

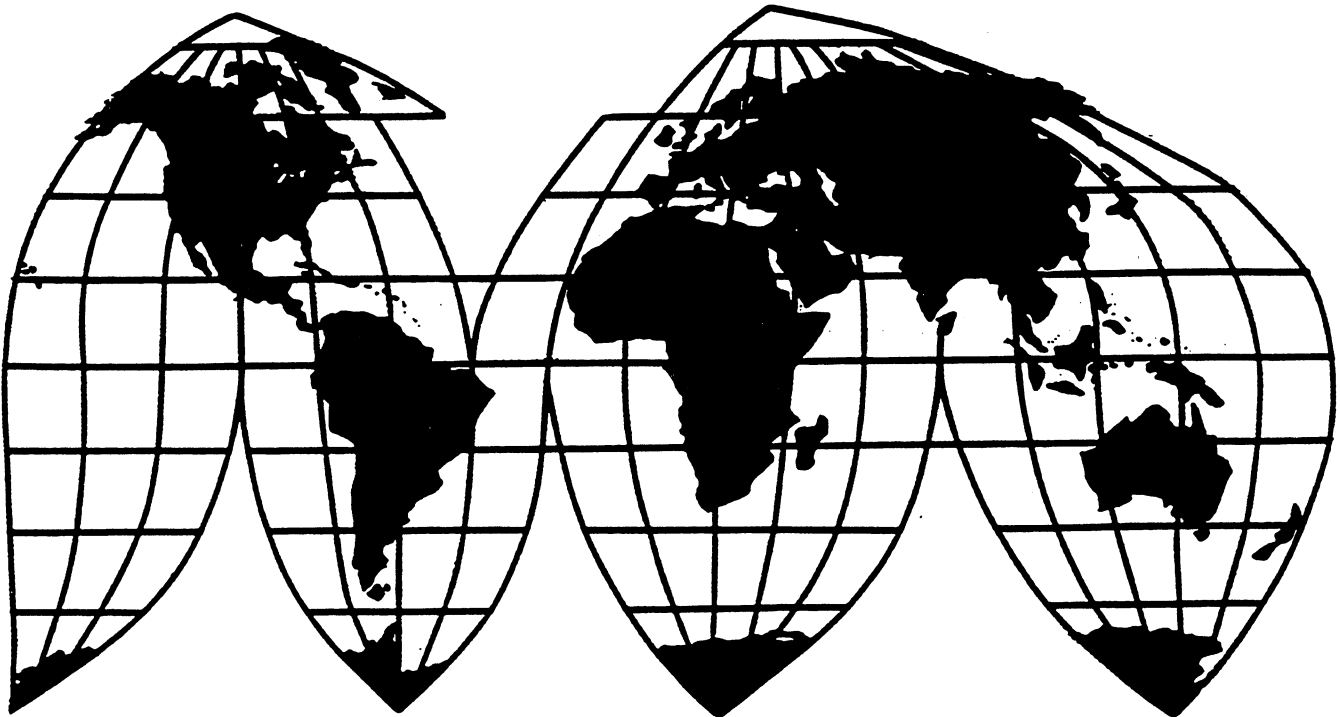
# Manganese Sulfate from the People's Republic of China

Investigation No. 731-TA-725 (Final)

