

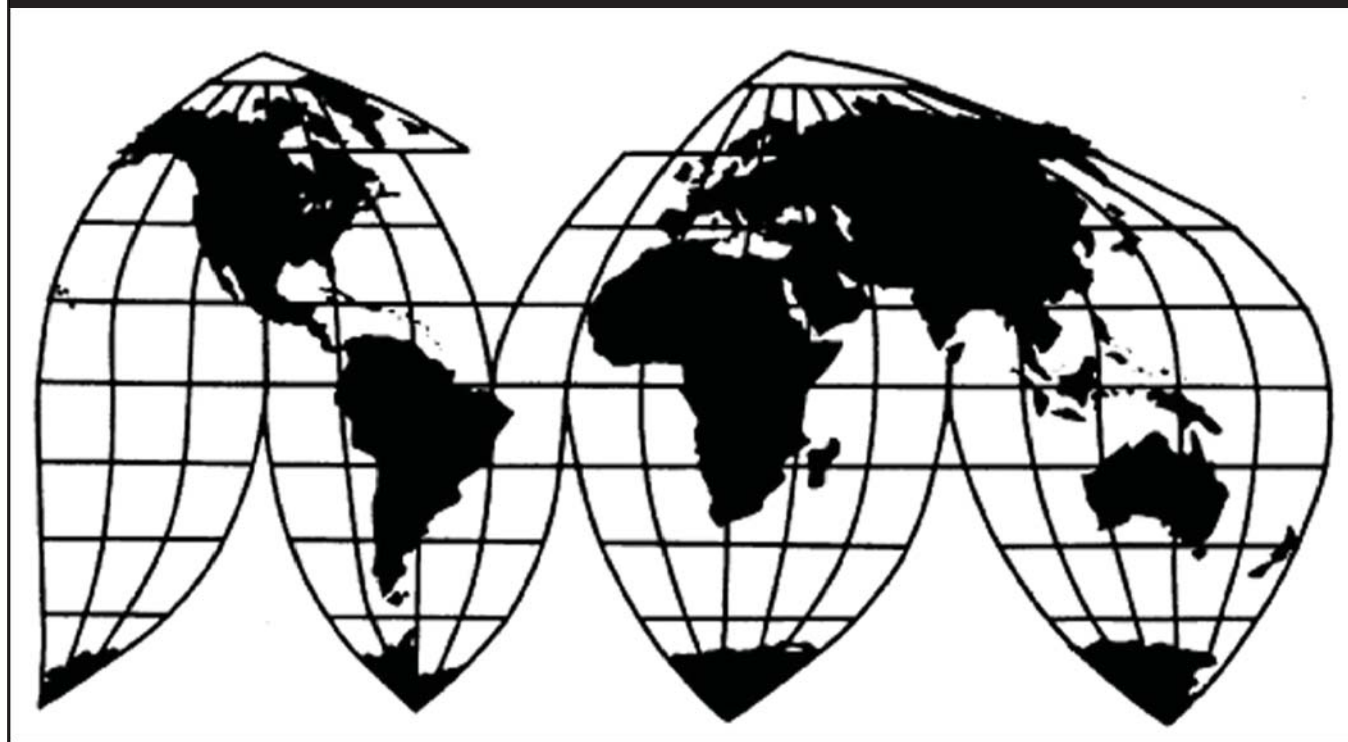
Potassium Permanganate from China

Investigation No. 731-TA-125 (Fourth Review)

Publication 4590

February 2016

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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Address all communications to
Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

U.S. International Trade Commission

Washington, DC 20436
www.usitc.gov

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-125 (Fourth Review)

Potassium Permanganate from China

DETERMINATION

On the basis of the record¹ developed in the subject five-year review, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930, that revocation of the antidumping duty order on Potassium Permanganate 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, pursuant to section 751(c) of the Tariff Act of 1930 (19 U.S.C. § 1675(c)), instituted this review on September 1, 2015 (80 F.R. 52743) and determined on December 7, 2015 that it would conduct an expedited review (80 F.R. 79097, December 18, 2015).

¹ The record is defined in sec. 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 this five-year review, we determine under section 751(c) of the Tariff Act of 1930, as amended (“the Tariff Act”), that revocation of the antidumping duty order on potassium permanganate 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

The Original Investigations and Prior Reviews. In January 1984, the Commission unanimously determined that an industry in the United States was being materially injured by reason of less-than-fair value (“LTFV”) imports of potassium permanganate from China¹ and Spain.² The U.S. Department of Commerce (“Commerce”) issued an antidumping duty order on potassium permanganate from China on January 31, 1984.³

On November 2, 1998, the Commission instituted reviews pursuant to section 751(c) of the Tariff Act to determine whether revocation of the antidumping duty orders on potassium permanganate from China and Spain would be likely lead to continuation or recurrence of material injury to a domestic industry.⁴ In November 1999, after conducting full reviews, the Commission determined that revocation of the antidumping duty order on potassium permanganate from China would be likely to lead to a continuation or recurrence of material injury within a reasonably foreseeable time and that revocation of the antidumping duty order on potassium permanganate from Spain would not be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.⁵

¹ *Potassium Permanganate from the People’s Republic of China*, Inv. No. 731-TA-125 (Final), USITC Pub. 1480 (Jan. 1984) (“Original Determination (China)”). The Commission’s original investigations predated the present statutory cumulation provision, which derives from the Trade and Tariff Act of 1984. In the original investigations, the Commission did not cumulate subject imports from China and Spain. *See id.* at 9-12; *see also Potassium Permanganate from Spain*, Inv. Nos. 731-TA-126 (Final), USITC Pub. 1474 at 8-10 (Jan. 1984) (“Original Determination (Spain)”).

² Original Determination (Spain), USITC Pub. 1474. The Commission made its final injury determinations in the investigations two weeks apart due to Commerce’s postponement of its final determination in the China investigation. *See* 48 Fed. Reg. 40771 (Sept. 9, 1983) and 48 Fed. Reg. 45815 (Oct. 7, 1983). Commerce issued an antidumping duty order on potassium permanganate from Spain on January 19, 1984. 49 Fed. Reg. 2277 (January 19, 1984).

³ 49 Fed. Reg. 3897 (Jan. 31, 1984). Commerce issued an antidumping duty order on potassium permanganate from Spain on January 19, 1984. 49 Fed. Reg. 2277 (Jan. 19, 1984).

⁴ 63 Fed. Reg. 58765 (Nov. 2, 1998).

⁵ *Potassium Permanganate from China and Spain*, Inv. Nos. 731-TA-125-126 (Review) USITC Pub. 3245 (Nov. 1999) (“First Five-Year Reviews”) at 1.

On October 1, 2004, the Commission instituted its second five-year review of the antidumping duty order on potassium permanganate from China.⁶ In June 2005, in an expedited review, the Commission determined that revocation of the order would be likely to lead to a continuation or recurrence of material injury within a reasonably foreseeable time.⁷

On April 22, 2010, the Commission instituted its third five-year review of the antidumping duty order on potassium permanganate from China.⁸ In September 2010, in an expedited review, the Commission determined that revocation of the order would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time.⁹

The Current Review. The Commission instituted the current fourth five-year review on September 1, 2015.¹⁰ The Commission received one submission in response to its notice of institution, filed by Carus, the sole U.S. producer of potassium permanganate.¹¹ No respondent interested party filed a response. On December 7, 2015, the Commission found the domestic interested party group response adequate and the respondent interested party group response inadequate. Consequently, the Commission determined to conduct this expedited review.¹²

Data/Response Coverage. U.S. industry data for this review are based on the information Carus provided in response to the notice of institution, responses to questionnaires from four U.S. purchasers of potassium permanganate, and information from the original investigation, first full reviews, and second and third expedited reviews.¹³ Carus accounted for 100 percent of U.S. potassium permanganate production during the period of review.¹⁴ No U.S. importer, foreign producer, or exporter participated in this review. U.S. import data and related information are based on official import statistics. Foreign industry data and related information are based on information submitted in the original investigations, as well as available information that Carus submitted in the first full reviews,¹⁵ the second and third expedited reviews, and the current review.¹⁶

⁶ 69 Fed. Reg. 58955 (Oct. 1, 2004).

⁷ *Potassium Permanganate from China*, Inv. No. 731-TA-125 (Second Review), USITC Pub. 3778 (June 2005) (“Second Five-Year Review”).

⁸ 75 Fed. Reg. 23298 (May 3, 2010).

⁹ *Potassium Permanganate from China*, Inv. No. 731-TA-125 (Third Review), USITC Pub. 4183 (Sept. 2010) (“Third Five-Year Review”).

¹⁰ *Potassium Permanganate from China; Institution of a Five-year Review*, 80 Fed. Reg. 52793 (Sept. 1, 2015).

¹¹ Confidential Staff Report, INV-NN-087, EDIS Doc. No. 569625 (Nov. 23, 2015) (“CR”) at I-2, Public Report (“PR”) at I-2.

¹² *Explanation of Commission Determination of Adequacy in Potassium Permanganate from China Inv. No. 731-TA-125 (Fourth Review)*, EDIS Doc. No. 570447 (Dec. 9, 2015). Chairman Broadbent voted to conduct a full review. *Id.*

¹³ CR/PR at Table I-3.

¹⁴ CR at I-2, PR at I-2.

¹⁵ In the first full review, the Commission did not receive any questionnaire responses from potassium permanganate producers in China.

¹⁶ CR/PR at Table I-3.

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.”¹⁷ 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.”¹⁸ 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.¹⁹

Commerce has defined the imported merchandise within the scope of the order under review as follows:

. . . potassium permanganate, an inorganic chemical produced in free-flowing, technical, and pharmaceutical grades. Potassium permanganate is currently classifiable under item 2841.61.00 of the Harmonized Tariff Schedule of the United States (“HTSUS”). Although the HTSUS item number is provided for convenience and customs purposes, the written description of the merchandise remains dispositive.²⁰

Potassium permanganate, also known as permanganate of potash, is the compound of manganese, potassium, and oxygen.²¹ It has the chemical formula $KMnO_4$ and exists at room temperature as a dark purple crystalline solid with a blue metallic sheen.²² Potassium permanganate is classified into three grades: free-flowing, technical, and pharmaceutical grades.²³ All three grades are produced domestically at the same facilities using the same

¹⁷ 19 U.S.C. § 1677(4)(A).

¹⁸ 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. Department of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int’l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *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).

¹⁹ *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).

²⁰ *Final Results of Expedited Fourth Sunset Review of the Antidumping Duty Order on Potassium Permanganate from China*, 81 Fed. Reg. 741 (Jan. 7, 2016) (“Final Results of Commerce Fourth Review”).

²¹ CR at I-4, PR at I-3.

²² CR at I-4, PR at I-3.

