

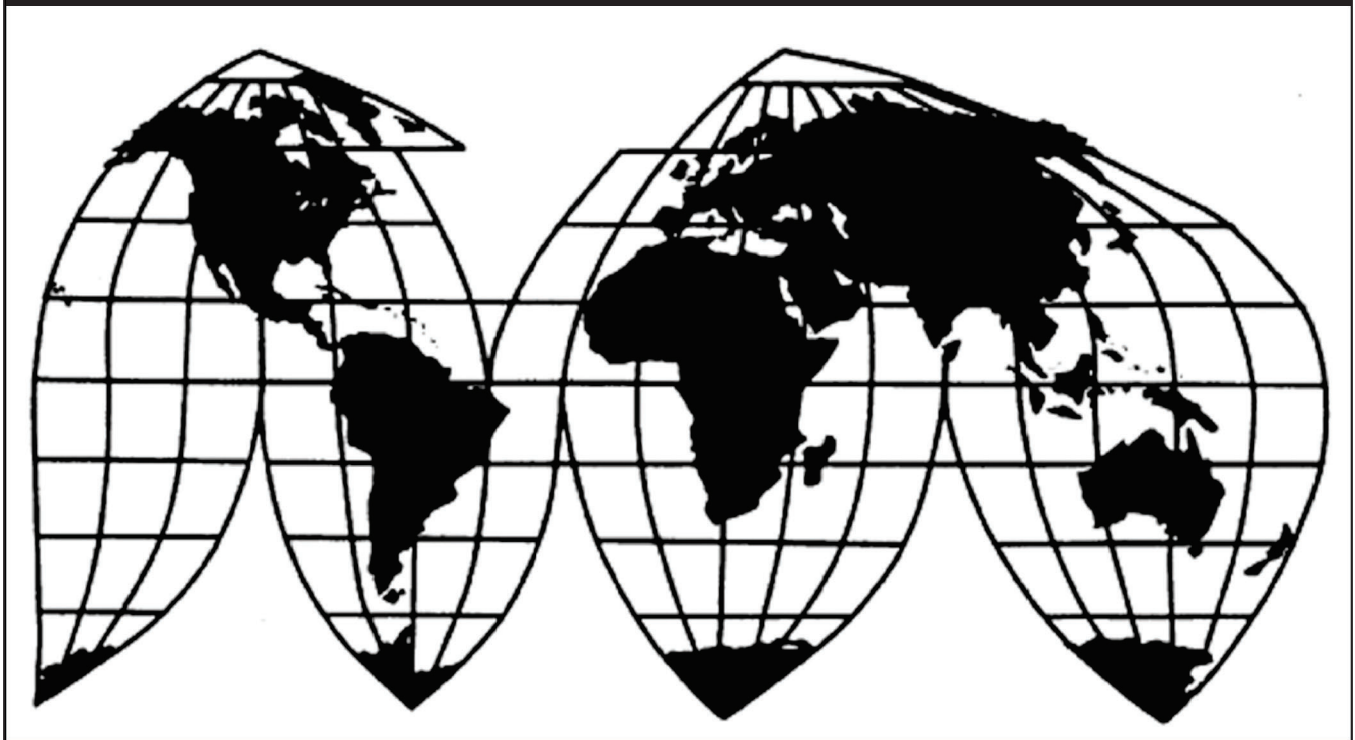
# Persulfates from China

Investigation No. 731-TA-749 (Fourth Review)

Publication 4946

August 2019

**U.S. International Trade Commission**



Washington, DC 20436

# U.S. International Trade Commission

## COMMISSIONERS

**David S. Johanson, Chairman**

**Irving A. Williamson**

**Meredith M. Broadbent**

**Rhonda K. Schmidlein**

**Jason E. Kearns**

---

Catherine DeFilippo

*Director of Operations*

---

*Staff assigned*

Stamen Borisson, Investigator

Samuel Goodman, Industry Analyst

Andrew Knipe, Economist

Jason Miller, Attorney

Mary Messer, Supervisory Investigator

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](http://www.usitc.gov)

## Persulfates from China

Investigation No. 731-TA-749 (Fourth Review)

**Publication 4946**



**August 2019**



## CONTENTS

	Page
<b>Determinations.....</b>	<b>1</b>
<b>Views of the Commission.....</b>	<b>3</b>
<b>Information obtained in this review .....</b>	<b>I-1</b>
Background.....	I-1
Responses to the Commission’s notice of institution.....	I-1
Individual responses.....	I-1
Party comments on adequacy.....	I-2
The original investigation and subsequent reviews.....	I-2
The original investigation .....	I-2
The first five-year review.....	I-3
The second five-year review.....	I-3
The third five-year review .....	I-4
Previous and related investigations.....	I-4
Actions at Commerce .....	I-4
Changed circumstances reviews .....	I-4
Current five-year review.....	I-5
The product.....	I-5
Commerce’s scope .....	I-5
U.S. tariff treatment .....	I-6
Description and uses .....	I-6
Manufacturing process.....	I-7
The industry in the United States .....	I-8
U.S. producers .....	I-8
Recent developments.....	I-8
U.S. producer’s trade and financial data.....	I-9
Definitions of the domestic like product and domestic industry .....	I-10
U.S. imports and apparent U.S. consumption.....	I-11
U.S. importers.....	I-11
U.S. imports .....	I-12
Apparent U.S. consumption and market shares .....	I-13

## CONTENTS

	<b>Page</b>
The industry in China.....	I-16
Antidumping or countervailing duty orders in third-country markets.....	I-18
The global market .....	I-19

### **Appendixes**

A. <i>Federal Register</i> notices.....	A-1
B. Company-specific data.....	B-1
C. Summary data compiled in prior proceedings.....	C-1
D. Purchaser questionnaire responses.....	D-1

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

# UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-749 (Fourth Review)

Persulfates from China

## DETERMINATION

On the basis of the record<sup>1</sup> developed in the subject five-year review, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that revocation of the antidumping duty order on persulfates 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 Act (19 U.S.C. 1675(c)), instituted this review on February 1, 2019 (84 FR 2252, February 6, 2019) and determined on May 7, 2019 that it would conduct an expedited review (84 FR 32217, July 5, 2019).

---

<sup>1</sup> 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 persulfates from China would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

### I. Background

*Original Investigation.* In July 1996, FMC Corporation (“FMC”) filed an antidumping duty petition covering imports of persulfates from China.<sup>1</sup> In June 1997, the Commission issued its final determination finding that the domestic persulfates industry was materially injured by reason of subject imports.<sup>2</sup> Subsequently, the Department of Commerce (“Commerce”) issued an antidumping duty order on subject imports.<sup>3</sup>

*First Review.* In June 2002, the Commission instituted its first five-year review of the antidumping duty order.<sup>4</sup> After conducting an expedited review, the Commission determined that revocation of the order would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.<sup>5</sup> In December 2002, Commerce issued a continuation of the order.<sup>6</sup>

*Second Review.* In November 2007, the Commission instituted its second five-year review.<sup>7</sup> After conducting an expedited review, the Commission determined that revocation of the order would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.<sup>8</sup> In April 2008, Commerce issued a continuation of the order.<sup>9</sup>

---

<sup>1</sup> *Persulfates from China*, Inv. No. 731-TA-749 (Final), USITC Pub. 3044 at I-1 (Jun. 1997) (“Original Determination”).

<sup>2</sup> Original Determination, USITC Pub. 3044 at 19.

<sup>3</sup> *Notice of Antidumping Duty Order and Amended Final Determination of Sales at Less Than Fair Value: Persulfates from the People’s Republic of China*, 62 Fed. Reg. 36259 (Jul. 7, 1997), as amended by *Notice of Amended Antidumping Duty Order: Persulfates from the People’s Republic of China*, 62 Fed. Reg. 39212 (Jul. 22, 1997).

<sup>4</sup> *Persulfates from China*, 67 Fed. Reg. 38333 (Jun. 3, 2002).

<sup>5</sup> *Persulfates from China*, Inv. No. 731-TA-749 (Review), USITC Pub. 3555 at 1 (Oct. 2002) (“First Review Determination”).

<sup>6</sup> *Notice of Continuation of Antidumping Duty Order: Persulfates from the People’s Republic of China*, 67 Fed. Reg. 78415 (Dec. 24, 2002).

<sup>7</sup> *Persulfates from China*, 72 Fed. Reg. 61907 (Nov. 1, 2007).

<sup>8</sup> *Persulfates from China*, Inv. No. 731-TA-749 (Second Review), USITC Pub. 3988 at 1 (Mar. 2008) (“Second Review Determination”).

<sup>9</sup> *Persulfates from the People’s Republic of China: Continuation of Antidumping Duty Order*, 73 Fed. Reg. 21318 (Apr. 21, 2008).

*Third Review.* In March 2013, the Commission instituted its third five-year review.<sup>10</sup> After conducting a full review, the Commission determined that revocation of the order would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.<sup>11</sup> In March 2014, Commerce issued a continuation of the order.<sup>12</sup>

*Current Review.* The Commission instituted this fourth five-year review on February 1, 2019.<sup>13</sup> The Commission received a single response to the notice of institution filed by PeroxyChem LLC (“PeroxyChem”), a domestic producer of persulfates.<sup>14</sup> The Commission did not receive a response to the notice of institution from any respondent interested party. The Commission unanimously determined that the domestic interested party group response was adequate and that the respondent interested party group response was inadequate.<sup>15</sup> It further found no other circumstances that would warrant conducting a full review and determined on May 7, 2019 that it would conduct an expedited review.<sup>16</sup> PeroxyChem filed final comments with the Commission on July 15, 2019.<sup>17</sup>

In this review, U.S. industry data are based on the information provided in the response to the notice of institution by PeroxyChem, which estimated that it accounted for 100 percent of domestic production of persulfates in 2018.<sup>18</sup> U.S. import data and related information are based on Commerce’s official import statistics. No foreign producer or exporter of persulfates participated in this review.<sup>19</sup> Foreign industry data and related information are based on

---

<sup>10</sup> *Persulfates from China; Institution of a Five-Year Review Concerning the Antidumping Duty Order on Persulfates from China*, 78 Fed. Reg. 13891 (Mar. 1, 2013), as corrected by *Persulfates from China; Correction to Notice of Institution*, 78 Fed. Reg. 14591 (Mar. 6, 2013).

<sup>11</sup> *Persulfates from China*, Inv. No. 731-TA-749 (Third Review), USITC Pub. 4456 at 1 (Mar. 2014) (“Third Review Determination”). The Commission concluded that although it received no response from any respondent interested party, a full review was warranted in light of several potential changes in the conditions of competition. *See id.* at 3-4.

<sup>12</sup> *Persulfates from the People’s Republic of China: Continuation of Antidumping Duty Order*, 79 Fed. Reg. 17506 (Mar. 28, 2014).

<sup>13</sup> *Persulfates from China; Institution of a Five-Year Review*, 84 Fed. Reg. 2252 (Feb. 6, 2019).

<sup>14</sup> PeroxyChem’s Response to Notice of Institution, EDIS Doc. 669188 (Mar. 6, 2019). PeroxyChem is the successor company to FMC. CR at I-11, PR at I-8. PeroxyChem also filed comments on the adequacy of the response. PeroxyChem’s Comments on Adequacy of Response, EDIS Doc. 672488 (Apr. 8, 2019).

<sup>15</sup> Commissioners’ Adequacy Votes, EDIS Doc. No. 675792 (May 7, 2019).

<sup>16</sup> *Persulfates from China; Scheduling of an Expedited Five-Year Review*, 84 Fed. Reg. 32217 (July 5, 2019).

<sup>17</sup> PeroxyChem’s Final Comments, EDIS Doc. 681287 (Jul. 15, 2019).

<sup>18</sup> Confidential Report (“CR”), Memorandum INV-RR-036 at Table I-1 (Apr. 25, 2019), Public Report (“PR”) at Table I-1; PeroxyChem’s Response to Notice of Institution at 23.

<sup>19</sup> CR at I-24, PR at I-16.

information from the original investigation and prior reviews, as well as information compiled by Commission staff and submitted by PeroxyChem in this current expedited review.<sup>20</sup>

## 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.”<sup>21</sup> 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.”<sup>22</sup> 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.<sup>23</sup>

Commerce has defined the scope of the order in this five-year review as follows:

{P}ersulfates, including ammonium, potassium, and sodium persulfates. The chemical formulas for these persulfates are, respectively,  $(\text{NH}_4)_2 \text{S}_2 \text{O}_8$ ,  $\text{K}_2 \text{S}_2 \text{O}_8$ , and  $\text{Na}_2 \text{S}_2 \text{O}_8$ . Potassium persulfates are currently classifiable under subheading 2833.40.10 of the Harmonized Tariff Schedule of the United States (HTSUS). Sodium persulfates are classifiable under HTSUS subheading 2833.40.20. Ammonium and other persulfates are classifiable under HTSUS subheadings 2833.40.50 and 2833.40.60. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope of the order is dispositive.<sup>24 25</sup>

---

<sup>20</sup> See CR at I-24-26, PR at I-16-18.

<sup>21</sup> 19 U.S.C. § 1677(4)(A).

<sup>22</sup> 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, 96<sup>th</sup> Cong., 1<sup>st</sup> Sess. 90–91 (1979).

<sup>23</sup> 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).