Publication 2932

November 1995

**U.S. International Trade Commission**



Washington, DC 20436

# U.S. International Trade Commission

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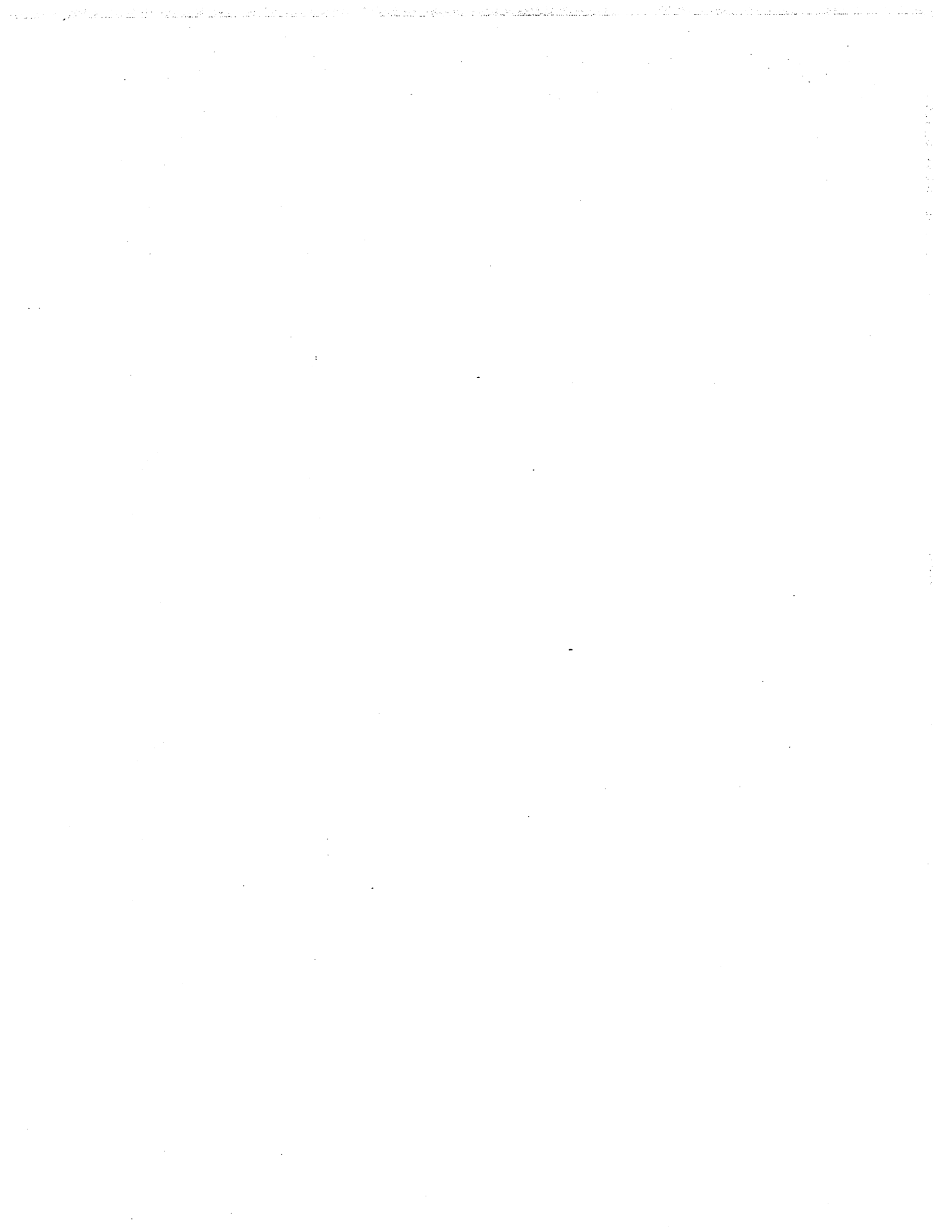
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# CONTENTS

	<u>Page</u>
Determination . . . . .	1
Views of the Commission . . . . .	3
Additional views of Vice Chairman Janet A. Nuzum . . . . .	19
Part I: Introduction . . . . .	I-1
Background . . . . .	I-1
The product . . . . .	I-1
Physical characteristics and uses . . . . .	I-2
Interchangeability . . . . .	I-3
Manganese content . . . . .	I-3
Solubility . . . . .	I-3
Color . . . . .	I-5
Particle size . . . . .	I-5
End uses . . . . .	I-5
Channels of distribution . . . . .	I-6
Customer and producer perceptions . . . . .	I-7
Common manufacturing facilities and production employees . . . . .	I-9
Price . . . . .	I-9
Part II: Conditions of competition in the U.S. market . . . . .	II-1
Business cycles . . . . .	II-1
Market segments . . . . .	II-1
Supply and demand considerations . . . . .	II-2
U.S. supply . . . . .	II-2
Domestic production . . . . .	II-2
AMT's capacity . . . . .	II-3
Inventory levels . . . . .	II-3
Export markets . . . . .	II-3
Subject imports . . . . .	II-3
Industry capacity . . . . .	II-3
Inventory levels . . . . .	II-4
Alternate markets . . . . .	II-4
Nonsubject imports . . . . .	II-4
U.S. demand . . . . .	II-4
Substitute products . . . . .	II-4
Cost share . . . . .	II-5
Substitutability issues . . . . .	II-5
Factors affecting purchasing decisions . . . . .	II-5
Comparison of domestic products and subject imports . . . . .	II-6
Nonsubject country imports . . . . .	II-7
Elasticity estimates . . . . .	II-8
Supply elasticity . . . . .	II-8
U.S. demand elasticity . . . . .	II-8
Substitution elasticity . . . . .	II-8