²³ CR at I-4, PR at I-3.

equipment and employees.²⁴ The free-flowing grade is produced by adding an anticaking agent to the technical grade, preventing the particles from sticking together when in contact with moisture.²⁵ The pharmaceutical grade must be at least 99 percent potassium permanganate by weight, usually requires more testing than the other grades, and requires recrystallization to remove impurities or to meet customer specifications.²⁶ The three grades are generally interchangeable in their various applications, except for pharmaceutical applications.²⁷

Potassium permanganate is used principally as an oxidizing agent in municipal water treatment, wastewater treatment, chemical manufacturing, aquaculture, metal processing, and in air and gas purification.²⁸ It is also used as a decoloring and bleaching agent in the textile and tanning industries, as an oxidizer in radioactive waste decontamination, as an aid in flotation processes used in mining, and to clean printed circuit boards.²⁹

In the original investigations, the first full, and the second and third expedited five-year review determinations, the Commission found a single domestic like product, potassium permanganate, that was coextensive with Commerce's scope definition.³⁰ In this review, Carus states that it agrees with the domestic like product definition adopted in the original investigation and the prior reviews.³¹ There is no new information in the record indicating that the characteristics of the product at issue have changed since the prior proceedings.³² Accordingly, we again define a domestic like product, consisting of potassium permanganate, that is 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."³³ In defining the domestic industry, the Commission's general practice has been

²⁴ CR at I-5, PR at I-4.

²⁵ CR at I-5, PR at I-4.

²⁶ CR at I-5-6, PR at I-4.

²⁷ CR at I-6-7, PR at I-5.

²⁸ CR at I-7, PR at I-5.

²⁹ CR at I-7, PR at I-5.

³⁰ See Original Determination (Spain), USITC Pub. 1474 at 6; Original Determination (China), USITC Pub. 1480 at 7; First Five-Year Reviews, USITC Pub. 3245 at 6; Second Five-Year Review, USITC Pub. 3778 at 5; Third Five-Year Review, USITC Pub. 4183 at 6.

³¹ See *Response of Petitioner Carus Corporation*, EDIS Doc. 566227 (Sept. 28, 2015) ("Response") at 7.

³² See generally CR at I-4-9, PR at I-3-6.

³³ 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.

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.

In the original investigations and prior reviews, the Commission found a single domestic industry consisting of all domestic producers of potassium permanganate.³⁴ In this review, Carus states that it agrees with the Commission's prior domestic industry definition.³⁵ There are no related party or other domestic industry issues in this review.³⁶ We therefore define the domestic industry as consisting of Carus, the sole domestic producer of potassium permanganate.

III. Revocation of the Antidumping Duty Order 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."³⁷ The Uruguay Round Agreements Act Statement of Administrative Action (SAA) 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."³⁸ Thus, the likelihood standard is prospective in nature.³⁹ The U.S. Court of International Trade has found that "likely," as used in the five-year

³⁴ Original Determination (China), USITC Pub. 1480 at 7; First Five-Year Reviews, USITC Pub. 3245 at 6; Second Five-Year Review, USITC Pub. 3778 at 6; Third Five-Year Review, USITC Pub. 4183 at 6.

³⁵ See Response at 7.

³⁶ See CR at I-15-16, PR at I-11.

³⁷ 19 U.S.C. § 1675a(a).

³⁸ SAA, H.R. Rep. 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.

³⁹ 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.

review provisions of the Act, means “probable,” and the Commission applies that standard in five-year reviews.⁴⁰

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.”⁴¹ 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.”⁴²

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.”⁴³ 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 regarding duty absorption pursuant to 19 U.S.C. § 1675(a)(4).⁴⁴ 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.⁴⁵

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

⁴⁰ See *NMB Singapore 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 Fed. Appx. 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 Chemicals (Thailand) 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’”).

⁴¹ 19 U.S.C. § 1675a(a)(5).

⁴² 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.*

⁴³ 19 U.S.C. § 1675a(a)(1).

⁴⁴ 19 U.S.C. § 1675a(a)(1). Commerce made no duty absorption findings with respect to the antidumping duty order under review. CR at I-15, PR at I-10; Commerce’s Issues and Decision Memorandum for the Expedited Fourth Sunset Review of the Antidumping Duty Order on Potassium Permanganate from the People’s Republic of China (Dec. 30, 2015).

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

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.⁴⁶ 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.⁴⁷

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.⁴⁸

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 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.⁴⁹ 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.⁵⁰

No respondent interested party participated in this expedited review. The record, therefore, contains limited new information with respect to the potassium permanganate

⁴⁶ 19 U.S.C. § 1675a(a)(2).

⁴⁷ 19 U.S.C. § 1675a(a)(2)(A-D).

⁴⁸ 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.

⁴⁹ 19 U.S.C. § 1675a(a)(4).

⁵⁰ 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.

industry in China. There also is limited information on the potassium permanganate market in the United States during the period of review. Accordingly, for our determination, we rely as appropriate on the facts available from the original investigations, the prior reviews, and the limited new information on the record in this fourth five-year review.

B. Likely Conditions of Competition

1. The Original Investigations and Prior Reviews

Several conditions of competition have remained constant during the course of the prior proceedings. In each of the prior proceedings the Commission found that the primary end-use of potassium permanganate was as an oxidizer for municipal water and wastewater treatment.⁵¹ Since the second review, the Commission has characterized demand for potassium permanganate for water and wastewater treatment applications as relatively mature.⁵² The Commission also characterized demand in the U.S. market as large relative to other world markets.⁵³ The Commission has previously found that potassium permanganate was sold in three grades: technical, free-flowing, and pharmaceutical.⁵⁴

In each of the prior proceedings, Carus was the sole domestic producer. It supplied the majority of apparent U.S. consumption during each of the prior proceedings.⁵⁵

The Commission found in each of the prior proceedings that the domestic like product and subject imports had a moderate to high degree of substitutability. It also found the market for potassium permanganate was price sensitive, and potassium permanganate was sold to the lowest bidder through a competitive and transparent bidding process, in which the lowest bidder often won sales based on differences of fractions of a cent per pound.⁵⁶

⁵¹ Original Investigation (China), USITC Pub. 1480 at 4; First Five-Year Review, USITC Pub. 3245 at 13; Second Five-Year Review, USITC Pub. 3778 at 8; Third Five-Year Review, USITC Pub. 4183 at 10.

⁵² Second Five-Year Review, USITC Pub. 3778 at 8; Third Five-Year Review, USITC Pub. 4183 at 10.

⁵³ In the first review, the Commission characterized the U.S. market for potassium permanganate as the largest in the world. First Five-Year Review, USITC Pub. 3245 at 13. In the third review, the Commission characterized the United States ***. Confidential Views of the Commission, Third Five-Year Review, EDIS Doc. 434887 at 15-16 (“Confidential Third Five-Year Review”); Third Five-Year Review, USITC Pub. 4183 at 10.

⁵⁴ Original Investigation (China), USITC Pub. 1480 at 5; First Five-Year Review, USITC Pub. 3245 at 5; Second Five-Year Review, USITC Pub. 3778 at 5; Third Five-Year Review, USITC Pub. 4183 at 5. In the first review, the Commission found that 85-90 percent of potassium permanganate sold in the United States was free-flowing grade, while almost all the remainder was technical grade. First Five-Year Review, USITC Pub. 3245 at 13.

⁵⁵ Original Investigation (China), USITC Pub. 1480 at 7; First Five-Year Review, USITC Pub. 3245 at 6; Second Five-Year Review, USITC Pub. 3778 at 8; Third Five-Year Review, USITC Pub. 4183 at 6, n.26 ; *see also* CR/PR at Table I-5.

⁵⁶ Original Determination (China), USITC Pub. 1480 at 7; First Five-Year Review, USITC Pub. 3245 at 13-14; Second Five-Year Review, USITC Pub. 3778 at 8-10; Third Five-Year Review, USITC Pub. 4183 at 10.

2. The Current Review

Demand Conditions. In the current review, municipal drinking water and wastewater treatment remain the primary domestic uses for potassium permanganate and continue to account for the majority of current U.S. demand.⁵⁷ The domestic market for potassium permanganate remains mature, with apparent U.S. consumption of *** pounds in 2014, as compared to *** pounds in 2009.⁵⁸ The United States is the second largest world market for potassium permanganate after China.⁵⁹

Supply Conditions. Carus remains the sole U.S. producer of potassium permanganate and principal supplier to the U.S. market. Its U.S. market share in 2014 was *** percent; during the final year of the previous periods of investigation and review, its market share ranged between *** and *** percent.⁶⁰ The remainder of apparent U.S. consumption in 2014 was supplied principally by nonsubject imports, as subject imports had only a minimal presence in the market.⁶¹ Carus reports that nonsubject imports from India have increased since the third review.⁶²

Substitutability. Domestically produced potassium permanganate and subject imports continue to have a moderate to high degree of substitutability, and U.S. municipalities continue to award potassium permanganate supply contracts to the lowest bidder through a transparent and competitive bidding process.⁶³ The information in the current record consequently indicates that price continues to be an important factor in purchasing decisions.

C. Likely Volume of Subject Imports

The Original Investigations and Prior Reviews. In the original investigations, the Commission found that subject imports from China “increased substantially” over the period of investigation (“POI”).⁶⁴ Following a drop in volume between 1980 and 1981, subject imports from China increased from 281,000 pounds in 1981 to 588,000 pounds in 1982. These imports were much higher during January-August 1983, when they were 1.4 million pounds, than in

⁵⁷ Response at 10. Carus anticipates that demand for this use will decline due to competition from alternative water purification technologies and accelerating water conservation efforts across the United States. *Id.* at 39.

⁵⁸ CR/PR at Table I-5. Alternative technologies have, at times, replaced potassium permanganate, in part because it is fairly difficult to handle as it is dusty and has relatively limited solubility. CR at I-7, PR at I-5.

⁵⁹ Response at 23.

⁶⁰ CR at I-15, PR at I-11; CR/PR at Table I-5.

⁶¹ CR/PR Table I-5.

⁶² Response at 12. Imports of potassium permanganate from India increased from a *** percent market share in 2010 to a *** percent market share in 2014. *Id.*

⁶³ Response at 10.

⁶⁴ Original Determination (China), USITC Pub. 1480 at 10.

