristics and uses with, the subject merchandise. In its original determinations, the Commission defined a single domestic like product, coextensive with the scope of Commerce’s investigations. The domestic industry is the U.S. producers as a whole of the domestic like product, or those producers whose collective output of the domestic like product constitutes a major proportion of the total domestic production of the product. In its original determinations, the Commission defined the domestic industry as all domestic producers of the domestic like product, specifically Wincom and its toll producers SantoLubes and Texmark.⁸³ In 2025, U.S. producer Wincom accounted for *** percent of total subject imports from China and its subject imports were equivalent to *** percent of the quantity of its U.S. production of corrosion inhibitors.⁸⁴ Wincom estimated that it and its toll producers accounted for all of U.S. production in 2025.⁸⁵

⁸² Section 771(4)(B) of the Tariff Act of 1930, 19 U.S.C. § 1677(4)(B).

⁸³ 91 FR 4617, February 2, 2026.

⁸⁴ Domestic interested party’s response to the notice of institution, March 4, 2026, exhs. 1 and 1e. Total subject imports from China are calculated from official Commerce statistics for HTS statistical reporting numbers 2933.99.8210 and 2933.99.8220, accessed March 9, 2026.

⁸⁵ Domestic interested party’s supplemental response to the notice of institution, March 4, 2026, p. 23.

U.S. importers

During the final phase of the original investigations, the Commission received U.S. importer questionnaires from 19 firms, which accounted for approximately *** percent of U.S. imports from China in 2019.⁸⁶ Import data presented in the original investigations are based on questionnaire responses.

In its response to the notice of institution for these current reviews, domestic interested party and importer of the subject merchandise Wincom provided data regarding its U.S. imports and U.S. shipments. In addition, Wincom provided a list of 44 firms that may currently import subject merchandise.⁸⁷

⁸⁶ Original confidential report, p. 4.1.

⁸⁷ Respondent interested party's response to the notice of institution, March 4, 2025, exh. 1.

U.S. imports

Table 1.6 presents the quantity, value, and unit value of U.S. imports from China as well as the other top sources of U.S. imports (shown in descending order of 2025 imports by quantity).

Table 1.6 Corrosion inhibitors: U.S. imports, by source and period

Quantity in 1,000 pounds dry weight; value in 1,000 dollars; unit value in dollars per pound dry weight

U.S. imports from	Measure	2020	2021	2022	2023	2024	2025
China	Quantity	9,544	7,587	8,752	5,718	7,298	6,188
India	Quantity	0	707	1,212	1,619	575	977
Vietnam	Quantity	—	—	—	—	—	733
Germany	Quantity	18	20	19	69	3	92
All other sources	Quantity	54	135	92	48	109	16
Nonsubject sources	Quantity	72	863	1,322	1,736	687	1,818
All import sources	Quantity	9,616	8,449	10,074	7,454	7,985	8,006
China	Value	11,992	20,117	33,848	14,231	11,795	13,827
India	Value	16	2,463	8,004	8,788	2,760	3,049
Vietnam	Value	—	—	—	—	—	2,100
Germany	Value	117	111	75	355	17	86
All other sources	Value	831	1,224	741	198	1,061	128
Nonsubject sources	Value	964	3,798	8,820	9,341	3,837	5,363
All import sources	Value	12,956	23,916	42,668	23,572	15,632	19,190
China	Unit value	1.26	2.65	3.87	2.49	1.62	2.23
India	Unit value	783.20	3.48	6.60	5.43	4.80	3.12
Vietnam	Unit value	—	—	—	—	—	2.86
Germany	Unit value	6.59	5.54	4.02	5.13	5.73	0.93
All other sources	Unit value	15.26	9.05	8.09	4.14	9.75	7.99
Nonsubject sources	Unit value	13.35	4.40	6.67	5.38	5.59	2.95
All import sources	Unit value	1.35	2.83	4.24	3.16	1.96	2.40

Source: Compiled from official Commerce statistics for HTS statistical reporting numbers 2933.99.8210 and 2933.99.8220, accessed March 9, 2026.

Note: Because of rounding, figure may not add to total shown. Quantities shown as "0" represent values greater than zero, but less than 1,000 pounds. Zeroes, null values, and undefined calculations are suppressed and shown as "—".

Note: 2020 quantity and value data for nonsubject country India is very unlikely to be correct. Email from Branch Chief Gregory Kondilas, U.S. Census Bureau, March 9, 2026.

Apparent U.S. consumption and market shares

Table 1.7 presents data on U.S. producers' U.S. shipments, U.S. imports, apparent U.S. consumption, and market shares.