# CONTENTS

	<u>Page</u>
Part III: Condition of the U.S. industry . . . . .	III-1
Information presented in this section . . . . .	III-1
U.S. producers . . . . .	III-1
U.S. production, capacity, and capacity utilization . . . . .	III-2
U.S. producers' shipments . . . . .	III-3
U.S. producers' inventories . . . . .	III-3
U.S. employment, wages, and productivity . . . . .	III-4
Part IV: U.S. imports, apparent consumption, and market shares . . . . .	IV-1
U.S. importers . . . . .	IV-1
U.S. imports . . . . .	IV-2
Apparent U.S. consumption . . . . .	IV-4
U.S. market shares . . . . .	IV-6
Part V: Pricing and related data . . . . .	V-1
Factors affecting pricing . . . . .	V-1
Raw material and transportation costs . . . . .	V-1
Importer mark-ups . . . . .	V-1
Commerce margin of dumping . . . . .	V-1
Exchange rates . . . . .	V-2
Tariff rates . . . . .	V-3
Pricing practices . . . . .	V-3
Price data . . . . .	V-3
Price trends . . . . .	V-4
Price comparisons . . . . .	V-7
Lost sales and lost revenues . . . . .	V-7
Part VI: Financial experience of U.S. producers . . . . .	VI-1
Introduction . . . . .	VI-1
Overall establishment operations . . . . .	VI-1
Operations on manganese sulfate . . . . .	VI-1
Variance analysis . . . . .	VI-2
Investment in productive facilities, capital expenditures, and research and development expenses . . . . .	VI-2
Capital and investment . . . . .	VI-3
Part VII: Threat considerations . . . . .	VII-1
Information presented in this section . . . . .	VII-1
The industry in China . . . . .	VII-1
U.S. importers' inventories . . . . .	VII-2

## CONTENTS

	<u>Page</u>
 Appendixes	
A. Summary data .....	A-1
B. <i>Federal Register</i> notices .....	B-1
C. List of witnesses .....	C-1
D. Official U.S. import statistics and estimates of apparent consumption and market penetration based on such statistics .....	D-1
E. Income-and-loss data of Eagle Picher, Allied, and Koch .....	E-1
F. Effects of imports from China on U.S. producers' existing development and production efforts, growth, investment, and ability to raise capital .....	F-1
G. COMPAS methodology .....	G-1
 Figures	
IV-1. Manganese sulfate: U.S. imports, by sources, 1992-94, Jan.-June 1994, and Jan.-June 1995 .....	IV-3
IV-2. Manganese sulfate: U.S. shipments of U.S. producers and U.S. shipments of imports, by sources, 1992-94, Jan.-June 1994, and Jan.-June 1995 .....	IV-6
V-1. Indexes of the nominal exchange rates between the Chinese yuan and the U.S. dollar, by quarters, Jan. 1992-June 1995 .....	V-2
V-2. Manganese sulfate: Unit values of U.S.-produced and imported Chinese product 1 sold to end users, by quarters, Jan. 1992-June 1995 .....	V-5
V-3. Manganese sulfate: Unit values of U.S.-produced and imported Chinese product 2 sold to end users, by quarters, Jan. 1992-June 1995 .....	V-5
V-4. Manganese sulfate: Unit values of imported Chinese product 3 sold to end users, by quarters, Jan. 1992-June 1995 .....	V-5
V-5. Manganese sulfate: Unit values of U.S.-produced and imported Chinese product 1 sold to distributors, by quarters, Jan. 1992-June 1995 .....	V-6
V-6. Manganese sulfate: Unit values of U.S.-produced and imported Chinese product 2 sold to distributors, by quarters, Jan. 1992-June 1995 .....	V-6
V-7. Manganese sulfate: Unit values of U.S.-produced and imported Chinese product 3 sold to distributors, by quarters, Jan. 1992-June 1995 .....	V-6
A-1. Manganese sulfate: Salient data for the U.S. market, 1992-94 .....	A-5

# CONTENTS

## Page

### Tables

II-1.	Manganese sulfate: U.S. shipments of AMT-produced and imported Chinese manganese sulfate, by end-use application, 1992-94 and Jan.-June 1995 . . . . .	II-2
II-2.	Manganese sulfate: U.S. shipments of U.S.-produced and imported Chinese manganese sulfate, by granular form, 1992-94 and Jan.-June 1995 . . . . .	II-2
III-1.	Manganese sulfate: U.S. capacity, production, and capacity utilization, by firms, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	III-2
III-2.	Manganese sulfate: U.S. producers' domestic shipments, by firms, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	III-3
III-3.	Manganese sulfate: End-of-period inventories of U.S. producers, by firms, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	III-4
III-4.	Average number of production and related workers producing manganese sulfate, hours worked, wages and total compensation paid to such employees, and hourly wages, productivity, and unit labor costs, by firms, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	III-5
IV-1.	Manganese sulfate: U.S. imports, by sources, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	IV-3
IV-2.	Manganese sulfate: U.S. shipments of domestic product, U.S. shipments of imports, by sources, and apparent U.S. consumption, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	IV-5
IV-3.	Manganese sulfate: Apparent U.S. consumption and market shares, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	IV-7
V-1.	Manganese sulfate: Unit values and total quantities of U.S.-produced and imported Chinese product 1 sold to end users, by quarters, Jan. 1992-June 1995 . . . . .	V-4
V-2.	Manganese sulfate: Unit values and total quantities of U.S.-produced product 2 and imported Chinese products 2 and 3 sold to end users, by quarters, Jan. 1992-June 1995 . . . . .	V-5
V-3.	Manganese sulfate: Unit values and total quantities of U.S.-produced and imported Chinese product 1 sold to distributors, by quarters, Jan. 1992-June 1995 . . . . .	V-5
V-4.	Manganese sulfate: Unit values and total quantities of U.S.-produced and imported Chinese product 2 sold to distributors, by quarters, Jan. 1992-June 1995 . . . . .	V-5
V-5.	Manganese sulfate: Unit values and total quantities of U.S.-produced and imported Chinese product 3 sold to distributors, by quarters, Jan. 1992-June 1995 . . . . .	V-5
V-6.	Manganese sulfate: Margins of underselling/(overselling) for sales of AMT-produced and imported Chinese manganese sulfate, by channels of distribution, products, and quarters, Jan. 1992-June 1995 . . . . .	V-7
V-7.	Manganese sulfate: Margins of underselling/(overselling) for sales of Koch/Allied-produced and imported Chinese manganese sulfate to distributors, by products and by quarters, Jan. 1992-June 1995 . . . . .	V-7
VI-1.	Income-and-loss experience of AMT on the overall operations of its establishment wherein manganese sulfate is produced, fiscal years 1993-95, Jan.-June 1994, and Jan.-June 1995 . . . . .	VI-1



