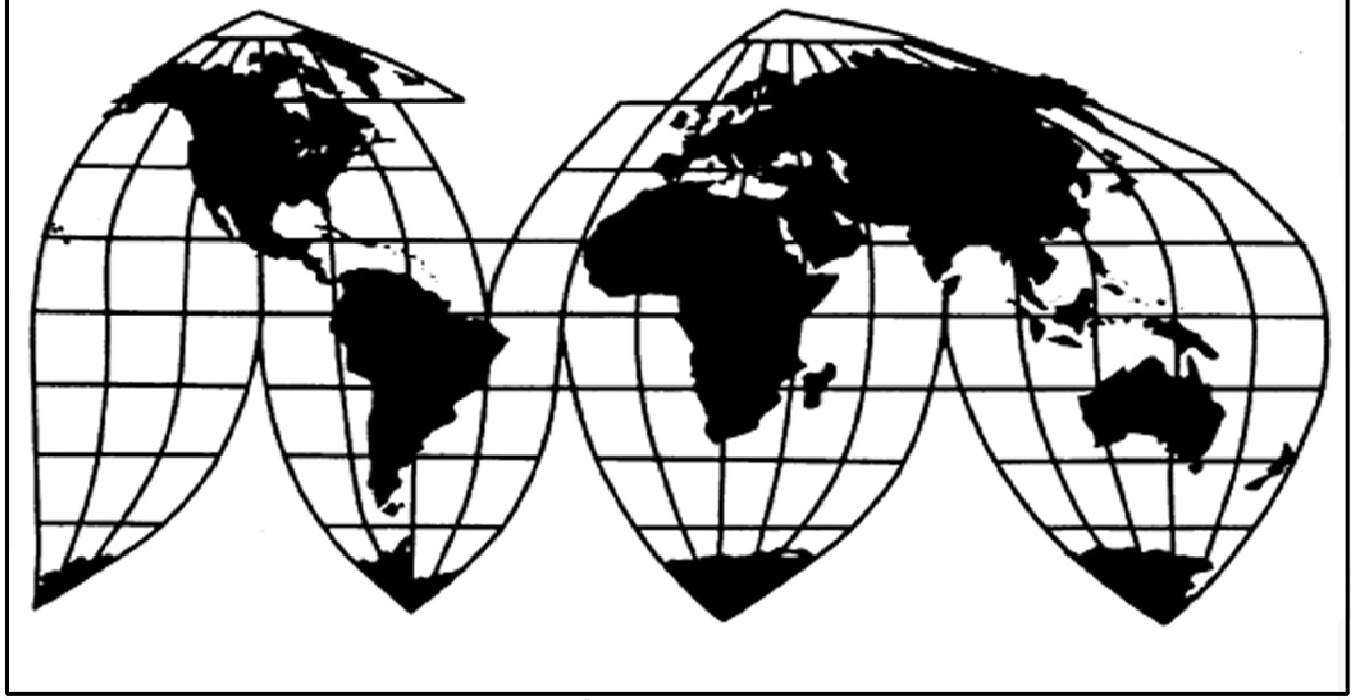
# Glycine From India, Japan, and Korea

Investigation Nos. 731-TA-1111-1113 (Preliminary)

**Publication 3921** **May 2007**

**U.S. International Trade Commission**



**Washington, DC 20436**

# U.S. International Trade Commission

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**Appendixes**



Note.–Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report. Such deletions are indicated by asterisks.

**UNITED STATES INTERNATIONAL TRADE COMMISSION**

Investigation Nos. 731-TA-1111-1113 (Preliminary)
GLYCINE FROM INDIA, JAPAN, AND KOREA

## DETERMINATIONS

On the basis of the record[1] developed in the subject investigations, the United States International Trade Commission (Commission) determines, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)) (the Act), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from India, Japan, and Korea of glycine, provided for in statistical reporting number 2922.49.4020 of the Harmonized Tariff Schedule of the United States (HTS),[2] that are alleged to be sold in the United States at less than fair value (LTFV).

## BACKGROUND

On March 30, 2007, a petition was filed with the Commission and Commerce by GEO Specialty Chemicals, Inc., Lafayette, IN, alleging that an industry in the United States is materially injured by reason of LTFV imports of glycine from India, Japan, and Korea. Accordingly, effective March 30, 2007, the Commission instituted antidumping duty investigation Nos. 731-TA-1111-1113 (Preliminary).

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

[2] The imported products subject to investigation also include sodium glycinate which is provided for in subheading 2922.49.80 of the HTS.

# VIEWS OF THE COMMISSION

Based on the record in the preliminary phase of these investigations, we find that there is a reasonable indication that an industry in the United States is materially injured by reason of glycine imported from India, Japan, and Korea that is allegedly sold in the United States at less than fair value ("LTFV").

## I. THE LEGAL STANDARD FOR PRELIMINARY DETERMINATIONS

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

## II. BACKGROUND

Glycine, also known as aminoacetic acid, is a naturally occurring amino acid that is manufactured and commercially sold as a free-flowing crystalline solid.[3] Glycine is typically sold in three grades: pharmaceutical, United States Pharmacopeia ("USP"), and technical. Most glycine is manufactured as USP grade material for use in consumable or cosmetic applications as a sweetener/taste enhancer and buffering agent. The primary markets for USP grade glycine are as an additive in pet food, animal feed, and antiperspirants.[4] USP grade sales account for approximately 80 to 85 percent of the U.S. market for glycine.[5] Pharmaceutical grade glycine is produced for use in some pharmaceutical applications, such as intravenous injections, where the customer's purity requirements often exceed the minimum required under the USP grade designation. Pharmaceutical grade glycine is often produced to proprietary specifications and is typically sold at a premium over USP grade glycine.[6] Technical grade glycine, which may or may not meet USP grade standards, is sold for use in industrial applications; e.g., as an agent in metal complexing and finishing.[7] Technical grade glycine is typically sold at a discount to USP grade glycine.[8]

Precursors of dried crystalline glycine, including glycine slurry (i.e., glycine in a non-crystallized form) and sodium glycinate (i.e., glycine salt), are covered by these investigations although there are

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[1] 19 U.S.C. § 1673b(a); see also, e.g., Co-Steel Raritan, Inc. v. United States, 357 F.3d 1294 (Fed. Cir. 2004); American Lamb Co. v. United States, 785 F.2d 994, 1001-1004 (Fed. Cir. 1986); Aristech Chemical Corp. v. United States, 20 CIT 353, 354 (1996). No party argued that the establishment of an industry is materially retarded by reason of the allegedly unfairly traded imports.

[2] American Lamb, 785 F.2d at 1001 (Fed. Cir. 1986); see also Texas Crushed Stone Co. v. United States, 35 F.3d 1535, 1543 (Fed. Cir. 1994).

[3] CR at I-7, PR at I-6.

[4] CR at I-8 - I-9, PR at I-6, I-7; CR/PR at Tables I-2, III-4, IV-3.

[5] CR/PR at Tables III-4, IV-3.

[6] CR at I-8, PR at I-6 - I-7; CR/PR at Tables III-4, IV-3.

[7] CR at I-8 - I-9, PR at I-6, I-7. Metal complexing is the preparation of metal to permit better binding with other compounds, such as a silicon coat.

[8] CR/PR at Tables III-4, IV-3.

currently no commercial markets for these products in the United States. Glycine and glycine slurry are provided for under statistical reporting number 2922.49.4020 in the Harmonized Tariff Schedule of the United States ("HTS") and sodium glycinate is properly classified under subheading 2922.49.80 of the HTS.[9]

The petition in these investigations was filed on March 30, 2007, by GEO Specialty Chemicals, Inc. of Lafayette, Indiana ("Petitioner" or "GEO"), a U.S. producer of glycine. Chattem Chemicals, Inc. ("Chattem"), the only other U.S. producer of glycine, and CAF International ("CAF"), a U.S. importer of glycine, participated in the staff conference and filed postconference submissions.

## III. DOMESTIC LIKE PRODUCT

### A. In General

In determining whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the "domestic like product" and the "industry."[10] Section 771(4)(A) of the Tariff Act of 1930, as amended ("the Act"), defines the relevant domestic industry as the "producers as a [w]hole 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."[11] In turn, the 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 . . . ."[12]

The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[13] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[14] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[15] Although the Commission must accept the determination of the U.S. Department of Commerce ("Commerce") as to the scope of the imported merchandise allegedly sold at LTFV,[16] the Commission

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[9] CR at I-5 - I-6, 1-15; PR at I-4, I-11; Conference Transcript at 29-30.

[10] 19 U.S.C. § 1677(4)(A).

[11] 19 U.S.C. § 1677(4)(A).

[12] 19 U.S.C. § 1677(10).

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

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

[15] Nippon Steel, 19 CIT at 455; Torrington, 747 F. Supp. at 748-49. See also S. Rep. No. 96-249 at 90-91 (1979) (Congress has indicated that the like product standard should not be interpreted in "such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not 'like' each other, nor should the definition of 'like product' be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.").

[16] See, e.g., USEC, Inc. v. United States, Slip Op. 01-1421 (Fed. Cir. April 25, 2002) at 9 ("The ITC may not modify the class or kind of imported merchandise examined by Commerce."); Algoma Steel Corp. v. United States,

(continued...)

determines what domestic product is like the imported articles Commerce has identified.[17] The Commission must base its domestic like product determination on the record in these investigations. The Commission is not bound by prior determinations, even those pertaining to the same imported products, but may draw upon previous determinations in addressing pertinent like product issues.[18]

### B. Product Description

Commerce's notice of initiation defines the imported merchandise within the scope of these investigations as follows –

> glycine, which in its solid (*i.e.*, crystallized) form is a free-flowing crystalline material. Glycine is used as a sweetener/taste enhancer, buffering agent, reabsorbable amino acid, chemical intermediate, metal complexing agent, dietary supplement, and is used in certain pharmaceuticals. The scope of each of these investigations covers glycine in any form and purity level. Although glycine blended with other materials is not covered by the scope of each of these investigations, glycine to which relatively small quantities of other materials have been added is covered by the scope. Glycine's chemical composition is $C_2H_5NO_2$ and is normally classified under subheading 2922.49.4020 of the Harmonized Tariff Schedule of the United States (HTSUS).
>
> The scope of each of these investigations also covers precursors of dried crystalline glycine, including, but not limited to, glycine slurry (*i.e.*, glycine in a non–crystallized form) and sodium glycinate. Glycine slurry is classified under the same HTSUS subheading as crystallized glycine (2922.49.4020) and sodium glycinate is classified under subheading HTSUS 2922.49.8000.[19]

There are two known processes for the commercial production of glycine: the hydrogen cyanide ("HCN") process and the monochloroacetic acid ("MCA") process. The petitioner, GEO, uses the HCN process, whereas the other domestic producer, Chattem, uses the MCA process.[20] Glycine produced by the two methods is chemically identical. Sodium glycinate, which is within Commerce's scope, is a precursor of glycine in the HCN process, but not in the MCA process. Glycine slurry, the undried form of glycine, is the prior step to production of dried, crystalline glycine under both production methods.

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[16] (...continued)
688 F. Supp. 639, 644 (Ct. Int'l Trade 1988), aff'd, 865 F.3d 240 (Fed. Cir.), cert. denied, 492 U.S. 919 (1989).

[17] Hosiden Corp. v. Advanced Display Mfrs., 85 F.3d 1561, 1568 (Fed. Cir. 1996) (Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); Torrington, 747 F. Supp. at 748-752 (affirming Commission determination of six like products in investigations where Commerce found five classes or kinds).

[18] Acciai Speciali Terni S.p.A. v. United States, 118 F. Supp. 2d 1298, 1304-05 (Ct. Int'l Trade 2000); Nippon Steel Corp. v. United States, 19 CIT at 455; Asociacion Colombiana de Exportadores de Flores v. United States, 693 F. Supp. 1165, 1169 n.5 (Ct. Int'l Trade 1988) (particularly addressing like product determination); Citrosuco Paulista, S.A. v. United States, 704 F. Supp. 1075, 1087-88 (Ct. Int'l Trade 1988).

[19] Glycine from India, Japan, and the Republic of Korea: Initiation of Antidumping Duty Investigations, 72 Fed. Reg. 20816, 20817 (April 26, 2007).

[20] The domestic producers indicate that the variable cost of producing glycine is less with the HCN process than with the MCA process, although capital costs are greater for the HCN process. E.g., Conference Transcript at 60 (Kedrowski).

### C. Domestic Like Product

Petitioner argues that the Commission should define a single domestic like product, coextensive with the scope of these investigations; namely, glycine in all its forms and purity levels, including glycine slurry and sodium glycinate. No party objects to this proposed domestic like product definition. At issue are: (1) whether all grades, or purity levels, of dried, crystalline glycine are a single domestic like product, (2) whether sodium glycinate is a separate domestic like product, and (3) whether glycine slurry is a separate domestic like product.[21]

#### 1. Purity and grade differences

We apply our traditional six-factor analysis in assessing whether different grades or purity levels of glycine are a single domestic like product or separate domestic like products.[22]

*Physical Characteristics and End Uses*. All glycine, regardless of grade, has the same chemical structure, differing only by the amount of impurities in the product.[23] Because of glycine's chemical structure, it has a number of distinctive physical qualities, making it useful as a flavor enhancer, nutrient, buffer, and intermediate in certain production processes.[24]

*Interchangeability*. While purity requirements will determine the applications in which the particular glycine grade may be used, glycine meeting higher purity standards can be used in applications with lower purity requirements. Thus, there is some degree of interchangeability among purity levels.[25]

*Channels of Distribution*. Channels of distribution are similar for all domestically produced glycine: the vast majority of domestic producers' shipments, *** percent, are sold to end users, with the remainder sold to distributors.[26]

*Manufacturing Facilities, Production Processes, and Employees*. The two domestic glycine producers use different production processes. However, each uses the same production process, facilities, and employees for all grades of glycine, with the glycine to be used for some pharmaceutical applications undergoing additional purifying steps in both processes.[27]

*Producer and Customer Perceptions*. All forms of glycine are generally perceived to be the same products. Nevertheless, depending on the application, a purchaser will prefer or require one grade to another.[28]

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[21] The scope of these investigations differs from the scope of the outstanding antidumping duty order on imports of glycine from China, which does not include glycine slurry and sodium glycinate. CR at I-5 n.11; see, e.g., Continuation of Antidumping Duty Orders: Glycine from China, 65 Fed. Reg. 45752 (July 25, 2000), and 70 Fed. Reg. 69316 (Nov. 15, 2005).

[22] The Commission "'normally does not find separate like products based on different grades of chemicals or mineral products.'" Liquid Sulfur Dioxide from Canada, Inv. No. 731-TA-1098 (Preliminary), USITC Pub. 3826 (December 2005) at 6, quoting Bulk Acetylsalicylic Acid (Aspirin) from China, Inv. No. 731-TA-828 (Final), USITC Pub. 3314 at 5-6 (June 2000); Sulfanilic Acid from Hungary and Portugal, Inv. Nos. 701-TA-426 and 731-TA-984-985 (Final), USITC Pub. 3554 (November 2002) at 7 n. 34; Barium Carbonate from China, Inv. No. 731-TA-1020 (Preliminary), USITC Pub. 3561 (November 2002) at 7, n.28.

[23] CR at I-8, PR at I-6.

[24] CR at I-8 - I-9, PR at I-6 - I-7.

[25] CR at I-8 - I-9, PR at I-6 - I-7.

[26] CR at I-12, PR at I-9.

[27] CR at I-10 - I-11, PR at I-8 - I-9.

[28] CR at I-8 - I-9, PR at I-6 - I-7.

*Price*. As a result of additional purification standards and production operations, pharmaceutical grade glycine generally sells for a higher price than USP grade glycine,[29] and USP grade glycine generally sells for a higher price than technical grade glycine.[30]

*Conclusion.* Because all grades of glycine have common physical characteristics and end uses, share common channels of distribution, and generally share common production processes, facilities, and employees, we find that all grades of glycine are encompassed in a single domestic like product.

### 2. Sodium glycinate

We find that sodium glycinate is part of the single domestic like product. Because sodium glycinate, within the scope of the subject merchandise, is an upstream product in the production of glycine, we apply the semi-finished product analysis in considering whether it is part of the same domestic like product as glycine. Under that analysis, we examine: (1) whether the upstream article is dedicated to the production of the downstream article or has independent uses; (2) whether there are perceived to be separate markets for the upstream and downstream articles; (3) differences in the physical characteristics and functions of the upstream and downstream articles; (4) differences in the costs or value of the vertically differentiated articles; and (5) the significance and extent of the processes used to transform the upstream into the downstream articles.[31]

*Dedicated production*. Sodium glycinate is an intermediate product in the production of glycine using the HCN production process. The record does not indicate any use for sodium glycinate other than as an upstream product in the production of glycine.[32]

*Separate markets*. Sodium glycinate has no known markets.[33]

*Differences in characteristics and functions*. Sodium glycinate is chemically closely related to glycine. Specifically, sodium glycinate ($NaC_2H_4NO_2$) contains glycine ($C_2H_5NO_2$) in its chemistry. While it may be possible to use sodium glycinate in some of the same applications as glycine, sodium glycinate is primarily or exclusively used to produce glycine.[34]

*Differences in costs or value*. Sodium glycinate is not commercially traded and is only consumed in the production of glycine; therefore, market prices do not exist for this product. GEO estimates that the conversion of sodium glycinate into glycine accounted for approximately *** percent of GEO's total cost of glycine production.[35]

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[29] E.g., CR/PR at Tables V-1, V-2.

[30] E.g., CR at I-8, PR at I-6.

[31] E.g., Artists' Canvas from China, Inv. No. 731-TA-1091 (Final), USITC Pub. 3853 (May 2006) at 6; Live Swine from Canada, Inv. No. 731-TA-1076 (Final), USITC Pub. 3766 (April 2005) at 8, n. 40; Certain Frozen Fish Fillets from Vietnam, Inv. No. 731-TA-1012 (Preliminary), USITC Pub. 3533 (August 2002) at 7; Low Enriched Uranium from France, Germany, the Netherlands, and the United Kingdom, Inv. Nos. 701-TA-409-412 (Preliminary) and 731-TA-909-912 (Preliminary), USITC Pub. 3388 (January 2001) at 5-6; Uranium from Kazakhstan, Inv. No. 731-TA-539-A (Final), USITC Pub. 3213 (July 1999) at 6, n.23.

[32] CR at I-15, PR at I-11.

[33] CR at I-15, PR at PR at I-11.

[34] CR at I-15, I-16, PR at PR at I-11. GEO explained that it would be possible to use sodium glycinate in some of the same applications as glycine; e.g., for enhancing/masking flavor, pH buffering and stabilizing, and metal finishing. However, the performance of sodium glycinate may be inferior to glycine in those applications and, as noted, there are ***. GEO's Postconference Brief, Response to Staff Questions at 1-3.

[35] Id. at I-15. Chattem uses a different production process, the MCA process, in which sodium glycinate is not an intermediate product. Id.

*Significance of tranformation*. Conversion of sodium glycinate into glycine appears not to be a complicated process. The conversion involves simply "washing the sodium out,"[36] through a process in which ***.[37]

*Conclusion.* We define the single domestic like product as including sodium glycinate, given its dedication to production of glycine, the absence of a separate market for sodium glycinate, and the relatively small cost and significance of converting sodium glycinate into glycine.

### 3. Slurry

We also find that glycine slurry is part of the single domestic like product under the semi-finished product analysis. Slurry is glycine in a liquid form, with a chemical formula identical to that of the dried, crystalline form. Slurry is consumed entirely in production of the marketed, dried glycine. Its conversion to dried glycine simply requires drying, which could be energy intensive but is not otherwise a complex process.[38] Therefore, we find that the single domestic like product includes glycine slurry.

Accordingly, we define the domestic like product as encompassing all glycine, coterminous with the scope, and thus including glycine in all its forms (slurry and crystalline) and purity levels (USP grade, technical grade, and pharmaceutical grade), and sodium glycinate.

## IV. DOMESTIC INDUSTRY

The domestic industry is defined as the "producers as a [w]hole 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."[39] In defining the domestic industry, the Commission's general practice has been to include in the industry all domestic production of the domestic like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.[40] Based on our finding that the domestic like product is glycine, we find that the domestic industry consists of the two known domestic producers of glycine: GEO and Chattem.

We must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to section 19 U.S.C. § 1677(4)(B). Subsection 1677(4)(B) allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.[41] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.

No party argues for exclusion of any related producers from the domestic industry.[42] However, Chattem imported *** pounds of subject merchandise from Japan in 2005 and *** pounds in 2006,[43] and, therefore, we must consider whether "appropriate circumstances" exist to exclude Chattem from the domestic industry on the basis of those importations.

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[36] Conference Transcript at 30 (Kedrowski).

[37] CR at I-16, PR at PR at I-11.

[38] Conference Transcript at 29-30 (discussion of drying generally). The record does not include specific information on the cost of drying slurry.

[39] 19 U.S.C. § 1677(4)(A).

[40] United States Steel Group v. United States, 873 F. Supp. 673, 681-84 (Ct. Int'l Trade 1994), aff'd, 96 F.3d 1352 (Fed. Cir. 1996).

[41] 19 U.S.C. § 1677(4)(B).

[42] GEO argues, however, that assessment of the financial condition of the industry should include separate consideration of data for GEO and Chattem. GEO Postconference Brief, Economic Analysis attachment at 4.

[43] Conference Transcript at 19-21 (Kedrowski); CR/PR at Table III-6.

Chattem explains that it reduced its overall glycine production between 2001 and 2004 in response to market prices driven down by imports to levels below Chattem's raw material costs.[44] In early 2005, Chattem became a distributor of technical grade glycine produced by Showa Denko K.K., a Japanese producer.[45]

Chattem accounted for *** percent of domestic production in 2004, *** percent in 2005 and *** percent in 2006.[46] The volume of Chattem's imports of subject merchandise from Japan in 2005 was small as a share of total glycine imports from Japan that year, *** percent, and relative to Chattem's production that year, *** percent.[47] In 2006, however, Chattem's imports grew to *** percent of total subject imports from Japan that year, and to *** percent relative to Chattem's 2005 production.[48] Nonetheless, Chattem's domestic production continued to *** the volume of its subject import shipments over the period of investigation. Therefore, Chattem's interests appear to be primarily those of a domestic producer.[49]

Chattem's financial performance *** in terms of its ratio of operating income to net sales in 2005 and 2006.[50] This suggests that Chattem's domestic operations did not derive benefits from importation such that inclusion of its data would inappropriately skew the data of the domestic industry.[51] For these preliminary determinations, because Chattem did not become a significant importer until 2006, and because its inclusion will not skew the data, we find that appropriate circumstances do not exist to exclude Chattem from the domestic industry. However, we will continue to examine this issue in any final phase investigations.

## V. CUMULATION

### A. In General

For purposes of evaluating the volume and price effects for a determination of material injury by reason of the subject imports, section 771(7)(G)(i) of the Act requires the Commission to cumulate subject imports from all countries as to which petitions were filed and/or investigations self-initiated by Commerce on the same day, if such imports compete with each other and with domestic like products in the U.S. market.[52] In assessing whether subject imports compete with each other and with the domestic like product, the Commission has generally considered four factors, including:

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[44] Conference Transcript at 19-21 (Kedrowski); CR at III-3 - III-5, PR at III-2.

[45] Conference Transcript at 21-22, 36 (Kedrowski), CR at III-15, PR at III-5.

[46] CR/PR at Tables III-1, III-2.

[47] CR/PR at Tables III-6, IV-4.

[48] Id.

[49] Chattem opposes the petition in these investigations. CR/PR at Table III-1. The Commission may consider whether a producer supports or opposes the petition as one factor in deciding whether appropriate circumstances exist to exclude that producer as a related party, but support or opposition to the petition is not dispositive of the question. See e.g., Allied Mineral Products, Inc. v. United States, Slip Op. 04-139 (Ct. Int'l Trade Nov. 12, 2004) at 9-10 & n. 5. Under these facts, we do not believe Chattem's position on the petition outweighs other factors considered.

[50] CR/PR at Table VI-2.

[51] Consistent with her practice in past investigations and reviews, Vice Chairman Aranoff does not rely on individual-company income margins in assessing whether a related party has benefitted from importation of subject merchandise. Rather, she determines whether to exclude a related party based principally on its ratio of subject imports to domestic shipments and whether its primary interests lie in domestic production or importation.

[52] 19 U.S.C. § 1677(7)(G)(i).

(1) the degree of fungibility between the subject imports from different countries and between imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
(2) the presence of sales or offers to sell in the same geographic markets of subject imports from different countries and the domestic like product;
(3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and
(4) whether the subject imports are simultaneously present in the market.[53]

While no single factor is necessarily determinative, and the list of factors is not exclusive, these factors are intended to provide the Commission with a framework for determining whether the subject imports compete with each other and with the domestic like product.[54] Only a "reasonable overlap" of competition is required.[55]

### B. Analysis

Petitioner, GEO, argues that, based on the four factors customarily considered by the Commission, subject imports compete with one another and with domestic glycine, and that, therefore, the Commission should cumulate subject imports.[56] The threshold requirement for cumulation is satisfied because GEO filed a petition with respect to each of the three subject countries on the same day. None of the statutory exceptions to cumulation is applicable.[57]

#### 1. Fungibility.

All responding importers reported that domestic glycine and subject imported product were always interchangeable.[58] Domestic producers indicated that, whereas USP grade and technical grade glycine are easily interchangeable within the grade among sources, pharmaceutical grade glycine must meet higher purity and consistency requirements of individual customers and, therefore, pharmaceutical grade glycine is less interchangeable among sources.[59] We note that USP and technical grades of glycine

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

[54] See, e.g., Wieland Werke, AG v. United States, 718 F. Supp. 50 (Ct. Int'l Trade 1989).

[55] The SAA (at 848) expressly states that "the new section will not affect current Commission practice under which the statutory requirement is satisfied if there is a reasonable overlap of competition." SAA at 848 (citing Fundicao Tupy, S.A. v. United States, 678 F. Supp. 898, 902 (Ct. Int'l Trade 1988)), aff'd 859 F.2d 915 (Fed. Cir. 1988). See Goss Graphic Sys., Inc. v. United States, 33 F. Supp. 2d 1082,1087 (Ct. Int'l Trade 1998) ("cumulation does not require two products to be highly fungible"); Wieland Werke, AG, 718 F. Supp. at 52 ("Completely overlapping markets are not required.").

[56] Petition at 40-41.

[57] See 19 U.S.C. § 1677(7)(G) (ii).

[58] The responding importers generally did not compare imports from the subject countries with each other (the only exception being one importer who reported only that subject imports from India and Japan were interchangeable). CR/PR at Table II-2. We intend in any final phase investigations to gather more comprehensive information in this regard.

[59] *** that there are no differences that would significantly limit interchangeability within USP grade glycine or technical grade glycine, given that glycine is easily qualified for technical grade applications and, by definition, USP grade glycine meets USP standards. CR at II-7, PR at II-5. *** that interchangeability is limited in the

(continued...)

accounted for *** percent of domestic producer shipments and *** percent of subject imports in 2006, and therefore find that subject imports are generally interchangeable with the domestic like product and with each other.[60]

**2. Same Geographical Markets**.

There was geographical overlap among the subject merchandise from each subject country and the domestic like product during the period of investigation. The domestic, Indian, and Japanese products overlapped with each other in all regions and with the Korean product in the ***.[61]

**3. Simultaneous Presence**.

Imports from each of the subject countries have been present in the U.S. market throughout the period of investigation.[62]

**4. Channels of Distribution**.

The domestic like product and subject imports are sold through common channels of distribution, that is, through distributors and to end users, with the majority sold to end users.[63]

**5. Conclusion**

The record in these preliminary phase investigations consequently indicates that the domestic like product and imports from each of the three subject countries are sufficiently similar in characteristics to satisfy the fungibility criterion. The criteria concerning channels of distribution, geographic overlap, and simultaneous presence are clearly satisfied. Accordingly, we cumulate imports from all three subject countries for our analysis of reasonable indication of material injury by reason of subject imports.

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[59](...continued)
pharmaceutical grade, which is tailored to individual customers' specific requirements. CR at II-7, PR at II-5. On that basis, ***. CR at II-7, PR at II-5. For purposes of these preliminary determinations, we attach greater weight to ***.

[60] Only *** percent of domestic producer shipments, *** percent of U.S. shipments of subject imports from Japan, and *** of the U.S. shipments of subject imports from India and Korea were of pharmaceutical grade glycine. CR/PR at Table IV-11. Accordingly, limits on interchangeability among sources within the pharmaceutical grade has only limited significance in assessing fungibility, particularly for purposes of determining overlap of competition. More important in that regard, in 2006, *** percent of the domestic like product, *** percent of U.S. shipments of subject imports from India, *** percent of U.S. shipments of subject imports from Japan, and *** percent of U.S. shipments of subject imports from Korea were of the more highly interchangeable USP grade glycine. CR/PR at Table III-4, IV-3. Moreover, *** percent of the domestic like product and *** percent of U.S. shipments of the subject imports *** were of technical grade glycine (id.), which also appears to be highly interchangeable among sources.

[61] E.g., CR/PR at Table V-2.

[62] CR/PR at Table IV-2.

[63] CR at I-12, PR at I-12.

## I. REASONABLE INDICATION OF MATERIAL INJURY BY REASON OF ALLEGEDLY LESS THAN FAIR VALUE IMPORTS FROM INDIA, JAPAN, AND KOREA[64]

In the preliminary phase of antidumping or countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured by reason of the imports under investigation.[65] In making this determination, the Commission must consider the volume of subject imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production operations.[66] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[67] In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[68] No single factor is dispositive, and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[69]

For the reasons stated below, we determine that there is a reasonable indication that the domestic industry producing glycine is materially injured by reason of subject imports from India, Japan, and Korea.

### A. Conditions of Competition and the Business Cycle

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

#### 1. Demand Conditions

Glycine is an input into the production of many other products, and thus its demand is derived from the demand for those end-use products.[70] Glycine is used as a sweetener in foods, pharmaceuticals, personal care products, and animal feed and pet food; as a buffering agent in antacids, analgesics, antiperspirants, cosmetics, and toiletries, and in production of rubber sponge products and fertilizers; as a re-absorbable amino acid to treat diarrhea; as a chemical intermediate in a variety of chemical products; as a metal complexing and finishing agent; as a dietary supplement; to improve gastric absorption of certain drugs; and in some intravenous uses. The principal end uses of glycine are as an additive in

[64] Negligibility is not an issue in this investigation under 19 U.S.C. § 1677(24). The petition was filed on March 30, 2007. Subject imports from India accounted for 22.7 percent, subject imports from Japan for 29.6 percent, and subject imports from Korea for 12.4 percent of total imports of glycine for the most recent 12-month period (March 2006 to February 2007) for which data were available that preceded the filing of the petition. CR at IV-12.

[65] 19 U.S.C. §§ 1671b(a) and 1673b(a).

[66] 19 U.S.C. § 1677(7)(B)(i). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each [such] factor . . . [a]nd explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B). See also Angus Chemical Co. v. United States, 140 F.3d 1478 (Fed. Cir. 1998).

[67] 19 U.S.C. § 1677(7)(A).

[68] 19 U.S.C. § 1677(7)(C)(iii).

[69] 19 U.S.C. § 1677(7)(C)(iii).

[70] CR at II-5; PR at II-3.

pet food and animal feed, and as a buffering agent in antiperspirants. [71] A small number of purchasers account for a large share of apparent U.S. consumption.[72]

Apparent U.S. consumption of glycine increased from *** million pounds in 2004 to *** million pounds in 2005, then decreased to *** million pounds in 2006, reflecting a *** percent overall increase in apparent U.S. consumption over the period of investigation.[73]

Price changes for glycine will likely have only a small effect on consumption given that substitutes for glycine are limited to a few applications and glycine tends to account for a small share of the cost of products in which it is used.[74]

### 2. Supply Conditions

During the period of investigation, two domestic producers, GEO and Chattem, accounted for 100 percent of U.S. production of glycine. GEO produces glycine using the HCN process at its Deer Park, TX facility, while Chattem produces glycine using the MCA process at its Chattanooga, TN facility. GEO purchased the Deer Park facility from Hampshire Chemical Corporation ("Hampshire"), a subsidiary of DOW Chemicals, Inc. ("DOW"), on November 1, 2005.[75]

The domestic industry's capacity to produce glycine declined by *** percent during the period of investigation, while production declined by *** percent.[76] GEO accounted for *** of the reduction of capacity over the period of investigation.[77] As noted above, Chattem reported that it scaled back production of the technical and USP grades of glycine between 2001 and 2004 in response to pricing pressures from imports.[78] In early 2005, Chattem became a distributor of subject technical grade glycine produced by Showa Denko K.K., a Japanese producer.[79] During the period of investigation, Chattem's domestic shipments of technical- and pharmaceutical grade glycine *** while its shipments of USP grade glycine ***.[80]

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[71] CR/PR at Table I-2 (as revised by INV-EE-047 (May 9, 2007)). Data on the five largest end users of glycine indicate that *** firms that use glycine as an additive in pet food or animal feed accounted for an estimated *** percent of reported U.S. shipments of glycine in 2006, and that *** firms that use glycine as a buffering agent in antiperspirants accounted for an estimated *** percent of reported U.S. shipments of glycine in 2006. Id. These percentages are based on data in U.S. producers' and U.S. importers' questionnaire responses in these preliminary phase investigations. The Commission will collect end use data also from U.S. purchasers in any final phase investigations.

[72] Id.

[73] CR/PR at Tables IV-4, C-1. Views of producers and importers of demand trends over the period of investigation were mixed, with GEO and two of the responding importers reporting that demand had increased, Chattem and three of the importers reporting that demand had not changed, and three importers reporting that demand had declined. Conference Transcript at 63 (Eckman), 64 (Kendrowski); CR at II-5 - II-6, PR at II-4.

[74] CR at II-5, PR at II-3.

[75] CR at III-1, PR at II-1. Data reported by GEO included data for Hampshire/DOW for the portion of the period of investigation prior to GEO's purchase.

[76] CR/PR at Table C-1. The industry's capacity declined from *** pounds in 2004 to *** pounds in 2006. CR/PR at Tables III-2, C-1. Domestic production, after increasing from *** pounds in 2004 to *** pounds in 2005, decreased to *** pounds in 2006. CR/PR at Tables III-6, C-1.

[77] CR/PR at Table III-2; CR at III-5, PR at III-2.

[78] Conference Transcript at 19-21 (Kedrowski); CR at III-3 - III-5, PR at III-2.

[79] Conference Transcript at 21-22, 36 (Kedrowski); CR at III-15, PR at III-5.

[80] CR/PR at Table III-4. Chattem currently opposes the petition, explaining that imposition of antidumping duties will improve GEO's performance and permit GEO to modify their facility to serve the pharmaceutical grade sector, which Chattem contends would force Chattem to withdraw from the U.S. glycine business and leave GEO as the

(continued...)

Chattem reported selling *** percent of its product from inventories and the remainder produced to order, and GEO reported selling *** percent of its product from inventories and the remainder produced to order. Five of the 11 responding importers reported selling all product from inventories, with two others selling 80 percent or more from inventories. Two importers reported selling all product produced to order and two others selling 80 percent or more produced to order.[81] The domestic industry's inventories were relatively low as a ratio to production and shipments in 2004 and 2005, then increased in 2006 due to ***.[82]

The domestic industry supplied only a portion of the U.S. market for glycine during the period of investigation with the remainder supplied by imports. Domestic producers' share of the U.S. market declined steadily from *** percent in 2004 to *** percent in 2006.[83] Subject imports' share of the U.S. market increased from *** percent in 2004 to *** percent in 2006.[84] Finally, the U.S. market share held by nonsubject imports fluctuated during the period examined, and increased modestly from *** percent in 2004 to *** percent in 2006.[85] Glycine from China, which is subject to an antidumping duty order, accounted for a substantial majority of nonsubject imports in 2005 and 2006.[86]

### 3. Substitutability and Other Conditions

The degree of substitution between domestic and imported glycine depends on factors such as the certified grades produced in each country and relative price, as well as non-price factors such as product quality, consistency, and conditions of sale such as reliability of supply, reliability of delivery, payment terms, and delivery/lead time.[87]

As noted above, the record supports the conclusion that glycine is generally interchangeable within form or grade, regardless of where it is produced. However, ease of substitution between suppliers may differ greatly between grades. Non-pharmaceutical grades of glycine could be substituted among producers with a fair amount of ease once a producer meets the standard for the specific grade required.[88] On the other hand, because pharmaceutical grade glycine requires extremely high purity, consistency, and plant verifications, it may be challenging for purchasers to shift from one supplier to another, at least in the short term. As a result, Chattem reported that competition from imports in pharmaceutical grade glycine was not significant.[89]

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[80] (...continued)
sole domestic producer. CR/PR at Table III-1 n.2. Correspondence from ***, Chattem, May 2, 2007. However, at the public conference Chattem had indicated that it supported the petition in relation to glycine imported from India, Japan, and Korea from producers using the MCA process, and that it supported the petition to the extent that these investigations take into account that Chattem's business partner, Showa Denko K.K., uses the HCN production process and thus has a lower cost structure for the production of its glycine. Conference Transcript at 22 (Kedrowski).

[81] CR at II-3, PR at II-2.

[82] CR/PR at Table III-7 (domestic producers' inventories as a share of U.S. production increased from *** percent in 2004 to *** percent in 2005, then increased to *** percent in 2006; inventories as a share of U.S. shipments increased from *** percent in 2004 to *** percent in 2005, then increased to *** percent in 2006).

[83] CR/PR at Table C-1.

[84] CR/PR at Table IV-6.

[85] CR/PR at Tables IV-5, C-1.

[86] CR/PR at Table IV-5.

[87] CR at II-7, PR at II-4.

[88] CR at II-7, PR at II-5.

[89] CR at II-7, PR at II-5. In any final phase investigations, we will ask parties to comment on the appropriate definition of pharmaceutical grade glycine. We intend to gather information on the condition of the pharmaceutical (continued...)

GEO reported selling *** percent of its product using long-term contracts and *** percent on a spot basis. Chattem reported that it does not sell on a contract basis but that it typically had a long-term relationship with many of its purchasers. Of 11 responding importers, three reported selling mostly under long-term contracts, three sold mainly using short-term contracts, and five sold all product in spot sales.[90]

### B. Volume of Subject Imports [91]

Section 771(7)(C)(i) of the Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."[92]

The volume of cumulated subject imports of glycine increased significantly over the period of investigation, both in absolute terms and relative to consumption and production in the United States. The volume of subject imports, measured by quantity, doubled over the period of investigation, increasing from 3.2 million pounds in 2004 to 5.6 million pounds in 2005, then to 6.4 million pounds in 2006.[93] The share of the quantity of U.S. apparent consumption held by subject imports also increased over the period of investigation, from *** percent in 2004 to *** percent in 2005, and then to *** percent in 2004.[94]

The volume of nonsubject imports increased overall during the period of investigation, both in absolute terms and relative to U.S. consumption, but those increases were much smaller than those of the

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[89] (...continued)
segment of the market, and the performance of domestic producers in that segment.

[90] CR at V-4, PR at V-3. GEO reported that its contracts contain meet-or-release provisions, while the importer, CAF, contends that its contracts do not contain meet-or-release provisions. Conference Transcript at 17, 37 (Jackson), 86 (Frey). We intend to gather additional information on the durations and terms of domestic producers' and importers' contracts in any final phase investigations.

[91] The Commission has made two modifications to official Commerce import statistics using proprietary Customs data to account for misclassification of certain entries. First, material imported from the United Kingdom under the statistical reporting number 2922.49.4020 was reclassified as subject imports from Japan to reflect the fact that this material was improperly classified as having actually been produced in the United Kingdom. Second, glycine imported *** from India that had been improperly classified under statistical reporting number 2922.49.1000 in each year of the period of investigation was included in the import totals. CR at IV-3 - IV-4, PR at IV-2.

We note that Chattem alleges that imports included in Commerce data as being of subject-country origin may, in fact, have been of Chinese origin. Conference transcript, pp. 71-72 (Kedrowski). See Chattem's postconference submission at 2 (providing estimates of U.S. imports from the subject countries and the United Kingdom during the first quarter of 2007 that were alleged to be transshipped glycine of Chinese origin). However, unlike the adjustments noted above, we have no information other than Chattem's allegations that would allow us to confirm transshipments of Chinese-origin glycine during the period of investigation or to adjust the Commerce data in that regard.

If information about other possible revisions to the Commerce statistics comes to light in any final phase investigations, we will consider those adjustments at the appropriate time.

[92] 19 U.S.C. § 1677(7)(C)(i).

[93] CR/PR at Tables IV-2, C-1. Chattem's imports of subject merchandise accounted for *** percent of total subject imports in 2004 and *** percent in 2005. CR/PR at Tables III-6, IV-2.

[94] CR/PR at Tables IV-5, C-1. Subject imports as a ratio to U.S. production increased from 36.2 percent in 2004 to 56.9 percent in 2005, and then to 77.5 percent in 2006. CR/PR at Table IV-6.

subject imports.[95] [96] [97] In addition, the absolute and relative increase in non-subject import volume over the period of investigation was small relative to the decline in U.S. producer's U.S. shipments.[98] Thus, subject imports gained market share largely at the expense of the domestic industry.

For the foregoing reasons, we find for the purposes of the preliminary phase of these investigations that both the volume and increase in volume of subject imports were significant during the period of investigation, both in absolute terms and relative to consumption and production in the United States.

### C. Price Effects of the Subject Imports

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

> (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
>
> (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.[99]

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[95] The volume of nonsubject imports, measured by quantity, increased by 25.4 percent over the period of investigation, from 2.0 million pounds in 2004 to 2.2 million pounds in 2005, then to 2.6 million pounds in 2006. CR/PR at Table IV-4, C-1. The share of the quantity of U.S. apparent consumption held by nonsubject imports increased irregularly from *** percent in 2004, to *** percent in 2005, then to *** percent in 2006. CR/PR at Tables IV-5, C-1.

[96] There is limited information on the record regarding the role of nonsubject imports of glycine in the U.S. market. In any final phase investigations, we will seek information on the role of nonsubject imports of glycine in the U.S. market. We invite parties to comment in any final phase investigations on whether the recent decision by the U.S. Court of Appeals for the Federal Circuit, Bratsk Aluminum Smelter v. United States, 444 F.3d 1369 (Fed. Cir. 2006), is applicable to the facts of these investigations. The Commission also invites parties to comment on what additional information the Commission should collect to address the issues raised by the Court and how that information should be collected, and to identify which of the various nonsubject sources should be the focus of additional information gathering by the Commission in any final phase investigations.

[97] Chairman Pearson and Commissioner Okun do not join the preceding footnote. The U.S. Court of Appeals for the Federal Circuit did not address the application of its mandate in Bratsk Aluminum Smelter v. United States, 444 F.3d 1369 (Fed. Cir. 2006), to preliminary investigations. In that case the Court indicated that, in cases involving commodity products in which imports from non-subject countries are price-competitive and are a significant factor in the U.S. market, in order to establish a causal link between subject imports and material injury the Commission must evaluate whether the non-subject imports would replace subject imports and thereby eliminate the benefit to the domestic industry of an antidumping or countervailing duty order.

The legal standard for preliminary antidumping and countervailing duty determinations requires the Commission to determine, based upon the information available at the time of the preliminary determination, whether there is a reasonable indication that a domestic industry is materially injured or threatened with material injury by reason of the allegedly unfairly traded imports. 19 U.S.C. §§ 1671b(a), 1673b(a) (2000). Thus, Chairman Pearson and Commissioner Okun conclude that they must conduct a Bratsk analysis as they would any other type of causation analysis in a preliminary investigation. See Separate and Additional Views of Chairman Daniel R. Pearson and Commissioner Deanna Tanner Okun Concerning Bratsk Aluminum v. United States.

[98] The share of the quantity of U.S. apparent consumption held by the domestic industry decreased steadily from *** percent in 2004 to *** percent in 2005, then to *** percent in 2006. CR/PR at Tables IV-5, C-1.

[99] 19 U.S.C. § 1677(7)(C)(ii).

As explained in the discussion of cumulation and conditions of competition, there is a moderate to high degree of substitutability between the domestic like product and subject imports, though factors other than price enter into purchasing decisions.[100]

In these investigations, U.S. producers and importers provided quarterly pricing data for three grades of glycine: pharmaceutical grade (product 1), USP grade (product 2), and technical grade (product 3).[101] By quantity, pricing data reported by responding firms accounted for *** percent of reported U.S. producers' shipments of glycine, *** percent of subject imports of glycine from India, *** percent of subject imports from Japan, and *** percent of subject imports from Korea for the January 2004 to December 2006 period.[102]

Subject imports undersold the domestic like product in 33 of 52 quarterly comparisons, with margins of underselling ranging from 0.1 percent to 20.3 percent.[103] For purposes of these preliminary determinations, we find that there has been significant underselling of the domestic like product by subject imports.[104]

We have also considered movements in glycine prices over the period of investigation. The Commission's pricing data show an overall increase in prices for the three domestic products over the period of investigation.[105] However, U.S. prices for product 2, which accounts for 80 to 85 percent of the U.S. market, declined from 2005 to 2006.[106] Additionally, the domestic industry's unit cost of goods sold ("COGS") increased over the period of investigation, and the ratio of COGS to net sales, while fluctuating during the period, rose between 2005 and 2006 by *** percent.[107] These data indicate that, although the domestic industry's prices increased, the domestic producers ***, particularly in 2006. This evidence indicates price suppression in the form of a cost-price squeeze due in part to the subject imports in 2006.[108] Evidence of some confirmed lost sales provides additional support for our finding that subject

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[100] See CR at II-7 - II-11, PR at II-5 - II-7.

[101] CR at V-4, PR at V-4.

[102] ***. In total, 11 importers provided price data. Four of the importers reported price data for product 2 from India. Seven importers reported price data for product from Japan--four of these imported product 2, two imported product 3, and one imported product 1. One importer provided price data for product 2 from Korea. CR at V-5, PR at V-4.

[103] CR/PR at Tables IV-3 and V-1 - V-3. For product 2, the subject imports undersold the domestic like product in 30 of 36 quarterly comparisons. CR/PR at Table V-2. Products 1 and 3 accounted for considerably smaller volumes of subject imports. The subject imports undersold the domestic like product in none of the 9 quarterly comparisons for product 1, and in 3 of 7 quarterly comparisons for product 3. CR/PR at Tables V-1, V-3.

[104] We note that the price levels of the two domestic producers differed substantially. In any final phase investigations we intend to explore the significance of these differences for price competition in the U.S. glycine market.

[105] CR/PR at Tables V-1 - V-3.

[106] CR/PR at Table V-2.

[107] CR/PR at Tables VI-1, C-1.

[108] During a time of significantly increasing subject import levels in 2005 at prices that significantly undersold the domestic product, the domestic industry was able to lower its costs. Direct labor unit costs declined from $*** per pound in 2004 to $*** per pound in 2005; factory overhead costs declined from $*** per pound in 2004 to $*** per pound in 2005; and SG&A expenses declined from $*** per pound in 2004 to $*** per pound in 2005. These cost improvements were offset somewhat in 2005 by increasing raw materials costs, which rose from $*** per pound in 2004 to $*** per pound in 2005. These overall cost declines directly contributed to an improvement in the domestic industry's financial performance in 2005, as reflected in its operating income to net sales ratio of *** percent, as compared with *** percent in 2004. CR/PR at Tables VI-3, C-1.

However, as raw materials costs increased even further in 2006, up $*** per pound to $*** per pound, and as the domestic industry was unable to continue lowering its direct labor costs, factory overhead costs, and SG&A expenses, which only cumulatively declined $*** per pound in 2006, the domestic industry was unable to compete

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imports have suppressed prices to a significant degree.[109] Also, there is some evidence of price depression as domestic prices for the main glycine product (USP grade, product 2) fell substantially during 2005 and 2006, as subject imports were increasing in those years.[110] For purposes of the preliminary phase of these investigations, however, we have not found that subject imports have depressed domestic prices to a significant degree.

For the foregoing reasons, we find for purposes of the preliminary phase of these investigations that there has been significant underselling by subject imports and that such imports have prevented price increases, which otherwise would have occurred, to a significant degree. Thus, we find that subject imports have had significant adverse effects on prices for the domestic like product.

### D. Impact of the Subject Imports on the Domestic Industry[111]

Section 771(7)(C)(iii) of the Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic factors which have a bearing on the state of the industry."[112] These factors include output, sales, inventories, ability to raise capital, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[113]

We have examined the performance indicators in the trade and financial data for the domestic industry producing glycine. These data indicate declining overall trends, although some indicators have fluctuated during the period examined. U.S. production, production capacity, capacity utilization, shipments, and net sales quantity and value all declined from 2004 to 2006. U.S. production of glycine increased from 2004 to 2005, but declined *** percent in 2006 for an overall decline of *** percent from 2004 to 2006.[114] Industry capacity declined from 2004 to 2005 and was unchanged from 2005 to 2006, for an overall decline of *** from 2004 to 2006. Capacity utilization increased from *** percent in 2004

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[108] (...continued)
with the ever-increasing levels of lower-priced subject imports in 2006 by continuing to lower costs and was unable to raise its prices to cover its increased costs because of the significant underselling. CR/PR at Table VI-3. As a result, the domestic industry's operating income to net sales ratio worsened, to *** percent in 2006. CR/PR at Table C-1.

[109] The petitioner provided lost sales allegations totalling $***. CR at V-14, PR at V-5. The Commission confirmed $*** of the alleged lost sales over the period of investigation. CR at V-14-V-17, PR at V-5 - V-6; CR/PR at Table V-6. The alleged lost sale regarding *** was not confirmed, but ***. CR at V-17, PR at V-6. We note conflicting reporting on the country of origin of glycine relating to one lost sales allegation. CR at V-16 n.3, PR at V-6. We intend to seek more information to resolve this and any related inconsistencies in any final phase of these investigations.

[110] CR/PR at Table V-2.

[111] In its notice of initiation, Commerce estimated the dumping margins for imports of subject glycine at between 5.67 to 121.62 percent for India, 70.21 to 280.57 percent for Japan, and 138.37 to 138.83 percent for Korea. 72 Fed. Reg. 20816, April 26, 2007.

[112] 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851 and 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports."). SAA at 885.

[113] 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851, 885; Live Cattle from Canada and Mexico, Inv. Nos. 701-TA-386, 731-TA-812-813 (Preliminary), USITC Pub. 3155 (Feb. 1999) at 25 n.148.

[114] U.S. production increased from *** in 2004 to *** in 2005 and then declined to *** in 2006. CR/PR at Tables III-2 and C-1.

to *** percent in 2005, then decreased to *** percent in 2006.[115] Domestic producers' U.S. shipments of glycine increased from 2004 to 2005, but declined *** in 2006 for an overall decline of *** percent from 2004 to 2006.[116] Net sales volume followed production and shipment trends, increasing from 2004 to 2005, but declining *** in 2006, for an overall decline of *** percent from 2004 to 2006.[117]

As apparent U.S. consumption increased overall by *** from 2004 to 2006, imported subject product gained U.S. market share at the expense domestic producers.[118] Domestic producers' share of the U.S. market declined from *** percent in 2004 to *** percent in 2006, while subject imports' share increased from *** percent in 2004 to *** percent in 2006.[119] Domestic producers' inventories increased by *** percent over the period of investigation and rose as a share of U.S. shipments from *** percent in 2004 to *** percent in 2006.[120]

The average number of the industry's production related workers declined *** percent over the period of investigation, from *** in 2004 to *** in 2006 and hours worked declined *** percent, from *** in 2004 to *** in 2006, while hourly wages increased *** percent, from $*** in 2004 to $*** in 2006.[121]

Despite increased prices and improvements in the industry's productivity over the period of investigation,[122] unit raw material costs rose sharply, from $*** in 2004 to $*** in 2005 and then to $*** in 2006, pushing total unit costs upward.[123] The industry reported *** in each year of the period examined. The operating *** were $*** in 2004, $*** in 2005, and $*** in 2006. The industry's ratio of operating *** to net sales was *** percent in 2004, *** percent in 2005, and *** percent in 2006.[124] [125]

For purposes of the preliminary phase of these investigations, we conclude that subject imports had an adverse impact on the condition of the domestic industry during the period of investigation. In particular, we find that the absolute and relative volume of subject imports are significant, that subject

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[115] CR/PR at Tables III-2 and C-1.

[116] U.S. shipments declined from *** in 2004 to *** in 2005 and to *** in 2006. CR/PR at Table C-1.

[117] CR/PR at Table C-1.

[118] CR/PR at Tables IV-6 and C-1.

[119] CR/PR at Table IV-6.

[120] CR/PR at Table C-1. It is not clear whether the this inventory buildup was *** (GEO's Postconference Brief, Responses to Staff Questions at 21), or the result of other factors. We intend to consider this issue further in any final phase investigations.

[121] CR/PR at Table C-1. However, ***, unit labor costs ***. Id.

[122] Unit sales values increased from $*** in 2004 to $*** in 2006, and productivity (pounds per hour) increased from *** in 2004 to *** in 2006. CR/PR at Table C-1.

[123] CR/PR at Tables VI-3, C-1.

[124] CR/PR at Table C-1.

[125] U.S. importers asserted that, during the period of investigation, GEO and/or its predecessor firm, Hampshire/DOW, lost business because they were unable to meet customer demand due to plant shutdowns, quality problems, and problems such as short shipping, unreliable deliveries, allocation, and denial of supply (abrogated contracts). It was also alleged that GEO's customers are hesitant to concentrate all their business through a sole supplier of glycine. GEO *** contracts over the period of investigation and contends that, while Hampshire/DOW had a poor record regarding reliability of service, GEO has significantly improved customer service since it purchased the Hampshire/DOW facility in November 2005. CR at III-12, PR at III-4 - III-5. We note that negative trends in the data occurred even after GEO replaced Hampshire/DOW as a producer, even though deliveries and shipments became much more reliable. CR/PR at Table III-5, Figure III-5.

We note that an importer reported that GEO, more recently, in 2007, has asked its customers to wait three months for product. GEO responded that ***. GEO's Postconference Brief, Responses to Staff Questions at 21. In any final phase investigations, we will gather further information on the domestic industry's delivery performance, especially in 2007.

imports have gained market share at the expense of the domestic industry, that they have undersold the domestic product, and have suppressed domestic prices to a significant degree. The suppressed domestic prices, combined with the pattern of consistent underselling, have led to declines in the domestic industry's financial performance over the period of investigation.

## CONCLUSION

For the reasons stated above, we find that there is a reasonable indication that the domestic industry producing glycine is materially injured by reason of subject imports of glycine from India, Japan, and Korea that allegedly are sold in the United States at less than fair value.

# SEPARATE AND ADDITIONAL VIEWS OF CHAIRMAN DANIEL R. PEARSON AND COMMISSIONER DEANNA TANNER OKUN CONCERNING BRATSK ALUMINUM V. UNITED STATES

## I. Legal Issues Concerning Bratsk Aluminum Smelter v. United States

In the recent case of Bratsk Aluminum Smelter et al. v. United States, 444 F.3d 1369 (Fed. Cir. 2006) ("Bratsk"), the Court of Appeals for the Federal Circuit reaffirmed that the requisite causal link to subject imports is not demonstrated if such imports contributed only "'minimally or tangentially to the material harm.'"[1] [2] Applying that standard to an investigation involving a commodity product, i.e., silicon metal, and the significant presence of non-subject imports, the Court held that the Commission had not sufficiently explained whether non-subject imports simply would have replaced subject imports during the period of investigation had an antidumping order been in place and continued to cause injury to the domestic industry.[3]

As a threshold matter, it is not immediately clear how the Commission should interpret the Bratsk opinion in terms of its effect on our analysis of causation in Title VII investigations. At a minimum, we can discern at least two possible interpretations which differ substantially: (1) that Bratsk mandates application of an additional test apparently not contemplated by the statute (the so-called "replacement/benefit test"), and (2) that Bratsk is a further development of the causation approach prescribed by Gerald Metals.

### A. Separate Causation Analysis – Replacement/Benefit Test

The statute sets forth specific factors for the Commission to consider in analyzing the volume, price effects and impact of subject imports. 19 U.S.C. § 1677(7). The Uruguay Round Agreements Act Statement of Administrative Action ("SAA") explains further that in analyzing causation the Commission must examine factors other than subject imports to ensure that it is not attributing injury from these sources to the subject imports, but is not required to isolate the injury caused by other factors from injury caused by unfair imports.[4] Beyond this, the statute does not provide any further limitations on how the Commission's causation analysis shall be conducted.

The Court's decision, however, states that the Commission must perform an additional "specific" causation analysis in the form of a replacement/benefit test. Using somewhat varying phrasing, the Court stated that the Commission must determine "whether non-subject imports would have replaced subject imports without any beneficial effect on domestic producers," must "explain why the elimination of subject imports would benefit the domestic industry instead of resulting in the non-subject imports' replacement of the subject imports' market share without any beneficial impact on domestic producers," and must explain "why the non-subject imports would not replace the subject imports and continue to cause injury to the domestic industry."[5]

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[1] No. 05-1213 (Fed. Cir. Apr. 10, 2006), Slip Op. at 6, quoting Gerald Metals, Inc. v. United States, 132 F.3d 716, 722 (Fed. Cir. 1997). The Commission filed a petition for rehearing en banc, which the Court denied on July 24, 2006. The Court's mandate was issued on August 7, 2006.

[2] Commissioner Okun did not participate in the underlying investigation nor the subsequent litigation.

[3] Slip Op. at 2, 9-11.

[4] H.R. Doc. No. 103-316, Vol. I (1994) at 851-52 ("SAA"); Taiwan Semiconductor Industry Ass'n v. United States, 266 F.3d at 1339, 1345 (Fed. Cir. 2001).

[5] Slip op. at 9, 12.

Such a "replacement/benefit" test is not among the statutory factors Congress has required the Commission to consider. The statutory scheme contemplates that subject imports may remain in the U.S. market after an order is imposed and even that the industry afterward may continue to suffer material injury.[6] Thus, the decision in Bratsk misconstrues the purpose of the antidumping and countervailing duty laws, which is not to bar subject imports from the U.S. market or award subject import market share to U.S. producers, but instead to "level competitive conditions" by imposing a duty on subject imports at a level to offset the amount of dumping or subsidization and thus enabling the industry to compete against fairly traded imports.[7] It is not uncommon for subject imports to remain in the U.S. market in significant quantities even after the issuance of an antidumping or countervailing duty order, as shown by the hundreds of millions of dollars in antidumping and countervailing duties collected every year.

Bratsk, therefore, appears to require that the Commission apply an extra-statutory causation test with respect to non-subject imports and to determine that the domestic industry will benefit from the antidumping duty or countervailing duty order. We respectfully disagree with the Court that such a causation analysis is legally required.[8] However, given that the Federal Circuit's mandate has now been issued and the decision has become binding precedent, we discuss infra our interpretation of the Bratsk standard and perform the analysis based on the record in these preliminary investigations.[9]

### B. Gerald Metals Causation Analysis

Alternatively, we also find support for interpreting the Bratsk decision to be reminding the Commission of its obligation under Gerald Metals that the Commission may not satisfy the "by reason of" causation requirement by showing that subject imports contributed only "minimally or tangentially to the material harm."[10]

This may be a reasonable interpretation of the Bratsk decision as the Court noted that the "sole point of contention in this appeal is whether the Commission established that the injury to the domestic industry was 'by reason of' the subject imports."[11] In explaining its conclusion, the Court emphasized

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[6] SAA at 851-52, 885, 889-90. The Commission has indicated that the possibility that an order might not be effective does not preclude a finding of present material injury. The Commission also has concluded that the statute does not provide for the Commission to perform an additional injury test to predict the future effectiveness of import relief:

> {W}e note that nothing in the statute or case law requires (or allows) us to consider the likely effectiveness of a dumping order in making our injury determination. The possibility that non-subject imports will increase in the future after an antidumping order is imposed is . . . not relevant to our analysis of whether subject imports are currently materially injuring the industry.

Wooden Bedroom Furniture From China, Inv. No. 731-TA-1058 (Final), USITC Pub. 3743, n.222 (Dec. 2004).

[7] Huaiyin Foreign Trade Corp. v. United States, 322 F.3d 1369, 1380 (Fed. Cir. 2003).

[8] The Commission set out in detail its objections to the Court's decision in its petition for rehearing to the Federal Circuit. See Petition for Rehearing en Banc (May 25, 2006), Bratsk Aluminum Smelter et al. v. United States, 444 F.3d 1369 (Fed. Cir. 2006)(No. 05-1213) (petition denied July 24, 2006). As noted above, Commissioner Okun did not participate in that proceeding.

[9] While it is not an issue in these investigations, it is unclear whether the Court intended its approach to apply to analyses of threat of material injury, or only to analyses of present material injury. Given that one of the Court's formulations of the standard is framed in terms of likely future events, we have interpreted the Court's decision as applying both to the context of present injury and threat of injury.

[10] Gerald Metals, 132 F.3d at 722.

[11] Slip op. at 5.

that the Commission had "dismissed" Gerald Metals as being factually distinguishable,[12] extensively explained its holdings in Gerald Metals and Taiwan Semiconductor,[13] and noted that the underlying investigation in Bratsk "revealed the same conditions that triggered the additional causation inquiry in Gerald Metals and Taiwan Semiconductor."[14] Further, the Court noted that

> Gerald Metals thus requires the Commission to explain why – notwithstanding the presence and significance of the non-subject imports – it concluded that the subject imports caused material injury to the domestic industry. While there may be support for the Commission's ultimate determination of material injury in the record here, we find that the Commission did not sufficiently explain its decision in this regard.[15]

Therefore, the Court may not have been creating a new extra-statutory causation test, but rather was simply reminding the Commission of its existing obligation under Federal Circuit precedent. In other words, the Bratsk Court's relatively short discussion of the underlying determination may not have established a new and rigid replacement/benefit test. Rather, the Court may have discussed the triggering factors (i.e., commodity product and price-competitive non-subject imports) and the replacement/benefit factors (i.e., whether non-subject imports would have replaced the subject imports without any beneficial effect on domestic producers)[16] as a reminder that the Commission, before it makes an affirmative determination, must satisfy itself that it has not attributed material injury to factors other than subject imports.

The statute requires the Commission to determine whether the domestic industry is "materially injured by reason of" the unfairly traded imports.[17] Thus, the Commission must evaluate the effects of the unfairly traded imports on the domestic industry in order to determine if those imports are causing material injury. In most investigations, there are other economic factors that also may be causing injury to the domestic industry. The statute's legislative history states that the Commission "will consider information which indicates that harm is caused by factors other than less-than-fair-value imports."[18] While the statute is clear that the Commission is not to weigh or prioritize the factors that are independently causing material injury,[19] the Commission cannot assign the cause of material injury to factors other than subject imports. Under this interpretation, the reference in Bratsk to "whether non-subject imports would have replaced subject imports without any beneficial effect on domestic producers" could be asking the Commission to interpret "benefit" to mean that if the subject imports are indeed causing harm, then the removal of the unfairly traded imports should "benefit" the domestic industry, but if the removal of the unfairly traded imports would not benefit the domestic industry, the injury must be attributable to other factors. Thus, the Commission must analyze the effects of the unfairly traded imports in a way that enables the Commission to conclude that it has not attributed the effects of other factors to the subject imports.

If this interpretation of Bratsk is correct, then we concur with the Federal Circuit that the Commission is required to identify and assess the competitive effects of subject imports to ensure that

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[12] Slip op. at 5.

[13] Slip op. at 6-9.

[14] Slip op. at 9.

[15] Slip op. at 10.

[16] Slip op. at 9.

[17] 19 U.S.C. § 1673d(b).

[18] S. Rep. No. 249, 96th Cong., 1st Sess. 46-47 (1979).

[19] S. Rep. No. 249, 96th Cong., 1st Sess. 74 (1979); H.R. Rep. No. 317, 96th Cong., 1st Sess. 46-47.

they contribute more than "minimally or tangentially to the material harm" of the domestic industry. To the extent that we had the relevant information, this analysis was included in the Commission's causation analysis. We will re-examine this in any final phase of these investigations once the Commission has collected further relevant information (e.g., information about the market from purchasers).

## II. Under the Bratsk Replacement/Benefit Test, Non-subject Imports Likely Would Not Negate the Beneficial Effect of an Order on Subject Imports from India, Japan, and Korea

Having found that there is a reasonable basis to determine that an industry in the United States is materially injured by reason of subject imports from India, Japan, and Korea we now must assess whether the facts of these investigations trigger a Bratsk analysis under the "replacement/benefit test" interpretation of Bratsk. Based on the record, we conclude that Bratsk is triggered, but that non-subject imports likely would not negate the beneficial effect of the orders on subject imports from India, Japan, and Korea.

### A. Analysis

#### 1. Triggering Factors

The petitioner asserts that glycine is a commodity product.[20] Petitioner further contends that within each grade, glycine is fungible regardless of where the product is manufactured.[21] Pharmaceutical grade glycine is produced to customer specifications which may limit the interchangeability between pharmaceutical grade glycine and other grades of glycine.[22] However, technical and USP grade glycine account for the vast majority of the U.S. production and virtually all reported imports.[23] Thus, based on the information available in these preliminary investigations, we find that the domestic like product, subject imports, and non-subject imports of glycine are generally commodity products.

With respect to the second factor, whether price competitive non-subject imports are a significant factor in the U.S. market, the record in these preliminary investigations indicates that non-subject imports were present throughout the period of investigation and that the volume of non-subject imports has increased. Non-subject import volume was approximately 2.0 million pounds in 2004, 2.2 million pounds in 2005, and 2.6 million pounds in 2006.[24] Non-subject imports accounted for 39.2 percent of total imports in 2004, 28.5 percent in 2005, and 28.6 percent in 2006.[25] Thus, the volume of non-subject imports exceeded the volume of subject imports from Korea in 2006 and was comparable to the volume of subject imports from India and Japan, respectively.[26]

Non-subject imports from China represent an increasing share of non-subject import volume. China's share of non-subject imports increased from approximately 27.1 percent in 2004 to 84.7 percent in 2006.[27] China's share of total imports also increased from 10.6 percent in 2004 to 24.3 percent in 2005

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[20] GEO postconference brief at 1 and conference transcript at 13, 14 (Mr. Reilly) and 16 (Ms. Jackson).

[21] GEO postconference brief at 2.

[22] CR at II-8, PR at II-5.

[23] CR/PR at Table III-4 and Table IV-3.

[24] CR/PR at Table IV-2.

[25] CR/PR at Table IV-2.

[26] The major sources of non-subject imports are Belgium and China. Imports from China are currently subject to an antidumping duty order.

[27] Calculated from CR/PR at Table IV-2.

and 2006.[28] China's share of total imports in 2006 exceeded that of subject imports from Korea and was only slightly lower than subject imports from India and Japan, respectively. Moreover, both domestic producers have cited the negative impact that imports from China have had on the domestic industry.[29] Thus, for purposes of these preliminary determinations, we find that non-subject imports of glycine are at significant levels and are a "significant factor" in the U.S. market.[30]

As to whether non-subject imports are price competitive, the Commission requested product-specific price data on imports from China in its importers' questionnaires. The Commission received price data that accounted for approximately 60.7 percent of non-subject imports from China in 2006. *** of these price data are for Product 2, USP grade glycine. USP grade glycine accounts for approximately 80 to 85 percent of the total U.S. glycine market.[31] Based on these data, non-subject imports from China undersold the domestic like product in seven out of the eight possible comparisons.[32] Further, the prices of non-subject imports from China were lower than the prices of subject imports from India and Japan in twelve out of sixteen possible comparisons. The prices of non-subject imports from China exceeded the prices of subject imports from Korea in every comparison. The average unit value of non-China, non-subject imports exceeded the average unit value of domestic shipments in each year of the period examined, although average unit values are impacted by differences in product mix. Thus, for purposes of these preliminary determinations, we determine that non-subject imports of glycine are price-competitive.

### 2. Replacement/Benefit Factors

Having determined that the Bratsk test is triggered, we now analyze whether non-subject imports are likely to replace subject imports and continue to cause injury to the domestic industry. The record in these preliminary investigations indicates that the market share of non-subject imports increased irregularly from *** percent in 2004 to *** percent in 2006.[33] The market share of non-subject imports from China increased steadily from *** percent in 2004 to *** percent in 2006.[34] As noted above, non-subject imports from China accounted for a substantial majority of total non-subject imports in 2006. Petitioner contends that issuance of the orders would have little impact on the role that non-subject imports play in the market.[35] Petitioner contends that since the issuance of the antidumping duty order on China the volume of imports from China in the U.S. market has diminished. However, Petitioner's arguments are premised on inaccurate data with regard to the volume of imports from China.[36] Petitioner further contends that the discipline of the existing antidumping duty order on imports from China will limit the impact those imports have on the U.S. market.[37] Petitioner additionally argues that Baoding Mantong, one of the two main suppliers of imports from China, is ***.[38] Petitioner asserts that the other

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[28] CR/PR at Table IV-2.

[29] Conference transcript at 9 (Mr. Eckman), 66 (Mr. Eckman and Mr. Kedrowski), and 68 (Ms. Johnson).

[30] Although Petitioner has argued that non-subject import volume may not be a significant factor, it did so based on inaccurate data for the volume of non-subject imports which significantly understated the volume and market share of non-subject imports. GEO's postconference brief, response to staff questions at 10 and 11.

[31] CR/PR at Tables III-4, IV-3.

[32] CR/PR at Table V-2.

[33] CR/PR at Table IV-5.

[34] CR/PR at Table IV-5.

[35] GEO's postconference brief, response to staff questions at 10.

[36] GEO's postconference brief, response to staff questions at 10.

[37] GEO's postconference brief, response to staff questions at 11.

[38] GEO's postconference brief, response to staff questions at 11.

main supplier of imports from China, Nantong Dongchang now faces an antidumping duty margin of 75.82 percent, which will force it to increase prices to a point where it cannot increase its market share.[39]

China is believed to be the largest producer of glycine in the world. The most recent estimates available to the Commission indicate that China has the capacity to produce 50 million pounds of glycine per year.[40] Imports from the Chinese producer Nantong Dongchang accounted for *** of the volume of imports from China during the 2004-06 period. Imports from Nantong Dongchang had been subject to a duty deposit rate of 18.6 percent from 2001 through 2006.[41] In April 2007, the Department of Commerce published a preliminary revised antidumping duty deposit rate for Nantong Dongchang of 75.82 percent.[42] Thus, the competitive conditions faced by the largest supplier of imports from China may change significantly. The Commission lacks current data on the capacity and capacity utilization for all but one producer in China.

Although non-subject imports from China have increased both absolutely and relative to consumption, total non-subject import volume and market share has increased only slightly. The average unit value of all non-subject imports exceeded the average unit value of domestic shipments and the price of imports from China exceeded the price of subject imports from Korea. The largest supplier of imports from China may face significantly different conditions in the U.S. market and the only current information available to the Commission on capacity and capacity utilization in China shows that it has little ability to increase production. Therefore, for purposes of these preliminary determinations we determine that non-subject imports would not negate any benefit to the domestic industry from the imposition of the orders.

[39] GEO's postconference brief, response to staff questions at 11.

[40] CR at VII-13, PR at VII-8.

[41] CR at VII-13, PR at VII-8.

[42] CR at VII-13, PR at VII-8.

# PART I: INTRODUCTION

## BACKGROUND

These antidumping duty investigations result from a petition filed by GEO Specialty Chemicals, Inc. ("GEO"), Lafayette, Indiana, on March 30, 2007, alleging that an industry in the United States is materially injured and threatened with material injury by reason of less-than-fair-value ("LTFV") imports of glycine from India, Japan, and Korea. Information relating to the background of these investigations is provided below.[1]

| Effective date | Action |
|---|---|
| March 30, 2007 | Petition filed with Commerce and the Commission; institution of the Commission's investigations (72 FR 17580, April 9, 2007) |
| April 20, 2007 | Commission's conference[1] |
| April 26, 2007 | Commerce's notice of initiation (72 FR 20816, April 26, 2007) |
| May 11, 2007 | Commission's vote |
| May 14, 2007 | Commission's determinations transmitted to Commerce |
| May 21, 2007 | Commission's views transmitted to Commerce |

[1] A list of witnesses appearing at the conference is presented in app. B.

## STATUTORY CRITERIA AND ORGANIZATION OF REPORT

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

> *shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.*

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

> *In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant.*
> . . .

[1] *Federal Register* notices cited are presented in app. A.

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

. . .

*In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to*

. . .

*(I) actual and potential declines in output, sales, market share, profits, productivity, return on investments, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.*

*Part I* of this report presents information on the subject merchandise, alleged dumping margins, and domestic like product. *Part II* of this report presents information on conditions of competition and other relevant economic factors. *Part III* presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. *Parts IV and V* present the volume and pricing of imports of the subject merchandise, respectively. *Part VI* presents information on the financial experience of U.S. producers. *Part VII* presents the statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury.

## U.S. MARKET SUMMARY

Trade for glycine totaled approximately $*** million (*** million pounds) in the U.S. market in 2006. Currently, only two firms produce glycine in the United States: GEO and Chattem Chemicals, Inc. ("Chattem").

U.S. producers' U.S. shipments of glycine totaled $*** million (*** million pounds) in 2006, and accounted for *** percent of apparent U.S. consumption by value. U.S. imports from subject sources totaled $8.1 million (6.4 million pounds) in 2006 and accounted for *** percent of apparent U.S. consumption by value. U.S. imports from nonsubject sources totaled $3.5 million (2.6 million pounds) in 2006 and accounted for *** percent of apparent U.S. consumption by value. Glycine is used as a food additive (*e.g.* sweetener and buffering agent in pet foods), as a cosmetic additive (*e.g.* buffering agent in antiperspirant actives), in pharmaceutical applications (*e.g.* within intravenous liquid drug applications, or in the manufacture of pills), and in metal finishing (*e.g.* reactant used in bath to prepare metal for adhesion with silicone), among others.

## SUMMARY DATA AND DATA SOURCES

Appendix C presents a summary of data collected in these investigations. In this report, data on the U.S. industry are based on responses to the Commission's questionnaires from the U.S. producers of glycine. U.S. imports are based on official Commerce statistics with modifications.[2] Additional data on U.S. importers' shipments are based on responses to the Commission's questionnaires from U.S. importers of glycine. Data on the glycine industries in India, Japan, and Korea are based on responses to the Commission's questionnaires from producers of glycine in those countries.

## PREVIOUS AND RELATED INVESTIGATIONS

Chattem Drug and Chemical Co., the forerunner of today's Chattem, filed an antidumping petition in 1968 against imports of glycine from Japan, France, the Federal Republic of Germany, and the Netherlands. The Department of Treasury found no sales at LTFV from the Federal Republic of Germany or the Netherlands, and issued a negative determination concerning Japan on the basis of the Japanese exporter's agreement to discontinue LTFV sales. Antidumping duties were imposed on imports of glycine from France following an affirmative injury determination by the Commission. That finding was revoked in 1979.[3]

In 1994, Hampshire Chemical Corp. (predecessor company to GEO) and Chattem Inc., filed an antidumping petition against imports of glycine from China. Following affirmative determinations of LTFV sales and injury to the domestic industry, antidumping duties were imposed on March 29, 1995.[4] In the 2000 and 2005 five-year reviews of the dumping order, the Commission determined that revocation of the antidumping duty 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, and Commerce published notices of continuation of the antidumping duty order.[5] The antidumping duty rates for imports from China during the period of this investigation were as follows: 18.60 percent *ad valorem* for Nantong Dongchang Chemical Industry Corp.,[6] 2.95 percent *ad valorem* for Baoding Mantong Fine Chemistry Co., Ltd. after September 13, 2005,[7] and 155.89 percent *ad valorem* all other companies.[8]

## NATURE AND EXTENT OF ALLEGED SALES AT LTFV

On April 26, 2007, the Commission received notification of Commerce's initiation of antidumping duty investigations concerning glycine from India, Japan, and Korea. The alleged dumping

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[2] *See* Part IV of this report for a complete discussion of the treatment of U.S. import data.

[3] *Aminoacetic Acid (G1ycine) fiom France, Inv. No. AA1921-61*, Pub. 313 (Feb. 1970), 34 F.R. 18559 (1969); 35 F.R. 4676 (1970); 35 F.R. 5009 (1970); 44 F.R. 12417 (1979).

[4] 60 FR 16116, March 29, 1995.

[5] *Continuation of Antidumping Duty Orders: Glycine from* China, 65 FR 45752, July 25, 2000, and 70 FR 69316, November 15, 2005.

[6] 70 FR 54012, September 13, 2005.

[7] 66 FR 13204, March 5, 2001.

[8] 70 FR 54012, September 13, 2005. Baoding Mantong had been subject to the all other companies rate of 155.89 percent *ad valorem* prior to requesting an administrative review of its shipments. The preliminary administrative review for Baodink Mantong was published in April 2005. 70 FR 17649, April 7, 2005.

margins for subject producers are 5.67 to 121.62 percent for producers in India, 70.21 to 280.57 percent for producers in Japan, and 138.37 to 138.83 percent for producers in Korea.[9]

## THE SUBJECT PRODUCT

### Commerce's Scope

Commerce has defined the imported product subject to these investigations as:[10]

*{G}lycine, which in its solid (i.e., crystallized) form is a free–flowing crystalline material. Glycine is used as a sweetener/taste enhancer, buffering agent, reabsorbable amino acid, chemical intermediate, metal complexing agent, dietary supplement, and is used in certain pharmaceuticals. The scope of each of these investigations covers glycine in any form and purity level. Although glycine blended with other materials is not covered by the scope of each of these investigations, glycine to which relatively small quantities of other materials have been added is covered by the scope. Glycine's chemical composition is $C_2H_5NO_2$ and is normally classified under subheading 2922.49.4020 of the Harmonized Tariff Schedule of the United States (HTSUS).*

*The scope of each of these investigations also covers precursors of dried crystalline glycine, including, but not limited to, glycine slurry (i.e., glycine in a non–crystallized form) and sodium glycinate. Glycine slurry is classified under the same HTSUS subheading as crystallized glycine (2922.49.4020) and sodium glycinate is classified under subheading HTSUS 2922.49.8000.*[11]

### U.S. Tariff Treatment

Imports of glycine are entered under statistical reporting number 2922.49.4020 of the Harmonized Tariff Schedule of the United States ("HTS"). Commerce's scope includes sodium glycinate which is properly classified under statistical reporting number 2922.49.8000, which is a residual or "basket" category of merchandise. As such, official Commerce statistics for that HTS reporting number were not used for data compilation purposes in this report. During the course of these investigations, it was found that one U.S. importer reported importing subject merchandise inappropriately, under the statistical reporting number 2922.49.1000 of the HTS.[12] Table I-1 presents data on the current tariff rates of the subheadings identified above.

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[9] *Glycine from India, Japan, and the Republic of Korea: Initiation of Antidumping Duty Investigations*, 72 FR 20816, April 26, 2007.

[10] Ibid.

[11] The scope of these investigations differs from the scope of the current antidumping duty order on imports of glycine from China, as the precursors of dried crystalline glycine (e.g., glycine slurry and sodium glycinate) are not included in that order. *Continuation of Antidumping Duty Orders: Glycine from China*, 65 FR 45752, July 25, 2000, and 70 FR 69316, November 15, 2005.

[12] Staff telephone interview with ***, April 24, 2007. Materials properly classified under statistical reporting number 2922.49.1000 of the HTS are certain aromatic oxygen-function amino-compounds other than those containing more than one kind of oxygen function, and their esters, such as (i) *m*-Aminobenzoic acid, technical; (ii) *p*-Aminobenzoic acid; (iii) 1,5-Diaminobenzoic acid; (iv) 2-Ethylamino-5-sulfobenzoic acid; (v) 3-(*N*-Ethylanilino) propionic acid, methyl ester; (vi) ß-(ß-Methoxy- ethoxyethyl)-4-aminobenzoate; (vii) Myethyl anthranilate; and (viii) *I*-Phenylalanine.

**Table I-1**
**Glycine: HTS rates, 2006**

| HTS provision | Article description | General | Special | Column 2 |
|---|---|---|---|---|
| | | Rates (*percent ad valorem*) | | |
| 2922 | Oxygen-function amino-compounds: | | | |
| 2922.49 | Amino-acids, other than those containing more than one kind of oxygen function, and their esters; salts thereof (con.): | | | |
| | Other: | | | |
| | Other: | | | |
| 2922.49.40 | Amino acids . . . . . | 4.2 | ([1]) | 25 |
| 2922.49.4020 | Glycine (aminoacetic acid) | | | |
| 2922 | Oxygen-function amino-compounds: | | | |
| 2922.49 | Amino-acids, other than those containing more than one kind of oxygen function, and their esters; salts thereof (con.): | | | |
| | Other: | | | |
| | Other: | | | |
| | Other: | | | |
| 2922.49.8000 | Other . . . . . | 3.7 | ([1]) | 25 |

[1] Certain nonsubject countries qualify for duty free rates either within the U.S. Generalized System of Preferences ("GSP") program or as negotiated in a free trade agreement with the United States.

Source: HTS (2006).

## THE DOMESTIC LIKE PRODUCT

The Commission's determination regarding the appropriate domestic product that is "like" the subject imported product is based on a number of factors, including (1) physical characteristics and uses; (2) common manufacturing facilities and production employees; (3) interchangeability; (4) customer and producer perceptions; (5) channels of distribution; and, where appropriate, (6) price.

Petitioner contends that there is a single domestic like product consisting of glycine, regardless of grade.[13] No parties have challenged petitioner's definition of the domestic like product.

[13] Petition, pp. 15-16. In its original and review investigations of glycine from China, the Commission defined the domestic like product as glycine of all purity levels, coextensive with Commerce's scope. *Glycine from China, Inv. No 731-TA-718 (Final),* USITC Publication 2863, March 1995, p. I-6; *Glycine from China, Inv. No 731-TA-718 (Review),* USITC Publication 3315, June 2000, p. 4; and *Glycine from China, Inv. No 731-TA-718 (Second Review),* USITC Publication 3810, October 2005, p. 4.

## Physical Characteristics and Uses

Glycine, also know as aminoacetic acid, is an organic chemical with the chemical formula $NH_2CH_2COOH$. The Chemical Abstract Service ("CAS") number for glycine is 56-40-6. Figure I-1 presents the chemical structure of the glycine molecule.

**Figure I-1**
**Glycine: Chemical structure**


Source: www.daviddarling.info/encyclopedia/G/glycine.html

Glycine is a nonessential amino acid that is produced naturally by humans and other organisms as a building block for proteins. Commercial production of glycine uses traditional chemical synthesis.[14] In its dried form, which is the form that it is most often sold in, glycine is a white, free-flowing powder.[15] Glycine is odorless and sweet to the taste.[16]

Glycine is typically sold in three main grades: pharmaceutical, USP,[17] and technical. The glycine in these grades is chemically identical; the grades differ by the kind and amounts of impurities in the product. Pharmaceutical grade is sold for uses where the highest purity is required, such as in intravenous injections.[18] The USP grade standard is stricter than the technical grade standard. USP grade sets maximum allowable concentration for impurities, such as arsenic, heavy metals, and chlorides, that are either less strict or not specified for technical grade glycine.[19] USP grade glycine is typically used for cosmetic and food applications, while technical grade glycine is used for industrial applications. Some customers have even stricter requirements for the purity of glycine than those included in the USP standard. A typical product that requires greater purity than the USP grade is glycine used in intravenous injections, which requires lower levels of chlorides and metals such as aluminum.[20] These higher purity

[14] Petition, p. 10.

[15] Ibid.

[16] Ibid.

[17] The United States Pharmacopeia ("USP") is the official public standards-setting authority for all prescription and over-the-counter medicines, dietary supplements, and other healthcare products manufactured and sold in the United States. USP grade glycine conforms to the standards set by USP. Petition, p. 4 and http://www.usp.org/aboutUSP/ (retrieved April 24, 2007).

[18] Petition, p. 5.

[19] Petition, pp. 5-6.

[20] Conference transcript, p. 50 (Eckman) and staff field trip notes, GEO, April 12, 2007.

products are often referred to as "pharmaceutical grade" glycine, but the purity standards for these products are set by individual customers, not by government or industry organizations.[21]

Because of the sweetness of glycine, it is used as a sweetener and flavor enhancer in food, beverage, and pharmaceutical products. Glycine is used to sweeten soft drinks, juice concentrates, and other beverages.[22] Manufacturers of medicaments and personal care products, such as mouthwash and toothpaste, use glycine to mask the bitter taste of some active ingredients.[23] Glycine is used to enhance the flavor of animal feeds, both those for household pets and those for livestock.[24] USP grade glycine is required for products made for human or animal consumption.[25]

Glycine is used as a buffering agent in certain products and manufacturing processes to maintain a stable pH.[26] In antacids and analgesics, glycine helps to reduce the acidity of the digestive tract.[27] In personal care products, such as antiperspirants and cosmetics, glycine is used to reduce the acidity of other ingredients.[28] Technical grade glycine is used as buffer in the production of foam rubber sponges.[29]

Glycine can be used as a starting material for producing other organic chemicals or in metal finishing. USP grade glycine is typically used in the production of other amino acids and pharmaceuticals. Technical grade glycine is used in metal finishing to brighten metal surfaces or to enhance the adhesion of rubber to a surface.

USP grade glycine can be used in over-the-counter dietary supplements, also called nutraceuticals.[30] Promoters of these supplements claim that glycine can increase the strength and flexibility of connective tissue, regulate blood sugar levels, and stimulate muscle growth.[31] Pharmaceutical manufacturers use USP grade glycine to promote the gastric absorption of certain drugs such as aspirin, and to treat diarrhea in humans and animals.[32]

According to conference testimony, there are no ready substitutes for glycine in any of its applications.[33] Glycine typically accounts for a small amount of the price of the final product.[34]

Glycine is typically packaged and sold in plastic bags weighing from 50 to 2,000 pounds. These bags are placed on pallets and shipped by truck. Each package of glycine is accompanied by a certificate of analysis that gives the levels of moisture and impurities in the product.[35]

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[21] Petition, p. 5, and staff field trip notes, GEO, April 12, 2007.

[22] Petition, p. 11.

[23] Ibid.

[24] Staff field trip notes, GEO, April 12, 2007.

[25] Petition, p. 11.

[26] pH is a measure of the acidity or alkalinity of a substance.

[27] Petition, p. 11.

[28] Ibid.

[29] Petition, p. 12.

[30] Conference transcript, p. 64 (Eckman).

[31] Petition, p. 12.

[32] Petition, pp. 12-13.

[33] Conference transcript, pp. 13-14 (Reilly).

[34] Conference transcript, p. 14 (Reilly). Although *** reported that lysine could be used as a substitute in pet food applications. *** questionnaire response, question IV-13.

[35] ***. Staff field trip notes, GEO, April 12, 2007.

## Manufacturing Processes

There are two known processes for the commercial production of glycine: the hydrogen cyanide ("HCN") process and the monochloroacetic acid ("MCA") process. Both of these processes can be used to produce both technical and USP grades of glycine. The petitioner uses the HCN process, while the other domestic producer, Chattem, uses the MCA process. The process used by producers in India, Japan, and Korea is not definitely known, but according to conference testimony, most producers in these countries likely use the MCA process, with the known exception being Showa Denko in Japan that uses the HCN process.[36]

The HCN process uses hydrogen cyanide and formaldehyde ($H_2CO$) as the primary starting materials. These chemicals are mixed with aqueous ammonia ($NH_4OH$) in the first reaction step of the process. The reaction product from this first step is then reacted with caustic soda (NaOH) to produce sodium glycinate.[37] A co-product, ammonia, is boiled off during this latter step and is recovered as aqueous ammonia in a scrubber. Most of the aqueous ammonia is recycled to feed the first reaction step, but a small amount is available to be sold.[38]

To convert sodium glycinate to glycine, the sodium glycinate is first mixed with an acid, such as sulfuric acid ($H_2SO_4$). In addition to glycine, this step produces the sodium salt of the acid that is used. For example, if sulfuric acid is used, sodium sulfate ($Na_2SO_4$) is produced.[39] The removal of the sodium sulfate, or other salt, to produce pure glycine is an energy intensive process but does not require great technical expertise.[40] The aqueous solution containing glycine and sodium sulfate is heated to the boiling point of water. This step concentrates the solution and causes the sodium sulfate to crystalize. The sodium sulfate crystals are filtered out of the glycine solution and ***.[41] The glycine solution then goes through one or more crystallization and filtration steps to produce a pure white, glycine powder.[42]

For the MCA process, the primary feedstocks are monochloroacetic acid ($ClCH_2COOH$) and ammonia. These feedstocks are mixed together in the presence of a catalyst to produce glycine.[43] According to conference testimony, the MCA process is the less economical process in terms of operating cost due to higher raw material cost.[44] However, the capital costs for the HCN process are higher than for the MCA process.[45] Sodium glycinate is not produced as a precursor to glycine in the MCA process.[46]

Operators of both processes strive to make USP grade material at all times. However, during startup, and occasional upsets in the process, the purity of the product may fall below the standard for USP grade glycine. This material is set aside for sale to technical grade end users. To make the highly pure glycine used in intravenous injections and other pharmaceutical applications, even stricter operating requirements and monitoring are necessary than for the USP grade. For example, any water used in the

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[36] Conference transcript, pp. 18-19 (Kedrowski).

[37] Staff field trip notes, GEO, April 12, 2007.

[38] Ibid.

[39] Ibid.

[40] Conference transcript, p. 29 (Husisian).

[41] Staff field trip notes, GEO, April 12, 2007.

[42] Ibid.

[43] *Glycine from The People's Republic of China, Inv. No. 731-TA-718 (Preliminary)*, USITC Publication 2804, August 1994, p. II-4.

[44] Conference transcript, p. 60 (Kedrowski).

[45] Ibid.

[46] Conference transcript, p. 62 (Kedrowski).

process must be purified and tested to ensure that it does not contain any toxins from microorganisms that might induce a fever in a patient.[47] ***.

### Interchangeability and Customer and Producer Perceptions

U.S. producers of glycine generally report that the U.S.-produced and imported product were frequently or sometimes interchangeable and that interchangeability was greater for technical and USP grades than for the pharmaceutical grade. In contrast, all importers reported U.S.-produced glycine and subject imports were always interchangeable. More detailed information on interchangeability can be found in Part II of this report, *Conditions of Competition in the U.S. Market.*

### Channels of Distribution

Both U.S. producers and U.S. importers reported selling most of their product to end users of glycine. In 2006, U.S. producers reported selling approximately *** percent of their product to end users while importers reported selling approximately 85 percent of their product to end users. Additional information on channels of distribution can be found in Part II of this report, *Conditions of Competition in the U.S. Market.*

The petitioner indicated that the market for glycine is concentrated among a few high volume end users.[48] While data are not gathered directly from purchasers in preliminary phase antidumping investigations, some data on the concentration of U.S. purchasers were available in responses to the Commission's U.S. producers' and U.S. importers' questionnaires. Table I-2 presents these data on the concentration of purchasers in the U.S. glycine market.

**Table I-2**
**Glycine: U.S. producers' and importers' five largest customers, 2006**

| Firm | End use[1] | Share of U.S. shipments in 2006 (*percent*) |
|---|---|---|
| *** | Animal feed | *** |
| *** | Antiperspirants | *** |
| *** | Pet food | *** |
| *** | Antiperspirants | *** |
| *** | Antiperspirants | *** |
| Subtotal | | 75.8 |

[1] In a submission from ***, on May 2, 2007, U.S. producer Chattem estimates that total U.S. demand for glycine is *** pounds per year, of this *** for pet food, *** percent for antiperspirants, *** percent for animal feed, *** percent for pharmaceuticals, and *** percent for either industrial applications or resale through distributors.

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

### Price

Table I-3 and figure I-2 present average unit values for U.S. shipments of glycine in the United States from various sources. Pricing practices and prices reported for glycine in response to the Commission's questionnaires are presented in Part V of this report, *Pricing and Related Information.*

[47] Conference transcript, pp. 27 and 62 (Kedrowski).

[48] Conference transcript, p. 14 (Reilly) and p. 101 (Husisian).

**Table I-3**
**Glycine: Average unit values of U.S. shipments, by source, 2004-06**

| Item | Calendar year | | |
|---|---|---|---|
| | 2004 | 2005 | 2006 |
| | Unit value (*per pound*) | | |
| U.S. producers' U.S. shipments | $*** | $*** | $*** |
| U.S. importers' U.S. shipments of glycine imported from-- | | | |
| India | *** | *** | *** |
| Japan | *** | *** | *** |
| Korea | *** | *** | *** |
| Average, subject sources | 1.38 | 1.55 | 1.46 |
| All other sources | *** | *** | *** |
| Average, all sources | *** | *** | *** |

Note.--Data coverage of U.S. shipments of glycine imported from subject sources is very high (at 91.6 percent of imports from India, 90.9 percent from Japan, and 98.6 percent from Korea), while data coverage on U.S. shipments of glycine imported from nonsubject sources is much lower (between 37 and 39 percent).

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

**Figure I-2**
**Glycine: Average unit values of U.S. shipments, by source, 2004-06**

* * * * * * *

## Issues in a Semi-Finished Product Analysis

As defined by Commerce's scope, the petitioner contends that glycine's precursor products should be included within a single domestic like product definition based on a semi-finished product analysis.[49] In a semi-finished product analysis, the Commission examines the following factors: (1) whether the upstream article is dedicated to the production of the downstream article or has independent uses; (2) whether there are perceived to be separate markets for the upstream and downstream articles; (3) differences in the physical characteristics and functions of the upstream and downstream articles; (4) differences in the costs or value of the vertically differentiated articles; and (5) significance and extent of the processes used to transform the upstream into the downstream articles.

No data were reported in response to Commission questionnaires with respect to trade or shipments of sodium glycinate. Further, because imports of sodium glycinate are properly entered under a residual or "basket" HTS number, no additional information is available from official Commerce statistics.

[49] Petition, pp. 15-16 and petitioner's postconference brief, response to staff questions, pp. 1-3.

**Dedicated Production**

Sodium glycinate is an intermediate product in the production of glycine using the HCN production process.[50] No respondent to Commission questionnaires, whether U.S. producer, U.S. importer, or foreign manufacturer, indicated a use other than as a precursor in the production of glycine, the downstream article.

**Separate Markets**

Sodium glycinate has no known markets. No firm responding to Commission questionnaires, either producer, importer, or foreign manufacturer, reported any trade or market for sodium glycinate.

**Differences in Characteristics and Functions**

Sodium glycinate, which has the chemical formula $NH_2CH_2COO^- Na^+$, is closely related to glycine and is the precursor to glycine in at least one of the commercial production processes.[51] It may be possible to use sodium glycinate in some of the same applications as glycine, but sodium glycinate is primarily used to produce glycine.[52]

**Differences in Costs or Value**

Since sodium glycinate is not commercially traded and is only "internally consumed" in the production of glycine, market prices do not exist for this product. U.S. producers, however, provided estimates of the percentage of their total costs for the production of glycine of which the conversion of sodium glycinate to glycine accounted. The conversion of sodium glycinate into glycine accounted for approximately *** percent of GEO's total cost of glycine production.[53] Chattem uses the MCA production process and, as such, sodium glycinate is not an intermediate product in their production of glycine.[54]

**Significance of Transformation**

Sodium glycinate already contains within its chemical composition ($NaC_2H_4NO_2$) the glycine amino acid ($C_2H_5NO_2$). Testimony at the staff conference indicated that the conversion of sodium glycinate into glycine is not a complicated process and would amount to essentially "washing the sodium out."[55] GEO in its U.S. producers' questionnaire response indicated in more technical terms what the conversion involves: ***.[56]

[50] Petition, pp. 13-14.

[51] Petition, p. 10 and staff field trip notes, GEO, April 12, 2007.

[52] Petition, p. 10 and conference transcript, p. 28 (Husisian).

[53] GEO's U.S. producers' questionnaire response, question II-18.

[54] Chattem's U.S. producers' questionnaire response, question II-18.

[55] Conference transcript, p. 30 (Kedrowski).

[56] GEO's U.S. producers' questionnaire response, question II-18.

# PART II: CONDITIONS OF COMPETITION IN THE U.S. MARKET

## MARKET CHARACTERISTICS

U.S. producers sell glycine to three main markets, based on the level of purity required. The highest purity form and smallest share of the U.S. market is pharmaceutical grade, which is required for intravenous injections. Pharmaceutical grade is a subset of the USP grade. USP grade other than pharmaceutical has the largest share of the U.S. market and is used in most other medical, food, or cosmetic uses. Technical grade is used in the production of sponges, and for metallurgical and chemical applications. Glycine is mainly sold directly to end users although some is also sold to distributors. In 2006, U.S. producers reported that *** percent of their glycine was sold directly to end users and the remainder was sold to distributors. U.S. importers of glycine sold 85 percent to end users.

**Table II-1**
**Glycine: Channels of distribution, 2004-06**

| Item | Calendar year | | |
|---|---|---|---|
| | 2004 | 2005 | 2006 |
| | Share of total (*percent*) | | |
| U.S. producers' U.S. shipments to-- | | | |
| Distributors | *** | *** | *** |
| End users | *** | *** | *** |
| Indian product U.S. importers' U.S. shipments to -- | | | |
| Distributors | 21.2 | 48.4 | 38.9 |
| End users | 78.8 | 51.6 | 61.1 |
| Japanese product U.S. importers' U.S. shipments to -- | | | |
| Distributors | 10.0 | 32.5 | 8.6 |
| End users | 90.0 | 67.5 | 91.4 |
| Korean product U.S. importers' U.S. shipments to -- | | | |
| Distributors | *** | *** | *** |
| End users | *** | *** | *** |
| Total subject product U.S. importers' U.S. shipments to -- | | | |
| Distributors | *** | *** | *** |
| End users | *** | *** | *** |

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

Both responding U.S. producers reported selling to all regions ***. Three importers reported selling to all regions; and these firms sold Indian and/or Japanese glycine. Ten importers reported selling to the Midwest, seven to the Northeast, eight to the Pacific Coast, five to the Southeast, four to the South Central, and three to the Mountain region. ***. *** and all 10 responding importers reported that they arrange transportation to their customers' facilities. *** of its glycine to locations less than 100 miles from its facilities; *** of its glycine to locations between 101 and 1,000 miles from their facilities; and *** of its glycine to locations more than 1,000 miles from its facilities. Of the 10 responding importers, six reported selling most of their imported glycine within 100 miles of their facilities, two reported selling

most of their glycine between 100 and 1,000 miles of their facilities, one reported selling all of its glycine over 1,000 miles from its facility, and one reported selling half within 100 miles and half between 100 miles and 1,000 miles.

## SUPPLY AND DEMAND CONSIDERATIONS

### U.S. Supply

#### Domestic Supply

Based on available information, staff believes that U.S. glycine producers are likely to respond to changes in demand with moderate changes in shipments of U.S.-produced glycine to the U.S. market. Factors contributing to this degree of responsiveness are discussed below.

##### *Industry capacity*

Domestic capacity for producing glycine declined *** from *** million pounds in 2004 to *** million pounds in 2006. U.S. producers' reported capacity utilization for glycine increased from *** percent in 2004 to *** percent in 2005 as production increased and capacity declined but then declined to *** percent in 2006 as production fell.

This moderate level of capacity utilization of U.S. producers of glycine indicates that they have available some capacity with which they could increase (or decrease) production of glycine in the event of a price change. Capacity utilization in chemical industries is typically high because this tends to reduce the cost per unit dramatically.

##### *Lead times*

Chattem reported selling *** percent of its product from inventories and the remainder produced to order with lead times of *** days from inventories and *** days for produced to order. GEO reported selling *** percent of its product from inventories and *** percent to order. Its lead times were *** days from inventories and *** days to order. One importer, however, reported hearing that a U.S. producer was requesting that its customers accept a 3-month delay for orders of U.S.-produced product.[1]

Five of the 11 responding importers reported selling all product from inventories, with two others selling 80 percent or more from inventories. Two importers reported selling all product produced to order and two others selling 80 percent or more produced to order. Lead times for product sold from inventories ranged from 2 to 7 days with five firms reporting lead times from 5 to 7 days and two reporting shorter lead times.[2] Lead times for made-to-order product ranged from 5 days to 8 weeks, with three of the six responding firms reporting lead times of 8 weeks.

##### *Alternative markets*

Domestic producers' exports, as a percentage of total shipments, ranged between *** percent and *** percent between 2004 and 2006. The relatively low level of exports indicates that U.S. producers would have little ability to increase domestic shipments by shifting exports to the U.S. market.

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[1] Conference transcript, pp. 84, 86 (Frey).

[2] One importer did not report lead times but reported deliveries were "prompt."

### *Inventory levels*

Inventories of glycine tend to be low to moderate in spite of many firms reportedly selling from inventories. U.S. producers' inventories, as a share of U.S. producers' total shipments, increased from *** percent in 2004 to *** percent in 2006. These low to moderate inventory levels suggest that U.S. producers have a somewhat limited ability to respond to changes in demand with product shipped from inventories.

### *Production alternatives*

*** production from other products to glycine.

## Supply of Subject Imports to the U.S. Market

### *India*

Glycine imports from India increased from 1.1 million pounds in 2004 to 2.7 million pounds in 2006. Commercial shipments reported to the Commission by U.S. importers rose from *** pounds in 2004 to *** pounds in 2006, while imports for internal consumption fell unsteadily from *** pounds in 2004 to *** pounds in 2006. Most Indian product (*** percent) was USP grade glycine, and none was reported to be pharmaceutical grade.

### *Japan*

Glycine imports from Japan increased from 1.0 million pounds in 2004 to 2.6 million pounds in 2006. Commercial shipments reported to the Commission rose from *** pounds in 2004 to *** pounds in 2006, while internal consumption increased from *** pounds in 2004 to *** pounds in 2006. Most Japanese product (*** percent) was reported to be USP grade glycine, *** percent was reported to be technical grade, and *** percent was reported to be pharmaceutical grade. Importers of glycine from Japan were the only importers of subject product that reported imports of pharmaceutical grade glycine. Imports of pharmaceutical grade from Japan decreased from *** pounds in 2004 to *** pounds in 2005 and then increased to *** pounds in 2006.

### *Korea*

Glycine imports from Korea increased irregularly from 1,060,000 pounds in 2004 to 1,124,000 pounds in 2006. All Korean product reported to the Commission was commercial shipments and USP grade.

## U.S. Demand

U.S. demand for glycine depends on its end-use markets. Glycine is used as a sweetener in foods, pharmaceuticals, personal care products, and animal feed; as a buffering agent in antacids, analgesics, antiperspirants, cosmetics, toiletries, and in production of rubber sponge products and fertilizers; as a re-absorbable amino acid to treat diarrhea; as a chemical intermediate in a variety of chemical products; as a metal complexing and finishing agent; as a dietary supplement; to improve gastric absorption of certain drugs; and in some intravenous uses. The grade of glycine required differs among the end uses.

Price changes for glycine will likely have only a small effect on consumption. First, the substitutes for glycine are limited to a few applications. Second, the cost share of glycine tends to be a small portion of the cost of products in which it is used.

### Demand Characteristics

Estimated U.S. consumption of glycine increased irregularly from *** million pounds in 2004 to *** million pounds in 2006, based on U.S. importers' U.S. shipments. Overall, U.S. consumption in 2006 was *** percent higher than in 2004. Pharmaceutical-grade glycine accounted for *** percent of apparent consumption in 2004, *** percent in 2005, and *** percent in 2006; USP grade accounted for *** percent of apparent consumption in 2004, *** percent in 2005, and *** percent in 2005; and technical grade accounted for *** percent of apparent consumption in 2004, *** percent in 2005, and *** percent in 2006.

Producers and importers were asked to discuss trends in demand in the United States since 2004. *** two of the eight responding importers reported that demand within the United States had increased. ***. The two importers that reported that demand for their product had increased noted plant shutdowns, contract abrogations, and the local producer not delivering on time or not delivering as reasons for increased demand. *** three importers reported demand had not changed. ***. Three importers reported that demand had declined; reasons given include lower sales, end users had gone out of business, and consumption of products using glycine had fallen.

*** seven of the eight importers reported no changes in the product range and marketing of glycine since January 2004. ***.

### Substitute Products

Substitutes for glycine are very limited. *** reported that ***, while *** reported that ***. No importer reported any substitute for glycine.

### Cost Share

Glycine's share of the total costs of end use products was requested from the importers and the producers. Five importers provided a meaningful response; three reported that glycine was 1 percent or less of the cost of their food additives, cosmetic additives, chemical processing, pharmaceutical additive (pills), pet food, industrial uses, and metal complexing and finishing uses, one reported it was 5 percent of the cost of ***, and one reported glycine was 10 percent of the total cost of ***. *** three importers reported that they did not know glycine's cost share in its downstream uses. GEO reported that glycine's share of total costs of end products was low,[3] less than 1 percent of the cost of production in the "overwhelming majority" of these end products.[4] ***.[5] ***. ***.[6]

## SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported glycine depends on factors such as the certified grades produced in each country, product quality, consistency, relative price, and on conditions of sale such as reliability of supply, reliability of delivery, payment terms, and delivery/lead time. Ease of substitution between suppliers may differ greatly between grades.

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[3] Conference transcript, p. 14 (Reilly).

[4] Petitioner's postconference brief, p. 8.

[5] Staff telephone interview, April 27, 2007.

[6] Staff telephone interview, April 30, 2007.

Non-pharmaceutical grades of glycine could be substituted among producers with a fair amount of ease once a producer meets the standard for the specific grade required. On the other hand, pharmaceutical grade requires extremely high purity, consistency, and record keeping, as well as frequent plant tours, making shifting between producers difficult.[7] As a result, Chattem reported that it was not experiencing a lot of competition from imports in the pharmaceutical grades.[8]

## Comparisons of Domestic Products, Subject Imports, and Nonsubject Imports

### Interchangeability and Reasons for Non-interchangeability

Producers and importers were asked to report how frequently glycine from different countries was interchangeable (table II-2). ***. *** In contrast, ***.[9] All responding importers reported that U.S. and subject imported product were always interchangeable. One importer reported U.S. and nonsubject product were frequently interchangeable.

**Table II-2**
**Glycine: U.S. firms' perceived degree of interchangeability of products produced in the United States, subject, and nonsubject countries[1]**

| | U.S. producers | | | | U.S. importers | | | |
|---|---|---|---|---|---|---|---|---|
| Country comparison | A | F | S | N | A | F | S | N |
| U.S. vs. India | 0 | 1 | 1 | 0 | 4 | 0 | 0 | 0 |
| U.S. vs. Japan | 0 | 1 | 0 | 1 | 3 | 0 | 0 | 0 |
| U.S. vs. Korea | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| India vs. Japan | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| India vs. Korea | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Japan vs. Korea | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| U.S. vs. nonsubject | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| India vs. nonsubject | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Japan vs. nonsubject | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Korea vs. nonsubject | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

[1] Producers and importers were asked if glycine produced in the United States and in other countries is used interchangeably.

Note.--"A" = Always, "F" = Frequently, "S" = Sometimes, "N" = Never.

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

[7] Conference transcript, pp. 54-55 (Kedrowski).

[8] Conference transcript, p. 55 (Kedrowski).

[9] *** questioned whether other suppliers had undergone the same inspections.

**Importance of Differences Other Than Price**

Producers and importers were asked to assess how often differences other than price between product from country pairs were a significant factor in sales of glycine (table II-3). Six importers *** answered this question, although the importers only compared U.S. product with imported product rather than comparing imported product from different import sources. ***. All responding importers reported that there were always differences other than price between U.S. product and product from subject countries. One of the firms comparing Indian and U.S. product reported that purchasers had difficulties obtaining the U.S. product and the purchasers were at times put on allocation because of maintenance or plant shutdowns. The three firms comparing U.S. and Japanese product reported differences including: differences between USP product and lower grades; and the Japanese advantage in cost, performance, and schedule and that the services from U.S. sources were poor; and the purchasers were at times put on allocation by the U.S. producer because of maintenance or plant shutdowns. The firm comparing U.S. and Korean product reported that technical support was not readily available from Korea.[10] One firm compared U.S. and nonsubject product, reporting differences that included longer lead times and inconsistent quality.

**Table II-3**
**Glycine: U.S. firms' perceived significance of differences other than price between U.S.-produced and imported product[1]**

| | U.S. producers | | | | U.S. importers | | | |
|---|---|---|---|---|---|---|---|---|
| Country comparison | A | F | S | N | A | F | S | N |
| U.S. vs. India | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 0 |
| U.S. vs. Japan | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 |
| U.S. vs. Korea | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| India vs. Japan | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| India vs. Korea | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Japan vs. Korea | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| U.S. vs. nonsubject | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| India vs. nonsubject | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Japan vs. nonsubject | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Korea vs. nonsubject | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

[1] Producers and importers were asked if differences other than price between glycine produced in the United States and in other countries were a significant factor in their sales of the products.

Note.--"A" = Always, "F" = Frequently, "S" = Sometimes, "N" = Never.

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

[10] ***.

An importer of glycine from India reported that there has been a pattern of problems with the plant and services of the U.S. producer (GEO/Hampshire/Dow). In 2004 the plant was shut down. In 2005, GEO/Hampshire/Dow allegedly abrogated two major contracts.[11] However, the petitioner denies this allegation.[12] This importer testified that his main customer,[13] accounting for the sales of 98 percent of his imports, prefers imported product because of problems with the service and other business dealings of the U.S. producer.[14] GEO, however, reports that it has improved on Dow's poor record for reliability of on time delivery from *** percent in the year before acquisition to *** percent in the year following the acquisition.[15] The same U.S. importer has also alleged that GEO, more recently in 2007, has asked its customers to wait three months for product.[16] In response to this allegation, GEO indicated that ***.[17]

[11] Conference transcript, p. 82 (Frey).

[12] E-mail from David Schwartz, Thompson Hine, May 1, 2007.

[13] This customer is ***. *** U.S. importers' questionnaire responses, question III-19.

[14] Conference transcript, p. 83 (Frey).

[15] Petitioner's postconference brief, responses to staff questions, p. 9.

[16] Conference transcript, p. 84 (Frey).

[17] Petitioner's postconference brief, responses to staff questions, p. 21.

# PART III: U.S. PRODUCERS' PRODUCTION, SHIPMENTS, AND EMPLOYMENT

## U.S. PRODUCERS

The petition identified two U.S. producers of glycine.[1] The Commission received completed questionnaire responses from GEO and Chattem. GEO produces glycine using the HCN process at its Deer Park, TX facility, while Chattem produces glycine using the MCA process at its Chattanooga, TN facility. GEO purchased the Deer Park facility from Hampshire Chemical Corporation ("Hampshire"), a subsidiary of DOW Chemicals, Inc. ("DOW"), on November 1, 2005.[2] Prior to November 2005, Hampshire/DOW was a U.S. producer of glycine. GEO officials were able to provide consolidated data for Hampshire/DOW and GEO, such that GEO's questionnaire response included data on the operations at the Deer Park facility under both GEO and Hampshire/DOW.

Table III-1 presents U.S. producers' positions on the petition, ownership, plant locations, and shares of total reported U.S. production in 2006.

**Table III-1**
**Glycine: U.S. producers, positions on the petition, ownership, plant locations, and shares of total reported U.S. production, 2006**

| Firm | Position on petition | Firm ownership | U.S. plant location(s) | U.S. production | |
|---|---|---|---|---|---|
| | | | | Quantity (*1,000 pounds*) | Share (*percent*) |
| GEO | Supports (petitioner) | Privately owned corporation (U.S.)[1] | Deer Park, TX | *** | *** |
| Chattem | Opposes[2] | Owned by Elcat, Inc. (U.S.), a privately owned company[3] | Chattanooga, TN | *** | *** |

[1] GEO's website http://www.geosc.com.
[2] In correspondence from ***, May 2, 2007, Chattem indicated that it seems "***". This final position is in contrast to testimony given at the public conference in which Chattem indicated that it supported the petition in relation to glycine imported from India, Japan, and Korea from producers using the MCA process. Chattem testified that it supported the petition to the extent that these investigations take into account that Chattem's business partner, Showa Denko, uses the HCN production process and thus has a lower cost structure for the production of its glycine. Conference transcript, p. 22 (Kedrowski).
[3] Chattem's website http://www.chattemchemicals.com.

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

## U.S. CAPACITY, PRODUCTION, AND CAPACITY UTILIZATION

Table III-2 presents data on individual and overall U.S. producers' capacity, production, and capacity utilization between 2004 and 2006. Figure III-1 graphically presents data on overall U.S. producers' capacity, production, and capacity utilization between 2004 and 2006. Figure III-2 graphically presents data on U.S. producers' share of U.S. capacity and U.S. production in 2006.

[1] Petition, pp. 4-7.

[2] Petition, p. 4.

**Table III-2**
**Glycine: U.S. capacity, production, and capacity utilization, 2004-06**

* * * * * * *

**Figure III-1**
**Glycine: U.S. capacity, production, and capacity utilization, 2004-06**

* * * * * * *

**Figure III-2**
**Glycine: Shares of U.S. capacity and U.S. production, 2006**

* * * * * * *

Regardless of grade, U.S. production of glycine increased from approximately *** pounds of glycine in 2004 to approximately *** pounds in 2005. The increase in production in 2005 was mainly the result of the reintroduction of U.S.-produced glycine that had exited the U.S. market in 2004 due to ***.[3] With the reintroduction of this production in 2005, Hampshire/DOW operated at *** percent capacity utilization, pushing up the average capacity utilization for U.S. producers to *** percent in 2005 from the *** percent average in 2004. In 2006, overall U.S. production of glycine decreased to *** pounds, which was again mostly the result of the glycine operations at the Deer Park facility, now owned by GEO whose production decreased by *** pounds. In 2006, Chattem also reported a decrease in its production of glycine by *** pounds. GEO attributes its reduced production in 2006 to ***.[4]

Due to the concentration of production in the U.S. industry, GEO's operations generally influence the overall supply of U.S.-produced glycine. Chattem exited the U.S. market for USP and technical grade glycine between 2001 and 2004 due to competition from low-priced nonsubject imports, namely Chinese glycine, which had apparently dictated a U.S. market price for glycine at that time below Chattem's raw material costs.[5] Both petitioner and Chattem agree that USP and technical grade glycine are commodity products, and that pharmaceutical grade glycine, which is often made to customer specifications (*i.e.* purity), is not a commodity product.[6] Since Chattem's withdrawal from the USP and technical grade markets, GEO has been the sole supplier of U.S.-produced glycine made specifically for USP and technical grade end uses in the U.S. market. GEO alleges that it cannot continue to supply the U.S. market for these grades of glycine if it cannot operate its facility at full capacity.[7]

While overall production by U.S. producers was changing due to raw material availability, demand conditions, and corporate strategy, U.S. producers' capacity to produce glycine remained relatively stable at approximately *** pounds. GEO reported for Hampshire/DOW *** in the Deer Park facility's capacity to produce glycine due to *** in May 2004.[8] According to officials at GEO, it was

[3] GEO's U.S. producers' questionnaire response, question II-2.

[4] GEO's U.S. producers' questionnaire response, question II-2.

[5] Conference transcript, pp. 19-21 (Kedrowski). Although Chattem still supplies some glycine to certain customers who use it in USP- or technical-grade applications. Conference transcript, pp. 36-37 (Kedrowski).

[6] Petition, p. 39, and conference transcript, p. 10 (Eckman) and pp. 78-79 (Kedrowski). ***.

[7] Conference transcript, pp. 24-26 (Husisian).

[8] GEO's U.S. producers' questionnaire response, question II-2.

decided *** in May 2004 instead of ***.[9] The petitioner indicated a willingness to invest in capital projects to expand capacity if the Deer Park facility begins operating at full existing capacity and it makes economic sense to do so.[10]

## U.S. PRODUCERS' SHIPMENTS

Table III-3 presents information on U.S. producers' shipments of glycine between 2004 and 2006. ***.

**Table III-3**
**Glycine: U.S. producers' shipments, 2004-06**

* * * * * * *

Neither of the two U.S. producers ***, therefore, the figures reported for total U.S. shipments ***.

U.S. producers' U.S. shipments of glycine increased by *** percent by quantity from 2004 to 2005, despite ***, and such shipments decreased by *** percent between 2005 and 2006. Both GEO and Chattem reported a drop in U.S. shipments of glycine in 2006 compared to 2005; GEO accounted for *** percent, of the decrease in U.S. shipments.

Table III-4 and figures III-3 and III-4 present information and graphic depictions of U.S. producers' U.S. commercial shipments of glycine by grade.

**Table III-4**
**Glycine: U.S. producers' U.S. shipments, by grade, 2004-06**

* * * * * * *

**Figure III-3**
**Glycine: U.S. producers' U.S. commercial shipments, by grade, 2004-06**

* * * * * * *

**Figure III-4**
**Glycine: Share of quantity of U.S. producers' U.S. shipments, by grade, 2006**

* * * * * * *

In *** the unit values reported by Chattem are *** than those reported by GEO. Chattem reportedly has a higher cost structure for producing glycine[11] than GEO[12] due to its MCA manufacturing process, and that has forced Chattem into primarily supplying the pharmaceutical grade market for

[9] Additionally, ***. Staff field trip report, GEO, April 12, 2007.

[10] Conference transcript, pp. 25 and 70 (Husisian).

[11] Conference transcript, p. 22 (Kedrowski).

[12] Conference transcript, p. 61 (Eckman).

glycine within the United States.[13] Chattem no longer attempts to compete in the high volume USP and technical grade markets for glycine,[14] *** than are available for similar product through imports or other U.S. producers.[15]

GEO accounts for the *** of U.S. shipments by virtue of its presence in the USP and technical grade markets for glycine (figure III-3), while Chattem accounts for the *** of U.S. shipments of glycine in the pharmaceutical grade market.[16]

USP grade is the predominant grade of U.S. producers' U.S. shipments (figure III-4). The average unit value of the three grades of U.S. producers' U.S. shipments of glycine increased generally over the period of investigation except, notably, for the high-volume USP grade glycine sold by GEO, which first increased in 2005 and then decreased in 2006. Since GEO's shipments of USP grade glycine account for *** percent of U.S. producers' U.S. shipments, the decreasing average unit value of GEO's shipments of USP grade glycine in 2006 is, in turn, reflected the flattening of the overall average unit value of U.S. shipments between 2005 and 2006.

U.S. importers asserted that, during the period of this investigation, GEO and/or its predecessor firm, Hampshire/Dow, lost business because they were unable to meet customer demand due to plant shutdowns, quality problems, and problems such as short shipping, unreliable deliveries, allocation, and denial of supply (abrogated contracts).[17] It was also alleged, that despite an improved record of customer service and no documented supply disruptions under GEO's ownership since November 2005, GEO's ultimate end customers are hesitant to concentrate all their business through a sole supplier of U.S.-produced glycine.[18]

Table III-5 and figure III-5 present information of GEO's shipment delays between November 2004 and December 2006.

**Table III-5**
**Glycine: Hampshire/DOW/GEO's shipments, by service levels and months, November 2004-December 2006**

* * * * * * *

**Figure III-5**
**Glycine: Hampshire/DOW/GEO's total shipments and delayed shipments, by months, November 2004-December 2006**

* * * * * * *

GEO *** contract over the period of investigation.[19] With respect to service issues, GEO reported that, while it recognizes that Hampshire/Dow had a poor record of reliability, GEO has significantly improved the customer service record of its glycine facility with a "direct customer-focused

[13] Conference transcript, p. 21 (Kedrowski).

[14] Conference transcript, p. 73 (Kedrowski).

[15] Staff telephone interview with ***.

[16] Conference transcript, p. 21 (Kedrowski).

[17] Conference transcript, p. 81 (Frey); ***'s importer questionnaire response, section III-14; and letter dated April 17, 2007, attached to *** importer questionnaire response.

[18] Conference transcript, pp. 86-87 (Frey).

[19] E-mail correspondence with ***, May 1, 2007.

approach."[20] GEO asserted that, in contrast to Hampshire/Dow's on-time delivery of *** percent of its shipments by quantity during November 2004-October 2005, GEO achieved on-time delivery of *** percent during November 2005-December 2006.[21]

## U.S. PRODUCERS' IMPORTS AND PURCHASES

During the period of investigation, Chattem imported glycine from Showa Denko in Japan. *** imports of glycine from any source. *** purchases of glycine. Chattem entered into its relationship with Showa Denko so as to continue to supply certain customers with glycine at a cost lower than Chattem's U.S.-produced material.[22] Table III-6 presents information on U.S. producer's imports and ratio of imports to production of glycine.

**Table III-6**
**Glycine: U.S. producer's imports and ratio of imports to production, 2004-06**[1]

* * * * * * *

Chattem stated at the conference that it imported a small volume of glycine from Japan in 2005 after developing its relationship with Showa Denko, but then increased such imports in 2006 when it was able to quote competitive prices.[23] The data submitted in these investigations reflect this testimony. Chattem's imports accounted for only *** percent of its production in 2005, but then increased to *** percent of its production in 2006. ***.[24] The quantity of glycine imported by Chattem in 2006 was equal to *** percent of all U.S.-produced glycine that year.

No party has argued for the exclusion of Chattem from the domestic industry, although the petitioner believes that any analysis of the financial health of the industry should be conducted by looking separately at the financial data provided by both GEO and Chattem.[25]

## U.S. PRODUCERS' INVENTORIES

Table III-7, which presents end-of-period inventories for glycine during the period of investigation, shows that inventories were relatively low as a ratio to production and shipments in 2004 and 2005, and increased in 2006 due to ***.

**Table III-7**
**Glycine: U.S. producers' inventories, 2004-06**

* * * * * * *

[20] Conference transcript, p. 69 (Eckman) and petitioner's postconference brief, response to staff questions, p. 9.

[21] Petitioner's postconference brief, response to staff questions, p. 9, and table III-5.

[22] Conference transcript, pp. 21-22 (Kedrowski).

[23] Conference transcript, pp. 21-22 (Kedrowski).

[24] Chattem's U.S. producers' questionnaire response, questions II-6b and III-19.

[25] Petitioner's postconference brief, economic analysis attachment, p. 4.

## U.S. PRODUCERS' EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-8 presents data on U.S. producers' employment-related indicia.

**Table III-8**
**Glycine: U.S. producers' employment-related data, 2004-06**

* * * * * * *

Employment of production related workers ("PRWs") in the U.S. glycine industry declined from *** individuals over the period of investigation. Corresponding to its share of production, ***. GEO testified that, in addition to the PRWs directly responsible for glycine, 50 employees and 20 contractor jobs (of which glycine PRWs are a subset) are affected by the operations of the Deer Park facility, and that, if glycine production is stopped at the Deer Park facility, the remaining production of naphthalene sulfonate might not be able to bear the burden of all of the indirect plant costs.[26] The decrease in the number of PRWs in the U.S. glycine industry between 2004 and 2006 ***.

[26] Conference transcript, pp. 41-42 (Eckman).

# PART IV: U.S. IMPORTS, APPARENT U.S. CONSUMPTION, AND MARKET SHARES

## U.S. IMPORTERS

Table IV-1 presents information on U.S. importers.

**Table IV-1**
**Glycine: U.S. importers and imports, by source, 2004-06**

* * * * * * *

Five of the importers that submitted data in response to the Commission's U.S. importers' questionnaire indicated that they imported glycine from India, including: ***,[1] CAF International Corp. ("CAF"),[2] ***,[3] ***,[4] and ***.[5] These five firms' imports of glycine from India account for the vast majority (*** percent) of total U.S. imports from India by quantity in the period 2004 to 2006. U.S. importer ***, which has not provided the Commission a completed U.S. importers' questionnaire response and whose main business telephone number is no longer in service, accounted for *** percent of the total quantity of U.S. imports of glycine from India between 2004 and 2006, all of which ***.[6]

Eight of the importers that submitted data in response to the Commission's U.S. importers' questionnaire indicated that they imported glycine from Japan, including: U.S. producer Chattem,[7] ***,[8] ***,[9] ***,[10] ***,[11] ***,[12] ***,[13] and ***.[14] These eight firms' imports of glycine from Japan account for the vast majority (*** percent) of total U.S. imports from Japan by quantity in the period 2004 to 2006. The Commission also received a completed U.S. importers' questionnaire response from ***,[15] which is ***.[16] All imports of glycine from the United Kingdom in 2004 and 2005 were misclassified as country-

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[1] ***.

[2] CAF is an importer of glycine from AICO Laboratories, India. Mr. Chris Frey founded CAF in 1994. Conference transcript, pp. 81-82 (Frey). ***.

[3] ***.

[4] ***.

[5] ***.

[6] ***.

[7] Chattem's import operations are located in Warren, NJ. Http://www.chattemchemicals.com.

[8] ***.

[9] ***.

[10] ***.

[11] ***.

[12] ***.

[13] ***.

[14] ***.

[15] ***.

[16] *** U.S. importers' questionnaire response, question III-19. To avoid double counting, *** data were removed from the compilations for U.S. shipments of imports from Japan.

of-origin United Kingdom in official import statistics when, in fact, they were of Japanese origin in their entirety.[17]

Only one of the importers that completed and submitted data requested in the Commission's U.S. importers' questionnaire indicated that it imported glycine from Korea: ***.[18] *** imports of glycine from Korea accounted for the *** (*** percent) of total U.S. imports from Korea by quantity in the period 2004 to 2006 as reported in table IV-1. *** imports glycine produced by Korea Bio-Gen Co., Ltd. ("Bio-Gen"). Bio-Gen was subject to a Customs transshipment investigation in 2001-02 and was found to be an actual producer of glycine in Korea.[19]

## U.S. IMPORTS

Table IV-2 and figures IV-1 and IV-2 present and depict U.S. imports of glycine during 2004 to 2006. U.S. import data are based on official Commerce statistics with adjustments using proprietary Customs data to account for the misclassification of certain entries. Specifically, two major modifications were made. First, material imported from the United Kingdom under the statistical reporting number 2922.49.4020 was reclassified as subject imports from Japan to reflect the fact that this material was improperly classified as having actually been produced in the United Kingdom.[20] U.S. imports of glycine from the United Kingdom totaled 233,690 pounds in 2004 and 33,069 pounds in 2005. Second, glycine imported *** from India was improperly classified under statistical reporting number 2922.49.1000 in each year of the period of investigation.[21] The quantities misclassfied totaled *** pounds in 2004, *** pounds in 2005, and *** pounds in 2006.

Subject imports increased by 76.8 percent between 2004 and 2005 and 13.8 percent between 2005 and 2006, for a doubling of the presence of subject imports in the U.S. market comparing 2006 data with 2004 data. Subject imports from Japan and India account for most of the increase in subject imports over the period of investigation. Imports from Japan increased from 1.0 million pounds in 2004 to 2.1 million pounds in 2005 and 2.6 million pounds in 2006. Imports from India increased from 1.1 million pounds in 2004 to 2.6 million pounds in 2005 and 2.7 million pounds in 2006. Imports from Korea first decreased from 1.1 million pounds in 2004 to 1.0 million pounds in 2005 and then increased back to 1.1 million pounds in 2006.[22]

According to the import data presented in table IV-2, subject imports from Korea had the lowest average unit value, followed by imports from Japan, then India. Imports from China (nonsubject) are approximately at the same average unit value as imports from Korea.

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[17] Staff telephone interview with ***, April 18, 2007.

[18] ***.

[19] Letter from Mark Altenstadter, Chief, Trade Operations Branch, Customs, January 22, 2002.

[20] Staff telephone interview with ***, April 18, 2007.

[21] Staff telephone interview with ***, April 24, 2007.

[22] The exact quantity of imports from Korea in 2006 was slightly higher that in 2004.

**Table IV-2**
**Glycine: U.S. imports, by sources, 2004-06**

| Source | Calendar year | | |
|---|---|---|---|
| | 2004 | 2005 | 2006 |
| | **Quantity (*1,000 pounds*)** | | |
| India | 1,133 | 2,555 | 2,668 |
| Japan | 989 | 2,080 | 2,610 |
| Korea | 1,060 | 992 | 1,124 |
| Subtotal, subject | 3,182 | 5,627 | 6,402 |
| China | 555 | 1,915 | 2,177 |
| Belgium | 1,151 | 238 | 347 |
| All other | 343 | 88 | 45 |
| Subtotal, nonsubject | 2,049 | 2,241 | 2,570 |
| Total | 5,231 | 7,868 | 8,971 |
| | **Landed, duty-paid value (*1,000 dollars*)** | | |
| India | 1,800 | 3,679 | 3,547 |
| Japan | 1,253 | 2,852 | 3,334 |
| Korea | 1,107 | 1,278 | 1,300 |
| Subtotal, subject | 4,161 | 7,809 | 8,181 |
| China | 599 | 2,397 | 2,598 |
| Belgium | 1,643 | 374 | 607 |
| All other | 793 | 415 | 329 |
| Subtotal, nonsubject | 3,036 | 3,186 | 3,534 |
| Total | 7,196 | 10,996 | 11,715 |
| | **Unit value (*per pound*)** | | |
| India | $1.59 | $1.44 | $1.33 |
| Japan | 1.27 | 1.37 | 1.28 |
| Korea | 1.04 | 1.29 | 1.16 |
| Average, subject | 1.31 | 1.39 | 1.28 |
| China | 1.08 | 1.25 | 1.19 |
| Belgium | 1.43 | 1.57 | 1.75 |
| All other | 2.31 | 4.72 | 7.28 |
| Average, nonsubject | 1.48 | 1.42 | 1.38 |
| Average, all imports | 1.38 | 1.40 | 1.31 |

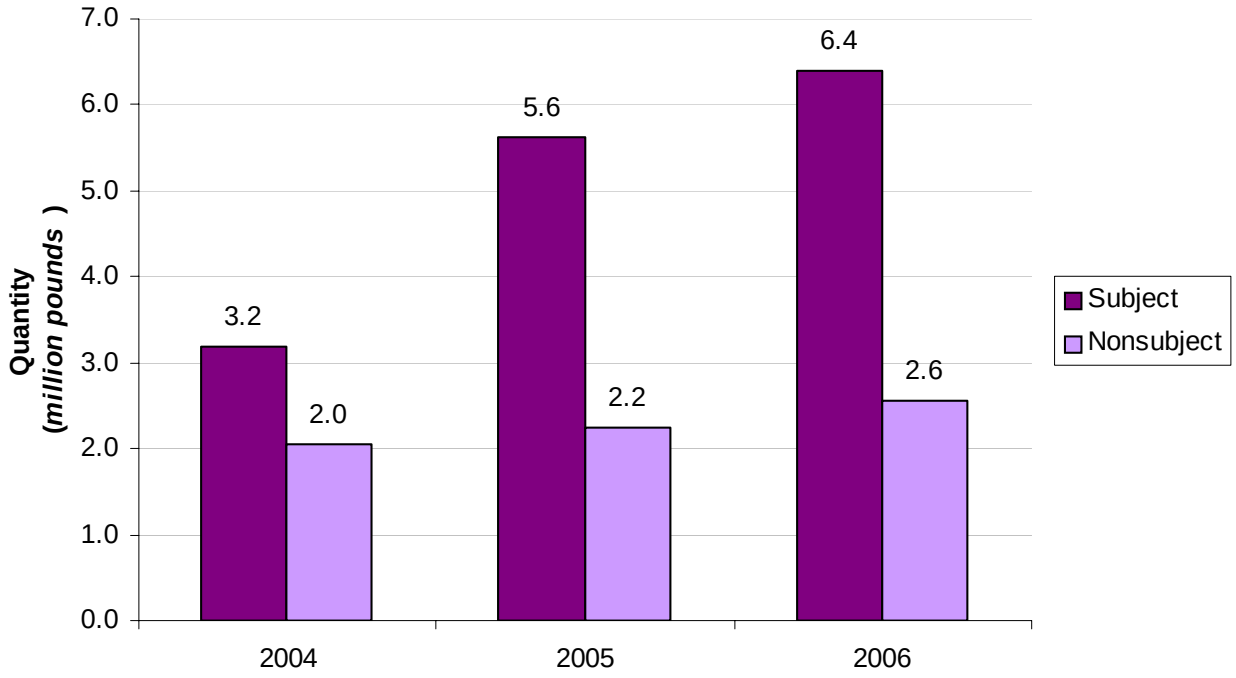
Table continued on next page.

**Table IV-2--*Continued***
**Glycine: U.S. imports, by sources, 2004-06**

| Source | Calendar year | | |
|---|---|---|---|
| | 2004 | 2005 | 2006 |
| | **Share of quantity (*percent*)** | | |
| India | 21.7 | 32.5 | 29.7 |
| Japan | 18.9 | 26.4 | 29.1 |
| Korea | 20.3 | 12.6 | 12.5 |
| Subtotal, subject | 60.8 | 71.5 | 71.4 |
| China | 10.6 | 24.3 | 24.3 |
| Belgium | 22.0 | 3.0 | 3.9 |
| All other | 6.6 | 1.1 | 0.5 |
| Subtotal, nonsubject | 39.2 | 28.5 | 28.6 |
| Total | 100.0 | 100.0 | 100.0 |
| | **Share of value (*percent*)** | | |
| India | 25.0 | 33.5 | 30.3 |
| Japan | 17.4 | 25.9 | 28.5 |
| Korea | 15.4 | 11.6 | 11.1 |
| Subtotal, subject | 57.8 | 71.0 | 69.8 |
| China | 8.3 | 21.8 | 22.2 |
| Belgium | 22.8 | 3.4 | 5.2 |
| All other | 11.0 | 3.8 | 2.8 |
| Subtotal, nonsubject | 42.2 | 29.0 | 30.2 |
| Total | 100.0 | 100.0 | 100.0 |

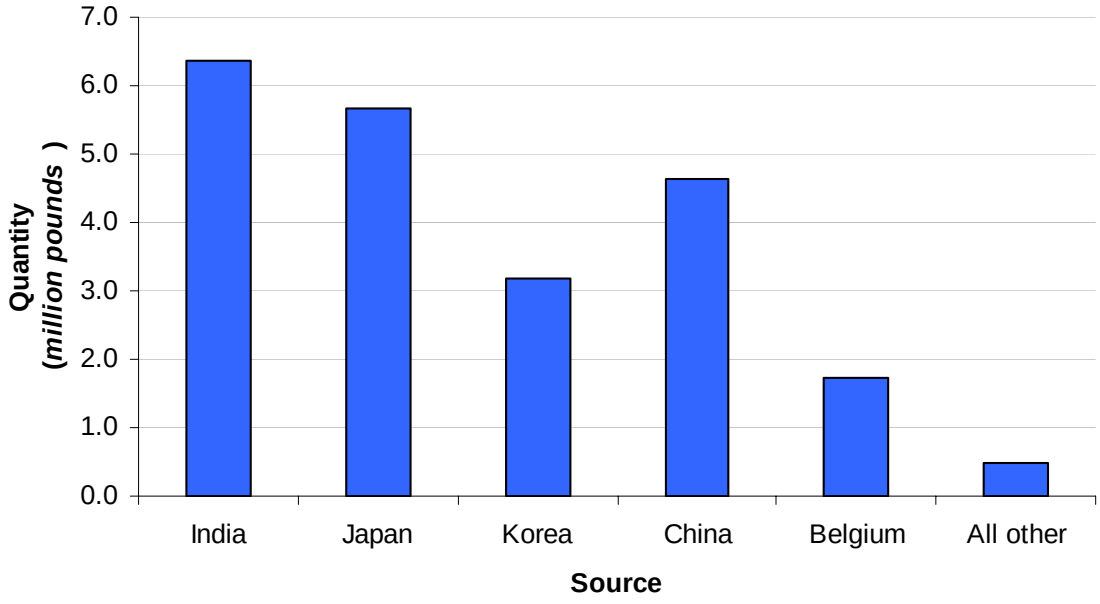
Source: Compiled from official Commerce statistics with adjustments based on proprietary Customs data.

**Figure IV-1**
**Glycine: Quantity of subject and nonsubject U.S. imports, 2004-06**




Source: Table IV-2.

**Figure IV-2**
**Glycine: Quantity of U.S. imports, by principal sources, 2004-06 aggregated**




Source: Table IV-2.

## U.S. SHIPMENTS OF IMPORTS BY GRADE

Table IV-3 presents data on the U.S. shipments of imports from subject sources by grade during 2004 to 2006.

**Table IV-3**
**Glycine: U.S. importers' U.S. shipments of imports, by grades, 2004-06**

* * * * * * *

U.S. importers of glycine from India reported that all their imports were USP grade material, except for some technical grade imports in 2004 ***. In other words, 100 percent of U.S. importers' U.S. shipments of glycine from India reported in table IV-3 in 2005 and 2006 were USP grade material, while *** percent of U.S. importers' U.S. shipments of glycine reported in 2004 were USP grade material, and the remainder technical grade.

U.S. importers of Japanese glycine reported that the majority (*** percent in 2006) of their U.S. commercial shipments of imports from Japan were USP grade material. *** U.S. commercial shipments were pharmaceutical grade glycine; however, they accounted for only *** percent of the U.S. shipments of Japanese glycine in 2006. Likewise, *** U.S. commercial shipments were technical grade glycine, and accounted for *** percent of reported U.S. commercial shipments of Japanese glycine in 2006. ***, which were consumed internally, were all USP grade material.

*** U.S. shipments of glycine imported from Korea were ***.[23] These data indicate that the vast majority of U.S. imports from subject sources were USP- grade glycine.

## NEGLIGIBILITY

The Tariff Act of 1930 provides for the termination of an investigation if imports of the subject product from a country are less than 3 percent of total imports, or, if there is more than one such country, their combined share is less than or equal to 7 percent of total imports, during the most recent 12 months for which data are available preceding the filing of the petition.[24] Subject imports accounted for 64.7 percent of total imports of glycine by quantity between March 2006 and February 2007, of which 22.7 percent were imports from India, 29.6 percent were imports from Japan, and 12.4 percent were imports from Korea.[25]

## APPARENT U.S. CONSUMPTION, U.S. MARKET SHARES, AND RATIO OF IMPORTS TO U.S. PRODUCTION

Table IV-4 presents data on apparent U.S. consumption of glycine. Table IV-5 presents data on market shares. Figure IV-3 and figure IV-4 graphically present data on U.S. apparent consumption and U.S. market shares.

[23] *** U.S. importers' questionnaire response, question II-6c.

[24] 19 U.S.C. § 1677(24)(A)(ii).

[25] Calculated from official Commerce statistics.

**Table IV-4**
**Glycine: Apparent U.S. consumption, by sources, 2004-06**

| Item | Calendar year | | |
|---|---|---|---|
| | 2004 | 2005 | 2006 |
| | **Quantity (*1,000 pounds*)** | | |
| U.S. producers' U.S. shipments | *** | *** | *** |
| U.S. imports: | | | |
| India | 1,133 | 2,555 | 2,668 |
| Japan | 989 | 2,080 | 2,610 |
| Korea | 1,060 | 992 | 1,124 |
| Subtotal, subject sources | 3,182 | 5,627 | 6,402 |
| China | 555 | 1,915 | 2,177 |
| All other sources | 1,494 | 326 | 392 |
| Subtotal, nonsubject sources | 2,049 | 2,241 | 2,570 |
| Total imports | 5,231 | 7,868 | 8,971 |
| Apparent U.S. consumption | *** | *** | *** |
| | **Value (*1,000 dollars*)** | | |
| U.S. producers' U.S. shipments | *** | *** | *** |
| U.S. imports: | | | |
| India | 1,800 | 3,679 | 3,547 |
| Japan | 1,253 | 2,852 | 3,334 |
| Korea | 1,107 | 1,278 | 1,300 |
| Subtotal, subject sources | 4,161 | 7,809 | 8,181 |
| China | 599 | 2,397 | 2,598 |
| All other sources | 2,436 | 789 | 936 |
| Subtotal, nonsubject sources | 3,036 | 3,186 | 3,534 |
| Total imports | 7,196 | 10,996 | 11,715 |
| Apparent U.S. consumption | *** | *** | *** |
| | **Unit value (*per pound*)** | | |
| U.S. producers' U.S. shipments | $*** | $*** | $*** |
| U.S. imports: | | | |
| India | 1.59 | 1.44 | 1.33 |
| Japan | 1.27 | 1.37 | 1.28 |
| Korea | 1.04 | 1.29 | 1.16 |
| Subject average | 1.31 | 1.39 | 1.28 |
| China | 1.08 | 1.25 | 1.19 |
| All other sources | 1.63 | 2.42 | 2.39 |
| Nonsubject average | 1.48 | 1.42 | 1.38 |
| Import average | 1.38 | 1.40 | 1.31 |
| Apparent U.S. consumption average | *** | *** | *** |

Source: Compiled from data submitted in response to Commission questionnaires, official Commerce statistics, and proprietary Customs data.

**Table IV-5**
**Glycine: Market shares, by sources, 2004-06**

* * * * * * *

**Figure IV-3**
**Glycine: Apparent U.S. consumption, by sources, 2004-06**

* * * * * * *

**Figure IV-4**
**Glycine: Market shares, by sources, 2004-06**

* * * * * * *

Over the period of investigation, total apparent U.S. consumption first increased then decreased.[22] Increases in imports, both subject and nonsubject, and in U.S. producers' U.S. shipments account for the increase in apparent U.S. consumption between 2004 and 2005. While U.S. producers increased their U.S. shipments in 2005, they lost market share because of the large increase in subject imports (primarily from India and Japan). Between 2005 and 2006, imports of subject merchandise increased from both subject (primarily Japan) and some nonsubject sources, while U.S. producers' total U.S. shipments decreased, resulting in a further decline in U.S. producers' market share. The average unit values of imports from India, Japan, and Korea were lower than the average unit values for U.S. producers' U.S. shipments in each comparison, except for ***. The average unit values of nonsubject imports from China, currently subject to a U.S. antidumping duty order, are also lower than the average unit values of U.S. producers' U.S. shipments, while the average unit values of nonsubject imports from sources other than China are higher than the average unit values of U.S. producers' U.S. shipments.

Table IV-6 presents information on the ratio of subject and nonsubject imports to U.S. production of glycine.

**Table IV-6**
**Glycine: Ratios of U.S. imports to U.S. production, by sources, 2004-06**

* * * * * * *

Over the period of investigation, subject imports increased from approximately *** of U.S. production in 2004 to *** of U.S. production in 2006. As a ratio to U.S. production, imports from India and Japan increased by a larger degree than imports from Korea. As a ratio to U.S. production, nonsubject imports also increased over the period of investigation.

As discussed in Part III, U.S. importers assert that increases in imports are due to Hampshire/Dow and GEO's inability to meet customer demand due to plant shutdowns, quality problems, and problems such as short shipping, unreliable deliveries, allocation, and denial of supply.[23] Figures IV-5 and IV-6 graphically depict the relationship between Hampshire/Dow/GEO's level of missed deliveries and U.S.

[22] The petitioner described the merchant market for glycine as having some pockets of growth, such as in the pet food and nutriceutical markets. Conference transcript, p. 63 (Eckman).

[23] Conference transcript, p. 81 (Frey); ***'s importer questionnaire response, section III-14; and letter dated April 17, 2007, attached to *** importer questionnaire response.

imports of glycine from the subject countries, on a monthly basis by source, for the period November 2004-December 2006.

**Figure IV-5**
**Glycine: Hampshire/DOW/GEO's delayed shipments and U.S. imports, by subject sources and months, November 2004-December 2006**

* * * * * * *

**Figure IV-6**
**Glycine: Hampshire/DOW/GEO's delayed shipments and U.S. imports from subject sources, by months, November 2004-December 2006**

* * * * * * *

# PART V: PRICING AND RELATED INFORMATION

## FACTORS AFFECTING PRICES

The cost of glycine depends largely on the costs of chemicals and energy. Glycine is produced using two basic methods, the hydrogen cyanide method which is used by GEO, and the MCA method which is used by Chattem. Chattem reports that production using the hydrogen cyanide method is less expensive but requires a larger investment.

### Transportation Costs to the U.S. Market

Transportation costs as a share of customs value for glycine from subject countries to the United States (excluding U.S. inland costs) in 2006 were equivalent to 6.5 percent for India, 5.6 percent for Japan, and 5.2 percent for Korea. These estimates are derived from official Commerce statistics and represent the transportation and other charges on imports valued on a c.i.f. basis, as compared with customs value.

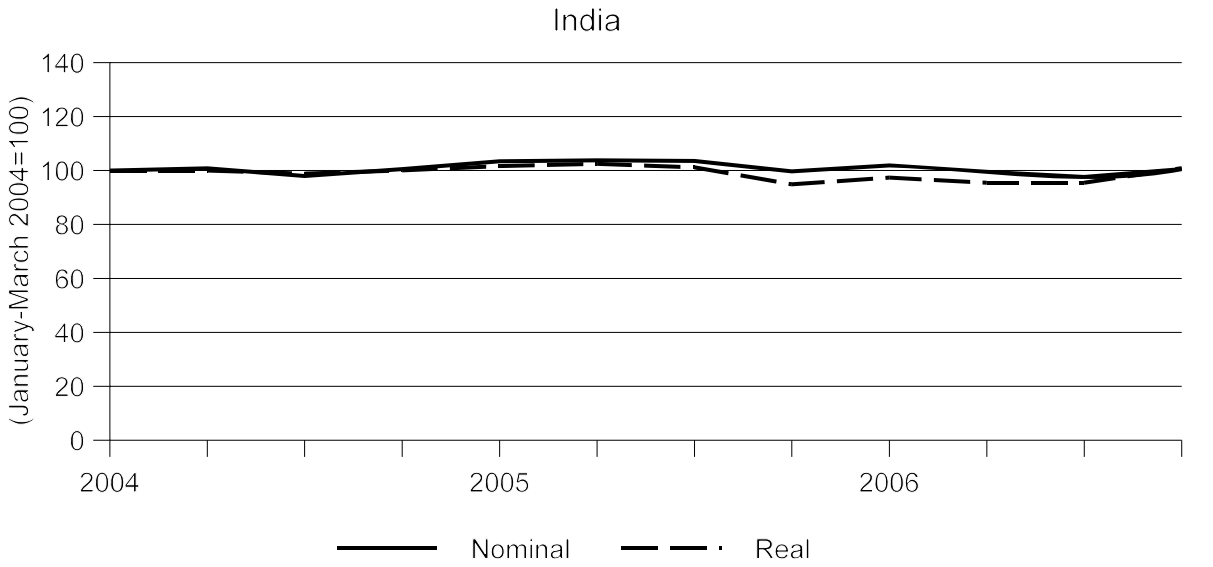
### U.S. Inland Transportation Costs

Both U.S. producers reported their U.S. inland transportation costs for glycine, reporting that such costs accounted for from *** percent of the total delivered cost of the product. All eight of the responding importers reported inland transportation of glycine to their customers' location ranged from 0.5 percent to 2 percent.

### Exchange Rates

Quarterly real and nominal exchange rates reported by the International Monetary Fund for the currencies of India, Japan, and Korea relative to the U.S. dollar during the period January 2004 to December 2006 are shown in figure V-1.

**Figure V-1**
**Exchange rates: Indices of the nominal and real exchange rates between the currencies of India, Japan, and Korea relative to the U.S. dollar, by quarters, January 2004-December 2006**



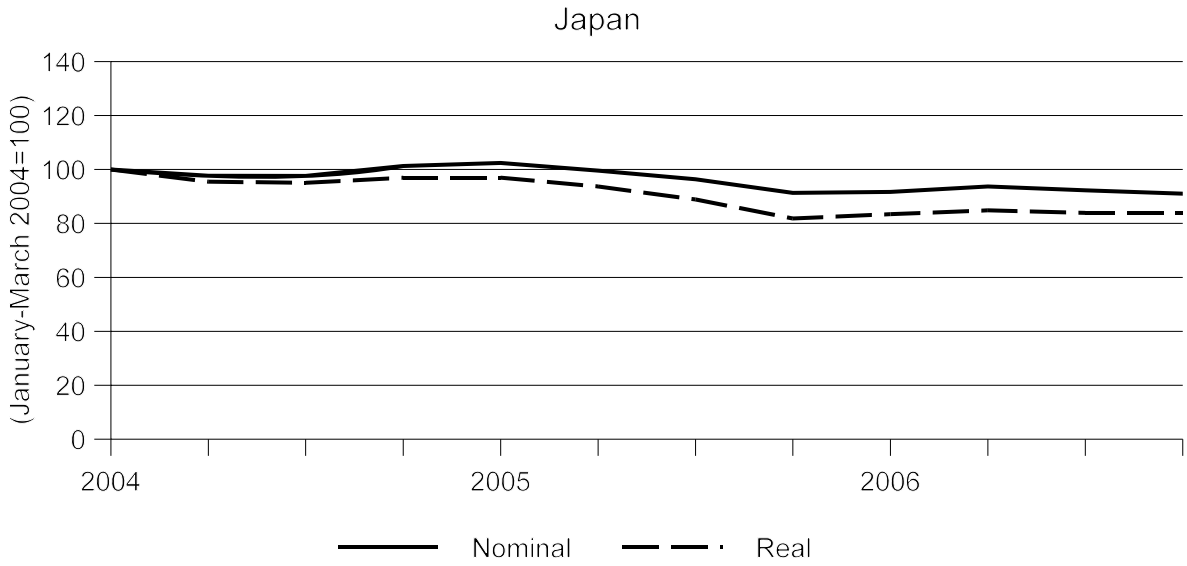
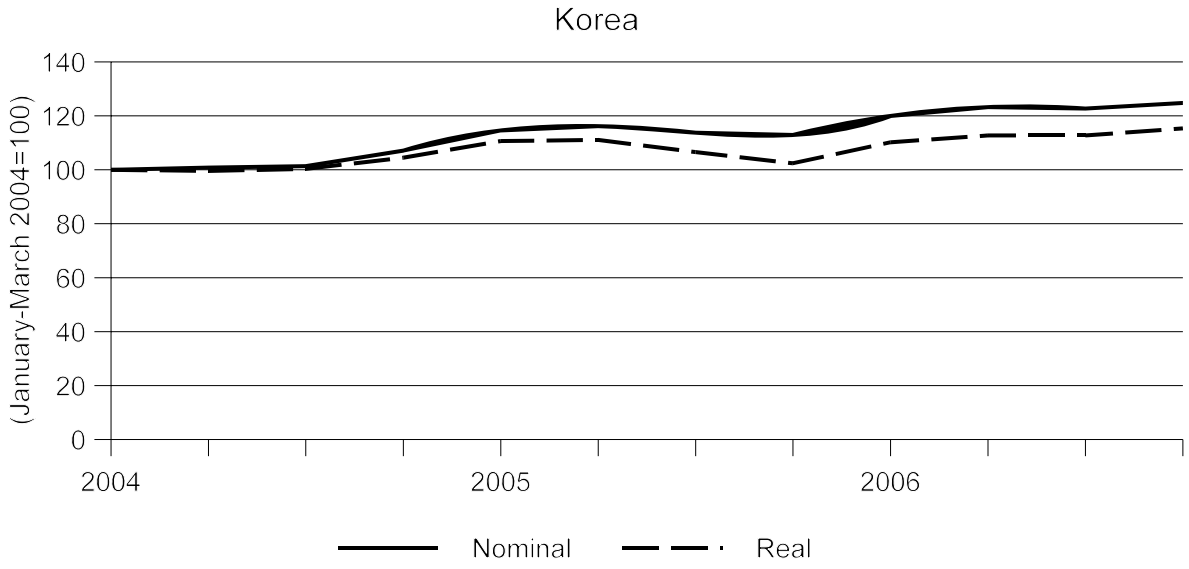




Figure continued on next page.

**Figure V-1--*Continued***
**Exchange rates: Indices of the nominal and real exchange rates between the currencies of India, Japan, and Korea relative to the U.S. dollar, by quarters, January 2004-December 2006**




Source: International Monetary Fund, *International Financial Statistics*, http://ifs.apdi.net/imf/ifsbrowser.aspx?branch=ROOT retrieved April 6, 2007.

## PRICING PRACTICES

***. Seven of the 10 responding importers reported no discount policy, one reported quantity discounts, one reported annual volume discounts, and one reported discounts on a case by case basis.

***. Nine of the 11 responding importers reported transaction by transaction prices; three of these also reported contract prices, and the other two importers reported only contract prices.

### Pricing Methods

Chattem reported that it does not sell on a contract basis but that it typically had a long term relationship with many of its purchasers.[1] ***. Importers were asked to provide shares of contract and spot sales for their sales of glycine from subject countries, and 11 responded; three reported selling most using long-term contracts, three sold mainly using short-term contracts, and five sold all product in spot sales.

### Sales Terms

***. Eight of the 11 responding importers reported selling on a delivered basis while the other three reported selling on an f.o.b. basis. *** and 10 of the 11 responding importers reported sales terms of net 30 days. The remaining importer reported selling both cash on delivery and net 30 day sales.

[1] Conference transcript, p. 52 (Kendrowski).

## PRICE DATA

The Commission requested U.S. producers and importers of glycine to provide quarterly quantity and f.o.b. value data for shipments of the following products to unrelated U.S. customers during January 2004-December 2006:

> ***Product 1:*** Pharmaceutical-grade glycine -- A white, odorless, crystalline powder with a sweet taste, having an assay (glycine content) of 98.5 percent to 101.5 percent (dry basis), and with no more than 7 ppm chloride, no more than 65 ppm sulfate, and no more than 1 ppm heavy metals.
>
> ***Product 2:*** USP-grade glycine -- A white, odorless, crystalline powder with a sweet taste, having an assay (glycine content) of 98.5 percent to 101.5 percent (dry basis), and with no more than 70 ppm chloride, no more than 65 ppm sulfate, no more than 20 ppm heavy metals, and not otherwise qualifying as pharmaceutical-grade glycine.
>
> ***Product 3:*** Technical-grade glycine -- A white, off-white, or slightly yellow crystalline powder, having an assay (glycine content) of 98.5 percent to 101.5 percent (dry basis), with maximum chlorides of 0.4 percent, and not otherwise qualifying as USP-grade glycine.

***.[2] Eleven importers provided price data; four reported price data for product 2 from India; seven importers reported prices for product from Japan--four of these imported product 2, two imported product 3, and one imported product 1; and one importer reported importing product 2 from Korea. Two importers also reported imports from nonsubject countries China and Hungary. By quantity, pricing data reported by responding firms for January 2004-December 2006 accounted for *** percent of reported U.S. producers' shipments of glycine, *** percent of Indian, *** percent of Japanese, and *** percent of Korean product. Data for the United States, India, Japan, and Korea are presented in tables V-1 through V-3 and figure V-2.

### Price Trends

U.S. producer prices increased by *** to *** percent during the period for which data were collected. Indian price changes ranged from a decrease of *** percent to an increase of *** percent. Japanese price changes ranged from a decrease of *** percent to an increase of *** percent. Korean prices increased by *** percent.

### Price Comparisons

Overall, there were 52 quarterly price comparisons between U.S.-produced glycine and imports from India, Japan, and Korea. For those quarters for which data were reported, subject imports undersold domestic products in 33 quarters and oversold domestic products in 19 quarters. Tables V-4 and V-5 provide summaries of underselling/overselling by country.

[2] ***.

**Table V-1**
**Glycine: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, and margins of (overselling)/underselling by quarters, January 2004-December 2006**

* * * * * * *

**Table V-2**
**Glycine: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, and margins of (overselling)/underselling by quarters, January 2004-December 2006**

* * * * * * *

**Table V-3**
**Glycine: Weighted-average f.o.b. prices and quantities of domestic and imported product 3, and margins of (overselling)/underselling by quarters, January 2004-December 2006[2]**

* * * * * * *

**Figure V-2**
**Glycine: Weighted-average f.o.b. prices of domestic and subject imported products 1-3, January 2004-December 2006**

* * * * * * *

**Table V-4**
**Glycine: Summary of weighted-average f.o.b. prices, by product and by country**

* * * * * * *

**Table V-5**
**Glycine: Summary of underselling/(overselling)**

* * * * * * *

## LOST SALES AND LOST REVENUES

Petitioners provided *** allegations of lost sales (table V-6) and no allegations of lost revenue. The total value of lost sales allegations was $***. *** agreed with *** lost sales allegation, *** disagreed, ***, and *** have not responded.

**Table V-6**
**Glycine: U.S. producers' lost sales allegations**

* * * * * * *

*** reported that it "has lost Glycine sales due to imports from Korea, India and Japan ***." It provided *** instances of *** lost sales or revenue in its *** questionnaire. However, *** it reported losing a sale of *** pounds to ***. It did not provide the information necessary to confirm this or estimate the value of ***.

*** was cited in one lost sales allegation with a value of $***. *** disagreed with the allegation, reporting that *** did not purchase any glycine from the subject countries in 2006. *** also reported that

it had not switched from U.S.-produced product to subject imported product and the U.S. producers had not reduced price because of competition from importers.[3]

*** was cited in one lost sales allegation with a value of $***. *** agreed with the allegation. He reported that the offered U.S. price was $*** not $*** (***) and the competing import price was $***, not $***. He stated, however, that *** sales did not shift away from a U.S. producer, because *** had also purchased imported product in 2004 and 2005. *** also reported that it had shifted purchases from U.S.-produced product to imported Korean product since January 2004 because of price. He also noted that the U.S. producer had *** prices of because imported product from India, Japan, and Korea. In particular, he stated that "***."

*** was cited in one allegation of a lost sale with a value of $***. *** disagreed with the allegation, reporting that for the last year and a half to two years *** had purchased from GEO, which offered ***. He also reported that the *** pounds quantity is ***; in fact *** consumes in 10 years. *** also reported that it had not switched from U.S. producer to subject imported product because of price, since the U.S. price ***. *** also reported that U.S. producers had not reduced their price because of competition from subject imports, since the price of imports ***.[4]

*** was cited in one lost sales allegation with a value of $***. *** disagreed with the allegation, reporting that ***.

*** was cited in one lost sales allegation with a value of $***. *** disagreed with the allegation, however, it reported purchasing subject Indian product from ***, an importer of glycine, thus indicating that there was a lost sale. *** reported it purchased *** pounds of glycine, not *** pounds as reported in the allegation and the price it paid for the Indian glycine was $*** per pound, not $*** per pound as reported in the allegation. *** also reported that it had not switched from U.S. producer to subject imported product because of price. *** also reported that U.S. producers had not reduced their price because of competition from subject imports.

[3] The information *** provides is contradicted in ***. *** reported that in 2006, it sold *** percent of its imported product to ***, approximately *** pounds. ***.

[4] *** provides is contradicted in ***. *** reported it sold *** percent of its 2006 sales, approximately *** pounds.

# PART VI: FINANCIAL CONDITION OF U.S. PRODUCERS

## BACKGROUND

Two producers provided financial results for their operations on glycine. The responding producers are believed to represent all of U.S. production.[1] None of the sales of glycine were either internally consumed or transferred to related companies.

## OPERATIONS ON GLYCINE

Results of operations of the U.S. producers on their glycine operations are presented in table VI-1 which includes data on a per-pound basis as well as operating income (loss) to net sales ratios.

The financial results of the producers fluctuated from 2004 to 2006, but the industry reported *** each period.[2] The quantity and value sold increased, and the *** decreased between 2004 and 2005, due to the increase in per-unit sale values combined with decreased per-unit total costs (cost of goods sold ("COGS") and selling, general, and administrative ("SG&A") expenses) during the period.

Sales quantity and value both decreased from 2005 to 2006 and the *** increased between the two periods, as average unit sales values only increased *** while the average per-unit total cost increased by ($*** per pound). The increase in total costs was attributable to the increase of raw materials cost during this period. While the operating *** decreased from 2004 to 2005 (from *** percent in 2004 to *** percent in 2005), the operating *** increased in 2006 ***.

**Table VI-1**
**Glycine: Results of operations of U.S. producers, fiscal years 2004-06**

* * * * * * *

The results of operations of the two firms are presented in table VI-2. The table presents selected financial data on a company-by-company basis for net sales (quantity and value), operating income/(loss), the ratio of operating income/(loss) to net sales value, and average unit sales values, COGS, and SG&A expenses. These average unit financial data are quite different for the two producers, due primarily to differences in product mix. There are three grades of glycine: pharmaceutical, USP, and technical. In 2006, *** percent of GEO's sales (in terms of sales value), but *** percent of Chattem's sales were USP grade glycine; during the same period, approximately *** percent of Chattem's sales were the higher-cost and higher-priced pharmaceutical grade glycine. Therefore, average unit selling prices and COGS as well as average unit total costs of Chattem for all periods were *** than those of GEO. These comparable data are presented in table VI-2. In fact, in 2006, GEO's raw materials cost per pound was ***, while Chattem's was *** and GEO's conversion cost (direct labor and factory overhead combined) per pound was *** compared with Chattem's ***. GEO's depreciation expense per pound was ***, while Chattem's was ***. Even in 2004, when Dow operated the production facility and before they wrote-off the production facility in 2004 and 2005, Dow's depreciation expense per pound was ***, while Chattem's was ***.

*** for 2004 and 2006 while *** experienced an operating ***.[3] Corporate interest expenses of both producers were allocated based on the ratio of the subject merchandise sales value to total corporate sales value. Other expenses reported by ***.

---

[1] ***.

[2] ***.

[3] ***.

**Table VI-2**
**Glycine: Results of operations of U.S. producers, by firms, fiscal years 2004-06**

* * * * * * *

Selected aggregate per-unit cost data of the producers on their operations, i.e., unit COGS and unit SG&A expenses, are presented in table VI-3. Total unit cost decreased from 2004 to 2005 and increased from 2005 to 2006. While raw materials cost continuously increased between 2004 and 2006, factory overhead decreased from 2004 to 2005. ***.[4] ***.[5] The combined effects for both producers resulted in a decrease in factory overhead in 2005.

**Table VI-3**
**Glycine: Unit costs *(per pound)* of U.S. producers, fiscal years 2004-06**

* * * * * * *

As indicated in table VI-3, while unit raw materials cost increased by $*** from 2004 to 2006, during the same period the two producers reduced their conversion costs and SG&A expenses by a total of $***.

A variance analysis showing the effects of prices and volume on the producers' sales of glycine, and of costs and volume on their total cost, is shown in table VI-4. The analysis is summarized at the bottom of the table. The analysis indicates that the increase in operating *** between 2005 and 2006 was attributable mainly to the *** of increased costs and expenses, combined with the *** of increased sales prices (i.e., per-unit total cost increased *** than the increase of per-unit selling price), while the decrease in operating loss from 2004 to 2006 was largely attributable to an increase in selling price.

**Table VI-4**
**Glycine: Variance analysis of operations of U.S. producers, fiscal years 2004-06**

* * * * * * *

## CAPITAL EXPENDITURES, R&D EXPENSES, AND INVESTMENT IN PRODUCTIVE FACILITIES

U.S. producers' capital expenditures and R&D expenses, by firm, are presented in table VI-5. Capital expenditures increased *** from 2004 to 2005, due mainly to the acquisition of glycine production facilities by GEO in November 2005,[6] and decreased subsequently in 2006. *** reporting R&D expenses.

**Table VI-5**
**Glycine: Capital expenditures and R&D expenses, by firms, of U.S. producers, fiscal years 2004-06**

* * * * * * *

[4] ***.

[5] ***.

[6] The amount of capital expenditures of GEO for 2005 was derived from *** reported when GEO purchased these facilities from Dow in November 2005.

## ASSETS AND RETURN ON INVESTMENT

U.S. producers were requested to provide data on their assets used in the production and sales of glycine during the period for which data were collected, to assess their return on investment ("ROI"). Although ROI can be computed in different ways, a commonly used method is income earned during the period divided by the total assets utilized for the operations. Therefore, staff calculated ROI as operating income (loss) divided by total assets used in the production and sales of glycine. Data on the U.S. producers' total assets and their ROI are presented in table VI-6.

**Table VI-6**
**Gycine: Value of assets and return on investment of U.S. producers, fiscal years 2004-06**

* * * * * * *

The value of total assets, especially for the original cost and net book value of property, plant, and equipment ("PPE") decreased *** from 2004 to 2005, because GEO purchased these assets at *** when these assets were purchased from the Hampshire Chemical Company (which formerly had been a subsidiary of Dow Chemical Company) on November 1, 2005. GEO's original cost of PPE decreased by ***, while net book value decreased from ***. The *** return on investment decreased from 2004 to 2005 (from *** percent), then increased from 2005 to 2006 ***. The trend of ROI over the period was the same as the trend of the operating *** margin shown in table VI-1.

## CAPITAL AND INVESTMENT

The Commission requested U.S. producers to describe any actual negative effects on their return on investment, or on growth, investment, ability to raise capital, existing development and production efforts, or the scale of capital investments as a result of imports of glycine from India, Japan, and Korea. The firms' comments are as follows:

**Chattem** ***
**GEO** ***

In addition, the firms were asked, "Does your firm anticipate any negative impact of imports of glycine from India, Japan, or Korea?" Their comments are as follows:

**Chattem** ***
**GEO** ***

# PART VII: THREAT CONSIDERATIONS

Section 771(7)(F)(I) of the Act (19 U.S.C. § 1677(7)(F)(I)) provides that–

*In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors*[1]*--*

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

*(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*

*(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*

*(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,*

*(V) inventories of the subject merchandise,*

*(VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,*

*(VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw*

[1] Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that "The Commission shall consider [these factors]. . . as a whole in making a determination of whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted under this title. The presence or absence of any factor which the Commission is required to consider . . . shall not necessarily give decisive guidance with respect to the determination. Such a determination may not be made on the basis of mere conjecture or supposition."

*agricultural product or the processed agricultural product (but not both),*

*(VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and*

*(IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).*[2]

Information on the volume and pricing of imports of the subject merchandise is presented in Parts IV and V. Information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in Part VI. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting;" any other threat indicators, if applicable; and any dumping in third-country markets, follows.

## THE INDUSTRY IN INDIA

The petition identified 12 alleged producers of glycine in India, as presented in the following tabulation:

Aditya Chemicals ("Aditya")
Amishi Drugs & Chemicals, Ltd. ("Amishi")
Ashok Alco-Chem, Ltd. ("Ashok:")
Bimal Pharma, Pvt. Ltd. ("Bimal")
Euro Asian Industrial Co. ("EA Industrial")
EPIC Enzymes Pharmaceuticals & Industrial Chemicals, Ltd. ("EPIC")
Indian Chemical Industries ("IC Industries")
Frezco Corporation ("Frezco")
Salvi Chemical Industries ("Salvi")
Kumar Industries ("Kumar")
Paras Intermediates Pvt. Ltd. ("Paras")
Sisco Research Laboratories Pvt., Ltd. ("Sisco")
Suru Chemicals and Pharmaceuticals, Pvt. Ltd. ("Suru")

An additional three firms were identified as potential foreign manufacturers of glycine in India using proprietary Customs data, including: ***. Four firms accounted for *** percent of U.S. imports of glycine from India between 2004 and 2006 as presented in table IV-1: ***.[3] The Commission received

[2] Section 771(7)(F)(iii) of the Act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other WTO member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

[3] Calculated from proprietary Customs data.

completed questionnaire responses from AICO,[4] Kumar, and Paras. Various U.S. importers' questionnaire responses also identified ***, in addition to the firms that the Commission received foreign producers data from, as producers of glycine in India.

Table VII-1 presents information on Indian producers' glycine operations. Indian producers increased production of glycine between 2004 and 2006, with most of the increase occurring between 2004 and 2005 ***. *** indicated that AICO operations were in fact re-export operations of Chinese-produced glycine,[5] while officials at CAF testified that AICO actually has Indian glycine production facilities.[6] Over the period of investigation, exports to the United States accounted for the vast majority of all reporting Indian producers' shipments. *** indicated that there was not a large domestic Indian market for glycine.[7] Chattem alleges that most, *** percent, of U.S. imports from India are transshipments of glycine produced in China.[8] Exports to the United States reported in table VII-1 account for an estimated *** percent of U.S. imports from India reported in table IV-1.

[4] AICO has a business relationship with the U.S. importer CAF. Conference transcript, p. 81 (Frey).

[5] Staff telephone interview, ***, April 17, 2007 and *** foreign producers' / exporters' questionnaire response, question II-2:

***.

[6] Conference transcript, p. 88 (Frey).

[7] Staff telephone interview with ***, April 17, 2007.

[8] Chattem's postconference submission, p. 2.

**Table VII-1**
**Glycine: Indian producers' operations, 2004-06, and projected 2007-08**

| Item | Actual experience | | | Projections | |
|---|---|---|---|---|---|
| | 2004 | 2005 | 2006 | 2007 | 2008 |
| | Quantity (*1,000 pounds*) | | | | |
| Capacity | 3,412 | 3,412 | 3,412 | 3,412 | 3,412 |
| Production | 1,425 | 2,349 | 2,378 | 2,202 | 2,455 |
| Shipments: | | | | | |
| Internal consumption | *** | *** | *** | *** | *** |
| Home market | *** | *** | *** | *** | *** |
| Exports to-- | | | | | |
| The United States | 1,034 | 1,871 | 2,126 | 1,753 | 1,890 |
| European Union | *** | *** | *** | *** | *** |
| Asia | *** | *** | *** | *** | *** |
| All other markets | *** | *** | *** | *** | *** |
| Total exports | *** | *** | *** | *** | *** |
| Total shipments | 1,465 | 2,262 | 2,498 | 2,238 | 2,500 |
| | Ratio (*percent*) | | | | |
| Capacity utilization | 41.8 | 68.9 | 69.7 | 64.5 | 72.0 |
| | Share of quantity (*percent*) | | | | |
| Shipments: | | | | | |
| Internal consumption | *** | *** | *** | *** | *** |
| Home market | *** | *** | *** | *** | *** |
| Exports to-- | | | | | |
| The United States | 70.6 | 82.7 | 85.1 | 78.3 | 75.6 |
| European Union | *** | *** | *** | *** | *** |
| Asia | *** | *** | *** | *** | *** |
| All other markets | *** | *** | *** | *** | *** |
| Total exports | *** | *** | *** | *** | *** |
| Total shipments | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

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

## THE INDUSTRY IN JAPAN

The petition identified five alleged producers of glycine in Japan as identified in the following tabulation:

Ajinomoto Co., Inc. ("Ajinomoto")
Hayashi Pure Chemical Industries Co., Ltd. ("Hayashi Pure")
Kyowa Hakko Kogyo Co., Ltd. ("Kyowa Hakko")
Showa Denko K.K. ("Showa Denko")
Yuki Gosei Kogyo Co., Ltd. ("Yuki Gosei")

An additional five firms were identified as potential foreign manufacturers of glycine in Japan using proprietary Customs data, including: ***. Five firms accounted for *** percent of U.S. imports of glycine from Japan between 2004 and 2006 as presented in table IV-1: ***.[9] As a distributor of glycine ***. In its U.S. importers' questionnaire response, *** identified Showa Denko and Yuki Gosei as the actual foreign manufacturers of their shipments of glycine to the United States.[10] In fact, a review of U.S. importers' questionnaires submitted in these investigations indicate that all U.S. imports of glycine from Japan were produced by ***. Of the Japanese firms contacted, five provided completed foreign producers' / exporters' questionnaire responses, including: ***. Of the five responding firms, only Yuki Gosei was an actual producer of glycine; the other four firms were exporters of glycine from Japan. Showa Denko has not provided the Commission with a completed foreign producers' questionnaire response, despite requests made to U.S. producer Chattem with whom Showa Denko has a business relationship.[11]

Table VII-2 presents information on Japanese producers' and exporters' glycine operations.

**Table VII-2**
**Glycine: Japanese producers' and exporters' operations, 2004-06, and projected 2007-08**

* * * * * * *

Yuki Gosei first increased its production of glycine between 2004 and 2005 and then decreased its production of glycine between 2005 and 2006, resulting in a period low capacity utilization rate of *** percent in 2006. Yuki Gosei projects *** production levels going forward into 2007 and 2008. Over the period of investigation, home market sales accounted for the majority of reported shipments of glycine in Japan; however, reported home market shipments might be over-reported for Japanese glycine to the degree that some of the remaining home market shipments might have been exported by firms other than those reporting to the Commission's inquiry.[12] Reported export shipments to the United States were minimal and accounted for a high of *** percent of total reported shipments of glycine from Japan in 2005. Reported export shipments to the European Union primarily represent exports by ***;[13] therefore, actual shipments to the United States were higher than reported in table VII-2 due to their channels of

[9] Staff worksheet of proprietary Customs data. ***. *** foreign producers'/exporters' questionnaire response.

[10] *** U.S. importers' questionnaire response, question II-5b. *** claims its exports to the United States from *** were produced by Showa Denko and Yuki Gosei.

[11] Conference transcript, p. 77 (Duncan & Kedrowski).

[12] For purposes of table VII-2, Yuki Gosei's home market shipments were adjusted to remove shipments reported in the Japanese exporters' questionnaire responses (*i.e.*, ***).

[13] E-mail from ***, April 20, 2007.

distribution. Exports to the United States in table VII-2 and *** collectively account for an estimated *** percent of U.S. imports from Japan reported in table IV-2.

## THE INDUSTRY IN KOREA

The petition identified three alleged producers of glycine in Korea as identified in the following tabulation:

Korea Bio-Gen Co., Ltd. ("Bio-Gen")
DHOW International ("DHOW")
Haerim Industrial Co. Ltd. ("Haerim")

Proprietary Customs data identified *** as the foreign manufacturer for the vast majority (*** percent) of U.S. imports from Korea. The other firm identified in proprietary Customs data was ***. No Korean firms provided the Commission with a completed foreign producers'/exporters' questionnaire response. Officials at *** indicated that its supplier in Korea, Bio-Gen, would not be cooperating by providing data in the Commission's investigations.[14] Chattem alleges that all U.S. imports from Korea are transshipments of glycine produced in China.[15] *** provided documentation from a U.S. Customs determination in 2002 indicating that Bio-Gen does have glycine production facilities in Korea.[16]

## U.S. IMPORTERS' INVENTORIES

Table VII-3 presents information on U.S. importers' inventories. The majority of U.S. importers' inventories in 2005 relate to inventories *** imported by *** in 2005 but sold in 2006, while the majority of inventories in 2006 relate to inventories of *** imported by *** in 2006 which ***.[17]

**Table VII-3**
**Glycine: U.S. importers' inventories, 2004-06**

* * * * * * *

## U.S. IMPORTERS' CURRENT ORDERS

Eight U.S. importers reported that they had placed orders for glycine from India, Japan, or Korea, totaling 5.3 million pounds, scheduled for entry into the United States in 2007. Table VII-4 presents U.S. importers' 2007 orders for glycine.

**Table VII-4**
**Glycine: U.S. importers' current orders, 2007**

* * * * * * *

[14] Staff telephone interview with ***, April 16, 2007.

[15] Chattem's postconference submission, p. 2.

[16] Letter from Mark Altenstadter, Chief, Trade Operations Branch, Customs, January 22, 2002.

[17] Staff telephone interview with ***, April 17, 2007.

## ANTIDUMPING AND COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

There are no known antidumping or countervailing duty orders on glycine in third-country markets. The EU had instituted preliminary antidumping duties on imports of glycine into the EU from China on May 19, 2000 but then removed the provisional duties on November 16, 2000 following a negative final determination.[18]

## INFORMATION ON NONSUBJECT SOURCES

### "Bratsk" Considerations

As a result of the Court of Appeals for the Federal Circuit ("CAFC") decision in *Bratsk Aluminum Smelter v. United States* ("Bratsk"), the Commission is directed to:[19] [20]

> *undertake an "additional causation inquiry" whenever certain triggering factors are met: "whenever the antidumping investigation is centered on a commodity product, and price competitive non-subject imports are a significant factor in the market." The additional inquiry required by the Court, which we refer to as the Bratsk replacement/benefit test, is "whether non-subject imports would have replaced the subject imports without any beneficial effect on domestic producers.*

### Nonsubject Source Information

During the preliminary phase of this investigation, the Commission sought pricing data from U.S. importers of glycine from China. Those data are presented in Part V of this report. With respect to foreign industry data, the Commission sought publicly available information regarding producers of

[18] *Glycine from China, Inv. No. 731-TA-718 (Second Review),* USITC Publication 3810, October 2005, p. I-4 and e-mail from ***, May 2, 2007.

[19] *Silicon Metal from Russia, Inv. No. 731-TA-991 (Second Remand),* USITC Publication 3910, March 2007, p. 2; citing *Bratsk Aluminum Smelter v. United States*, 444 F.3d at 1375.

[20] In the silicon metal remand, Chairman Pearson noted "consistent with his views in *Lined Paper School Supplies From China, India, and Indonesia, Inv. Nos. 701-TA-442-443 and 731-TA-1095-1097 (Final),* USITC Pub. 3884 (Sept. 2006) at 51, that while he agrees with the Commission that the Federal Circuit's opinion suggests a replacement/benefit test, he also finds that the Federal Circuit's opinion could be read, not as requiring a new test, but rather as a reminder that the Commission, before it makes an affirmative determination, must satisfy itself that it has not attributed material injury to factors other than subject imports." *Silicon Metal from Russia, Inv. No. 731-TA-991 (Second Remand),* USITC Publication 3910, March 2007, p. 2, fn. 17. Commissioner Okun joined in those separate and dissenting views in *Lined Paper*.

glycine in Belgium (accounting for 4.1 percent of total U.S. imports of glycine during 2006), China (25.5 percent), France (0.3 percent), and Germany (0.2 percent).[21] The information obtained is presented below.

**China**

China is the largest producer of glycine in the world. In 1995, it was estimated that China had the capacity to produce 22 to 33 million pounds of glycine, while it was estimated that in 2002 China had a capacity to produce 50 million pounds of glycine.[22] While most firms in China are currently subject to the discipline of antidumping duties at 155.89 percent *ad valorem*, two firms received lower rates: in 2001, Nantong Dongchang Chemical Industry Corp. ("Nantong Dongchang") received a 18.60 percent antidumping duty rate following an amended new shipper review at Commerce;[23] and Baoding Mantong Fine Chemistry Co., Ltd. ("Baoding") received a 2.95 percent antidumping duty rate following an amended administrative review at Commerce in 2005.[24] The increase in U.S. imports from China in 2005 relates to imports from ***, while the increase in U.S. imports from China in 2006 relates to imports from ***. Table VII-5 presents information on the quantity of U.S. imports from China by exporting firm between 2004 and 2006.

**Table VII-5**
**Glycine: U.S. imports from China, by exporter, 2004-06**

* * * * * * *

On April 12, 2007, Commerce published a preliminary revised antidumping dumping duty rate for Nantong Dongchang at 75.82 percent, while it rescinded its review of Baoding since Baoding did not report any shipments of glycine in the period being reviewed.[25]

[21] Conference testimony indicated that Hungary was an additional source of glycine in the U.S. market. Conference transcript, p. 71 (Johnson). Official Commerce statistics indicate that there have been no U.S. imports of glycine from Hungary since 2004. Available information indicates that in 2002 Nitrokemia had the capacity to produce 6,000 metric tons per year of monochloroacetic acid (MCA), the key feedstock for the production of glycine in one commercial process. ICIS, "Product Profile: MCAA," April 29, 2002, http://www.icis.com/Articles/2002/06/12/170939/Product-profile-MCAA.html (retrieved April 30, 2007). Assuming that Nitrokemia uses its own MCA feedstock to make glycine, its glycine capacity would be at most 5,000 metric tons per year. Nitrokemia's glycine plant may no longer be in production given Tessenderlo's assertion in 2005 that it was the only European glycine producer. In addition, Hungary has not reported any exports of glycine since 2004. *Global Trade Atlas*, http://www.gtis.com/gta (retrieved April 30, 2007).

[22] *Glycine from China, Inv. No. 731-TA-718 (Second Review)*, USITC Publication 3810, October 2005, pp I-20 to I-21.

[23] 66 FR 13204, March 5, 2001.

[24] 70 FR 54012, September 13, 2005.

[25] 72 FR 18457, April 12, 2007.

**Belgium**

The Tessenderlo Group operates a glycine plant in Limburg, Belgium.[26] The 2005 annual report of the Tessenderlo Group states that it is the only European manufacturer of glycine.[27] ***.[28] Tessenderlo has a capacity to produce *** of glycine and is currently operating at *** percent capacity utilization.[29] Tessenderlo, ***.[30] Tessenderlo is the only known producer of glycine in Europe.[31] The quantity of U.S. imports from Belgium decreased from 1.2 million pounds in 2004 to 0.2 million pounds in 2005 and 0.4 million pounds in 2006 (*see* table IV-2). Tessenderlo attributes this decrease in its exports to the United States to ***.[32] Tessenderlo also claims that, in the case of antidumping duties on imports from India, Japan, and Korea in the United States, ***.[33]

**France and Germany**

The following firms in France and Germany were identified in proprietary Customs data as exporters of glycine during the period of investigation: ***;[34] ***;[35] ***;[36] and ***.[37] Based on a review of secondary source information, these firms do not appear to be actual producers of glycine.

[26] Tessenderlo Group, "Locations," http://www.tessenderlogroup.com/S02_Markets%20&%20Applications/S05_Fine%20Chemicals/S07_Locations/ (retrieved April 30, 2007).

[27] Tessenderlo Group, "Annual Report 2005," p. 35, http://www.tessenderlogroup.com/S01_Corporate/S04_Publications/S01_Annual%20reports/S02_Annual%20report%202005/content.asp# (retrieved April 30, 2007).

[28] CAF's postconference brief, p. 1.

[29] E-mail ***, May 2, 2007.

[30] Ibid.

[31] Ibid.

[32] Ibid.

[33] Ibid.

[34] This is ***. It does not appear to be producing glycine, but it is possible that this firm may use glycine in its ***. The company is owned by the ***.

[35] This firm appears to be ***. Available information does not indicate that this firm produces glycine.

[36] This firm is ***. Available information does not indicate that this firm produces glycine. It is possible that this firm uses glycine as an inactive ingredient in their ***.

[37] This company became part of ***. Available information does not indicate that this firm produces glycine. This firm ***, but not glycine.

# APPENDIX A

# *FEDERAL REGISTER* NOTICES

## INTERNATIONAL TRADE COMMISSION

**[Investigation Nos. 731–TA–1111–1113 (Preliminary)]**

### Glycine from India, Japan, and Korea

**AGENCY:** United States International Trade Commission.

**ACTION:** Institution of antidumping investigations and scheduling of preliminary phase investigations.

**SUMMARY:** The Commission hereby gives notice of the institution of investigations and commencement of preliminary phase antidumping investigations Nos. 731–TA–1111–1113 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)) (the Act) to determine whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from India, Japan, and Korea of glycine,[1] provided for in subheading 2922.49.4020 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value. Unless the Department of Commerce extends the time for initiation pursuant to section 732(c)(1)(B) of the Act (19 U.S.C. 1673a(c)(1)(B)), the Commission must reach a preliminary determination in antidumping investigations in 45 days, or in this case by May 14, 2007. The Commission's views are due at Commerce within five business days thereafter, or by Monday, May 21, 2007.

For further information concerning the conduct of these investigations and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and B (19 CFR part 207).

**EFFECTIVE DATE:** March 30, 2007.

[1] The imported product covered by these investigations is glycine, which in its solid (*i.e.*, crystallized) form is a free-flowing crystalline material, like salt or sugar. These investigations cover glycine in any form and purity level, regardless of additives. Glycine's chemical composition is $C_2H_5NO_2$ and generally is classified under subheading 2922.49.4020 of the Harmonized Tariff Schedule of the United States (''HTSUS'').

In addition, precursors of dried crystalline glycine, including, but not limited to, glycine slurry (*i.e.*, glycine in a non-crystallized form) and sodium glycinate are included in these investigations. Glycine slurry is classified under the same HTSUS as crystallized glycine (2922.49.4020) and sodium glycinate is classified under HTSUS 2922.49.8000. While HTSUS subheadings are provided for convenience and Customs purposes, our written description of the scope of this investigation is dispositive.

**FOR FURTHER INFORMATION CONTACT:** Russell Duncan (202–708–4727, *russell.duncan@usitc.gov*), Office of Investigations, U.S. International Trade Commission, 500 E Street, SW., Room 615–U, Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may also be obtained by accessing its internet server (*http://www.usitc.gov*). The public record for these investigations may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov.*

**SUPPLEMENTARY INFORMATION:**

*Background.* These investigations are being instituted in response to a petition filed on March 30, 2007, by GEO Specialty Chemicals, Inc., Lafayette, IN.

*Participation in the investigations and public service list.* Persons (other than petitioners) wishing to participate in the investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in §§ 201.11 and 207.10 of the Commission's rules, not later than seven days after publication of this notice in the **Federal Register**. Industrial users and (if the merchandise under investigation is sold at the retail level) representative consumer organizations have the right to appear as parties in Commission antidumping investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to these investigations upon the expiration of the period for filing entries of appearance.

*Limited disclosure of business proprietary information (BPI) under an administrative protective order (APO) and BPI service list.* Pursuant to § 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in these investigations available to authorized applicants representing interested parties (as defined in 19 U.S.C. 1677(9)) who are parties to the investigations under the APO issued in the investigations, provided that the application is made not later than seven days after the publication of this notice in the **Federal Register**. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

*Conference.* The Commission's Director of Operations has scheduled a

conference in connection with these investigations for 9:30 a.m. on Friday, April 20, 2007, at the U.S. International Trade Commission Building, 500 E Street, SW., Washington, DC. Parties wishing to participate in the conference should contact Russell Duncan (202–708–4727) not later than April 18, 2007, to arrange for their appearance. Parties in support of the imposition of antidumping duties in these investigations and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the conference.

*Written submissions.* As provided in §§ 201.8 and 207.15 of the Commission's rules, any person may submit to the Commission on or before April 25, 2007, a written brief containing information and arguments pertinent to the subject matter of the investigations. Parties may file written testimony in connection with their presentation at the conference no later than three days before the conference. If briefs or written testimony contain BPI, they must conform with the requirements of §§ 201.6, 207.3, and 207.7 of the Commission's rules. The Commission's rules do not authorize filing of submissions with the Secretary by facsimile or electronic means, except to the extent permitted by § 201.8 of the Commission's rules, as amended, 67 FR 68036 (November 8, 2002). Even where electronic filing of a document is permitted, certain documents must also be filed in paper form, as specified in II(C) of the Commission's Handbook on Electronic Filing Procedures, 67 FR 68168, 68173 (November 8, 2002).

In accordance with §§ 201.16(c) and 207.3 of the rules, each document filed by a party to the investigations must be served on all other parties to the investigations (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

**Authority:** These investigations are being conducted under authority of title VII of the Tariff Act of 1930; this notice is published pursuant to § 207.12 of the Commission's rules.

Issued: April 2, 2007.

By order of the Commission.

**Marilyn R. Abbott,**

*Secretary to the Commission.*

[FR Doc. E7–6601 Filed 4–6–07; 8:45 am]

**BILLING CODE 7020–02–P**

## DEPARTMENT OF COMMERCE

### International Trade Administration

**[A–533–845, A–580–858, A–588–868]**

### Glycine from India, Japan, and the Republic of Korea: Initiation of Antidumping Duty Investigations

**AGENCY:** Import Administration, International Trade Administration, Department of Commerce.

**EFFECTIVE DATE:** April 26, 2007.

**FOR FURTHER INFORMATION CONTACT:** Scott Lindsay (India), Toni Page (Japan), or Dmitry Vladimirov and Janis Kalnins (Republic of Korea), AD/CVD Operations, Office 6 and Office 5, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482–0780, (202) 482–1398, (202) 482–0665, or (202) 482–1392 respectively.

**SUPPLEMENTARY INFORMATION:**

#### The Petitions

On March 30, 2007, the Department of Commerce (the Department) received petitions concerning imports of glycine from India (*Indian Petition*), Japan (*Japanese Petition*), and the Republic of Korea (Korea) (*Korean Petition*) (collectively, the Petitions), filed in proper form by Geo Specialty Chemicals, Inc. (Petitioner). *See* the Petitions for the Imposition of Antidumping Duties on Imports of Glycine from India, Japan, and the Republic of Korea filed on March 30, 2007. On April 5, 2007, the Department issued a request for additional information and clarification of certain areas of the Petitions. Based on the Department's request, Petitioner filed Petition Supplements on April 3, 12, 13, 17, and 18, 2007. In the April 18, 2007, Petition Supplement, Petitioner confirmed the final scope language. In addition, Petitioner submitted certain revisions to their cost calculations for India, Japan and Korea. We note that, although this revised cost data

contained minor errors, Petitioner's revisions to that data were generally consistent with the revisions made by the Department. *See* ''Cost of Production and Constructed Value section,'' below. Also based on the Department's request, the Petitioner refiled certain submissions to correct (1) the designation of information that may not be released under APO and (2) their request for business proprietary treatment of certain information on April 10 and 13, 2007.

In accordance with section 732(b) of the Tariff Act of 1930, as amended (the Act), Petitioner alleges that imports of glycine from India, Japan, and Korea are being, or are likely to be, sold in the United States at less than fair value, within the meaning of section 731 of the Act, and that such imports are materially injuring, or threatening material injury to, an industry in the United States.

**Period of Investigation (POI)**

In accordance with section 351.204(b) of the Department's regulations, because the petition was filed on March 30, 2007, the proposed period of investigation for India, Japan and Korea is January 1, 2006 through December 31, 2006, as this includes the four most recently completed fiscal quarters as of February 2007.

**Scope of the Investigations**

The merchandise covered by each of these three investigations is glycine, which in its solid (*i.e.*, crystallized) form is a free–flowing crystalline material. Glycine is used as a sweetener/taste enhancer, buffering agent, reabsorbable amino acid, chemical intermediate, metal complexing agent, dietary supplement, and is used in certain pharmaceuticals. The scope of each of these investigations covers glycine in any form and purity level. Although glycine blended with other materials is not covered by the scope of each of these investigations, glycine to which relatively small quantities of other materials have been added is covered by the scope. Glycine's chemical composition is $C_2H_5NO_2$ and is normally classified under subheading 2922.49.4020 of the Harmonized Tariff Schedule of the United States (HTSUS).

The scope of each of these investigations also covers precursors of dried crystalline glycine, including, but not limited to, glycine slurry (*i.e.*, glycine in a non–crystallized form) and sodium glycinate. Glycine slurry is classified under the same HTSUS subheading as crystallized glycine (2922.49.4020) and sodium glycinate is classified under subheading HTSUS 2922.49.8000.

While HTSUS subheadings are provided for convenience and Customs purposes, our written description of the scope of these investigations is dispositive.

**Comments on the Scope of the Investigations**

During our review of the Petitions, we discussed the scope with Petitioner to ensure that it is an accurate reflection of the products for which the domestic industry is seeking relief. Moreover, as discussed in the preamble to the regulations (*Antidumping Duties; Countervailing Duties; Final Rule*, 62 FR 27296, 27323 (May 19, 1997)), we are setting aside a period for interested parties to raise issues regarding product coverage. The Department encourages all interested parties to submit such comments within 20 calendar days of the publication of this notice. Comments should be addressed to Import Administration's Central Records Unit (CRU), Room 1870, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230. The period of scope consultations is intended to provide the Department with ample opportunity to consider all comments and to consult with parties prior to the issuance of the preliminary determinations.

**Determination of Industry Support for the Petitions**

Section 732(b)(1) of the Act requires that a petition be filed by an interested party on behalf of the domestic industry. Section 732(c)(4)(A) of the Act provides that a petition meets this requirement if (1) the domestic producers or workers who support the petition account for at least 25 percent of the total production of the domestic like product and (2) the domestic producers or workers who support the petition account for more than 50 percent of the production of the domestic like product produced by that portion of the industry expressing support for or opposition to the petition.

Section 771(4)(A) of the Act defines the ''industry'' as the producers as a whole of a domestic like product. Thus, to determine whether the petition has the requisite industry support, the statute directs the Department to look to producers and workers who produce the domestic like product. The International Trade Commission (ITC) is responsible for determining whether ''the domestic industry'' has been injured and must also determine what constitutes a domestic like product in order to define the industry. While the Department and the ITC must apply the same statutory definition regarding the domestic like product, they do so for different purposes and pursuant to separate and distinct authority. *See* section 771(10) of the Act. In addition, the Department's determination is subject to limitations of time and information. Although this may result in different definitions of the domestic like product, such differences do not render the decision of either agency contrary to law.[1]

Section 771(10) of the Act defines the 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 title.'' Thus, the reference point from which the domestic like product analysis begins is ''the article subject to an investigation,'' *i.e.*, the class or kind of merchandise to be investigated, which normally will be the scope as defined in the petition.

With regard to domestic like product, Petitioner does not offer a definition of domestic like product distinct from the scope of each investigation. Based on our analysis of the information submitted in the petitions, we have determined that the domestic like product consists of all grades of glycine, as well as sodium glycinate, which is defined in the ''Scope of the Investigations'' section above, and we have analyzed industry support in terms of the domestic like product.

We received no expression of opposition to these petitions from any member of the domestic industry. Petitioner accounts for a sufficient percentage of the total production of the domestic like product, and the requirements of section 732(c)(4)(A) are met. Accordingly, the Department determines that the Petitions were filed on behalf of the domestic industry within the meaning of section 732(b)(1) of the Act. *See* ''Office of AD/CVD Operations Initiation Checklist for the Antidumping Duty Petition on Glycine from India,'' at Attachment II (April 19, 2007) (*India AD Initiation Checklist*), ''Office of AD/CVD Operations Initiation Checklist for the Antidumping Duty Petition on Glycine from Japan,'' at Attachment II (April 19, 2007) (*Japan AD Initiation Checklist*), and ''Office of AD/CVD Operations Initiation Checklist for the Antidumping Duty Petition on Glycine from Korea,'' at Attachment II (April 19, 2007) (*Korea AD Initiation Checklist*), on file in the CRU.

[1] *See USEC, Inc. v. United States*, 25 CIT 49, 55-56 (January 24, 2001) (citing *Algoma Steel Corp. v. United States*, 12 CIT 518 (June 8, 1988)).

**Allegations and Evidence of Material Injury and Causation**

Petitioner alleges that the U.S. industry producing the domestic like product is materially injured, or is threatened with material injury, by reason of the individual and cumulated imports of the subject merchandise sold at less than normal value (NV). Petitioner contends that the industry's injured condition is illustrated by the decline in customer base, market share, domestic shipments, prices, financial performance, and lost sales. We have assessed the allegations and supporting evidence regarding material injury and causation, and we have determined that these allegations are properly supported by adequate evidence and meet the statutory requirements for initiation. *See* the country–specific *Initiation Checklists* at Attachment III.

**Allegations of Sales at Less Than Fair Value**

The following is a description of the allegations of sales at less than fair value upon which the Department based its decision to initiate these investigations on imports of glycine from India, Japan, and Korea. The sources of data for the deductions and adjustments relating to the U.S. price as well as NV for India, Japan, and Korea are also discussed in the country–specific *Initiation Checklists*. Should the need arise to use any of this information as facts available under section 776 of the Act in our preliminary or final determinations, we will reexamine the information and revise the margin calculations, if appropriate.

**Export Price (EP)**

Petitioner calculated EP using information from sales the company lost to Indian, Japanese, and Korean exporters. When based on lost sale prices, Petitioner adjusted U.S. prices for home market inland freight, international freight, U.S. inland freight, distributor mark–up, and credit expenses. *See Indian Petition* at page 28, *Japanese Petition* at page 30, and *Korean Petition* at pages 31–32.

Petitioner also calculated EP from Korea using the free–on-board (FOB) foreign–port average unit customs values (AUVs) for 2006 for import data obtained from the U.S. International Trade Commission data website. Petitioner used the HTSUS subheading under which all three grades of subject merchandise (pharmaceutical, technical, and food) are imported (2922.49.4020). Petitioner provided shipment data from PIERS Global Intelligence Services for the same HTSUS subheading to demonstrate that most entries of glycine from Korea during 2006 were of ''pure food grade'' glycine. *See* Volume II of the Petitions at Exhibit DOC–15. Petitioner made an adjustment to the AUV–based EP from Korea for foreign inland freight.

**Revisions to Export Price (EP)**

Based on our review of the information contained in the Petitions, we recalculated net EP (when based on a price quotation) by excluding an adjustment to EP for U.S. credit expenses. We also recalculated net EP (when based on a price quotation) by revising the reported amount associated with a distributor's mark–up to reflect the percentage mark–up. Petitioner stated that this mark–up was an average mark–up for glycine sales in the United States. *See* Volume II of the Petitions at Exhibits DOC–27 through DOC–29; also April 13, 2007, Petition Supplement at Exhibits L, M, and N. *See Initiation Checklists*.

**Normal Value (NV)**

*India and Japan*

Petitioner stated that, since it does not sell glycine in the Indian, Japanese, or Korean markets, it does not have specific knowledge of how glycine is sold, marketed, or packaged in those domestic markets. Petitioner was able to determine domestic Indian and Japanese prices for glycine by obtaining price quotations, through an economic consultant, from Indian and Japanese manufacturers of glycine. *See* memoranda ''Telephone Call to Market Research Firm Regarding the Antidumping Petition on Glycine from India,'' and ''Telephone Call to Market Research Firm Regarding the Antidumping Petition on Glycine from Japan,'' dated April 19, 2007. These price quotations identified specific terms of sale and payment terms. Petitioner made adjustments for home market credit for Indian sales. Petitioner did not make adjustment for home market credit to Japanese prices. *See* Volume II of the Petitions at Exhibits DOC–17–18 and 22–23.

**Revisions to Normal Value**

Based on our review of the information contained in the Petitions, we recalculated NV for India and Japan (when based on price quotations) by excluding the adjustment for home market and U.S. credit expenses. *See India AD Initiation Checklist* and *Japan AD Initiation Checklist*.

**Sales Below Cost Allegation for India and Japan**

Petitioner has provided information demonstrating reasonable grounds to believe or suspect that certain sales of glycine in India and Japan were made at prices below the fully absorbed cost of production (COP), within the meaning of section 773(b) of the Act, and has requested that the Department conduct country–wide sales below COP investigations. An allegation of sales below COP in a petition need not be specific to individual exporters or producers. *See* Statement of Administrative Action accompanying the Uruguay Round Agreements Act, H.R. Doc. No. 103–316, Vol. 1 (1994) at 833. Thus, Commerce will consider allegations of below–cost sales in the aggregate for a foreign country. *Id*. Further, section 773(b)(2)(A) of the Act requires that the Department have ''reasonable grounds to believe or suspect'' that below–cost sales have occurred before initiating such an investigation. Reasonable grounds exist when an interested party provides specific factual information on costs and prices, observed or constructed, indicating that sales in the foreign market in question are at below–cost prices. *Id*.

As described in the section below on ''Cost of Production and Constructed Value,'' the Department calculated a country–specific COP for a certain grade of glycine for India and Japan. Based upon a comparison of price quotations for sales of that same grade glycine in India and Japan and the country–specific COP of the product, we find reasonable grounds to believe or suspect that sales of glycine in India and Japan were made below the COP, within the meaning of section 773(b)(2)(A)(i) of the Act. Accordingly, the Department is initiating country–wide cost investigations with regard to both India and Japan. Because it alleged sales below cost, pursuant to sections 773(a)(4), 773(b) and 773(e) of the Act, Petitioner also based NV for Indian and Japanese sales of a certain grade glycine on constructed value (CV).

*Korea*

Petitioner claimed that, despite extensive efforts to determine prices in Korea, it was not able to obtain usable price information for calendar year 2006 either for sales of glycine in Korea or for sales of glycine by Korean producers/exporters in third countries. *See e.g.*, *Korean Petition* at pages 27 and 35 and April 19, 2007; as well as Memorandum to File, ''Telephone Call to Market Research Firm Regarding the

Antidumping Petition on Glycine from Korea'' (April 19, 2007). Consequently, Petitioner relied on COP and CV information in determining NV for Korea. *See* ''Cost of Production and Constructed Value,'' section below.

**Cost of Production and Constructed Value**

As noted above, Petitioner was unable to obtain usable price information for Korea; therefore, the appropriate basis for normal value for comparison to EP from Korea is CV. Also, as discussed above, Petitioner has established that certain sales of glycine in India and Japan were made at prices below the fully absorbed COP, within the meaning of section 773(b) of the Act. As such, CV was used for India and Japan when the home market prices for a certain grade glycine used in the cost comparisons fell below the COP. The calculation of COP and CV for each of the three countries is set forth below.

*India*

Pursuant to section 773(b)(3) of the Act, COP consists of the cost of manufacturing (COM); selling, general and administrative (SG&A) expenses; financial expenses; and packing expenses. To calculate the COM, Petitioner multiplied the usage quantity of each input needed to produce one metric ton (MT) of glycine by the value of that input. Petitioner obtained all of the quantity and value data it used to calculate the COM from public sources. Petitioner obtained the input usage factors from the public record of the 1997–1998 administrative review of glycine from the People's Republic of China (PRC). The producer in the 1997–1998 review produced glycine by the same production method that producers in India use. The petitioner obtained the values for the inputs from various public sources. Petitioner calculated factory overhead, SG&A and the financial expense rate based on the Indian surrogate ratios that the Department used in the preliminary results of the 2005–2006 administrative review of glycine from the PRC. Where we used CV to determine NV, Petitioner added an amount for profit from the same financial statements.

We adjusted Petitioner's calculation of SG&A to apply the rate to COM inclusive of factory overhead. We did not include a separate financial expense amount as petitioner did because the SG&A ratio already included financial expense. See the *India AD Initiation Checklist* for a full description of Petitioner's methodology and the adjustments the Department made to those calculations.

*Japan*

Pursuant to section 773(b)(3) of the Act, COP consists of COM; SG&A expenses; financial expenses; and packing expenses. To calculate the COM, Petitioner multiplied the usage quantity of each input needed to produce one MT of glycine by the value of that input. Petitioner obtained all of the quantity and value data it used to calculate the COM from public sources. As it did for the allegation involving India, Petitioner obtained the input usage factors from the public record of the 1997–1998 administrative review of glycine from the PRC. The producer in the 1997–1998 review produced glycine by the same production method that producers in Japan use. Petitioner obtained the values for the inputs from various public sources. Petitioner calculated average factory overhead, SG&A and the financial expense rate based on current financial statements of a Japanese producer of glycine. Where we used CV to determine NV, Petitioner added an amount for profit from the same financial statements.

We adjusted Petitioner's calculation of SG&A to apply the rate to COM inclusive of factory overhead. *See Japan AD Initiation Checklist* for a full description of Petitioner's methodology and the adjustments the Department made to those calculations.

*Korea*

Petitioner calculated the Korean COP using the same methodology to calculate COM as it used for Japan and India. That is, Petitioner calculated the Korean COM by multiplying the usage quantity of each input needed to produce one MT of glycine by the value of that input. Petitioner obtained all of the quantity and value data it used to calculate the COM from public sources. Petitioner obtained the input usage factors from the public record of the 1997–1998 administrative review of glycine from the PRC. The respondent in the 1997–1998 Chinese review produced glycine by the same production method that producers in Korea use. Petitioner obtained the values for the inputs from various public sources. Petitioner calculated factory overhead, SG&A and the financial expense rate based on the financial statements of a Korean producer of lysine and threonine, amino acids which use production methods similar to glycine. Because Petitioner used CV for NV for Korea, it added an amount for profit in accordance with section 773(e)(2) of the Act. The profit rate was based on the financial statements of the same Korean producer of lysine and threonine. *See Korea AD Initiation Checklist*.

We adjusted Petitioner's calculated factory overhead to eliminate double counting of depreciation and amortization. We applied the SG&A rate to COM inclusive of factory overhead. We also adjusted Petitioner's calculation of the financial expense ratio to include interest income as a reduction to financial expense. *See Korea AD Initiation Checklist* for a full description of Petitioner's methodology and the adjustments the Department made to those calculations.

**Fair Value Comparisons**

Based on the data provided by Petitioner, and adjusted by the Department as described above, there is sufficient basis to find that imports of glycine from India, Japan, and Korea are being, or are likely to be, sold in the United States at less than fair value. Based on comparisons of EP to home market prices and CV in India and Japan, and to CV for Korea, which were calculated in accordance with section 773(a)(4) of the Act, the dumping margins for glycine range from 5.67 to 121.62 percent for India, 70.21 to 280.57 percent for Japan, and 138.37 to 138.83 for Korea.

**Initiation of Antidumping Duty Investigations**

Based upon the examination of the Petitions on glycine from India, Japan, and Korea, the Department finds that the Petitions meet the requirements of section 732 of the Act. Therefore, we are initiating antidumping duty investigations to determine whether imports of glycine from India, Japan, and Korea are being, or are likely to be, sold in the United States at less than fair value. In accordance with section 733(b)(1)(A) of the Act, unless postponed, we will make our preliminary determinations no later than 140 days after the date of this initiation.

**Distribution of Copies of the Petitions**

In accordance with section 732(b)(3)(A) of the Act, copies of the public versions of the Petitions have been provided to the representatives of the Governments of India, Japan, and Korea. We will attempt to provide a copy of the public version of the Petitions to the foreign producers/exporters named in the Petitions.

**International Trade Commission Notification**

We have notified the International Trade Commission of our initiations, as required by section 732(d) of the Act.

**Preliminary Determination by the International Trade Commission**

The International Trade Commission will preliminarily determine, no later than May 14, 2007, whether there is a reasonable indication that imports of glycine from India, Japan, and/or Korea are materially injuring, or threatening material injury to, a U.S. industry. A negative ITC determination with respect to any of the investigations will result in that investigation being terminated; otherwise, these investigations will proceed according to statutory and regulatory time limits.

This notice is issued and published pursuant to section 777(i) of the Act.

Dated: April 19, 2007.

**Joseph A. Spetrini,**

*Deputy Assistant Secretary for Import Administration.*

[FR Doc. E7–8017 Filed 4–25–07; 8:45 am]

**BILLING CODE 3510–DS–S**

# APPENDIX B

# CONFERENCE WITNESSES

**CALENDAR OF THE PUBLIC CONFERENCE**

Those listed below appeared as witnesses at the United States International Trade Commission's conference held in connection with the following investigations:

**Subject:** Glycine from India, Japan, and Korea
**Inv. No.:** 731-TA-1111-1113 (Preliminary)
**Date and Time:** April 20, 2007 - 9:30 a.m.

Sessions took place in the Commission's Main Hearing (Room 101), 500 E Street, SW, Washington, D.C.

**OPENING REMARKS:**

Petitioner (**Greg Husisian**, Thompson Hine, LLC)

**IN SUPPORT OF THE IMPOSITION OF ANTIDUMPING DUTIES:**

Thompson Hine, LLC
Washington, DC
on behalf of GEO Specialty Chemicals, Inc. ("GEO")

**Bill Eckman**, Chief Financial Officer, GEO
**Judy Jackson**, Sales Representative, GEO
**John Reilly**, Economist, Nathan Associates

**David Schwartz** )
**Greg Husisian** ) – OF COUNSEL
**Jason Hungerford** )
**Jennifer Stein** )

Chattem Chemicals, Inc. ("Chattem")

**Jim Kedrowski**, VP Sales and Marketing, Chattem

**IN OPPOSITION TO THE IMPOSITION OF ANTIDUMPING DUTIES:**

CAF International, Inc. ("CAF")

**Chris Frey**, President, CAF

**CLOSING REMARKS:**

Petitioner (**Greg Husisian**, Thompson Hine, LLC)
Respondents (**Chris Frey**, President, CAF)

# APPENDIX C

# SUMMARY DATA

**Table C-1**
**Glycine: Summary data concerning the U.S. market, 2004-06**

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

| | Reported data | | | Period changes | | |
|---|---|---|---|---|---|---|
| Item | 2004 | 2005 | 2006 | 2004-06 | 2004-05 | 2005-06 |
| U.S. consumption quantity: | | | | | | |
| Amount | *** | *** | *** | *** | *** | *** |
| Producers' share (1) | *** | *** | *** | *** | *** | *** |
| Importers' share (1): | | | | | | |
| India | *** | *** | *** | *** | *** | *** |
| Japan | *** | *** | *** | *** | *** | *** |
| Korea | *** | *** | *** | *** | *** | *** |
| Subtotal | *** | *** | *** | *** | *** | *** |
| All other sources | *** | *** | *** | *** | *** | *** |
| Total imports | *** | *** | *** | *** | *** | *** |
| U.S. consumption value: | | | | | | |
| Amount | *** | *** | *** | *** | *** | *** |
| Producers' share (1) | *** | *** | *** | *** | *** | *** |
| Importers' share (1): | | | | | | |
| India | *** | *** | *** | *** | *** | *** |
| Japan | *** | *** | *** | *** | *** | *** |
| Korea | *** | *** | *** | *** | *** | *** |
| Subtotal | *** | *** | *** | *** | *** | *** |
| All other sources | *** | *** | *** | *** | *** | *** |
| Total imports | *** | *** | *** | *** | *** | *** |
| U.S. imports from: | | | | | | |
| India: | | | | | | |
| Quantity | 1,133 | 2,555 | 2,668 | 135.5 | 125.5 | 4.4 |
| Value | 1,800 | 3,679 | 3,547 | 97.1 | 104.4 | -3.6 |
| Unit value | $1.59 | $1.44 | $1.33 | -16.3 | -9.4 | -7.7 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** |
| Japan: | | | | | | |
| Quantity | 989 | 2,080 | 2,610 | 163.9 | 110.3 | 25.5 |
| Value | 1,253 | 2,852 | 3,334 | 166.1 | 127.6 | 16.9 |
| Unit value | $1.27 | $1.37 | $1.28 | 0.8 | 8.2 | -6.8 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** |
| Korea: | | | | | | |
| Quantity | 1,060 | 992 | 1,124 | 6.0 | -6.4 | 13.3 |
| Value | 1,107 | 1,278 | 1,300 | 17.4 | 15.4 | 1.7 |
| Unit value | $1.04 | $1.29 | $1.16 | 10.7 | 23.4 | -10.2 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** |
| Subtotal: | | | | | | |
| Quantity | 3,182 | 5,627 | 6,402 | 101.2 | 76.8 | 13.8 |
| Value | 4,160 | 7,809 | 8,181 | 96.7 | 87.7 | 4.8 |
| Unit value | $1.31 | $1.39 | $1.28 | -2.3 | 6.2 | -7.9 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** |
| All other sources: | | | | | | |
| Quantity | 2,049 | 2,241 | 2,570 | 25.4 | 9.4 | 14.7 |
| Value | 3,036 | 3,186 | 3,534 | 16.4 | 4.9 | 10.9 |
| Unit value | $1.48 | $1.42 | $1.38 | -7.2 | -4.1 | -3.3 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** |
| All sources: | | | | | | |
| Quantity | 5,231 | 7,868 | 8,972 | 71.5 | 50.4 | 14.0 |
| Value | 7,196 | 10,995 | 11,715 | 62.8 | 52.8 | 6.5 |
| Unit value | $1.38 | $1.40 | $1.31 | -5.1 | 1.6 | -6.6 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** |

Table continued on next page.

**Table C-1--Continued**
**Glycine: Summary data concerning the U.S. market, 2004-06**

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

| | Reported data | | | Period changes | | |
|---|---|---|---|---|---|---|
| Item | 2004 | 2005 | 2006 | 2004-06 | 2004-05 | 2005-06 |
| U.S. producers': | | | | | | |
| Average capacity quantity | *** | *** | *** | *** | *** | *** |
| Production quantity | *** | *** | *** | *** | *** | *** |
| Capacity utilization (1) | *** | *** | *** | *** | *** | *** |
| U.S. shipments: | | | | | | |
| Quantity | *** | *** | *** | *** | *** | *** |
| Value | *** | *** | *** | *** | *** | *** |
| Unit value | *** | *** | *** | *** | *** | *** |
| Export shipments: | | | | | | |
| Quantity | *** | *** | *** | *** | *** | *** |
| Value | *** | *** | *** | *** | *** | *** |
| Unit value | *** | *** | *** | *** | *** | *** |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** |
| Inventories/total shipments (1) | *** | *** | *** | *** | *** | *** |
| Production workers | *** | *** | *** | *** | *** | *** |
| Hours worked (1,000s) | *** | *** | *** | *** | *** | *** |
| Wages paid ($1,000) | *** | *** | *** | *** | *** | *** |
| Hourly wages | *** | *** | *** | *** | *** | *** |
| Productivity (pounds per hour) | *** | *** | *** | *** | *** | *** |
| Unit labor costs | *** | *** | *** | *** | *** | *** |
| Net sales: | | | | | | |
| Quantity | *** | *** | *** | *** | *** | *** |
| Value | *** | *** | *** | *** | *** | *** |
| Unit value | *** | *** | *** | *** | *** | *** |
| Cost of goods sold (COGS) | *** | *** | *** | *** | *** | *** |
| Gross profit or (loss) | *** | *** | *** | *** | *** | *** |
| SG&A expenses | *** | *** | *** | *** | *** | *** |
| Operating income or (loss) | *** | *** | *** | *** | *** | *** |
| Capital expenditures | *** | *** | *** | *** | *** | *** |
| Unit COGS | *** | *** | *** | *** | *** | *** |
| Unit SG&A expenses | *** | *** | *** | *** | *** | *** |
| Unit operating income or (loss) | *** | *** | *** | *** | *** | *** |
| COGS/sales (1) | *** | *** | *** | *** | *** | *** |
| Operating income or (loss)/ sales (1) | *** | *** | *** | *** | *** | *** |

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

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

Source: Compiled from data submitted in response to Commission questionnaires and from official statistics of the U.S. Department of Commerce.