Table 1.7 Corrosion inhibitors: Apparent U.S. consumption and market shares, by source and period

Quantity in 1,000 pounds dry weight; value in 1,000 dollars; shares in percent

Source	Measure	2017	2018	2019	2025
U.S. producers	Quantity	***	***	***	***
China	Quantity	10,648	14,043	11,918	6,188
Nonsubject sources	Quantity	152	170	199	1,818
All import sources	Quantity	10,800	14,213	12,117	8,006
Apparent U.S. consumption	Quantity	***	***	***	***
U.S. producers	Value	***	***	***	***
China	Value	24,759	31,514	19,794	13,827
Nonsubject sources	Value	715	921	2,034	5,363
All import sources	Value	25,474	32,435	21,828	19,190
Apparent U.S. consumption	Value	***	***	***	***
U.S. producers	Share of quantity	***	***	***	***
China	Share of quantity	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***
All import sources	Share of quantity	***	***	***	***
U.S. producers	Share of value	***	***	***	***
China	Share of value	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***
All import sources	Share of value	***	***	***	***

Source: For the years 2017, 2018, and 2019, data are compiled using data submitted in the Commission's original investigations. For the year 2025, U.S. producers' U.S. shipments are compiled from the domestic interested party's response to the Commission's notice of institution and U.S. imports are compiled using official Commerce statistics under HTS statistical reporting numbers 2933.99.8210 and 2933.99.8220, accessed March 9, 2026.

Note: Share of quantity is the share of apparent U.S. consumption by quantity in percent; share of value is the share of apparent U.S. consumption by value in percent.

Note: For a discussion of data coverage, please see "U.S. producers" and "U.S. importers" sections.

The industry in China

Producers in China

During the final phase of the original investigations, the Commission received foreign producer/exporter questionnaires from one firm, Nantong Botao Chemical Co., Ltd., which accounted for approximately *** percent of production of corrosion inhibitors in China during 2019, and approximately *** percent of corrosion inhibitor exports from China to the United States during 2019.⁸⁸

Although the Commission did not receive responses from any respondent interested parties in these five-year reviews, the domestic interested party provided a list of eight possible producers of corrosion inhibitors in China.⁸⁹

Recent developments

There were no major developments in the Chinese industry since the imposition of the orders identified by interested parties in the proceeding. Available information indicates that Nantong Botao Chemical Co., Ltd. is currently producing scope compounds, with the ability to produce 1H-Benzotriazole, 5-Methyl-1H-benzotriazole, 5-Methyl-1H-benzotriazole, sodium benzotriazole, and tolyltriazole sodium salt.⁹⁰ Chinese total capacity was estimated at a minimum of 61 million pounds in the original investigations and is currently estimated at a minimum of 128 million pounds.⁹¹

⁸⁸ Original confidential report, p. 7.3.

⁸⁹ Domestic interested party's response to the notice of institution, March 4, 2026, exh. 1.

⁹⁰ Nantong Botao Chemical Co., Ltd., "About Us," retrieved on April 6, 2026, from <https://www.chemball.com/factory/yeufbr/>

⁹¹ Original publication, p. 7.10. Domestic interested party's response to the notice of institution, March 4, 2026, Exh. 3.

Exports

Table 1.8 presents export data for HS 2933.99, a category that includes corrosion inhibitors and out-of-scope products, from China (by export destination in descending order of quantity for 2025). According to GTA, the leading export markets for heterocyclic compounds with nitrogen hetero-atoms (which include corrosion inhibitors) from China based on quantity are India, Brazil, and Russia. During 2025, the United States was the fourth largest export market for heterocyclic compounds with nitrogen hetero-atoms (which include corrosion inhibitors) from China.

Table 1.8 Heterocyclic compounds with nitrogen hetero-atoms: Quantity of exports from China, by destination and period

Quantity in 1,000 pounds

Destination market	2021	2022	2023	2024	2025
India	52,621	47,981	46,685	51,278	58,124
Brazil	38,796	96,091	17,552	40,472	49,201
Russia	14,569	29,191	27,301	43,705	47,247
United States	39,728	36,635	27,263	31,691	34,368
Korea, South	16,500	14,135	12,256	14,911	16,222
Netherlands	18,531	16,064	10,387	11,582	13,472
Vietnam	9,048	5,549	7,718	8,946	13,294
Japan	9,317	10,241	7,903	8,477	9,519
Thailand	8,777	6,715	7,722	12,247	9,365
Poland	2,877	4,858	7,051	7,143	8,951
All other markets	137,752	124,055	108,005	117,348	129,470
All markets	348,517	391,515	279,843	347,799	389,235

Source: Global Trade Information Services, Inc., Global Trade Atlas, HS subheading 2933.99, accessed April 7, 2026. These data may be overstated as HS subheading 2933.99 may contain products outside the scope of these reviews.