## CONTENTS

	<u>Page</u>
<b>Tables-Continued</b>	
VI-2. Income-and-loss experience of AMT on its operations producing manganese sulfate, fiscal years 1993-95, Jan.-June 1994, and Jan.-June 1995 . . . . .	VI-2
VI-3. Variance analysis for AMT on its operations producing manganese sulfate, fiscal years 1993-95, Jan.-June 1994, and Jan.-June 1995 . . . . .	VI-2
VI-4. Value of assets and return on assets of AMT's establishment wherein manganese sulfate is produced, fiscal years 1993-95, Jan.-June 1994, and Jan.-June 1995 . . . . .	VI-3
VI-5. Capital expenditures by AMT, fiscal years 1993-95, Jan.-June 1994, and Jan.-June 1995	VI-3
VII-1. Manganese sulfate: Chinese capacity, production, inventories, capacity utilization, and shipments, 1992-94, Jan.-June 1994, Jan.-June 1995, and projected 1995-96 . .	VII-1
VII-2. Manganese sulfate: End-of-period inventories of U.S. importers, by sources, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	VII-3
A-1. Manganese sulfate: Summary data concerning the U.S. market, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	A-3
A-2. Manganese sulfate: Summary data concerning the toll production of Eagle Picher, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	A-5
D-1. Manganese and certain other sulfates (HTS subheading 2833.29.50): U.S. imports, by sources, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	D-3
D-2. Manganese sulfate: U.S. shipments of domestic product, U.S. imports, by sources, and apparent U.S. consumption, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	D-4
D-3. Manganese sulfate: Apparent U.S. consumption and market shares, 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	D-4
E-1. Income-and-loss experience of Eagle Picher on its tolling operations for manganese sulfate, fiscal years 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	E-3
E-2. Income-and-loss experience of Allied and Koch on their operations producing manganese sulfate, fiscal years 1992-94, Jan.-June 1994, and Jan.-June 1995 . . . . .	E-3

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



# UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-725 (Final)

## MANGANESE SULFATE FROM THE PEOPLE'S REPUBLIC OF CHINA

### Determination

On the basis of the record<sup>1</sup> developed in the subject investigation, the Commission unanimously determines, pursuant to section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) (the Act), that an industry in the United States is not materially injured or threatened with material injury, and the establishment of an industry in the United States is not materially retarded, by reason of imports from the People's Republic of China (China) of manganese sulfate, provided for in subheading 2833.29.50 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce to be sold in the United States at less than fair value (LTFV).<sup>2</sup>

### Background

The Commission instituted this investigation effective May 11, 1995, following a preliminary determination by the Department of Commerce that imports of manganese sulfate from China were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. § 1673b(b)). The petition in this investigation was filed on November 30, 1994, prior to the effective date of the Uruguay Round Agreements Act. Thus, this investigation was subject to the substantive and procedural rules of the Tariff Act of 1930 as it existed prior to the Uruguay Round Agreements Act.<sup>3</sup> Notice of the institution of the Commission's investigation and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of May 24, 1995 (60 F.R. 27555). The hearing was held in Washington, DC, on October 3, 1995, 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)).

<sup>2</sup> The product covered by this investigation is manganese sulfate, including manganese sulfate monohydrate ( $\text{MnSO}_4 \cdot \text{H}_2\text{O}$ ) and any other forms, whether or not hydrated, without regard to form, shape, or size, the addition of other elements, the presence of other elements as impurities, and/or the method of manufacture.