January-August 1982, when they were 407,000 pounds.⁶⁵ The Commission also found that the ratio of subject imports to apparent domestic consumption more than doubled during the first eight months of 1983 compared to the same period in 1982.⁶⁶

In the first five-year reviews, the Commission observed that between 1986 and 1990, subject imports from China increased dramatically, reaching 2.5 million pounds in 1990, but decreased to 300,000 pounds in 1992, following an increase in duty deposit rates resulting from an administrative review. Subject imports increased significantly once again between 1992 and 1993. Commerce found in 1994 that subject imports were being transshipped through Hong Kong and therefore assigned a country-wide margin of 128.4 percent to all subject imports. Subject imports from China subsequently declined steeply and were virtually non-existent by the end of the period of the first five-year review.⁶⁷ The Commission found that because of its expanded capacity, excess capacity, and inventory levels, the industry in China had the ability to substantially increase exports to the United States. The Commission found that increased exports were likely in light of the subject producers' export orientation and stated willingness to resume or increase participation in the U.S. market.⁶⁸

In the second five-year review, the Commission concluded, on the basis of facts available, that the subject import volume was likely to increase significantly and would be significant if the order were revoked. The Commission found that Chinese producers had the capability to ship substantial volumes of potassium permanganate to the United States, and found several factors that supported a finding that increased subject imports were likely if the order were revoked. Chinese producers had greatly expanded their capacity; had developed the capability to supply all three grades of potassium permanganate, thereby enhancing their ability to compete in the U.S. market; had significant unused production capacity; and were highly export oriented.⁶⁹

In the third five-year review, the Commission concluded that the likely volume of subject imports, both in absolute terms and as a share of the U.S. market, would be significant if the order were revoked.⁷⁰ The Commission found several factors that supported a finding of increased subject imports if the order were revoked. Specifically, Chinese producers had considerable production capacity (which far exceeded home market demand) and unused capacity; the Chinese industry remained highly export oriented; the United States was an attractive market for Chinese producers because of its size and higher prices than other markets; and the Chinese industry faced a barrier to entry in India due to an Indian antidumping measure on imports of potassium permanganate from China.⁷¹

⁶⁵ Original Determination (China), USITC Pub. 1480 at 9-10.

⁶⁶ See Original Determination (China), USITC Pub. 1480 at 9-10 and Table 18.

⁶⁷ First Five-Year Review, USITC Pub. 3245 at 20.

⁶⁸ First Five-Year Review, USITC Pub. 3245 at 21-22.

⁶⁹ Second Five-Year Review, USITC Pub. 3778 at 11-12.

⁷⁰ Third Five-Year Review, USITC Pub. 4183 at 13.

⁷¹ Third Five-Year Review, USITC Pub. 4183 at 13.

The Current Review. The information available in the current review indicates that subject import volume is likely to be significant if the order is revoked. Subject imports have been virtually nonexistent in the U.S. market since 2010 under the disciplining effects of the order.⁷² However, the potassium permanganate industry in China has the ability to increase exports substantially in the event of revocation. Information available indicates that the potassium permanganate industry in China possesses large capacity and excess capacity. According to data Carus submitted, the Chinese potassium permanganate industry's capacity was 111 million pounds in 2014, while China consumed only *** million pounds.⁷³

The information available also indicates that the industry in China remains export oriented. China's substantial excess capacity and comparatively low annual consumption leaves nearly half of China's total capacity available for export.⁷⁴ China's potassium permanganate exports were approximately 31 million pounds in 2014, and its unused capacity was approximately 27 million pounds, which exceeded U.S. consumption.⁷⁵ Moreover, Carus indicates that China is faced with decreasing demand in its principal export market, Iran, which will further increase Chinese excess capacity.⁷⁶

According to Carus, the United States remains an attractive market for Chinese producers because of its size and price levels. Information available indicates that the United States is the world's second largest market for potassium permanganate.⁷⁷ Potassium permanganate prices are higher in the United States than in either China or its current export markets.⁷⁸ Carus argues that Chinese producers maintain well-established channels of distribution in the United States and are currently selling potassium permanganate products other than potassium permanganate to a number of U.S. distributors.⁷⁹

⁷² See CR/PR at Table I-3. Carus asserts that with the exception of small test-shipment volumes, there have been no imports of potassium permanganate from China over the last decade. Response at 35.

⁷³ CR/PR at Table I-6, CR at I-26, PR at I-17. Carus projects capacity will increase, as Chinese producer Meixan plans to open a plant with a capacity of 22 to 33 million pounds, replacing a plant with a capacity of 7.7 million pounds. CR at I-26, PR at I-17.

⁷⁴ See Response at 28.

⁷⁵ Response at 28. U.S. consumption was *** million pounds in 2014 and did not exceed *** million pounds over the course of the period of review. *Id.*

⁷⁶ Response at 28-29. Carus observes that since the prior review, Iran has expanded its own production of potassium permanganate by 11 million pounds. Response at 11-12. As of 2014, Chinese producers exported 9.6 million pounds of potassium permanganate to Iran. CR/PR at Table I-7.

⁷⁷ Response at 23. The U.S. potassium permanganate market accounted for *** percent of total world consumption outside China. *Id.*

⁷⁸ Response at 23. Based on Carus's market intelligence, price levels in China are at most \$*** to \$*** per pound, Chinese export prices to the EU are as low as *** per pound, and the net price for U.S. commercial sales was \$*** per pound in the first six months of 2015. Response at 23-24.

⁷⁹ Response at 30. According to Carus, increased e-commerce also makes it easier for Chinese sellers to find U.S. buyers of potassium permanganate. The Chinese Ministry of Commerce sponsors a web portal which returns a large number of potential Chinese suppliers for potassium permanganate. Response at 30-31.

Based on Carus's arguments and the limited new information before the Commission, we find that the likely volume of subject imports, both in absolute terms and relative to consumption in the United States, would be significant in the event of revocation.⁸⁰

D. Likely Price Effects

Original Investigation and Prior Reviews. In the original investigations, the Commission found significant underselling and price suppression caused by subject imports from China. The Commission also found that the domestic producer had lost sales and revenues due to low-priced subject imports.⁸¹

In the first five-year reviews, the Commission found that subject imports from China would likely enter the United States at prices that would have significant depressing or suppressing price effects if the order were revoked.⁸² Although there was limited pricing information on the record, the Commission referenced its findings from the original investigations that there was significant underselling and price suppression by subject imports from China.⁸³ The Commission also found potassium permanganate was a commodity product sold in a price-sensitive market.⁸⁴ Given that U.S. prices were substantially higher than those in other markets, the Commission found Chinese producers would have an incentive to price their product substantially below that of the domestic like product to induce U.S. purchasers to switch to subject imports. The Commission emphasized that this behavior was consistent with the behavior of Chinese producers during the period of the original investigations.⁸⁵

In the second five-year review, the Commission again observed that there was limited pricing information, but that the average unit values for subject potassium permanganate had been consistently lower than average unit values for the domestic like product. The Commission reiterated its prior findings that potassium permanganate was a commodity product sold in a price-sensitive market and that U.S. prices were substantially higher than those in other markets.⁸⁶ As such, the Commission found that Chinese producers would have had an incentive to price their product significantly below prevailing U.S. prices to induce U.S. purchasers to switch from domestic to subject potassium permanganate.⁸⁷ Therefore, the

⁸⁰ There were no known trade remedy investigations or existing antidumping duty orders on potassium permanganate from China during the period of review. India's antidumping duty order on imports of potassium permanganate from China expired in 2013. See CR at I-29, PR at I-20. Because producers and importers of the subject merchandise did not participate in these reviews, the record does not contain data addressing existing inventories of the subject merchandise or the potential for product shifting.

⁸¹ Original Determination (China), USITC Pub. 1480 at 10-11.

⁸² First Five-Year Reviews, USITC Pub. 3245 at 23.

⁸³ First Five-Year Reviews, USITC Pub. 3245 at 23.

⁸⁴ First Five-Year Reviews, USITC Pub. 3245 at 23.

⁸⁵ First Five-Year Reviews, USITC Pub. 3245 at 23.

⁸⁶ Second Five-Year Review, USITC Pub. 3778 at 13.

⁸⁷ Second Five-Year Review, USITC Pub. 3778 at 13-14.

Commission found it likely that the Chinese producers would offer attractively low prices to U.S. purchasers to regain market share if the order were revoked. The Commission based its finding on the Chinese producers' behavior during the original investigations, the limited information on the record regarding current prices for Chinese potassium permanganate in non-U.S. markets, and the fact that antidumping measures had been imposed in other countries on imports from China. The Commission concluded that subject potassium permanganate was likely to enter the United States at prices that would have a significant depressing or suppressing effect on prices for the domestic like product if the order were revoked.⁸⁸

In the third five-year review, there were no new pricing comparisons for subject and domestic potassium permanganate.⁸⁹ The Commission again found that potassium permanganate was a commodity product sold in a price sensitive market and that U.S. prices were substantially higher than those found in other markets.⁹⁰ Consequently, it reasoned that Chinese producers would have an incentive to price significantly below the prevailing U.S. price to induce U.S. purchasers to switch to subject imports upon revocation.⁹¹ The Commission based its finding on the Chinese industry's behavior in the original investigations, the available record information regarding prices for Chinese potassium permanganate in third country markets, and the imposition of antidumping measures in India on imports from China.⁹² The Commission concluded that subject imports were likely to significantly undersell the domestic like product to gain market share and likely would have significant depressing or suppressing effects on the prices of the domestic like product if the order were revoked.⁹³

The Current Review. The record does not contain any additional pricing comparisons due to the lack of participation from respondent interested parties and the expedited nature of this review. As explained above, we continue to find that domestically produced potassium permanganate and subject imports are moderately to highly substitutable and that price remains an important factor in purchasing decisions. As previously stated, if the order were revoked, subject producers would likely export significant volumes of potassium permanganate to the United States. They would likely sell the subject merchandise at low prices and undersell domestically produced potassium permanganate to gain market share, as occurred during the original POI and because the incentives remain unchanged.

Because price is important to purchasing decisions, the presence of significant quantities of subject imports that would likely enter the United States in the event of revocation and that would likely undersell the domestic like product would force the domestic industry either to lower prices or lose sales. In light of these considerations, we conclude that absent the disciplining effects of the order, subject imports of potassium permanganate would likely have significant depressing or suppressing effects on prices for the domestic like product.

⁸⁸ Second Five-Year Review, USITC Pub. 3778 at 14.

⁸⁹ Third Five-Year Review, USITC Pub. 4183 at 15.

⁹⁰ Third Five-Year Review, USITC Pub. 4183 at 15.

⁹¹ Third Five-Year Review, USITC Pub. 4183 at 15.

⁹² Third Five-Year Review, USITC Pub. 4183 at 15.

⁹³ Third Five-Year Review, USITC Pub. 4183 at 15.

E. Likely Impact

The Original Investigations and Prior Reviews. In the original investigations, the Commission found that substantially lower prices for the subject potassium permanganate in a price-sensitive market allowed subject imports to gain market share and resulted in price suppression, lost sales and revenue, and declines in employment. The Commission concluded that the domestic industry was materially injured by reason of imports of potassium permanganate from China.⁹⁴

In the first five-year reviews, the Commission determined that subject imports from China would likely have had a significant adverse impact if the order were revoked. The Commission referenced its finding in the original determination that substantially lower prices for subject imports from China in a price-sensitive market allowed these imports to gain market share and resulted in price suppression, lost sales and revenue, and declines in employment.⁹⁵ The Commission found that the condition of the domestic industry had improved substantially since the imposition of the order. Although the Commission did not find that the domestic industry was vulnerable, given its strong gross profits, operating income, and operating income margins, it did find that the likely significant volume of low-priced subject imports would likely have a significant adverse impact on the production, shipment, sales, and revenue levels of the domestic industry if the order were revoked.⁹⁶

In the second five-year review, the Commission found that the information available with respect to the condition of the industry was limited due to the expedited nature of the review and that the information available presented a mixed picture. The Commission found that the domestic industry was not vulnerable to material injury if the order were revoked because Carus continued to command a substantial market share, had increased production, and reported strong gross profits, operating income, and operating income margins in 2003. Although Carus's domestic shipments were lower in both quantity and value than during the first five-year review period, they were higher than in the original investigations. The Commission also found, however, that the antidumping duty order had a restraining effect on the volume and market share of subject imports and that revocation would lead to a significant increase in low-priced subject imports that would undersell the domestic like product and significantly suppress or depress U.S. prices. The Commission concluded that revocation of the antidumping duty order would be likely to have a significant adverse impact on the domestic industry within a reasonably foreseeable time.⁹⁷

In the third five-year review, the Commission found that the condition of the domestic industry improved from 2004 to 2007 but declined in 2008 and sharply declined in 2009, when the industry experienced the effects of the recession as well as increased raw material costs.⁹⁸

⁹⁴ Original Determination (China), USITC Pub. 1480 at 8-11.