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

Third-country trade actions

Based on available information, corrosion inhibitors from China have not been subject to other antidumping or countervailing duty investigations outside the United States.

The global market

Table 1.9 presents global export data for HS 2933.99, a category that includes corrosion inhibitors and out-of-scope products (by source in descending order of value for 2025).

The respondent reported in the original investigations that they are only aware of production of tolytriazole in China and very limited production in India.⁹² One estimate was that all the nonsubject countries combined would add up to less than 5 percent of the imports.⁹³ In addition to India, the nonsubject countries included Germany and South Korea.⁹⁴ The capacities in Germany, India, and South Korea were unknown.⁹⁵

At the global exporter level, TTA, BTA, sodium BTA, and sodium TTA fall under the category of heterocyclic compounds with nitrogen hetero-atoms. In 2025, the three largest global exporters in this larger category of products were Switzerland (\$18.0 billion), China (\$3.6 billion), and Ireland (\$1.4 billion).

⁹² Dober's products are blended in the EU, but Dober believes the EU sources their material from China. Original publication, p. 7.10.

⁹³ Original publication, p. 7.10.

⁹⁴ Original publication, p. 7.10.

⁹⁵ Original publication, p. 7.10.

Table 1.9 Heterocyclic compounds with nitrogen hetero-atoms: Quantity of global exports by country and period

Value in 1,000 dollars

Exporting country	2021	2022	2023	2024	2025
Switzerland	7,915,196	9,393,176	14,685,530	17,661,779	17,991,658
China	3,546,240	4,363,293	3,498,075	3,690,795	3,621,181
Ireland	1,155,856	1,038,716	1,465,931	979,228	1,385,177
India	838,109	929,721	1,329,206	2,586,788	1,241,752
Germany	902,248	811,997	1,134,498	857,812	739,244
Italy	454,089	405,604	445,834	676,323	606,877
United States	636,989	647,680	1,945,996	498,777	486,707
France	719,360	754,304	769,074	384,862	402,949
Belgium	542,355	441,900	573,621	475,419	382,190
Netherlands	226,517	221,614	166,036	241,104	307,933
All other exporters	1,714,129	1,872,379	3,298,611	2,238,678	1,273,597
All exporters	18,651,087	20,880,385	29,312,412	30,291,564	28,439,264

Source: Global Trade Information Services, Inc., Global Trade Atlas, HS subheading 2933.99, accessed April 7, 2026. Value is reported as quantities are various units or not indicated. These data may be overstated as HS subheading 2933.99 may contain products outside the scope of these reviews.

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

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 4617 February 2, 2026	Corrosion Inhibitors From China; Institution of Five-Year Reviews	https://www.govinfo.gov/content/pkg/FR-2026-02-02/pdf/2026-02045.pdf
91 FR 4499 February 2, 2026	Initiation of Five-Year (Sunset) Reviews	https://www.govinfo.gov/content/pkg/FR-2026-02-02/pdf/2026-02090.pdf

APPENDIX B

RESPONSES TO THE NOTICE OF INSTITUTION

Responses to the Commission’s notice of institution

Individual responses

The Commission received one submission in response to its notice of institution in the subject reviews. It was filed on behalf of the following entity:

1. Wincom Inc. (“Wincom”), a domestic producer of corrosion inhibitors (referred to herein as “domestic interested party”) and U.S. importer of corrosion inhibitors from China ¹

A complete response to the Commission’s notice of institution requires that the responding interested party submit to the Commission all the information listed in the notice. Responding firms are given an opportunity to remedy or explain deficiencies in their responses and to provide clarifying details where appropriate. A summary of the number of responses and estimates of coverage for each is shown in table B.1.

Table B.1 Corrosion inhibitors: Summary of responses to the Commission’s notice of institution

Interested party type	Number	Coverage
U.S. producer	1	100%

Note: The U.S. producer coverage figure presented is the domestic interested party’s estimate of its share of total U.S. production of corrosion inhibitors during 2025. Domestic interested party’s response to the notice of institution, March 4, 2026, exh. 1.

Party comments on adequacy

The Commission received party comments on the adequacy of responses to the notice of institution and whether the Commission should conduct expedited or full reviews from Wincom. Wincom requests that the Commission conduct expedited reviews of the antidumping and countervailing duty orders on corrosion inhibitors.²

¹ Wincom supports the continuation of the order covering imports of corrosion inhibitors from China.

² Domestic interested party’s comments on adequacy, April 13, 2026, pp. 2 to 3.

Company-specific information

Table B.2 Corrosion inhibitors: Response checklist for U.S. producers

Yes = provided response; no = did not provide a response; NA = not available; not known = information was not known

Item	Wincom
Nature of operation	Yes
Statement of intent to participate	Yes
Statement of likely effects of revoking the order	Yes
U.S. producer list	Yes
U.S. importer/foreign producer list	Yes
List of 3-5 leading purchasers	Yes
List of sources for national/regional prices	Not known
Trade/financial data	Yes
Changes in supply/demand	Yes
Complete response	Yes

Table B.3 Corrosion inhibitors: Response checklist for U.S. importers from China

Yes = provided response; no = did not provide a response; NA = not available; not known = information was not known

Item	Wincom
Nature of operation	Yes
Statement of intent to participate	Yes
Statement of likely effects of revoking the order	Yes
U.S. producer list	Yes
U.S. importer/foreign producer list	Yes
List of 3-5 leading purchasers	Yes
List of sources for national/regional prices	Not known
Trade data	Yes
Changes in supply/demand	Yes
Complete response	Yes

APPENDIX C

SUMMARY DATA COMPILED IN PRIOR PROCEEDINGS

Producers and processors of domestic product

Table C-1

Corrosion inhibitors: Summary data concerning the U.S. market defining the domestic industry to both include producers/tollers and processor/tollees of domestic corrosion inhibitors, 2017-19, January to September 2019, and January to September 2020

(Quantity=1,000 pounds dry weight; Value=1,000 dollars; Productivity=pounds dry weight per hour; Unit values, unit labor costs, and unit expenses=dollars per pound dry weight; Period changes=percent—exceptions noted)

	Reported data					Period changes			
	Calendar year		January to September			Comparison years			Jan-Sep
	2017	2018	2019	2019	2020	2017-19	2017-18	2018-19	2019-20
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):									
Fully domestic value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Value added to imports.....	***	***	***	***	***	▼***	▼***	***	***
Total value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Importers' share (fn1):									
China.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Nonsubject sources.....	***	***	***	***	***	▲***	▼***	▲***	▼***
All import sources.....	***	***	***	***	***	▼***	▼***	▼***	▼***
U.S. imports from (fn2):									
China:									
Quantity.....	10,648	14,043	11,918	8,412	8,813	▲11.9	▲31.9	▼(15.1)	▲4.8
Value.....	24,759	31,514	19,794	14,675	11,389	▼(20.1)	▲27.3	▼(37.2)	▼(22.4)
Unit value.....	\$2.33	\$2.24	\$1.66	\$1.74	\$1.29	▼(28.6)	▼(3.5)	▼(26.0)	▼(25.9)
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources:									
Quantity.....	152	170	199	182	63	▲31.2	▲11.9	▲17.2	▼(65.2)
Value.....	715	921	2,034	1,811	822	▲184.5	▲28.8	▲120.8	▼(54.6)
Unit value.....	\$4.71	\$5.43	\$10.22	\$9.93	\$12.96	▲116.9	▲15.1	▲88.4	▲30.6
Ending inventory quantity.....	***	***	***	***	***	***	▲***	▼***	***
All import sources:									
Quantity.....	10,800	14,213	12,117	8,594	8,877	▲12.2	▲31.6	▼(14.7)	▲3.3
Value.....	25,474	32,435	21,828	16,486	12,211	▼(14.3)	▲27.3	▼(32.7)	▼(25.9)
Unit value.....	\$2.36	\$2.28	\$1.80	\$1.92	\$1.38	▼(23.6)	▼(3.3)	▼(21.1)	▼(28.3)
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
U.S. producers' and processors:									
Producers: Average capacity quantity.....	***	***	***	***	***	▲***	▲***	▲***	***
Producers: Production quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Producers: Capacity utilization (fn1).....	***	***	***	***	***	▲***	▲***	▼***	▲***
Processors: Average capacity quantity.....	***	***	***	***	***	▲***	▲***	▲***	***
Processors: Production quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Processors: Capacity utilization (fn1).....	***	***	***	***	***	▼***	▼***	▼***	▲***
U.S. shipments (fn3):									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Value:									
Fully domestic value.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Value added to imports.....	***	***	***	***	***	▼***	▼***	***	***
Total value.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Unit value.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Export shipments:									
Quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit value.....	***	***	***	***	***	▼***	▼***	▼***	▼***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Inventories/U.S. shipments (fn1).....	***	***	***	***	***	▼***	▼***	▲***	▼***
Production workers.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Hours worked (1,000s).....	***	***	***	***	***	▲***	▲***	▲***	▼***
Wages paid (\$1,000).....	***	***	***	***	***	▲***	▲***	▲***	▲***
Hourly wages (dollars per hour).....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers: Productivity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers: Unit labor costs.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Processors: Productivity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Processors: Unit labor costs.....	***	***	***	***	***	▲***	▼***	▲***	▼***