<sup>3</sup> See P.L. 103-465, approved December 8, 1994, 108 Stat. 4809, at §291.



## VIEWS OF THE COMMISSION

Based on the record in this final investigation, we unanimously determine that the industry in the United States producing manganese sulfate is neither materially injured, nor threatened with material injury, by reason of imports from the People's Republic of China that are sold in the United States at less than fair value ("LTFV").<sup>1 2</sup>

### I. DEFINITION OF LIKE PRODUCT AND DOMESTIC INDUSTRY

#### A. Like Product

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of the subject imports, the Commission first defines the "like product" and the "domestic industry."<sup>3</sup> Section 771(4)(A) of the Tariff Act of 1930 ("the Act"), as amended, defines the relevant industry as the "domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product. . . ."<sup>4</sup> In turn, the statute defines "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>5</sup> The Commission's decision regarding the appropriate like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.<sup>6</sup> No single factor is dispositive, and the Commission may consider other factors relevant to a particular investigation. The Commission looks for clear dividing lines among possible like products, and disregards minor variations.<sup>7</sup>

The imported merchandise subject to this investigation has been defined by the Department of Commerce as:

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

<sup>2</sup> The petition in this investigation was filed prior to the effective date of the Uruguay Round Agreements Act ("URAA"). This investigation, thus, remains subject to the substantive and procedural rules of the pre-existing law. See P.L. 103-465, approved Dec. 8, 1994, 108 Stat. 4809, at § 291.

<sup>3</sup> 19 U.S.C. § 1677(4)(A).

<sup>4</sup> 19 U.S.C. § 1677(4)(A).

<sup>5</sup> 19 U.S.C. § 1677(10).

<sup>6</sup> See, e.g., Nippon Steel Corp. v. United States, Slip Op. 95-57 at 11 (Ct. Int'l Trade, 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 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 Calabrian Corp. v. United States, 794 F. Supp. 377, 382 n.4 (Ct. Int'l Trade 1992).

<sup>7</sup> Torrington, 747 F. Supp. at 748-49.

manganese sulfate, including manganese sulfate monohydrate, and any other forms whether or not hydrated, without regard to form, shape or size, the addition of other elements, the presence of other elements as impurities, and/or the method of manufacture.<sup>8</sup>

In our preliminary investigation, we found one like product, consisting of all manganese sulfate.<sup>9</sup> No new evidence persuades us to alter our determination in this final investigation. No party has objected in this final investigation to that definition of the like product.

Manganese sulfate is an inorganic chemical which is principally used as a source of manganese, an essential element required in small amounts by both plants and animals.<sup>10</sup> Manganese sulfate is produced and sold in three basic forms: large granular, fine granular, and powder.<sup>11</sup> The various forms of manganese sulfate are identical in chemical composition, sharing the same relative manganese content and solubility.<sup>12</sup> The primary difference is that the powder is quicker to dissolve due to its smaller particle size and, therefore, is more conducive to use in animal feed. In contrast, manganese sulfate granules are more practical for use in fertilizers where greater size and durability are required for blending purposes.<sup>13 14</sup>

Channels of distribution for powder and granular forms of manganese sulfate are the same. In both instances most sales appear to be made to distributors or purchasers, such as blenders or

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<sup>8</sup> 60 Fed. Reg. 52155 (Oct. 5, 1995).

<sup>9</sup> Manganese Sulfate from the People's Republic of China, Inv. No. 731-TA-725 (Preliminary), USITC Pub. 2848 (January 1995).

<sup>10</sup> Agricultural and animal-feed applications for manganese sulfate account for the preponderance of the market for this chemical. CR at II-2; PR at II-2.

<sup>11</sup> Both powder and granules are made from a manganese sulfate slurry by spraying and drying in the case of powder and by partial drying and granulating in the case of granules. CR at I-16, PR at I-9. For liquid applications, where rapid dissolving is preferred, generally either the powder or fine granular form is used.

<sup>12</sup> The products sold by the two principal domestic producers, American MicroTrace Corp. ("AMT"), the petitioner, and AlliedSignal, Inc. ("Allied"), differ slightly with respect to their relative manganese content and the solubility of the manganese that they contain. AMT's product is 29 percent manganese sulfate and has a solubility of 96 percent, compared to Allied's product which is 32 percent manganese sulfate and 100 percent soluble. CR at I-4, PR at I-3.

<sup>13</sup> Powders are more difficult to use in dry mixtures because the smaller particled powders tend to separate from the other ingredients in the mix making even distribution more difficult. The fine granular manganese sulfate may have the widest range of uses because it is small enough to dissolve easily, but retains a particle size large enough to be blended with other materials and yet remain dispersed. Conference Transcript at 54-55.