⁹⁵ First Five-Year Reviews, USITC Pub. 3245 at 24.

⁹⁶ First Five-Year Reviews, USITC Pub. 3245 at 24-25.

⁹⁷ Second Five-Year Review, USITC Pub. 3778 at 14-15.

⁹⁸ Third Five-Year Review, USITC Pub. 4183 at 17.

The Commission found that the domestic industry was not vulnerable to material injury if the order were revoked because the domestic industry's financial indicators remained strong throughout the period of review, notwithstanding declines at the end of the period.⁹⁹ The Commission also found, however, that the antidumping duty order had a restraining effect on the volume and market share of subject imports and that revocation would lead to a significant increase in subject imports that would undersell the domestic like product and significantly depress or suppress U.S. prices, which would, in turn, likely have a significant adverse impact on the domestic industry.¹⁰⁰ Consequently, the Commission concluded that revocation of the antidumping duty order would likely have a significant adverse impact on the domestic industry within a reasonably foreseeable time.¹⁰¹

The Current Review. Because of the expedited nature of this review, information on the record concerning the performance of the domestic potassium permanganate industry since the original investigation and prior reviews is limited. Since the last review, the condition of the domestic industry has improved. Both production and capacity utilization were higher in 2014 than they were in 2009.¹⁰² Total 2014 U.S. shipments of *** pounds were *** higher than those reported in 2009.¹⁰³ In 2014, operating income was \$7 million and the ratio of operating income to net sales was 17.5 percent; each of these figures exceeded those reported in 2009.¹⁰⁴

Based on the limited information available, Chairman Broadbent, Vice Chairman Pinkert, and Commissioner Johanson find that the domestic potassium permanganate industry is not vulnerable to the continuation or recurrence of material injury in the event of revocation of the order. Commissioners Williamson, Kieff, and Schmittlein find that the limited information on record is insufficient to make a finding on whether the domestic industry is vulnerable.

As discussed above, the antidumping duty order has had a restraining effect on the volume of subject imports. Revocation of the order would likely lead to a significant volume of subject imports that would undersell the domestic like product and significantly depress or suppress U.S. prices. Because of the maturity of the market, decreased prices for potassium permanganate would not significantly stimulate additional demand, but likely would cause purchasers to switch to lower-priced subject imports. Thus, we find that the volume and price effects of the subject imports would likely have a significant impact on the production, shipment, sales, market share, and revenues of the domestic industry. Declines in these indicators of industry performance would have a direct adverse impact on the industry's profitability and employment, as well as its ability to raise capital, to make and maintain capital investments, and to fund research and development into new applications for potassium permanganate.

⁹⁹ Third Five-Year Review, USITC Pub. 4183 at 18.

¹⁰⁰ Third Five-Year Review, USITC Pub. 4183 at 18-19.

¹⁰¹ Third Five-Year Review, USITC Pub. 4183 at 19.

¹⁰² CR/PR at Table I-3. In 2014, capacity was *** pounds, production was *** pounds, and capacity utilization was *** percent. Capacity was lower in 2014 than in 2009. *Id.*

¹⁰³ See CR/PR at Table I-3.

¹⁰⁴ CR/PR at Table I-3.

We have also considered the role of factors other than subject imports, including the presence of nonsubject imports, so as not to attribute injury from other factors to the subject imports. Notwithstanding an increase in nonsubject imports over the period of review, Carus's production, capacity utilization, and profitability were higher in 2014 than in 2009.¹⁰⁵ Therefore, the likely impact of future subject imports is distinguishable from that of future nonsubject imports.

Accordingly, we conclude that, if the antidumping duty order were revoked, subject imports from China would likely have a significant impact on domestic producers of potassium permanganate within a reasonably foreseeable time.

IV. Conclusion

For the above reasons, we determine that revocation of the antidumping duty order on potassium permanganate from China would likely lead to continuation or recurrence of material injury to the industry in the United States producing potassium permanganate within a reasonably foreseeable time.

¹⁰⁵ See Response at 12.

INFORMATION OBTAINED IN THIS REVIEW

BACKGROUND

On September 1, 2015, 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 a review to determine whether revocation of the antidumping duty order on potassium permanganate from China would likely lead to the continuation or recurrence of material injury to a domestic industry.² All interested parties were requested to respond to this notice by submitting certain information requested by the Commission.^{3 4} The following tabulation presents information relating to the background and schedule of this proceeding:

Effective or statutory date	Action
September 1, 2015	Notice of initiation and institution by Commerce and Commission
December 30, 2015	Scheduled date for Commerce results of its expedited review
December 7, 2015	Scheduled date for Commission vote on adequacy
February 2, 2016	Commission completed expedited review

¹ 19 U.S.C. 1675(c).

² *Potassium Permanganate From China; Institution of a Five-Year Review*, 80 FR 52793, September 1, 2015. In accordance with section 751(c) of the Act, the U.S. Department of Commerce (“Commerce”) published a notice of initiation of a five-year review of the subject antidumping duty order concurrently with the Commission’s notice of institution. *Initiation of Five-Year (“Sunset”) Review*, 80 FR 52743, September 1, 2015. 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. That information is presented in app. B. Summary data compiled in prior proceedings is 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 subject merchandise. Presented in app. D are the responses received from purchaser surveys mailed to the purchasers identified in the adequacy phase of this review.

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 review, filed on behalf of Carus Corporation ("Carus"), the sole U.S. producer of potassium permanganate.

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 and explain any deficiencies in their responses. A summary of the number of responses and estimates of coverage for the responding firm is shown in table I-1.

Table I-1

Potassium permanganate: Summary of the response to the Commission's notice of institution

Type of interested party	Completed responses	
	Number	Coverage
Domestic:		
U.S. producer	1	100% ¹
Respondent:		
U.S. importer	0	0
Foreign producer/exporter	0	0

¹ The coverage figure presented, as provided by the domestic interested party in its response, represents the firm's share of total U.S. production of potassium permanganate during 2014.

Source: *Carus's Response to the Commission's Notice of Institution*, September 28, 2015, pp.5-6 .

Party comments on adequacy

The Commission received one submission from parties commenting on the adequacy of responses to the notice of institution and whether the Commission should conduct expedited or full reviews. This submission was filed on behalf of domestic interested party Carus. Carus argues that the domestic interested party response as a whole is adequate, as Carus is the sole domestic producer of the domestic like product, and provided all the information requested by the Commission in its notice of institution of this review. Carus also argues that, because there were no substantive responses from any Chinese respondent interested party, the Commission should find that the Chinese respondent interested party responses are inadequate.⁵

⁵ *Carus's Comments on Adequacy*, November 13, 2015.

RECENT DEVELOPMENTS IN THE INDUSTRY

Since the completion of the last review, there have been several changes in the U.S. potassium permanganate market. First, Carus has continued to try to develop new industrial applications for potassium permanganate.⁶ While these efforts appear to have successfully resulted in new applications, they have not affected the position of water and wastewater treatment as the primary use of the chemical in the U.S. market.⁷ Second, U.S. imports of potassium permanganate from India have increased, accounting for the vast majority of total U.S imports of potassium permanganate during 2011-14.⁸ Third, India's antidumping duty order on imports of potassium permanganate from China, imposed in 1995, expired in 2013.

THE PRODUCT

Commerce's scope

Commerce has defined the subject merchandise as:

*...potassium permanganate, an inorganic chemical produced in free-flowing, technical, and pharmaceutical grades. Potassium permanganate is currently classifiable under item 2841.61.00 of the Harmonized Tariff Schedule of the United States ("HTSUS"). The HTSUS item numbers are provided for convenience and customs purposes. The written description remains dispositive.*⁹

Description and uses¹⁰

Potassium permanganate, or permanganate of potash, is the compound of manganese, potassium, and oxygen which has the chemical formula KMnO_4 . It exists at room temperature as a dark purple crystalline solid of rhombic shape with a blue metallic sheen. Potassium permanganate has a sweetish, astringent taste; is soluble in water, acetone, and methanol; and decomposes in alcohol. It is highly toxic by ingestion or inhalation, is a strong irritant to tissue, and is a dangerous fire risk when in contact with organic material because of its strength as an oxidizing agent.

Potassium permanganate produced by Carus, the sole U.S. producer, is classifiable into three grades: free-flowing, technical, and USP or pharmaceutical grade (high-purity).¹¹ China,

⁶ Carus's Response to the Commission's Notice of Institution, September 28, 2015, pp. 39-40.

⁷ Ibid, p. 10.

⁸ Ibid, attachment 11.

⁹ Potassium Permanganate From the People's Republic of China: Continuation of Antidumping Duty Order, 75 FR 65448, October 25, 2010.

¹⁰ Unless otherwise noted, this information is based on Potassium Permanganate from China, Inv. No. 731-TA-125 (Third Review), USITC Publication 4183, September 2010, pp. 1-9-13.

which at one time did not produce the free-flowing grade, produced a free-flowing grade, a technical grade, and a USP grade, as reported in 1999. Each grade has the same chemical formula and is available in a variety of particle sizes, although particle size is seldom an important determinant of end use. As indicated in the first five-year review, all three grades of potassium permanganate were produced domestically only by Carus, at the same facilities and using the same equipment and employees.¹²

The technical grade product must be at least 97 percent potassium permanganate by weight, although much of the technical grade has a higher assay of 99 percent. The free-flowing grade is produced by adding an anticaking agent to the technical grade, preventing the particles from sticking together when in contact with moisture. As a result of the addition of the anticaking agent, the free-flowing grade is slightly less concentrated than the technical or pharmaceutical grades. The minimum assay is 95 percent, but the product is usually assayed at 97 to 98 percent. In the United States, as of 1999, 85 percent to 90 percent of the permanganate sold was the free-flowing grade because it is easier to put into a feeder.^{13 ***}¹⁴

The pharmaceutical grade product must be at least 99 percent potassium permanganate by weight in order to conform with the requirements specified in the United States Pharmacopeia (“U.S.P.”) and the British Pharmacopeia (“B.P.”). It is the only grade approved by the Food and Drug Administration for use in applications involving contact with food and for pharmaceutical use. The pharmaceutical grade, typically 99.9 percent pure, usually requires more testing than the other grades and requires recrystallization to remove additional impurities or to meet customer specifications. Consequently, the cost of production and the price of the pharmaceutical grade are higher than those of the technical or free-flowing grades.

The three grades of potassium permanganate are generally interchangeable in their various applications. One exception involves pharmaceutical applications, which, according to Carus, accounted for approximately *** percent of domestic consumption in 1999.¹⁵ The free-flowing grade cannot be used in such applications because it does not meet the 99-percent assay requirement. All three grades can be used in water and wastewater treatment, the primary uses for potassium permanganate in the U.S. market,¹⁶ but customers that use a dry chemical feeder to inject the chemical into water prefer the free-flowing grade.

As reported during the first five-year full review, potassium permanganate is used principally as an oxidizing agent in the following applications:¹⁷

(...continued)

¹¹ In addition, in 1999, Carus produced two other grades. These two grades were not, however, recognized as standard product grades by consumers. *Potassium Permanganate from China and Spain, Investigation Nos. 731-TA-125-126 (Review)*, USITC Pub 3245, October 1999, p. I-7.

¹² *Ibid.*

¹³ *Ibid.*, p. I-8.

¹⁴ *Investigation Nos. 731-TA-125-126 (Review): Potassium Permanganate from China and Spain—Staff Report*, INV-W-216, September 20, 1999, p. I-13.

¹⁵ *Ibid.*, p. 1-14.

¹⁶ *Carus’s Response to the Commission’s Notice of Institution*, September 28, 2015, p. 10.

¹⁷ *Potassium Permanganate from China and Spain, Investigation Nos. 731-TA-125-126 (Review)*, USITC Publication 3245, October 1999, pp. I-8-9.

1. Municipal water treatment: Removes iron, manganese, and hydrogen sulfide; eliminates taste, odor, and color; and controls algae growth. Other applications for potassium permanganate are as a substitute for prechlorination to prevent the formation of trihalomethane (“THM”), a possible carcinogen, and as an inhibitor of zebra mussel attachment.
2. Wastewater treatment:
 - (a) Municipal: Oxidizes organic and inorganic contaminants, removes toxic and corrosive hydrogen sulfide from sanitary sludge, deodorizes wastewater streams, and dewateres sludge; and
 - (b) Industrial: Removes soluble iron and manganese from acid mine wastes, removes hydrogen sulfide from sludge, and dewateres sludge, controls phenol and other industrial pollutants.
3. Chemical manufacture and processing: Aids in synthesis of organic products for the chemical process and pharmaceutical industries.
4. Aquaculture (fish farming): Controls fish diseases and parasites, and detoxifies poisons while relieving oxygen depletion in fish ponds.
5. Metal processing: Removes oxides, mill scale, and carbon residues on steel.
6. Air and gas purification: Removes pollutants from air and impurities from industrial gases, and quenches slag from foundry operations.

In addition to the above, potassium permanganate is used as a decoloring and bleaching agent in the textile and tanning industries, as an oxidizer in the decontamination of radioactive wastes, as an aid in flotation processes used in mining, in cleaning printed circuit boards, and in numerous other applications. In general, use of potassium permanganate in some industrial applications and in some applications not related to water purification has tended to be fairly erratic.¹⁸ Alternative technologies have, at times, replaced potassium permanganate, in part because potassium permanganate is a fairly difficult chemical to handle and use because it is dusty and the material has relatively limited solubility.¹⁹ On the other hand, potassium permanganate is an excellent and rapid-acting oxidant and when used properly is stable and

¹⁸ Applications for potassium permanganate that have, in the past, grown, then declined include use of the chemical in the production of saccharin and washed jeans. *Carus's Response to the Commission's Notice of Institution*, November 22, 2004, p. 38.

¹⁹ *Potassium Permanganate from China and Spain, Investigation. Nos. 731-TA-125-126 (Review)*, USITC Publication 3245, October 1999, p. I-9.

safe. Because potassium permanganate is used in the purification of cocaine, sales of the chemical are monitored by the Drug Enforcement Administration.

As reported during the first five-year review, there were no products that competed with potassium permanganate over the complete range of applications in which it is used.²⁰ However, there are competing products or alternative processes for specific end uses. Substitutes for potassium permanganate in drinking water and wastewater treatment include aeration, activated carbon, hydrogen peroxide, ozone, chlorine, iron salts, and nitrates. For example, growth of use of potassium permanganate in potable water was significantly curtailed because of competition from other oxidants, especially ozone and hydrogen peroxide. On the other hand, increasingly stringent regulations related to environmental and safety issues resulted in increased consumption of potassium permanganate for certain applications.

Estimated end uses of potassium permanganate in 1998, in terms of percentages of consumption, were as follows: wastewater treatment (**% percent), drinking water treatment (**% percent), chemical management and processing (**% percent), air and gas purification (**% percent), aquaculture (**% percent), metal processing (**% percent), and other uses (**% percent).²¹ Carus reports that in 2014 wastewater and drinking water treatment accounted for **% percent U.S. demand.²²

According to most of the questionnaire responses during the 1999 review, the potassium permanganate produced domestically and imports of potassium permanganate from China and other countries were generally found to be interchangeable. Some users, however, reported that there were quality problems associated with imported potassium permanganate.

Manufacturing process²³

Potassium permanganate is manufactured by the oxidation of potassium manganate (K_2MnO_4), which is prepared by the fusion of pyrolusite (black manganese dioxide) and potassium hydroxide. The manganese ion in potassium manganate is oxidized to potassium permanganate ($KMnO_4$). The oxidation may be accomplished by one of two methods. The first

²⁰ Sodium permanganate can be used in any application where potassium permanganate is used but, because sodium permanganate, on a dry basis, is substantially more expensive than potassium permanganate because of its advantages. For example, when compared to potassium permanganate, sodium permanganate is more soluble and can, therefore, be used more readily in liquid form (a 40 percent solution in water is the most common form imported or exported), thereby avoiding handling problems such as dusting. *Memorandum from Acting Chief, Energy, Chemicals, and Textiles Division to Director, Office of Tariff Affairs and Trade Agreements*, February 25, 2004, p. 1 (based in part on staff telephone interviews in February 2004 with Chithambarathanu Pillai, Environmental Manager, Carus Chemical Co.).

²¹ *Investigation Nos. 731-TA-125-126 (Review): Potassium Permanganate from China and Spain—Staff Report*, INV-W-216, September 20, 1999, p. I-17.

²² *Carus's Response to the Commission's Notice of Institution*, September 28, 2015, p. 21.

²³ Unless otherwise noted, this information is based on *Potassium Permanganate from China, Inv. No. 731-TA-125 (Third Review)*, USITC Publication 4183, September 2010, pp. I-13-14.

is by treating a hot solution of potassium manganate with carbon dioxide, which forms crystals when cooled. This method is very old and is not currently used to manufacture commercial quantities of potassium permanganate anywhere in the world, with the possible exception of China. It is, however, a method sometimes used to make laboratory quantities of this material.

No changes to the commercial manufacturing process used in the United States have been reported since 1999. The process is as follows:²⁴

- oxidation at high temperatures of potassium hydroxide (KOH) and manganese dioxide (MnO₂ or manganese ore) to produce potassium manganate (K₂MnO₄).
- continuous electrolysis of a solution of potassium manganate with continuous crystallization, resulting in the production of potassium permanganate and the byproducts potassium hydroxide and hydrogen gas, according to the reaction
 - $2K_2MnO_4 + 2H_2O \rightarrow 2KMnO_4 + 2KOH + H_2$
- crystallization of the potassium permanganate out of the solution.

The production process used by Carus ***.²⁵

Because of the large number of producers of potassium permanganate in China, the manufacturing process for potassium permanganate and its precursor, potassium manganate, has received a lot of attention from Chinese scientists. For example, a new method for producing potassium manganate was invented that facilitates large-scale production of potassium permanganate. Despite these advances, less efficient production methods continue to be used in China and the equipment and processes used to produce potassium permanganate are not of uniform quality and efficiency.²⁶

U.S. tariff treatment

Potassium permanganate currently imported under HTS statistical reporting number 2841.61.0000 (Potassium Permanganate). Potassium permanganate imported from China enters the U.S. market at a column 1-general duty rate of five percent.

²⁴ *Potassium Permanganate from China and Spain, Investigation Nos. 731-TA-125-126 (Review)*, USITC Publication 3245, October 1999, pp. I-10-11.

²⁵ Confidential staff report, INV-W-216, September 20, 1999, p. I-18.

²⁶ *Potassium Permanganate from China and Spain, Inv. Nos. 731-TA-125-126 (Review)*, USITC Pub 3245, October 1999, pp. I-11.

Table I-2

Potassium Permanganate: U.S. Tariff Treatment

Heading/Subheading	Statistical Suffix	Article Description	Unit of Quantity	Rates of Duty		
				1		2
				General	Special	
2841.61.00	00	Potassium Permanganate	kilogram	5%	Free (A, AU, BH, CA, CL, CO, E, IL, JO, KR, MA, MX, OM, P, PA, PE, SG)	23%

Source: U.S. Harmonized Tariff Schedule, (2015) Revision 2.

The definition of the domestic like product

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. In its original determination,²⁷ its first full, and second and third expedited five-year review determinations, the Commission found that there was one domestic like product, potassium permanganate.²⁸

In its notice of institution for this review, the Commission solicited comments from interested parties regarding the appropriate domestic like product. According to their response to the notice of institution, the domestic interested party agrees with the Commission’s definition.²⁹

THE ORIGINAL INVESTIGATION AND SUBSEQUENT REVIEWS

The original investigation

The original investigation resulted from a petition filed on February 22, 1983 with Commerce and the Commission by Carus Chemical Co., La Salle, IL, alleging that an industry in the United States was materially injured by reason of imports from China and Spain of

²⁷ In the original investigations, the Commission considered whether there were three like products defined by grade, (*i.e.*, free-flowing, technical, and pharmaceutical) or one like product defined as all potassium permanganate. *Potassium Permanganate from the People’s Republic of China, Determination of the Commission in Investigation No. 731-TA-125 (Final)*, USITC Publication 1480, January 1984, p. 6-7.

²⁸ *Potassium Permanganate from China and Spain, Investigation Nos. 731-TA-125-126 (Review)*, USITC Publication 3245, October 1999, p. 5. *Potassium Permanganate from China, Investigation No. 731-TA-125 (Second Review)*, USITC Publication 3778, June 2005, p. 5. *Potassium Permanganate from China, Investigation No. 731-TA-125 (Third Review)*, UITC Publication 4183, September 2010, p. 6.

²⁹ *Carus’s Response to the Notice of Institution*, September 28, 2015, p. 7.

potassium permanganate. After receipt of the Commission's affirmative determinations, Commerce issued antidumping duty orders on potassium permanganate from Spain and China on January 19 and 31, 1984, respectively.³⁰ In its final determinations, Commerce reported the dumping margin (percent) of 39.63 for China National Chemicals Import and Export Corp. (SINOCHEM) and for all others.

The first five-year review

On November 4, 1999, the Commission completed its first (full) five-year reviews on potassium permanganate from China and Spain, and determined that revocation of the antidumping duty order on potassium permanganate from China would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time.³¹ Commerce determined that that revocation of the antidumping duty order on potassium permanganate from China would be likely to lead to continuation or recurrence of dumping at the margin (percent) of 128.94.³² After receipt of the Commission's affirmative determination, Commerce continued the antidumping duty order on potassium permanganate from China on November 24, 1999.³³

The second five-year review

On May 18, 2005, the Commission completed its second (expedited) five-year review on potassium permanganate from China, and determined that revocation of the antidumping duty order on potassium permanganate from China would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time.³⁴ Commerce determined that that revocation of the antidumping duty order on potassium permanganate from China would be likely to lead to continuation or recurrence of dumping at the margin (percent) of

³⁰ 49 FR 2277, January 19, 1984 and 49 FR 3897, January 31, 1984.

³¹ *Potassium Permanganate from China and Spain; Determinations*, 64 FR 60225, November 4, 1999. The Commission determined in the first full-year review that revocation of the antidumping duty order on potassium permanganate from Spain would not be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time. Therefore, Commerce revoked the antidumping duty order concerning potassium permanganate from Spain, effective January 1, 2000 (64 FR 66167, November 24, 1999).

³² *Final Results of Expedited Sunset Review: Potassium Permanganate from the People's Republic of China*, 64 FR 16907, April 7, 1999.

³³ *Continuation of Antidumping Duty Order: Potassium Permanganate From the People's Republic of China*, 64 FR 66166, November 24, 1999.

³⁴ *Potassium Permanganate from China; Determination*, 70 FR 32372, June 2, 2005.

128.94.³⁵ After receipt of the Commission's affirmative determination, Commerce continued the antidumping duty order on potassium permanganate from China on June 21, 2005.³⁶

The third five-year review

On September 30, 2010, the Commission completed its third (expedited) five-year review on potassium permanganate from China, and determined that revocation of the antidumping duty order on potassium permanganate from China would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time.³⁷ Commerce determined that that revocation of the antidumping duty order on potassium permanganate from China would be likely to lead to continuation or recurrence of dumping at the margin (percent) of 128.94.³⁸ After receipt of the Commission's affirmative determination, Commerce continued the antidumping duty order on potassium permanganate from China on October 25, 2010.³⁹

PRIOR RELATED INVESTIGATIONS

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

ACTIONS AT COMMERCE

Commerce has not made duty absorption findings, anti-circumvention determinations, or conducted changed circumstances reviews since the antidumping duty order was imposed.

Current review results

Commerce is conducting an expedited review with respect to potassium permanganate from China and intends to issue the final results of this review based on the facts available not later than December 30, 2015.⁴⁰

³⁵ *Potassium Permanganate from The People's Republic of China; Five-year ("Sunset") Review of Antidumping Duty Order; Final Results*, 70 FR 24520, May 10, 2010.

³⁶ *Continuation of Antidumping Duty Order; Potassium Permanganate from the People's Republic of China*, 70 FR 35630, June 21, 2005.

³⁷ *Potassium Permanganate From China; Determination*, 75 FR 63856, October 18, 2010.

³⁸ *Potassium Permanganate from the People's Republic of China: Final Results of Expedited Sunset Review of Antidumping Duty Order*, 75 FR 52509, August 26, 2010.

³⁹ *Potassium Permanganate From the People's Republic of China: Continuation of Antidumping Duty Order*, 75 FR 65448, October 25, 2010.

⁴⁰ Erin Begnal, Director, Office III, AD/CVD Operations, Enforcement and Compliance, International Trade Administration, Department of Commerce, letter to Catherine DeFilippo, October 20, 2015.

THE INDUSTRY IN THE UNITED STATES

U.S. producer

Carus is the sole U.S. producer of potassium permanganate and was during the original investigations and the three completed five-year reviews. In fact, Carus was the sole remaining U.S. potassium permanganate manufacturer beginning in 1920.

Definition of the domestic industry and related party issues

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. In its original determinations and its three completed five-year review determinations, the Commission defined the domestic industry as consisting of the sole domestic producer, Carus.⁴¹ Carus remains the sole U.S. producer of potassium permanganate. Carus did not import potassium permanganate from China during the original investigations or the three completed reviews, nor was it related to an exporter or importer of potassium permanganate from China, or was otherwise a related party as defined by the statute. Carus's related party status has not changed during the current review.

U.S. producer's trade and financial data

The Commission asked domestic interested parties to provide trade and financial data in their response to the notice of institution of the current five-year review.⁴² Table I-3 presents data submitted from sole U.S. producer Carus for the current review, as well as its trade and financial data submitted in the original investigations, and the last full-year data reported in each of the three prior five-year reviews.

In the original investigations, in 1982, Carus reported, production of approximately ***, a capacity utilization rate of *** percent, total U.S. shipments of *** pounds, cost-of-good sold to net sales ratio of *** percent, and experienced an ***. Every one of these indicators showed improvement during the years from the review periods shown below. In 1998, 2003, 2009, and 2014, production was no less than *** pounds. Capacity fluctuated, and in 2014 was *** pounds, virtually the same it was in 1982. Likewise, capacity utilization also fluctuated. Capacity utilization was higher in 2014 compared to 2009, but this is largely explained by the *** pound decrease in capacity from 2009 to 2010.⁴³ Total U.S. shipments have trended down during

⁴¹ *Potassium Permanganate from China, Inv. No. 731-TA-125 (Third Review)*, USITC Publication 4183, September 2010, p. 6.

⁴² Individual company trade and financial data are presented in app. B.

⁴³ The reduction was due to technical changes affecting the most efficient use of one oxidizer. *Carus's response to the Commission's notice of institution*, September 28, 2015, p. 6.

1998-2009, but in 2014 remained at virtually the same level they were in 2009. Cost-of-good sold to net sales ratio was higher in 2009 when compared to 2003 and 1998, but was lower in 2014. In the years since 1982 reported below, the operating income margin has not been below *** percent and was higher in 2014 compared to 2009.

Table I-3

Potassium permanganate: Trade and financial data, 1982, 1998, 2003, 2009, and 2014

* * * * *

U.S. IMPORTS AND APPARENT CONSUMPTION

U.S. importers

In the original 1984 investigation concerning China, the Commission indicated that there were eight U.S. importers of the subject merchandise from China. In the staff report of the first review, the Commission indicated that only one importer *** was responsible for all imports of the Chinese product during 1998.⁴⁴ In response to the Commission's request in its notice of institution in the second review for a list of all known and currently operating U.S. importers of the subject merchandise after 1998, Carus listed two U.S. importers, ***. In the third review, there were no imports of subject merchandise; however, two companies, *** were reported as currently importing subject merchandise into Canada. In response to the Commission's notice of institution in the current review, Carus reported identified one firm, ***, as an importer of subject merchandise in 2014.⁴⁵

U.S. imports

In the original investigation, the Commission found that, following a drop in volume between 1980 and 1981, subject imports increased from 281,000 pounds to 588,000 pounds in 1982 and that 1.4 million pounds were imported from China in January-August 1983 compared to 407,000 pounds in January-August 1982.⁴⁶ The Commission also found that the ratio of subject imports to apparent domestic consumption, excluding purchases from Chemagro, rose from 1980 to 1981, declined from 1981 to 1982, and then more than doubled during the first eight months of 1983 relative to the same period in 1982. In the first five-year review, the

⁴⁴ *Potassium Permanganate from China and Spain, Inv. Nos. 731-TA-125-126 (Review)*, USITC Publication 3245, October 1999, p. I-21.

⁴⁵ *Carus' Response to the Commission's Notice of Institution*, September 25, 2015, p. 4. Carus also identified four firms importing potassium permanganate into Canada, some of which Carus claims also participate in the U.S. market. These firms are: (1) F2 Industries LLC; (2) Univar; (3) Cleartech; and Solquin, S.A. (4). *Ibid*, attachment 4.

⁴⁶ *Potassium Permanganate from China, Inv. No. 731-TA-125 (Third Review)*, USITC Publication 4183, September 2010, pp. 11-12.

Commission found that subject imports from China increased dramatically from 1986 to 1990 to 2.5 million pounds, but decreased to 300,000 pounds in 1992 following an increase in antidumping duty margins after an administrative review by Commerce.⁴⁷ It further noted that Chinese imports increased significantly between 1992 and 1993. The Commission noted that, in 1994, Commerce found that subject Chinese potassium permanganate was being transshipped through Hong Kong resellers that were previously assigned a margin of 39.53 percent and, as a result, Commerce assigned a country-wide margin of 128.4 percent to all subject imports. Subject imports from China then declined steeply and were virtually non-existent by the end of the period covered by the first five-year review.

In the second five-year review, the Commission concluded, on the basis of facts available, that the subject import volume was likely to increase significantly and would be significant if the order were revoked. The Commission found that the Chinese producers had greatly expanded their capacity and would continue do so in the future through the construction of additional plants. It further concluded that the Chinese producers had the ability to ship substantial volumes of potassium permanganate to the United States if the order were revoked, finding that Chinese producers had significant unused production capacity and were highly export-oriented.⁴⁸

In the third five-year review, based on the demonstrated ability of Chinese potassium permanganate producers to increase imports into the U.S. market rapidly, their substantial production capacity and excess capacity, their export orientation, the attractiveness of the U.S. market, and the antidumping measures on Chinese potassium permanganate in India, the Commission found that the likely volume of subject imports, both in absolute terms and as a share of the U.S. market, would be significant if the order were revoked.⁴⁹

Table I-3 presents data on U.S. imports of potassium permanganate during 2010-14. As shown below, subject imports from China have been virtually nonexistent during this period. U.S. imports of potassium permanganate from China increased during this period and during 2011-14 have accounted for the vast majority of total U.S. imports.⁵⁰

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Ibid, pp. 12-13.

⁵⁰ *Carus' Response to the Commission's Notice of Institution*, September 25, 2015, attachment 11.

**Table I-3
Potassium permanganate: U.S. imports, 2010-14**

Item	2010	2011	2012	2013	2014
	Quantity (1,000 pounds)				
China	0	13	3	0	48
All other	2,402	3,725	3,255	2,916	3,497
Total imports	2,402	3,738	3,258	2,916	3,545
	Landed, duty-paid value (\$1,000)				
China	0	12	11	0	50
All other	3,556	5,499	4,858	4,058	4,784
Total imports	3,556	5,510	4,869	4,058	4,834
	Unit value (dollars per pound)				
China	(¹)	0.92	3.18	(¹)	1.04
All other	1.48	1.48	1.49	1.39	1.37
Total imports	1.48	1.47	1.49	1.39	1.36

¹ Not applicable.

Note.--Because of rounding, figure may not add to total shown.

Source: Official statistics of Commerce for HTS statistical reporting number 2841.61.0000.

Apparent U.S. consumption and market shares

Table I-4 presents data on U.S. producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, while table I-5 presents data on U.S. market shares of U.S. apparent consumption. Apparent consumption has fluctuated irregularly since 1982.

Table I-4
Potassium permanganate: U.S. producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, 1982, 1998, 2003, 2009, and 2014

Item	1982	1998	2003	2009	2014
Quantity (1,000 pounds)					
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. imports from—					
China	588	2	0	0	48
All other	1,158	2,722	3,235	2,519	3,497
Total imports	1,746	2,724	3,235	2,519	3,545
Apparent U.S. consumption	***	***	***	***	***
Value (1,000 dollars)					
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. imports from—					
China	323	2	0	0	50
All other	843	2,521	3,174	4,043	4,784
Total imports	1,169	2,523	3,174	4,043	4,834
Apparent U.S. consumption	***	***	***	***	***

Source: U.S. producers' shipment data for 1982, 1998, 2003, and 2009 data: *Investigation No. 731-TA-125 (Third Review): Potassium Permanganate from China—Staff Report*, INV-HH-088, September 2, 2010, table I-3. For 2014 data: *Carus's Response to the Commission's Notice of Institution*, September 25, 2015, pp. 5-6. Import data: official statistics of Commerce for HTS statistical reporting number 2841.61.0000.

Table I-5
Potassium permanganate: Apparent U.S. consumption and U.S. market shares, 1982, 1998, 2003, 2009, and 2014

* * * * *

THE INDUSTRY IN CHINA

In the original 1984 investigation concerning China, the Commission found that potassium permanganate was produced at eight plants in China and that exports of the product were handled exclusively by the China National Chemicals Import and Export Corp. (SINOCEM).⁵¹ In the staff report of the first review, the Commission indicated that only one importer, ***, was responsible for all imports of the Chinese product during 1998.⁵² The Commission also reported that the number of potassium permanganate producers in China was unknown but it was estimated that there were five major producers.⁵³

During the 1999 full five-year review, two Chinese producers of potassium permanganate, Chongqing Jialing Chemical Factory (Chongqing Jialing) and Guizhou Province Zunyi Chemical Plant (Zunyi), responded to the Commission's questionnaires and estimated that they produced *** percent of the potassium permanganate in China.⁵⁴

In its response to the notice of institution for the second five-year review, Carus indicated that China accounted for over half of estimated world potassium permanganate production capacity, and identified two Chinese producers of potassium permanganate, Guizhou Chemicals Import & Export Corp., and Groupstars Chemical Co. Ltd. (Shandong). It also noted that "there is a significant number of other Chinese producers ... that have the interest and ability to ship substantial quantities of potassium permanganate to the United States" and identified up to 11 Chinese producers and 22 Chinese exporters of potassium permanganate.⁵⁵

In its response to the notice of initiation for the third five-year review, Carus identified *** producers of potassium permanganate in China and estimated that in 2009 China had the capacity to produce *** million pounds of potassium permanganate and produced *** million pounds for a capacity utilization of *** percent and excess capacity of *** million pounds. China exported *** percent of its production in 2009, which accounted for over *** percent of world exports of potassium permanganate that year. Carus estimated that there also existed about *** pounds in inventory in China amongst various producers, with the largest volume at ***.⁵⁶

In its response to the notice of institution for the current review, Carus identified five Chinese producers that shipped potassium permanganate to the United States since the last

⁵¹ *Potassium Permanganate from China, Inv. No. 731-TA-125 (Third Review)*, USITC Publication 4183, September 2010, p. I-18.

⁵² *Investigation Nos. 731-TA-125-126 (Review): Potassium Permanganate from China and Spain—Staff Report*, INV-W-216, September 20, 1999, p. I-21.

⁵³ *Ibid.*, p. IV-3.

⁵⁴ *Investigation Nos. 731-TA-125-126 (Review): Potassium Permanganate from China and Spain—Staff Report*, INV-W-216, September 20, 1999, p. IV-6.

⁵⁵ *Potassium Permanganate from China, Inv. No. 731-TA-125 (Third Review)*, USITC Publication 4183, September 2010, p. I-18.

⁵⁶ *Investigation No. 731-TA-125 (Third Review): Potassium Permanganate from China—Staff Report*, INV-HH-088, September 2, 2010, p. I-28.

review.⁵⁷ Carus also provided a list of six “principle” Chinese producers of potassium permanganate from 1999 to 2002, since prior to 2003 there were more significant volumes of subject imports.⁵⁸

By Carus’s estimate, China is the world’s largest consumer of potassium permanganate.⁵⁹ Carus’s estimate of Chinese production capacity for potassium permanganate for 2014 is 111 million pounds (table I-6) which is approximately 22 million pounds less than the estimate it provided for 2009. Carus does note, however, that Chinese capacity is expected to increase, with the replacement of Meixan’s capacity of 7.7 million pounds with a 22 to 33 million-pound plant.⁶⁰ Carus estimates that Chinese production of potassium permanganate at 84 million pounds was greater in 2014 when compared with 2009, but still had approximately 27 million pounds of unused capacity.⁶¹

Table I-6
Potassium permanganate: Capacity, production, capacity utilization, and share of production in China, 2014

* * * * *

⁵⁷ *Carus’s Response to the Commission’s Notice of Institution*, September 28, 2015, attachment 2. Carus also provided a list of 27 Chinese exporters/shippers and 30 U.S. importers of sodium permanganate. Carus claims that this product is used in many of the same water purification applications as potassium permanganate, and companies importing this product from China will be well-placed in the U.S. distribution system to import potassium permanganate from China for sale in the United States should the order be revoked. *Ibid*, p. 4 and attachment 5.

⁵⁸ Two listed producers , ***, are believed to have ceased production since the last review, but the status of the ability to restart the facilities is unknown. *Ibid*, p. 10, fn 17, and attachments 3 and 12.

⁵⁹ *Ibid*, p. 8, fn. 13. Carus estimates that 56 million pounds of potassium permanganate are consumed annually in China. *Ibid*, p. 10.

⁶⁰ *Ibid*, p. 11.

⁶¹ *Ibid*, pp. 10-11.

Table I-7 presents data on Chinese exports of potassium permanganate. During 2010-14, Iran was the largest export destination of Chinese potassium permanganate. Total Chinese exports fluctuated during 2010-14, peaking in 2012 at 36 million pounds.

Table I-7

Potassium Permanganate: Exports from China by country, 2010-14

Item	2010	2011	2012	2013	2014
	Quantity (1,000 pounds)				
Iran	6,482	8,863	13,012	7,438	9,669
Thailand	3,351	4,954	4,026	5,672	3,621
Japan	1,874	1,951	1,952	1,728	2,341
Brazil	2,381	1,720	3,611	1,790	1,883
Bangladesh	441	882	441	1,253	1,764
Vietnam	794	1,412	1,103	1,499	1,499
Turkey	838	970	617	1,195	1,485
Hong Kong	3,345	2,337	2,458	745	1,235
Taiwan	1,587	1,323	1,190	1,182	1,010
Poland	1,786	1,499	873	805	945
Other	8,647	9,748	6,949	7,184	5,990
Total	31,526	35,658	36,231	30,492	31,441

Table continued on next page.

Table I-7

Potassium Permanganate: Exports from China by country, 2010-14

Item	2010	2011	2012	2013	2014
	Value (1,000 dollars)				
Iran	6,177	10,196	15,931	9,184	10,729
Thailand	3,258	5,481	4,481	6,019	3,586
Japan	1,833	2,203	2,288	1,917	2,426
Brazil	2,426	2,031	4,302	2,096	1,940
Bangladesh	433	1,044	526	1,414	1,865
Vietnam	747	1,300	1,187	1,453	1,487
Turkey	818	1,105	706	1,250	1,471
Hong Kong	3,203	2,228	2,343	710	1,176
Taiwan	1,524	1,372	1,376	1,233	1,038
Poland	1,778	1,777	1,062	915	1,039
Other	8,714	11,281	8,175	7,997	6,460
Total	30,910	40,019	42,377	34,187	33,218
	Unit Value (dollars per pound)				
Iran	0.95	1.15	1.22	1.24	1.11
Thailand	0.97	1.11	1.11	1.06	0.99
Japan	0.98	1.13	1.17	1.11	1.04
Brazil	1.02	1.18	1.19	1.17	1.03
Bangladesh	0.98	1.18	1.19	1.13	1.06
Vietnam	0.94	0.92	1.08	0.97	0.99
Turkey	0.98	1.14	1.14	1.05	0.99
Hong Kong	0.96	0.95	0.95	0.95	0.95
Taiwan	0.96	1.04	1.16	1.04	1.03
Poland	1.00	1.19	1.22	1.14	1.10
Other	1.01	1.16	1.18	1.11	1.08
Total	0.98	1.12	1.17	1.12	1.06

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

Source: Global Trade Information Services Inc. Global Trade Atlas, HS 284161.

ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

Chinese potassium permanganate was subject to an antidumping duty order imposed by the European Union, which was terminated in 2006.⁶² In its third five-year review, the Commission noted that “exports of Chinese product to the EU market more than tripled in one

⁶² *Potassium Permanganate from China, Inv. No. 731-TA-125 (Third Review)*, USITC Publication 4183, September 2010, p. I-20.

year after the EU terminated its antidumping measure on imports from China in 2006 indicating likely similar behavior if the U.S. order were revoked.”⁶³

India had an antidumping duty order on imports of potassium permanganate from China in effect from 1995 to 2013.⁶⁴ In its third five-year review, the Commission noted that the Chinese industry faced a barrier to entry in the Indian market because of its antidumping measure on Chinese potassium permanganate. The Commission included the Indian order in its justification for finding the likely volume of subject imports from China would be significant in the order were revoked.⁶⁵

THE GLOBAL MARKET

Carus provided estimates of global capacity, production, and consumption for 2014 (table I-8). ***

Table I-8
Potassium Permanganate: Estimated Global Capacity, Production, and Consumption, 2014

* * * * *

During 2010-14, China was the largest exporter of potassium permanganate, with its share of total global exports ranging from a low of 58.6 percent in 2014 to a high of 65.2 percent in 2012 (table I-9). During this period, India, the largest non-subject exporter, accounted for a high of 9.4 percent of global exports in 2014 and a low of 5.9 percent in 2010.

⁶³ *Potassium Permanganate from China, Inv. No. 731-TA-125 (Third Review)*, USITC Publication 4183, September 2010, p. 13.

⁶⁴ *Potassium Permanganate from China, Inv. No. 731-TA-125 (Third Review)*, USITC Publication 4183, September 2010, p. I-20. The Indian order on Chinese potassium permanganate is believed to have lapsed automatically but there was no customs notification. Email from Ed Lebow, counsel to Carus, Hayne and Boone, LLP, November 4, 2015. Further, in its semi-annual report to the WTO Committee on anti-dumping practices, for the period of July 1, 2012 through December 31, 2012, India included its order on potassium permanganate from China. But starting with the period of January 1, 2013 through June 30, 2013, India did not report having an antidumping duty order in force for potassium permanganate from China. *India Semi-Annual Report Under Article 16.4 of the Agreement*, Committee on Anti-Dumping Practices, World Trade Organization, March 27, 2013, p. 18 and *India Semi-Annual Report Under Article 16.4 of the Agreement*, Committee on Anti-Dumping Practices, World Trade Organization, September 11, 2013.

⁶⁵ *Potassium Permanganate from China, Inv. No. 731-TA-125 (Third Review)*, USITC Publication 4183, September 2010, p. 13.

Table I-9

Potassium Permanganate: Global exports by major sources, 2010-14

Item	2010	2011	2012	2013	2014
	Quantity (1000 pounds)				
China	31,526	35,659	36,232	30,492	31,442
USA	7,169	7,226	6,798	6,749	8,738
India	3,088	5,015	3,850	4,296	5,032
Belgium	4,458	4,731	3,925	4,538	4,070
Netherlands	204	828	603	577	1,668
Other	6,114	3,696	4,169	1,936	2,688
Total	52,586	57,154	55,577	48,589	53,645
	Value (1000 dollars)				
China	30,910	40,019	42,377	34,187	33,218
USA	9,367	9,391	8,199	8,271	10,721
India	3,576	6,564	5,381	5,491	5,984
Belgium	6,594	7,248	5,806	7,102	6,204
Netherlands	380	1,385	924	888	939
Other	8,142	6,638	7,281	4,003	4,943
Total	58,968	71,245	69,967	59,943	62,008
	Unit Value (dollars per pound)				
China	0.98	1.12	1.17	1.12	1.06
USA	1.30	1.30	1.21	1.23	1.23
India	1.16	1.31	1.40	1.28	1.19
Belgium	1.48	1.53	1.48	1.57	1.52
Netherlands	1.86	1.67	1.53	1.54	0.56
Other	1.33	1.80	1.75	2.07	1.84
Total	1.12	1.25	1.26	1.23	1.16

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

Source: Global Trade Information Services Inc. Global Trade Atlas, HS 284161. Retrieved October 30, 2015.

Since 2010, Iran was China's leading export destination, with quantities ranging from a low of 6.5 million pounds in 2010 to a high of 13.0 million pounds in 2012.⁶⁶ Iran's first potassium permanganate plant was finished in October 2015, with a capacity variously reported as 5,000 metric tons (11.0 million pounds)⁶⁷ and 6,000 metric tons (13.2 million pounds).⁶⁸

⁶⁶ See table I-7.

⁶⁷ "Iran Opens Middle East's First Potassium Permanganate Factory," Tasnim News Agency, October 31, 2015. <http://www.tasnimnews.com/en/news/2015/10/31/903175/iran-opens-middle-east-s-first-potassium-permanganate-factory>.

⁶⁸ "Potassium Permanganate Plant Goes On Stream," Financial Tribune Daily, November 1, 2015. <http://financialtribune.com/articles/economy-business-and-markets/29198/potassium-permanganate-plant-goes-stream>.

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
80 FR 52743 September 1, 2015	<i>Initiation of Five-Year ("Sunset") Review</i>	https://www.federalregister.gov/articles/2015/09/01/2015-21633/initiation-of-five-year-sunset-review
80 FR 52793 September 1, 2015	<i>Potassium Permanganate From China; Institution of a Five-Year Review</i>	https://www.federalregister.gov/articles/2015/09/01/2015-21219/potassium-permanganate-from-china-institution-of-a-five-year-review

APPENDIX B
COMPANY-SPECIFIC DATA

APPENDIX B IS REDACTED IN ITS ENTIRETY

APPENDIX C

SUMMARY DATA COMPILED IN PRIOR INVESTIGATIONS

Table I-4a
Potassium permanganate: U.S. imports, by sources, 1980-82 and 1989-2003

Source	Calendar year																	
	1980	1981	1982	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	Quantity (1,000 pounds)																	
China	1,019	281	588	2,075	2,524	824	256	2,403	926	625	2	0	2	0	40	177	892	0
All other	178	830	1,158	2,321	1,714	1,323	2,045	1,916	2,669	3,553	3,209	3,693	2,721	3,791	3,315	3,248	2,505	3,235
Total	1,197	1,111	1,746	4,397	4,239	2,147	2,301	4,319	3,595	4,178	3,212	3,693	2,724	3,791	3,354	3,425	3,397	3,235
	Value (\$1,000)¹																	
China	695	183	323	1,303	1,383	424	145	1,242	426	228	2	0	2	0	24	105	592	0
All other	183	849	846	2,435	1,584	1,301	1,963	1,820	2,652	3,073	3,169	3,570	2,521	3,237	3,186	3,194	2,455	3,174
Total	878	1,032	1,169	3,738	2,968	1,725	2,108	3,062	3,078	3,301	3,170	3,570	2,523	3,237	3,210	3,298	3,047	3,174
	Unit value (per pound)																	
China	\$0.68	\$0.65	\$0.55	\$0.63	\$0.55	\$0.51	\$0.57	\$0.52	\$0.46	\$0.37	\$0.83	(²)	0.83	(²)	\$0.60	\$0.59	\$0.66	(²)
All other	1.03	1.02	0.73	1.05	0.92	0.98	0.96	0.95	0.99	0.86	0.99	\$0.97	0.93	\$0.85	0.96	0.98	0.98	\$0.98
Ave.	0.73	1.67	1.28	0.85	0.70	0.80	0.92	0.71	0.86	0.79	0.99	0.97	0.93	0.85	0.96	0.96	0.90	0.98
	Share of quantity (percent)																	
China	85.1	25.3	33.7	47.2	59.6	38.4	11.1	55.6	25.8	15.0	0.1	0.0	0.1	0.0	1.2	5.2	26.3	0.0
All other	14.9	74.7	66.3	52.8	40.4	61.6	88.9	44.4	74.2	85.0	99.9	100.0	99.9	100.0	98.8	94.8	73.7	100.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)																	
China	79.2	17.7	27.6	34.9	46.6	24.6	6.9	40.6	13.8	6.9	0.1	0.0	0.1	0.0	0.7	3.2	19.4	0.0
All other	20.8	82.3	72.4	65.1	53.4	75.4	93.1	59.4	86.2	93.1	99.9	100.0	99.9	100.0	99.3	96.8	80.6	100.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ Landed, duty-paid.

² Not applicable.

Source: Compiled from official Commerce statistics.

Table 1-5

Potassium permanganate: U.S. apparent consumption and market shares, 1980-82, 1997-98, 2003, and 2004-09

* * * * *

Table C-1
Potassium permanganate: Summary data concerning the U.S. market, 2004-09

(Quantity=1,000 pounds, value=1,000 dollars, unit values, unit labor costs, and unit expenses are per pound; period changes=percent, except where noted)

Item	Reported data						Period changes					
	2004	2005	2006	2007	2008	2009	2004-09	2004-05	2005-06	2006-07	2007-08	2008-09
U.S. consumption quantity:												
Amount	***	***	***	***	***	***	***	***	***	***	***	***
Producers' share (1)	***	***	***	***	***	***	***	***	***	***	***	***
Importers' share (1):												
China	***	***	***	***	***	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***	***	***	***	***	***
Total imports	***	***	***	***	***	***	***	***	***	***	***	***
U.S. consumption value:												
Amount	***	***	***	***	***	***	***	***	***	***	***	***
Producers' share (1)	***	***	***	***	***	***	***	***	***	***	***	***
Importers' share (1):												
China	***	***	***	***	***	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***	***	***	***	***	***
Total imports	***	***	***	***	***	***	***	***	***	***	***	***
U.S. imports from:												
China:												
Quantity	0	0	0	0	0	0	(2)	(2)	(2)	(2)	(2)	(2)
Value	0	0	0	0	0	0	(2)	(2)	(2)	(2)	(2)	(2)
Unit value	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Ending inventory quantity	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
All other sources:												
Quantity	2,461	2,310	2,859	2,465	1,575	2,519	2.4	-6.1	23.7	-13.8	-36.1	60.0
Value	2,501	2,496	3,262	2,938	2,166	4,043	61.6	-0.2	30.7	-9.9	-26.3	86.7
Unit value	\$1.02	\$1.08	\$1.14	\$1.19	\$1.38	\$1.60	57.9	6.3	5.6	4.4	15.4	16.7
Ending inventory quantity	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
All sources:												
Quantity	2,461	2,310	2,859	2,465	1,575	2,519	2.4	-6.1	23.7	-13.8	-36.1	60.0
Value	2,501	2,496	3,262	2,938	2,166	4,043	61.6	-0.2	30.7	-9.9	-26.3	86.7
Unit value	\$1.02	\$1.08	\$1.14	\$1.19	\$1.38	\$1.60	57.9	6.3	5.6	4.4	15.4	16.7
Ending inventory quantity	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
U.S. producers':												
Average capacity quantity	***	***	***	***	***	***	***	***	***	***	***	***
Production quantity	***	***	***	***	***	***	***	***	***	***	***	***
Capacity utilization (1)	***	***	***	***	***	***	***	***	***	***	***	***
U.S. shipments:												
Quantity	***	***	***	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***	***	***	***
Export shipments:												
Quantity	***	***	***	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***	***	***	***
Inventories/total shipments (1)	***	***	***	***	***	***	***	***	***	***	***	***
Production workers	***	***	***	***	***	***	***	***	***	***	***	***
Hours worked (1,000s hours)	***	***	***	***	***	***	***	***	***	***	***	***
Wages paid (\$1,000s)	***	***	***	***	***	***	***	***	***	***	***	***
Hourly wages	***	***	***	***	***	***	***	***	***	***	***	***
Productivity (pounds per hour)	***	***	***	***	***	***	***	***	***	***	***	***
Unit labor costs (dollars per 1,000 pounds)	***	***	***	***	***	***	***	***	***	***	***	***
Net sales:												
Quantity	***	***	***	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***	***	***	***
Cost of goods sold (COGS)	***	***	***	***	***	***	***	***	***	***	***	***
Gross profit or (loss)	***	***	***	***	***	***	***	***	***	***	***	***
SG&A expenses	***	***	***	***	***	***	***	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***	***	***	***	***	***	***	***
Capital expenditures	***	***	***	***	***	***	***	***	***	***	***	***
Unit COGS	***	***	***	***	***	***	***	***	***	***	***	***
Unit SG&A expenses	***	***	***	***	***	***	***	***	***	***	***	***
Unit operating income or (loss)	***	***	***	***	***	***	***	***	***	***	***	***
COGS/sales (1)	***	***	***	***	***	***	***	***	***	***	***	***
Operating income or (loss)/sales (1)	***	***	***	***	***	***	***	***	***	***	***	***

(1) "Reported data" are in percent and "period changes" are in percentage points.
(2) Not applicable.
(3) Not available.

Note.--Financial data are reported on a fiscal year basis and may not necessarily be comparable to data reported on a calendar year basis. Because of rounding, figures may not add to the totals shown. Unit values and shares are calculated from the unrounded figures.

Source: Compiled from Carus Response, Attachment 31 and from official Commerce statistics.

APPENDIX D

PURCHASER QUESTIONNAIRE RESPONSES

APPENDIX D IS REDACTED IN ITS ENTIRETY