<sup>24</sup> *Persulfates from the People’s Republic of China: Final Results of the Expedited Fourth Sunset Review of the Antidumping Duty Order*, 84 Fed. Reg. 27087 (Jun. 11, 2019). Subheading 2833.40.60 has superseded subheadings 2833.40.10 and 2833.40.50. Subheading 2833.40.6000 was modified and (Continued...)

The imported products subject to this review are peroxydisulfate salts, commonly known as persulfates. The three salts included in this review – ammonium, potassium, and sodium persulfates – are produced as dry, colorless, crystalline solids. Persulfates have two major applications: (1) as initiators in the process of polymerization; and (2) as oxidants in printed circuit board etching, textile processing, pulp and paper production, and cleaning and plating. They are also used in the production of rubber, structural materials (*e.g.*, concrete), coatings, adhesives, and inks and pigments; soil stabilization; oil and gas recovery; mining; and photography.<sup>26</sup>

In the original investigation, the Commission found a single domestic like product consisting of ammonium, potassium, and sodium persulfates, corresponding to the scope.<sup>27</sup> In the prior three reviews, the Commission found that there was no new information to warrant revisiting this definition. Accordingly, the Commission continued to define a single domestic like product consisting of ammonium, potassium, and sodium persulfates, coextensive with the scope.<sup>28</sup>

There is no new information obtained during this expedited review that would suggest any reason to revisit the domestic like product definition adopted by the Commission in the prior proceedings,<sup>29</sup> and no party has argued otherwise.<sup>30</sup> We consequently continue to define the domestic like product to be ammonium, potassium, and sodium persulfates, coextensive with the scope of the order under review.

---

(...Continued)

transferred to 2833.40.6010, 2833.40.6020, and 2833.40.6050 effective July 1, 2016 as a result of 484(f) HTS changes. See CR at I-7 n.25, PR at I-5 n.25.

<sup>25</sup> The scope definition has not changed since the original investigation. See *Notice of Antidumping Duty Order and Amended Final Determination of Sales at Less Than Fair Value: Persulfates from the People's Republic of China*, 62 Fed. Reg. 36259 (Jul. 7, 1997); *Notice of Continuation of Antidumping Duty Order: Persulfates from the People's Republic of China*, 67 Fed. Reg. 78415 (Dec. 24, 2002); *Persulfates from the People's Republic of China: Continuation of Antidumping Duty Order*, 73 Fed. Reg. 21318 (Apr. 21, 2008); and *Persulfates from the People's Republic of China: Continuation of Antidumping Duty Order*, 79 Fed. Reg. 17506 (Mar. 28, 2014).

<sup>26</sup> CR at I-8-9, PR at I-6-7.

<sup>27</sup> Original Determination, USITC Pub. 3044 at 5. The Commission found that ammonium, potassium, and sodium persulfates were not separate like products. It found similarities in physical characteristics and general interchangeability for all three products. It also found that the three products had identical channels of distribution, common manufacturing facilities, production processes and production employees, and producer perceptions. See *id.*

<sup>28</sup> First Review Determination, USITC Pub. 3555 at 5; Second Review Determination, USITC Pub. 3988 at 5; Third Review Determination, USITC Pub. 4456 at 6.

<sup>29</sup> CR at I-7-11, PR at I-5-8.

<sup>30</sup> PeroxyChem's Response to Notice of Institution at 24.

## **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.”<sup>31</sup> In defining the domestic industry, the Commission’s general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

In the original investigation and prior three reviews, the Commission defined the domestic industry as all U.S. producers of ammonium, potassium, and sodium persulfates.<sup>32</sup> PeroxyChem agrees with the Commission’s domestic industry definition made in the prior proceedings.<sup>33</sup> Information in the record in this review indicates that PeroxyChem is not a related party. In light of the foregoing and our domestic like product definition, we define the domestic industry as consisting of all U.S. producers of ammonium, potassium, and sodium persulfates – *i.e.*, PeroxyChem, the sole domestic producer.

## **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.”<sup>34</sup> The 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

---

<sup>31</sup> 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.

<sup>32</sup> Original Determination, USITC Pub. 3044 at 6; First Review Determination, USITC Pub. 3555 at 5; Second Review Determination, USITC Pub. 3988 at 5; Third Review Determination, USITC Pub. 4456 at 6. In the original investigation, FMC had imported small amounts of subject merchandise from China. The Commission found that appropriate circumstances did not exist to exclude the firm from the domestic industry because FMC’s interests clearly laid with domestic production, not importation. Original Determination, USITC Pub. 3044 at 6.

<sup>33</sup> PeroxyChem’s Response to Notice of Institution at 24.

<sup>34</sup> 19 U.S.C. § 1675a(a).

elimination of its restraining effects on volumes and prices of imports.”<sup>35</sup> Thus, the likelihood standard is prospective in nature.<sup>36</sup> The U.S. Court of International Trade has found that “likely,” as used in the five-year review provisions of the Act, means “probable,” and the Commission applies that standard in five-year reviews.<sup>37</sup>

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.”<sup>38</sup> 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.”<sup>39</sup>

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.”<sup>40</sup> 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

---

<sup>35</sup> SAA at 883–84. 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.

<sup>36</sup> 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.

<sup>37</sup> 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’”).

<sup>38</sup> 19 U.S.C. § 1675a(a)(5).

<sup>39</sup> 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.*

<sup>40</sup> 19 U.S.C. § 1675a(a)(1).

regarding duty absorption pursuant to 19 U.S.C. § 1675(a)(4).<sup>41</sup> 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.<sup>42</sup>

In evaluating the likely volume of imports of subject merchandise if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider whether the likely volume of imports would be significant either in absolute terms or relative to production or consumption in the United States.<sup>43</sup> 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.<sup>44</sup>

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.<sup>45</sup>

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.<sup>46</sup> 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

---

<sup>41</sup> 19 U.S.C. § 1675a(a)(1). Commerce has not made any duty absorption findings with respect to the order under review. CR at I-6, PR at I-4.

<sup>42</sup> 19 U.S.C. § 1675a(a)(5). Although the Commission must consider all factors, no one factor is necessarily dispositive. SAA at 886.

<sup>43</sup> 19 U.S.C. § 1675a(a)(2).

<sup>44</sup> 19 U.S.C. § 1675a(a)(2)(A–D).

<sup>45</sup> 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.

<sup>46</sup> 19 U.S.C. § 1675a(a)(4).

which any improvement in the state of the domestic industry is related to the order under review and whether the industry is vulnerable to material injury upon revocation.<sup>47</sup>

As discussed above, no respondent party participated in this expedited review. The record, therefore, contains limited new information with respect to the persulfates industry in China. Accordingly, for our determination, we rely as appropriate on the facts available from the original investigation and the prior reviews and the limited new information in the record in this review.

## **B. Conditions of Competition and the Business Cycle**

In evaluating the likely impact of the subject imports on the domestic industry if an order is revoked, the statute directs the Commission to consider all relevant economic factors “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”<sup>48</sup> The following conditions of competition inform our determinations.

### **1. Demand Conditions**

In the original investigation, the Commission found that U.S. demand for persulfates increased irregularly over the period of investigation (“POI”).<sup>49</sup> The Commission observed that U.S. demand for persulfates was cyclical and closely tied to the economic conditions in the housing, automotive, and packaged goods markets, among others. In the expedited first five-year review, the Commission found that demand increased substantially since the original POI.<sup>50</sup> In the expedited second five-year review, the Commission found that apparent U.S. consumption was greater than levels experienced during the original investigation, but that it had declined since the first review.<sup>51</sup>

In the full third five-year review, the Commission observed that U.S. demand for persulfates, which continued to be cyclical and derived from demand for its various downstream products, had shifted in several of the product’s end-use applications.<sup>52</sup> Specifically, the Commission noted that, since the second five-year review, demand for persulfates in the environmental remediation and oil and gas recovery markets had grown, while demand for persulfates in recreational water products and printed circuit board

---

<sup>47</sup> 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.

<sup>48</sup> 19 U.S.C. § 1675a(a)(4).

<sup>49</sup> Original Determination, USITC Pub. 3044 at 7-9.

<sup>50</sup> First Review Determination, USITC Pub. 3555 at 7.

<sup>51</sup> Second Review Determination, USITC Pub. 3988 at 8.

<sup>52</sup> Third Review Determination, USITC Pub. 4456 at 10-11.



applications had largely disappeared.<sup>53</sup> It found that apparent U.S. consumption fluctuated during the period of review (“POR”).<sup>54</sup> Apparent U.S. consumption at the end of the third POR was roughly equal to that in 2006, the end of the second POR.<sup>55</sup>

PeroxyChem states that U.S. demand for persulfates in this review remains cyclical and driven by demand for downstream products and end-use applications.<sup>56</sup> It further asserts that demand for persulfates has generally been stable over the current POR, although demand for persulfates in the oil and gas recovery market declined in tandem with declining oil prices.<sup>57</sup> Apparent U.S. consumption in 2018 was slightly greater than apparent U.S. consumption in 2012, the end of the third POR.<sup>58</sup>

## 2. Supply Conditions

In the original investigation, the Commission found that FMC was the sole domestic producer and dominant supplier of persulfates in the U.S. market.<sup>59</sup> FMC’s market share increased overall over the POI.<sup>60</sup> Nonsubject imports accounted for the next largest share of apparent U.S. consumption.<sup>61</sup> Subject imports accounted for the smallest share of apparent U.S. consumption, although their market share increased nearly threefold over the POI.<sup>62</sup> The Commission observed that the increase in subject imports’ U.S. market share over the POI was tied to the European Union’s (“EU’s”) 1995 imposition of an antidumping duty order on persulfates from China.<sup>63</sup>

In the expedited first five-year review, FMC remained the sole domestic producer. The Commission found that both subject and nonsubject imports declined, and that the imposition of the antidumping duty order had had a restraining effect on subject imports.<sup>64</sup> In the expedited second five-year review, FMC continued to be the sole domestic producer.

---

<sup>53</sup> Third Review Determination, USITC Pub. 4456 at 11.

<sup>54</sup> Third Review Determination, USITC Pub. 4456 at 11.

<sup>55</sup> Third Review Confidential Staff Report, Memorandum INV-MM-011, EDIS Doc. 672366 at Table I-1 and I-6 (Feb. 6, 2014).

<sup>56</sup> PeroxyChem’s Response to Notice of Institution at 23.

<sup>57</sup> PeroxyChem’s Response to Notice of Institution at 24.

<sup>58</sup> CR/PR at Table I-5. Apparent U.S. consumption was \*\*\* pounds in 2012 and \*\*\* pounds in 2018. *Id.*

<sup>59</sup> Confidential Views of the Commission in Persulfates from China, Inv. No. 731-TA-749 (Final), EDIS Doc. 507361 at 8, 10 n.31 (“Confidential Final Views”).

<sup>60</sup> Original Determination, USITC Pub. 3044 at 9.

<sup>61</sup> Original Investigation Confidential Staff Report, Memorandum INV-U-046, EDIS Doc. 507224 at Table IV-2 (Jun. 3, 1997). Nonsubject imports’ market share declined over the POI.

<sup>62</sup> Confidential Final Views at 15 n.55.

<sup>63</sup> Original Determination, USITC Pub. 3044 at 13-14.

<sup>64</sup> Confidential Views of the Commission in Persulfates from China, Inv. No. 731-TA-749 (Review), EDIS Doc. 672368 at 12-13.

The Commission found that its market share declined as the volume of nonsubject imports increased.<sup>65</sup> The volume of subject imports also declined during the second POR.<sup>66</sup>

In the full third five-year review, FMC remained the sole domestic producer of persulfates. It supplied the largest share of the U.S. market for persulfates during the POR.<sup>67</sup> The Commission observed that nonsubject imports were the second largest source of persulfates, although their market share decreased overall during the period of review.<sup>68</sup> The Commission found that subject imports accounted for only a very small share of the U.S. market during this period.<sup>69</sup>

In this review, PeroxyChem is currently the sole domestic producer of persulfates.<sup>70</sup> It supplied the largest share of the U.S. market for persulfates in 2018, while nonsubject imports were the second largest source of persulfates that year.<sup>71</sup> Subject imports continued to account for only a very small share of the U.S. market in 2018.<sup>72</sup>

### 3. Substitutability and Other Conditions

In the original investigation and expedited first and second five-year reviews, the Commission found subject imports and the domestic like product to be interchangeable.<sup>73</sup> In the full third five-year review, the Commission found a moderate-to-high degree of substitutability between the domestic like product and subject imports.<sup>74</sup> In each of the prior proceedings, the Commission found that price was an important factor in purchasing decisions.<sup>75</sup>

---

<sup>65</sup> Confidential Views of the Commission in Persulfates from China, Inv. No. 731-TA-749 (Second Review), EDIS Doc. 296352 at 12.

<sup>66</sup> Second Review Confidential Staff Report, Memorandum INV-FF-020, EDIS Doc. 672365 at Table I-6 (Mar. 3, 2008).

<sup>67</sup> Third Review Determination, USITC Pub. 4456 at 11-12.

<sup>68</sup> Third Review Determination, USITC Pub. 4456 at 12.

<sup>69</sup> Third Review Determination, USITC Pub. 4456 at 12.

<sup>70</sup> PeroxyChem's Response to Notice of Institution at 24. As previously discussed, PeroxyChem is the successor firm to FMC.

<sup>71</sup> CR/PR at Table I-5. Germany and Turkey were the two leading sources for nonsubject imports in 2018. See CR/PR at Table I-3.

<sup>72</sup> CR/PR at Table I-5.

<sup>73</sup> Original Determination, USITC Pub. 3044 at 16; First Review Determination, USITC Pub. 3555 at 8; Second Review Determination, USITC Pub. 3988 at 9.

<sup>74</sup> Third Review Determination, USITC Pub. 4456 at 12. In arriving at this finding, the Commission observed that all responding domestic producers and U.S. importers and the majority of purchasers reported that the domestic like product and imports from other countries were "always" or "frequently" interchangeable. *Id.*

<sup>75</sup> Original Determination, USITC Pub. 3044 at 16; First Review Determination, USITC Pub. 3555 at 8; Second Review Determination, USITC Pub. 3988 at 9; Third Review Determination, USITC Pub. 4456 at 12.

The record in this expedited review contains no additional information to indicate that the substitutability between the domestic like product and subject imports or the importance of price has changed since the prior proceedings. Accordingly, we again find a moderate-to-high degree of substitutability between the domestic like product and subject imports and price to be an important factor in purchasing decisions.

Since 2018, additional tariffs have been levied on subject imports from China pursuant to Section 301 of the Trade Act of 1974 (“Section 301 tariffs”).<sup>76</sup> Persulfates from China entering under HTS subheadings 2833.40.20 and 2833.40.60 were included in a list of articles subject to an additional 10 percent *ad valorem* duty effective September 24, 2018.<sup>77</sup> An increase in the rate for these imports to 25 percent had been postponed at the time of the record closing in this review.<sup>78</sup> Section 301 tariffs are supplemental to any tariffs already in place.<sup>79 80</sup>

---

<sup>76</sup> *China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 28710 (June 20, 2018) (notice of action); *China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 40823 (Aug. 16, 2018) (notice of action).

<sup>77</sup> CR at I-8, PR at I-6; *Notice of Modification of Section 301 Action: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 47974 (Sept. 21, 2018).

<sup>78</sup> This 10 percent duty was scheduled to increase to 25 percent on January 1, 2019. *See Notice of Modification of Section 301 Action: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 28710 (Sept. 21, 2018). However, in December 2018, the scheduled increase was postponed to March 2, 2019. *China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 65198 (Dec. 19, 2018) (notice of modification of Section 301 Action). In March 2019, this action was again modified so that the duty would remain at 10 percent until further notice. *China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 84 Fed. Reg. 7966 (Mar. 5, 2019) (notice of modification of Section 301 Action). Subsequently, the rate of Section 301 tariffs was increased to 25 percent *ad valorem*. *China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 84 Fed. Reg. 20459 (May 9, 2019) (notice of modification of Section 301 Action).

<sup>79</sup> Persulfates from China enter the U.S. market at a column 1 general duty rate of 3.7 percent *ad valorem* under HTS subheading 2833.40.20 and 3.1 percent *ad valorem* under HTS subheading 2833.40.60. CR at I-8, PR at I-6.

<sup>80</sup> None of the purchasers responding to the Commission’s questionnaires reported that the Section 301 tariffs have impacted the conditions of competition for persulfates, nor have they reported that they anticipate such an impact in the future. CR/PR at Appendix D.

## C. Likely Volume of Subject Imports

### 1. The Prior Proceedings

In the original investigation, the Commission found the volume and increase in volume of subject imports to be significant. The quantity of shipments of subject imports increased nearly three-fold over the POI. In terms of value, subject import shipments followed the same trend. Market share of subject imports, by quantity, likewise increased nearly \*\*\* during the POI. In terms of value, subject imports' market share more than \*\*\* during that period.<sup>81</sup>

In the expedited first and second five-year reviews, the Commission found that subject imports from China maintained a presence in the U.S. market over the relevant PORs.<sup>82</sup> The Commission further observed that the subject industry in China had significant excess capacity and remained export oriented.<sup>83</sup> In light of these factors and the increase in the volume and market share of subject imports during the original investigation, the Commission concluded that the likely volume of subject imports would be significant if the antidumping duty order were revoked.<sup>84</sup>

In the full third five-year review, the Commission observed that under the discipline of the antidumping duty order, there were very limited imports of persulfates from China during the POR. The Commission found, however, that the subject industry in China had the ability and incentive to export significant volumes of persulfates to the United States if the order were revoked. The Commission observed that Chinese producers had significant and increasing production capacity, considerable unused capacity, and continued to be export oriented. The Commission further observed that the United States continued to be an attractive market. The Commission also found that the EU and Indian antidumping duty orders on persulfates from China served as additional incentives for Chinese producers to export persulfates to the United States if the order were revoked. Consequently, the Commission concluded that the volume of subject imports, both in absolute terms and relative to U.S. consumption, would likely be significant if the order were revoked.<sup>85</sup>

---

<sup>81</sup> Original Determination, USITC Pub. 3044 at 13-14; Confidential Final Views at 14-15 and n.55.

<sup>82</sup> First Review Determination, USITC Pub. 3555 at 9; Second Review Determination, USITC Pub. 3988 at 10-11.

<sup>83</sup> First Review Determination, USITC Pub. 3555 at 10; Second Review Determination, USITC Pub. 3988 at 11. In the expedited second review, the Commission also observed that the imposition of antidumping duties on persulfates from China by the EU and India would likely cause subject producers to search for new export markets and that the U.S. market remained attractive to Chinese producers. Second Review Determination, USITC Pub. 3988 at 11.

<sup>84</sup> First Review Determination, USITC Pub. 3555 at 10.

<sup>85</sup> Third Review Determination, USITC Pub. 4456 at 14-16.

## 2. The Current Review

In the current review, we find that subject import volume would likely be significant in the event of revocation of the order. Under the discipline of the antidumping duty order, there were limited imports of subject merchandise from China during the POR.<sup>86</sup> However, the information available indicates that subject producers have the ability and incentive to export subject merchandise to the U.S. market in significant volumes within a reasonably foreseeable time if the antidumping duty order were revoked.

While the record contains limited data concerning the subject industry in China because no producer or exporter of subject merchandise participated in this review, the information available indicates that subject producers have substantial production capacity.<sup>87</sup> The record further indicates that subject producers are continuing to expand their capacity. For instance, Fujian Zhanhua Chemical Co., Ltd. states on its website that it is engaged in an ongoing construction project to expand its persulfates production capacity from 95,000 metric tons (209.4 million pounds) to 137,000 metric tons (302.0 million pounds).<sup>88</sup> Moreover, data provided by PeroxyChem indicate that the subject industry possesses substantial excess capacity totaling approximately 75,000 metric tons (303.3 million pounds).<sup>89</sup> In addition to having substantial and growing production capacity and excess capacity, subject producers in China are highly export oriented.<sup>90</sup> Indeed, several of the subject producers tout their global sales and overseas marketing networks on their company websites.<sup>91</sup> Consequently, subject

---

<sup>86</sup> The volume of subject imports totaled 50,000 pounds in 2016, 387,000 pounds in 2017, and 548,000 pounds in 2018. CR/PR at Table I-3. There were no subject imports in each full year between 2013-2015. *Id.*

<sup>87</sup> PeroxyChem's Response to Notice of Institution at 8-11. Specifically, available information indicate that subject producers have a collective production capacity of at least 894.2 million pounds. CR at I-24-25, PR at I-16-17; PeroxyChem's Response to Notice of Institution at 9, Exhibit 4. According to PeroxyChem, the production capacity of subject producers, which reflects only the data for firms whose production capacity could be identified, is nearly \*\*\* its production in 2018. PeroxyChem's Response to Notice of Institution at 10.

<sup>88</sup> PeroxyChem's Response to Notice of Institution at 10 and Exhibit 4.

<sup>89</sup> PeroxyChem's Response to Notice of Institution at 11 and Exhibit 3.

<sup>90</sup> Global Trade Atlas data indicate that in each year from 2013 to 2018, China was the world's largest source for persulfates, a product category that includes but is broader than subject merchandise. CR/PR at Table I-7.

<sup>91</sup> PeroxyChem's Response to Notice of Institution at 11-12 and Exhibit 4. For example, Hebei Yatai Electrochemistry Co., Ltd. states that its products are "popular in more than 20 countries and regions," including America. *Id.* ABC Chemicals (Shanghai) Co., Ltd. states that it is "an internationally renowned" persulfates manufacturer and sells "well in China and the global market." *Id.* Anhui Huaxing Chemical Industry Co., Ltd. states that it "has built a grand marketing network in Chinese domestic and overseas market {sic}," enabling it to export persulfates to more than 40 countries and regions. *Id.* Hengshui Jiamu Chemical Co., Ltd. also claims exports to regions around the world due to its "abundant experience in export work." *Id.*

producers have the ability to export significant volumes of subject merchandise to the United States upon revocation.

Furthermore, the United States remains an attractive export market for subject producers. PeroxyChem asserts that the United States is a major consumer of persulfates and states that U.S. prices for persulfates are above those for the subject producers' current major export markets.<sup>92</sup> PeroxyChem further asserts that subject producers continue to retain ties to U.S. customers as evidenced by their continued exports to the U.S. market during the current review period.<sup>93</sup> Third country barriers – specifically, EU antidumping duties on persulfates from China – are in place and would serve as added incentives for Chinese producers to sell persulfates in the United States if the order were revoked.<sup>94</sup>

Based on subject producers' behavior during the original investigation and information available regarding the subject producers' substantial and growing production capacity, excess capacity, export orientation, and the attractiveness of the U.S. market, we conclude that the volume of subject imports, both in absolute terms and relative to U.S. consumption, would likely be significant if the order were revoked.<sup>95</sup>

## **D. Likely Price Effects**

### **1. The Prior Proceedings**

In the original investigation, the Commission found that the pricing data showed that subject imports undersold the domestic like product in 56 of 57 pricing comparisons by margins as high as 50.4 percent. Given the high degree of interchangeability between subject imports and the domestic like product and the clear importance of price to purchasers, the Commission found that subject imports had significantly undersold the domestic like product.<sup>96</sup> The Commission also found that, due to the large presence of low-priced subject imports, FMC was unable to increase prices to offset its significant increases in operating costs in 1995 and 1996. The Commission thus concluded that subject imports suppressed domestic prices to a significant degree.<sup>97</sup>

---

<sup>92</sup> PeroxyChem's Response to Notice of Institution at 12.

<sup>93</sup> PeroxyChem's Response to the Notice of Institution at 12.

<sup>94</sup> CR at I-27, PR at I-18-19. PeroxyChem states that although India revoked its antidumping duty order on persulfates from China in December 2018, Chinese producers could supply the entirety of demand in India (15.0 million pounds) and still have substantial excess capacity to export product to the U.S. market in the event of revocation. PeroxyChem's Response to Notice of Institution at 13-14.

<sup>95</sup> We have also considered the other factors enumerated in the statute regarding the analysis of the likely volume of subject imports. We find that, due to the failure of subject producers to respond to the notice of institution or otherwise participate in this review, there is no information available that addresses existing inventories of subject merchandise or the potential for production shifting by the persulfates industry in China.

<sup>96</sup> Original Determination, USITC Pub. 3044 at 15-16.

<sup>97</sup> Original Determination, USITC Pub. 3044 at 16.

In the expedited first and second five-year reviews, the Commission found that the revocation of the antidumping duty order would likely lead to significant price effects, including significant underselling and significant price suppression or depression.<sup>98</sup> Given the price sensitivity of the U.S. persulfates market, the interchangeability of subject imports and the domestic like product, and the persistent underselling by subject imports in the original investigation, the Commission found in both reviews that significant volumes of subject imports would likely undersell the domestic like product to a significant degree to gain market share.<sup>99</sup> It further found that this likely underselling, in turn, would likely lead to significant depressing or suppressing effects on prices of the domestic like product.<sup>100</sup>

In the full third five-year review, the Commission found a moderate-to-high degree of substitutability between the domestic like product and subject imports and reiterated the importance of price in purchasing decisions. In light of these considerations, and the likely significant volume of subject imports from China, the Commission found that subject producers in China would likely price their product aggressively to gain market share upon revocation of the order. It found that the likely low prices of subject imports would likely result in significant underselling of the domestic like product by subject imports and other adverse effects, such as the loss of market share or significant price depression and/or suppression.<sup>101</sup>

## **2. The Current Review**

As stated above, we continue to find a moderate-to-high degree of substitutability between the domestic like product and subject imports and that price is an important factor in purchasing decisions. As this review is expedited due to the lack of an adequate response from respondent interested parties, the record does not contain new pricing data. We have found, however, that subject import volumes would likely increase significantly upon revocation of the order. These subject imports would likely significantly undersell the domestic like product, as they did during the original investigation. Because price is an important factor, and due to the moderate-to-high degree of substitutability, the likely significant quantities of subject imports that would likely undersell the domestic like product would likely force the domestic industry to lower prices, forego price increases, or risk losing market share. In light of these considerations, we conclude that subject imports would likely have significant adverse price effects upon revocation of the order.

---

<sup>98</sup> First Review Determination, USITC Pub. 3555 at 11; Second Review Determination, USITC Pub. 3988 at 13.

<sup>99</sup> First Review Determination, USITC Pub. 3555 at 11; Second Review Determination, USITC Pub. 3988 at 13.

<sup>100</sup> First Review Determination, USITC Pub. 3555 at 11; Second Review Determination, USITC Pub. 3988 at 13.

<sup>101</sup> Third Review Determination, USITC Pub. 4456 at 17-18.

## **E. Likely Impact**

### **1. The Prior Proceedings**

In the original investigation, the Commission observed that the domestic industry's production, shipments, and net sales rose along with domestic consumption, but that its gross profit and operating income declined steadily during the period of investigation.<sup>102</sup> The Commission found that the sharp increase in low-priced subject imports, which captured sales from large customers, prevented the domestic industry from offsetting rising costs with price increases, which resulted in the domestic industry's financial decline.<sup>103</sup>

In the expedited first and second five-year reviews, the Commission found that revocation of the order would likely lead to a significant increase in the volume of subject imports and that the subject imports would likely undersell the domestic like product and depress and/or suppress domestic prices to a significant degree. It found that the likely significant volume of low-priced subject imports, when combined with the likely adverse price effects of those imports, would likely have a significant adverse impact on the production, shipments, sales, market share, and revenues of the domestic industry. The Commission found in both reviews that these declines would likely have a direct adverse impact on the industry's profitability. Accordingly, the Commission concluded that based on the limited record, subject imports from China would likely have a significant adverse impact on the domestic industry within a reasonably foreseeable time if the order were revoked.<sup>104</sup>

In the full third five-year review, the Commission found that most indicators of the domestic industry's performance were stable or showed overall improvement during the POR. Specifically, the domestic industry's production, capacity utilization, and U.S. shipments increased overall between 2007 and 2012. Its market share remained high and the quantity and value of the domestic industry's net sales increased from 2007 to 2012. Additionally, the domestic industry was profitable throughout the POR.<sup>105</sup> In light of these performance indicia, the Commission found that the domestic industry was not in a vulnerable condition.<sup>106</sup> The Commission observed, however, that the domestic industry's improved performance occurred during a time when subject imports were essentially absent from the U.S. market under the discipline of the order and found that revocation would likely lead to significant increases in the volume of subject imports that would significantly undersell the domestic like product, causing the domestic industry to either forego sales and

---

<sup>102</sup> Original Determination, USITC Pub. 3044 at 12-13.

<sup>103</sup> Original Determination, USITC Pub. 3044 at 14.

<sup>104</sup> First Review Determination, USITC Pub. 3555 at 12; Second Review Determination, USITC Pub. 3988 at 14-15. Due to the limited evidence on the record of the expedited first and second five-year reviews, the Commission did not make a determination as to whether the domestic industry was vulnerable. *See id.*

<sup>105</sup> Third Review Determination, USITC Pub. 4456 at 20-21.

<sup>106</sup> Third Review Determination, USITC Pub. 4456 at 21.



cede market share or lower or restrain prices. The Commission found that under either circumstance, the industry's revenues and financial performance would likely decline.<sup>107</sup>

Additionally, in the third review, the Commission considered the role of nonsubject imports. The Commission found that the presence of nonsubject imports did not prevent the domestic industry from achieving improved performance during the POR. The Commission therefore concluded that nonsubject imports would not break the causal link between subject imports and the likely continuation or recurrence of material injury to the domestic industry in the event of revocation.<sup>108</sup>

## 2. The Current Review

In this expedited review, the information available on the domestic industry's condition is limited. In 2018, PeroxyChem's production capacity was \*\*\* pounds, its production was \*\*\* pounds, and its capacity utilization rate was \*\*\* percent.<sup>109</sup> PeroxyChem's domestic shipments were \*\*\* pounds.<sup>110</sup> Its net sales revenue was \$\*\*\*, and its operating income was \$\*\*\*, with an operating income margin of \*\*\* percent.<sup>111</sup> The limited evidence in this expedited review is insufficient for us to make a finding on whether the domestic industry is vulnerable to the likely continuation or recurrence of material injury in the event of revocation of the order.

Based on the information available in this review, we find that revocation of the order would likely lead to a significant volume of subject imports and that these imports would likely undersell the domestic like product to a significant degree, resulting in significant price depression or suppression for the domestic like product and/or a loss of market share for the domestic industry. We find that the increased subject import competition that would likely occur after revocation of the order would likely have a significant impact on the domestic industry. The domestic industry would likely lose market share to subject imports and/or experience lower prices due to competition from subject imports, which would adversely impact its production, shipments, sales, and revenue. These reductions would likely have a

---

<sup>107</sup> Third Review Determination, USITC Pub. 4456 at 21.

<sup>108</sup> Third Review Determination, USITC Pub. 4456 at 21.

<sup>109</sup> CR/PR at Table I-2. The domestic industry's capacity was \*\*\* pounds in both 1996 and 2001, \*\*\* pounds in 2006, and \*\*\* pounds in 2012. *Id.* Its production was \*\*\* pounds in 1996, \*\*\* pounds in 2001, \*\*\* pounds 2006, and \*\*\* pounds in 2012. *Id.* Its capacity utilization rate was \*\*\* percent in 1996, \*\*\* percent in 2001, \*\*\* percent in 2006, and \*\*\* percent in 2012. *Id.*

<sup>110</sup> CR/PR at Table I-2. The domestic industry's U.S. shipments were \*\*\* pounds in 1996, \*\*\* pounds in 2001, \*\*\* pounds in 2006, and \*\*\* pounds in 2012. *Id.* The average unit value of the domestic industry's U.S. shipments in 2018 (\$\*\*\* per pound) was higher in 2012 (\$\*\*\* per pound), and lower in 2006 (\$\*\*\* per pound), 2001 (\$\*\*\* per pound), and 1996 (\*\*\*) per pound). *Id.*

<sup>111</sup> CR/PR at Table I-2. The domestic industry's net sales revenue was \$\*\*\* in 1996 and \$\*\*\* in 2012. *Id.* Its operating income was \$\*\*\* in 1996 and \$\*\*\* in 2012. *Id.* Its ratio of operating income to net sales was \*\*\* percent in 1996 and \*\*\* percent in 2012. *Id.* Data for these indicators in 2001 and 2006 are unavailable.

direct adverse impact on the domestic industry's profitability and employment levels, as well as its ability to raise capital and make and maintain necessary capital investments.

We have also considered the role of factors other than subject imports, including the presence of nonsubject imports, so as not to attribute likely injury from other factors to the subject imports. Nonsubject imports have increased their presence in the U.S. market since the third review,<sup>112</sup> and accounted for an appreciable share of apparent U.S. consumption – \*\*\* percent – in 2018.<sup>113</sup> Nevertheless, because the domestic industry supplies the majority of the U.S. market, and subject imports would likely compete head-to-head with the domestic like product upon revocation, the likely increase in subject imports would likely take market share away from the domestic industry as well as from nonsubject imports. Consequently, the subject imports would likely have adverse effects distinct from any that may be caused by nonsubject imports.

Accordingly, we find that revocation of the antidumping duty order on persulfates from China would likely have a significant adverse impact on domestic producers of persulfates within a reasonably foreseeable time.

#### **IV. Conclusion**

For the reasons above, we determine that revocation of the antidumping duty order on persulfates 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.

---

<sup>112</sup> Nonsubject imports totaled \*\*\* pounds in 2012 and 15.0 million pounds in 2018. See CR/PR at Table I-4.

<sup>113</sup> CR/PR at Table I-5.

## INFORMATION OBTAINED IN THIS REVIEW

### BACKGROUND

On February 1, 2019, the U.S. International Trade Commission (“Commission”) gave notice, pursuant to section 751(c) of the Tariff Act of 1930, as amended (“the Act”),<sup>1</sup> that it had instituted a review to determine whether revocation of the antidumping duty order on persulfates from China would likely lead to the continuation or recurrence of material injury to a domestic industry.<sup>2</sup> All interested parties were requested to respond to this notice by submitting certain information requested by the Commission.<sup>3</sup> <sup>4</sup> The following tabulation presents information relating to the background and schedule of this proceeding:

Effective date	Action
February 1, 2019	Notice of institution by Commission (84 FR 2252, February 6, 2019)
February 1, 2019	Notice of initiation by Commerce (84 FR 1704, February 5, 2019)
May 7, 2019	Commission’s vote on adequacy
June 11, 2019	Commerce’s results of its expedited review
August 15, 2020	Commission’s determination and views

### 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. It was filed on behalf of PeroxyChem LLC (“PeroxyChem”), a domestic producer of persulfates (referred to herein as “domestic interested party”).

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

---

<sup>1</sup> 19 U.S.C. 1675(c).

<sup>2</sup> *Persulfates from China; Institution of a Five-Year Review*, 84 FR 2252, February 1, 2019. 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 and countervailing duty orders. *Initiation of Five-Year (Sunset) Review*, 84 FR 1704, February 5, 2019. Pertinent *Federal Register* notices are referenced in app. A, and may be found at the Commission’s website ([www.usitc.gov](http://www.usitc.gov)).

<sup>3</sup> 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.

<sup>4</sup> 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 transmitted to the purchasers identified in the adequacy phase of this review.

responses. A summary of the number of responses and an estimate of coverage is shown in table I-1.

**Table I-1**

**Persulfates: Summary of responses to the Commission’s notice of institution**

Type of interested party	Completed responses	
	Number	Coverage
Domestic:		
U.S. producer	1	100% <sup>1</sup>

<sup>1</sup> The coverage figure is the estimated share of total U.S. production of persulfates in 2018 accounted for by the responding firm. In its response to the notice of institution, the domestic interested party estimated that it accounts for this share of total U.S. production of persulfates during 2018. The domestic interested party has based its computation on the assertion that it is the only U.S. producer engaged in the production of persulfates in the United States. *Domestic interested party’s response to the notice of institution*, March 6, 2019, pp. 2 and 23.

**Party comments on adequacy**

The Commission received one submission from the domestic interested party commenting on the adequacy of responses to the notice of institution and whether the Commission should conduct an expedited or full review. Domestic interested party argues that the Commission should find the respondent interested party group response to be inadequate since there was no complete submission by any respondent interested party. Therefore, because of the inadequate response by the respondent interested parties and the fact that there have been no major changes in the conditions of competition in the market since the Commission’s original last five-year review, it requests that the Commission conduct an expedited review of the antidumping duty order on persulfates from China.<sup>5</sup>

**THE ORIGINAL INVESTIGATION AND SUBSEQUENT REVIEWS**

**The original investigation**

The original investigation resulted from a petition filed on July 11, 1996, with Commerce and the Commission by FMC Corporation, Chicago, Illinois. Following a final determination from Commerce that imports of persulfates from China were being sold at less than fair value (“LTFV”)<sup>6</sup> the Commission determined on June 25, 1997, that the domestic industry was materially injured by reason of LTFV imports of persulfates from China.<sup>7</sup> On July 7,

---

<sup>5</sup> Domestic interested parties’ comments on adequacy, April 16, 2019, pp. 2-3.

<sup>6</sup> *Notice of Final Determination of Sales at Less Than Fair Value: Persulfates From the People’s Republic of China*, 62 FR 27222, May 19, 1997.

<sup>7</sup> *Persulfates From China*, 62 FR 35526, July 1, 1997.

1997, Commerce issued its antidumping duty order with final weighted-average dumping margins ranging from 32.22 percent to 119.02 percent.<sup>8</sup>

### **The first five-year review**

On September 6, 2002, the Commission determined that it would conduct an expedited review of the antidumping duty order on persulfates from China.<sup>9</sup> On October 4, 2002, Commerce published its determination that revocation of the antidumping duty order on persulfates from China would be likely to lead to continuation or recurrence of dumping.<sup>10</sup> On October 31, 2002, the Commission notified Commerce of its determination that material injury would be likely to continue or recur within a reasonably foreseeable time.<sup>11</sup> Following affirmative determinations in the first five-year reviews by Commerce and the Commission, effective, December 24, 2002, Commerce issued a continuation of the antidumping duty order on imports of persulfates from China.<sup>12</sup>

### **The second five-year review**

On February 4, 2008, the Commission determined that it would conduct an expedited review of the antidumping duty order on persulfates from China.<sup>13</sup> On March 5, 2008, Commerce published its determination that revocation of the antidumping duty order on persulfates from China would be likely to lead to continuation or recurrence of dumping.<sup>14</sup> On March 31, 2008, the Commission notified Commerce of its determination that material injury would be likely to continue or recur within a reasonably foreseeable time.<sup>15</sup> Following affirmative determinations in the second five-year reviews by Commerce and the Commission, effective, April 21, 2008, Commerce issued a continuation of the antidumping duty order on imports of persulfates from China.<sup>16</sup>

---

<sup>8</sup> *Notice of Antidumping Duty Order and Amended Final Determination of Sales at Less Than Fair Value: Persulfates from the People's Republic of China*, 62 FR 36259, July 7, 1997, as amended by *Notice of Amended Antidumping Duty Order: Persulfates from the People's Republic of China*, 62 FR 39212, July 22, 1997.

<sup>9</sup> *Persulfates From China*, 67 FR 59863, September 24, 2002.

<sup>10</sup> *Final Results of Expedited Sunset Review: Persulfates From the People's Republic of China*, 67 FR 62226, October 4, 2002.

<sup>11</sup> *Persulfates from China*, 67 FR 66001, October 29, 2002.

<sup>12</sup> *Notice of Continuation of Antidumping Order: Persulfates from the People's Republic of China*, 67 FR 78415, December 24, 2002.

<sup>13</sup> *Persulfates from China*, 73 FR 8903, February 15, 2008.

<sup>14</sup> *Persulfates from the People's Republic of China: Notice of Final Results of Expedited Second Sunset Review of Antidumping Duty Order*, 73 FR 11868, March 5, 2008.

<sup>15</sup> *Persulfates from China*, 73 FR 18561, April 4, 2008.

<sup>16</sup> *Persulfates from the People's Republic of China: Continuation of Antidumping Duty Order*, 73 FR 21318, April 21, 2008.

### **The third five-year review**

On June 4, 2013, the Commission determined that it would conduct a full review of the antidumping duty order on persulfates from China.<sup>17</sup> On July 8, 2013, Commerce published its determination that revocation of the antidumping duty order on persulfates from China would be likely to lead to continuation or recurrence of dumping.<sup>18</sup> On March 10, 2014, the Commission notified Commerce of its determination that material injury would be likely to continue or recur within a reasonably foreseeable time.<sup>19</sup> Following affirmative determinations in the five-year reviews by Commerce and the Commission, effective, March 28, 2014, Commerce issued a continuation of the antidumping duty order on imports of persulfates from China.<sup>20</sup>

### **PREVIOUS AND RELATED INVESTIGATIONS**

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

### **ACTIONS AT COMMERCE**

Commerce has not conducted any critical circumstances reviews or issued anti-circumvention findings since the completion of the last five-year review. In addition, Commerce has not issued any duty absorption findings or any company revocations or scope rulings since the imposition of the order.

### **Changed circumstances reviews**

Commerce has conducted one changed circumstances review with respect to persulfates from China. On August 27, 2002, Commerce initiated an administrative review of the antidumping duty order on persulfates covering one exporter, Shanghai Ai Jian Import and Export Corporation (“Ai Jian”), and its wholly owned subsidiary, Shanghai Ai Jian Reagent Factory (“AJ Works”). As part of that review, Commerce considered whether it was appropriate to revoke the antidumping duty order with respect to Ai Jian and AJ Works. On January 7, 2003, FMC notified Commerce that Degussa AG (“Degussa”) had purchased 70 percent of AJ Works. AJ Works changed its name to Degussa-AJ (Shanghai) Initiators Co., Ltd (“Degussa-AJ”). FMC requested a changed circumstances review to determine whether Degussa-AJ is the

---

<sup>17</sup> *Persulfates From China; Notice of Commission Determination to Conduct a Full Five-Year Review*, 78 FR 35314, June 12, 2013.

<sup>18</sup> *Persulfates From the People's Republic of China: Final Results of Expedited Third Sunset Review of Antidumping Duty Order*, 78 FR 40695, July 8, 2013.

<sup>19</sup> *Persulfates From China; Determination*, 79 FR 14536, March 14, 2014.

<sup>20</sup> *Persulfates From the People's Republic of China: Continuation of Antidumping Duty Order*, 79 FR 17506, March 28, 2014.

same entity as AJ Works with respect to the pending revocation request.<sup>21</sup> On December 5, 2003, Commerce issued its final results and determined that Degussa-AJ's factors of production did not change substantially since Degussa AG's investment in AJ Works. As a result, Commerce determined to consider in any relevant future revocation inquiry for Ai Jian and Degussa-AJ any administrative reviews in which Ai Jian procured its products exported to the United States from AJ Works.<sup>22</sup>

### **Current five-year review**

Commerce is conducting an expedited review with respect to persulfates from China and intends to issue the final results of this review based on the facts available not later than June 5, 2019.<sup>23</sup>

### **THE PRODUCT**

#### **Commerce's scope**

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

The products covered by this order are persulfates, including ammonium, potassium, and sodium persulfates. The chemical formula for these persulfates are, respectively,  $(\text{NH}_4)_2\text{S}_2\text{O}_8$ ,  $\text{K}_2\text{S}_2\text{O}_8$ , and  $\text{Na}_2\text{S}_2\text{O}_8$ . Potassium persulfates are currently classifiable under subheading 2833.40.10 of the Harmonized Tariff Schedule of the United States ("HTSUS"). Sodium persulfates are classifiable under HTSUS subheading 2833.40.20. Ammonium and other persulfates are classifiable under HTSUS subheadings 2833.40.50 and 2833.40.60. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope of this order is dispositive.<sup>24 25</sup>

---

<sup>21</sup> *Persulfates from the People's Republic of China: Notice of Preliminary Results of Changed Circumstances Review*, 68 FR 58658, October 10, 2003.

<sup>22</sup> *Persulfates from the People's Republic of China: Notice of Final Results of Changed Circumstances Review*, 68 FR 68031, December 5, 2003.

<sup>23</sup> *Letter from Abdelali Elouaradia, Director, Office IV, AD/CVD Operations, Enforcement and Compliance, U.S. Department of Commerce to Nannette Christ*, March 20, 2019.

<sup>24</sup> *Persulfates from the People's Republic of China: Continuation of Antidumping Duty Order*, 79 FR 17506, March 28, 2014.

<sup>25</sup> Subheading 2833.40.60 superseded subheadings 2833.40.10 and 2833.40.50. Subheading 2833.40.6000 was modified and transferred to 2833.40.6010, 2833.40.6020, and 2833.40.6050 effective July 1, 2016 as a result of 484(f) HTS changes.

## U.S. tariff treatment

Persulfates are imported under Harmonized Tariff Schedule of the United States (“HTS”) subheadings 2833.40.20 and 2833.40.60 (statistical reporting numbers 2833.40.2000 (sodium persulfate), 2833.40.6010 (potassium persulfate), and 2833.40.6020 (ammonium persulfate)).<sup>26</sup> Persulfates imported from China enters the U.S. market at a column 1-general duty rate of 3.7 percent ad valorem under HTS subheading 2833.40.20 and 3.1 percent ad valorem under HTS subheading 2833.40.60. Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection. All such compounds that are the product of China are currently subject to an additional duty of 10 percent ad valorem under HTS heading 9903.88.03, pursuant to a notice issued by the U.S. Trade Representative under section 301 of the Trade Act of 1974, as amended.

## Description and uses<sup>27</sup>

The imported products subject to this review are peroxydisulfate salts, commonly referred to as persulfates.<sup>28</sup> The three salts<sup>29</sup> included in this review are sodium peroxydisulfate ( $\text{Na}_2\text{S}_2\text{O}_8$ ),<sup>30</sup> potassium peroxydisulfate ( $\text{K}_2\text{S}_2\text{O}_8$ ),<sup>31</sup> and ammonium peroxydisulfate ( $(\text{NH}_4)_2\text{S}_2\text{O}_8$ ).<sup>32</sup> All three are produced as dry, colorless, crystalline solids that are indistinguishable when subject to visual or tactile exam; however, ammonium peroxydisulfate may be identified by an unpleasant odor.<sup>33</sup> The three salts are marketed in different grades depending on purity, but the chemistry remains unchanged across grades. The active oxidizing agent for each is the peroxydisulfate anion, though the solubility and side interactions with the cation inform the choice of the particular salt for a given application. For example, ammonium peroxydisulfate is highly soluble in water, but the ammonium cation may lead to unwanted

---

<sup>26</sup> Per the explanatory notes of the HTS, the listed HTS numbers may also include salts derived from peroxysulfuric (Caro’s) acid, which are not within the scope of this review.

<sup>27</sup> Unless otherwise noted, this information is based on *Persulfates from China, Inv. No. 731-TA-749 (Third Review)*, USITC Pub. 4456, March 2014, pp. I-14 – I-15.

<sup>28</sup> For the purposes of this review, the term “persulfates” refers to the three salts under Commerce’s scope as they are the most commercially relevant. The term “persulfate” refers, in general, to the salts of both peroxysulfuric (Caro’s) acid or peroxydisulfuric (Marshall’s) acid. The term “peroxosulfate” is used synonymously with “persulfate” or instead of “peroxysulfate” in some sources, though it is not the preferred International Union of Pure and Applied Chemistry (IUPAC) nomenclature.

<sup>29</sup> A salt is an ionic compound composed of two oppositely charged ions. The compounds in this review contain the same negatively charged peroxydisulfate anion ( $\{\text{S}_2\text{O}_8\}^{2-}$ ) and vary by the positively charged species, the sodium ( $\text{Na}^+$ ), potassium ( $\text{K}^+$ ), or ammonium ( $\{\text{NH}_4\}^+$ ) cations.

<sup>30</sup> CAS number 7775-27-1.

<sup>31</sup> CAS number 7727-21-1.

<sup>32</sup> CAS number 7727-54-0.

<sup>33</sup> Ammonium Persulfate Hazardous Substance Fact Sheet, New Jersey Department of Health (2016 revision).



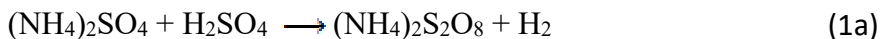
interactions in some applications. Anti-caking agents can be added to the product if the end user desires.<sup>34</sup>

A major application of peroxydisulfate salts is as initiators<sup>35</sup> to produce a variety of polymers. As strong oxidizing agents, they are used during printed circuit board etching,<sup>36</sup> textile processing, pulp and paper production, cleaning, and plating. Other uses are found in the production of rubber, structural materials (e.g., concrete), coatings, adhesives, and inks and pigments; soil stabilization; oil and gas recovery; mining; and photography.

Both domestic and imported persulfates are believed to be sold in substantial quantities to end users and distributors. In the original investigation and subsequent reviews, the Commission determined that persulfates produced in the United States and China were interchangeable, commodity-like products.<sup>37</sup>

### Manufacturing process<sup>38</sup>

The peroxydisulfate salts are produced commercially using an electrochemical cell process.<sup>39</sup> Ammonium sulfate ((NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>) is first reacted with sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) between platinum electrodes to produce ammonium peroxydisulfate (equation 1 below). The ammonium peroxydisulfate is then crystallized into a wet cake and either packaged, after drying in a fluid bed dryer, or used in downstream processing. Sodium and potassium peroxydisulfate are manufactured by reacting the ammonium peroxydisulfate with either sodium hydroxide (NaOH) or potassium hydroxide (KOH), respectively (equation 2 below). The ammonia produced by these reactions is removed and recycled back into the process to form new ammonium sulfate.



---

<sup>34</sup> RheinPerChemie GmbH company webpage, <http://www.rheinperchemie.com/aps.shtml>, retrieved March 13, 2019.

<sup>35</sup> Through the formation of sulfate radicals ( $\{SO_4\}^{\bullet}$ ).

<sup>36</sup> Etching here is defined as producing patterns or designs on a solid substrate by a chemical.

<sup>37</sup> *Persulfates from China, Inv. No. 731-TA-749 (Final)*, USITC Pub. 3044, June 1997, pp. 15-16; *Persulfates from China, Inv. No. 731-TA-749 (Review)*, USITC Pub. 3555, October 2002, p. 8; *Persulfates from China, Inv. No. 731-TA-749 (Second Review)*, USITC Pub. 3988, March 2008, p. 9; *Persulfates from China, Inv. No. 731-TA-749 (Third Review)*, USITC Pub. 4456, March 2014, p. 10.

<sup>38</sup> Unless otherwise noted, this information is based on *Persulfates from China, Inv. No. 731-TA-749 (Third Review)*, USITC Pub. 4456, March 2014, p. I-15.

<sup>39</sup> Peroxides and Peroxide Compounds, Inorganic Peroxides. Kirk-Othmer Encyclopedia of Chemical Technology (2001).

Information developed in the original investigation indicated that the three peroxydisulfate salts are manufactured in the same plant, using the same or similar equipment and production workers. There are no known significant differences in the peroxydisulfate production processes used in China and the United States, although information collected during the original investigation indicated that, at that time, the Chinese process may have been slightly less automated.

## THE INDUSTRY IN THE UNITED STATES

### U.S. producers

During the final phase of the original investigation, the Commission received a U.S. producer questionnaire from one firm, FMC Corporation (“FMC”), the sole domestic producer of persulfates in the United States during 1996 (the original investigation).<sup>40</sup> FMC also accounted for all known production of persulfates in the United States in the first five-year review,<sup>41</sup> second five-year review,<sup>42</sup> and third five-year review.<sup>43</sup>

In response to the Commission’s notice of institution in this current fourth five-year review, the domestic interested party reported that there is only one known and currently operating U.S. producer of persulfates, PeroxyChem (successor firm to FMC).<sup>44</sup> In 2014, FMC Global Peroxygens, the division of FMC Corporation that produced persulfates, was acquired by One Equity Partners, a private investment firm. Upon acquisition, the division became an independent company and was renamed PeroxyChem. PeroxyChem continues to be the sole producer of persulfates in the United States. PeroxyChem reported in its response to the notice of institution in this five-year review that it is not related to a foreign producer/exporter or to an importer of the subject merchandise. It also reported that it is not an importer of the subject merchandise and is not related to an importer of subject persulfates.<sup>45</sup>

### Recent developments

Since the Commission’s third five-year review, several developments have occurred in the persulfate industry. The original petitioner, FMC Corporation, sold its FMC Global Peroxygens division to One Equity Partners in March 2014, re-branding it as PeroxyChem.<sup>46</sup> One

---

<sup>40</sup> *Persulfates from China, Inv. No. 731-TA-749 (Final)*, USITC Pub. 3044, June 1997, p. III-1.

<sup>41</sup> *Persulfates From China, Inv. No. 731-TA-749 (Review)*, USITC Pub. 3555, October 2002, p. I-3, fn. 2.

<sup>42</sup> *Persulfates From China, Inv. No. 731-TA-749 (Second Review)*, USITC Pub. 3988, March 2008, p. I-1, fn. 4.

<sup>43</sup> *Persulfates from China, Inv. No. 731-TA-749 (Third Review)*, USITC Pub. 4456, March 2014, p. I-16.

<sup>44</sup> Domestic interested parties’ response to the notice of institution, March 6, 2019, p. 2.

<sup>45</sup> *Ibid.*, p. 21.

<sup>46</sup> “One Equity Partners Completes Acquisition of PeroxyChem,” *PeroxyChem company webpage*, March 3, 2014, <http://www.peroxychem.com/news-events/news/one-equity-partners-completes-acquisition-of-peroxychem>, retrieved March 12, 2019.

Equity Partners is the investment arm of J.P. Morgan Chase & Co. PeroxyChem increased its prices for persulfates it produced in New York and Germany in December 2014 to “invest and maintain assets and capabilities to safely and reliably meet the growing demand for persulfates as well as to partially offset increased production and other business costs.”<sup>47</sup> PeroxyChem also made capital upgrades to its 55-pound bag packaging line in December 2015 at its New York facility, which increased the potential capacity of that product line.<sup>48</sup> PeroxyChem is slated to be sold by One Equity Partners during 2019 to Evonik Industries, a German chemical company.<sup>49</sup> PeroxyChem currently participates in a joint venture with Beijing Enviro-Chem based in Beijing, China, for soil and groundwater remediation.<sup>50</sup>

### **U.S. producer’s trade and financial data**

The Commission asked the domestic interested party to provide trade and financial data in its response to the notice of institution of the current five-year review.<sup>51</sup> Table I-2 presents a compilation of the data submitted from the responding U.S. producer in this current five-year review, as well as trade and financial data submitted by the U.S. producer in the original investigation and prior five-year reviews.

The domestic interested party reported that its capacity increased by \*\*\* from \*\*\* in 2012 to \*\*\* in 2018. Total production of persulfates increased by \*\*\* from \*\*\* in 2012 to \*\*\* in 2018, whereas capacity utilization decreased from \*\*\* in 2012 to \*\*\* in 2018. During the same time period, the U.S. producer’s total U.S. shipments declined by \*\*\*, from \*\*\* in 2012 to \*\*\* in 2018. This was combined with a \*\*\* decrease in unit value from \*\*\* to \*\*\*. In addition, from 2012 to 2018, COGS increased by \*\*\* and SG&A expenses increased by \*\*\*. Operating income decreased by \*\*\* from 2012 to 2018, from \*\*\* to \*\*\*.

---

<sup>47</sup> “PeroxyChem to Increase Prices for Persulfates,” *PeroxyChem company webpage*, November 14, 2014, <http://www.peroxychem.com/news-events/news/persulfates-price-increase-nov-2014>, retrieved March 12, 2019.

<sup>48</sup> “Upgrades To Our Persulfates Packaging Line,” *PeroxyChem company webpage*, December 15, 2015, <http://www.peroxychem.com/news-events/news/persulfates-packaging-line>, retrieved March 12, 2019.

<sup>49</sup> “One Equity Partners to Sell Specialty Chemicals Leader PeroxyChem for \$625 Million,” *One Equity Partners webpage*, November 8, 2018, <http://www.oneequity.com/news/newsarticle/3123>, retrieved March 12, 2019.

<sup>50</sup> “PeroxyChem Corporate Overview,” *PeroxyChem company webpage*, <http://www.peroxychem.com/about-us/peroxychem-corporate-overview>, retrieved March 12, 2019.

<sup>51</sup> Individual company trade and financial data are presented in app. B.

**Table I-2**

**Persulfates: Trade and financial data submitted by the U.S. producer, 1996, 2001, 2006, 2012, and 2018**

\* \* \* \* \*

### **DEFINITIONS OF THE DOMESTIC LIKE PRODUCT AND DOMESTIC INDUSTRY**

The domestic like product is defined as the domestically produced product or products which are like, or in the absence of like, most similar in characteristics and uses with, the subject merchandise. The domestic industry is defined as the U.S. producers as a whole of the domestic like product, or those producers whose collective output of the domestic like product constitutes a major proportion of the total domestic production of the product. Under the related parties provision, the Commission may exclude a related party for purposes of its injury determination if “appropriate circumstances” exist.<sup>52</sup>

In the original investigation, the Commission examined whether persulfates should be defined as a single domestic like product, or as three separate domestic like products, i.e. ammonium, potassium and sodium persulfates. Respondents argued that there are three separate like products, whereas the domestic producer argued that there was one domestic like product.<sup>53</sup> In its original determination, the Commission defined one domestic like product consisting of ammonium, sodium, and potassium persulfates.<sup>54</sup> It based its finding on similarities in physical characteristics and uses, common manufacturing facilities and production employees, producer perceptions of similarity between the products, evidence of interchangeability among the three products, and common channels of distribution.<sup>55</sup>

In both the expedited first and second five-year reviews, no party challenged the definition of the domestic like product from the original investigation and no facts were presented that warranted a different conclusion. Accordingly, the Commission again found one domestic like product consisting of ammonium, sodium, and potassium persulfates. The record in the full third five-year review contained no information suggesting that the characteristics and uses of domestically produced persulfates had changed since the prior proceedings in a manner that would cause the Commission to revisit the definition of the domestic like product. Therefore, the Commission once again found a single domestic like product consisting of ammonium, sodium, and potassium persulfates, coextensive with Commerce’s scope.<sup>56</sup>

In its original determination and its prior five-year review determinations, the Commission defined the domestic industry to be FMC, the sole U.S. producer of the domestic

---

<sup>52</sup> Section 771(4)(B) of the Tariff Act of 1930, 19 U.S.C. § 1677(4)(B).

<sup>53</sup> *Persulfates From China, Inv. No. 731-TA-749 (Final)*, USITC Pub. 3044, June 1997, p. I-2.

<sup>54</sup> *Ibid.*, p. 5.

<sup>55</sup> *Ibid.*, p.4.

<sup>56</sup> *Persulfates from China, Inv. No. 731-TA-749 (Third Review)*, USITC Pub. 4456, March 2014, pp. 5-6.

like product.<sup>57</sup> In the original investigation, the Commission did not find that appropriate circumstances existed to exclude FMC from the domestic industry as a related party under 19 U.S.C. § 1677(4)(B).<sup>58</sup> There were no related party issues in the first, second, and third five-year reviews.<sup>59</sup>

In its notice of institution in this current five-year review, the Commission solicited comments from interested parties regarding what they deemed to be the appropriate definitions of the domestic like product and domestic industry and inquired as to whether any related parties issues existed. According to its response to the notice of institution, the domestic interested party agreed with the Commission's definition of the domestic like product as stated in the original investigation and prior five-year reviews.<sup>60</sup> The domestic interested party did not cite any potential related parties issues and agreed with the Commission's prior definition of the domestic industry.<sup>61</sup>

## **U.S. IMPORTS AND APPARENT U.S. CONSUMPTION**

### **U.S. importers**

During the final phase of the original investigation, the Commission received U.S. importer questionnaires from 17 firms, 11 of which imported persulfates from China. The 17 responding U.S. importers accounted for approximately 100.3 percent of total U.S. imports of persulfates during 1996. Imports of persulfates from China during the original investigation were concentrated among four firms: Aceto Corporation, Lake Success, NY; ICC Industries, Inc., New York, NY; Samirian Chemicals, Inc., Cupertino, CA, and WEGO Chemical & Mineral Corporation.<sup>62</sup>

Although the Commission did not receive responses from any respondent interested parties in its first or second five-year reviews, FMC identified six U.S. importers of persulfates from China in 2001 (expedited first review)<sup>63</sup> and 26 known U.S. importers of persulfates from China in 2006 (expedited second review).<sup>64</sup> During the third full five-year review, the Commission issued U.S. importers' questionnaires to 12 firms believed to be importers of persulfates, as well as to the U.S. producer of persulfates. Usable questionnaire responses were

---

<sup>57</sup> *Persulfates From China, Inv. No. 731-TA-749 (Final)*, USITC Publication 3044, June 1997, p. 6; and *Persulfates from China, Inv. No. 731-TA-749 (Third Review)*, USITC Pub. 4456, March 2014, pp. 5-6.

<sup>58</sup> Although FMC had imported very small amounts of persulfates from China, the Commission found that FMC's interests clearly lay in domestic production not importation. *Persulfates from China, Inv. No. 731-TA-749 (Final)*, USITC Pub. 3044, June 1997, p. 6.

<sup>59</sup> *Persulfates from China, Inv. No. 731-TA-749 (Third Review)*, USITC Pub. 4456, March 2014, p. 6.

<sup>60</sup> Domestic interested party's response to the notice of institution, March 6, 2019, p. 24.

<sup>61</sup> Domestic interested party's response to the notice of institution, March 6, 2019, p. 24.

<sup>62</sup> *Persulfates From China, Inv. No. 731-TA-749 (Final)*, USITC Pub. 3044, June 1997, p. IV-1.

<sup>63</sup> *Persulfates From China, Inv. No. 731-TA-749 (Review)*, USITC Pub. 3555, October 2002, p. I-7.

<sup>64</sup> *Persulfates From China, Inv. No. 731-TA-749 (Second Review)*, USITC Pub. 3988, March 2008, p. I-9.

received from 11 firms, representing all known U.S. imports of persulfates from China and 90.0 percent of nonsubject imports from all other countries during the period of review.<sup>65</sup>

Although the Commission did not receive responses from any respondent interested parties in this current fourth five-year review, in its response to the Commission's notice of institution, the domestic interested party provided a list of 25 entities that it believes to be importing subject merchandise from China into the United States.<sup>66</sup>

### **U.S. imports**

Table I-3 presents the quantity, value, and unit value for U.S. imports of persulfates from China, as well as the other top sources of U.S. imports (shown in descending order of 2018 imports by quantity). Imports from China, which accounted for 3.5 percent of total U.S. imports of persulfates during 2018, increased from zero pounds from 2013 through 2015, to 548,000 pounds in 2018. Imports from nonsubject sources increased from 4.1 million pounds in 2013 to 17.2 million pounds in 2017, before declining to 14.9 million pounds in 2018, a 261.0 percent overall increase from 2013 to 2018. The leading sources of nonsubject imports in 2018 are Germany, Turkey, and Japan, accounting for 53.6 percent, 14.1 percent, and 11.1 percent of total U.S. imports, respectively. The unit value of subject imports from China decreased from 2016 to 2018, and increased for nonsubject imports from 2013 to 2018. The increase was driven by an upturn in the unit value of the leading source of imports, Germany, in 2018.

---

<sup>65</sup> *Persulfates from China, Inv. No. 731-TA-749 (Third Review)*, USITC Pub. 4456, March 2014, pp. I-17 and IV-1, and table I-5.

<sup>66</sup> Domestic interested party's response to the notice of institution, March 6, 2019, exh. 8.

**Table I-3**  
**Persulfates: U.S. imports, 2013-18**

Item	2013	2014	2015	2016	2017	2018
	<b>Quantity (1,000 pounds)</b>					
China (subject)	---	---	---	50	387	548
Germany (nonsubject)	1,765	2,119	2,216	5,791	9,114	8,296
Turkey (nonsubject)	---	---	---	163	750	2,176
Japan (nonsubject)	278	136	284	1,131	3,740	1,726
All other imports (nonsubject)	2,094	1,316	1,435	2,713	3,573	2,735
Subtotal, nonsubject	4,137	3,572	3,935	9,798	17,177	14,933
Total imports	4,137	3,572	3,935	9,848	17,564	15,481
	<b>Landed, duty-paid value (\$1,000)</b>					
China (subject)	---	---	---	44	297	408
Germany (nonsubject)	1,539	1,948	1,924	5,175	8,543	10,413
Turkey (nonsubject)	---	---	---	93	424	1,264
Japan (nonsubject)	235	121	226	803	2,417	1,126
All other imports (nonsubject)	1,760	1,216	1,366	2,341	2,978	2,257
Subtotal, nonsubject	3,535	3,284	3,516	8,412	14,363	15,061
Total imports	3,535	3,284	3,516	8,456	14,659	15,468
	<b>Unit value (dollars per pound)</b>					
China (subject)	---	---	---	0.88	0.77	0.74
Germany (nonsubject)	0.87	0.92	0.87	0.89	0.94	1.26
Turkey (nonsubject)	---	---	---	0.57	0.57	0.58
Japan (nonsubject)	0.85	0.89	0.80	0.71	0.65	0.65
All other imports (nonsubject)	0.84	0.92	0.95	0.86	0.83	0.83
Subtotal, nonsubject	0.85	0.92	0.89	0.86	0.84	1.01
Total imports	0.85	0.92	0.89	0.86	0.83	1.00

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

Source: Official statistics of Commerce for HTS subheadings 2833.40.20 and 2833.40.60 (HTS statistical reporting numbers 2833.40.2000 (sodium persulfates), 2833.40.6010 (potassium persulfates), 2833.40.6020 (ammonium persulfates), and 2833.40.6050 ("other" persulfates)). These data may be overstated as HTS statistical reporting number 2833.40.6050 may contain products outside the scope of this review (e.g., potassium monopersulfate). However, HTS statistical reporting number 2833.40.6050 accounted for only 0.7 percent of total imports listed above for the period from 2013 to 2018.

### **Apparent U.S. consumption and market shares**

In the original investigation, the Commission found that demand for persulfates was cyclical and was closely tied to economic conditions in the housing, automotive, and packaged goods markets, among others. During the original final investigation (1994-96), apparent U.S

consumption increased irregularly.<sup>67</sup> In the first review (2001), apparent U.S. consumption was higher than reported in the original investigation. However, demand began to soften starting in 2001, as a result of an overall turndown in the U.S. economy and declining printed circuit board production, an important market for persulfates.<sup>68</sup> In the second review (2006), apparent U.S. consumption was lower than reported in the first review (2001), as declines in the automotive and housing markets reduced demand for many products using persulfates.<sup>69</sup> Apparent U.S. consumption fluctuated following the second five-year review as demand shifted in several end-use applications. A decline in demand was reported in several end uses for persulfates, such as for recreational water applications, printed circuit boards, and the oil and gas industry due to changes in technology since 2011.<sup>70</sup> Future demand is anticipated by the producer to remain constant or decline due to reduced oil and gas recovery end uses.<sup>71</sup>

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. While apparent U.S. consumption increased by \*\*\* from 1996 to 2018, it remained relatively flat from 2001 to 2018, decreasing by \*\*\* from \*\*\* in 2001 to \*\*\* in 2018. U.S. producer's share of consumption based on quantity increased from \*\*\* in 1996 to \*\*\* in 2012, before declining to \*\*\* in 2018. U.S. producer's share of consumption based on value increased from \*\*\* to \*\*\* from 1996 to 2012, before declining to \*\*\* in 2018. The share of the U.S. market held by total imports increased from \*\*\* in 1996 to \*\*\* in 2018 based on quantity and from \*\*\* in 1996 to \*\*\* in 2018 based on value. The share of the U.S. market held by imports from China based on quantity fell from \*\*\* in 1996 to \*\*\* in 2012, before increasing to \*\*\* in 2018. The share of the U.S. market held by imports from nonsubject countries based on quantity increased from \*\*\* in 1996 to \*\*\* in 2018.

---

<sup>67</sup> *Persulfates from China, Inv. No. 731-TA-749 (Final)*, USITC Pub. 3044, June 1997, pp. 7-9 and IV-2.

<sup>68</sup> *Persulfates From China, Inv. No. 731-TA-749 (Review)*, USITC Pub. 3555, October 2002, p. 7.

<sup>69</sup> *Persulfates From China, Inv. No. 731-TA-749 (Second Review)*, USITC Pub. 3988, March 2008, p. 8.

<sup>70</sup> *Persulfates from China, Inv. No. 731-TA-749 (Third Review)*, USITC Pub. 4456, March 2014, p. 11.

<sup>71</sup> Domestic interested party's response to the notice of institution, March 6, 2019, pp. 23-24.



**Table I-4****Persulfates: U.S. producer's U.S. shipments, U.S. imports, and apparent U.S. consumption, 1996, 2001, 2006, 2012, and 2018**

Item	1996	2001	2006	2012	2018
	<b>Quantity (1,000 pounds)</b>				
U.S. producer's U.S. shipments	***	***	***	***	***
U.S. imports from—					
China	***	3,181	847	***	548
All other	***	10,051	15,820	***	14,993
Total imports	***	13,232	16,667	***	15,481
Apparent U.S. consumption	***	***	***	***	***
	<b>Value (1,000 dollars)</b>				
U.S. producer's U.S. shipments	***	***	***	***	***
U.S. imports from—					
China	***	1,544	557	***	408
All other	***	6,472	8,791	***	15,061
Total imports	***	8,016	9,348	***	15,468
Apparent U.S. consumption	***	***	***	***	***

Source: For the years 1996, 2001, 2006, and 2012, data are compiled using data submitted in the Commission's final investigation and first, second, and third five-year reviews, respectively. See *app. C*. U.S. producer's U.S. shipments are compiled from data provided by domestic producer FMC and its successor firm, PeroxyChem, the only known U.S. producer of persulfates during each of the periods presented. For the year 2018, the U.S. producer's U.S. shipments are compiled from the domestic interested party response to the Commission's notice of institution. Import data presented for 1996 and 2012 are based on U.S. importers' U.S. shipments from responses to the Commission questionnaires during the original investigation and third five-year review, respectively; 2001, 2006, and 2018 data are U.S. imports compiled from official Commerce statistics (HTS subheadings 2833.40.20 and 2833.40.60).

**Table I-5**

**Persulfates: Apparent U.S. consumption and U.S. market shares, 1996, 2001, 2006, 2012, and 2018**

\* \* \* \* \*

### THE INDUSTRY IN CHINA

During the original investigation, there were four known producers of any significance in China: Fujian Fuan Pesticide Factory (“Fuan”), Guangzhou Zhujiang Electrochemicals (“Guangzhou”), Shaanxi Baoji Chemical Factory (“Shaanxi”), and Shanghai Ai Jian Reagent Works (“Ai Jian”).<sup>72</sup> In the expedited first five-year review, domestic producer FMC identified 12 producers of persulfates in China.<sup>73</sup> In the expedited second five-year review, FMC identified 25 producers of persulfates in China.<sup>74</sup> In the full third five-year review, FMC identified 24 producers of persulfates from China.<sup>75</sup>

The Commission did not receive any response to its notice of institution from Chinese respondent parties in this fourth five-year review. In its response to the notice of institution, the domestic interested party provided a list of 24 firms that it believes currently produce persulfates in China.<sup>76</sup>

Total capacity to produce persulfates in China has increased from an estimated \*\*\* in 2012<sup>77</sup> to at least 405,600 metric tons (894.2 million pounds) in 2018.<sup>78</sup> The domestic interested party indicated that the cited 2018 capacity in China is understated, as the data do not include the capacity for several producers in China who do not report capacity data and also do not include planned (and ongoing) capacity increases.<sup>79</sup> The domestic interested party noted that the Chinese industry’s known capacity alone is more than 170 times the peak pre-order subject

---

<sup>72</sup> During the original investigation, respondents claimed that there were five more producers of persulfates in China, four of which produced 100 tons or less per year, and one of which internally consumed nearly all of its production. *Persulfates From China, Inv. No. 731-TA-749 (Final)*, USITC Pub. 3044, June 1997, p. VII-1.

<sup>73</sup> *Persulfates From China, Inv. No. 731-TA-749 (Review)*, USITC Pub. 3555, October 2002, p. I-10.

<sup>74</sup> *Persulfates From China, Inv. No. 731-TA-749 (Second Review)*, USITC Pub. 3988, March 2008, p. I-12.

<sup>75</sup> *Persulfates from China, Inv. No. 731-TA-749 (Third Review)*, USITC Pub. 4456, March 2014, p. IV-5. In the third five-year review, one firm in China, United Initiators (Shanghai) Co., Ltd. (“UI Shanghai”) \*\*\* in response to the Commission’s questionnaire. *Investigation No. 731-TA-749 (Third Review): Persulfates from China--Staff Report*, INV-MM-011, February 6, 2014, p. IV-7.

<sup>76</sup> Domestic interested party’s response to the notice of institution, March 6, 2019, ex. 2.

<sup>77</sup> *Investigation No. 731-TA-749 (Third Review): Persulfates from China--Staff Report*, INV-MM-011, February 6, 2014, p. IV-7.

<sup>78</sup> Domestic interested party’s response to the notice of institution, March 6, 2019, p. 9.

<sup>79</sup> *Ibid.*, p. 10. For example, one company in China reports a planned increase in production of 42,000 metric tons per year. *Fujian ZhanHua Chemical Co., Ltd. company webpage*, [http://www.zhhgchem.com/about\\_en/id/1.html](http://www.zhhgchem.com/about_en/id/1.html), retrieved March 13, 2019.

import volume of 5.2 million pounds in 1996 and is also nearly \*\*\* PeroxyChem's production of persulfates in 2018.<sup>80</sup> It estimated that the capacity utilization rate of persulfate producers in China is about 45.5 percent and that the excess 221,052 metric tons (487.3 million pounds) of unused capacity for production of persulfates would be directed toward the U.S. market if the order was revoked, particularly as Chinese firms advertise themselves as being export oriented.<sup>81</sup>

Table I-6 presents export data for persulfates from China in descending order of quantity for destination country for 2018. Exports of persulfates from China increased by 17.4 percent from 85.2 million pounds in 2013 to 100.0 million pounds in 2018. The leading destinations in 2018 were South Korea and Taiwan, accounting for 20.6 percent and 18.9 percent, respectively. The fastest growing major export destinations from 2013 through 2018 were Russia and Iran, with exports increasing by 167.2 percent and 108.9 percent, respectively. The United States was not reported as one of the top 10 export destinations for Chinese persulfates.

---

<sup>80</sup> Domestic interested party's response to the notice of institution, March 6, 2019, pp. 9-10.

<sup>81</sup> *Ibid.*, p. 11.

**Table I-6**  
**Persulfates: Exports of persulfates from China, by destination, 2013-18**

Item	Calendar year					
	2013	2014	2015	2016	2017	2018
<b>Quantity (1,000 pounds)</b>						
South Korea	22,541	24,671	17,700	18,212	23,665	20,613
Taiwan	17,864	19,485	17,474	13,928	17,888	18,917
Brazil	5,791	6,989	5,988	6,600	6,289	6,278
Iran	2,890	2,937	2,294	3,864	6,750	6,038
Thailand	4,270	4,404	2,712	3,345	3,123	4,598
Indonesia	2,216	2,778	2,465	3,192	3,172	3,530
Russia	1,294	1,805	2,283	2,068	3,492	3,458
Turkey	2,308	1,971	2,544	3,307	3,448	3,224
South Africa	1,649	948	578	838	1,865	3,075
Mexico	1,618	2,231	2,436	2,780	2,485	2,734
All other	22,776	20,831	19,411	18,153	28,547	27,550
Total	85,218	89,048	75,886	76,287	100,724	100,015

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

Source: Global Trade Information Services, Inc., Global Trade Atlas, HTS subheading 2833.40. These data may be overstated as HTS 2833.40 may contain products outside the scope of this review.

### **ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS**

On December 1, 2013, the European Union (“EU”) issued an Implementing Regulation in its China Expiry Review,<sup>82</sup> continuing the antidumping duty on imports of persulfates<sup>83</sup> from China at rates ranging from 0.0 to 71.8 percent *ad valorem*, depending on the Chinese company.<sup>84</sup> Those antidumping duties were set to expire on December 18, 2018, which

---

<sup>82</sup> Council Implementing Regulation (EU) No 1343/2013 of 12 December 2013 imposing a definitive antidumping duty on imports of peroxosulphates (persulphates) originating in the People’s Republic of China following an expiry review pursuant to Article 11(2) of Regulation (EC) No 1225/2009.

<sup>83</sup> The EU antidumping regulation includes the three peroxydisulfate salts under the scope of this review in addition to potassium peroxydisulfate, which is not. The EU uses different spellings for the considered products (i.e., “persulphate” instead of “persulfate” and “peroxydisulfate” instead of “peroxydisulfate”).

<sup>84</sup> ABC Chemicals (Shanghai) Co., Ltd. received a 0.0 percent *ad valorem* antidumping duty margin, Degussa-AJ (Shanghai) Initiators Co., Ltd. received a 24.5 percent *ad valorem* antidumping duty margin, and all other companies received a 71.8 percent *ad valorem* antidumping duty margin.

prompted RheinPerChemie GmbH<sup>85</sup> and United Initiators GmbH,<sup>86</sup> representing all EU persulfate production, to submit an application for an expiry review to the European Commission on September 18, 2018.<sup>87</sup> The European Commission accepted that application on December 17, 2018, and is currently undertaking its expiry review.<sup>88</sup> The previous duties will continue to apply until the conclusion of that review.

India had previously recognized persulfate dumping by China and assessed duties of \$420 per metric ton on all three peroxydisulfate salts within the scope of this review.<sup>89</sup> However, in the subsequent review, India concluded that “The dumping margin in case of China PR is de-minimis... there is no evidence of likelihood of dumping from China PR though they have substantial production capacity of PUC” and recommended that no antidumping duties be applied to Chinese imports of persulfates.<sup>90</sup>

## THE GLOBAL MARKET

Table I-7 presents the largest global export sources of persulfates during 2013-18. According to statistics from the Global Trade Information Services, Inc. (“GTIS”), the seven leading exporting nations combined accounted for more than 90 percent of total global exports during 2013-17 (table I-7). China was the world’s leading exporter, as in the previous review, and increased its exports by 17.4 percent over the 2013-18 period. The United States was the third largest exporter of persulfates from 2014 to 2018. Germany was the second largest exporter of persulfates from 2013 to 2018.

---

<sup>85</sup> FMC Corporation acquired RheinPerChemie GmbH in 2011 and transferred its operations to PeroxyChem under the transactions described in “The Industry in the United States” section above. According to its website, <http://www.rheinperchemie.com/unternehmen.shtml>, its facility is located within the works area of Evonik Industries, which is set to acquire PeroxyChem in 2019.

<sup>86</sup> United Initiators GmbH has persulfate production capacity in Hefei, China (<https://www.united-initiators.com/company/united-initiators-history/>). United Initiators was briefly a subsidiary of Evonik when the latter acquired Degussa, but was sold to Speyside Equity LLC in 2008.

<sup>87</sup> In the matter of the antidumping proceeding concerning imports of peroxosulphates originating in China, application for an expiry review pursuant to Article 11(2) of regulation (EU) 2016/1036, 17 September 2018.

<sup>88</sup> Notice of initiation of an expiry review of the antidumping measures applicable to imports of peroxosulphates (persulphates) originating in the People’s Republic of China (2018/C 454/06).

<sup>89</sup> No.15/9/2011-DGAD Sunset Review Anti-dumping investigation concerning imports of ‘Peroxosulphates’ (also known as ‘Persulphates’) originating or exported from China PR and Japan Corrigendum (April 17, 2013).

<sup>90</sup> Case No. SSR-4/2018 Sunset Review of Anti-dumping duty imposed on the imports of Peroxosulphate (Persulphate) originating in or exported from People’s Republic of China and U.S.A. (December 14, 2018).

**Table I-7**  
**Persulfates: Global exports by major sources, 2013-2018**

Item	Calendar year					
	2013	2014	2015	2016	2017	2018
	<b>Quantity (1,000 pounds)</b>					
China	85,218	89,048	75,886	76,287	100,724	100,015
Germany <sup>1</sup>	49,862	51,076	55,087	56,282	61,094	58,270
United States	39,304	35,822	38,099	40,993	42,185	41,472
Japan	33,669	38,884	34,482	37,557	41,749	38,567
Turkey	6,122	6,481	6,125	7,991	7,714	9,097
India	3,744	3,997	3,417	3,753	5,204	5,804
Taiwan	6,426	6,208	4,925	4,888	3,588	3,031
All Other	18,176	17,975	24,181	21,685	47,708	22,236
Total	242,521	249,491	242,202	249,436	309,964	278,492

<sup>1</sup> German exports are estimated based on other countries' import data as Germany does not report its exports to Global Trade Atlas.

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

Source: Global Trade Information Services, Inc., Global Trade Atlas, HTS subheadings 2833.40.20, 2833.40.60.10, and 2833.40.60.20. These data may be overstated as HTS 2833.40.20, 2833.40.60.10, and 2833.40.60.20 may contain products outside the scope of this review.

**APPENDIX A**

***FEDERAL REGISTER NOTICES***





The Commission makes available notices relevant to its investigations and reviews on its website, [www.usitc.gov](http://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
84 FR 1704 February 5, 2019	<i>Initiation of Five-Year (Sunset) Reviews</i>	<a href="https://www.govinfo.gov/content/pkg/FR-2019-02-05/pdf/FR-2019-02-05.pdf">https://www.govinfo.gov/content/pkg/FR-2019-02-05/pdf/FR-2019-02-05.pdf</a>
84 FR 2252 February 6, 2019	<i>Persulfates From China; Institution of a Five-Year Review</i>	<a href="https://www.govinfo.gov/content/pkg/FR-2019-02-06/pdf/FR-2019-02-06.pdf">https://www.govinfo.gov/content/pkg/FR-2019-02-06/pdf/FR-2019-02-06.pdf</a>



**APPENDIX B**  
**COMPANY-SPECIFIC DATA**



**RESPONSE CHECKLIST FOR U.S. PRODUCERS**

\* \* \* \* \*



**APPENDIX C**

**SUMMARY DATA COMPILED IN PRIOR PROCEEDINGS**





**APPENDIX C**

**SUMMARY DATA COMPILED IN FINAL INVESTIGATION**



**Table C-1**  
**Total persulfates: Summary data concerning the U.S. market, 1994-96**

\* \* \* \* \*

Table continued on next page.

Table C-1--Continued

Total persulfates: Summary data concerning the U.S. market, 1994-96

\* \* \* \* \*

**APPENDIX C**  
**DATA COMPILED IN FIRST REVIEW**



**Table I-1**

**Persulfates: FMC's capacity, production, and U.S. shipments, 1994-1996, and 2001**

\* \* \* \* \*

**Table I-2**  
**Persulfates: U.S. Imports, by source, 1994-1996, and 2001**

Item	1994	1995	1996	2001
<i>Quantity (1,000 pounds)</i>				
China	***	***	***	3,181
Other sources <sup>1</sup>	***	***		10,051
Total	***	***	***	13,232
<i>Landed duty-paid value (1,000 dollars)</i>				
China	***	***	***	1,544
Other sources <sup>1</sup>	***	***	***	6,472
Total	***	***	***	8,016
<i>Landed duty-paid unit value (per pound)<sup>2</sup></i>				
China	***	***	***	\$0.49
Other sources <sup>1</sup>	***	***	***	0.65
Total	***	***	***	0.60
<sup>1</sup> Other major sources of imports included Germany, Japan; and Taiwan in 1994-96 and these 3 countries as well as India and Turkey in 2001. <sup>2</sup> Excluding antidumping duties.				
Source: <i>Staff Report of June 3, 1997</i> , p. IV-3, for 1994-96 data (compiled from data submitted in response to Commission questionnaires) and compiled from official Commerce statistics for 2001 data.				



**Table I-3**  
**Persulfates: U.S. producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, 1994-96, and 2001**

Item	1994	1995	1996	2001
	<i>Quantity (1,000 pounds)</i>			
U.S. producer's U.S. shipments	***	***	***	***
U.S. importers' shipments: <sup>1</sup> China	***	***	***	3,181
Other sources	***	***	***	10,051
Total	***	***	***	13,232
Apparent U.S. consumption	***	***	***	***
	<i>Share of consumption (percent)</i>			
U.S. producer's U.S. shipments	***	***	***	***
U.S. importers' shipments: <sup>1</sup> China	***	***	***	***
Other sources	***	***	***	***
Total	***	***	***	***
<p><sup>1</sup> Imports presented here for 1994-96 are based on the responses to the Commission questionnaires during the original investigation (U.S. Importers' shipments); 2001 data are U.S. imports compiled from official Commerce statistics.</p> <p>Source: <i>Staff Report of June 3, 1997</i>, p. IV-5 for 1994-1996 data and official Commerce statistics for 2001</p>				



**APPENDIX C**  
**DATA COMPILED IN SECOND REVIEW**



**Table I-3**

**Persulfates: FMC's capacity, production, and U.S. shipments, 1994-96, 2001, and 2006**

Item	1994	1995	1996	2001	2006
Capacity (1,000 pounds)	***	***	***	***	***
Production (1,000 pounds) <sup>1</sup>	***	***	***	***	***
Capacity utilization (percent)	***	***	***	***	***
U.S. commercial shipments: Quantity (1,000 pounds)	***	***	***	***	***
Value (1,000 dollars)	***	***	***	***	***
Unit value (per pound)	***	***	***	***	***
U.S. internal shipments: Quantity (1,000 pounds)	***	***	***	***	***
Value (1,000 dollars)	***	***	***	***	***
Unit value (per pound)	***	***	***	***	***
U.S. export shipments: <sup>2</sup> Quantity (1,000 pounds)	***	***	***	(3)	(3)
Value (1,000 dollars)	***	***	***	(3)	(3)
Unit value (per pound)	***	***	***	(3)	(3)

<sup>1</sup> In 2001, FMC produced \*\*\* of ammonium persulfate, valued at \*\*\*, \*\*\* of potassium persulfate, valued \*\*\*, and \*\*\* of sodium persulfate, valued at \*\*\*.

<sup>2</sup> (Includes sales to its wholly owned subsidiary in Mexico).

<sup>3</sup> Not available.

Source: 1994-1996 data: *Persulfates from China, Staff Report*, INV-U-046, June 3, 1997, pp. III-4, III-6-7; 2001 data: *Persulfates from China, Staff Report*, INV-Z-168, October 3, 2002, p. I-10; and 2006 data: FMC's Response

**Table I-5**  
**Persulfates: U.S. Imports, by source, 1994-1996, 2001, and 2006**

Item	1994	1995	1996	2001	2006
<b>Quantity (1,000 pounds)</b>					
China	***	***	***	3,181	847
Other sources <sup>1</sup>	***	***	***	10,051	15,820
Total	***	***	***	13,232	16,667
<b>Landed duty-paid value (1,000 dollars)</b>					
China	***	***	***	1,544	557
Other sources <sup>1</sup>	***	***	***	6,472	8,791
Total	***	***	***	8,016	9,348
<b>Landed duty-paid unit value (per pound)<sup>2</sup></b>					
China	***	***	***	\$0.49	\$0.66
Other sources <sup>1</sup>	***	***	***	0.65	0.56
Total	***	***	***	0.60	0.56
<p><sup>1</sup> Other major sources of imports included Germany, Japan, and Taiwan in 1994-96 and these 3 countries as well as India and Turkey in 2001. In 2006 the top three nonsubject sources were Germany, Japan, and Taiwan.</p> <p><sup>2</sup> Excluding antidumping duties.</p> <p>Source: <i>Persulfates from China, Staff Report, INV-U -046</i>, June 3, 1997, p. IV-3, for 1994-96 data (compiled from data submitted in response to Commission questionnaires) and compiled from official Commerce statistics for 2001 and 2006 data.</p>					

**Table I-6**

**Persulfates: U.S. producer's U.S. shipments, U.S. imports, apparent U.S. consumption, and market shares, 1994-96, 2001, and 2006**

Item	1994	1995	1996	2001	2006
	<b>Quantity ( 1,000 pounds )</b>				
U.S. producer's U.S. shipments	***	***	***	***	***
U.S. importers' shipments: China	***	***	***	3,181	847
Other sources	***	***	***	10,051	15,820
Total	***	***	***	13,232	16,667
Apparent U.S. consumption	***	***	***	***	***
	<b>Share of consumption (percent)</b>				
U.S. producer's U.S. shipments	***	***	***	***	***
U.S. importers' shipments: China	***	***	***	***	***
Other sources	***	***	***	***	***
Total	***	***	***	***	***
<p>Source: <i>Persulfates from China, Staff Report</i>, INV-U-046, June 3, 1997, p. IV-5, for 1994-96 data (compiled from data submitted in response to Commission questionnaires); <i>Persulfates from China, Staff Report</i>, INV-Z-168, October 3, 2002, p. I-10 (2001 data); FMC's <i>Response to the Notice of Institution</i>, December 21, 2007, p. 25; and compiled from official Commerce statistics for 2001 and 2006 U.S. import data.</p>					





**APPENDIX C**  
**DATA COMPILED IN THIRD REVIEW**



Table C-1

Persulfates: Summary data concerning the U.S. market, 2007-12, January to September 2012, and January to September 2013

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

	Report data														
	2007	2008	Calendar year				January to September			2007-12	2007-08	Calendar year			Jan-Sept
			2009	2010	2011	2012	2012	2013			2008-09	2009-10	2010-11	2011-12	2012-13
U.S. consumption quantity:															
Amount.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Producers' share (fn1).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Importers' share (fn1):															
China.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
All other sources.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Total imports.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
U.S. consumption value:															
Amount.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Producers' share (fn1).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Importers' share (fn1):															
China.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
All other sources.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Total imports.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
U.S. shipments of imports from:															
China:															
Quantity.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
All other sources:															
Quantity.....	12,703	10,456	8,817	9,935	12,518	11,152	8,729	11,508	(12.2)	(17.7)	(15.7)	12.7	26.0	(10.9)	31.8
Value.....	9,007	8,668	8,343	8,936	11,936	10,453	8,378	10,055	16.1	(3.8)	(3.7)	7.1	33.6	(12.4)	20.0
Unit value.....	\$0.71	\$0.83	\$0.95	\$0.90	\$0.95	\$0.94	\$0.96	\$0.87	32.2	16.9	14.1	(4.9)	6.0	(1.7)	(9.0)
Ending inventory quantity.....	1,555	1,644	1,224	1,312	1,569	1,220	1,563	1,658	(21.5)	5.7	(25.5)	7.2	19.6	(22.2)	6.1
Total imports:															
Quantity.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
U.S. producers:															
Average capacity quantity.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Production quantity.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Capacity utilization (fn1).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
U.S. shipments:															
Quantity.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Export shipments:															
Quantity.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Inventories/total shipments (fn1).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Production workers.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Hours worked (1,000s).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Wages paid (\$1,000).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Productivity (pounds per hour).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit labor costs.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Net Sales:															
Quantity.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Cost of goods sold (COGS).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Gross profit of (loss).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
SG&A expenses.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Operating income or (loss).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Capital expenditures.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit COGS.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit SG&A expenses.....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit operating income or (loss).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
COGS/sales (fn1).....	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Operating income or (loss)/sales (fn1)	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***

fn1.--Report data are in percent and period changes are in percentage points.  
fn2.--Undefined.

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



**APPENDIX D**  
**PURCHASER QUESTIONNAIRE RESPONSES**



As part of their response to the notice of institution, interested parties were asked to provide a list of three to five leading purchasers in the U.S. market for the domestic like product. A response was received from a domestic interested party and it named the following three firms as the top purchasers of persulfates: \*\*\*. Purchaser questionnaires were sent to these three firms and two firms (\*\*\*) provided responses, which are presented below.

1. Have there been any significant changes in the supply and demand conditions for persulfates that have occurred in the United States or in the market for persulfates in China since January 1, 2014?

Purchaser	Yes / No	Changes that have occurred
***	***	***
***	***	***

2. Do you anticipate any significant changes in the supply and demand conditions for persulfates in the United States or in the market for persulfates in China within a reasonably foreseeable time?

Purchaser	Yes / No	Changes that have occurred
***	***	***
***	***	***