<sup>14</sup> There are several other manganese compounds, including manganous oxide and manganese succrate, that while chemically and physically different from manganese sulfate can apparently be substituted to a limited degree for manganese sulfate for use in fertilizers, in particular. CR at I-14-15, PR at I-8. The very low solubility of manganous oxide, however, would require significantly larger quantities to provide the same amount of manganese. The record indicates none of the domestic producers of manganese sulfate produces the other manganese compounds. Based on the limited actual interchangeability of these other manganese compounds, their different chemical and physical properties, and the lack of any common production facilities, we find that they are not like manganese sulfate.

premixers, that perform the function of distributors.<sup>15</sup> Consequently, the channels of distribution overlap to a substantial degree.

Although the manufacturing processes used by Allied and AMT are different, each manufacturer respectively produces all of its manganese sulfate using the same production plant and employees<sup>16</sup> and all forms of the product are derived from the same sulfate slurry.

We find one like product, manganese sulfate, in this investigation based on common chemistries and physical characteristics, largely similar end uses, channels of distribution, production processes, facilities, and employees.

## B. Domestic Industry

Based on the definition of the like product in these investigations, we further determine that the domestic industry consists of all U.S. producers of manganese sulfate. These are the petitioner AMT, Allied,<sup>17</sup> and Eagle Picher Industries, a toll producer.<sup>18</sup> In accordance with our general practice, we include in the industry producers of all domestic production of the like product, including that which is captively consumed or produced under a tolling arrangement.<sup>19</sup>

Although AMT requested the Commission to exclude Allied from the domestic industry on the basis that Allied produces manganese sulfate as a coproduct of anisic aldehyde, and that Allied's inclusion in the industry might arguably obscure any material injury by reason of the subject merchandise,<sup>20</sup> we have declined to do so.<sup>21</sup> Allied's production of manganese sulfate as a coproduct of its production of anisic aldehyde is not sufficient to exclude it from the domestic

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<sup>15</sup> For animal feed use, U.S. producers sell manganese sulfate to premixers, who mix the manganese sulfate with other micronutrients to make customized blends that are then sold directly to large animal feed manufacturers. For fertilizer use, manganese sulfate manufacturers generally sell to regional distributors that sell the product to regional fertilizer blenders. CR at I-11-12; PR at I-5.

<sup>16</sup> CR at I-16-18 ; PR at I-9. Some product was produced by Eagle Picher pursuant to a tolling agreement with Allied.

<sup>17</sup> Koch Chemical Co. produced manganese sulfate until the end of 1992 when ownership of its Pittsburg; Kansas, plant was transferred to Allied.

<sup>18</sup> During the period examined, Eagle Picher produced granular manganese sulfate for Allied pursuant to a tolling agreement. Eagle Picher's production-related activity appears to have been a significant operation \*\*\*. Compare Eagle Picher's cost of goods sold with those of Allied and Koch. CR at Appendix E, Tables E-1 and E-2; PR at Appendix E, Tables E-1-E-2.

<sup>19</sup> See Fresh Garlic from the People's Republic of China, Inv. No. 731-TA-683 (Final), USITC Pub. 2825 at I-14 & n.67 (Nov. 1994). We note that the Commission generally has considered toll producers that engage in sufficient production-related activity to be part of the domestic industry. See Ferrovandium and Nitrated Vanadium from Russia, Inv. No. 731-TA-702 (Final), USITC Pub. 2904 (June 1994) at I-9.

<sup>20</sup> See Petitioner's Prehearing Brief at 2-3, 4 n.2.

<sup>21</sup> The Commission frequently has rejected arguments that it should exclude certain producers from the industry because their data are arguably anomalous compared to the rest of the industry. See, e.g., Certain Brass Sheet and Strip from Japan and the Netherlands, Inv. No. 731-TA-379-380, USITC Pub. 2099 (July 1988) at 10-11, n.21 (domestic producer with restructuring expenses), aff'd, Metallverken Nederland B.V. v. United States, 728 F. Supp. 730, 736 (Ct. Int'l Trade 1989).

industry.<sup>22</sup> Indeed, the Court of International Trade has held that the Commission is not required either to conduct its analysis of the industry on a disaggregated basis or by looking at less than all producers.<sup>23</sup> We do find, however, that the nature of Allied's production of manganese sulfate is a relevant condition of competition for this industry that we consider below.

## II. CONDITION OF THE DOMESTIC INDUSTRY

In assessing whether the domestic industry is materially injured or threatened with material injury by reason of LTFV imports, we consider all relevant economic factors that bear on the state of the industry in the United States.<sup>24</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>25</sup>

There are several pertinent conditions of competition distinctive to the domestic manganese sulfate industry. First, manganese sulfate is chiefly used in fertilizer and animal feed.<sup>26</sup> The demand for manganese sulfate is thus derived from the demand for those fertilizer and animal feed products.<sup>27</sup> The markets for animal feed and fertilizer are relatively mature with only modest growth.<sup>28</sup> Consequently, the demand for manganese sulfate is also relatively stable.