Table continued on next page.

Table C-1--Continued

Corrosion inhibitors: Summary data concerning the U.S. market defining the domestic industry to both include producers/tollers and processor/toltees of domestic corrosion inhibitors, 2017-19, January to September 2019, and January to September 2020

(Quantity=1,000 pounds dry weight; Value=1,000 dollars; Productivity=pounds dry weight per hour; Unit values, unit labor costs, and unit expenses=dollars per pound dry weight; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year		January to September			Comparison years			Jan-Sep
	2017	2018	2019	2019	2020	2017-19	2017-18	2018-19	2019-20
U.S. producers' and processors'--Continued:									
Net sales (fn4):									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Unit value.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Cost of goods sold (COGS) (fn4).....	***	***	***	***	***	▼***	▼***	▼***	▲***
Gross profit or (loss) (fn5).....	***	***	***	***	***	▼***	▲***	▼***	▼***
SG&A expenses.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Operating income or (loss) (fn5).....	***	***	***	***	***	▼***	▲***	▼***	▼***
Net income or (loss) (fn5).....	***	***	***	***	***	▼***	▲***	▼***	▼***
Capital expenditures.....	***	***	***	***	***	▲***	▲***	▼***	▼***
Research and development expenses.....	***	***	***	***	***	▼***	▼***	***	▲***
Net assets.....	***	***	***	***	***	▲***	▲***	▼***	***
Unit COGS.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Unit SG&A expenses.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit operating income or (loss) (fn5).....	***	***	***	***	***	▼***	▲***	▼***	▼***
Unit net income or (loss) (fn5).....	***	***	***	***	***	▼***	▲***	▼***	▼***
COGS/sales (fn1).....	***	***	***	***	***	▲***	▼***	▲***	▲***
Operating income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▲***	▼***	▼***
Net income or (loss)/sales (fn1).....	***	***	***	***	***	▼***	▲***	▼***	▼***

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

fn1.--Reported data are in percent and period changes are in percentage points.

fn2.--U.S. importers' U.S. imports are derived by combining official U.S. import statistics for HTS statistical reporting numbers 2933.99.8210 and 2933.99.8220 (dry corrosion inhibitors) and liquid corrosion inhibitors data reported in response to Commission questionnaires.

fn3.--The quantity for U.S. producers' U.S. shipments used for apparent consumption reflects the quantity of corrosion inhibitors sold in the United States by processor/toltees using domestically manufactured TTA. The fully domestic value for U.S. producers' U.S. shipments reflects the value of corrosion inhibitors sold in the United States by processor/toltees that used domestically manufactured TTA. The additional value added to imports reflect's the value added by processor/toltees to imported Chinese TTA. In measuring U.S. apparent consumption and market share this methodology avoids reclassifying and/or double counting merchandise already reported once as an import. U.S. shipments unit value is presented for domestically manufactured TTA.

fn4.--Net sales quantity and value includes only the data reported by processor/toltees (which in this industry includes the totality of the producer/toller volumes), additionally the net sales quantity and value in 2017 includes some volume of imported Chinese TTA processed domestically by the processor/toltees. Cost data merges the costs reported by both producer/tollers and processor/toltees excluding the tolling fees paid by U.S. processor/toltees in order to avoid double counting costs. This methodology best reflects the consolidated results across toller/toltees in this industry.

fn5.--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.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics for HTS statistical reporting numbers 2933.99.8210 and 2933.99.8220, accessed November 6, 2020.

APPENDIX D

PURCHASER QUESTIONNAIRE RESPONSES

As part of their response to the notice of institution, interested parties were asked to provide a list of three to five leading purchasers in the U.S. market for the domestic like product. A response was received from domestic interested parties, and it identified these five firms that it believes to be the top five purchasers of corrosion inhibitors: ***. Purchaser questionnaires were sent to these five firms and none of them responded.

