

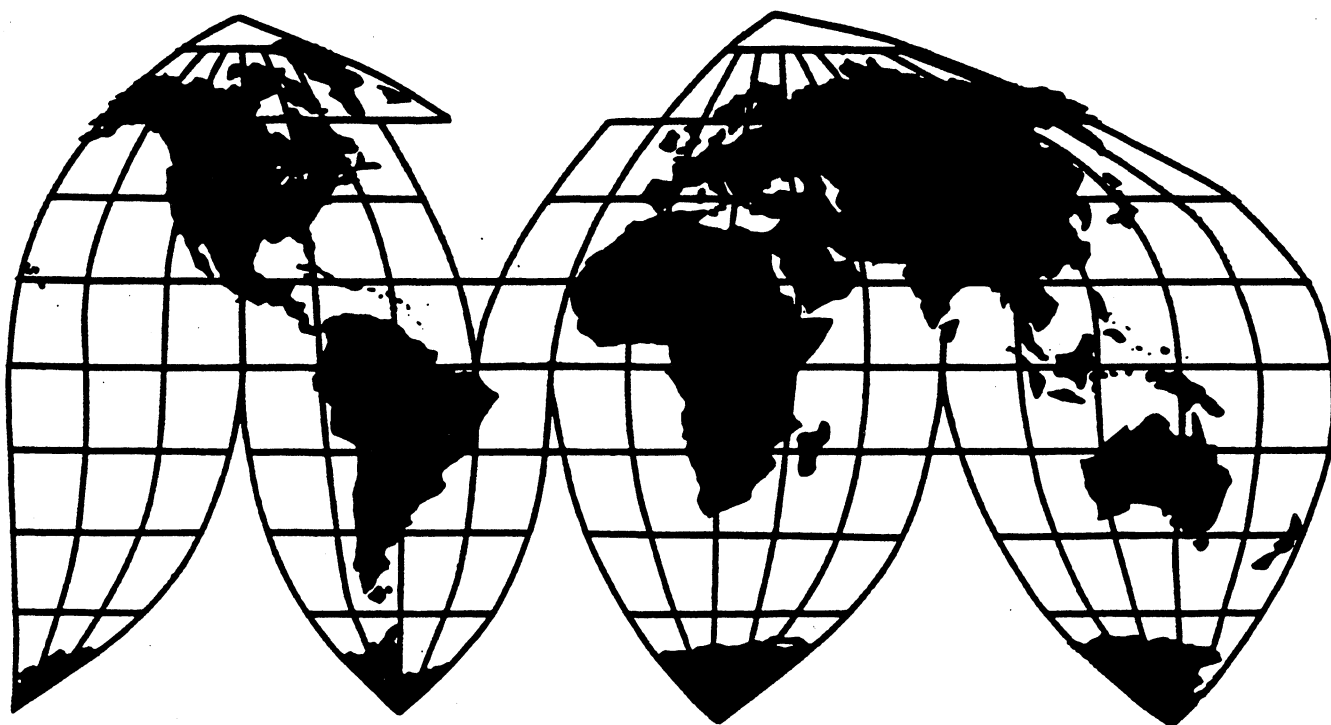
# **Sodium Azide from Japan**

Investigation No. 731-TA-740 (Preliminary)

**Publication 2948**

**March 1996**

**U.S. International Trade Commission**



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### *Staff assigned*

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**Larry Johnson, Industry Analyst**  
**William Deese, Economist**  
**James Stewart, Accountant**  
**Lyle Vander Schaaf, Attorney**  
**David Williams, Law Clerk**

**Vera Libeau, Supervisory Investigator**

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

# **U.S. International Trade Commission**

Washington, DC 20436

## **Sodium Azide from Japan**



Publication 2948

March 1996



## CONTENTS

|   | <i>Page</i>  |
|---|--------------|
| Determination .....   | 1            |
| Views of the Commission .....   | 3            |
| <b>Part I: Introduction</b> .....   | <b>I-1</b>   |
| Background .....  | I-1          |
| Summary data .....  | I-1          |
| The product .....   | I-1          |
| Physical characteristics and uses .....                                     | I-2          |
| Use of common manufacturing facilities and production employees .....       | I-2          |
| Interchangeability and perceptions of the product .....                     | I-3          |
| Channels of distribution .....  | I-3          |
| Price .....   | I-4          |
| <b>Part II: Conditions of competition in the U.S. market</b> .....          | <b>II-1</b>  |
| Supply and demand considerations .....                                      | II-2         |
| U.S. supply .....   | II-2         |
| Domestic production .....   | II-2         |
| Subject imports .....   | II-2         |
| Non-subject imports .....   | II-2         |
| U.S. demand .....   | II-3         |
| Substitute products .....   | II-3         |
| Factors affecting purchasing decisions .....                                | II-4         |
| Comparison of domestic products and subject imports .....                   | II-4         |
| <b>Part III: Condition of the U.S. industry</b> .....                       | <b>III-1</b> |
| U.S. producer .....   | III-1        |
| U.S. capacity, production, and capacity utilization .....                   | III-1        |
| Shipments .....   | III-1        |
| U.S. producer's inventories .....   | III-2        |
| U.S. employment, compensation, and productivity .....                       | III-2        |
| <b>Part IV: U.S. imports, apparent consumption, and market shares</b> ..... | <b>IV-1</b>  |
| U.S. importers .....  | IV-1         |
| U.S. imports .....  | IV-1         |
| Apparent U.S. consumption .....   | IV-1         |
| U.S. market shares .....  | IV-1         |
| <b>Part V: Pricing and related information</b> .....                        | <b>V-1</b>   |
| Prices .....  | V-1          |
| Factors affecting prices .....  | V-1          |
| Price competition .....   | V-1          |
| Price trends and comparisons .....  | V-1          |
| Exchange rates .....  | V-3          |
| Lost sales and lost revenues .....  | V-4          |

## CONTENTS--Continued

|   | <i>Page</i> |
|---|-------------|
| <b>Part VI: Financial experience of the U.S. producer</b> .....   | VI-1        |
| Operations on sodium azide .....  | VI-1        |
| Breakeven analysis .....  | VI-1        |
| Sources of capital .....  | VI-2        |
| Variance analysis .....   | VI-2        |
| Investment in productive facilities, capital expenditures, and research and development expenses .....  | VI-2        |
| Capital and investment .....  | VI-2        |
| <b>Part VII: Threat considerations</b> .....  | VII-1       |
| The industry in Japan .....   | VII-1       |
| U.S. importers' inventories .....   | VII-2       |
| U.S. importers' current orders .....  | VII-2       |
| <b>Appendixes</b>   |             |
| A. <i>Federal Register</i> notices .....  | A-1         |
| B. Calendar of the public conference .....  | B-1         |
| C. Summary table .....  | C-1         |
| <b>Figures</b>  |             |
| I-1. Sodium azide: Process flow diagram for AMAZCO .....  | I-2         |
| III-1. Sodium azide: AMAZCO's capacity, production, and capacity utilization, 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....   | III-1       |
| IV-1. Sodium azide: U.S. imports, by sources, 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....   | IV-2        |
| IV-2. Sodium azide: U.S. shipments of domestic product, U.S. imports, by sources, and apparent U.S. consumption, 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....                  | IV-2        |
| IV-3. Sodium azide: Apparent U.S. consumption and market shares, 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....  | IV-2        |
| V-1. Weighted-average net U.S. f.o.b. selling prices of sodium azide produced in the United States and imported from Japan, by products and by quarters, Jan. 1992 - Sept. 1995 ..... | V-2         |
| V-2. Exchange rates: Indexes of the U.S. dollar price of the Japanese yen, by quarters, Jan. 1992-Sept. 1995 .....  | V-3         |
| VII-1. Sodium azide: Japanese capacity, production, inventories, capacity utilization, and shipments, 1992-94, Jan.-Sept. 1994, Jan.-Sept. 1995, and projected 1995-96 .....          | VII-1       |

## CONTENTS--Continued

| Tables   | <i>Page</i> |
|--|-------------|
| III-1. Sodium azide: AMAZCO's capacity, production, and capacity utilization, 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....  | III-1       |
| III-2. Sodium azide: AMAZCO's U.S. shipments, 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....  | III-2       |
| III-3. Sodium azide: AMAZCO's end-of-period inventories, 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....   | III-2       |
| III-4. Average number of production and related workers producing sodium azide, hours worked, wages paid to such employees, and hourly wages, productivity, and unit production costs, 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 ..... | III-2       |
| IV-1. Sodium azide: U.S. imports, by sources, 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....  | IV-2        |
| IV-2. Sodium azide: U.S. shipments of domestic product, U.S. imports, by sources, and apparent U.S. consumption, 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....   | IV-2        |
| IV-3. Sodium azide: Apparent U.S. consumption and market shares, 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....   | IV-2        |
| V-1. Product 1: Weighted-average net U.S. f.o.b. selling prices reported by the U.S. producer and by importers, and margins of under/(over)selling, by quarters, Jan. 1992- Sept. 1995 ....  | V-2         |
| V-2. Product 3: Weighted-average net U.S. f.o.b. selling prices reported by the U.S. producer and by importers, and margins of under/(over)selling, by quarters, Jan. 1992- Sept. 1995 .....   | V-2         |
| V-3. Product 4: Weighted-average net U.S. f.o.b. selling prices reported by the U.S. producer, by quarters, Jan. 1992-Sept. 1995 .....   | V-2         |
| VI-1. Income-and-loss experience of AMAZCO on its operations producing sodium azide, calendar years 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....  | VI-1        |
| VI-2. Income-and-loss experience ( <i>on a per-pound basis</i> ) of AMAZCO on its operations producing sodium azide, calendar years 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 ...  | VI-1        |
| VI-3. Value of fixed assets of AMAZCO used for the production of sodium azide, calendar years 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....  | VI-2        |
| VI-4. Capital expenditures by AMAZCO, calendar years 1992-94, Jan.-Sept. 1994, and Jan.-Sept. 1995 .....   | VI-2        |
| VII-1. Sodium azide: Japanese capacity, production, inventories, capacity utilization, and shipments, 1992-94, Jan.-Sept. 1994, Jan.-Sept. 1995, and projected 1995-96 .....   | VII-1       |
| VII-2. Sodium azide: Masuda's capacity, production, inventories, capacity utilization, and shipments, 1992-94, Jan.-Sept. 1994, Jan.-Sept. 1995, and projected 1995-96 .....   | VII-1       |
| VII-3. Sodium azide: Toyo's capacity, production, inventories, capacity utilization, and shipments, 1992-94, Jan.-Sept. 1994, Jan.-Sept. 1995, and projected 1995-96 .....   | VII-2       |
| VII-4. Sodium azide: Nippon's capacity, production, inventories, capacity utilization, and shipments, 1992-94, Jan.-Sept. 1994, Jan.-Sept. 1995, and projected 1995-96 .....   | VII-2       |
| C-1. Sodium azide: Summary data concerning the U.S. market, 1992-94, Jan.-Mar. 1994, and Jan.-Sept. 1995 .....   | C-3         |

## Glossary of Abbreviations

|                     |   |
|---------------------|---|
| AMAZCO .....        | American Azide Corporation                                    |
| Amindo .....        | Amindo Chemical Company, Incorporated                         |
| COGS .....          | Cost of goods sold  |
| Commission .....    | U.S. International Trade Commission                           |
| Commerce .....      | U.S. Department of Commerce                                   |
| Transcript .....    | Transcript of the conference in the preliminary investigation |
| FOB .....           | Free on Board   |
| HTS .....           | Harmonized Tariff Schedule of the United States               |
| ICI .....           | ICI Canada, Incorporated                                      |
| IMF .....           | International Monetary Fund                                   |
| LTFV .....          | Less than fair value  |
| Masuda .....        | Masuda Chemical Corporation                                   |
| Mitsui .....        | Mitsui and Company (USA), Incorporated                        |
| Nippon .....        | Nippon Carbide Company, Limited                               |
| Nissho .....        | Nissho Iwai American Corporation                              |
| PRW .....           | Production and related workers                                |
| SG&A expenses ..... | Selling, general, and administrative expenses                 |
| Summit .....        | Summit Pharmaceutical Corporation                             |
| Toyo .....          | Toyo Kasei Kogyo Company, Limited                             |
| TRW .....           | TRW, Incorporated   |

Note.--Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report.



# UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-740 (Preliminary)

## SODIUM AZIDE FROM JAPAN

### Determination

On the basis of the record<sup>1</sup> developed in the subject investigation, the Commission determines, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from Japan of sodium azide, provided for in subheading 2850.00.50 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value (LTFV).

### Background

On January 16, 1996, a petition was filed with the Commission and the Department of Commerce by American Azide Corporation, Las Vegas, Nevada, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV imports of sodium azide from Japan. Accordingly, effective January 16, the Commission instituted antidumping investigation No. 731-TA-740 (Preliminary).

Notice of the institution of the Commission's investigation and of a public conference 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 January 23, 1996 (61 F.R. 1784). The conference was held in Washington, DC, on February 6, 1996, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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



## VIEWS OF THE COMMISSION

Based on the record in this preliminary investigation, we find that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of sodium azide from Japan that are alleged to be sold in the United States at less than fair value ("LTFV").<sup>2</sup>

### I. THE LEGAL STANDARD FOR PRELIMINARY DETERMINATIONS

The legal standard in preliminary antidumping investigations requires the Commission to determine, based upon the information available at the time of the preliminary determination, whether there is a reasonable indication that a domestic industry is materially injured, or threatened with material injury, by reason of the allegedly LTFV imports.<sup>3</sup> In applying this standard, the Commission weighs the evidence before it and determines whether "(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of such injury; and (2) no likelihood exists that contrary evidence will arise in a final investigation."<sup>4</sup>

### II. DOMESTIC LIKE PRODUCT AND INDUSTRY

To determine whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the subject imports, the Commission first defines the "domestic like product" and the "industry."<sup>5</sup> Section 771(4)(A) of the Act defines the relevant industry as the "producers as a [w]hole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."<sup>6</sup> In turn, the Act defines "domestic like product" as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation. . . ."<sup>7</sup>

Our decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and we apply the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.<sup>8</sup> No single factor is dispositive, and the Commission may consider other factors it deems

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<sup>2</sup> 19 U.S.C. § 1671 *et seq.*, as amended. The industry, which we define below to be the petitioner, the sole domestic producer of sodium azide, began commercial production in 1993. Based on our analysis of the data and the information and argument submitted by petitioner, we find that the industry is presently established. Therefore, material retardation is not an issue and will not be discussed further. Petitioner's relatively recent entry into the market is addressed in our discussion of conditions of competition, *infra*.

<sup>3</sup> 19 U.S.C. § 1673b(a); *see also American Lamb Co. v. United States*, 785 F.2d 994 (Fed. Cir. 1986); *Calabrian Corp. v. United States*, 794 F.Supp. 377, 381 (Ct. Int'l Trade 1992).

<sup>4</sup> *American Lamb* 785 F.2d at 1001; *see also Texas Crushed Stone Co. v. United States*, 35 F.3d 1535, 1543 (Fed. Cir. 1994).

<sup>5</sup> 19 U.S.C. § 1677(4)(A).

<sup>6</sup> 19 U.S.C. § 1677(4)(A).

<sup>7</sup> 19 U.S.C. § 1677(10).

<sup>8</sup> *See, e.g., Nippon Steel Corp. v. United States*, 19 CIT \_\_\_, Slip Op. 95-57 at 11 (Apr. 3, 1995); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991) ("every like product determination 'must be made on the particular record at issue' and the 'unique facts of each case'"). In analyzing domestic like product issues, the Commission generally considers a number of factors including: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes and production employees; and, where appropriate, (6) price. *See Timken Co. v. United States*, Slip Op. 96-8 at 9 (Ct. Int'l Trade, Jan. 3, 1996); *Aramide*

relevant based on the facts of a particular investigation.<sup>9</sup> The Commission looks for clear dividing lines among possible domestic like products, and disregards minor variations.<sup>10</sup>

In its notice of initiation, the Department of Commerce defined the imported article subject to this investigation as:

Sodium azide ( $\text{NaN}_3$ ) regardless of use, and whether or not combined with silicon oxide ( $\text{SiO}_2$ ) or any other inert flow assisting agent.<sup>11</sup>

Sodium azide is an inorganic chemical compound which exists at room temperature in the form of colorless, hexagonal crystals.<sup>12</sup> Roughly 90 to 95 percent of the U.S. sodium azide market is dedicated to automotive airbag inflator devices, with the remainder dedicated to intermediate chemical applications, such as the manufacture of pharmaceutical products.<sup>13</sup>

The petitioner contends that all sodium azide, irrespective of end-use, constitutes a single domestic like product.<sup>14</sup> Two of the three respondents disagree,<sup>15</sup> arguing that sodium azide used in airbags is a separate like product from sodium azide used in pharmaceutical applications.<sup>16</sup>

We find that there is a single like product consisting of all sodium azide. Irrespective of end use, all domestically-produced sodium azide is manufactured from the same raw materials and chemical reactions and has the same essential chemical composition, properties and formulation,  $\text{NaN}_3$ , which does not vary with end-use.<sup>17</sup> Sodium azide production by petitioner, the sole domestic producer,<sup>18</sup> begins with reacting sodium metal with ammonia to form the intermediate chemical sodium amide ( $\text{NaNH}_2$ ),<sup>19</sup> which is then reacted with nitrous oxide ( $\text{N}_2\text{O}$ ) to form sodium azide and sodium hydroxide. This mixture is dissolved in water, and pure sodium azide is crystallized, de-watered by centrifuging, dried, blended, screened, and packaged. A

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Mattschappi, V.O.F. v. United States, 19 CIT \_\_\_, Slip Op. 95-113 at 4 (June 19, 1995).

<sup>9</sup> See, e.g., S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979).

<sup>10</sup> Torrington, 747 F. Supp. at 748-49.

<sup>11</sup> See Initiation of Antidumping Duty Investigation: Sodium Azide from Japan, 61 Fed. Reg. 4959 (Feb. 9, 1996). The initiation notice further indicated that: "The merchandise under investigation is currently classifiable under item 2850.00.50.00 of the Harmonized Tariff Schedule of the United States (HTSUS)." Id.

<sup>12</sup> Confidential Report ("CR") at I-2, Public Report ("PR") at I-1-I-2.

<sup>13</sup> CR at I-2, I-5, II-1, PR at I-1-I-2, I-3, II-1; Transcript of Preliminary Investigation Staff Conference ("Tr.") at 23-24.; American Azide Corporation ("AMAZCO") Anti-dumping Petition ("Petition") at 1.

<sup>14</sup> Tr. at 23-24; AMAZCO's Postconference Brief at 3-15.

<sup>15</sup> Respondent Toyo Kasei Kogyo Co, Ltd. did not raise the issue of the definition of domestic like product in its testimony or in its Postconference Brief. See generally Tr. at 65-73, 129-130; Toyo Postconference Brief. However, this respondent refers the Commission to the like product section in the Nippon Postconference Brief. See Toyo's Postconference Brief at Tab A.

<sup>16</sup> Tr. at 61-62, 76-77; Masuda's Postconference Brief at 3-8; Nippon Carbide Postconference Brief at 3-6. Many of respondents' arguments relate to differences in the products from Japan and not to a U.S.-produced product and, thus, are of limited value to our domestic like product analysis.

<sup>17</sup> CR at I-2, PR at I-2; Petitioner's Postconference Brief at 4-5. All domestically produced sodium azide also has ["the same basic purity levels of about 99 percent, with minor variations that exist among different customer specifications"]. AMAZCO's Postconference Brief at 9-10.

<sup>18</sup> CR at II-3, PR at II-2; Tr. at 34; AMAZCO Petition at 5.

<sup>19</sup> CR at I-2-I-3, PR at I-2-I-3; Tr. at 22-24; AMAZCO's Postconference Brief at 4-6.

small amount of silicon dioxide ( $\text{SiO}_2$ ) (ranging from 0.5% to 1.5% by weight) is added at the end of the production process to sodium azide destined for airbag use to facilitate the flow of sodium azide in large-quantity packages.<sup>20</sup>

The domestic producer uses the same facilities, equipment and production employees to manufacture all sodium azide, whether for airbag or pharmaceutical application.<sup>21</sup> Similarly, the domestic producer uses virtually the same production process to manufacture all sodium azide, irrespective of end-use.<sup>22</sup> The only difference is that AMAZCO does not always add a small amount of silicon dioxide at the end of the production process for pharmaceutical sodium azide.<sup>23</sup> However, the addition of silicon dioxide requires no additional workers, and amounts to less than one percent of production costs.<sup>24</sup> The presence or absence of silicon dioxide seems to us little different from the airbag manufacturers' diverse specifications of acceptable levels of silicon dioxide, heavy metals, moisture, and particle size and distribution.<sup>25</sup> Although interchangeability between the two types of sodium azide may be limited due to the differences in specifications,<sup>26</sup> sodium azide's basic chemical composition is constant in all applications.<sup>27</sup> Moreover, AMAZCO has shipped the same sodium azide to pharmaceutical customers that it ships to airbag customers.<sup>28</sup> Customer specifications for the various sodium azide applications can overlap, because petitioner adds the flow agent silicon dioxide to sodium azide provided to some of its pharmaceutical customers, and some pharmaceutical customers can tolerate the level of heavy metals present in sodium azide used in airbags.<sup>29</sup>

Domestically-produced sodium azide is sold predominantly through the same types of channels of distribution regardless of end use,<sup>30</sup> and the domestic producer perceives the production and sale of all of its

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<sup>20</sup> CR at I-2, II-1, PR at I-2, II-1; AMAZCO's Postconference Brief at 5-6, 11; Tr. at 95.

<sup>21</sup> CR at I-5-I-6, PR at I-2-I-3; AMAZCO's Postconference Brief at 5.

<sup>22</sup> AMAZCO's Postconference Brief at 4-5.

<sup>23</sup> CR at I-2, PR at I-1; AMAZCO's Postconference Brief at 5-6.

<sup>24</sup> CR at I-3, I-5, PR at I-2-I-3; AMAZCO's Postconference Brief at 6. Moreover, removing the flow agent silicon dioxide from sodium azide is a relatively easy process. Tr. at 43.

<sup>25</sup> See, e.g., CR at I-2, II-6, PR at I-2, II-4; TRW's Response to Questionnaire at 9; see also, e.g., Masuda's Postconference Brief, Exhibits 1, 10, 12-14 (showing that the two airbag manufacturers set many different specifications for the sodium azide they use and comparing "Typical Pharmaceutical Specifications --Japan" to "Typical Pharmaceutical Specifications -- United States").

<sup>26</sup> See generally Masuda's Postconference Brief, Exhibits 10-12 (comparing "Morton Specification S0030" to "TRW Specification 300006"). TRW's questionnaire response shows that\*\*\*. TRW \*\*\*. TRW indicates that \*\*\*. TRW's Questionnaire Response at introductory page (emphasis added).

<sup>27</sup> CR at I-2-I-3, PR at I-2; ICI Canada's Postconference Statement at 5.

<sup>28</sup> Petitioner's Postconference Brief at 11 & Annex B; Tr. at 126-127; Tr. at 127 ("if we have an order that we had not anticipated and a customer needs some material for a pharmaceutical end use right away, generally speaking, we can take it right out of inventory"). ICI Canada's experience confirms the petitioner's claim. ICI Canada Postconference Statement at 5; see also AMAZCO's Postconference Brief at 9-10 (indicating that \*\*\*). The absence of complete interchangeability among the different end-uses of sodium azide does not require the finding of separate domestic like products. See *Nippon Steel Corp. v. United States*, Slip op. 95-57 at 16-17 (CIT Apr. 3, 1995).

<sup>29</sup> See Petitioner's Postconference Brief at 11 & Annex B; Tr. at 126-127; Tr. at 127; ICI Canada Postconference Statement at 5; AMAZCO's Postconference Brief at 9-10.

<sup>30</sup> Sodium azide produced by the petitioner is sold directly to customers on the basis of individual sales negotiations, with the exception of a small amount (\*\*\*) of overall pharmaceutical sodium azide sales which are sold through distributors. CR at I-5-I-6, PR at I-3; AMAZCO's Postconference Brief at 7.

sodium azide as a single business enterprise involving common operating, technical, and selling functions.<sup>31</sup> The two major purchasers of sodium azide, TRW and Morton, provided only limited information on their perceptions of the product.<sup>32</sup> Sodium azide sold for pharmaceutical uses typically commands a higher price than that sold for airbag use, though the record demonstrates that this may reflect the different volume that buyers purchase, rather than that there are two different products made by two different industries.<sup>33</sup> In any event, we do not find these price differences to outweigh the similarity of all sodium azide discussed above.

Accordingly, notwithstanding the differences in prices and end uses, we include all sodium azide in the like product based on the similarity in physical characteristics, the interchangeability noted above, common manufacturing facilities, production processes and employees, channels of distribution, and producer perceptions of the product. Based on our domestic like product definition, we find American Azide Corporation ("AMAZCO"), the sole domestic producer of sodium azide in the United States, to be the domestic industry.

### III. CONDITION OF THE DOMESTIC INDUSTRY

In assessing whether there is a reasonable indication that the domestic industry is materially injured or threatened with material injury by reason of allegedly LTFV imports, we consider all relevant economic factors that bear on the state of the industry in the United States.<sup>34</sup> 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."<sup>35</sup>

There are several conditions of competition pertinent to our analysis of the domestic sodium azide industry. First, the use of sodium azide in airbags is a relatively recent market development, beginning in the mid-1970's but expanding dramatically after 1988 due to consumer demand for additional safety features in automobiles.<sup>36</sup> Sales of sodium azide for use in airbags now account for 90 to 95 percent of U.S. demand for sodium azide. Sales in this market segment are composed of sales to two domestic airbag manufacturers, TRW, Inc. ("TRW") and Morton International, Inc. ("Morton").<sup>37</sup> Thus, to a large extent, demand for sodium azide is determined by demand for airbags, which, in turn, derives, in large measure, from demand for domestically-produced automobiles.

Second, the domestic industry is a relatively recent entrant into the U.S. sodium azide market. The domestic producer began construction of its facility in April 1992 with a \$75 million capital investment. It

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<sup>31</sup> AMAZCO's Postconference Brief at 7. The respondents, on the other hand, contend that volume and packing considerations require producers to treat the airbag sodium azide as separate from the pharmaceutical application. Masuda's Postconference Brief at 7, 8, Exhibit 1; Nippon's Postconference Brief at 5. Respondents argue that customers perceive the airbag product as different from the pharmaceutical product as evidenced by the distinct customer specification requirements. Masuda's Postconference Brief at 6; Nippon's Postconference Brief at 5. We do not find these difference in volume and packaging or customer specifications to warrant finding separate like products for airbag and pharmaceutical sodium azide.

<sup>32</sup> TRW reports that \*\*\* and that \*\*\*. TRW's Questionnaire Response at 4, 11. In responding to a question asking what differentiated the sodium azide it purchases from that of its direct competitors,\*\*\*. Morton did indicate that \*\*\*. Morton's Questionnaire Response at 4, 11.

<sup>33</sup> CR at V-2, PR at V-1-V-2; Tr. at 62, 77; AMAZCO's Questionnaire Response at 10.

<sup>34</sup> 19 U.S.C. § 1677(7)(C)(iii).

<sup>35</sup> 19 U.S.C. § 1677(7)(C)(iii).

<sup>36</sup> CR at II-1, PR at II-1; Tr. at 14, 65-66.

<sup>37</sup> CR at II-1; Tr. at 24-25, 99, 105.

performed preliminary crystallization of sodium azide in mid-1992, began producing the product in January 1993, and became an established commercial supplier of sodium azide in mid-1994 after being qualified to supply the airbag manufacturers.<sup>38</sup> Because the domestic producer is a recent entrant into the market, the industry's indicators relating to domestic production operations consequently are rising.

Finally, because grinding sodium azide to obtain a finer particle size has led to fires and sodium azide is viewed as costly and toxic, consumers have demanded environmentally safer and less costly alternatives.<sup>39</sup> As a result, several alternative technologies have been, and are being, developed for use as airbag inflators to substitute for sodium azide. These alternative technologies may reduce future use of sodium azide.<sup>40</sup> Indeed, some evidence suggests that 1996 may represent the peak year for sodium azide demand as an airbag inflator.<sup>41 42</sup>

The data upon which we make this determination were provided essentially by one domestic producer, four importers of sodium azide from Japan, and two U.S. purchasers responding to our questionnaires. Accordingly, our discussion of the condition of the industry in the public version of these views is necessarily general in nature.<sup>43</sup> Also, because the domestic industry began commercial production of sodium azide in 1993, any information for 1992 does not include domestic production.

From 1992 to 1994, the quantity and value of apparent U.S. consumption of sodium azide increased 314.9 percent and 212.1 percent, respectively, but consumption was slightly lower in interim (January-September) 1995 than in interim (January-September) 1994.<sup>44</sup> Since the domestic industry began commercial production of sodium azide in 1993, its share of the total market for sodium azide by quantity and value has grown, reaching a modest level in interim 1995.<sup>45</sup>

The U.S. producer's capacity to produce rose sharply from 1993 to 1994, reflecting the start-up of AMAZCO's operations. Capacity was the same in both of the interim periods.<sup>46</sup> Both the domestic producer's production volume and capacity utilization increased but remained low throughout the period of investigation.<sup>47</sup>

The domestic industry's total U.S. shipments of sodium azide, by quantity and by value, increased from 1993 to 1994, again reflecting AMAZCO's start-up and initial entry into the market. U.S. shipments

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<sup>38</sup> CR at II-3, PR at II-2; Tr. at 21, 26.

<sup>39</sup> CR at II-5-II-6, PR at II-3-II-4; Tr. at 29-30, 35-36; TRW's Postconference Statement at 10-11; Morton's Postconference Submission at 11-12.

<sup>40</sup> CR at II-5, PR at II-3; Tr. at 29-30, 35-36; TRW's Postconference Statement at 10-11; Morton's Postconference Submission at 11-12.

<sup>41</sup> CR at II-5, PR at II-3; Tr. at 113; Morton's Postconference Submission at 10.

<sup>42</sup> Commissioner Newquist notes that, in his view, the issues raised in the foregoing paragraph are not relevant to the analysis of whether there is a reasonable indication that the domestic industry is currently experiencing material injury. He acknowledges, however, that such issues may be relevant in any final investigation, particularly with regard to threat of material injury.

<sup>43</sup> To protect confidential business information, actual numbers are presented in footnotes within brackets in the confidential version and deleted from the public version.

<sup>44</sup> Apparent U.S. consumption by quantity \*\*\*. Apparent consumption by quantity during interim 1995 was \*\*\*. The value of apparent U.S. consumption \*\*\*. Table IV-2, CR at IV-4, PR at IV-2.

<sup>45</sup> AMAZCO's market share by quantity \*\*\*. Market share by value \*\*\*. Table IV-3, CR at IV-5, PR at IV-2.

<sup>46</sup> AMAZCO's average capacity to produce sodium azide \*\*\*. Table III-1, CR at III-2.

<sup>47</sup> Production volume \*\*\*. Capacity utilization \*\*\*. Table III-1, CR at III-2.

were higher in interim 1995 than in interim 1994.<sup>48</sup> Both in absolute terms and as a percentage of shipments, the year-end inventories held by the domestic producer declined from 1993 to 1994, but were higher in interim 1995 than in interim 1994.<sup>49</sup>

From the time AMAZCO began commercial production of sodium azide, the number of production and related workers, hours worked, wages paid, hourly wages paid, and productivity for the domestic industry rose continuously throughout the period of investigation.<sup>50</sup>

U.S. producer's net sales by value and quantity increased from 1993 to 1994, and were slightly higher for interim 1995 than interim 1994.<sup>51</sup> Notwithstanding these increases, the domestic producer experienced poor financial performance with regard to both gross profits<sup>52</sup> and operating income.<sup>53</sup> Production costs and selling costs both increased from 1993 to 1994. Production costs were slightly lower in interim 1995 than in interim 1994, while selling costs were higher in interim 1995 than in interim 1994.<sup>54</sup>

Finally, since the domestic producer began production in 1993, the value of its total assets has remained constant.<sup>55</sup> The bulk of the domestic producer's capital expenditures occurred in 1993, and since then have decreased.<sup>56 57</sup>

#### **IV. REASONABLE INDICATION OF MATERIAL INJURY BY REASON OF ALLEGEDLY LTFV IMPORTS**

In preliminary antidumping investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured by reason of the imports under investigation.<sup>58</sup> In making this determination, the Commission must consider the volume of imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like

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<sup>48</sup> AMAZCO's total U.S. shipments by quantity \*\*\*. The value of AMAZCO's total U.S. shipments \*\*\*. The value of shipments amounted to \*\*\*. Table III-2, CR at III-3.

<sup>49</sup> Inventories \*\*\*. Domestic inventories as a percentage of total U.S. shipments \*\*\*. Table III-3, CR at III-4.

<sup>50</sup> The number of production workers \*\*\*. Hours worked \*\*\*. Wages paid \*\*\*. Hourly wages paid \*\*\*. Productivity, as measured in pounds per hour, \*\*\*. Table III-4, CR at III-5.

<sup>51</sup> Net sales by value \*\*\*. Net sales by quantity \*\*\*. Table VI-1, CR at VI-2.

<sup>52</sup> As to gross profits, AMAZCO reported \*\*\*. As a percentage of net sales, gross profits \*\*\*. Table VI-1, CR at VI-2.

<sup>53</sup> As to operating income, AMAZCO reported \*\*\*. As a percentage of net sales, operating income \*\*\*. Table VI-1, CR at VI-2.

<sup>54</sup> AMAZCO's costs of goods sold (COGS) \*\*\*. As a share of net sales, COGS \*\*\*. Selling, general, and administrative (SG&A) expenses \*\*\*. The domestic industry's SG&A as a share of net sales \*\*\*. Table VI-1, CR at VI-2.

<sup>55</sup> The original cost of AMAZCO's fixed assets used to produce sodium azide was \*\*\*. Table VI-3, CR at VI-4. By book value, AMAZCO's fixed assets \*\*\*.

<sup>56</sup> AMAZCO's capital expenditures \*\*\*. Table VI-4, CR at VI-4.

<sup>57</sup> Based on examination of the relevant statutory factors, Commissioner Rohr and Commissioner Newquist find that there is a reasonable indication that the domestic sodium azide industry is presently experiencing material injury.

<sup>58</sup> 19 U.S.C. § 1673b(a). The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant." 19 U.S.C. § 1677(7)(A).



product, but only in the context of U.S. production operations.<sup>59</sup> Although the Commission may consider causes of injury to the industry other than the allegedly LTFV and subsidized imports,<sup>60</sup> it is not to weigh causes.<sup>61 62 63 64</sup>

For the reasons discussed below, we find that there is a reasonable indication that the domestic industry producing sodium azide is materially injured by reason of allegedly LTFV imports from Japan. Because the following discussion involves only one domestic producer and two major U.S. purchasers, much of the data is confidential and, thus, our discussion in the public opinion is necessarily general.

#### A. Volume of the Subject Imports

The quantity and value of subject imports increased each year from 1992 to 1994. The quantity and value of subject imports were lower in interim 1995 than in interim 1994 but remained at significant levels.<sup>65</sup>

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<sup>59</sup> 19 U.S.C. § 1677(7)(B)(I). The Commission "may consider such other economic factors as are relevant to the determination," but shall "identify each [such] factor . . . and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

<sup>60</sup> 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. 46-47 (1979).

<sup>61</sup> See, e.g., Citrosuco Paulista, S.A. v. United States, 704 F. Supp. 1075, 1101 (Ct. Int'l Trade 1988).

<sup>62</sup> For Chairman Watson's 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).

<sup>63</sup> Commissioner Rohr and Commissioner Newquist further note that the Commission need not determine that imports are "the principal, a substantial, or a significant cause of material injury." S. Rep. No. 249, at 57, 74. Rather, a finding that imports are a cause of material injury is sufficient. See e.g., Metallwerken Nederland B.V. v. United States, 728 F. Supp. 730, 741 (Ct. Int'l Trade 1989); Citrosuco Paulista, 704 F. Supp. at 1101.

<sup>64</sup> Commissioner Crawford notes that the statute requires that the Commission determine whether a domestic industry is "materially injured by reason of" the allegedly LTFV imports. She finds that the clear meaning of the statute is to require a determination of whether the domestic industry is materially injured by reason of allegedly LTFV imports, not by reason of the allegedly LTFV imports among other things. Many, if not most, domestic industries are subject to injury from more than one economic factor. Of these factors, there may be more than one that independently are causing material injury to the domestic industry. It is assumed in the legislative history that the "ITC will consider information which indicates that harm is caused by factors other than less-than-fair-value imports." S. Rep. No. 249, 96th Cong., 1st Sess. 75 (1979). However, the legislative history makes it clear that the Commission is not to weigh or prioritize the factors that are independently causing material injury. Id. at 74; H.R. Rep. No. 317, 96th Cong., 1st Sess. 46-47 (1979). The Commission is not to determine if the allegedly LTFV imports are "the principal, a substantial or a significant cause of material injury." S. Rep. No. 96-249 at 74 (1979). Rather, it is to determine whether any injury "by reason of" the allegedly LTFV imports is material. That is, the Commission must determine if the subject imports are causing material injury to the domestic industry. "When determining the effect of imports on the domestic industry, the Commission must consider all relevant factors that can demonstrate if unfairly traded imports are materially injuring the domestic industry." S. Rep. No. 71, 100th Cong., 1st Sess. 116 (1987) (emphasis added).

<sup>65</sup> The quantity of subject imports increased from \*\*\*. Table IV-1, CR at IV-2, PR at IV-2.  
The value of subject imports increased from \*\*\*. Table IV-1, CR at IV-2, PR at IV-2.

The share of total U.S. consumption of sodium azide held by subject imports also increased over the period. Although import penetration was lower in interim 1995 than in interim 1994, it remained at a significant level.<sup>66</sup> It bears noting that the volume of subject imports increased more rapidly than apparent consumption.<sup>67</sup> Although the domestic industry's shipments and market share also increased after the industry began production in 1993, the share held by the domestic product was relatively small even at its peak.<sup>68</sup> Given the increases in, and the large share of the market consistently held by, the subject imports, we find that the volume of subject imports is significant both in absolute terms and relative to production and consumption in the United States.

## **B. Price Effects of the Subject Imports**

Prices for sodium azide sold in the United States are set through a bidding process for sales to TRW and Morton, which manufacture airbags and account for 90-95 percent of all sodium azide purchases in the United States.<sup>69</sup> Before a supplier may bid, TRW and Morton must qualify a supplier's sodium azide to ensure that the supplier's product satisfies their requirements and specifications.

We note that there are factors other than price that play a part in decisions to purchase sodium azide for use in airbags, such as concerns about quality, demands by automobile manufacturers, environmental concerns of customers, and the availability of alternative technologies.<sup>70</sup> However, once an airbag manufacturer has qualified a supplier's sodium azide, that supplier's sodium azide is generally substitutable with any other qualified supplier's product.<sup>71</sup> Therefore, competition between subject imports and the domestic product, where both products are qualified, is driven largely by price.<sup>72</sup>

TRW and Morton send requests for quotations (RFQs) to qualified suppliers, resulting in written bids, followed by several rounds of oral negotiations, and ultimately leading to the parties entering into long-term contracts.<sup>73</sup> However, the long-term contracts allow the purchasers to renegotiate prices with suppliers to take advantage of subsequent lower bids.<sup>74</sup> Thus, to the extent that there is underbidding on a particular contract by the subject imports, it can have significant adverse effects on the prices obtained by the domestic producer, even if the domestic producer secures the contract. These marketing practices affect prices in the

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<sup>66</sup> The share of total U.S. consumption of sodium azide held by subject imports \*\*\*. Table IV-3, CR at IV-5, PR at IV-2.

<sup>67</sup> Compare Table IV-1, CR at IV-2, PR at IV-2 (subject imports) with Table IV-3, CR at IV-5, PR at IV-2 (apparent consumption).

<sup>68</sup> The domestic industry's market share was zero in 1992, was \*\*\*. Table IV-3, CR at IV-5, PR at IV-2.

<sup>69</sup> CR at II-1; Tr. at 24-25, 99, 105.

<sup>70</sup> CR at II-1-II-7, V-1, PR at II-1-II-4, V-1.

<sup>71</sup> CR at II-5-II-7, PR at II-4. AMAZCO does not compete for a "projected" large volume (\*\*\*) pounds of sodium azide sales dedicated to the passenger side airbags produced by TRW because TRW requires additional grinding of the sodium azide for this application and AMAZCO does not have the grinder equipment necessary to make it. CR at II-6, PR at II-4; Tr. at 44-45, 85-86.