Second, while we consider the condition of the domestic industry as a whole,<sup>29</sup> we note that Allied's production of manganese sulfate is a coproduct of anisic aldehyde, and Allied's revenues from manganese sulfate are small relative to its revenue from anisic aldehyde production.<sup>30</sup> Accordingly, Allied's manganese sulfate production schedule and production volume are determined by Allied's manufacture of anisic aldehyde. Allied's production of manganese sulfate, therefore, is affected differently by market forces than the other principal domestic producer of manganese sulfate.

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<sup>22</sup> See generally, Sandvik AB v. United States, 721 F. Supp. 1322, 1330 (Ct. Int'l Trade 1989) ("ITC may only exclude data from a member of the industry if that member is a related party within the meaning of 19 U.S.C. § 1677(4)(B) and the ITC has determined that 'appropriate circumstances' existed to exclude the data.").

<sup>23</sup> Saarstahl v. United States, 858 F. Supp. 196, 202 (Ct. Int'l Trade 1994); Copperweld Corp. v. United States, 682 F. Supp. 552, 569 (Ct. Int'l Trade 1988).

<sup>24</sup> 19 U.S.C. § 1677(7)(C)(iii).

<sup>25</sup> 19 U.S.C. § 1677(7)(C)(iii). There is no evidence of a business cycle distinctive to the domestic manganese sulfate industry.

<sup>26</sup> CR at I-2, PR at I-2.

<sup>27</sup> To some degree the seasonal nature of fertilizer requirements results in a concentration of larger shipments of manganese sulfate during periods of cultivation and a stockpiling of manganese sulfate production in anticipation of growing seasons.

<sup>28</sup> CR at IV-8, PR at IV-6.

<sup>29</sup> See e.g., Saarstahl v. United States, 858 F. Supp. 196, 202 (Ct. Int'l Trade 1994); Certain Calcium Aluminate Cement and Cement Clinker from France, Inv. No. 731-TA-645 (Final), USITC Pub. 2772 (May 1994) at I-11.

<sup>30</sup> CR at II-4, PR at II-2.



Specifically, a substantial portion of the industry's production, *i.e.*, Allied's, may be less susceptible to any potential effects of the subject imports.<sup>31</sup>

The third condition of competition that we have considered is that non-subject imports from Mexico have held a substantial share of apparent consumption in the United States throughout the period of investigation. Imports of manganese sulfate from Mexico accounted for approximately \*\*\* percent of apparent domestic consumption in both 1992 and 1993.<sup>32</sup>

We discuss the condition of the industry for calendar years 1992-1994 based on data from the domestic industry as a whole, with the exception of financial data. Although Allied submitted shipment, production, and pricing information for the entire period of investigation, financial data supplied by Allied were largely unusable.<sup>33</sup> Thus, our consideration of the industry's financial condition was primarily limited to the financial data that the petitioner provided.<sup>34</sup>

The period of investigation was characterized by very modest increases in U.S. consumption of manganese sulfate. The quantity of apparent U.S. consumption declined slightly from 1992 to 1993 from 23,374 metric tons to 23,060 metric tons, then rose to 23,799 metric tons in 1994.<sup>35</sup> Apparent consumption continued to increase modestly from 13,656 metric tons in interim 1994 to 14,382 metric tons in interim 1995.<sup>36</sup> In terms of value, however, apparent consumption declined steadily from \$11.15 million in 1992 to \$10.63 million in 1994.<sup>37</sup> Apparent consumption rebounded from \$6.10 million in interim 1994 to \$6.60 million in interim 1995.<sup>38</sup>

The quantity of the domestic industry's U.S. shipments declined marginally from 1992 to 1994.<sup>39</sup> The value of shipments by the domestic industry followed a similar trend, declining between 1992 and 1993 before partially recovering in 1994.<sup>40</sup>

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<sup>31</sup> Allied accounted for approximately \*\*\* of domestic production in 1994. Table III-1, CR at III-5; PR at III-2. In July 1995, Allied and AMT entered into a contract wherein AMT will purchase all of Allied's coproduct and process the coproduct into finished forms of manganese sulfate. The contract results in AMT becoming the principal domestic producer of manganese sulfate.

<sup>32</sup> Table IV-3, CR at IV-12, PR at IV-7.

<sup>33</sup> Allied provided the Commission with financial data concerning its production of manganese sulfate. The data that Allied provided, however, were deficient due to reasons connected with the transfer of ownership of Allied's plant from Koch to Allied in 1993 and the nature of Allied's accounting with respect to coproduction of manganese sulfate. CR at VI-5, PR at VI-2.

<sup>34</sup> While Eagle Picher provided otherwise usable financial data regarding the processing that it performed in its tolling operations, such data accounted for only a portion of the production of manganese sulfate granules as Eagle Picher \*\*\*. CR at VI-1, PR at VI-1.

<sup>35</sup> Table IV-2, CR at IV-9; PR at IV-5.

<sup>36</sup> *Id.*

<sup>37</sup> By value, consumption declined by 4.6 percent from 1992 to 1994. Table IV-2, CR at IV-9, PR at IV-5. Consumption increased by 1.8 percent between 1992 and 1994. *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> The quantity of such shipments decreased from \*\*\* metric tons between 1992 and 1993, before recovering to \*\*\* metric tons in 1994. Table III-2, CR at III-8, PR at III-3. Domestic producer shipments increased between the interim periods from \*\*\* metric tons. *Id.*

<sup>40</sup> The value of domestic shipments fell from \*\*\* million between 1992 and 1993, before partially recovering to \*\*\* million in 1994. Improvement in the value of domestic shipments continued in the interim period of 1995 as shipments increased from \*\*\* million. Table IV-2, CR at IV-9, PR at IV-5.

Domestic production of manganese sulfate increased throughout the period of investigation.<sup>41</sup> Domestic producers' production capacity also increased throughout the period of investigation.<sup>42</sup> Capacity utilization by the domestic industry remained relatively stable throughout the period of investigation despite substantial increases in capacity.<sup>43</sup> U.S. producers' inventories increased substantially, from 1992 to 1994, and again in interim 1995 compared to interim 1994.<sup>44</sup>

The number of production and related workers, and the hours worked by such workers, were generally stable during the period of investigation, although they increased somewhat in 1993.<sup>45</sup> Total compensation paid rose from 1992 to 1994, but declined marginally in the interim period comparison.<sup>46</sup> Productivity increased from 1992 to 1994 and also increased in the interim period comparison.<sup>47</sup>

Our analysis of industry financial performance is limited to the data of the petitioner, which we estimate accounted for approximately \*\*\* percent of domestic production and sales during the period of investigation.<sup>48</sup> Domestic industry sales revenues \*\*\* between 1993 and 1994 before \*\*\* in 1995. Net sales revenue \*\*\* from interim 1994 to interim 1995.<sup>49</sup> The \*\*\* in net sales value in 1994 and in interim 1995 is a reflection of \*\*\* sales volume, as unit sales value \*\*\* during both periods.<sup>50</sup> The limited financial data the industry provided reveal that gross profits \*\*\* throughout the period, however, as the unit cost of goods sold \*\*\*.<sup>51</sup>

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<sup>41</sup> Production quantity increased from \*\*\* metric tons in 1992 to \*\*\* metric tons in 1994 and continued to increase from \*\*\* metric tons in interim 1994 to \*\*\* metric tons in interim 1995. Table III-1, CR at III-5, PR at III-2.

<sup>42</sup> Table III-1, CR at III-5, PR at III-2. Capacity increased from \*\*\* metric tons in 1992 to \*\*\* metric tons in 1994, or by approximately \*\*\* percent and continued to increase from \*\*\* to \*\*\* metric tons between interim periods in 1994 and 1995.

<sup>43</sup> Capacity utilization declined from \*\*\* percent to \*\*\* percent between 1992 and 1993, before recovering to \*\*\* percent in 1994. Utilization continued to improve slightly between the interim periods from \*\*\* to \*\*\* percent. *Id.*

<sup>44</sup> Domestic producer inventories increased from \*\*\* metric tons from 1992 to 1993 before increasing further to \*\*\* metric tons in 1994. Inventories in interim 1995 increased to \*\*\* metric tons from \*\*\* metric tons in 1994. Table III-3, CR at III-9, PR at III-4.

<sup>45</sup> Table III-4, CR at III-11, PR at 5. Production and related workers increased from 20 to 21 between 1992 and 1993 and then remained at that level in 1994. Hours worked increased from 39,000 in 1993 to 44,000 in 1994, before declining slightly from interim 1994 to interim 1995.

<sup>46</sup> Total compensation increased by 14.7 percent from 1992 to 1994, and was 4.8 percent lower in interim 1995 than interim 1994. Table III-4, CR at III-11, PR at III-5.

<sup>47</sup> Table III-4, CR at III-12, PR at III-5. Productivity improved from \*\*\* metric tons per 1,000 work hours in 1992 to \*\*\* metric tons per 1,000 work hours in 1994. Productivity continued to increase in the interim periods from \*\*\* tons per 1,000 work hours in 1994 to \*\*\* tons per 1,000 work hours in 1995.

<sup>48</sup> As previously stated, Allied's financial data were unusable. The petitioner's financial data are based on fiscal years ending on June 30.

<sup>49</sup> Table VI-2, CR at VI-3, PR at IV-2. