

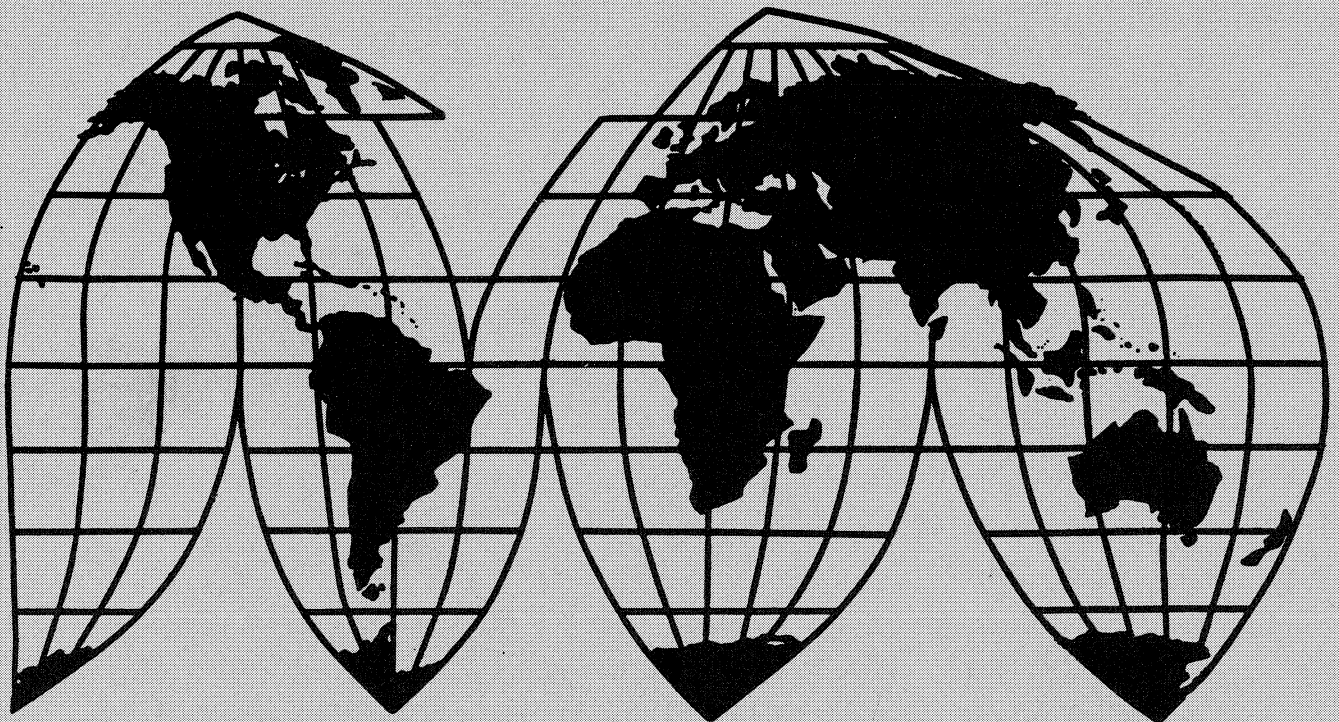
Glycine from The People's Republic of China

Investigation No. 731-TA-718 (Final)

Publication 2863

March 1995

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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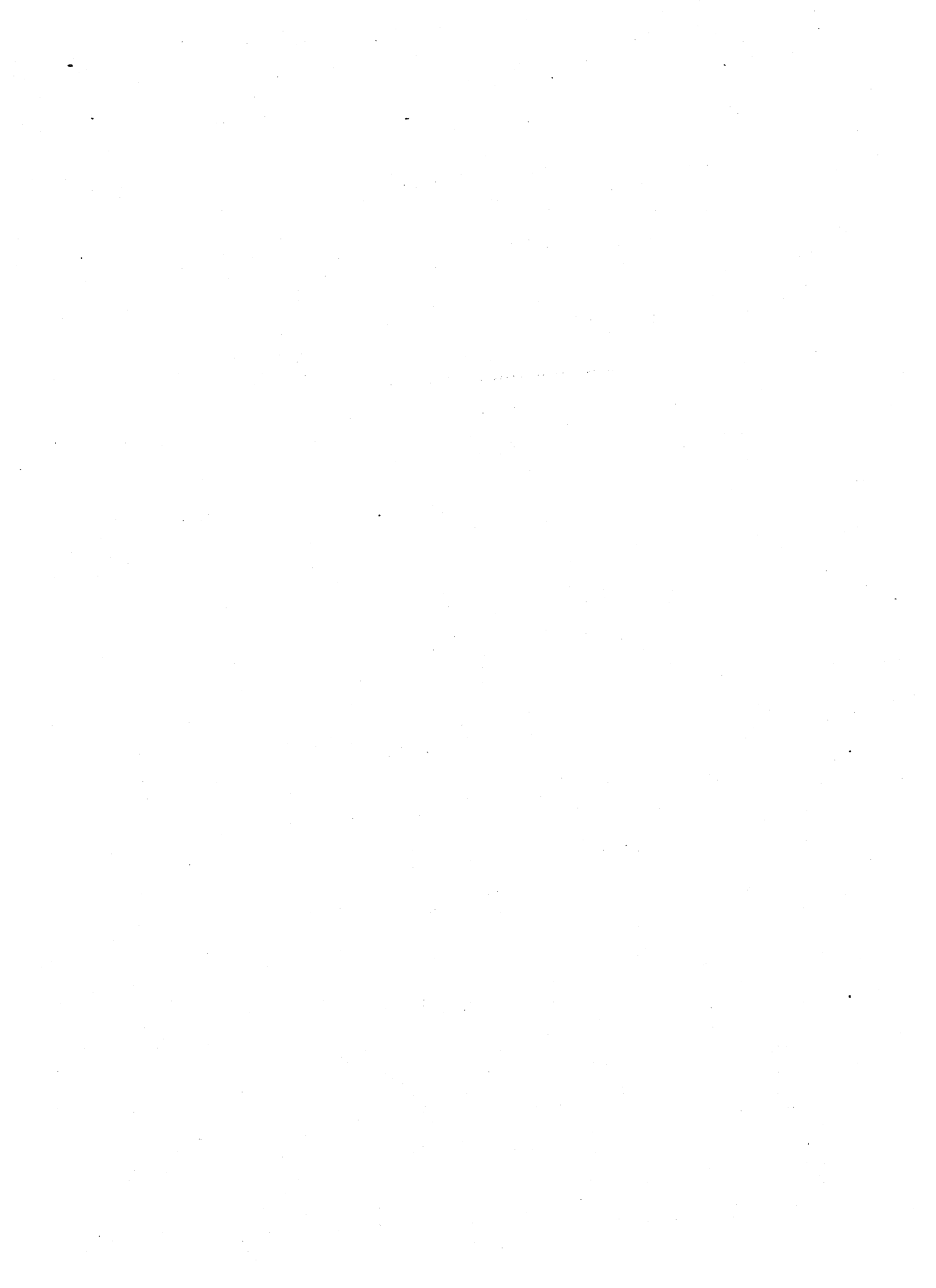
Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report. Such deletions are indicated by asterisks.

GLOSSARY OF ABBREVIATIONS

Act	Tariff Act of 1930
Ba Fen Shen	Ba Fen Shen Pharmaceutical Factory
Baoding Zhongyuan	Baoding Zhongyuan Chemical Industrial Plant
Chattem	Chattem, Inc.
China	People's Republic of China
Commerce	U.S. Department of Commerce
Commission	U.S. International Trade Commission
Dastech	Dastech International, Inc.
Dong Fang Mancheng	Dong Fang Mancheng Chemical Plant
GATT	General Agreement on Tariffs and Trade
Grace	W.R. Grace
Hampshire	Hampshire Chemical Corp.
HTS	Harmonized Tariff Schedule of the United States
ICC	ICC Industries
LTFV	Less than fair value
Maypro	Maypro Industries, Inc.
MOFTEC	Ministry of Foreign Trade and Economic Cooperation
PRWs	Production and related workers
SG&A	Selling, general, and administrative
Suzhou Comtech	Suzhou Comtech Chemical Industrial Co., Ltd.
Tiancheng	Tiancheng Pharmaceutical Co., Ltd.
UK	United Kingdom

PART I

DETERMINATION AND VIEWS OF THE COMMISSION



UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-718 (Final)

GLYCINE FROM THE PEOPLE'S REPUBLIC OF CHINA

Determination

On the basis of the record¹ developed in the subject investigation, the Commission determines, pursuant to section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) (the Act), that an industry in the United States is threatened with material injury by reason of imports from the People's Republic of China (China) of glycine,² provided for in subheading 2922.49.40 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce (Commerce) to be sold in the United States at less than fair value (LTFV).³

Background

The Commission instituted this investigation effective November 15, 1994, following a preliminary determination by Commerce that imports of glycine from China were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. § 1673b(b)). Notice of the institution of the Commission's investigation and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of December 8, 1994 (59 F.R. 63378). The hearing was held in Washington, DC, on February 9, 1995, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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 product covered by this investigation is glycine which is a free-flowing crystalline material, like salt or sugar. Glycine is produced at varying levels of purity and is used as a sweetener/taste enhancer, a buffering agent, reabsorbable amino acid, chemical intermediate, and a metal complexing agent. The scope of this investigation includes glycine of all purity levels.

³ Commissioner Crawford and Commissioner Bragg determine that an industry in the United States is materially injured by reason of imports of glycine from China that Commerce has found to be sold in the United States at LTFV.

VIEWS OF THE COMMISSION

Based on the record in this final investigation, we determine that an industry in the United States is threatened with material injury by reason of imports of glycine from the People's Republic of China ("China") that are sold in the United States at less than fair value ("LTFV").^{1 2 3 4 5}

I. LIKE PRODUCT AND DOMESTIC INDUSTRY

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of the subject imports, the Commission must first define the "like product" and the domestic "industry." Section 771(4)(A) of the Tariff Act of 1930 (the "Act") defines the relevant industry as the "domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product."⁶ In turn, the Act defines "like product" as a "product which is like, or in the absence of like, most similar in characteristics and uses with, the articles subject to an investigation."⁷ The Commission's decision regarding the appropriate like product(s) in an investigation is essentially a factual determination, and we apply the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.⁸ No single factor is dispositive, and the Commission may consider other factors it deems relevant based upon the facts of a particular investigation. The Commission looks for "clear dividing lines among possible like products" and disregards minor variations.⁹

¹ Whether the establishment of an industry in the United States is materially retarded is not an issue in this investigation.

² The petition in this investigation was filed prior to the effective date of the Uruguay Round Agreements Act (URAA). This investigation thus remains subject to the substantive and procedural requirements of the pre-existing law. See Pub. L. 103-465, 108 Stat. 4809 (1994) at § 291.

³ Commissioner Crawford and Commissioner Bragg determine that an industry in the United States is materially injured by reason of imports of glycine from China that are sold in the United States at LTFV. See Views of Commissioner Crawford; Views of Vice Chairman Nuzum and Commissioner Bragg. They join sections I and II of these Views.

⁴ Vice Chairman Nuzum finds that the record in this investigation supports an affirmative determination on the basis of either present material injury or threat of material injury. See also Views of Vice Chairman Nuzum and Commissioner Bragg.

⁵ Chairman Watson and Commissioner Newquist determine that they would not have made an affirmative material injury determination but for the suspension of liquidation.

Commissioner Rohr determines that the issue of whether he would have made an affirmative material injury determination but for the suspension of liquidation is moot.

⁶ 19 U.S.C. § 1677(4)(A).

⁷ 19 U.S.C. § 1677(10).

⁸ See 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) ("[E]very like product determination 'must be made on the particular record at issue' and the 'unique facts of each case.'"). In analyzing like product issues, the Commission generally considers six factors, including: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions; (5) common manufacturing facilities and production employees; and (6) when appropriate, price. United States Steel Group v. United States, Slip Op. 94-201 at 12 n.4 (Ct. Int'l Trade Dec. 30, 1994).

⁹ Torrington, 747 F. Supp. at 748-49.

The merchandise subject to investigation is glycine from China. Glycine, also known as aminoacetic acid, is an organic chemical which is synthetically manufactured for commercial purposes.¹⁰ In its final determination of sales at less than fair value, Commerce defined the scope of the investigation to encompass "glycine of all purity levels."¹¹

In our preliminary determination, we determined that glycine constituted a single like product. We made this determination because: (1) all glycine, regardless of form, has the same chemical structure; (2) there is significant interchangeability between the two purity levels – technical grade and USP grade – at which glycine is commercially sold; (3) channels of distribution are similar for all domestically produced glycine; (4) producers and end users perceive glycine to be a single product regardless of grade; and (5) common production processes, facilities, and employees are used to produce the different grades of glycine.¹² On the issue of like product, the current record is substantially similar to the one developed in the preliminary investigation;¹³ moreover, no party has requested the Commission define the like product differently than it did in the preliminary determination. Accordingly, we determine that there is one like product in this investigation, encompassing all grades of glycine, for the same reasons stated in the preliminary determination. We further determine that the domestic industry is composed of petitioners Hampshire Chemical Corp. ("Hampshire") and Chattem, Inc. ("Chattem"), the only two domestic producers of glycine.¹⁴

II. CONDITION OF THE DOMESTIC INDUSTRY

In assessing whether the domestic industry is materially injured or threatened with material injury by reason of LTFV imports, we consider all relevant economic factors that bear on the state of the industry in the United States.¹⁵ These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, and research and development. 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."¹⁶

We note at the outset several distinct conditions of competition pertinent to our analysis of the domestic glycine industry. First, glycine is typically used as an intermediate product by manufacturers in the production of downstream products, such as pharmaceutical

¹⁰ Confidential Report (CR) at I-5, Public Report (PR) at II-4. The principal commercial applications of glycine are as a flavor enhancer in beverages, as a masking agent in mouthwash and pet food, as an active ingredient in antiperspirants, as a buffering agent in pharmaceuticals such as nasal sprays and antacids, and as a metal complexing agent. Tr. at 27-28 (DeGeorge); CR at I-6, PR at II-4-5.

¹¹ 60 Fed. Reg. 5620 (Jan. 30, 1995).

¹² Glycine from the People's Republic of China, Inv. No. 731-TA-718 (Preliminary), USITC Pub. 2804 at I-6-7 (Aug. 1994) ("Preliminary Determination").

¹³ See, e.g., CR at I-5-6, PR at II-4-5 (physical characteristics); CR at I-8, PR at II-5-6 (interchangeability); CR at I-12, PR at II-8 (channels of distribution); CR at I-16, 18, PR at II-9 (manufacturing facilities and production employees).

¹⁴ Because there are only two domestic producers, most empirical information pertaining to the domestic industry may not be discussed in a public opinion. We have been granted permission by petitioners to discuss in the public opinion general trends pertaining to the domestic industry.

¹⁵ 19 U.S.C. § 1677(7)(C)(iii).

¹⁶ 19 U.S.C. § 1677(7)(C)(iii).

and food products, pet food, and antiperspirants.¹⁷ Demand for glycine is derived from demand for the finished products.¹⁸ Because of the lack of substitute products for glycine and because glycine generally accounts for a small proportion of the total costs of the products in which it is used, changes in the price of glycine are unlikely to affect the quantity demanded.¹⁹

Additionally, end-use applications of glycine have remained relatively stable during the period of investigation.²⁰ In many of the industries that use glycine, a relatively small number of customers are responsible for a large proportion of glycine consumption.²¹ Competition among these customers to reduce their input costs can be intense. As a result, individual customers have significant incentive to demand and ability to obtain price concessions from producers.²²

Apparent U.S. consumption of glycine increased throughout the period of investigation, which encompassed calendar years 1992 through 1994.²³ This appears to be the result of increased demand during this time for products using glycine, such as animal feed and antiperspirants.²⁴ The domestic industry's U.S. shipments, by contrast, increased from 1992 to 1993 by a lesser proportion than domestic consumption and declined from 1993 to 1994.²⁵ Consequently, U.S. producers' share of the domestic glycine market declined throughout the period of investigation.²⁶

Production also increased from 1992 to 1993 and declined from 1993 to 1994.²⁷ Capacity increased throughout the period of investigation.²⁸ Capacity utilization increased

¹⁷ CR at I-11-12, PR at II-7-8.

¹⁸ See Tr. at 30-31 (DeGeorge).

¹⁹ See Memorandum EC-S-022 at 23-24.

²⁰ Tr. at 69 (DeGeorge).

²¹ Tr. at 32 (DeGeorge); see Petitioners' Prehearing Brief, ex. 3.

²² Tr. at 31-34, 47 (DeGeorge), 44 (Smith).

²³ By quantity, apparent consumption increased by *** percent from 1992 to 1993 and by *** percent from 1993 to 1994, for an overall ***-percent increase from 1992 to 1994. By value, apparent consumption increased by *** percent from 1992 to 1993 and by *** percent from 1993 to 1994, for an overall ***-percent increase from 1992 to 1994. Table 1, CR at I-20, PR at II-11.

²⁴ Tr. at 42 (Smith).

²⁵ Measured by quantity, domestic producers' U.S. shipments increased by *** percent from 1992 to 1993 and declined by *** percent from 1993 to 1994, for an overall ***-percent increase from 1992 to 1994. Measured by value, domestic producers' U.S. shipments increased by *** percent from 1992 to 1993, and declined by *** percent from 1993 to 1994, for an overall ***-percent decline from 1992 to 1994. Table 3, CR at I-29, PR at II-15.

²⁶ By quantity, U.S. producers' share of domestic consumption declined from *** percent in 1992 to *** percent in 1993 and to *** percent in 1994. By value, U.S. producers' share of domestic consumption declined from *** percent in 1992 to *** percent in 1993 and to *** percent in 1994. Table 15, CR at I-60, PR at II-27.

²⁷ Production increased by *** percent from 1992 to 1993, and declined by *** percent from 1993 to 1994, for an overall ***-percent increase from 1992 to 1994. Table 2, CR at I-27, PR at II-14.

²⁸ Capacity increased by *** percent from 1992 to 1993, and by *** percent from 1993 to 1994, for an overall increase of *** percent from 1992 to 1994. Table 2, CR at I-27, PR at II-14.

from 1992 to 1993 but declined from 1993 to 1994.²⁹ Inventory levels declined from 1992 to 1993 and then increased from 1993 to 1994.³⁰

The number of production and related workers producing glycine, as well as the wages and total compensation paid to such workers, fluctuated during the period of investigation. Each of these indicators declined from 1993 to 1994.³¹ The hours worked by production and related workers declined during each year of the period of investigation.³²

The domestic industry's financial performance fluctuated during the period of investigation. From 1992 to 1993, the domestic industry's operating income increased by *** percent.³³ This was largely attributable to the ***.³⁴ *** Hampshire's purchase of operations from W.R. Grace & Co. ("Grace") in December 1992.³⁵

By contrast, from 1993 to 1994 operating income declined by *** percent; 1994 operating income was *** percent below the 1992 level.³⁶ The 1994 decline was attributable primarily to ***.³⁷

U.S. producers' capital expenditures declined during each year of the period of investigation.³⁸ Research and development expenditures also declined throughout the period of investigation.^{39 40 41}

²⁹ Capacity utilization was *** percent in 1992, *** percent in 1993, and *** percent in 1994. Table 2, CR at I-27, PR at II-14.

³⁰ Inventory levels declined by *** percent from 1992 to 1993 and increased by *** percent from 1993 to 1994, for an overall ***-percent decline from 1992 to 1994. Table 5, CR at I-33, PR at II-16.

³¹ The number of production and related workers increased from *** workers in 1992 to *** workers in 1993, before declining *** workers in 1994. Wages and total compensation each increased by *** percent from 1992 to 1993 and declined by *** percent and *** percent, respectively, from 1993 to 1994. Table 6, CR at I-34, PR at II-16.

³² Hours worked declined by *** percent between 1992 and 1993, and by *** percent between 1993 and 1994 for an overall ***-percent decline from 1992 to 1994. Table 6, CR at I-34, PR at II-16.

³³ Table 9, CR at I-39, PR at II-17.

³⁴ CR at I-39, I-41; PR at II-17-18. As previously stated, the domestic industry consists of only two producers, Hampshire and Chattem. Hampshire is *** the predominant domestic producer, having accounted for *** of domestic production in 1994. CR at I-62, PR at II-27. Consequently, Hampshire's financial results are of particular relevance to any examination of the financial condition of the domestic industry as a whole.

³⁵ CR at I-41-42, PR at II-17-18. Hampshire was formed in December 1992 as a result of a management buyout of most of the assets of Grace's organic chemicals divisions, including its glycine business. Tr. at 19 (Power).

³⁶ Table 9, CR at I-39, PR at II-17.

³⁷ CR at I-43-44, PR at II-17-18.

³⁸ These expenditures declined by *** percent between 1992 and 1993, and by *** percent between 1993 and 1994, for an overall ***-percent decline between 1992 and 1994. Table 11, CR at I-48, PR at II-19.

³⁹ These expenditures declined by *** percent between 1992 and 1993, and by *** percent between 1993 and 1994, for an overall ***-percent decline between 1992 and 1994. Table 12, CR at I-48, PR at II-19.

⁴⁰ Commissioner Rohr and Commissioner Newquist find that the the condition of the domestic industry as reflected in virtually all important indicators, including production, shipments, inventories, employment, and financial performance, deteriorated significantly in 1994 following improvements in (continued...)

III. THREAT OF MATERIAL INJURY BY REASON OF LTFV IMPORTS

We have made an affirmative determination based on threat of material injury.⁴² Section 771(7)(F) of the Act directs the Commission, in considering whether a U.S. industry is threatened with material injury by reason of the subject imports, to make its determination "on the basis of evidence that the threat of material injury is real and that actual injury is imminent."⁴³ While an analysis of the statutory threat factors necessarily involves projection of future events, "[s]uch a determination may not be made on the basis of mere conjecture or supposition."⁴⁴ In making our determination, we have considered all of the statutory factors that are relevant to this investigation.⁴⁵

The record indicates that both total glycine production capacity and unused production capacity in China increased during the period of investigation.⁴⁶ Information the Commission has obtained from Chinese producers and importers indicates that annual glycine production capacity in China is between 13.9 million and 15.0 million pounds.⁴⁷ Respondent Dastech International, Inc. ("Dastech"), an importer of the subject merchandise, indicated that there are "four or five" major producers of glycine in China.⁴⁸ Three producers from this group provided information to the Commission concerning their operations. These producers experienced *** aggregate increases in production capacity from 1992 to 1994 and

⁴⁰ (...continued)
many of these same indicators from 1992 to 1993. Although the condition of the industry does not reflect one presently experiencing material injury, the declines demonstrate the extreme vulnerability of the domestic industry to the continuing adverse effects of LTFV imports. Accordingly, Commissioner Rohr and Commissioner Newquist proceed directly to an analysis of whether the domestic industry is threatened with material injury by reason of the subject imports.

⁴¹ Commissioner Crawford and Commissioner Bragg do not join the remainder of this opinion. See their Separate Views.

⁴² Chairman Watson has determined that the domestic glycine industry is not materially injured by reason of LTFV imports from China. See Additional Views of Chairman Watson.

Vice Chairman Nuzum finds that the record in this investigation supports an affirmative determination on the basis of either present material injury or threat of material injury. See also Views of Vice Chairman Nuzum and Commissioner Bragg.

⁴³ 19 U.S.C. §§ 1673b(a) and 1677(7)(F)(ii) (1988).

⁴⁴ 19 U.S.C. § 1677(7)(F)(ii) (1988). See, e.g., S. Rep. No. 249, 96th Cong., 1st Sess. at 88-89 (1979); see also Metallwerken Nederland B.V. v. United States, 744 F. Supp. 281, 287 (Ct. Int'l Trade 1990).

⁴⁵ 19 U.S.C. § 1677(7)(F)(i) (1988). Two of the ten statutory threat factors have no relevance to this investigation and need not be discussed further. Because there are no subsidy allegations, factor I is not applicable. Factor IX regarding raw and processed agricultural products also is inapplicable here. Additionally, no party has asserted any arguments with respect to factor VIII concerning product-shifting. Similarly, with respect to factor X, the domestic industry does not contend that it is engaging in efforts to develop a derivative or more advanced version of the like product.

In addition to the ten enumerated factors, the Commission must consider whether antidumping findings or remedies in markets of foreign countries against the same class of kind of merchandise suggest a threat of material injury to the domestic industry. See 19 U.S.C. § 1677(7)(F)(iii). There is no evidence of any antidumping findings or remedies imposed in other countries upon glycine from China.

⁴⁶ The following discussion is pertinent to statutory threat factors II and VI.

⁴⁷ CR at I-54 n.86, PR at II-23. The Commission also received higher estimates of production capacity from a U.S. importer of glycine from China and from a Chinese glycine exporter. Id.

⁴⁸ Tr. at 111 (Kahen).

projected further capacity increases in 1995.⁴⁹ Because increases in capacity outstripped increases in production, capacity utilization declined. These three producers' reported capacity utilization in 1994 was only 59.0 percent. This unused capacity is substantial, as it equals *** percent of 1994 total apparent U.S. consumption for glycine.⁵⁰ We consequently conclude that there is substantial underutilized production capacity in China.⁵¹

In light of our findings on production capacity in China, we further conclude that U.S. market penetration of the subject imports will likely increase to an injurious level.⁵² Subject import volume increased rapidly during the period of investigation. Measured by quantity, subject import volume increased from 112,000 pounds in 1992 to 905,000 pounds in 1993 and to 1,606,000 pounds in 1994.⁵³ Subject imports' share of domestic consumption also increased.⁵⁴

Consequently, the record indicates that increases in glycine production capacity in China have been matched by increases in exports to the United States.⁵⁵ Based on this historical pattern, and the fact that the United States is the world's biggest market for products made from glycine,⁵⁶ we find that production from the increased and underutilized production capacity in China will be directed to the United States and U.S. market penetration of the subject imports will increase to injurious levels.

We place little credence in assertions by Dastech and the Chinese producers that any increase in glycine production capacity in China will be used principally to satisfy home market demand.⁵⁷ We note that even the data provided by the Chinese producers indicate

⁴⁹ The three producers indicated that their capacity increased by *** percent from 1992 to 1994. They projected that capacity would increase by an additional 26.5 percent from 1994 to 1995. CR at I-56, PR at II-24.

⁵⁰ Compare CR at I-56, PR at II-24 with Table 1, CR at I-20, PR at II-11.

⁵¹ Dastech contends not all the production capacity in China is actually usable because of raw materials shortages. They have not, however, provided any probative information to corroborate this assertion.

⁵² The following discussion is pertinent to statutory threat factor III.

⁵³ Table 14, CR at I-59, PR at II-26. The value of subject imports also increased from \$190,000 in 1992 to \$1,381,000 in 1993 and \$2,216,000 in 1994. *Id.*

⁵⁴ Measured by quantity, subject imports' U.S. market penetration increased from *** percent in 1992 to *** percent in 1993 and to *** percent in 1994. Measured by value, subject imports' U.S. market penetration increased from *** percent in 1992 to *** percent in 1993 and to *** percent in 1994. Table 15, CR at I-60, PR at II-27.

We note that while the grade composition of the subject imports fluctuated widely during the period of investigation, the proportion of USP grade subject imports during 1994 was higher than the proportion of such imports for either of the prior two years and was also higher than the proportion of domestic production that was USP grade. Memorandum EC-S-022 at 4 n.4. Consequently, the increasing market penetration of the subject imports cannot be attributed principally to increasing market demand for technical grade product.

⁵⁵ Chinese producers report otherwise, *see* CR at I-56, PR at II-24, but their data concerning U.S. exports appear to be highly unreliable. For both 1992 and 1993, their export shipment volumes exceed the quantity of total subject imports reflected in Commerce Department import statistics. By contrast, their reported exports for 1994 are only *** percent of those reflected in the import statistics. Compare *id.* with Table 14, CR at I-59, PR at II-26.

⁵⁶ See Petition at 39-40.

⁵⁷ We also place little credence in assertions by Dastech that market penetration of the subject imports has peaked because U.S. purchasers will use Chinese product only as a "secondary" source of
(continued...)

that, from 1992 to 1994, the rate of increase for home market shipments was *** than the rate of increase for either capacity, as reported by the producers, or exports to the United States, as reflected by U.S. official import statistics.⁵⁸ The increases in home market shipments projected for 1995 by Dastech and several Chinese producers are consequently inconsistent with recent historical patterns and in any event are not supported by independent corroboration. To the contrary, the one Chinese producer who submitted information to the Commission before the hearing in this investigation reported that, in both 1993 and 1994, ***⁵⁹

We further find that there is a significant probability that the subject imports will enter the United States at prices that will have a depressing or suppressing effect on prices for the domestic like product.⁶⁰ The record indicates that, as subject import volumes were increasing from 1993 to 1994, prices for subject imports were generally declining.⁶¹ Moreover, during the period of investigation, the subject imports undersold domestically produced glycine in the vast majority of pricing comparisons. There was underselling by the subject imports in 28 out of 39 comparisons based on producers' and importers' pricing data, and in 14 of 17 comparisons based on purchasers' pricing data.⁶²

The particular conditions of competition in the glycine industry also support the likelihood that further imports of LTFV glycine from China will have injurious price effects. As previously stated, the end uses of glycine are relatively well-established and demand for glycine is largely derived from the finished products in which it is used. Consequently, declines in the price of glycine are unlikely in themselves to stimulate demand. That further declines in the prices of the subject imports are instead likely to depress or suppress prices for the domestic like product follows from two facts. First, the subject imports and the domestic like product are largely substitutable. Purchasers generally indicated that the subject imports and domestically produced glycine were employed in the same range of uses and were equally available in the United States, although some stated that there were quality differences between the subject imports and domestically produced glycine.⁶³ Furthermore, some purchasers noted that quality differences were not significant for their particular end-use applications.⁶⁴ Second, as explained above, in light of the small number of significant glycine purchasers, individual purchasers can exercise substantial bargaining power.

⁵⁷ (...continued)

their glycine supply. The record indicates that several U.S. purchasers have relied on Chinese product as far more than a minor supply source. Memorandum INV-S-023 at 1.

⁵⁸ Compare CR at I-56, PR at II-24 with Table 14, CR at I-59, PR at II-26.

⁵⁹ Confidential Prehearing Report at I-43.

⁶⁰ The following discussion is pertinent to statutory threat factor IV.

⁶¹ CR at I-72, PR at II-31. Some U.S. prices for the subject imports did increase during the fourth quarter of 1994. Table 17, CR at I-74, PR at II-31. This increase, however, was concurrent with the pendency of this investigation and one purchaser did attribute the increase to this investigation. Memorandum EC-S-022 at 22. Consequently, we do not believe that the fourth quarter 1994 price increases are indicative of how the subject imports would be priced absent an antidumping investigation.

We also note that the average unit values of the subject imports declined from \$1.69 per pound in 1992 to \$1.53 in 1993 and \$1.38 in 1994. Table 14, CR at I-59, PR at II-26. This decline was not attributable to changes in product mix; USP grade glycine constituted a higher proportion of subject imports in 1994 than in either of the prior two years. EC-S-022 at 4 n.4.

⁶² CR at I-79-80, PR at II-31-32.

⁶³ CR at I-10-11, PR at II-7.

⁶⁴ CR at I-86-87, PR at II-33.

Indeed, the record indicates that both 1994 contract and spot prices to end users for U.S.-produced glycine were generally below those for 1993.⁶⁵ We find that this trend will likely continue, that additional volumes of the subject imports will likely result in suppression or depression of prices for the domestic like product, and that these adverse price effects will reach injurious levels.

End-of-period inventories of the subject imports in the United States virtually doubled from 1993 to 1994, increasing from 252,000 pounds to 501,000 pounds.⁶⁶ The ratio of inventories to subject imports and U.S. shipments of such imports also increased from 1993 to 1994; at the end of 1994, these ratios were 33.4 percent and 38.3 percent respectively.⁶⁷ The magnitude of the increase in inventories, and the inventory levels themselves, both in absolute and relative terms, further support our affirmative threat determination.

Finally, we determine that there are other factors that indicate that there will be actual material injury to the domestic industry by reason of imports of glycine from China.⁶⁸ First, during the latter portion of the period of investigation, the domestic industry's raw material costs increased significantly.⁶⁹ Increasing volumes of LTFV subject imports will have the imminent effect of preventing domestic producers from raising prices to recover these increasing costs. Second, because of the nature of Hampshire's production process, when it is forced to reduce production, its unit production costs increase and its yields decline.⁷⁰ As previously stated, because Hampshire constitutes *** of total domestic production, its performance substantially influences overall industry performance. Thus, a continued reduction in Hampshire's production volumes and sales revenues due to increasing volumes of LTFV imports will exacerbate that firm's, and the domestic industry's, declining financial performance.

In summary, the record indicates that glycine production capacity in China has increased during the period of investigation, that capacity is anticipated to increase further in the imminent future, and that there has been and will continue to be substantial unutilized production capacity in China. Additionally, previous increases in production capacity have tracked the increases over the period of investigation in the volume and market penetration of the subject imports. We find that the increased, and unused, production capacity in China will be used to increase the market penetration of glycine in the United States to injurious levels.

Additionally, we determine that these increased volumes of subject imports will likely depress and suppress prices for the domestic like product in light of the declining price levels for both the subject imports and the domestic like product during the latter portion of the period of investigation, the substantial incidence of underselling by the subject imports, and the general substitutability of Chinese glycine. The injurious price and volume effects of these imports will exacerbate the declines in production, shipments, employment, and operating income experienced by the domestic industry between 1993 and 1994. Consequently, we determine that material injury to the domestic glycine industry by reason of

⁶⁵ Table 16, CR at I-73, PR at II-31. End users were the predominant channel of distribution in 1994. CR at I-12, PR at II-8. The data do indicate that spot market prices increased during the fourth quarter of 1994. This appears to be the result of diminished availability of the subject imports as a result of this investigation. Tr. at 30 (DeGeorge).

⁶⁶ This discussion is pertinent to statutory threat factor V.

⁶⁷ Table 13, CR at I-51, PR at II-22.

⁶⁸ The following discussion is pertinent to statutory threat factor VII.

⁶⁹ CR at I-44-45, PR at II-17-18.

⁷⁰ Tr. at 25 (Zappala); Petitioners' Prehearing Brief, app. 3.

subject imports is imminent and the threat of such injury is real. Accordingly, we have made an affirmative threat determination.

IV. EFFECT OF SUSPENSION OF LIQUIDATION OF ENTRIES⁷¹

When the Commission makes an affirmative threat determination, the statute directs it to address another issue as well. Under section 735(b)(4)(B) of the Act, an affirmative threat determination must be accompanied by a determination as to whether the Commission would have made an affirmative material injury determination but for the suspension of liquidation.⁷² This finding determines the date of imposition of duties. If the Commission makes an affirmative "but for" finding, antidumping duties would be imposed from the date of suspension of liquidation forward. In this investigation, this date is November 16, 1994, the date of Commerce's preliminary determination.⁷³ By contrast, if the Commission makes a negative "but for" finding, duties are imposed only from the time Commerce publishes its final antidumping order forward.

Chairman Watson and Commissioner Newquist observe that suspension of liquidation occurred only approximately six weeks prior to the end of the period of investigation. They find that the suspension of liquidation did not materially affect the data on which they relied in making their negative present material injury determinations. Accordingly, they each conclude that they would not have made an affirmative material injury determination but for the suspension of liquidation.

They further observe that the record indicates that there are no imports that could be affected by a "but for" determination in this investigation. Commission staff contacted the U.S. Customs Service, importers of glycine from China, and PIERS, a commercial service reporting import data, to ascertain whether any imports of glycine from China had entered the United States after suspension of liquidation on November 16, 1994. These sources indicated that the last import entry was prior to November 16, 1994.⁷⁴

Commissioner Rohr also finds that the record indicates that there are no imports that could be affected by a "but for" determination. He consequently determines that the issue of whether he would have made an affirmative material injury finding but for suspension of liquidation is moot.

CONCLUSION

For the reasons stated above, we have determined that the domestic glycine industry is threatened by material injury by reason of LTFV imports of glycine from China.

⁷¹ Vice Chairman Nuzum does not join the remainder of this discussion. Vice Chairman Nuzum notes that the additional requirement in section 735(b)(4)(B) of the Tariff Act of 1930 only applies to a combined negative present injury/affirmative threat determination. In this investigation, Vice Chairman Nuzum has not made a finding of "no material injury" and therefore is not required under section 735(b)(4)(B) to reach the question of whether material injury would have been found but for the suspension of liquidation of entries. Nevertheless, she notes that in finding sufficient evidence to reach an affirmative present injury determination, she is implicitly making an affirmative "but for" finding under the facts in this investigation.

⁷² 19 U.S.C. § 1673d(b)(4)(B).

⁷³ 60 Fed. Reg. 5620, 5621 (Jan. 30, 1995).

⁷⁴ Transcript of Commission Meeting at 35 (March 3, 1995).

ADDITIONAL VIEWS OF CHAIRMAN PETER S. WATSON

I agree with the majority of my colleagues that a domestic industry is threatened with material injury by reason of LTFV imports of glycine from China. These additional views present my analysis leading to a negative determination on present material injury. In final antidumping investigations, the Commission determines whether an industry in the United States is materially injured by reason of the imports that Commerce has determined are sold at LTFV.¹ The Commission must consider the volume of imports, their effect on prices for the like product, and their impact on domestic producers of the like product, but only in the context of U.S. production operations.² Although the Commission may consider alternative causes of injury to the industry other than LTFV imports, it is not to weigh causes.^{3 4}

Several factors that support an affirmative threat determination in this investigation are also pertinent to my present injury determination. Specifically, I find evidence of adverse volume and price effects in the domestic glycine industry by reason of LTFV imports. I do not, however, find sufficient evidence of adverse impact on the domestic industry to conclude that the domestic industry was materially injured by reason of LTFV imports from China. Rather, I find that the industry remains vulnerable to continued LTFV imports and that future adverse volume and price effects are likely to cause imminent actual injury to the domestic glycine industry.

A. Volume Effects

The quantity of LTFV imports of glycine from China increased from 112,000 pounds in 1992 to 1,606,000 pounds in 1994.⁵ The market share of LTFV imports from China increased significantly over the period examined as well, rising from *** percent in 1992 to *** percent in 1994.⁶ The record indicates that domestic glycine and the subject imports are reasonably good substitutes.⁷ The record also indicates that the increase in Chinese import market penetration took place, to a great extent, at the expense of domestic producers.

¹ 19 U.S.C. § 1673d(b).

² 19 U.S.C. § 1677(7)(B)(i). The Commission also may consider "such other economic factors as are relevant to the determination." Id.

³ See, e.g., Citrosuco Paulista, S.A. v. United States, 704 F. Supp. 1075, 1101 (CT. Int'l Trade 1988). Alternative causes may include the following:

[T]he volume and prices of imports sold at fair value, contraction in demand or changes in patterns of consumption, trade, restrictive practices of and competition between the foreign and domestic producers, developments in technology, and the export performance and productivity of the domestic industry.

S. Rep. No. 249, 96th Cong., 1st Sess. 74 (1979). Similar language is contained in the House Report. H.R. Rep. No. 317, 96th Cong., 1st Sess. 46-57 (1979).

⁴ For my interpretation of the statutory requirement regarding causation, see Certain Calcium Aluminate Cement and Cement Clinker from France, Inv. No. 731-TA-645 (Final), USITC Pub. 2772, at I-14 n.68 (May 1994).

⁵ Table 14, CR at I-59, PR at II-26.

⁶ CR at I-60, PR at II-27.

⁷ Purchasers generally indicated that although there are some quality differences between the domestic product and subject imports, the products are employed in the same end uses and were equally available in the United States. CR at I-10-11, PR at II-7. Chinese glycine cannot be used in certain pharmaceutical applications. Memorandum EC-S-022 at 26-28. Pharmaceutical end uses, however, account for a relatively small share of U.S. consumption. CR at I-13-14, PR at II-8.

Apparent U.S. consumption of glycine grew *** percent over the period examined.⁸ Despite this apparent increase in demand for glycine, the market share of the domestic producers fell from *** percent to *** percent⁹ and the quantity of domestic shipments in 1994 was only slightly above the quantity of shipments in 1992.¹⁰ Chinese imports captured *** percent of the increase in apparent U.S. consumption quantity between 1992 and 1994, nonsubject imports captured *** percent of the increase, and U.S. producers accounted for *** of the increase.¹¹ In light of these facts, I find both the volume and the increases in the volume of Chinese imports to be significant.

B. Price Effects

As discussed in the majority opinion, the record indicates that the average unit values of Chinese glycine imports fell throughout the period examined, a decline that was not attributable to changes in product mix.¹² U.S. contract and spot market glycine prices were generally lower in 1994 than in 1993.¹³ The record also contains evidence that Chinese glycine undersold domestic glycine in the majority of price comparisons.¹⁴

In assessing price effects, I also note that domestic demand for glycine is a derived demand and that demand for glycine is relatively inelastic due to the lack of substitutes for glycine in its end uses and the small fraction of the total cost of end uses accounted for by glycine.¹⁵ As discussed above, domestic glycine and subject imports appear to be reasonably good substitutes. The record also indicates that the ability of nonsubject imports to restrain price increases in the United States may be limited since they account for a relatively small share of apparent domestic consumption of glycine and have higher average unit values than domestic glycine and subject imports.¹⁶ Thus, there appear to be few restraints on the ability of lower priced subject imports to affect domestic glycine prices. Based on these factors, I find that LTFV imports from China likely had adverse effects on the prices of domestically produced glycine.

C. Impact of the Subject Imports on the Domestic Industry

Despite the adverse volume and price effects discussed above, domestic performance indicators reveal that the industry did not experience material injury by reason of LTFV imports. Production, shipments, employment, and financial performance of the domestic

⁸ Table 1, CR at I-20, PR at II-11.

⁹ Table 15, CR at I-60, PR at II-27.

¹⁰ Table 3, CR at I-29, PR at II-15.

¹¹ Tables 14 and 15, CR at I-59-60, PR at II-26-27.

¹² Table 14, CR at I-59, PR at II-26; Memorandum EC-S-022 at 4 n. 4.

¹³ Table 16, CR at I-73, PR at II-31.

¹⁴ CR at I-79-80, PR at II-31-32. I frequently find that underselling data has little probative value in assessing price effects due to product differentiation and other underlying factors that may account for differences in the prices of subject imports and the domestic product. In this investigation, the record indicates that Chinese underselling largely reflects differences in product quality and other risk factors. CR at I-8-11, PR at II-7. The record also indicates, however, that despite these differences, the subject imports are employed in the same range of uses as domestic glycine. CR at I-11, PR at II-8.

¹⁵ Memorandum EC-S-022 at 23-24; Tr. at 30-31 (DeGeorge).

¹⁶ Table 14, CR at I-59, PR at II-26.

industry rose from 1992 to 1993.¹⁷ Although domestic production and shipments declined from 1993 to 1994, the level of production and shipments in 1994 exceeded the levels that existed in 1992.¹⁸ Moreover, the industry showed *** financial performance throughout the period examined. *** Hampshire's buyout of W. R. Grace.¹⁹ *** the domestic industry earned higher profits in 1994 compared to 1992.²⁰

A number of factors, however, suggest that the domestic industry is vulnerable to continued increases in LTFV imports, including the incentive and ability of glycine customers to extract price concessions from the domestic industry,²¹ higher production unit costs due to lower production volumes,²² and the apparent cost-price squeeze facing the domestic industry resulting from recent increases in raw material costs²³ combined with likely continued adverse price effects of LTFV glycine imports. As a result, I conclude that although the domestic glycine industry is not materially injured by reason of LTFV imports, it is vulnerable to continued LTFV imports and that future adverse volume and price effects are likely to cause imminent actual injury to the industry.

¹⁷ Table 2, CR at I-27, PR at II-14; Table 4, CR at I-30, PR at II-15; Table 6, CR at I-34, PR at II-16.

¹⁸ Table 2, CR at I-27, PR at II-14; Table 4, CR at I-30, PR at II-15.

¹⁹ Memorandum INV-S-022, Response to Request from Office of Commissioner Crawford, Table 1.

²⁰ Id.

²¹ Tr. at 33-34 (DeGeorge), 44 (Smith).

²² Tr. at 25 (Zappala), Petitioners' Prehearing Brief, App. 3.

²³ CR at I-44-45, PR at II-17-18.



VIEWS OF VICE CHAIRMAN NUZUM AND COMMISSIONER BRAGG REGARDING MATERIAL INJURY BY REASON OF LTFV IMPORTS

Based on the record in this final investigation, we find that an industry in the United States is materially injured by reason of imports that Commerce has determined are sold at LTFV.¹ In reaching this determination, we have considered the volume of subject imports, their effect on prices for the like product, and their impact on domestic producers of the like product. We join in the determinations of our colleagues regarding the definitions of like product and the domestic industry, and in the discussion of the condition of the domestic industry.

As an initial matter, we note that we voted with the Commission majority in the preliminary determination in finding a reasonable indication that the domestic industry was threatened with material injury, but was not materially injured, by reason of the allegedly LTFV imports. At the time of the preliminary investigation, the evidence of record showed generally positive trends in the domestic industry's performance over the period examined, including in the most recent full-year period (1993) for which data were available. Although trends were down in the first quarter of 1994, we found that there was insufficient evidence at that time to justify an affirmative present injury finding. In the final investigation, however, the Commission has received data for full-year 1994. As discussed further below, conditions deteriorated sufficiently in 1994, in our view, to warrant a final determination of present material injury by reason of the LTFV imports.

A. Volume of the Subject Imports

On an absolute basis, the volume of imports of glycine from China increased steadily and substantially during the period examined. Subject imports jumped from only 112,000 pounds in 1992, to 905,000 pounds in 1993, and 1.6 million pounds in 1994.² During this period, the total value of subject imports also increased steadily, although not as steeply as total volume.³

The market share held by subject imports also increased substantially during the period, rising from *** percent in 1992, to *** percent in 1993 and *** percent in 1994.⁴ These rapid increases in market share occurred, furthermore, while apparent domestic

¹ Vice Chairman Nuzum finds that the record in this investigation strongly supports an affirmative determination on the basis of threat of material injury, and therefore joined the majority of her colleagues in making an affirmative threat determination. She does not, however, arrive at an affirmative threat determination in this case by first making a negative determination on present injury; to the contrary, she finds this record also supports an affirmative determination on the basis of present injury. In most investigations, finding sufficient evidence to make an affirmative present injury determination would obviate the need even to consider the issue of threat. In this investigation, however, Vice Chairman Nuzum views the evidence as more strongly supporting an affirmative threat determination, but as sufficient to justify an affirmative present injury determination. She therefore joins both the majority views on threat, and her colleague Commissioner Bragg's views on present injury.

² Table 1, CR at I-20, PR at II-11.

³ *Id.* By value, subject imports increased by 627.4 percent from 1992 to 1993 and by 60.4 percent from 1993 to 1994.

⁴ Table 15, CR at I-60, PR at II-27.

consumption was steadily expanding.⁵ At the same time, the domestic industry's market share consistently declined, by equally substantial margins.⁶

We therefore find the volume of subject imports, as well as the increases in those volumes, to be significant.

B. Price Effects of the Subject Imports

The Commission received pricing data for two products from China and the United States: USP grade glycine and technical grade glycine. Pricing data for these products were collected for sales on a spot and a contract basis to distributors and to end users. Price comparisons were possible for the following product/channel/term of sale combinations: contract and spot sales of USP grade glycine to end users; spot sales of technical grade glycine to end users; and spot sales of USP and technical grade glycine to distributors. The pricing data collected by the Commission show that prices for contract sales of domestically produced glycine, which account for *** of domestic producers' U.S. glycine sales,⁷ either were stable or increased *** from 1992 to 1993, but then declined from 1993 to 1994.⁸ Prices for spot sales of domestically produced glycine fluctuated from 1992 to 1994, but in most cases were lower throughout most of 1994 than they had been in 1993.⁹ Prices for Chinese product fluctuated during the period reported, but were generally lower in 1994 than in 1992 and 1993.¹⁰ Thus, the evidence of record indicates that prices for both domestically produced glycine and Chinese imports declined during the latter part of the period examined (i.e., during 1994). Moreover, prices for domestic and Chinese product generally were lower in the second quarter of 1994 – the last full quarter of pricing data before the petition was filed – than at the beginning of the period in January 1992.¹¹

Chinese imports undersold the domestic product in 28 of 39 possible comparisons involving sales prices for contract and spot sales of U.S.-produced and imported Chinese

⁵ See Table A-1, CR at A-3-4, PR at A-3-4.

⁶ The domestic industry's market share declined from *** percent in 1992, to *** percent in 1993, and to *** percent in 1994. Table 15, CR at I-60, PR at II-27.

⁷ A total of *** percent of U.S. producers' U.S. shipments in 1994 were made on a contract basis. See CR at I-28, PR at II-15 and Table 3, CR at I-29, PR at II-15. Hampshire, the largest U.S. producer of glycine (accounting for *** percent of domestic production in 1994), sells most of its glycine on a contract basis: during 1994, Hampshire sold *** percent of its glycine on a contract basis and *** percent on a spot basis. Chatterm, which accounted for the remaining *** percent of domestic production in 1994, sold ***, and reported that *** of its sales in 1994 were spot sales. CR at I-28, PR at II-15. ***

⁸ Prices for spot sales of the two domestic products examined by the Commission fluctuated during the period, showing no clear trends. We note that spot sales account for ***, but overall account for *** of U.S. producers' sales of glycine over the period. Thus, we find the pricing on contract sales to be more probative of injury to the domestic industry.

⁹ See Table 16 and Figure 5, CR at I-73 and I-77-78, PR at II-31. ***

¹⁰ CR at I-72, PR at II-31, Table 17, CR at I-74, PR at II-31, and Figure 5, CR at I-75-78, PR at II-31.

¹¹ We consider all of the pricing data submitted in response to the Commission's questionnaires, but we rely more heavily on data up to July 1, 1994, when the petition was filed. The record indicates that the filing of the petition affected prices for glycine in the United States. Tr. at 30 (DeGeorge).

glycine to end users and distributors.¹² The margins of underselling ranged from *** percent to *** percent, and generally were higher in 1994 than in prior years.¹³ Delivered pricing data received from purchasers confirm *** underselling by the imported product.¹⁴ Commission staff confirmed a number of instances of lost sales on the basis of price.¹⁵ Accordingly, we conclude that underselling by Chinese imports was significant.

Further evidence of adverse price effects from subject imports during the latter part of the period examined is found in the average unit value data, which show that the unit value of U.S. producers' domestic shipments declined by *** percent between 1993 and 1994 (after increasing ***, by *** percent, between 1992 and 1993). The average unit value of subject imports fell steadily over the period, declining by 18.3 percent (from \$1.69 per pound in 1992 to \$1.38 per pound in 1994).¹⁶

A number of factors magnify the effects of these lower, and declining Chinese import prices on prices for the comparable domestic product. First, there is a moderately high degree of substitutability between the domestic and imported products.¹⁷ Thus, once a customer determines that a particular supplier's product meets its needs, price becomes an important factor in purchasing decisions. While quality and reliability of supply also are important, lower priced imports clearly are perceived as acceptable substitutes for the domestic product, as evidenced by the fact that a number of purchasers purchased both U.S.-

¹² Table 18, CR at I-79, PR at II-31-32. Imports from China oversold the domestic product in 9 comparisons, by margins ranging from *** percent to *** percent, and were priced the same in two comparisons. *Id.* Most of the instances of overselling by the Chinese product occurred in 1992 and 1993; only *** such instances occurred in 1994, with overselling margins of ***.

¹³ Table 18, CR at I-79, PR at II-32. Vice Chairman Nuzum further notes that the final dumping margin identified by the Commerce Department was 155.89 percent, well in excess of the highest underselling margins. This suggests that LTFV pricing largely accounts for the underselling by the subject imports.

¹⁴ Of 17 possible delivered price comparisons based on purchases reported by end users, 14 showed underselling by Chinese imports by margins averaging **** percent and ranging from *** percent to *** percent. CR at I-80, PR at II-32 and Table 19, CR at I-81, PR at II-32. Three of these comparisons showed overselling by the Chinese product by an average of *** percent, but this average was heavily influenced by ***. CR at I-80, n. 124, PR at II-32 and Table 19, n. 3, CR at I-81, PR at II-32. A single quarterly price comparison, in the third quarter of 1994, was possible based on purchases reported by distributors; this comparison showed underselling by the Chinese product by a margin of *** percent. CR at I-83, PR at II-33.

¹⁵ CR at I-85-88, PR at II-33.

¹⁶ Table 1, CR at I-20, PR at II-11. While we use the average unit value data cautiously, recognizing that trends in average unit values may reflect other factors such as changes in product mix, we believe that these data lend weight to the conclusion supported by other data, that Chinese imports have had an adverse effect on U.S. producers' prices, particularly in 1994. We note, in this regard, that U.S. producers' product mix was as follows: U.S. shipments of USP grade glycine accounted for *** percent of total reported U.S. shipments in 1992, *** percent in 1993, and *** percent in 1994. The product mix of Chinese import shipments was ***, with USP grade glycine accounting for *** percent of total reported U.S. shipments of Chinese material in 1992, *** percent in 1993, and *** percent in 1994. (The remainder of shipments of both U.S.-produced and Chinese glycine were of technical grade material.) CR at I-7, PR at II-5. ****. CR at I-38, PR at II-17.

¹⁷ Commissioner Bragg notes that the staff economic memorandum characterizes the elasticity of substitution as between 2 and 4. EC-S-022 at 25.

produced and Chinese glycine during the period examined.¹⁸ Further, a relatively small number of purchasers accounts for the bulk of glycine consumption in many of the industries that use glycine. The record suggests that this concentration of demand allows purchasers to play suppliers off against one another, and thereby extract price concessions from U.S. suppliers.¹⁹ Price effects of LTFV imports are further magnified by the inelasticity of demand. Demand is relatively inelastic because demand for glycine is largely derived from the demand for the end products in which it is used. There are no ready substitutes for glycine, and it accounts for a relatively small share of the cost of the end products in which it is used.²⁰

For all of the foregoing reasons, we find that LTFV imports from China both depressed and suppressed prices for domestically produced glycine to a significant degree.

C. Impact of the Subject Imports on the Domestic Industry

LTFV imports from China adversely affected the domestic industry in a number of ways. First, the subject imports increased their volume and market penetration over the period examined primarily at the expense of U.S.-produced glycine. As noted, the share of the U.S. market held by LTFV imports from China rose from *** percent to *** percent between 1992 and 1993, and increased further to *** percent in 1994.²¹ At the same time, U.S. producers' market share declined from *** percent in 1992, to *** percent in 1993, and declined further to *** percent in 1994.²²

Second, the domestic industry experienced significant declines in sales volume, production, capacity utilization, and financial performance in the last year of the period examined. Although the domestic industry's performance generally improved between 1992 and 1993, these improvements were due in large measure to ***.²³ Thus, the financial impact of increasing volumes of low-priced Chinese glycine on the domestic industry was felt primarily in 1994, when domestic shipments, production, capacity utilization, employment and wages, hours worked, and operating income all declined from their 1993 levels, and

¹⁸ While certain purchasers identified non-price factors, such as quality and lead times, as reasons why they prefer to purchase the domestic product instead of the Chinese product, five of the seven largest end users purchased Chinese glycine between 1992 and 1994. Moreover, several purchasers -- including four of the larger purchasers -- indicated that they added suppliers of Chinese product during the past three years, and three purchasers reported that the domestic and Chinese products are of comparable quality. Finally, many U.S. purchasers indicated that the Chinese product is employed in the same range of uses as the domestic product and that both grades of U.S. and Chinese glycine are equally available in the United States. CR at I-11 and I-68, PR at II-7 and II-29, and Purchasers' Questionnaires.

¹⁹ See Tr. at 33-34 (DeGeorge), 44 (Smith). For example, four out of seven purchasers of both U.S. and Chinese products reported declining purchase prices for U.S.-produced glycine, despite having indicated that U.S. prices had increased relative to the prices of the subject imports. See Purchasers' Questionnaires.

²⁰ Commissioner Bragg notes that the staff economic memorandum estimates the elasticity of demand to be in the range of -0.3 to -0.7. EC-S-022 at 23.

²¹ Table 15, CR at I-60, PR at II-27.

²² Table 15, CR at I-60, PR at II-27. Nonsubject imports accounted for a relatively small share of the U.S. market throughout the period examined, although their share increased over the period, rising from *** percent in 1992 to *** percent in 1993, and to *** percent in 1994. Id.

²³ CR at I-41-42, PR at II-17-18.

inventories increased significantly.²⁴ In addition, both the value of U.S. shipments and U.S. producers' operating income in 1994 were below their 1992 levels.²⁵

As sales volume, production, and capacity utilization declined in 1994, domestic producers experienced increased per-unit production costs,²⁶ which they increasingly were unable to cover due to declining unit sales value in the face of declining import prices.²⁷ As a result, the domestic industry's operating profits declined in 1994, compared to both 1992 and 1993 levels.²⁸

Respondent argues that the domestic industry's declining profitability is the result of factors other than competition from LTFV imports. In particular, respondent contends that any difficulties *** is experiencing are due not to subject imports, but rather to that company's *** and its own decisions to increase capacity ***²⁹ and to ***.³⁰ While it is true that ***, this factor alone did not produce the declines in profitability experienced by the industry in 1994. In fact, *** occurred between 1992 and 1993.³¹ By contrast, *** that occurred between 1993 and 1994 were attributable primarily to ***.³² Combined with ***, these *** resulted in a substantial deterioration in *** financial performance between 1993 and 1994.³³ As previously noted, domestic producers were increasingly unable to cover these cost increases in the face of low and declining prices for Chinese imports. While the declines in per-unit sales values do reflect, in part, ***, the record indicates that the average unit values *** declined from 1993 to 1994.³⁴ Moreover, the record supports petitioners' assertion that *** was at least partly due to pricing pressures created by low-priced Chinese imports of technical grade material.³⁵

Based on the foregoing, we find that the domestic industry is materially injured by reason of LTFV imports from China.

²⁴ Table A-1, CR at A-3-4, PR at A-3-4.

²⁵ Id.

²⁶ As described supra in the discussion of the Condition of the Industry, the cost increases experienced by the domestic industry between 1993 and 1994 were attributable primarily to ***. CR at I-43-44, PR at II-17-18. ***. CR at I-44-45, PR at II-17-18.

²⁷ See Tr. at 36 (DeGeorge), 44 (Smith).

²⁸ Operating income in 1994 was *** percent lower than in 1993, and *** percent lower than in 1992. Table 9, CR at I-40, PR at II-17.

²⁹ We note that the capacity data included in Table 2 of the staff report do not include the capacity added by Hampshire in early 1993. CR at I-26, n. 58, PR at II-14. Thus, the Commission's capacity utilization figures are not affected by this expansion of capacity.

³⁰ See Dastech Prehearing Brief at 3; Dastech Posthearing Brief at 8.

³¹ CR at I-41-42, PR at II-17-18.

³² CR at I-43-44, PR at II-17-18.

³³ Id.

³⁴ CR at I-43, PR at II-18.

³⁵ See CR at I-7, PR at II-5, and Figure 5, CR at I-75-78, PR at II-31.

IEWS OF COMMISSIONER CAROL T. CRAWFORD

On the basis of information obtained in this final investigation, I determine that an industry in the United States is materially injured by reason of imports of glycine from the People's Republic of China ("China") found by the Department of Commerce to be sold at less-than-fair-value ("LTFV"). I concur in the conclusions of my colleagues with respect to the like product and the domestic industry. I also concur in the discussion of the condition of the domestic industry. However, I determine that the domestic industry is materially injured by reason of LTFV imports of glycine from China. I do not concur in the determination of the majority of the Commission that the domestic industry is threatened with material injury by reason of LTFV imports from China. My analysis follows.

I. ANALYTICAL FRAMEWORK

The statute directs that we determine whether there is "material injury by reason of the dumped imports." Thus we are called upon to evaluate the effect of dumped imports on the domestic industry and determine if they are causing material injury. There may be, and often are, other "factors" that are causing injury. These factors may even be causing greater injury than the dumping. However, the statute does not require us to weigh causes, only to determine if the dumping is causing material injury to the domestic industry. It is important, therefore, to assess the effects of the dumped imports in a way that distinguishes those effects from the effects of other factors unrelated to the dumping. To do this, I compare the current condition of the industry to the industry conditions that would have existed without the dumping, that is, had subject imports all been fairly priced.¹ I then determine whether the change in conditions constitutes material injury.

In my analysis of material injury, I evaluate the effects of the dumping on domestic prices, domestic sales, and domestic revenues. To evaluate the effects of the dumping on domestic prices, I compare domestic prices that existed when the imports were dumped with what domestic prices would have been if the imports had been priced fairly. Similarly, to evaluate the effects of dumping on the quantity of domestic sales,² I compare the level of domestic sales that existed when imports were dumped with what domestic sales would have been if the imports had been priced fairly. The combined price and quantity effects translate into an overall domestic revenue impact. Understanding the impact on the domestic industry's prices, sales, and overall revenues is critical to determining the state of the industry, because the impact on other industry indicators (e.g., employment, wages, etc.) is derived from the impact on the domestic industry's prices, sales, and revenues.

I then determine whether the price, sales, and revenue effects of the dumping, either separately or together, demonstrate that the domestic industry would have been materially better off if the imports had been priced fairly. If so, the domestic industry is materially injured by reason of the dumped imports.

II. MATERIAL INJURY BY REASON OF LTFV IMPORTS

In determining whether a domestic industry is materially injured by reason of the LTFV imports, the statute directs the Commission to consider:

¹ 19 U.S.C. § 1677(7)(C)(iii).

² In examining the quantity sold, I take into account sales from both existing inventory and new production.

- (I) the volume of imports of the merchandise which is the subject of the investigation,
- (II) the effect of imports of that merchandise on prices in the United States for like products, and
- (III) the impact of imports of such merchandise on domestic producers of like products, but only in the context of production operations within the United States³

In assessing the effect of subject imports, I compare the current condition of the domestic industry with the condition that would have existed had imports been fairly priced.⁴ Then, taking into account the condition of the industry, I determine whether any resulting change of circumstances constitutes material injury. For the reasons discussed below, I determine that the domestic industry is materially injured by reason of LTFV imports from China. I begin by evaluating the characteristics of the market as the foundation for my analysis of the statutory factors.

A. Market Characteristics

To understand how the glycine industry is affected by unfair imports, we must examine both the demand side and the supply side characteristics of the glycine market.

1. Market Demand Conditions

The demand characteristics of the glycine market determine the way in which purchasers respond to changes in the glycine market, such as a price increase or the entrance or withdrawal of a supplier of glycine. An analysis of the demand characteristics tells us what options are available to purchasers when market conditions change, and how they are likely to respond to any particular change, for example a price increase. Purchasers generally seek to avoid price increases, but their ability to do so varies with conditions in the industry. The willingness of purchasers to pay a higher price will depend on the importance of the product to them (how large a cost factor) and whether they have options that allow them to avoid the price increase by switching to alternative sources of supply or using alternative non-glycine products. An analysis of these and other demand side factors tell us whether demand in the industry is elastic or inelastic. For the reasons discussed below, I find that the elasticity of demand for domestic glycine is relatively low.

I begin my analysis by examining information on the importance of price in the purchasing decision. The first factor that measures the willingness of purchasers to pay higher prices is the significance of the glycine cost in the total cost of the downstream product. When the price of an input is a small portion of the total product cost, changes in the price of the input (e.g. glycine) are less likely to alter demand for the downstream product and, by extension, the demand for glycine. The cost share of glycine varies depending on the product in which it is used. In 1994, the two largest end uses for glycine were animal feed and antiperspirants, accounting for *** percent and *** percent of domestic

³ 19 U.S.C. § 1677(7)(B)(i). In making its determination, the Commission may consider "such other economic factors as are relevant to the determination." 19 U.S.C. § 1677(7)(B)(ii).

⁴ 19 U.S.C. § 1677(7)(C)(iii).

shipments and *** percent and *** percent of shipments of subject imports, respectively.⁵ The record indicates that glycine accounts for less than *** percent of the total cost of pet food and *** percent of the cost of the antiperspirant salts in which it is used.⁶ Based on these two largest end uses and the cost share of glycine in each, I find that glycine accounts for a relatively small percentage of the costs of the final products in which it is used.

The second factor relates to the importance of price relative to other factors in the purchase decision. While price is always important in purchasing decisions, the record shows that non-price factors are also important in purchasers' decisions to buy glycine. Certain purchasers bought glycine primarily on the basis of price. However, a number of purchasers cited quality, lead times, availability of supply, and the decision to have more than one supplier as bases for their purchasing decisions. In particular, quality is the key factor for those purchasers whose products require the lowest levels of impurities (e.g. antiperspirant salts and pharmaceutical products).⁷ These two end use applications account for a *** portion of demand for glycine. Consequently, I find that, overall, non-price factors play a more important role in purchasers' decisions than price.

The third factor relates to the similarity, or substitutability, of subject imports and domestically produced glycine. The level of substitutability between subject imports and the domestic product is important because it measures the extent to which demand would have shifted to the domestic product if subject imports had not been dumped. A majority of purchasers responding to the Commission's questionnaires stated that they require qualification of glycine suppliers before buying any product.⁸ Products that meet the qualification criteria are at least somewhat substitutable. However, the record demonstrates that Chinese imports are poorer quality than the domestic product. While 5 of the 7 largest end users purchase both subject imports and the domestic product, importers accounting for 75 percent of subject imports indicated that subject imports are of poorer quality than the domestic product.⁹

In some uses, subject imports are not at all substitutable for domestic glycine. Specifically, *** percent of domestic glycine was sold in 1994 for pharmaceutical and food additive applications. Subject imports were not produced in facilities operating in compliance with "Good Manufacturing Practices" as dictated by the Food and Drug Administration for certain pharmaceutical uses and were not purchased in any amount for these uses.¹⁰ Thus, there were no substitutable subject imports available for a *** portion of the domestic demand. Therefore, the domestic product was protected from competition from subject imports in this part of the market as a result of the lower quality of the subject imports. Based upon this information, I find that, on balance, the domestic product and subject imports are, at best, moderately substitutable.

Fourth, I examine whether purchasers could avoid a price increase by switching to nonsubject imports or to alternative non-glycine products. Nonsubject glycine imports were available in the U.S. market in 1994, but only in relatively small quantities. Therefore, purchasers wishing to avoid a domestic price increase would not have had the option of

⁵ Calculated from the tabulation at CR at I-13; PR at II-8.

⁶ EC-S-022 at 24.

⁷ CR at I-67 to I-70; PR at II-29 to II-30; and EC-S-022 at 25-26. One manufacturer of antiperspirant salts indicated that quality was a key factor in meeting Food and Drug Administration specifications. CR at I-87; PR at II-33.

⁸ CR at I-69; PR at II-29.

⁹ CR at I-9; PR at II-6.

¹⁰ CR at I-14; PR at II-8.

switching to the alternative supply that is sometimes available through nonsubject imports. While some purchasers would likely have shifted to nonsubject imports, they were not available in adequate quantities to satisfy all purchasers seeking to replace Chinese supplies and avoid a domestic price increase.

Purchasers also would have considered switching to alternative, non-glycine products. However, the record demonstrates that there are no good alternatives to glycine.¹¹ Therefore, purchasers seeking to avoid a domestic price increase would have neither sufficient alternative sources of glycine nor the ability to switch to alternative non-glycine products. For these reasons, I find that the elasticity of demand for domestic glycine is relatively low. That is, purchasers will not reduce the amount of glycine they buy in response to domestic price increases. Therefore, purchasers would have been willing to switch their purchases to the domestic product, even if the domestic industry had increased its prices.

2. Market Supply Conditions

Conditions in the supply side of the market also directly affect how purchasers would have responded to an increase in the price of subject imports to fairly traded levels. Options available to purchasers are determined not only by the demand side factors just examined, but also by factors such as the level of competition in the market and the domestic industry's capacity utilization.

In 1994, *** percent of the domestic industry's capacity was not used and therefore was available to increase production.¹² This available capacity *** the total quantity of subject imports in 1994. In addition, the domestic producers reported that an additional *** pounds of potential capacity, representing an increase of about *** percent of current capacity, can be brought into production ***.¹³ Thus the domestic industry had sufficient available and potential capacity to fill the demand supplied by subject imports.

The availability of unused capacity can also exercise discipline on price increases in a competitive market. In a competitive market, an individual producer is unable to make a price increase stick. However, the domestic glycine market is composed of only two firms, one of which is clearly dominant.

Hampshire Chemical Corporation ("Hampshire") is *** the larger of the two domestic producers, accounting for *** percent of domestic production and *** percent of industry shipments in 1994.¹⁴ As a result, this single domestic producer held a market share of *** percent in 1994. ***. This dominant market position gives Hampshire significant market power in the domestic glycine market. Consequently, the domestic glycine market is not a competitive market. While ordinarily unused capacity serves to restrain price increases, the lack of competition in the domestic market negates any disciplinary effect the unused capacity might otherwise be expected to have. Therefore, neither factor on the supply side of this market would operate to allow purchasers to avoid a price increase sought by the domestic industry.

¹¹ CR at I-11; PR at II-7; and EC-S-022 at 23-24.

¹² CR at I-27, Table 2; PR at II-14.

¹³ EC-S-022 at 22.

¹⁴ Calculated from Table 2, CR at I-27; PR at II-14, and Table 4, CR at I-30; PR at II-15.

B. Volume of Subject Imports

By quantity, subject imports increased from 112,000 pounds in 1992, to 905,000 pounds in 1993, and to 1,606,000 pounds in 1994. Subject imports held a market share of *** percent in 1992, *** percent in 1993, and *** percent in 1994.¹⁵ While it is clear that the larger the volume of subject imports, the larger the effect that they will have on the domestic industry, the discussion of whether the volume is significant cannot be made in a vacuum. This determination must be made in the context of the domestic glycine market. Based on the *** market share of subject imports in 1994 and the characteristics of the glycine market, I find that the volume of subject imports is significant.

C. Effect of Subject Imports on Domestic Prices

The question we must address is whether the domestic industry could have increased its prices if the subject imports had not been dumped. The ability of domestic producers to raise their prices depends on both demand and supply side conditions in the industry, as has been discussed. Both supply and demand side conditions of this market are relevant to determine whether the domestic industry could have increased its prices and also whether purchasers would have paid higher prices for domestic glycine or bought less of it. Examining demand side factors helps us understand whether purchasers would have been willing to pay higher prices for the domestic product, or buy more of it, if subject imports had not been available. Examining supply side factors helps us understand whether available capacity and competition in the market would have imposed discipline on price increases sought by the domestic industry had subject imports not been available.

I find that subject imports are having significant price effects on the domestic industry producing glycine.¹⁶ Demand for glycine is relatively inelastic. No alternative non-glycine products are available to purchasers. Had subject imports not been present in the market, purchasers would have required alternative sources to replace the Chinese subject imports. Because few nonsubject imports are available, purchasers would have been forced to purchase domestically produced glycine. Although there is only moderate substitutability between subject imports and domestic glycine, purchasers are able to use the domestic product in all applications, as it contains fewer impurities than the subject imports. Therefore, the moderate substitutability would not have prevented purchasers from switching to the domestic product.

The increased demand for domestic glycine would have allowed the domestic industry to increase its prices notwithstanding significant unused capacity, because this market is not a competitive one and is dominated by a single producer. That producer, Hampshire, has sufficient market power to determine whether to increase prices or increase production or some combination of each, as determined by its own economic benefit.¹⁷ Thus, if subject imports had not been present in the market, the domestic industry would have been able to raise its prices significantly. Consequently, I find that subject imports are having significant price effects.

¹⁵ CR at I-60, Table 15; PR at II-27.

¹⁶ Generally speaking, there can be circumstances where competitive conditions would prevent a significant increase in domestic like product prices, even if subject imports were traded fairly. Under such conditions, significant effects on domestic prices cannot be attributed to the unfair pricing of subject imports.

¹⁷ In fact, the domestic industry asserted that it would have raised its prices but for the subject imports. Transcript at 78.

D. Impact of Subject Imports on the Domestic Industry

In assessing the impact of subject imports on the domestic industry, I consider, among other relevant factors, output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, and research and development.¹⁸ These factors either encompass or reflect the volume and price effects of the dumped imports, and so I gauge the impact of the dumping through those effects.

Had subject imports not been present in the market, the impact on the domestic industry's output and sales would have been significant. The impact of these lost subject import sales on the domestic industry's output and sales depends on the same supply and demand factors described above. Of particular importance are three factors: (1) the ability of domestic producers to increase production to satisfy additional demand;¹⁹ (2) the availability of competing nonsubject imports and alternative non-glycine products; and (3) the attractiveness, or substitutability, of the domestic product relative to subject imports, nonsubject imports, and alternative products.²⁰ These factors affect whether purchasers of subject imports would have switched to the domestic product if subject imports had not been available. I examine each in turn.

First, as discussed above, ***. Therefore, if demand for the domestic product had increased as a result of subject imports not being available, the domestic industry would easily have been able to increase its production to satisfy that demand.

The second factor that affects the ability of the domestic industry to increase sales had subject imports not been present in the market is the availability and attractiveness of nonsubject imports and alternative non-glycine products. Had subject imports not been available, purchasers may have switched their purchases to nonsubject imports and alternative non-glycine products, as well as the domestic like product. As discussed above, however, there are no alternative non-glycine products. And throughout the period of investigation only a relatively small quantity of nonsubject imports was present in the U.S. market to satisfy increased demand resulting from displaced Chinese imports. Consequently, neither alternative non-glycine products nor nonsubject imports would have limited significantly the domestic industry's ability to win market share and thus increase its sales, had subject imports not been present in the market.

The third factor that determines if the domestic industry could have increased its sales is the substitutability of subject imports and domestic glycine. If subject imports and the domestic product are not substitutable, purchasers would not switch to the domestic product even if subject imports are not available. Purchasers would cease buying the glycine rather than switch to the domestic product to satisfy their needs. In that case, the reduced supply of subject imports would translate into increased demand for nonsubject imports, and thus the domestic industry would not increase its sales of the like product. As discussed above, there is only moderate substitutability between subject imports and the domestic product. However, the domestic product contains fewer impurities, is of better quality than subject imports, and can be used in place of the lower quality Chinese imports in all end use applications. Therefore, the moderate substitutability would not prevent an increase in demand for the domestic product if subject imports were not present in the market.

¹⁸ 19 U.S.C. § 1677(C)(iii).

¹⁹ Elasticity of domestic supply.

²⁰ Elasticities of nonsubject import supply and alternative product supply.

In 1994, the market share of subject imports was *** percent, a significant volume. In weighing the impact of subject imports on domestic output and sales, I conclude that, had subject imports not been present in the market, purchasers of Chinese glycine would have switched most of their demand to the domestic product and only small amounts to non-subject imports. Domestic producers would easily have been able to increase their production to satisfy fully the increased demand. Consequently, due to the limited availability of nonsubject imports and the lack of alternative non-glycine products, I conclude that the domestic industry would have captured most of the sales lost by subject imports. The increase in demand for the domestic product would have increased the domestic industry's output and sales significantly. In addition, the increase in demand for domestic glycine would have permitted the domestic industry to increase its prices without effective discipline from either purchasers or the industry itself. The combination of price increases and sales increases would have resulted in a significant increase in domestic revenues, had subject imports not been available in the market.

III. CONCLUSION

On the basis of the foregoing analysis, I find that the domestic industry would have increased its prices and sales, and thus would have increased its revenues significantly, if subject imports had not been dumped. Therefore, I conclude that the domestic industry would have been materially better off if subject imports had been priced fairly. Consequently, I determine that the domestic industry is materially injured by reason of LTFV imports of glycine from China.

PART II
INFORMATION OBTAINED IN THE INVESTIGATION

INTRODUCTION

This investigation results from a petition filed by counsel on behalf of Hampshire Chemical Corp., Lexington, MA, and Chattem, Inc., Chattanooga, TN, on July 1, 1994, alleging that an industry in the United States is materially injured and threatened with material injury by reason of LTFV imports of glycine¹ from China.² Information relating to the background of the investigation is provided below.³

<i>Date</i>	<i>Action</i>
July 1, 1994	Petition filed with Commerce and the Commission; institution of the Commission's preliminary investigation
July 28, 1994	Commerce's notice of initiation
August 15, 1994	Commission's preliminary determination
November 15, 1994	Commerce's preliminary LTFV determination; institution of the Commission's final investigation (59 F.R. 63378, December 8, 1994)
January 6, 1995	Commerce's preliminary critical circumstances determination
January 23, 1995	Commerce's final LTFV and critical circumstances determinations (60 F.R. 5620, January 30, 1995) ⁴
February 9, 1995	Commission's hearing ⁵
March 3, 1995	Commission's vote
March 14, 1995	Commission determination delivered to Commerce

PREVIOUS AND RELATED COMMISSION 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 Germany⁶ or the Netherlands,⁷ and issued a negative determination concerning Japan on the basis of the Japanese exporter's agreement to discontinue LTFV sales.⁸ Antidumping duties were imposed on imports of glycine from France following an affirmative injury determination by the Commission. That finding was revoked in 1979.⁹

¹ Glycine is provided for in subheading 2922.49.40 of the HTS, and has a most-favored-nation tariff rate of 4.2 percent ad valorem, currently applicable to imports from China. A detailed definition of the product subject to this investigation is provided in the section of this report entitled "The Product."

² A summary of the data collected in the investigation is presented in app. A.

³ *Federal Register* notices cited in the tabulation are presented in app. B.

⁴ Because the respondents in its investigation were uncooperative, Commerce assigned to all Chinese exporters a final LTFV margin of 155.89 percent based on the best information available. In addition, Commerce made a negative final determination of "critical circumstances."

⁵ The calendar of the hearing is presented in app. C.

⁶ 34 F.R. 2210 (1969); 34 F.R. 6447 (1969).

⁷ 34 F.R. 734 (1969); 34 F.R. 11427 (1969).

⁸ 34 F.R. 15564 (1969); 34 F.R. 19210 (1969).

⁹ *Aminoacetic Acid (Glycine) from 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).

THE PRODUCT

Commerce defined the imported product subject to this investigation as follows:

The product covered by this investigation is glycine which is a free-flowing crystalline material, like salt or sugar. Glycine is produced at varying levels of purity and is used as a sweetener/taste enhancer, a buffering agent, reabsorbable amino acid, chemical intermediate, and a metal complexing agent. . . The scope of this investigation includes glycine of all purity levels.¹⁰

The glycine production process yields glycine with varying quantities of impurities and, as indicated in Commerce's scope of the investigation, the imported product consists of "glycine of all purity levels." Based on the proportion of impurities, a batch will be considered either USP grade or technical grade material. USP grade glycine complies with the specifications and test methods of the *United States Pharmacopeia*, a reference book published by the United States Pharmacopoeial Convention, Inc., an organization that establishes such standards for pharmaceutical products.¹¹ Technical grade glycine must meet certification requirements that are less stringent than those for USP grade glycine.

The Commission's decision regarding the appropriate domestic products that are "like" the subject imported products is based on a number of factors including: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions; (5) common manufacturing facilities and production employees; and, where appropriate, (6) price. In the preliminary investigation, the Commission determined that the appropriate like product consists of all glycine. The petitioners argue that the appropriate like product consists of all glycine¹² and the respondent, Dastech, does not take exception to this argument.¹³

Physical Characteristics and Uses

Glycine, also known as aminoacetic acid, is an organic chemical that has the chemical formula $C_2H_5NO_2$. It is a nonessential amino acid that occurs naturally in many proteins and is especially abundant in silk fibroin, gelatin, and sugar cane. However, it is synthetically manufactured for commercial purposes. Glycine exists as sweet tasting, odorless, white monoclinic crystals that are soluble in water and melt at 232-236°C. It has a specific gravity of 1.1607.¹⁴ All purity levels of glycine are chemically identical and have the same basic physical characteristics and properties.¹⁵

Because of its unique chemical composition, all glycine, regardless of the purity level, has a number of distinctive physical properties, including the following: sweetener/food enhancer, masking agent, buffer, preservative, brightening agent, and complexing agent. These qualities make

¹⁰ 60 F.R. 5620, Jan. 30, 1995.

¹¹ The term "USP grade" is sometimes also used by those in the industry to encompass glycine manufactured in compliance with the Food Chemicals Codex. Such glycine, also called "Glycine FCC," is the same product as glycine of USP grade, with slightly different testing performed upon it to satisfy food industry certification requirements. Petition, p. 3, and conference transcript, pp. 59-60.

¹² Petitioners' prehearing brief, pp. 1-11, and petitioners' posthearing brief, p. 1.

¹³ Hearing transcript, pp. 128 and 135, and respondent's posthearing brief, p. 3.

¹⁴ *Condensed Chemical Dictionary*, 10th edition, Van Nostrand Reinhold Co., 1981.

¹⁵ In some instances, however, glycine containing extremely high levels of impurities may not appear as white, may have an odor, and may be insoluble in water.

glycine useful in a number of food, pharmaceutical, and personal care items. As a buffering agent, glycine acts to buffer or stabilize the pH of those systems containing acidity or alkalinity. For example, antacid and analgesic products often are formulated with glycine to stabilize the acidity of the digestive tract. Glycine promotes the gastric absorption of certain drugs, including aspirin. A major use of glycine as a buffering agent is in the production of antiperspirants. As a flavor enhancer, glycine is used to sweeten substances and to improve overall taste by mellowing saltiness and bitterness in such products as carbonated soft drinks and flavor concentrates. As a masking agent, glycine is used to mask the bitter taste of some hydrolyzed proteins in applications such as tablets, lozenges, syrups, mouthwash, and dentifrice, to increase their consumer appeal. Glycine is also used as a starting material in the manufacture of other organic chemicals and chemical products including pharmaceuticals, food additives, perfume, and personal care products; as a treatment for animal diarrhea; as an additive in chicken feed; as a metal complexing agent in various chemical processes; and as an ingredient in metal-finishing products and metal plating baths.

Interchangeability and Customer and Producer Perceptions

USP Grade and Technical Grade Glycine

Presented in the following tabulation are the U.S. shipments of USP grade and technical grade glycine produced in the United States and in China (in 1,000 pounds).¹⁶

* * * * *

As presented above, USP grade glycine accounted for *** percent of total reported U.S. shipments of U.S. material in 1992, *** percent in 1993, and *** percent in 1994. Technical grade glycine accounted for *** percent of total reported U.S. shipments of U.S. material in 1992, *** percent in 1993, and *** percent in 1994. For the subject imports, however, USP grade glycine accounted for *** percent of total reported U.S. shipments of Chinese material in 1992, *** percent in 1993, and *** percent in 1994. Technical grade glycine accounted for *** percent of total reported U.S. shipments of Chinese material in 1992, *** percent in 1993, and *** percent in 1994. These data reveal that from 1992 to 1994 the share of the market held by technical grade glycine increased as compared with the share held by USP grade glycine.¹⁷ Respondent asserts that the U.S. purchasers of glycine are becoming more sophisticated in their requirements and are gradually moving toward the technical grade product because they have discovered that technical grade glycine can meet the requirements for the end-use products.¹⁸

Certain pharmaceutical and food applications use USP grade glycine exclusively because higher purity levels are generally required for human consumption. However, in most other

¹⁶ These data differ slightly from those presented elsewhere in this report because the data for the Chinese product are U.S. shipments of subject imports (****) as reported in questionnaire responses, instead of imports compiled from official statistics. U.S. producers' data also differ slightly compared with data presented elsewhere in this report because of minor discrepancies in the data provided. In addition, the information in the record of this investigation indicates that **** nonsubject imports of glycine are USP grade.

¹⁷ USP grade glycine accounted for *** percent of U.S. shipments of U.S.-produced and Chinese-produced glycine in 1992, *** percent in 1993, and *** percent in 1994. Technical grade glycine accounted for the remaining *** percent in 1992, *** percent in 1993, and *** percent in 1994.

¹⁸ Hearing transcript, pp. 99 and 132; respondent's posthearing brief, p. 7; ****. Petitioners testified that the market has remained relatively stable over the period of the investigation. Hearing transcript, pp. 67-70.

applications, USP and technical grade glycine may be used interchangeably, subject only to economic considerations.¹⁹

Domestically Produced and Chinese Glycine

Both of the U.S. producers indicated in their questionnaire responses that there is no difference between the U.S. and Chinese glycine. Also, the petitioners assert that the customers do not generally perceive the Chinese product to be different from the domestic product, and that they perceive glycine of varying levels of impurities to be variations of the same product, albeit with some different end-use applications.²⁰

Twelve importers responded to questions posed in the questionnaires seeking information on differences between the Chinese and U.S. product. Five importers, accounting for 22 percent of total imports of glycine from China during 1992-94, reported that there are no differences between the U.S. and Chinese glycine. However, seven importers, accounting for 75 percent of total imports of glycine from China during 1992-94, reported that the Chinese product is of a lower quality.²¹ These importers indicated that the Chinese product was often darker in color, had a bad odor, contained high levels of impurities and foreign matter, was insoluble, or was poorly packaged.²²

*** indicated that its U.S. purchasers buy both the U.S. and Chinese products. *** states that, "The intention of these customers was never to stop buying domestically, but to have a second source of supply at competitive pricing."²³ *** adds that U.S. end users of glycine also purchase Chinese glycine "to satisfy their niche market (e.g., antiperspirant) requirements for a material grade that is not being provided by the domestic suppliers."²⁴ ICC and Maypro, whose subject imports together accounted for *** percent of total imports from China during 1992-94, testified that, although lower in quality, the Chinese product is sufficient for some applications in which the

¹⁹ Petition, p. 9; conference transcript, pp. 61 and 104-105; petitioners' postconference brief, pp. 3-6, app. 1, p. 5; prehearing brief, p. 4; and hearing transcript, p. 55. Of the 12 purchasers responding to the question concerning interchangeability between grades, 11 reported that USP and technical grades of glycine were interchangeable for certain end uses and one reported that only USP grade could be used in the pharmaceutical products it produces. The remaining 20 purchasers, all but one of which purchase only one grade, either reported that the question was not applicable to their firm or did not provide an adequate response to the question of interchangeability between grades. For the following end-use applications, both USP and technical grade glycine were used by purchasers during 1992-94: antiperspirants, animal feed, over-the-counter drugs, nutritional supplements, fertilizers, metal processing, and certain pigments, colorants, and inks.

²⁰ Petitioners reported that tests performed on samples of Chinese USP grade glycine and information conveyed to them by their customers confirmed that the Chinese USP grade material was directly substitutable for the U.S. USP grade material. Hearing transcript, pp. 38, 47, and 49.

²¹ Several importers also indicated that the agreed-upon specifications of several shipments were not met by the Chinese producers. One importer had the technical grade product further refined in the United States to meet the technical grade specifications, one importer sold the USP purchased material as technical grade because the Chinese producer would not accept the return of the material, and one returned the material to the Chinese producer.

²² Another complaint by importers of the Chinese product was that it tended to cake during shipment and had to be ground up into powder form in the United States. However, Dastech indicated that it was the U.S. product, not the Chinese product, that had problems with caking during shipment. Despite this advantage of the Chinese product, Dastech asserts that "the *** presents an inherent constraint on possible expansion of PRC sales." Hearing transcript, p. 104, and respondent's posthearing brief, app. 9, p. 1.

²³ ***.

²⁴ ***.

domestic product is used.²⁵ However, Steve Yamada, President of Maypro, testified that the Chinese glycine is lower priced because end users must accept more risks when they use Chinese glycine. The risks include the following: (1) low quality; (2) unreliable and late delivery; (3) no compensation or returns for damaged material; (4) greater communications costs; and (5) no insurance coverage for product liability.²⁶

Of the 32 purchasers that responded, 22 purchased solely domestically produced glycine during 1992-94, 2 purchased solely Chinese glycine, 7 purchased both U.S. and Chinese glycine,²⁷ and 1 purchased Japanese glycine. Three of the seven purchasers of U.S. and Chinese glycine purchased only USP grade, two purchased only technical grade, one purchased USP grade from U.S. producers and technical grade from Chinese importers, and one purchased both USP grade and technical grade from both U.S. producers and Chinese importers. Four of the seven purchasers of both the U.S. and Chinese glycine reported that the U.S. product was superior in consistency and quality and three reported no difference in the products. In response to questions asked by the Commission, many U.S. purchasers of glycine indicated that the Chinese product is employed in the same range of uses as the domestic product²⁸ and that both grades of U.S. and Chinese glycine are equally available in the United States.²⁹

Substitute Products

Because of glycine's chemical structure and range of distinctive physical qualities, there is no other single chemical that can substitute for glycine in all its end uses. Any chemical that might be considered a substitute for glycine in any given application would require reformulation of the product.³⁰

Channels of Distribution

Glycine is sold in technical and USP grades and both grades are similarly packaged and shipped in large bags, boxes, drums, or carload lots. It is used primarily as an intermediate product

²⁵ Conference transcript, pp. 94 and 97.

²⁶ Conference transcript, pp. 93-95, 102, and 106, and respondents' postconference brief, pp. 10-11 and 15.

²⁷ The seven firms' purchases of glycine accounted for 73 percent of U.S. consumption during 1992-94.

²⁸ Of 32 purchasers that responded, 11 indicated that the Chinese product is employed in the same range of uses as the domestic product, 1 indicated that it is not, and the remaining 20 indicated that either the question was not applicable to their firm or they did not know the answer.

²⁹ Seven purchasers responded to a question regarding the availability of glycine. All seven indicated that both U.S.-produced grades of glycine are available from China. Five purchasers indicated that both grades of Chinese glycine are available from U.S. producers, and two indicated that the technical grade is not available in the United States.

³⁰ Conference transcript, pp. 54-56. The responses to a question posed in the Commission's questionnaires confirmed this position on substitute products. Of the firms responding to the question, all of the importers and 26 out of 32 purchasers indicated that there are no other viable substitute products for glycine. Three purchasers did not indicate whether there were substitutes and one indicated that there were substitutes, but did not know what they were. One producer and two purchasers that indicated the availability of substitutes named individual raw materials for limited and specific end uses. The other producer simply indicated that no information was available to it on substitutes.

by manufacturers in the production of further finished products, such as pharmaceutical and food products, pet food, antiperspirants and personal care products, and chemical and industrial products.³¹

The channels of distribution for the imported and domestic glycine are similar, as are the channels of distribution for the different grades of glycine. Glycine produced in the United States and imported from China is sold nationwide mainly to end users, but also to some distributors. The U.S. producers reported that, in 1994, *** percent of their U.S. shipments of glycine were to end users and *** percent were to distributors. Importers reported that 88 percent of 1994 sales of Chinese glycine were to end users and 12 percent were to distributors. USP and technical grade glycine produced in the United States and imported from China are sold both to distributors and end users, with a majority of each shipped to end users.

Presented in the following tabulation are the U.S. shipments of U.S. and Chinese material, by end use categories (in 1,000 pounds).³²

* * * * *

From 1992 to 1994, the shares of U.S. consumption held by the two largest markets for glycine (animal feed and antiperspirants) increased overall, ***.

The U.S. producers' U.S. shipments by end use or application in 1994 were as follows:

***. The U.S. producers' data reveal that from 1992 to 1994, ***. Hampshire reported ***.³³

The U.S. shipments of subject imports by end use in 1994 were as follows: ***. The data concerning U.S. shipments of subject imports reveal that from 1992 to 1993 ***. From 1993 to 1994, shipments ***. Dastech indicated that Chinese glycine is not sold for use in the U.S. pharmaceutical market because glycine intended for this market must be produced in facilities operating in compliance with "Good Manufacturing Practices" as dictated by the Food and Drug Administration and no Chinese manufacturer operates under these practices. *** other market segments are not affected by this restriction.³⁴

Common Manufacturing Facilities and Production Employees

There are two manufacturers of glycine in the United States: Chattem and Hampshire. Each of these domestic manufacturers uses a different production process based on different starting materials and different processing technology.

Chattem produces glycine by reacting monochloroacetic acid with anhydrous ammonia in the presence of a hexamethylenetetramine catalyst (figure 1). ***. ***.

³¹ Petitioners testified that a large share of the glycine market is in the hands of a small group of purchasers. Conference transcript, pp. 10 and 30; petitioners' prehearing brief, pp. 27-29; and hearing transcript, pp. 10, 32-35, and 44. Likewise, *** believes that less than 10 users of glycine in the United States account for over 80 percent of total U.S. consumption. ***.

³² These data differ slightly from those presented elsewhere in this report because the data for the Chinese product consist of U.S. shipments of subject imports (***) as provided by 5 importers, whose subject imports accounted for 76 percent of total subject imports during 1992 to 1994, instead of imports compiled from official statistics. U.S. producers' data also differ slightly compared with data presented elsewhere in this report because of minor discrepancies in the data provided. In addition, the information in the record of this investigation indicates that *** percent of all nonsubject imports during 1992-94 were imported for use in the *** market.

³³ ***.

³⁴ Hearing transcript, pp. 101-103; and ***. Two purchasers (***) indicated that they had made purchases of the Chinese USP grade glycine for over-the-counter drugs, vitamins, and dietary food supplements; however, *** ceased purchasing the Chinese product in 1993 because it was too coarse.

Figure 1
Flow diagram of the chloroacetic acid process used to make glycine by Chattem

* * * * *

The Chattem process is a batch process requiring the completion of one batch before another batch can start.

During the period of investigation, Chattem produced and sold both technical and USP grade material.³⁵ In the process used by Chattem, all purity levels of glycine share common production processes, facilities, and workers up to ***.³⁶ The final processing steps are not common for USP and technical grade glycine (as explained above), but are undertaken using the same employees and facilities.³⁷

Hampshire's process begins with a mixture of hydrogen cyanide, sulfuric acid, and formaldehyde (figure 2). The mixture is added to aqueous ammonia; the resulting liquid is then added to a solution of sodium hydroxide and boiled to remove ammonium hydroxide. Sulfuric acid is then added to produce a mixture of glycine and sodium sulfate. ***, and the primary glycine can be dried and packaged into USP or technical grade material or recrystallized to ensure USP grade material. Hampshire's process is called a semi-batch process because several operations during the production process occur continuously without isolation of a resultant product.

Figure 2
Flow diagram of the hydrogen cyanide process used to make glycine by Hampshire

* * * * *

Hampshire reported that it currently produces and sells both USP and technical grade glycine.³⁸ The same production process, facilities, and employees are used by Hampshire for glycine of all purity levels, although some of the USP glycine (i.e., *** percent) used for some pharmaceutical applications undergoes an extra purification step.³⁹

The actual production process used by Chinese manufacturers is not definitely known. However, the following information provided by petitioners, importers of the Chinese product, and two Chinese producers supports the deduction that the production process used to produce glycine in China is similar to that used by Chattem in the United States. First, petitioners indicate that glycine produced by Hampshire's process has trace amounts of various sulfates, while there are no measurable sulfates in the glycine made by Chattem and that imported from China.⁴⁰ Second, *** indicates that, like Chattem, all of the known Chinese glycine producers use monochloroacetic acid

³⁵ ***, Chattem produced both USP grade and technical grade glycine; however, in ***, Chattem stopped producing the technical grade glycine ***. Chattem also testified that if antidumping relief is provided, it would resume the production of technical grade glycine. Chattem's questionnaire response; hearing transcript, pp. 78-79; petitioners' posthearing brief, app. 1, pp. 9-10 and 18; and ***.

³⁶ Petitioners' postconference brief, p. 7.

³⁷ Petitioners' postconference brief, pp. 7-8, app. 1, p. 5; and petition, p. 10.

³⁸ Hampshire explained that it has the capacity to produce approximately *** percent USP grade glycine ***. Hampshire reported that it does not limit the availability of the technical grade material ***. Petition, p. 10; hearing transcript, p. 29; petitioners' posthearing brief, app. 1, pp. 18-19 and 22; ***.

³⁹ Petition, pp. 7 and 10; petitioners' postconference brief, pp. 6-7; and conference transcript, pp. 63-64.

⁴⁰ Petition, pp. 6-7.

as the main raw material in their glycine production process.⁴¹ Third, Mr. Yamada, President of Maypro, an importer of Chinese glycine, testified that he had visited one Chinese manufacturer that produces glycine in the same manner as Chattem. He was also told of other manufacturers in China that operate in the same manner.⁴² Finally, *** indicated that their primary raw material to produce glycine in China is monochloroacetic acid.⁴³

Price

The information collected in the Commission's questionnaires indicates that prices for USP grade glycine were generally higher than those for technical grade glycine. For further information concerning prices, see the section of this report entitled "Prices."

THE U.S. MARKET

Apparent U.S. Consumption

Data on apparent U.S. consumption of glycine, based on U.S. producers' U.S. shipments as reported in the Commission's questionnaires and official U.S. import statistics, are presented in table 1 and figure 3. Apparent U.S. consumption increased, by quantity and value, from 1992 to 1994. The petitioners assert that the demand for glycine has been modestly increasing as the United States continues to recover from the recession, although imports have captured an increasing share of the rising consumption.⁴⁴ The respondents in the preliminary investigation argued that the increased demand for glycine in the United States is due to lower priced, lower quality imports of Chinese glycine. They added that end users desire low-cost glycine to reduce the production costs for their finished products.⁴⁵

In response to a question concerning the creation of newer or broader markets for glycine in the United States, both U.S. producers and two importers⁴⁶ indicated that no new markets had been created and that existing markets had not been broadened by the presence of the subject imports; two

⁴¹ ***.

⁴² Conference transcript, pp. 107-108.

⁴³ ***.

⁴⁴ The petitioners indicate that demand for glycine is determined by the demand for the end use products containing glycine, such as antiperspirants, animal feed, and pharmaceutical products. They also indicated that glycine plays a minute role in the cost of the end use products. As an example, Hampshire testified that if it were to cut the price of its glycine in half, the cost of antiperspirants would fall by less than half a cent and the cost of a can of pet food would fall by about 0.1 cent. The petitioners conclude that any substantial change in the price of glycine would not have an effect on demand. Conference transcript, pp. 26 and 39-40; hearing transcript, pp. 30-31, 42, and 50-51; and petitioners' posthearing brief, app. 1, p. 1. Dastech, however, testified that for one of its customers in the antiperspirant market, glycine accounted for 25 percent of its purchases. Hearing transcript, p. 125.

⁴⁵ Respondents' postconference brief, pp. 8-9, and conference transcript, pp. 92-93. They also argued that if U.S. producers' capacity to produce glycine is greater than apparent U.S. consumption (***), this would indicate that U.S. producers have overestimated the demand for glycine and created an overcapacity situation in the United States. Respondents' postconference brief, p. 8.

⁴⁶ These importers' imports accounted for *** percent of imports from China during 1992-94.

Table 1
 Glycine: U.S. shipments of domestic product, U.S. imports, by sources, and apparent U.S. consumption, 1992-94¹

Item	1992	1993	1994
<i>Quantity (1,000 pounds)</i>			
Producers' U.S. shipments	***	***	***
U.S. imports from--			
China	112	905	1,606
Other sources	61	333	582
Total	174	1,238	2,189
Apparent consumption	***	***	***
<i>Value (1,000 dollars)</i>			
Producers' U.S. shipments	***	***	***
U.S. imports from--			
China	190	1,381	2,216
Other sources	397	875	1,565
Total	587	2,256	3,781
Apparent consumption	***	***	***
<i>Unit value (per pound)</i>			
Producers' U.S. shipments	***	***	***
U.S. imports from--			
China	\$1.69	\$1.53	\$1.38
Other sources	6.49	2.63	2.69
Total	3.38	1.82	1.73
Apparent consumption	***	***	***

¹ Chattem's data are for fiscal years ending November 30.

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

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

Figure 3

Glycine: U.S. shipments of domestic product, U.S. imports, by sources, and apparent U.S. consumption, 1992-94

* * * * *

importers indicated that existing markets had been broadened by the subject imports;⁴⁷ and 8 importers either indicated that they did not know or did not answer the question.

U.S. Producers

Chattem and Hampshire, the petitioners, are the only producers of glycine in the United States. Chattem produces specialty chemicals such as aluminum hydroxides,⁴⁸ aluminum derivatives,⁴⁹ and glycine⁵⁰ at its plant in Chattanooga, TN. Chattem also produces numerous consumer products such as Flex-all 454[®] (an aloe vera-based topical analgesic), Corn Silk[®] cosmetics, Icy Hot[®] (a topical analgesic), Bullfrog[®] amphibious formula sunblock, Ultraswim[®] shampoo, and Norwich[®] aspirin. Chattem has subsidiaries in Basingstoke, UK, and Mississauga, Canada.

Hampshire is wholly owned by Hampshire Holdings Corp., Lexington, MA, and Vestar Capital Partners, New York, NY. In December 1992, Hampshire Chemical Corp. acquired Grace's glycine operations in Deer Park, TX, in a management-led buyout.⁵¹ Hampshire produces glycine (accounting for *** percent of total sales in 1994),⁵² Naphthalene DAXADs[®], and chelates at its

⁴⁷ *** reported that because of the falling prices, they were able to increase sales in the *** market. *** reported that "The *** manufacturers are constantly looking for ways to reduce their overall costs. *** was able to develop and supply a lower, technical grade glycine to this market, whereas the domestic suppliers couldn't, or wouldn't, respond to this niche demand, and continue to push their USP grade material on these manufacturers."

⁴⁸ Aluminum hydroxide compounds are used in the manufacture of many antacids and in the formulation of water treatment chemicals and other industrial specialty compounds. Aluminum hydroxide accounted for *** percent of Chattem's establishment sales in its most recent fiscal year.

⁴⁹ Aluminum derivatives (alkoxides) act as reactive intermediates and are primarily utilized as viscosity builders and cross linkers in printing inks and other industrial coatings. Such derivatives accounted for *** percent of overall establishment sales in its most recent fiscal year.

⁵⁰ Sales of glycine (***) accounted for *** percent of overall establishment sales in fiscal year 1994. Chattem's sales (***) of its USP and technical grade glycine accounted for *** percent and *** percent, respectively, of its total U.S. shipments of glycine during 1992-94. However, *** of the firm's sales (****) of its glycine were of the USP grade.

⁵¹ Conference transcript, pp. 8-9 and hearing transcript, p. 19. The purchase involved Grace's Organic Chemical Division and its related European operations: Hampshire Ltd. (a UK company); Hampshire Chemical GmbH (a German company); and Hampshire Chemical AB (a Swedish company). These companies, collectively, are engaged primarily in the manufacture and sale of value-added specialty chemicals which are used in a wide range of consumer products and personal-care, industrial, agricultural, and pharmaceutical applications.

⁵² Hampshire's sales of USP and technical grade glycine accounted for approximately *** percent and *** percent, respectively, of its total U.S. shipments of glycine in 1994.

facility in Deer Park, TX. Hampshire also has plants in Lima, OH; Owensboro, KY; Nashua, NH;⁵³ Waterloo, NY; and Teeside, UK, but these plants do not produce glycine.⁵⁴

U.S. Importers

Questionnaires were sent to 16 firms listed in the petition and in information provided by the U.S. Customs Service. The Commission received responses from 15 of these firms, 2 of which indicated that they did not import glycine. Of the 13 remaining firms, 10 indicated that they imported glycine only from China,⁵⁵ 1 (***) reported imports from both China and Japan, 1 (***) reported imports from both China and Belgium, and 1 (***) reported imports from Belgium and Japan. Neither Chattem nor Hampshire imported or purchased glycine from China.

The majority of the identified importers are located in New Jersey and New York. Dastech, located in Great Neck, NY, is the largest importer of the subject product and is "very strong" in the distribution of Chinese glycine to the producers of animal feed and antiperspirants.⁵⁶ Its imports accounted for *** percent of total subject U.S. imports during 1992-94. Ten of the 12 firms that reported importing glycine from China during 1992-94 imported USP grade, 2 of which also imported technical grade glycine. The remaining two firms imported technical grade glycine exclusively.⁵⁷ Ten of the 12 importers of the subject product are exclusively distributors of glycine. *** is a distributor as well as an end user of technical grade glycine in the production of ***. Its imports for consumption accounted for about *** percent of the subject imports during 1992-94. *** uses all of its subject imports in the production of ***. Its imports for consumption accounted for about *** percent of the total subject imports during 1992-94.

⁵³ In 1993, Hampshire authorized a *** expansion of its Nashua, NH, facility to supplement the glycine production capacity at its Deer Park facility. Hampshire actually spent approximately *** on this facility. Grace originally produced glycine at the Nashua plant but discontinued such production when it opened the Deer Park plant in 1984. Hampshire discontinued its expansion plans early in 1994 because of unfavorable changes in the U.S. glycine market, allegedly resulting principally from increased imports from China. Petition, p. 37. Hampshire does not currently produce glycine at the Nashua plant and ***. Hampshire indicated that glycine production could be started up at the Nashua plant within 3-7 days (i.e., time required to train operators) at minimal expense as no further investment is required. Conference transcript, pp. 37-38; petitioners' postconference brief, app. 1, p. 15; ***.

⁵⁴ Hampshire produces amino carboxylic acid type materials (common glycine-type products) in its plants in Texas, Ohio, New Hampshire, and the UK. EDTA, a common chelating agent and industrially-applied material, represents the largest share of the amino carboxylic acid materials it produces. In addition, Hampshire makes a specialty sulfur derivative at the Waterloo, NY, manufacturing plant and has an emulsion polymers business in Kentucky. Conference transcript, pp. 45-46.

⁵⁵ These 10 firms are ***.

⁵⁶ Hearing transcript, p. 106.

⁵⁷ The respondents in the preliminary investigation testified at the conference that many of their customers can use the lower purity technical grade and prefer buying technical grade glycine for those applications to lower costs. Conference transcript, pp. 85-86 and 93. Dastech testified that the U.S. purchasers of glycine are becoming more sophisticated in their purchasing decisions and are gradually moving toward the technical grade product because they have discovered that they do not require the higher grade material for their particular end use. Hearing transcript, pp. 99 and 132.

CONSIDERATION OF ALLEGED MATERIAL INJURY TO AN INDUSTRY IN THE UNITED STATES

The information presented in this section of the report is based on the questionnaire responses of Chattem and Hampshire, the only U.S. producers of glycine during the period for which information was collected in this investigation.

U.S. Capacity, Production, and Capacity Utilization

Data concerning the U.S. producers' capacity, production, and capacity utilization are presented in table 2. U.S. production increased from 1992 to 1993, but fell in 1994 to a level above that reported in 1992. U.S. producers' capacity to produce glycine increased from 1992 to 1994. U.S. capacity utilization increased from 1992 to 1993, but fell in 1994 to a level below that reported in 1992.

Table 2

Glycine: U.S. capacity, production, and capacity utilization, by firms, 1992-94

* * * * *

The overall increase in reported U.S. capacity to produce glycine was because of ***.⁵⁸
***⁵⁹

Petitioners explain that the technology and cost structure of U.S. glycine production requires a high level of capacity utilization for efficient, cost-effective operation. Glycine production in the United States is capital intensive and involves major fixed costs.⁶⁰

⁵⁸ The capacity data submitted by Hampshire are for its Deer Park manufacturing site which was built in 1984 by Grace, Hampshire's corporate predecessor. Hampshire also has unutilized capacity to produce glycine at its plant in Nashua, NH. Hampshire decided to expand its glycine capacity by investing *** in the Nashua plant in early 1993. Hampshire explains that the decision to increase capacity in early 1993 was based on relatively favorable market conditions at the time and further notes that since that time "everything turned around precisely because of skyrocketing subject imports at ever-declining prices." The firm explains that its Nashua plant has the capacity to produce ***. ***; petitioners' posthearing brief, app. 1, p. 5; and hearing transcript, pp. 64-65.

⁵⁹ Chattem reported that it ceased production of the technical grade glycine in *** because it could no longer produce glycine at the lower purity levels and still make a profit in competition with imports from China. Conference transcript, pp. 22 and 41-43, ***. ***. Chattem testified that it plans to resume production of technical grade glycine if relief is provided under the antidumping law. Hearing transcript, pp. 79-80; and petitioners' posthearing brief, app. 1, p. 19.

⁶⁰ Petition, p. 27. Hampshire's production process requires that it be constantly maintained. It runs its production lines 7 days a week, 24 hours a day, ***. When it runs at a reduced rate it produces lower volumes, and the fixed costs of running the unit are spread over a fewer number of pounds, resulting in higher unit production costs. Petitioners assert that lost sales to the subject imports have resulted in a reduction in the volume of throughputs and an increase in the unit production costs. Conference transcript, p. 13; petitioners' postconference brief, pp. 13-14; and hearing transcript, pp. 11, 22-23, 32-34. Chattem has the capacity to operate three shifts per day, but ran only two production shifts until Jan. 1994 and is currently operating only one shift. Conference transcript, p. 20 and hearing transcript, p. 43. The petitioners add that but for the pendency of the current antidumping investigation, they would have lost more sales and revenues and incurred higher unit production costs. Hearing transcript, p. 75.

U.S. Producers' Shipments

Presented in table 3 are data on U.S. producers' total shipments of glycine during 1992-94, by types of shipments. These data are presented, by firms, in table 4. Shipments of glycine made by U.S. producers to U.S. customers increased, by quantity, from 1992 to 1993, but fell in 1994 to a level slightly higher than that reported for 1992.

Table 3
Glycine: Shipments by U.S. producers, by types, 1992-94

* * * * *

Table 4
Glycine: U.S. producers' U.S. shipments, by firms, 1992-94

* * * * *

Of Hampshire's total sales during 1994, *** percent were made on a contract basis with no meet-or-release provisions, *** percent were made on a contract basis with meet-or-release provisions,⁶¹ and *** percent were on a spot basis. Chattem reported that *** of its sales in 1994 were spot sales.⁶² Hampshire asserts that it has been partially shielded from import competition by the portion of its contract business subject to no explicit meet-or-release terms (although it has adjusted its prices on contracts without meet-or-release provisions in order to retain business relationships), whereas Chattem allegedly has been more immediately affected by increased imports because it participates more extensively in the spot market.⁶³

* * * * *⁶⁴

Since prices for glycine vary depending on the level of purity, the unit values presented may be affected by changes in the product mix. The unit values of Chattem's shipments of glycine in the United States ***. ***.⁶⁵ The unit values of Hampshire's shipments of glycine in the United States ***. ***.⁶⁶ Hampshire's sales *** are presented in the following tabulation:

* * * * *

⁶¹ The firm indicated that the proportions of these types of sales have remained the same during 1992-94; however, it indicated that meet-or-release provisions are increasingly becoming the standard. Hearing transcript, pp. 86-87.

⁶² It added that these sales are "blanket purchase orders" that specify the quantities and prices, but are not binding agreements. Hearing transcript, pp. 90-91.

⁶³ Conference transcript, pp. 17-18 and 20, and petitioners' postconference brief, pp. 14-15 and 17-18.

⁶⁴ ***.

⁶⁵ ***. Chattem argues that it has been forced out of the technical grade production business by dumped Chinese imports, but indicated that its customers want to buy both USP and technical grade glycine and that it will lose their USP business if it cannot supply both USP and technical grade glycine. Petitioners' posthearing brief, app. 1, p. 6.

⁶⁶ ***. ***. ***.

U.S. Producers' Inventories

End-of-period inventories of glycine reported by the U.S. producers during 1992-94 are presented in table 5. Inventories fell from 1992 to 1993, but increased in 1994 ***. Hampshire reports ***⁶⁷ and ***.⁶⁸ Chattem also reports ***.⁶⁹

Table 5

Glycine: End-of-period inventories of U.S. producers, by firms, 1992-94

* * * * *

U.S. Employment, Wages, and Productivity

U.S. producers' employment, wages, and productivity data are presented, by firms, in table 6. ***. Neither Chattem's nor Hampshire's production workers are represented by unions.

Table 6

Average number of production and related workers producing glycine, hours worked, wages and total compensation paid to such employees, and hourly wages, productivity, and unit labor costs, by firms, 1992-94

* * * * *

Financial Experience of U.S. Producers

Financial data supplied by Chattem and Hampshire⁷⁰ represent all U.S. production of glycine during 1992-94.

Overall Establishment Operations

Chattem's facility in Chattanooga, TN produces the subject product as well as other chemical products such as aluminum alkoxides and hydroxides. ***. In 1994, glycine commercial sales (based on production) accounted for *** percent of Chattem's overall establishment operations.⁷¹

Hampshire, the largest producer, manufactures glycine at the Deer Park, TX plant it purchased from Grace in December 1992. In addition to glycine, Hampshire also produces naphthalene sulfanate formaldehyde condensate and conventional chelates. ***. Its glycine production process results in ***, whereas the Chattem process ***. In 1994, glycine sales accounted for *** percent of Hampshire's overall establishment sales.

Income-and-loss data on the overall establishment operations of the producers are shown in table 7.

⁶⁷ ***.

⁶⁸ ***.

⁶⁹ ***.

⁷⁰ The data supplied by Hampshire for 1992 are for Grace and the data for 1993 and 1994 are for Hampshire.

⁷¹ ***.

Table 7
Income-and-loss experience of U.S. producers on the overall operations of their establishments wherein glycine is produced, fiscal years 1992-94

* * * * *

Operations on Glycine

Aggregate income-and-loss data for the U.S. producers are shown in table 8 and selected data for each firm are shown in table 9. Aggregate sales quantities, sales values, operating income, and operating income margins increased between 1992 and 1993, but fell in 1994. Unit sales values for glycine vary based on the levels of purity; therefore, any unit price analysis may be affected by the changes in the mix of sales from period to period.

Table 8
Income-and-loss experience of U.S. producers on their operations producing glycine, fiscal years 1992-94

* * * * *

Table 9
Income-and-loss experience of U.S. producers on their operations producing glycine, by firms, fiscal years 1992-94

* * * * *

Chattem's Glycine Operations

* * * * *⁷²

Chattem ceased production of technical grade glycine in ***. ***. In 1992 and 1993 its sales of the glycine it produced consisted of *** percent and *** percent technical grade glycine, respectively, whereas in 1994 it produced only USP grade glycine. ***.

Chattem's raw material input cost ***.⁷³ ***.⁷⁴ Chattem's production costs for technical grade glycine are approximately ***.

Chattem's USP grade glycine cost of production for 1992-94 (provided by Chattem) is shown in the tabulation below (per pound):

* * * * *

Hampshire's and Grace's operations in 1992-93

Hampshire's cost structure and financial results ***. Hampshire's management buyout of Grace's Deer Park, TX glycine facility in *** resulted in ***.

⁷² ***.

⁷³ ***.

⁷⁴ ***.

A summary of the changes in cost of goods sold *** are shown below (in thousands of dollars and dollars per pound):

* * * * * * *⁷⁵

A summary of the changes in SG&A expenses *** are shown below (in thousands of dollars):

* * * * * * *

Hampshire's operations in 1993-94

Hampshire's cost data are ***. During this period, Hampshire *** in operating income as shown in the following tabulation (in thousands of dollars):

* * * * * * *

This *** was due to ***.⁷⁶ The effect on profitability due to *** is shown and discussed below (in thousands of dollars):⁷⁷

* * * * * * *

*** can partially be explained by the following:

1. ***. ***. glycine average unit values *** from 1993 to 1994. From 1993 to 1994, there was *** in the volume of USP grade glycine sales and *** in the volume of sales of technical grade glycine. ***.
2. A portion of the *** in Hampshire's SG&A expenses *** was due to ***.
3. Hampshire's cost of goods sold ***.

A summary of the cost *** in the cost of goods sold *** is shown below (in thousands of dollars and dollars per pound):

* * * * * * *

As previously indicated, Hampshire's purchase cost for its major raw material (hydrogen cyanide) ***. ***. The factory overhead *** was primarily for ***. The depreciation expense ***.

*** in Hampshire's raw material costs ***. Raw material costs (based on unit sales value) ***. These costs, on a quarterly basis, ***. On a quarterly basis, Hampshire's raw material costs were as follows:

* * * * * * *

⁷⁵ ***.

⁷⁶ Refer to table 9.

⁷⁷ Hampshire provided an income-and-loss summary of its operations ***. Its premise is ***. Petitioners' prehearing brief, app. 1. In 1994, Hampshire's fixed costs (labor and overhead) were approximately *** percent and its variable costs (raw materials) were *** percent.

Investment in Productive Facilities

Data on investment in productive facilities and rates of return for the U.S. producers are shown in table 10.

Table 10
Value of assets and return on assets of U.S. producers' establishments wherein glycine is produced, by products and by firms, fiscal years 1992-94

* * * * *

Capital Expenditures

The capital expenditures of the U.S. producers are shown in table 11.

Table 11
Capital expenditures by U.S. producers of glycine, by products and by firms, fiscal years 1992-94

* * * * *

Research and Development Expenses

The research and development expenditures of the U.S. producers are shown in table 12.

Table 12
Research and development expenses of U.S. producers of glycine, by products and by firms, fiscal years 1992-94

* * * * *

Capital and Investment

The Commission requested the U.S. producers to describe any actual or potential negative effects of imports of glycine from China on their growth, development and production efforts, investment, and ability to raise capital including efforts to develop a derivative or improved version of its product). Comments from the companies are presented in appendix D.

CONSIDERATION OF THE QUESTION OF THREAT OF MATERIAL INJURY TO AN INDUSTRY IN THE UNITED STATES

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 merchandise, the Commission shall consider, among other relevant economic factors⁷⁸--

(I) If a 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 subsidy is an export subsidy inconsistent with the Agreement),

(II) any increase in production capacity or existing unused capacity in the exporting country likely to result in a significant increase in imports of the merchandise to the United States,

(III) any rapid increase in United States market penetration and the likelihood that the penetration will increase to an injurious level,

(IV) the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise,

(V) any substantial increase in inventories of the merchandise in the United States,

(VI) the presence of underutilized capacity for producing the merchandise in the exporting country,

(VII) any other demonstrable adverse trends that indicate the probability that the importation (or sale for importation) of the merchandise (whether or not it is actually being imported at the time) will be the cause of actual injury,

(VIII) the potential for product-shifting if production facilities owned or controlled by the foreign manufacturers, which can be used to produce products subject to investigation(s) under section 701 or 731 or to final orders under section 706 or 736, are also used to produce the merchandise under investigation,

⁷⁸ Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that "Any determination by the Commission under this title that an industry in the United States is threatened with material injury shall be made on the basis of evidence that the threat of material injury is real and that actual injury is imminent. Such a determination may not be made on the basis of mere conjecture or supposition."

(IX) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both), and

(X) 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 like product.⁷⁹

Subsidies (item (I)) and agricultural products (item (IX)) are not at issue in this investigation; the available information on the volume, U.S. market penetration, and pricing of imports of the subject merchandise (items (III) and (IV) above) and any dumping in third-country markets is presented in the section entitled "Consideration of the Causal Relationship Between Imports of the Subject Merchandise and the Alleged Material Injury;" and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts (item (X)) is presented in the section entitled "Consideration of Alleged Material Injury to an Industry in the United States." Presented below is the available information on U.S. inventories of the subject products (item (V)); foreign producers' operations, including the potential for "product-shifting" (items (II), (VI), and (VIII) above); and any other threat indicators, if applicable (item (VII) above).

U.S. Importers' Inventories

End-of-period inventories held by U.S. importers of glycine from China are presented in table 13. Inventories were held in the United States by nine importers of glycine from China, whose imports accounted for 85 percent of total imports from China during 1992-94. Seven of the nine importers holding inventories are distributors; one (***) is a distributor and an end user of the glycine it imports; and one (***) uses all of its subject imports in the production of ***.

U.S. Importers' Current Orders

In its questionnaire the Commission asked importing firms to report future contracts or orders for importing glycine from China after December 31, 1994. All but one importer indicated that there were no future contracts or orders for subject imports in 1995. In fact, one importer (***) reported that despite a contract held on subject imports, it ceased importing Chinese glycine in July 1994 because of the antidumping investigation.⁸⁰ Only one importer of the subject product, ***, a distributor and end user of glycine, reported that future orders had been made; however, it indicated that the quantity of the orders and the expected delivery dates were "not determined."⁸¹

⁷⁹ 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 GATT 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."

⁸⁰ ***.

⁸¹ ***.

Table 13

Glycine from China: End-of-period inventories of U.S. importers, 1992-94

Item	1992	1993	1994
End-of-period inventories (1,000 pounds)	***	252	501
Ratio to imports (percent)	***	27.5	33.4
Ratio to U.S. shipments of imports (percent)	***	34.8	38.3

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

**Ability of Foreign Producers to Generate Exports and the
Availability of Export Markets Other Than the United States⁸²**

The Commission requested information concerning the Chinese producers of glycine from the U.S. Embassy in Beijing and MOFTEC, but the Commission did not receive any responses to these requests. In addition, staff requested certain information directly from several Chinese producers for which facsimile numbers were obtained. Three firms responded to the Commission's request for information.

The petitioners identified approximately 30 firms located throughout China that they believe produce and/or export glycine to the United States.⁸³ They also believe that many of the entities listed in the petition are state-owned by China and that two of the identified firms may be collectives. In addition, the petitioners argue that China's glycine production capacity is increasing and will likely result in increased exports to the United States. They cite China's expanded efforts to boost its export-oriented chemical sector. Governmental targeting has yielded substantial increases in capital construction in the chemical industry. The petitioners believe increased exports of glycine are principally aimed at the U.S. market because the United States is the largest market for most glycine applications.⁸⁴ The world market for glycine is very small and few, if any, statistics are maintained on the production and export of glycine.

Dastech, the largest importer of the subject product, states that the information supplied by the petitioners on the Chinese producers is not accurate, adding that there are only five major producers of glycine in China. It indicates that there may also be a few smaller producers of glycine in China (i.e., "garage factories") that produce glycine in facilities that are "small, inefficient, and dirty," but that these garage factories are neither stable in terms of product quality nor production longevity. Dastech asserts that, in the past couple of years, Chinese producers have increased their

⁸² There is no indication that glycine from China has been the subject of any other import relief investigations in the United States or in any other countries.

⁸³ The petitioners contend that, with the exception of China, there are relatively few producers of glycine in the world market. They believe that world trade in glycine is dominated by a relatively small number of large customers who use glycine to make downstream products, for which glycine does not account for a very significant portion of cost. Conference transcript, p. 26.

⁸⁴ The United States is the largest producer of pharmaceutical products, as well as the world's largest producer and consumer of antiperspirant and deodorant products. In addition, it is a leading producer and consumer of pet foods, all of which are large users of glycine. Petition, pp. 39-40; petitioners' postconference brief, pp. 19-20; and hearing transcript, pp. 59-60.

capacity to produce glycine because the demand for technical grade glycine has increased by several-fold in China and other Asian countries, primarily because of an increase in demand for and production of glycine phosphates used in pesticides and other products used in animal feed.⁸⁵

The five Chinese glycine producers *** are Suzhou Comtech, Dong Fang Mancheng, Baoding Zhongyuan, Tiancheng, and Ba Fen Shen.⁸⁶ The Commission contacted all five firms by facsimile transmission and requested information concerning their production of glycine in China. Baoding Zhongyuan, Suzhou Comtech (***), and Tiancheng are the only Chinese glycine producers that provided the Commission with a response to its request. These three Chinese producers' exports of glycine to the United States accounted for *** percent of total U.S. imports of subject merchandise during 1994.

Baoding Zhongyuan produced glycine of several grades during 1992-94,⁸⁷ ***. ***. It reported *** in its production and its capacity to produce glycine in *** and projected *** in its capacity *** in 1995.⁸⁸ It explained ***. ***.

Suzhou Comtech produces several grades of glycine,⁸⁹ as well as glycine ethyl ester hydrochloride, a glycine derivative. In 1994, glycine accounted for *** percent of the firm's total sales and the glycine derivative accounted for the remaining *** percent of its total sales. Suzhou Comtech reported that it ***.⁹⁰ The company indicates ***.⁹¹ It reports ***. It adds ***.

Tiancheng also produces several grades of glycine,⁹² as well as other products. In 1994, glycine accounted for *** percent of the firm's total sales. Tiancheng reported that it produced glycine during the period of investigation, but exported the product to the United States ***. Its exports to other markets during *** were to ***. The firm explains ***.⁹³ It explains ***.

Data concerning Baoding Zhongyuan's, Suzhou Comtech's, and Tiancheng's production, capacity, shipments, and inventories are presented in the following tabulation (in 1,000 pounds, except as indicated):

⁸⁵ *** and hearing transcript, pp. 111-114.

⁸⁶ It appears from the information provided by Baoding Zhongyuan, Suzhou Comtech, and Tiancheng, and from the information provided by *** for the other two Chinese producers that the five Chinese producers currently have the annual capacity to produce from 13.9 to 15.0 million pounds of glycine. Dastech testified that the Chinese producers' capacity to produce glycine is currently between 10,000 metric tons (22.0 million pounds) and 12,000 metric tons (26.5 million pounds). Also note that a Chinese glycine exporter estimated the current annual capacity to produce glycine in China to be about 33 million pounds for the largest four firms. Hearing transcript, p. 111, and ***.

⁸⁷ ***.

⁸⁸ Baoding Zhongyuan's capacity data are based on operating *** hours per week, *** weeks per year.

⁸⁹ ***.

⁹⁰ Suzhou Comtech's capacity data are based on operating *** hours per week, *** weeks per year.

⁹¹ ***.

⁹² ***.

⁹³ Tiancheng's capacity data are based on operating *** hours per week, *** weeks per year.

<u>Item</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>Projected 1995</u>
Capacity	***	***	11,706	14,809
Production	***	***	6,906	10,209
End-of-period inventories	***	***	***	***
Shipments:				
Home market	***	***	***	***
Exports to--				
The United States	***	***	***	***
All other markets	***	***	***	***
Total exports	***	***	***	***
Total shipments	***	***	***	***
Capacity utilization (percent)	***	***	59.0	68.9
Inventories to--				
Production (percent)	***	***	***	***
Total shipments (percent)	***	***	***	***
Share of total quantity of shipments:				
Home market (percent)	***	***	***	***
Exports to--				
The United States (percent)	***	***	***	***
All other markets (percent)	***	***	***	***

The other two firms *** did not provide information in response to the Commission's request; however, *** submitted the following general information on each of the firms. Dong Fang Mancheng produces *** pounds of different grades of glycine each year and sells this product to ***. Ba Fen Shen mainly produces USP grade glycine with a capacity of about *** pounds per year.⁹⁴

***, a Chinese firm involved in exporting Chinese glycine to ***, provided certain information on the Chinese industry producing glycine. It indicated that the major producers of glycine in China are Suzhou Comtech, Baoding Zhongyuan, Tiancheng, and Ba Fen Shen. The firm estimates the current annual capacity to produce glycine in China to be about 33 million pounds, but estimates the actual production level to be below 22 million pounds because of the "supplying situation of raw materials." It reports that the production of glycine in China is in decline because of recent increases in the prices of raw materials (i.e., monochloroacetic acid and methanol) needed in the production of glycine. It also reports that the demand for glycine in China is on the rise because of an increased demand for the end products that use glycine. The firm explains that in the past two years, the demand for glycine in China has increased by 15 percent each year because of an increase in the demand for pesticides and that the demand for pesticides in China is expected to increase by 5 to 10 percent annually in the future. It adds that the demand for glycine in the non-U.S. export market has increased by 10 percent annually in recent years and is expected to increase by 5 percent each year in the future.⁹⁵

⁹⁴ ***.

⁹⁵ ***.

CONSIDERATION OF THE CAUSAL RELATIONSHIP BETWEEN IMPORTS OF THE SUBJECT MERCHANDISE AND THE ALLEGED MATERIAL INJURY

U.S. Imports

Official statistics of the Department of Commerce are presented in this section because they are believed to accurately reflect all U.S. imports of glycine (table 14).⁹⁶ The import data reveal an increase in subject and nonsubject imports, primarily from Belgium and Japan,⁹⁷ (by quantity and value) from 1992 to 1994. However, the unit values of both the subject and nonsubject imports fell from 1992 to 1994. Unit values of the subject imports have been well below the unit values of the nonsubject imports.

Market Penetration by the Subject Imports

Petitioners' market share and the market shares of imports from China and all other sources, based on apparent U.S. consumption of glycine, are presented in table 15 and figure 4. Apparent consumption and U.S. market penetration are calculated from U.S. shipment data provided by U.S. glycine producers and from imports provided in official statistics. The trends reveal that the share of the U.S. market held by the subject imports (by quantity and value) increased from 1992 to 1994 and the share of the U.S. market held by the domestic product (by quantity and value) fell during the same period. Nonsubject imports also increased (by quantity and value) during the same period.⁹⁸

⁹⁶ Twelve firms believed to be importing glycine from China responded to the Commission's request for data. Reported imports provided by these 12 importers accounted for 100 percent of total subject imports in 1992, 101 percent in 1993, and 94 percent in 1994.

⁹⁷ The official statistics indicate that imports from the UK represent the largest portion of nonsubject imports; however, these imported items are believed to have been produced in Belgium, transshipped through the UK, and imported into the United States by ***. *** imports of glycine produced in Belgium were *** and accounted for *** percent of all nonsubject imports during 1992-94. ***. It is believed that these imports were also USP grade. Hearing transcript, pp. 62 and 74; questionnaire responses of ***; and petitioners' posthearing brief, app. 5, p. 5.

⁹⁸ If U.S. market penetration is measured using U.S. shipments of subject imports, as provided in questionnaire responses, the quantity of subject imports accounted for *** percent of U.S. consumption in 1992, *** percent in 1993, and *** percent in 1994.

Table 14
Glycine: U.S. imports, by sources, 1992-94

Item	1992	1993	1994
<i>Quantity (1,000 pounds)</i>			
China	112	905	1,606
Other sources	61	333	582
Total	174	1,238	2,189
<i>Value (1,000 dollars)</i>			
China	190	1,381	2,216
Other sources	397	875	1,565
Total	587	2,256	3,781
<i>Unit value (per pound)</i>			
China	\$1.69	\$1.53	\$1.38
Other sources	6.49	2.63	2.69
Average	3.38	1.82	1.73
<i>Share of total quantity (percent)</i>			
China	64.8	73.1	73.4
Other sources	35.2	26.9	26.6
Total	100.0	100.0	100.0
<i>Share of total value (percent)</i>			
China	32.4	61.2	58.6
Other sources	67.6	38.8	41.4
Total	100.0	100.0	100.0

Note.—Because of rounding, figures may not add to the totals shown; unit values are calculated from unrounded figures.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 15

Glycine: Apparent U.S. consumption and market penetration, 1992-94

* * * * *

Figure 4

Glycine: U.S. market penetration, 1992-94

* * * * *

Prices

Marketing Practices

Glycine functions as a sweetener/taste enhancer, buffering agent, reabsorbable amino acid, chemical intermediary, and metal complexing agent. It is used in the manufacture of a variety of products including carbonated soft drinks, pet foods, pharmaceutical products, antacid and analgesic products, antiperspirants, and finished metal products.

Hampshire, accounting for *** percent of domestic production in 1994, is the largest U.S. producer of glycine. Chattem, the only other U.S. producer of glycine, accounted for the remaining *** percent of 1994 U.S. glycine production. The 12 importers that responded to the Commission's questionnaire accounted for 100 percent of U.S. imports of Chinese glycine in 1992, 101 percent in 1993, and 94 percent in 1994.

Hampshire markets glycine *** whereas Chattem sells glycine ***. Most sales of U.S.-produced glycine (*** percent) are shipped to customers located *** from U.S. production facilities. Nevertheless, U.S. producers maintain that transportation costs, which account for *** percent of the delivered price, are *** in customer purchase decisions.

Dastech, the largest importer of the Chinese product, sells glycine throughout the United States. Most of the other responding importers reported selling to various U.S. market areas, including California, New York, Utah, the East coast, the Midwest, the Northeast, and the West coast. Importers ship most of their products to customers located within 500 miles of the U.S. point-of-entry. Five importers, whose subject imports accounted for 70 percent of total U.S. imports of Chinese glycine during 1992-94, reported that shipping charges are minimal, representing less than 5 percent of the total delivered price of the product. However, four importers, whose subject imports accounted for 18 percent of total subject imports during 1992-94, indicated that transportation costs represent between 4 and 10 percent of the delivered price and are an important factor in purchase decisions.⁹⁹

Hampshire sells most of its glycine on a contract basis, although it sells a substantial amount on the spot market.¹⁰⁰ Although Hampshire's contracts typically ***.¹⁰¹ Hampshire's price quotes to new customers are based on ***. Prices to established end-use customers are usually ***. Hampshire's price quotes to distributors are typically ***.¹⁰² ***.

During 1992-94, Chattem sold *** of its glycine on the spot market. The firm uses *** as a basis for establishing discounts. The firm indicated that it based its quotes on ***. Chattem's price

⁹⁹ Three importers did not respond to the question concerning transportation costs.

¹⁰⁰ During 1994, Hampshire sold *** of its glycine on a contract basis and *** on a spot basis.

¹⁰¹ Hampshire reported ***.

¹⁰² Hampshire reported ***. ***. Chattem reported ***. ***. Hampshire indicated in its posthearing brief *** (petitioners' posthearing brief, attachment 1, pp. 6-7). Hampshire also indicated ***. ***.

quotes to distributors are typically ***. Chattem reported selling glycine mainly ***. Payment terms are typically ***.

Importers of Chinese glycine sell on both a contract and spot basis.¹⁰³ Importers' contracts typically ***. Prices for imported Chinese glycine are typically ***. ***. Prices are quoted on ***. Typical sales terms are ***.

Product Comparisons

Sales of glycine are differentiated by non-price factors such as delivery lead times, availability, and quality.¹⁰⁴ Hampshire reported average delivery lead times for sales from inventory of *** and lead times for sales from current production as ***. Chattem reported average delivery lead times for sales from inventory of *** and for sales from current production of ***. Neither U.S. producer reported any instance in which it was unable to supply a customer during January 1992-December 1994.¹⁰⁵ Importers' average response times for sales from inventory ranged from 1 to 14 days. Response times, however, for sales of newly ordered Chinese glycine were significantly longer, ranging from 42 to 75 days. Importers reported several instances in which their delivery was less reliable than that of the domestic producers.¹⁰⁶

Both U.S. producers currently sell *** glycine, although ***.¹⁰⁷ Likewise, the responding importers reported that more of their sales of glycine are of the USP grade rather than the technical grade.¹⁰⁸ U.S. producers reported that USP grade glycine can be used in all glycine end-use markets, whereas technical grade glycine can be used in markets such as the antiperspirant, animal feed, and industrial markets but not in certain pharmaceutical and food applications.¹⁰⁹ ICC, an importer of Chinese glycine, reported that pharmaceutical companies generally have not purchased Chinese USP grade glycine because of the extensive testing process required to qualify a new supplier's product.¹¹⁰ Dastech added that the Chinese product is not used for U.S. pharmaceuticals because it is not produced in compliance with "Good Manufacturing Practices" as required by the Food and Drug Administration.¹¹¹ Both U.S. producers and five importers reported that there is no difference

¹⁰³ During 1994, importers reported selling 62 percent of their imported glycine on a contract basis and 38 percent on a spot basis. None of these contracts had meet-or-release provisions.

¹⁰⁴ Thirty-one of 32 purchasers indicated in their questionnaire responses that the lowest price offered for glycine does not always win a contract or sale, and cited non-price factors such as quality, consistency of product, delivery performance, availability, service, package size, and need for a guaranteed supply. One purchaser did not respond directly to the question.

¹⁰⁵ Chattem reported that since it ceased production of technical grade glycine ***.

¹⁰⁶ Three importers, whose subject imports accounted for 72 percent of total subject imports during 1992-94, indicated instances in which they were unable to supply the imported product in a timely manner. ***. Six importers whose subject imports accounted for 17 percent of total subject imports during 1992-94 indicated that there were no instances in which they were unable to supply their customers.

¹⁰⁷ During 1994, U.S. producers' sales were *** percent USP grade glycine and *** percent technical grade glycine. Hampshire reported that USP and technical grade glycine are sold ***. ***.

¹⁰⁸ The Chinese importers' sales during 1994 were *** percent USP grade glycine and *** percent technical grade glycine.

¹⁰⁹ The U.S. producers reported that during 1994 they sold ***. The U.S. shipments of subject imports by end use in 1994 were as follows: ***.

¹¹⁰ Conference transcript, pp. 96-98.

¹¹¹ Hearing transcript, pp. 101-103.

between the U.S. and Chinese glycine; however, seven importers reported that the Chinese product is of a lower quality than the U.S. product.¹¹²

The Commission received purchaser questionnaire responses from 32 purchasers of glycine including 19 end users and 13 distributors.¹¹³ The largest end users for which the Commission has received questionnaires and the share of the quantity of total shipments during 1992-94 for which they account are as follows: ***.¹¹⁴ Each of these firms reported purchases of both domestic and Chinese product during 1992-94.

Thirty-one of 32 purchasers reported that they typically know the country of origin of the glycine they purchase.¹¹⁵ About two-fifths of the firms reported that they specifically order glycine from a particular supplier or country. All of these firms reported purchasing the domestic product. Reasons cited include approved source, higher quality, and shorter lead times. One purchaser reported that it purchases from ***, a distributor of U.S.-produced glycine, because of price and packaging size.

Nine of 32 firms reported purchasing the Chinese product during 1992-94.¹¹⁶ Of these nine firms, four (***) reported that the U.S.-produced product was of superior quality compared to the Chinese product.

* * * * *

Three purchasers (***)¹¹⁷ reported that the Chinese product and U.S.-produced product were of comparable quality.¹¹⁸ Two purchasers, ***, bought only Chinese glycine and were not able to make a comparison of the quality of the subject imported and domestic glycine.

Several purchasers, including ***, reported that they had added suppliers of Chinese product during the past 3 years.¹¹⁹

* * * * *

Twenty-two of 32 responding purchasers reported that they had a certification process for suppliers of glycine. The cost and time involved in qualifying a new supplier varies by the purchaser.

* * * * *

¹¹² See the section of this report entitled "Domestically Produced and Chinese Glycine" for a discussion of the importers' perceptions of the quality of the Chinese product.

¹¹³ One firm that acts as a distributor of glycine, ***, is an end user of other chemical products.

¹¹⁴ ***.

¹¹⁵ With regard to nonsubject imports, purchasers indicated in their questionnaire responses that prices of imported glycine from Japan were generally so high as to be noncompetitive.

¹¹⁶ Although one of these firms, ***, was not sure that the foreign product it purchased was from China, questionnaire responses of importers indicated that *** purchases of foreign glycine were of Chinese origin. In addition to ***, *** purchased glycine from two firms that imported only Chinese glycine, although *** reported the purchases as U.S.-produced material.

¹¹⁷ ***.

¹¹⁸ Although *** reported that the domestic and Chinese glycine were comparable, it also indicated some inconsistency in the quality of the Chinese product.

¹¹⁹ Nineteen of 28 responding purchasers indicated in their questionnaire responses that they typically contact 1 or 2 suppliers before making a purchase of glycine.

Four purchasers reported that one or more glycine suppliers had failed their firm's qualification process during 1992-94. *** reported that it returned product supplied by *** because it contained small pieces of plastic from the liners. In addition, *** reported that part of a shipment from *** was returned because it failed to meet *** assay requirements. *** said that material it purchased from *** was not sufficiently pure for its end use. Another purchaser reported that one supplier did not have product available and a fourth reported that the product it received was off-color and lumpy; however, these purchasers did not name the suppliers involved.

Seventeen purchasers reported that they purchase only USP grade and cannot or do not substitute technical grade. Twelve of these purchasers produced pharmaceutical or nutritional products, or sold glycine to end users producing these products. *** of the 17 firms were *** manufacturers, *** was a producer of ***, and *** was a producer of ***.¹²⁰

Nine firms reported that they purchased only technical grade for use in ***. Most of these firms reported that they could also use USP grade in their products.

In addition, six firms reported purchasing both USP and technical grade glycine. *** reported purchases of technical grade glycine for use in ***, and USP grade for use in *** products. *** reported that it purchases both USP grade and technical grade and can readily substitute between the different grades for use in its manufacture of ***. *** reported purchasing USP grade glycine for use in *** and technical grade glycine for use in *** products.¹²¹ *** reported purchases of USP grade glycine for use in *** products and both USP and technical grade glycine for use in ***. *** reported purchases of technical grade glycine for use in *** products and USP grade glycine for use in ***. *** reported purchases of both USP and technical grade glycine for use in *** products.

Questionnaire Price Data

The Commission requested U.S. producers and importers to report net f.o.b. selling prices for sales of two specified glycine products to unrelated U.S. end users and distributors. The price data were requested separately for the largest single spot or contract sale and for total sales of the products specified, by quarters, from January 1992 through December 1994. For contract sales, price data were requested separately for contracts that included meet-or-release provisions and contracts that did not include meet-or-release provisions. Pricing data were requested for the following two products:

PRODUCT 1: 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, and no more than 20 ppm heavy metals.

PRODUCT 2: 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), and with maximum chlorides of 0.3 percent.

Two U.S. producers and 7 importers provided pricing data for January 1992-December 1994, although not necessarily through all channels of distribution or for all products, types of sale, or quarters. The responding U.S. producers accounted for 100 percent of reported U.S. shipments of

¹²⁰ One additional firm indicated that it purchased only USP grade glycine for distribution, but did not know the end use for which it was intended.

¹²¹ ***.

U.S.-produced glycine during 1992-94. The responding importers' subject imports accounted for 80 percent of total U.S. imports of the Chinese product during 1992-94.

U.S. price trends

U.S. producers reported prices for glycine sales on a contract and spot basis to end users, ***, and on a spot basis to distributors (table 16, figure 5). U.S. f.o.b. prices for all contract sales of domestic product 1 to end users increased from 1992 to 1993, and decreased from 1993 to 1994. Contract prices for domestic product 2 sales to end users also declined from 1993 to 1994. U.S. f.o.b. prices for spot sales of domestic products 1 and 2 to end users and distributors fluctuated during 1992-94.

Table 16

Glycine: Weighted-average net f.o.b. prices and total quantities of U.S.-produced glycine, by types of sale, by channels of distribution, by products, by types of contract, and by quarters, Jan. 1992-Dec. 1994

* * * * *

Figure 5

Glycine: Weighted-average net U.S. f.o.b. prices of U.S.-produced and imported Chinese glycine, by quarters, Jan. 1992-Dec. 1994

* * * * *

Chinese price trends

U.S. importers reported prices for sales of imported glycine from China on a contract and spot basis to end users and on a spot basis to distributors (table 17, figure 5). Importers reported that there were not any meet-or-release provisions in their contract sales. It is difficult to discern definitive trends in quarterly prices of the imported Chinese glycine because prices generally fluctuated during the periods reported and a limited volume of sales were reported in 1992. Prices of the Chinese products in 1994, however, were generally lower than prices in 1992 and 1993.

Table 17

Glycine: Weighted-average net f.o.b. prices and total quantities of imported Chinese glycine, by types of sale, by channels of distribution, by products, by types of contract, and by quarters, Jan. 1992-Dec. 1994

* * * * *

Price comparisons

The available price data for contract and spot sales of U.S.-produced and imported Chinese glycine to end users and distributors allowed 39 net f.o.b. sales price comparisons between the domestic and imported products (table 18). Prices for imported Chinese glycine were below prices for the domestic material in 28 quarters by margins ranging from *** percent to *** percent. In 9 quarters, the Chinese product was priced higher than the U.S.-produced product by margins ranging from *** percent to *** percent. Prices were the same in two quarters.

Table 18

Glycine: Chinese margins of underselling/(over)selling for contract and spot sales of products 1 and 2 by U.S. producers and importers to end users and distributors, by quarters, Jan. 1992-Dec. 1994

* * * * *

Purchasers' prices

In addition to producers' and importers' price data, U.S. purchasers of glycine were requested to provide delivered pricing data by end use (e.g., animal feed, personal care products (antiperspirants), pharmaceuticals, food additives (such as vitamins), etc.), by grade of glycine, and by type of purchase (spot or contract). Of the 62 purchasers of glycine that were sent questionnaires requesting price information, 27 purchasers provided usable pricing data.¹²² The reported pricing data resulted in 18 quarterly delivered purchase-price comparisons between the domestic and imported Chinese glycine and involved both technical and USP grades of glycine purchased for use in animal feed, food products (vitamins), and personal care products (antiperspirants). Seventeen of the 18 delivered price comparisons were based on purchases by end users.¹²³ Fourteen of the 17 price comparisons showed underselling by the Chinese product averaging almost *** per pound or *** percent (table 19). Three of the 17 delivered price comparisons showed that the Chinese product was priced higher than the domestic product by an average of *** per pound or *** percent.¹²⁴

Table 19

Delivered purchase prices of U.S.-produced and imported Chinese glycine and margins of under/(over)selling, by end-use categories, by grades of glycine, by types of purchase, and by quarters, Jan. 1992-Dec. 1994

* * * * *

Five of the 14 delivered price comparisons showing underselling by the Chinese product involved the domestic USP glycine and the Chinese technical glycine used by *** to produce ***.

* * * * *^{125 126 127}

¹²² Seventeen end users and 10 distributors reported the requested pricing data but not necessarily for every grade of glycine, end use product, type of sale, or period requested. The 17 end users accounted for 47.5 percent of U.S. apparent consumption of U.S.-produced glycine during 1992-94, 53.5 percent of the imported Chinese glycine, and 73.2 percent of nonsubject imports of glycine during this period. The 10 distributors accounted for 18.7 percent of U.S.-produced glycine during 1992-94 and 0.2 percent of imported Chinese glycine during this period. To avoid double-counting, purchases by distributors were not added to purchases by end users.

¹²³ Four end users reported price data where price comparisons were possible. These purchasers' total glycine purchases accounted for *** percent by quantity of the U.S.-produced product and *** percent of the imported Chinese product apparently consumed in the U.S. market during 1992-94.

¹²⁴ The average overselling was heavily influenced by ***.

¹²⁵ ***.

¹²⁶ ***.

¹²⁷ Hampshire reported in its producer questionnaire response ***. In addition, Hampshire indicated that it ***.

A single quarterly price comparison was possible based on purchases reported by distributors,¹²⁸ and involved domestic and Chinese USP grade glycine purchased for *** production during July-September 1994 on a spot basis. The delivered price comparison showed that the Chinese product was priced at *** per pound, or *** percent, less than the domestic product.

Exchange Rates

Quarterly data reported by the International Monetary Fund indicate that the nominal value of the Chinese yuan depreciated by 5.8 percent in relation to the U.S. dollar during the period January-March 1992 through October-December 1993, then depreciated sharply beginning in January-March 1994 to end, in July-September 1994, at 36.4 percent below its initial-period value (figure 6).¹²⁹ The depreciation of the yuan at the beginning of 1994 is the result of the People's Bank of China officially devaluing the Chinese currency against the U.S. dollar by 51 percent. The actual devaluation, however, was smaller since some transactions were already occurring at the new commercial rate. Accurate price index information for China is unavailable; thus, real exchange rates cannot be calculated.

Lost Sales and Lost Revenues

The responding U.S. producers reported lost sale and revenue allegations as shown in the tabulation below.

* * * * *

Staff conducted telephone interviews with most of the purchasers cited in the lost sales and lost revenue allegations. Staff contacted purchasers named in the six alleged lost sales and five alleged instances of lost revenues, the latter totaling *** and involving *** pounds of glycine. Details of these interviews are discussed below.

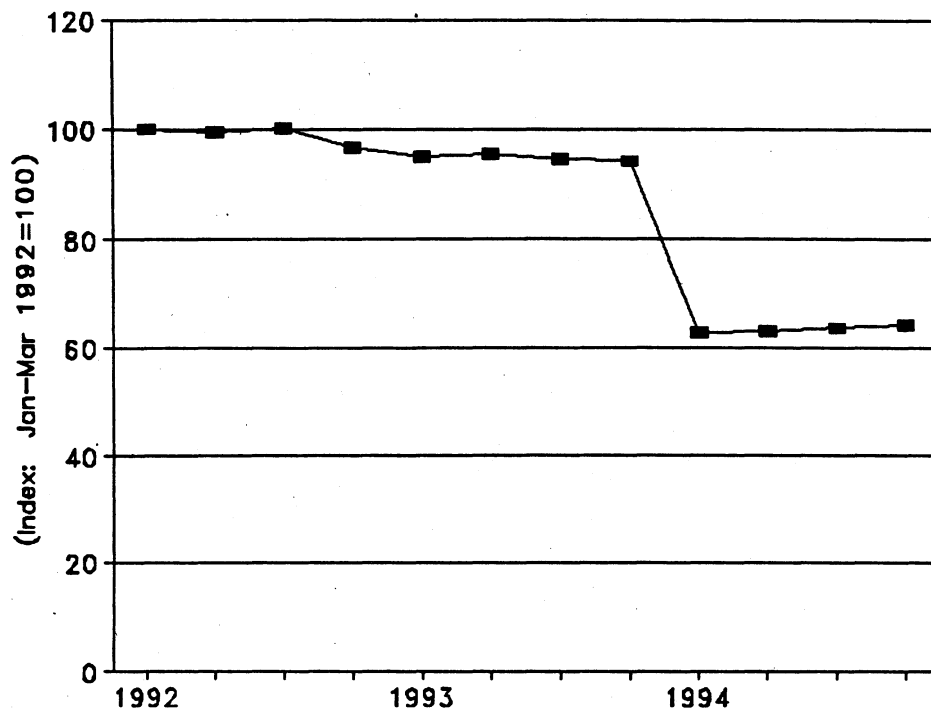
* * * * *

¹²⁸ *** provided the price data on which this price comparison was possible. These firms accounted for 1.2 percent of U.S.-produced glycine and 0.2 percent of imported Chinese glycine apparently consumed in the U.S. market during 1992-94.

¹²⁹ International Monetary Fund, *International Financial Statistics*, Jan. 1995.

Figure 6

Exchange rates: Nominal exchange-rate equivalents of the U.S. dollar per Chinese yuan, indexed by quarters, Jan. 1992-Dec. 1994



Source: International Monetary Fund, *International Financial Statistics*, Jan. 1995.

APPENDIX A
SUMMARY TABLE

Table A-1

Glycine: Summary data concerning the U.S. market, 1992-94¹

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

Item	Reported data			Period changes		
	1992	1993	1994	1992-94	1992-93	1993-94
U.S. consumption quantity:						
Amount	***	***	***	***	***	***
Producers' share ²	***	***	***	***	***	***
Importers' share: ²						
China	***	***	***	***	***	***
Other sources	***	***	***	***	***	***
Total	***	***	***	***	***	***
U.S. consumption value:						
Amount	***	***	***	***	***	***
Producers' share ²	***	***	***	***	***	***
Importers' share: ²						
China	***	***	***	***	***	***
Other sources	***	***	***	***	***	***
Total	***	***	***	***	***	***
U.S. importers' imports from--						
China:						
Imports quantity	112	905	1,606	(3)	+704.6	+77.6
Imports value	190	1,381	2,216	(3)	+627.4	+60.4
Unit value	\$1.69	\$1.53	\$1.38	-18.3	-9.6	-9.7
Ending inventory quantity	***	252	501	***	***	+98.7
Other sources:						
Imports quantity	61	333	582	+853.0	+444.9	+74.9
Imports value	397	875	1,565	+294.6	+120.5	+79.0
Unit value	\$6.49	\$2.63	\$2.69	-58.6	-59.5	+2.3
All sources:						
Imports quantity	174	1,238	2,189	(3)	+613.1	+76.9
Imports value	587	2,256	3,781	+544.6	+284.5	+67.6
Unit value	\$3.38	\$1.82	\$1.73	-48.9	-46.1	-5.2
U.S. producers'--						
Average capacity quantity	***	***	***	***	***	***
Production quantity	***	***	***	***	***	***
Capacity utilization ²	***	***	***	***	***	***
U.S. shipments:						
Quantity	***	***	***	***	***	***
Value	***	***	***	***	***	***
Unit value	***	***	***	***	***	***
Export shipments:						
Quantity	***	***	***	***	***	***
Exports/total shipments ²	***	***	***	***	***	***
Value	***	***	***	***	***	***

Table continued on following page.

Table A-1--Continued
 Glycine: Summary data concerning the U.S. market, 1992-94¹

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

Item	Reported data			Period changes		
	1992	1993	1994	1992-94	1992-93	1993-94
U.S. producers--						
Export shipments:						
Unit value	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***
Inventory/total shipments ²	***	***	***	***	***	***
Production workers	***	***	***	***	***	***
Hours worked (1,000s)	***	***	***	***	***	***
Total compensation (\$1,000)	***	***	***	***	***	***
Hourly total compensation	***	***	***	***	***	***
Productivity (lbs./hour)	***	***	***	***	***	***
Unit labor costs	***	***	***	***	***	***
Net sales--						
Quantity	***	***	***	***	***	***
Value	***	***	***	***	***	***
Cost of goods sold (COGS)	***	***	***	***	***	***
Gross profit (loss)	***	***	***	***	***	***
SG&A expenses	***	***	***	***	***	***
Operating income (loss)	***	***	***	***	***	***
Capital expenditures	***	***	***	***	***	***
Unit COGS	***	***	***	***	***	***
COGS/sales ²	***	***	***	***	***	***
Operating income (loss)/sales ²	***	***	***	***	***	***

¹ Chatterm's data are for fiscal years ending November 30.

² "Reported data" are in percent and "period changes" are in percentage points.

³ An increase of 1,000 percent or more.

Note.--Period changes are derived from the unrounded data. Because of rounding, figures may not add to the totals shown. Unit values and other ratios are calculated from the unrounded figures, using data of firms supplying both numerator and denominator information.

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

Figure A-1
 Glycine: Salient data for the U.S. market, 1992-94

* * * * *

APPENDIX B

FEDERAL REGISTER NOTICES

Harmonized Tariff Schedule of the United States.

For further information concerning the conduct of this investigation, hearing procedures, 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 C (19 CFR part 207).

EFFECTIVE DATE: November 15, 1994.

FOR FURTHER INFORMATION CONTACT: Mary Messer (202-205-3193), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., 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. Information can also be obtained by calling the Office of Investigations' remote bulletin board system for personal computers at 202-205-1895 (N.8.1).

SUPPLEMENTARY INFORMATION:**Background**

This investigation is being instituted as a result of an affirmative preliminary determination by the Department of Commerce that imports of glycine from the People's Republic of China are being sold in the United States at less than fair value within the meaning of section 733 of the Act (19 U.S.C. 1673b). The investigation was requested in a petition filed on July 1, 1994, by Hampshire Chemical Corp., Lexington, MA, and Chattem, Inc., Chattanooga, TN.

Participation in the Investigation and Public Service List

Persons wishing to participate in the investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in section 201.11 of the Commission's rules, not later than twenty-one (21) days after publication of this notice in the Federal Register. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation 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 section 207.7(a) of the Commission's rules, the Secretary will

INTERNATIONAL TRADE COMMISSION

[Investigation No. 731-TA-718 (Final)]

Glycine From the People's Republic of China

AGENCY: United States International Trade Commission.

ACTION: Institution and scheduling of a final antidumping investigation.

SUMMARY: The Commission hereby gives notice of the institution of final antidumping investigation No. 731-TA-718 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) (the Act) to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from the People's Republic of China of glycine, provided for in subheading 2922.49.40 of the

make BPI gathered in this final investigation available to authorized applicants under the APO issued in the investigation, provided that the application is made not later than twenty-one (21) 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.

Staff Report

The prehearing staff report in this investigation will be placed in the nonpublic record on January 27, 1995, and a public version will be issued thereafter, pursuant to section 207.21 of the Commission's rules.

Hearing

The Commission will hold a hearing in connection with this investigation beginning at 9:30 a.m. on February 9, 1995, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or before February 2, 1995. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on February 6, 1995, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by sections 201.6(b)(2), 201.13(f), and 207.23(b) of the Commission's rules. Parties are strongly encouraged to submit as early in the investigation as possible any requests to present a portion of their hearing testimony in camera.

Written Submissions

Each party is encouraged to submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of section 207.22 of the Commission's rules; the deadline for filing is February 3, 1995. Parties may also file written testimony in connection with their presentation at the hearing, as provided in section 207.23(b) of the Commission's rules, and posthearing briefs, which must conform with the provisions of section 207.24 of the Commission's rules. The deadline for filing posthearing briefs is February 17, 1995; witness testimony must be filed no later than three (3) days before the hearing. In addition, any person who has not entered an appearance as a party to the investigation may submit a

written statement of information pertinent to the subject of the investigation on or before February 17, 1995. All written submissions must conform with the provisions of section 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of sections 201.6, 207.3, and 207.7 of the Commission's rules.

In accordance with sections 201.16(c) and 207.3 of the rules, each document filed by a party to the investigation must be served on all other parties to the investigation (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

This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to section 207.20 of the Commission's rules.

Issued: December 2, 1994.

By order of the Commission.

Donna R. Koehnke,

Secretary.

[FR Doc. 94-30208 Filed 12-7-94; 8:45 am]

BILLING CODE 7030-01-P

Street and Constitution Avenue, NW,
Washington, DC 20230; telephone: (202)
482-1442.

Final Determination: We determine that imports of glycine from the People's Republic of China (PRC) are being, or are likely to be, sold in the United States at less than fair value, as provided in section 735 of the Tariff Act of 1930, as amended (the Act). The estimated margin is shown in the "Continuation of Suspension of Liquidation" section of this notice.

Case History

Since the preliminary determination (59 FR 220, November 18, 1994) the following events have occurred:

On December 1, 1994, petitioners submitted an allegation of critical circumstances. On January 3, 1995, the Department made an affirmative preliminary determination that critical circumstances exist.

Scope of the Investigation

The product covered by this investigation is glycine which is a free-flowing crystalline material, like salt or sugar. Glycine is produced at varying levels of purity and is used as a sweetener/taste enhancer, a buffering agent, metabolizable amino acid, chemical intermediates, and a metal complexing agent. Glycine is currently classified under subheading 2922.49.4020 of the Harmonized Tariff Schedule of the United States (HTSUS). The scope of this investigation includes glycine of all purity levels.

Although the HTSUS subheadings are provided for convenience and customs purposes, our written description of the scope of this investigation is dispositive

Period of Investigation

The period of investigation (POI) is February 1 through July 31, 1994.

Best Information Available

We sent an antidumping questionnaire to the PRC Ministry of Foreign Economic Trade and Cooperation (MOFTEC) and we met with the China Chamber of Commerce

for Metals, Minerals and Chemicals Importers and Exporters (the Chamber) and requested that they: (1) Furnish the questionnaire to any glycine producers and exporters with U.S. sales during the POI, and (2) provide a list of those companies that received the questionnaire. We received a response from the Chamber stating that no Chinese producers or exporters wanted to participate in the case. Accordingly, given that the respondents refused to cooperate in the investigation, we have based our final determination on the best information available (BIA), in accordance with section 776(c) of the Act.

The Department's BIA methodology is described in the notice of the preliminary determination. In this case, BIA is the information contained in the petition, as amended on July 22, 1994. See Initiation of Antidumping Duty Investigations: Glycine from the People's Republic of China (59 FR 39435, July 29, 1994). The amended petition provides a range of margin, from 86.43 to 155.89 percent for all PRC producers and exporters of glycine. Because there were no cooperative respondents in this investigation, we are assigning to all exporters, as BIA, a margin of 155.89 percent, the highest margin calculated in the petition.

Critical Circumstances

Petitioners alleged that critical circumstances exist with respect to imports of glycine from the PRC. In our determination on January 3, 1995, pursuant to section 733(e)(1) of the Act and 19 CFR 353.16, we preliminarily determined that critical circumstances exist because the PRC producers and exporters failed to cooperate with this proceeding.

For purposes of this final determination, we have reconsidered our preliminary determination that failure to cooperate in the investigation warranted an automatic finding that imports were massive over a relatively short period. Section 733(e)(1) of the Act provides that the Department will

International Trade Administration

[A-570-836]

Notice of Final Determination of Sales at Less Than Fair Value: Glycine From the People's Republic of China

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

EFFECTIVE DATE: January 30, 1995.

FOR FURTHER INFORMATION CONTACT: See Strumbel, Office of Countervailing Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th

determine that critical circumstances exist if:

(A)(i) There is a history of dumping in the United States or elsewhere of the class or kind of merchandise which is the subject of the investigation, or

(ii) The person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the merchandise which is the subject of the investigation at less than its fair value, and

(B) There have been massive imports of the class or kind of merchandise which is the subject of the investigation over a relatively short period.

According to § 353.16(g) of the Department's regulations, we treat imports as being massive if they increase by 15 percent.

To determine whether PRC glycine imports have been massive over a relatively short period, we used import statistics from the Bureau of Census. We were able to use these statistics because the HTSUS statistical category matches the scope of the investigation (see Comment 1, below). In addition, although our standard critical circumstances methodology is based on company specific import data, we believe that the public information regarding the volume of PRC imports into the United States is the best available information for determining whether critical circumstances exist. This is based on the facts that (1) the subject merchandise is the only merchandise imported under the relevant HTSUS number and (2) the Department presumes that all exporters in the PRC are owned or controlled by the PRC government.

Pursuant to § 353.16(g) of the Department's regulations, when making critical circumstances determinations, the Department normally compares the period beginning on the first day of the month of the initiation and ending at least three months later with a comparable period prior to the initiation. The Department considers the period immediately prior to a preliminary determination because it is the period in which exporters of the subject merchandise could take advantage of the knowledge of the dumping investigation to increase exports to the United States without being subject to antidumping duties. See, Final Determination of Sales at Less Than Fair Value of Certain Internal-Combustion, Industrial Forklift Trucks from Japan, (53 FR 12552, April 15, 1988). For purposes of this final determination, we are comparing the four month period prior to the initiation with the four month period after the initiation of this investigation.

Based on our analysis of the available monthly import statistics, we have determined that imports of glycine have not been massive over a relatively short period of time. The import statistics show that volume of the imports has increased by only 7.14 percent.

Therefore, we find that the requirements of section 733(e)(1)(B) have not been met with respect to glycine from the PRC.

Because we find that imports of glycine from the PRC have not been massive over a relatively short period, we do not need to consider whether there is a history of dumping or whether importers of this product knew or should have known that it was being sold at less than fair value. Therefore, we determine that critical circumstances do not exist with respect to imports of glycine from the PRC.

Interested Party Comments

Comment 1

Kal Kan Foods, an interested party, argues that the Department's preliminary determination of critical circumstances was unfair and not in accordance with the Department's precedent. Kal Kan contends that U.S. glycine importers had no knowledge that the merchandise was being sold in the United States at less than a fair value. Accordingly to Kal Kan, the Department's non-market economy (NME) methodology, which uses surrogate values, is complex and causes the calculated dumping margins to be unpredictable. Kal Kan further contends that the Department should use the public information of the Bureau of Census to determine the existence of massive imports instead of relying on BIA.

Petitioners disagree with the interested party's argument and argue that the Department should make a final affirmative determination of critical circumstances based on BIA.

DOC Position

Under the circumstances present in this case, it is possible for the Department to use public information, such as Census data, to determine whether imports have been massive over a relatively short period. In this proceeding, the product under investigation has a unique HTSUS number, hence, the import statistics only reflect imports of the subject merchandise. Moreover, in accordance with the Department's presumption that all exporters in the PRC are owned or controlled by the government, we view the exporters as a single company. Given these two factors, the import

statistics constitute a reasonable surrogate for company-specific import data.

Continuation of Suspension of Liquidation

Pursuant to section 735(c)(4) of the Act, we are directing the Customs Service to cease suspension of liquidation of all entries of glycine from the PRC that are entered, or withdrawn from warehouse, for consumption from August 18, 1994, (i.e., 90 days prior to the date of publication of our preliminary determination in the Federal Register) to November 15, 1994. However, we are directing the Customs Service to continue to suspend liquidation for entries of glycine from the PRC that are entered, or withdrawn from warehouse, for consumption on or after November 16, 1994, the date of the publication of the preliminary determination in the Federal Register. The Customs Service shall require a cash deposit or posting of a bond equal to 155.89 percent *ad valorem* on all entries of glycine from the PRC. This suspension of liquidation will remain in effect until further notice.

International Trade Commission (ITC) Notification

In accordance with section 735(d) of the Act, we have notified the ITC of our determination. The ITC will now determine, within 45 days, whether these imports are materially injuring, or threatening material injury to the U.S. industry. If the ITC determines that material injury, or threat of material injury, does not exist, the proceeding will be terminated and all securities posted will be refunded or cancelled. If the ITC determines that such injury does exist, the Department will issue an antidumping order directing Customs officials to assess antidumping duties on all imports of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the effective date of the suspension of liquidation.

Notification to Interested Parties

This notice also serves as the only reminder to parties subject to administrative protective order (APO) of their responsibility concerning the return or destruction of proprietary information disclosed under APO in accordance with 19 CFR 353.34(d). Failure to comply is a violation of the APO.

This determination is published pursuant to section 735(d) of the Act and 19 CFR 353.20(a)(4).

Dated: January 23, 1995.

Susan G. Esserman,

*Assistant Secretary for Import
Administration.*

[FR Doc. 95-2235 Filed 1-27-95; 8:45 am]

BILLING CODE 2610-06-M

APPENDIX C
CALENDAR OF THE HEARING

CALENDAR OF THE HEARING

Those listed below appeared as witnesses at the United States International Trade Commission's hearing.

Subject: GLYCINE FROM THE PEOPLE'S REPUBLIC OF CHINA
Inv. No.: 731-TA-718 (Final)
Date and Time: February 9, 1995 - 9:30 a.m.

Sessions were held in connection with the investigation in the main hearing room 101, 500 E Street, S.W., Washington, DC

In Support of the Imposition of
Antidumping Duties:

Sidley and Austin
Washington, DC
on behalf of

Hampshire Chemical Corp.
Chattem, Inc.

Mark T. DeGeorge, Commercial Manager, Hampshire Chemical Corp.

George Power, Executive Consultant to Hampshire Chemical Corp.

Timothy J. Zappala, Deer Park Plant Manager, Hampshire Chemical Corp.

Ray Smith, Vice President of Operations, Chemical Division, Chattem, Inc.

Judith H. Bello--OF COUNSEL

In Opposition to the Imposition
of Antidumping Duties:

Aitken, Irvin and Lewin
Washington, DC
on behalf of

Dastech International, Inc.

Robert Kahen, President, Dastech International, Inc.

Dr. Steve Brandt, Vice President, Dastech International, Inc.

Martin J. Lewin--OF COUNSEL

APPENDIX D

**COMMENTS RECEIVED FROM U.S. PRODUCERS ON THE IMPACT OF
IMPORTS OF GLYCINE FROM THE PEOPLE'S REPUBLIC OF CHINA
ON THEIR GROWTH, INVESTMENT, ABILITY TO RAISE CAPITAL,
AND/OR EXISTING DEVELOPMENT AND PRODUCTION EFFORTS**

* * * * *