<sup>72</sup> Commissioner Crawford concurs that subject imports and the domestic product are fairly good substitutes when both are qualified for sale to the same purchasers. However, as noted above, n.71, petitioner does not compete for \*\*\* pounds of TRW's sodium azide requirements for passenger side airbags. As a result, the domestic product and subject imports are not substitutable for these requirements, which account for a substantial portion of demand in the U.S. market. Consequently, the overall substitutability between the domestic product and subject imports is reduced substantially. Commissioner Crawford intends to explore this issue more fully in the event of a final investigation.

<sup>73</sup> CR at II-1, PR at II-1. Recently, the contracts have been shorter in duration. Tr. at 57, 70, 79, 83-84.

<sup>74</sup> CR at V-9-V-10, PR at V-4.

U.S. market because the two dominant purchasers obtain price concessions based on lower competing bids, even when a contract or sale is not lost to the subject imports. Moreover, the Japanese suppliers have been more willing than AMAZCO to lower their prices to meet competing bids, which has resulted in the domestic producer either reducing its prices of sodium azide or foregoing sales at prices that it cannot meet.<sup>75</sup>

Throughout the period of investigation, prices of both sodium azide from Japan<sup>76</sup> and the domestic product<sup>77</sup> declined significantly. While AMAZCO was pursuing qualification, the prices of sodium azide from Japan were dropping, and after qualification, AMAZCO was immediately asked to reduce its prices in order to meet competition from the subject imports.<sup>78</sup> When AMAZCO decided to enter the market in 1992, the prices that it projected could be obtained for its sodium azide were approximately \$7.00 to \$8.00 per pound, but prices dropped thereafter, and in 1994, were \$5.00 to \$7.00 per pound.<sup>79</sup> Prices continued to decline in 1995 and, by September 1995, were \$4.50 to \$6.00 per pound, which represents roughly a 30 to 35 percent decline from the beginning of the period of investigation.<sup>80</sup> Declines in domestic prices reflect the domestic producer's efforts to meet competition from LTFV imports in a market where Japanese suppliers, as well as AMAZCO, had an abundance of capacity, but only two principal customers were responsible for more than 90 percent of purchases.<sup>81 82</sup>

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<sup>75</sup> CR at V-9-V-10, PR at V-4; Tr. at 108; AMAZCO's Postconference Brief at 21-24.

<sup>76</sup> CR at V-2-V-3, PR at V-1-V-2; Tr. at 28 & Conference Exhibit 1 ("Japanese Pricing in the United States"). Prices for the subject imported product sold to Morton fell nearly 30 percent from the first quarter of 1992 to the third quarter of 1995, and prices for the subject imported product sold to TRW declined 38 percent. CR at V-2, V-3, PR at V-2, V-2.

<sup>77</sup> As a result of price declines of the subject imports, the prices for the domestic product sold to Morton \*\*\* from the time the domestic producer began to supply the product in 1994 until the third quarter of 1995, and the prices for the domestic product sold to TRW \*\*\* from 1993 until the second quarter of 1995. CR at V-3, PR at V-2.

<sup>78</sup> Tr. at 28. By contrast, the data showing the price of sodium azide sold for non-airbag, pharmaceutical use fluctuated differently and followed a slightly different trend than sodium azide sold for airbag use. Compare Table V-3, CR at V-6, PR at V-2 with Tables V-1 & 2, CR at V-4-V-5, PR at V-2. Because no subject imports are sold for pharmaceutical end uses in the United States (Tr. at 100), these differences in price fluctuations and trends provide further evidence that sodium azide prices in the U.S. market are affected by the presence of subject imports.

<sup>79</sup> Tr. at 15, 27; American Pacific Corporation 1994 Annual Report at 32; Form 10-K with the Securities and Exchange Commission of American Pacific Corporation 26 & attached Independent Auditor's Report at 66 (December 16, 1994).

<sup>80</sup> CR at V-2-V-6, PR at V-1-V-3; Tr. at 27, 108; American Pacific Corporation 1995 Annual Report at 17. Indeed, one Japanese producer of sodium azide reported that the price TRW stated it would pay for sodium azide in 1996 was "over 30 percent lower" than the price in 1995. Tr. at 58.

<sup>81</sup> CR at II-1-II-7, V-2-V-6, V-9-V-10, PR at II-1-II-4, V-1-V-3, V-4.

<sup>82</sup> Commissioner Crawford finds that subject imports are likely having significant effects on domestic prices for sodium azide. To evaluate the effects of the dumping on domestic prices, Commissioner Crawford compares domestic prices that existed when the imports were dumped with what domestic prices would have been if the imports had been fairly traded. In most cases, if the subject imports had not been traded unfairly, their prices in the U.S. market would have increased. In this investigation, the alleged dumping margins range from 58.5 percent to 65.8 percent. Thus, prices for the subject imports likely would have risen by a significant amount if they had been priced fairly, and they would have become more expensive relative to the domestic product and nonsubject imports. In such a case, demand would have shifted away from subject imports and towards the relatively less-expensive products. In this investigation, nonsubject imports are a major presence in the domestic market, and thus some of the demand for subject imports would have shifted to nonsubject imports had subject imports been priced fairly. The record indicates that producers of nonsubject imports had available capacity to supply a significant amount, \*\*\*, of the demand for subject imports. However, the demand for subject imports substantially exceeds the available capacity of nonsubject imports, and thus a significant portion of the demand for subject imports would have shifted to the domestic product. As demand

Finally, although there are a limited number of price comparisons,<sup>83</sup> we find that there was a fairly constant and significant pattern of underselling by the subject imports.<sup>84</sup>

Based on the foregoing, we find that subject imports have depressed domestic prices to a significant degree.<sup>85</sup>

### C. Impact of the Subject Imports on the Domestic Industry

Although many of the indicators of the domestic industry's condition improved over the period of investigation, this improvement reflects the fact that the domestic industry only commenced commercial production in 1993.<sup>86</sup> Despite these gains, the industry's production, capacity utilization rates, and sales revenues remain low and its financial performance is poor.<sup>87 88</sup>

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for the domestic product would have increased, the domestic industry would have been able to increase its prices, unless price discipline exists in the market. In this investigation, the domestic industry is operating at a rather low level of capacity utilization, and thus has available capacity with which to supply the demand satisfied by subject imports. In addition, producers of nonsubject imports have available capacity. These market conditions normally would impose price discipline on domestic prices. In this market, however, the combined available capacity of the domestic industry and nonsubject imports is not large enough to satisfy the entire demand for subject imports. Consequently, the shift in demand would have exceeded available supply, and thus prices likely would have increased, perhaps significantly. Consequently, Commissioner Crawford finds that subject imports likely are having significant effects on domestic prices for sodium azide.

<sup>83</sup> \*\*\*. CR at V-2, PR at V-1; see also CR at II-6, PR at II-4; Tr. at 44-45, 85-86.

<sup>84</sup> Tr. at 32. During the seven quarters for which price comparisons could be made for the product sold to Morton, \*\*\*. CR at V-3, PR at V-2. \*\*\* Id. During the seven quarters for which price comparisons could be made for the product sold to TRW, \*\*\*. Id. \*\*\* Id.

<sup>85</sup> As part of its consideration of the impact of imports, the statute as amended by the URAA specifies that the Commission is to consider "the magnitude of the margin of dumping." 19 U.S.C. § 1677(7)(C)(iii)(V). The SAA indicates that the amendment "does not alter the requirement in current law that none of the factors which the Commission considers is necessarily dispositive in the Commission's material injury analysis." SAA at 850. New section 771(35)(C), 19 U.S.C. § 1677(35)(C) defines the "margin of dumping" to be used by the Commission in a preliminary determination as the margin or margins published by Commerce in its notice of initiation. The dumping margin identified by the Commerce Department in its notice initiating this investigation ranges from 58.50 percent to 65.80 percent. 61 Fed. Reg. 4959 (Feb. 9, 1996).

<sup>86</sup> CR at VI-1, PR at VI-1.

<sup>87</sup> Because of the economics of sodium azide production, including the substantial invested capital with high fixed costs, AMAZCO's financial results are very sensitive to operating or capacity utilization rates. Tr. at 28.

<sup>88</sup> Commissioner Crawford's analysis does not rely on the trends in the statutory impact factors, and thus she does not join in that analysis. However, Commissioner Crawford concurs that subject imports are having a significant impact on the domestic industry. In her analysis of material injury by reason of dumped imports, Commissioner Crawford evaluates the impact on the domestic industry by comparing the state of the industry when the imports were dumped with what the state of the industry would have been had the imports been fairly traded. In assessing the impact of the subject imports on the domestic industry, she considers, among other relevant factors, output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, research and development and other relevant factors as required by 19 U.S.C. § 1677(C)(iii). These factors together either encompass or reflect the volume and price effects of the dumped imports, and so she gauges the impact of the dumping through those effects. In this regard, the impact on the domestic industry's prices, sales and overall revenues is critical, because the impact on the other industry indicators (e.g., employment, wages, etc.) is derived from this impact. As noted earlier, had subject imports been priced fairly, a significant portion of the demand for subject imports would have shifted to the domestic product. The increase in demand for the domestic product would have increased the domestic industry's output and sales significantly. In addition, the market conditions noted previously

The significant volume and market share of the subject imports, coupled with their significant price depressing effects, have prevented the domestic industry from increasing its sales and capacity utilization to levels that would provide a sufficient return on investment or allow the industry to fully absorb costs.<sup>89 90</sup> We find that the industry's poor financial performance is a result of the adverse impact on the domestic industry of the large volumes of lower-priced subject imports.<sup>91</sup>

## CONCLUSION

For the foregoing reasons, we determine that there is a reasonable indication that the domestic industry producing sodium azide is materially injured by reason of allegedly LTFV imports from Japan.

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would have permitted the domestic industry to increase its prices had the subject imports been fairly traded. The combination of price increases and sales increases would have resulted in a significant increase in domestic revenues, had the subject imports been fairly traded. Consequently, the domestic industry would have been materially better off if the subject imports had been priced fairly. Therefore, Commissioner Crawford determines that there is a reasonable indication that the domestic industry is materially injured by reason of the subject imports.

<sup>89</sup> Tables III-1, VI-1, VI-2, Figure III-1, CR at III-2, VI-2, VI-3, PR at III-1, VI-1; accord Form 10-K filed with the Securities and Exchange Commission of American Pacific Corporation, attached Independent Auditor's Report at 66; American Pacific Corporation 1995 Annual Report at 15, 37; American Pacific Corporation 1994 Annual Report at 32; Tr. at 15-16, 28-29.

Although AMAZCO made no specific lost sales allegations, it stated that its lost sales equaled the difference between its planned sales for this period and its actual sales. CR at V-9-V-10, PR at V-4.

<sup>90</sup> Vice Chairman Nuzum notes that the alleged dumping margins range between 58.50 and 65.80 percent, far exceeding the magnitude by which Japanese sodium azide appears to undersell U.S. sodium azide. This suggests that Japanese sodium azide would not be underselling the U.S. product if it were priced at fair value, based on the alleged dumping margins. In light of the important role that price plays in determining sales among qualified suppliers of sodium azide, she finds that dumping of the magnitude alleged here contributed to the ability of the Japanese product to take revenues and sales opportunities away from its U.S. competitor through lower prices.

<sup>91</sup> Tables VI-1 & VI-2, CR at VI-2, VI-3, PR at VI-1; accord American Pacific Corporation 1994 Annual Report at 32-33; American Pacific Corporation 1995 Annual Report at 38; Tr. at 123-24.



## PART I: INTRODUCTION

### BACKGROUND

This investigation results from a petition filed by AMAZCO, Las Vegas, NV, on January 16, 1996, alleging that an industry in the United States is materially injured or threatened with material injury by reason of allegedly LTFV imports of sodium azide<sup>1</sup> from Japan. Information relating to the background of the investigation is provided below.<sup>2</sup>

| <i>Date</i>             | <i>Action</i>  |
|-------------------------|--|
| January 16, 1996 .....  | Petition filed with Commerce and the Commission; <sup>3</sup> institution of Commission investigation (61 F.R. 1784, January 23, 1996) |
| February 6, 1996 .....  | Commission's conference <sup>4</sup>   |
| February 9, 1996 .....  | Commerce's notice of initiation (61 F.R. 4959)   |
| February 29, 1996 ..... | Date of the Commission's vote  |
| March 1, 1996 .....     | Commission's determination to Commerce   |

### SUMMARY DATA

A summary of data collected in the investigation is presented in table C-1 of appendix C. U.S. industry data are based on the questionnaire response of one firm that accounted for 100 percent of U.S. production of sodium azide during the period examined. U.S. import data are based primarily on questionnaire responses from 4 importers and 3 foreign producers.

### THE PRODUCT

The imported product subject to this investigation is sodium azide, whether used for airbag inflation systems or in other applications. This section presents information on both imported and domestically produced sodium azide, as well as information related to the Commission's "domestic like product" determination.<sup>5</sup> Petitioner states that there is no difference between sodium azide used for airbag inflation systems and that used for other applications other than the addition of a small amount of silicon dioxide (SiO<sub>2</sub>) at the end of the production process that is used to facilitate the flow of sodium azide, for airbag manufacturers, in large-quantity packages.<sup>6</sup>

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<sup>1</sup> For purposes of this investigation, sodium azide (NaN<sub>3</sub>) is a chemical compound which is the principal component of the gas generator used in automotive airbag inflating systems. Sodium azide is provided for in subheading 2850.00.50 of the HTS, with a 1996 most-favored-nation tariff rate of 3.7 percent ad valorem, applicable to imports from Japan.

<sup>2</sup> *Federal Register* notices cited in the tabulation are presented in app. A.

<sup>3</sup> The petition alleged the LTFV margin on the subject imports to range between 58.5 and 65.80 percent.

<sup>4</sup> A list of witnesses appearing at the conference is presented in app. B.

<sup>5</sup> 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.

<sup>6</sup> Transcript, p. 24 and ICI's postconference brief, p. 4. It should be noted that Japanese producers stated at the Commission's conference and in postconference briefs that sodium azide used in airbags contains impurities, such as heavy metals, that are unacceptable in pharmaceutical use (Masuda's postconference brief, p. 4 and Nippon's

## Physical Characteristics and Uses

Sodium azide ( $\text{NaN}_3$ ) is an inorganic compound composed of one atom of sodium and three atoms of nitrogen. The compound exists at room temperature in the form of colorless hexagonal crystals which are combustible. The crystals have a specific gravity of 1.846 ( $20^\circ\text{C}$ ), decompose at  $300^\circ\text{C}$ , and are soluble in water and liquid ammonia and slightly soluble in alcohol. Sodium azide hydrolyzes to form hydrazoic acid. Sodium azide is toxic, with a maximum tolerance level of 0.1 parts per million in air, and requires a poison label during shipment. It is used in airbag inflation devices,<sup>7</sup> as a preservative in diagnostic medicinals, and as an intermediate in explosives manufacturing.

Sodium azide's chemical formulation of  $\text{NaN}_3$  does not vary with end use.<sup>8</sup> The addition of silicon dioxide does not affect the basic chemical composition or performance qualities of the product.<sup>9</sup> Particle differences are achieved through additional grinding and do not change the basic chemical characteristics of the product.<sup>10</sup> These \*\*\*<sup>11</sup> \*\*\*<sup>12</sup>

## Use of Common Manufacturing Facilities and Production Employees

Sodium azide is commercially produced by two different manufacturing methods, using either sodium metal or hydrazine as the raw material. AMAZCO begins the process with sodium metal that is reacted with ammonia to form the intermediate chemical sodium amide ( $\text{NaNH}_2$ ).<sup>13</sup> Sodium amide is then reacted with nitrous oxide ( $\text{N}_2\text{O}$ ) to form sodium azide and sodium hydroxide. The mixture is dissolved in water, and "pure" sodium azide is crystallized, dewatered by centrifuging, dried, blended, screened, and packaged. Figure I-1 displays the process flow diagram for AMAZCO.

**FIGURE I-1**  
**SODIUM AZIDE: PROCESS FLOW DIAGRAM FOR AMAZCO**

\* \* \* \* \*

Japanese producers of sodium azide use a different method of manufacturing based upon the raw material hydrazine hydrate ( $\text{N}_2\text{H}_4 \cdot \text{H}_2\text{O}$ ).<sup>14</sup> The process begins with the reaction of methanol and sodium nitrate ( $\text{NaNO}_3$ ), which is subsequently reacted with sodium hydrazide and hydrazine hydrate to form sodium azide and water. The sodium azide is crystallized, dewatered by centrifuging, dried, blended, screened, and packaged.

The U.S. manufacturer of sodium azide utilizes equipment dedicated solely to the production of sodium azide. The U.S. manufacturer uses the same manufacturing facilities and production employees to

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postconference brief, p. 4). Both AMAZCO (postconference brief, p. 5) and ICI (postconference brief, p. 4) state that there is no difference.

<sup>7</sup> Transcript, p. 23.

<sup>8</sup> ICI's postconference brief, p. 5.

<sup>9</sup> AMAZCO's postconference brief, p. 11.

<sup>10</sup> See, e.g., ICI's postconference brief, p. 5.

<sup>11</sup> Report, p. II-1.

<sup>12</sup> AMAZCO's postconference brief, exhibit B; Masuda's postconference brief, exhibits 10-14.

<sup>13</sup> Transcript, pp. 22-24; AMAZCO's postconference brief, pp. 4-6; and ICI's postconference brief, pp. 2-4.

<sup>14</sup> Transcript, pp. 22-24 and p. 90; ICI's postconference brief, pp. 3-4; and Masuda's postconference brief, pp. 4-5.



make sodium azide for air bag applications as for sodium azide used in other applications.<sup>15</sup> The domestic producer uses virtually the same production process to manufacture all sodium azide, irrespective of end use.<sup>16</sup> The addition of silicon dioxide requires no additional workers and amounts to less than one percent of production costs.<sup>17</sup> In Japan, sodium azide was originally produced for use as an input for production of tetrazole compounds<sup>18 19</sup> in a multi-purpose facility.<sup>20</sup> Sodium azide is now produced in Japan in quantities capable of supplying both the production of airbags and the production of tetrazole compounds.<sup>21</sup>

### Interchangeability and Perceptions of the Product

There are no significant differences, physical or chemical, between the sodium azide produced in the United States and the imported Japanese product. They are interchangeable products manufactured to meet a purchaser's specific set of standards. Once qualified by the purchaser, U.S. and Japanese products compete primarily on the basis of price and availability.

### Channels of Distribution

Both domestic and imported sodium azide are generally sold on a contract basis to fabricators of airbag inflation systems<sup>22</sup> and pharmaceutical companies. The contracts are awarded on the basis of the sodium azide producer being certified by the purchaser and meeting a target price. Irrespective of end use, domestically produced sodium azide is sold predominantly through the same channels of trade. The record shows that most sodium azide produced by the petitioner is sold directly to customers on the basis of individual sales negotiations, with the exception of a small amount \*\*\* of overall pharmaceutical sales which go through distributors.<sup>23</sup>

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<sup>15</sup> AMAZCO's postconference brief, p. 5.

<sup>16</sup> AMAZCO's postconference brief, p. 6.

<sup>17</sup> Ibid.

<sup>18</sup> Tetrazole is an organic chemical which takes the form of a five-membered ring consisting of four atoms of nitrogen and one atom of carbon. There is one hydrogen atom attached to the nitrogen atom in the first position clockwise around the ring from the carbon atom. The tetrazole molecule has several reactive sites and a number of downstream products can be formed by adjustments in the type and quantity of the chemical reactants present and the conditions (temperature, pressure, catalysts, etc.) existing at the time of the reaction. Tetrazole is an intermediate that occurs in one of the steps in a reaction sequence. It is not an article of commerce and no domestic production has been reported to the Commission in conjunction with the information gathered for the Commission's report *Synthetic Organic Chemicals: U.S. Production and Sales*, during at least the past 10 years. Tetrazole compounds are the class of compounds that are made by processes that include the formation of tetrazole. In the reaction that forms sodium azide, the ring is opened and the carbon atom and the nitrogen atom that has the hydrogen attached are broken off. The remaining segment, consisting of three nitrogen atoms in a line, then has a sodium atom attached at one end.

<sup>19</sup> Transcript, pp. 65-66.

<sup>20</sup> Nippon's postconference brief, p. 5 and Masuda's postconference brief, pp. 6-7.

<sup>21</sup> Counsel for Toyo and Summit stated that tetrazole is the money maker and is where Toyo is concentrating its efforts. Transcript, pp. 91-92.

<sup>22</sup> This represents about 95 percent of the market for sodium azide. Transcript, p. 24.

<sup>23</sup> AMAZCO's postconference brief, p. 7. ICI's selling experience is somewhat similar to the petitioner's. "ICI generally sells to both types of customers \*\*\*. ICI's postconference brief, p. 7.

## Price

The price for sodium azide sold to airbag inflation system manufacturers is generally a result of the airbag inflation system manufacturers setting a target price that must be met in order to get a contract.<sup>24</sup> The price to airbag manufacturers is generally lower than that to pharmaceutical end users. More details are provided in *Part V: Pricing and related information*.

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<sup>24</sup> Transcript, p. 113 and pp. 119-120.

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

Since the mid 1970's, sodium azide has been used in the production of airbag inflators. Prior to 1990 ICI was the sole supplier to the American market. With consumer demand for additional safety in automobiles, demand for airbags has risen dramatically and additional suppliers of sodium azide have come on-stream. Current annual worldwide consumption of sodium azide is estimated at 12 to 14 million pounds, with U.S. consumption at 11 to 11.5 million pounds.<sup>1</sup>

Within the United States, two air bag manufacturers (Morton and TRW) consume 90 to 95 percent of the marketed sodium azide.<sup>2</sup> The differences between the product sold to the airbag system manufacturers and the sodium azide used in other applications is the addition of silicon oxide to facilitate the packaging of large amounts for shipping.<sup>3</sup> Within the air bag industry, sodium azide specifications vary by particle size and moisture content. All specifications for the air bag manufacturing industry are marketed in a similar fashion. The air bag manufacturer first qualifies a supplier and sends out requests for quotations to those qualified.<sup>4</sup> After qualification, the air bag manufacturer sends out requests for quotations (RFQs) to those qualified. The sodium azide manufacturers typically submit a written bid that is followed by several rounds of oral negotiations. Following this process in 1992, \*\*\* entered a four-year requirements contract with TRW, which guaranteed it \*\*\* percent of the requirements of TRW's site 2. \*\*\* entered into a contract with TRW in 1992 for model years 1993 to 1996. The contract was to supply \*\*\* percent of TRW's requirements. \*\*\* had entered into a two-year contract with Morton to supply a minimum of \*\*\* percent of its total requirements for model years 1991 and 1992. These early contracts called for unit price to diminish in the out years of the contract as volumes increased. All of these contracts contained a clause that required the supplier's price to be competitive with other prices.

Since this early period, Japanese producers have expanded their capacity, and the AMAZCO plant has come on line. With the competitiveness clause, suppliers may be asked to change prices during the period of the negotiated contract. This process has resulted in sodium azide prices that change once or twice per year, and the trend has consistently been towards lower prices during the period of the investigation.

Chemical and pharmaceutical companies represent the remainder of the U.S. market for sodium azide. These marketing channels are more informal, lack the extensive qualification process, and sales are for much smaller volumes.

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<sup>1</sup> Transcript, p. 25.

<sup>2</sup> *Ibid.*

<sup>3</sup> AMAZCO sometimes ships silicon oxide-coated sodium azide to other than airbag end users. Transcript, p. 126.

<sup>4</sup> Both petitioner and respondent reported that qualification is a lengthy process. AMAZCO submitted sodium azide to Morton in February 1993 and received notice of qualification in March 1994, a period of 13 months. For TRW, AMAZCO submitted product in November 1993 and qualified for use in driver's side inflators in March 1994 and for the passenger side in August 1995, periods of 4 and 21 months respectively. Summit reported taking nine months to qualify as a supplier for TRW. Mitsui reported its initial qualification process as lasting approximately one and a half years for both Morton and TRW. Mitsui reported that each new production specification, even minor changes in existing specifications, must be qualified and that these qualifications are completed in approximately three to four months. Qualification consists of physical and chemical tests, ballistics tests, and review of test results by automobile manufacturers. After qualification, the purchaser may conduct periodic audits to assess continuing performance.

Morton reported that up to 16 months may be required to qualify a new source. TRW reported that product quality, capacity, price, and on-time delivery are factors in qualifying a supplier. Morton reported that \*\*\* could not qualify for its passenger-side air bag. TRW reported failing to qualify \*\*\* for its passenger side facility based on particle size. This rigorous quality control is dictated by automobile manufacturers, which use similar purchase systems with other parts manufacturers.

## SUPPLY AND DEMAND CONSIDERATIONS

### U.S. Supply

The responsiveness of supply of sodium azide to price changes is influenced by such factors as production capacity, availability of alternative markets, and existence of inventories. Questionnaire data show that supply may be somewhat responsive to price. These factors are discussed in more detail in parts III and VII of this report and are summarized below.

#### Domestic Production

AMAZCO, the U.S. producer, manufactures sodium azide from sodium metal in a plant in southern Utah. The U.S. producer began commercial shipments of sodium azide to the air bag industry in late 1993 or early 1994. Although the U.S. production process differs from the Japanese production process that uses hydrazine, both produce a similar end product. AMAZCO has operated at capacity levels ranging from \*\*\* to \*\*\* percent since it began commercial operations.<sup>5</sup> The \*\*\* levels of unused capacity suggest that the U.S. industry \*\*\*. AMAZCO designed its plant and equipment exclusively to produce sodium azide. Production and related employees work only in manufacturing sodium azide, although some maintenance personnel are shared with a subsidiary facility that produces ammonium perchlorate. AMAZCO cannot readily shift sodium azide production to other products. End-of-period inventories of sodium azide have been large compared to U.S. shipments. They ranged from \*\*\* in 1992 to \*\*\* percent in January-September 1995. AMAZCO's contract with \*\*\* requires it to maintain a\*\*\*-week supply. AMAZCO reported \*\*\* exports during the period of investigation.

#### Subject (Japanese) Imports

As discussed in part VII, the Japanese industry as a whole markedly increased its capacity to produce sodium azide during the period of investigation. The two largest Japanese producers, Masuda and Toyo, reported that their capacity expansion was at the request of the U.S. air bag manufacturers as expressed in long-term contracts signed before 1993.<sup>6</sup> During this time, their capacity utilization ranged from a low of \*\*\* percent in 1993 to a high of \*\*\* percent in 1992. Each year more than 90 percent of Japan's total shipments were to the U.S. market.

#### Non-subject Imports

Non-subject imports of sodium azide grew in quantity and value during the period of investigation, but their market share decreased. Non-subject capacity is estimated at \*\*\* pounds per year, and average capacity utilization has been slightly less than \*\*\* percent.<sup>7</sup>

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<sup>5</sup> Petition, p. 29.

<sup>6</sup> As mentioned, Summit/Toyo entered a four-year requirements contract with TRW in 1992 (transcript, pp. 55-56). Mitsui/Masuda entered a contract with TRW in 1992 for model years 1993 to 1996 to supply \*\*\* percent of TRW's requirements (transcript, p. 66). In order to supply the contracted quantities, the Japanese manufacturers had to expand capacity.

<sup>7</sup> Estimated using data from table C-1 of this report and ICI's postconference brief, app. H.

## U.S. Demand

The demand for sodium azide is derived from the demand for air bags. Air bag demand increased throughout the period of investigation, and sodium azide consumption by the two leading air bag producers increased at an annual rate of 93 percent between 1992 and 1994.<sup>8</sup> Air bag manufacturers reported that demand for air bags was affected by vehicle manufacturers' requirements and increased use of alternatives to sodium azide. Demand for non-air bag uses of sodium azide was steady throughout the period of investigation.

\*\*\* reported that sodium azide generally accounts for less than \*\*\* percent of the total costs of an air bag. \*\*\* reported that sodium azide represents \*\*\* percent of the cost of a passenger-side bag and \*\*\* percent of the cost of a driver's side bag.<sup>9</sup>

## Substitute products

The only clear substitute for sodium azide used in airbag inflation systems currently produced is the "high pressure gas cylinder," which usually contains a bottled mixture of helium and argon.<sup>10 11</sup> However, a variety of substitute technologies are under development. Gas cylinder inflators currently have about 10 percent of the airbag market,<sup>12</sup> accounting for approximately \*\*\* percent of Morton's sales and about \*\*\* percent of TRW's passenger bag inflators.<sup>13</sup> Sodium azide and argon differ dramatically in terms of chemical properties, but parties were unable to provide details regarding the channels of distribution or production processes used to manufacture the gas cylinders.<sup>14</sup>

TRW anticipates that by model year 2000, almost \*\*\* percent of its passenger-side airbag inflators will be non-sodium azide based and its driver-side airbag inflators will be about \*\*\* percent.<sup>15</sup> Morton expects by the year 2000 that approximately 50 percent of the U.S. airbag market will be using alternative technologies.<sup>16</sup> ICI felt that the peak demand year for sodium azide is expected to be 1996.<sup>17</sup>

Air bag manufacturers reported that the shift to non-azide inflators is due not to price but to environmental reasons since sodium azide is toxic and has led to several fires. They also reported that some non-azide inflators are less expensive to produce. Thus, demand for sodium azide is expected to eventually weaken as more non-azide substitutes come into production.

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<sup>8</sup> Calculated from data submitted in response to Commission questionnaires.

<sup>9</sup> Purchaser questionnaires.

<sup>10</sup> AMAZCO's questionnaire response. TRW currently manufactures inflators using a bottled mixture of helium and argon (postconference brief, p. 10). It also stated in its purchasers questionnaire response that \*\*\*. Nitrocellulose is used in Europe, but not in the United States. AMAZCO's response to Commission's questionnaire and transcript, pp. 85-87.

<sup>11</sup> TRW's postconference brief, p. 10.

<sup>12</sup> Transcript, p. 29.

<sup>13</sup> Transcript, p. 37; TRW's postconference brief, p. 10; and Morton's postconference brief, p. 11.

<sup>14</sup> Transcript, pp. 38-39 and ICI's postconference brief, pp. 6-7.

<sup>15</sup> TRW's postconference brief, pp. 10-11.

<sup>16</sup> Morton's postconference brief, p. 10.

<sup>17</sup> Transcript, p. 113.

### **Factors Affecting Purchasing Decisions**

When asked to list, in order of importance, the three major factors used in deciding from whom to purchase sodium azide, \*\*\* listed quality, capacity, and price, and \*\*\* listed quality, availability, and price. Both reported dropping a supplier because of quality problems. They noted that the quality of sodium azide is subject to approval of the air bag purchaser or the vehicle manufacturer. Reliable on-time delivery and the burn rate (the time it takes to fully ignite) were also cited as important factors. To a large extent, quality is assured through the rigorous qualification process to which all suppliers are subjected.

Morton listed the following companies as qualified in 1995: \*\*\*. TRW listed the following companies as qualified in 1995: \*\*\*.

### **Comparison of Domestic Products and Subject Imports**

The U.S. producer, importers, and purchasers were requested to provide information regarding the differences in non-price factors between the U.S. and Japanese sodium azide as well as differences between the U.S. and Japanese sodium azide compared with imports from other countries. The U.S. producer responded that the domestic and Japanese products are completely interchangeable in the airbag inflation systems, that the quality is the same, and that they compete with the Japanese on the basis of price. According to the four responses (Mitsui, Nippon, Summit, and TRW) received from importers of the Japanese product, the Japanese product is comparable or superior to that of the U.S. producer and is generally used interchangeably with the U.S. product.

Morton reported that North American and Japanese sodium azide were similar but not identical, but that all products from qualified sources were used in the same application. TRW reported that specifications for its driver's-side plant differ from those of its passenger-side plant. For this reason, it reported that Japanese and U.S.-produced sodium azide are not used in the same applications. TRW's annual demand for sodium azide is \*\*\* at its driver's side plant and \*\*\* at its passenger-side plant. The passenger-side facility requires a particle size of 10 to 20 microns, whereas the driver-side plant uses a 180 to 220 micron size particle. AMAZCO lacks the grinding facilities to make the finer sized particles. TRW reported that it cannot use U.S.-produced sodium azide for passenger-side inflators and that, since September 1995, the local fire code has prohibited them from grinding it themselves.

Purchasers were asked to compare Japanese and U.S.-produced sodium azide. With the caveat that the U.S. source was not qualified to supply its passenger-side plant, TRW said the \*\*\*.

Morton ranked the \*\*\*.

### PART III: CONDITION OF THE U.S. INDUSTRY

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the alleged margin of dumping was presented earlier in this report and information on the volume and pricing of imports of the subject merchandise is presented in parts IV and V. Information on the other factors specified is presented in this section and/or part VI and is based on the questionnaire response of one firm that accounted for 100 percent of U.S. production of sodium azide during the period examined.

#### U.S. PRODUCER

AMAZCO's sodium azide plant is located in Iron County, UT, just outside Cedar City, UT. It is a wholly-owned subsidiary of American Pacific Corporation, located in Las Vegas, NV. American Pacific manufactures perchlorate chemicals (oxidizers for rocket motors), Halotron fire protection products, and pollution abatement systems; it is also involved with real estate.

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

Table III-1 and figure III-1 present data on the U.S. producer's capacity and production of sodium azide during January 1992-September 1995. U.S. capacity \*\*\* between 1992 and 1994 as AMAZCO started production. With the exception of various test runs, \*\*\* was produced in 1992.<sup>1</sup> Production started in April 1993;<sup>2</sup> and AMAZCO produced \*\*\* pounds in that year. This plant, at full operation, has a potential capacity of \*\*\* pounds annually.<sup>3</sup> Capacity utilization was \*\*\*.

TABLE III-1

SODIUM AZIDE: AMAZCO'S CAPACITY, PRODUCTION, AND CAPACITY UTILIZATION, 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995

\* \* \* \* \*

FIGURE III-1

SODIUM AZIDE: AMAZCO'S CAPACITY, PRODUCTION, AND CAPACITY UTILIZATION, 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995

\* \* \* \* \*

#### SHIPMENTS

The U.S. producer's shipments are presented in table III-2. Such shipments ranged from \*\*\* of U.S. consumption during the period of investigation.

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<sup>1</sup> Transcript, p. 21.

<sup>2</sup> *Ibid.*

<sup>3</sup> As explained on its questionnaire response, \*\*\*.

**TABLE III-2****SODIUM AZIDE: AMAZCO'S U.S. SHIPMENTS, 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995**

\* \* \* \* \*

**U.S. PRODUCER INVENTORIES**

Although sodium azide is a specialty product manufactured to exact specifications, AMAZCO reported that end-of-year inventories \*\*\* during the period of investigation (table III-3).

**TABLE III-3****SODIUM AZIDE: AMAZCO'S END-OF-PERIOD INVENTORIES, 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995**

\* \* \* \* \*

**U.S. EMPLOYMENT, COMPENSATION, AND PRODUCTIVITY**

The U.S. producer's employment and productivity data are presented in table III-4. Employment of PRWs was reflective of a start-up company.

**TABLE III-4****AVERAGE NUMBER OF PRODUCTION AND RELATED WORKERS PRODUCING SODIUM AZIDE, HOURS WORKED, WAGES PAID TO SUCH EMPLOYEES, AND HOURLY WAGES, PRODUCTIVITY, AND UNIT PRODUCTION COSTS, 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995**

\* \* \* \* \*



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

### **U.S. IMPORTERS**

Importer questionnaires were sent to five firms that the Commission believed are importing sodium azide from Japan. Four firms reported imports from Japan during the period of investigation: Summit, Mitsui, Nippon, and TRW.<sup>1</sup> It is believed that these firms account for 100 percent of all subject imports.<sup>2</sup> Amindo Chemical Co., Rochester, MI, is an importer of sodium azide produced in India. ICI Canada also supplies sodium azide to the U.S. market. These are the only known suppliers of U.S. imported sodium azide.

### **U.S. IMPORTS<sup>3</sup>**

U.S. imports of sodium azide are presented in table IV-1 and figure IV-1. Japan is the largest supplier of sodium azide to the United States, accounting for over two-thirds of total imports in 1994. Canada and India are the only other known suppliers of sodium azide imports.

### **APPARENT U.S. CONSUMPTION**

Data on apparent consumption of sodium azide are presented in table IV-2 and figure IV-2. Apparent consumption is calculated from shipment and import data provided in response to the Commission's questionnaires. Testimony at the Commission's conference indicated that the United States may be at or near its peak consumption level of sodium azide.<sup>4</sup>

### **U.S. MARKET SHARES**

The market shares of the U.S. producer and imports from Japan and all other sources, based on apparent consumption of sodium azide, are presented in table IV-3 and figure IV-3. Imports accounted for over 90 percent of U.S. consumption over the entire period of investigation.

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<sup>1</sup> Summit, Mitsui, and Nippon are wholly-owned subsidiaries of sodium azide producers in Japan.

<sup>2</sup> Because the official statistics are a large "basket" category, import statistics are based solely on questionnaire responses; quantity is taken from the foreign producers' questionnaire responses and the values are derived from importers' questionnaire responses.

<sup>3</sup> Subject imports accounted for between \*\*\* percent (1992) and \*\*\* percent (1994), and slightly less than \*\*\* percent during the interim periods, of total imports.

<sup>4</sup> Transcript, p. 113. Additionally, Morton also states in its postconference brief (p. 10) that 1996 will be the peak year for sodium azide consumption.

**TABLE IV-1**

**SODIUM AZIDE: U.S. IMPORTS, BY SOURCES, 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995**

\* \* \* \* \*

**FIGURE IV-1**

**SODIUM AZIDE: U.S. IMPORTS, BY SOURCES, 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995**

\* \* \* \* \*

**TABLE IV-2**

**SODIUM AZIDE: U.S. SHIPMENTS OF DOMESTIC PRODUCT, U.S. IMPORTS, BY SOURCES, AND APPARENT U.S. CONSUMPTION, 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995**

\* \* \* \* \*

**FIGURE IV-2**

**SODIUM AZIDE: U.S. SHIPMENTS OF DOMESTIC PRODUCT, U.S. IMPORTS, BY SOURCES, AND APPARENT U.S. CONSUMPTION, 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995**

\* \* \* \* \*

**TABLE IV-3**

**SODIUM AZIDE: APPARENT U.S. CONSUMPTION AND MARKET SHARES, 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995**

\* \* \* \* \*

**FIGURE IV-3**

**SODIUM AZIDE: APPARENT U.S. CONSUMPTION AND MARKET SHARES, 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995**

\* \* \* \* \*

## PART V: PRICING AND RELATED INFORMATION

### PRICES

#### Factors Affecting Prices

Particle size affects price; however, during most of the period of investigation only the larger specification (180 - 220 microns) was produced. One of \*\*\* plants now uses the smaller sized particle (10 - 20 microns), which is more expensive to produce since grinding is required.<sup>1</sup> Product specifications for which the Commission requested price data were all for the larger size.

All suppliers of sodium azide ship the product in bulk bags containing 1,000 to 2,000 pounds, plastic drums containing 25 to 100 pounds, and fiber drums containing 100 to 400 pounds.<sup>2</sup> Packaging costs have only a minor influence on prices. \*\*\* reported that transport costs account for \*\*\* of total delivered costs, and \*\*\* reported \*\*\* percent. Both reported that they bear this cost directly and that they sell on a delivered-price basis. AMAZCO, whose plant in southern Utah is located within 500 miles of the two air bag manufacturers, reported paying transport costs that represent \*\*\* percent of total delivered costs. \*\*\* stated that previously it had paid transport costs, but that they now required the supplier to bear these costs. \*\*\* reported that it had paid an import duty of 3.7 percent in 1992 and 1993, but that importers now pay this fee.<sup>3</sup>

#### Price Competition

When asked to name any firms that could be considered price leaders, TRW identified both \*\*\* and \*\*\*. Morton responded that, since AMAZCO's entry into the market in late 1993, all suppliers have responded with a series of price reductions.

Importers reported lead times of \*\*\* weeks compared to \*\*\* for the American producer. AMAZCO responded that it \*\*\*. Both Summit and Mitsui reported \*\*\*.

#### Price Trends and Comparisons

In the questionnaire, prices and total quantities of quarterly sales were requested from January 1992 through September 1995 for shipments of the following product specifications:

- Product 1 ... Sales and bids to Morton: specification S0030--Revision D
- Product 2 ... Sales and bids to TRW: specification PN13301383
- Product 3 ... Sales and bids to TRW: specification PN300006
- Product 4 ... Sales for applications other than air bags.

Sales of these 4 specifications accounted for \*\*\*. AMAZCO \*\*\* per pound for \*\*\* pounds and at \*\*\* per pound for \*\*\* pounds respectively. AMAZCO's sales of \*\*\* accounted for approximately \*\*\*

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<sup>1</sup> \*\*\* reported selling the smaller specification in only the fourth quarter of 1995 at \*\*\* than the 180 to 220 micron sized specification.

<sup>2</sup> Responses to the Commission's questionnaires.

<sup>3</sup> \*\*\*.

percent of its sales by value during the period of investigation, and the importers \*\*\*.<sup>4</sup> Price trends and comparisons therefore focus on product 1 and product 3. Prices for product 4 followed a downward trend, and its price was on average \*\*\* percent higher than the other 3 specifications, although its price during \*\*\* percent was lower than the other specifications. Mitsui and AMAZCO provided prices for \*\*\*. Summit, Mitsui, and AMAZCO provided price data for \*\*\*.

Prices have declined for both product 1 and product 3. For product 1, prices of the Japanese import fell approximately 30 percent from the first quarter of 1992 to the third quarter of 1995. AMAZCO's sales of this product began in the first quarter of 1994. Since then until the third quarter of 1995, its prices \*\*\* percent. Prices of the Japanese product fell 27 percent during this same period.

For product 3, Japanese prices fell 38 percent from the first quarter 1992 until third quarter 1995. AMAZCO's sales of this product began in the \*\*\*. From then until the second quarter of 1995, its prices \*\*\* percent. Prices of the Japanese product fell 32 percent during this period (see tables V-1, V-2, and V-3, and figure V-1). Masuda stated that its price reductions for product 3 occurred after \*\*\*.<sup>5</sup>

TABLE V-1

PRODUCT 1: WEIGHTED-AVERAGE NET U.S. F.O.B. SELLING PRICES REPORTED BY THE U.S. PRODUCER AND BY IMPORTERS, AND MARGINS OF UNDER/(OVER)SELLING, BY QUARTERS, JAN. 1992- SEPT. 1995

\* \* \* \* \*

TABLE V-2

PRODUCT 3: WEIGHTED-AVERAGE NET U.S. F.O.B. SELLING PRICES REPORTED BY THE U.S. PRODUCER AND BY IMPORTERS, AND MARGINS OF UNDER/(OVER)SELLING, BY QUARTERS, JAN. 1992- SEPT. 1995

\* \* \* \* \*

TABLE V-3

PRODUCT 4: WEIGHTED-AVERAGE NET U.S. F.O.B. SELLING PRICES REPORTED BY THE U.S. PRODUCER, BY QUARTERS, JAN. 1992- SEPT. 1995

\* \* \* \* \*

FIGURE V-1

WEIGHTED-AVERAGE NET U.S. FOB SELLING PRICES IN U.S. DOLLARS OF SODIUM AZIDE PRODUCED IN THE UNITED STATES AND IMPORTED FROM JAPAN, BY PRODUCTS AND BY QUARTERS, JAN. 1992-SEPT. 1995

\* \* \* \* \*

Based on data supplied by the U.S. producer and Japanese importers, both AMAZCO and one importer of Japanese sodium azide sold product 1 in seven quarters, and during six of those periods the importer undersold the American producer by an average of 67 cents per pound or 11 percent. In a single quarter the imported product was priced higher than the domestic product by eight cents or one percent.

<sup>4</sup> Coverage of imported sodium azide is high but less than 100 percent since \*\*\*, allegedly the importer of record in some cases, has not completed an importer questionnaire and since a firm that did not receive a questionnaire imported Japanese sodium azide for pharmaceutical use.

<sup>5</sup> Masuda/Mitsui's postconference brief, exhibit 3.

Both AMAZCO and the Japanese importers sold product 3 in seven quarters, and in six of those periods the importers undersold the American producer by an average of 43 cents per pound or 8 percent. In a single quarter the imported product was priced greater than the domestic product by 58 cents or 11 percent.

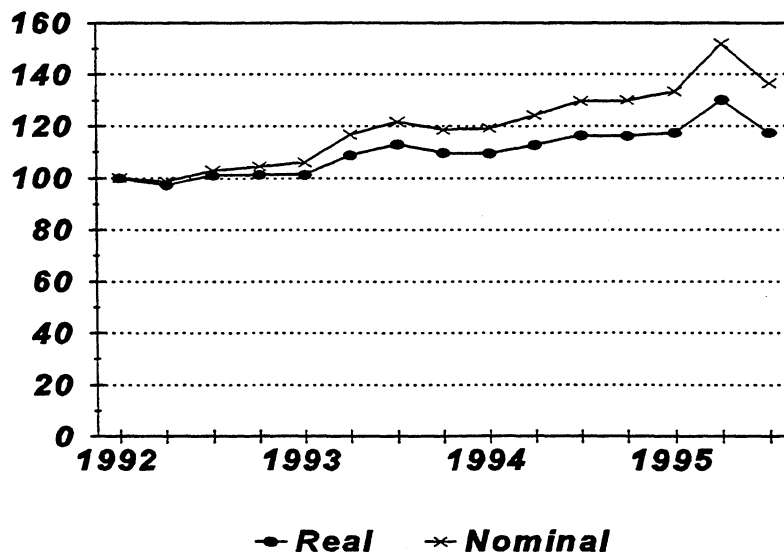
Information furnished by TRW and Morton corroborate the previous price comparisons, but not entirely. Morton reported purchases of both the Japanese and U.S. product in six periods. In three periods, the Japanese undersold the American product by an average of 45 cents per pound or 8.4 percent. In the other three periods, the Japanese product sold for an average of one dollar per pound, or 16.7 percent, higher than the American product. TRW reported purchases of both products in six periods, and in each of those periods the Japanese product undersold the American product by an average of 60 cents per pound or 11 percent.

### EXCHANGE RATES

The U.S. dollar-Japanese yen exchange rate trended upward during the period for which data were collected. The only exceptions to a uniformly positive 15-period trend occurred in the second quarter of 1992, the fourth quarter of 1993, and the third quarter of 1995. Quarterly data from the IMF indicate that the Japanese yen appreciated approximately 18 percent in real terms from the first quarter of 1992 to the third quarter of 1995. The nominal exchange rate exhibited a similar but more pronounced trend, with its third quarter 1995 value approximately 37 percent higher than in the beginning of 1992 (see figure V-2). Other factors being equal, the increasing value of the yen would make Japanese imports less competitive.

**FIGURE V-2**

**EXCHANGE RATES: INDEXES<sup>1</sup> OF THE U.S. DOLLAR PRICE OF THE JAPANESE YEN, BY QUARTERS, JAN. 1992-SEPT. 1995**



<sup>1</sup> Jan.-Mar. 1992 = 100.

Source: IMF, *International Financial Statistics*, Dec. 1995.

## LOST SALES AND REVENUES

The Commission received lost revenue allegations from the petitioner on sales to both TRW and Morton. Although it made no specific lost sales allegations, AMAZCO made the general assertion that its lost sales equaled the difference between its planned sales for this period and its actual sales. All allegations were discussed with the two purchasers.

AMAZCO alleged that it lost revenues on sales of sodium azide to TRW in late 1993 and early 1994 due to competition from imports from Japan. AMAZCO reported that it had to lower its price from \*\*\*, \*\*\*,

AMAZCO also alleged that it had to lower prices in \*\*\* due to competition from Japanese imports. It reported lowering its price to \*\*\* and executing a purchase order with TRW for \*\*\* for the upcoming year. \*\*\*.

AMAZCO alleged that it lost revenues on sales of sodium azide to Morton due to competition from Japanese imports. AMAZCO reported that it had to \*\*\*, \*\*\*,

AMAZCO also alleged that in \*\*\*, AMAZCO also stated that in \*\*\*.

Concerning the allegation that AMAZCO had lost sales due to competition from Japanese imports that amounted to the difference between its planned and actual sales, \*\*\*.

## PART VI: FINANCIAL EXPERIENCE OF THE U.S. PRODUCER

AMAZCO<sup>1</sup> is a wholly-owned subsidiary of American Pacific Corporation. Other lines of business of American Pacific are perchlorate chemicals (accounting for approximately 75 percent of revenues during the fiscal year ended Sept. 30, 1995), Halotron fire protection products, environmental protection products, and real estate development. All of these lines of business, including sodium azide, are included in the consolidated financial statements of American Pacific. Total revenues for American Pacific were approximately \$39.2 million for the fiscal year ended September 30, 1995, resulting in an operating loss of approximately \$1.4 million.

### OPERATIONS ON SODIUM AZIDE<sup>2</sup>

In July 1990, American Pacific entered into agreements pursuant to which Dynamit Nobel licensed to American Pacific, on an exclusive basis for the North American market, its most advanced technology and know-how for the production of sodium azide. In addition, Dynamit Nobel provided technical support for the design, construction, and start-up of the facility. The facility was constructed and is being operated by AMAZCO, has an annual design capacity of approximately 6 million pounds, and is located on land owned by AMAZCO in Iron County, UT. In February 1992, American Pacific paid \$1,589,000 to Dynamit Nobel for the technology and know-how for the production of sodium azide. Dynamit Nobel will receive a royalty of 5 percent of net sodium azide sales for a period of 15 years. Commercial shipments of sodium azide began in April 1994 and are continuing, although sales and related variable operating margins have not reached a level sufficient to absorb fixed costs.<sup>3</sup> Income-and-loss data for sodium azide operations are presented in tables VI-1 and VI-2.

TABLE VI-1

INCOME-AND-LOSS EXPERIENCE OF AMAZCO ON ITS OPERATIONS PRODUCING SODIUM AZIDE, CALENDAR YEARS 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995

\* \* \* \* \*

TABLE VI-2

INCOME-AND-LOSS EXPERIENCE (ON A PER-POUND BASIS) OF AMAZCO ON ITS OPERATIONS PRODUCING SODIUM AZIDE, CALENDAR YEARS 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995

\* \* \* \* \*

### BREAKEVEN ANALYSIS

The breakeven point for a firm is that level of sales at which total revenues and total expenses are equal. Profits result when sales exceed this level and losses occur when this point is not achieved. Therefore, a net loss indicates that a firm did not break even and net income indicates that a firm surpassed the breakeven point. As shown in table VI-1, AMAZCO \*\*\*.

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<sup>1</sup> AMAZCO has a fiscal year-end of \*\*\*.

<sup>2</sup> AMAZCO does not maintain separate financial records on the various applications of sodium azide. Telephone conversation with counsel for AMAZCO, Feb. 23, 1996.

<sup>3</sup> AMAZCO's 1995 Annual Report, pp. 15 and 37.

## SOURCES OF CAPITAL

\*\*\*. \*\*\* issued \$40 million in noncallable subordinated secured notes at an interest rate of 11 percent per annum. The funds were provided by a major state public retirement fund and a leading investment management company. The notes are secured by the assets of AMAZCO and certain assets of the parent.

## VARIANCE ANALYSIS

A variance analysis is not presented because the financial data are not comparable from period to period. Commercial shipments of sodium azide began in April 1994, therefore the calendar years of 1993 and 1994 are not comparable. Interim 1994 data contain 6 months of commercial net sales while interim 1995 data contain 9 months of commercial net sales; therefore the interim periods are also not comparable.

## INVESTMENT IN PRODUCTIVE FACILITIES, CAPITAL EXPENDITURES, AND RESEARCH AND DEVELOPMENT EXPENSES

AMAZCO's value of property, plant, and equipment is presented in table VI-3. AMAZCO's capital expenditures are presented in table VI-4. AMAZCO indicated \*\*\* for research and development expenses during the period of investigation.

TABLE VI-3

VALUE OF FIXED ASSETS OF AMAZCO USED FOR THE PRODUCTION OF SODIUM AZIDE, CALENDAR YEARS 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995

\* \* \* \* \*

TABLE VI-4

CAPITAL EXPENDITURES BY AMAZCO, CALENDAR YEARS 1992-94, JAN.-SEPT. 1994, AND JAN.-SEPT. 1995

\* \* \* \* \*

## CAPITAL AND INVESTMENT

The Commission requested the U.S. producer to describe any actual or potential negative effects of imports of sodium azide from Japan on their firms' growth, investment, and ability to raise capital or development and production efforts (including efforts to develop a derivative or more advanced version of the product). The responses are:

1. Since January 1, 1992, has your firm experienced any actual negative effects on its return on investment or its growth, investment, ability to raise capital, existing development and production efforts (including efforts to develop a derivative or more advanced version of the product), or the scale of capital investments as a result of imports of sodium azide from Japan?

\*\*\* "



2. Does your firm anticipate any negative impact of imports of sodium azide from Japan?

"\*\*\*."



## PART VII: THREAT CONSIDERATIONS

The Commission analyzes a number of factors in making threat determinations (see 19 U.S.C. § 1677(7)(F)(I)). Information on the volume and pricing of imports of the subject merchandise is presented in parts IV and V, and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in part VI. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting," any other threat indicators, if applicable; and any dumping in third-country markets, follows. There have been no other filings seeking trade relief concerning sodium azide.

### THE INDUSTRY IN JAPAN

There are 3 known producers of sodium azide in Japan: Masuda,<sup>1</sup> Toyo,<sup>2</sup> and Nippon.<sup>3</sup> All three exported the subject merchandise to the United States. Data on Japanese production and shipments are presented in tables VII-1 through VII-4 and figure VII-1. As mentioned in part I, the Japanese producers of sodium azide use the hydrazine method. Overall, Japanese producers of sodium azide manufactured \*\*\* million pounds in 1994, up over 4-fold from 1992 (see table VII-1 and figure VII-1). Projections are for production to drop about one-quarter by 1996.

TABLE VII-1

SODIUM AZIDE: JAPANESE CAPACITY, PRODUCTION, INVENTORIES, CAPACITY UTILIZATION, AND SHIPMENTS, 1992-94, JAN.-SEPT. 1994, JAN.-SEPT. 1995, AND PROJECTED 1995-96

\* \* \* \* \*

FIGURE VII-1

SODIUM AZIDE: JAPANESE CAPACITY, PRODUCTION, INVENTORIES, CAPACITY UTILIZATION, AND SHIPMENTS, 1992-94, JAN.-SEPT. 1994, JAN.-SEPT. 1995, AND PROJECTED 1995-96

\* \* \* \* \*

TABLE VII-2

SODIUM AZIDE: MASUDA'S CAPACITY, PRODUCTION, INVENTORIES, CAPACITY UTILIZATION, AND SHIPMENTS, 1992-94, JAN.-SEPT. 1994, JAN.-SEPT. 1995, AND PROJECTED 1995-96

\* \* \* \* \*

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<sup>1</sup> Masuda, \*\*\*, estimates that it accounted for \*\*\* percent of total production of sodium azide in Japan during 1994. It started sodium azide production in 1980, with a manufacturing capability of \*\*\* annually. Questionnaire response, Feb. 2, 1996.

<sup>2</sup> Toyo estimates that it accounted for \*\*\* percent of total production of sodium azide in Japan during 1994; questionnaire response, Feb. 2, 1996.

<sup>3</sup> Nippon estimates that it accounted for \*\*\* percent of total production of sodium azide in Japan during 1994 because its sodium azide has not been qualified by the U.S. purchasers. Questionnaire response, Feb. 2, 1996 and transcript, pp. 74-75.

**TABLE VII-3**

**SODIUM AZIDE: TOYO'S CAPACITY, PRODUCTION, INVENTORIES, CAPACITY UTILIZATION, AND SHIPMENTS, 1992-94, JAN.-SEPT. 1994, JAN.-SEPT. 1995, AND PROJECTED 1995-96**

\* \* \* \* \*

**TABLE VII-4**

**SODIUM AZIDE: NIPPON'S CAPACITY, PRODUCTION, INVENTORIES, CAPACITY UTILIZATION, AND SHIPMENTS, 1992-94, JAN.-SEPT. 1994, JAN.-SEPT. 1995, AND PROJECTED 1995-96**

\* \* \* \* \*

Table VII-2 shows data on Masuda's production and shipments.<sup>4</sup> The dramatic rise in capacity and production results from its earlier long-term contracts with both TRW and Morton.<sup>5</sup> Toyo's production and shipment data are presented in table VII-3. Its exports to the United States rose \*\*\* between 1992 and 1994. Toyo, in its response to the Commission's questionnaire, projects its shipments to the United States will fall by nearly \*\*\* by the end of 1996 as it shifts to products other than sodium azide.<sup>6</sup> Nippon has shipped, for qualification purposes only, to the United States but is uncertain if it will be qualified for commercial shipments (table VII-4).<sup>7</sup>

#### **U.S. IMPORTERS' INVENTORIES**

U.S. importers of sodium azide do not generally hold inventories because the subject product is produced and shipped to contract specification and sent directly to the end users.

#### **U.S. IMPORTERS' CURRENT ORDERS**

Reported orders for sodium azide that U.S. importers have placed for delivery after September 30, 1995, totaled \*\*\* pounds. Such orders were reported by \*\*\*.

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<sup>4</sup> \*\*\*.

<sup>5</sup> Transcript, pp. 56-57 and Masuda's postconference brief, p. 24.

<sup>6</sup> Toyo's postconference brief, p. 18.

<sup>7</sup> Transcript, pp. 74-76. Additionally, in Nippon's postconference brief (p. 19), it states that it\*\*\*.

**APPENDIX A**  
***FEDERAL REGISTER* NOTICES**



**ACTION:** Institution and scheduling of a preliminary antidumping investigation.

**SUMMARY:** The Commission hereby gives notice of the institution of preliminary antidumping investigation No. 731-TA-740 (Preliminary) under section 733(a) of the Tariff Act of 1930, as amended by section 212(b) of the Uruguay Round Agreements Act (URAA), Public Law 103-465, 108 Stat. 4809 (1994) (19 U.S.C. 1673b(a)) to determine whether there is a reasonable indication that 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 Japan of sodium azide, provided for in subheading 2850.00.50.00 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value. Unless the Department of Commerce extends the time for initiation pursuant to section 732(c)(1)(B), the Commission must complete preliminary antidumping investigations in 45 days, or in this case by March 1, 1996. The Commission's views are due at the Department of Commerce within 5 business days thereafter, or by March 8.

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

**EFFECTIVE DATE:** January 16, 1996.

**FOR FURTHER INFORMATION CONTACT:** Fred Ruggles (202-205-3187), 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. General information concerning the Commission may also be obtained by assessing its internet server (<http://www.usitc.gov> or <ftp://ftp.usitc.gov>).

**SUPPLEMENTARY INFORMATION:**

**Background.**—This investigation is being instituted in response to a petition filed on January 16, 1996, by American Azide Corporation, Las Vegas, Nevada.

**Participation in the investigation and public service list.**—Persons (other than petitioners) wishing to participate in the investigation as parties must file an entry of appearance with the Secretary

to the Commission, as provided in sections 201.11 and 207.10 of the Commission's rules, not later than seven (7) 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 make BPI gathered in this preliminary investigation available to authorized applicants under the APO issued in the investigation, provided that the application is made not later than seven (7) days after the publication of this notice in the *Federal Register*. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

**Conference.**—The Commission's Director of Operations has scheduled a conference in connection with this investigation for 9:30 a.m. on February 6, 1996, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Parties wishing to participate in the conference should contact Fred Ruggles (202-205-3187) not later than February 2, 1996, to arrange for their appearance. Parties in support of the imposition of antidumping duties in this investigation and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the conference.

**Written submissions.**—As provided in sections 201.8 and 207.15 of the Commission's rules, any person may submit to the Commission on or before February 9, 1996, a written brief containing information and arguments pertinent to the subject matter of the investigation. Parties may file written testimony in connection with their presentation at the conference no later than three (3) days before the conference. If briefs or written testimony contain BPI, they must 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

**INTERNATIONAL TRADE COMMISSION**

[Investigation No. 731-TA-740 (Preliminary)]

**Sodium Azide From Japan**

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

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, as amended by the URAA. This notice is published pursuant to section 207.12 of the Commission's rules.

By order of the Commission.

Issued: January 17, 1996.

**Donna R. Koehnke,**  
*Secretary.*

[FR Doc. 96-765 Filed 1-22-96; 8:45 am]

**BILLING CODE 7020-02-P**

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[A-588-839]

**Initiation of Antidumping Duty Investigation: Sodium Azide From Japan**

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

EFFECTIVE DATE: February 9, 1996.

FOR FURTHER INFORMATION CONTACT: John Beck at (202) 482-3464 or Jennifer Stagner at (202) 482-1673, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, DC 20230.

**INITIATION OF INVESTIGATION:****The Applicable Statute**

Unless otherwise indicated, all citations to the statute are references to the provisions effective January 1, 1995, the effective date of the amendments made to the Tariff Act of 1930 (the Act) by the Uruguay Round Agreements Act (URAA).

**The Petition**

On January 16, 1996, the Department of Commerce (the Department) received a petition filed in proper form by the American Azide Corporation (the petitioner), the sole U.S. producer of sodium azide. A supplement to the petition was filed on January 29, 1996.

In accordance with section 732(b) of the Act, the petitioner alleges that imports of sodium azide from Japan are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Act, and that such imports are materially injuring, or threatening material injury to, a U.S. industry.

The petitioner states that it has standing to file the petition because it is an interested party, as defined under section 771(9)(C) of the Act.

**Determination of Industry Support for the Petition**

Section 732(c)(4)(A) of the Act requires the Department to determine, prior to the initiation of an investigation, that a minimum percentage of the domestic industry supports an antidumping petition. A petition meets these minimum requirements if (1) the domestic

producers or workers who support the petition account for at least 25 percent of the total production of the domestic like product; and (2) the domestic producers or workers who support the petition account for more than 50 percent of the production of the domestic like product produced by that portion of the industry expressing support for, or opposition to, the petition.

A review of the data provided in the petition and other information readily available to the Department indicates that the petitioner is the sole producer of sodium azide in the United States. The Department received no expressions of opposition to the petition from any interested party. Accordingly, the Department determines that this petition is supported by the domestic industry.

**Scope of the Investigation**

The product covered by this investigation is sodium azide ( $\text{NaN}_3$ ) regardless of use, and whether or not combined with silicon oxide ( $\text{SiO}_2$ ) or any other inert flow assisting agent. The merchandise under investigation is currently classifiable under item 2850.00.50.00 of the *Harmonized Tariff Schedule of the United States (HTSUS)*. Although the HTSUS subheading is provided for convenience and customs purposes, our written description of the scope of this investigation is dispositive.

**Export Price and Normal Value**

The petitioner based export price on delivered prices in the United States quoted by a Japanese producer. These prices were adjusted by the petitioner for U.S. and foreign inland freight, ocean freight, U.S. duties, and the U.S. trading company mark-up.

The petitioner based normal value on delivered prices in Japan quoted by a Japanese producer. The unit price quotes denominated in Japanese yen were converted by the petitioner to U.S. dollars using the exchange rate in effect at the beginning of the third quarter of 1995. An adjustment was made for foreign inland freight.

Based on comparisons of export price to normal value, the estimated dumping margins for sodium azide from Japan range from 58.50 to 65.80 percent.

**Fair Value Comparisons**

Based on the data provided by the petitioner, there is reason to believe that imports of sodium azide from Japan are being, or likely to be, sold at less than fair value. If it becomes necessary at a later date to consider this petition as a source of facts available under section

776 of the Act, we may review further the calculations.

**Initiation of Investigation**

We have examined the petition on sodium azide and have found that it meets the requirements of section 732 of the Act, including the requirements concerning allegations of the material injury or threat of material injury to the domestic producers of a domestic like product by reason of the complained-of imports, allegedly sold at less than fair value. Therefore, we are initiating an antidumping duty investigation to determine whether imports of sodium azide from Japan are being, or are likely to be, sold in the United States at less than fair value. Unless extended, we will make our preliminary determination by June 24, 1996.

**Distribution of Copies of the Petition**

In accordance with section 732(b)(3)(A) of the Act, a copy of the public version of the petition has been provided to the representatives of the government of Japan. We will attempt to provide copies of the public versions of the petition to all the exporters named in the petition.

**International Trade Commission (ITC) Notification**

We have notified the ITC of our initiation, as required by section 732(d) of the Act.

**Preliminary Determination by the ITC**

The ITC will determine by March 1, 1996, whether there is a reasonable indication that imports of sodium azide from Japan are causing material injury, or threatening to cause material injury, to a U.S. industry. A negative ITC determination will result in the investigation being terminated; otherwise, this investigation will proceed according to statutory and regulatory time limits.

Dated: February 5, 1996.

Susan G. Esserman,

Assistant Secretary for Import Administration.

[FR Doc. 96-2911 Filed 2-8-96; 8:45 am]

BILLING CODE 3510-DS-P



**APPENDIX B**  
**CALENDAR OF THE PUBLIC CONFERENCE**



## CALENDAR OF THE PUBLIC CONFERENCE

Those listed below appeared as witnesses at the following United States International Trade Commission's conference:

**Subject:** SODIUM AZIDE FROM JAPAN

**Inv. No.:** 731-TA-740 (Preliminary)

**Date and Time:** February 6, 1996 - 9:30 a.m.

This conference was held in Room 111 (Courtroom B) of the United States International Trade Commission, 500 E Street, SW, Washington, DC.

### IN SUPPORT OF IMPOSITION OF ANTIDUMPING DUTIES:

Wilmer, Cutler & Pickering  
Washington, D.C.  
on behalf of

American Azide Corporation

**John R. Gibson**, President  
American Azide Corporation

**James B. Gibson**, Associate General Counsel  
American Azide Corporation

**Jim Dyar**, Vice-President, Financial  
American Azide Corporation

John D. Greenwald     )  
Ronald I. Meltzer     )--OF COUNSEL

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

Kirkland & Ellis  
Washington, D.C.  
on behalf of

Mitsui & Co. (USA), Inc. and Masuda Chemical Industries Co., Ltd.

**Yasuhira Miyata**, Deputy General Manager, Inorganic Chemical Dept.  
Mitsui & Co. (USA), Inc.

**Kenneth R. Button**, Ph.D., Senior Vice-President  
Economic Consulting Services, Incorporated

Kenneth G. Weigel )--OF COUNSEL

O'Melveny & Myers  
Washington, DC  
on behalf of

Toyo Kasei Kogyo Co., Ltd. and Summit Pharmaceuticals Corporation

F. Amanda DeBusk )  
Craig L. McKee )--OF COUNSEL  
Michael A. Meyer )

Jones, Day, Reavis, & Pogue  
Washington, DC  
on behalf of

Nippon Carbide Industries (USA), Inc.

**George Tamayori**, General Manager  
Nippon Carbide Industries (USA), Inc.

Christopher F. Dugan )  
Jerome J. Zaucha )--OF COUNSEL

**NON-PARTY APPARANCE:**

Howrey & Simon  
Washington, D.C.  
on behalf of

ICI Canada, Inc.

**John Lynch**, Vice-President and General Manager,  
Automotive and Aerospace Division  
ICI Canada, Inc.

**Susan Manning**, Ph.D., Senior Economist  
Capital Economics

Michael A. Hertzberg )--OF COUNSEL





**APPENDIX C**  
**SUMMARY TABLE**



**TABLE C-1**

**SODIUM AZIDE: SUMMARY DATA CONCERNING THE U.S. MARKET, 1992-94, JAN.-SEPT. 1994, AND  
JAN.-SEPT. 1995**

\* \* \* \* \*

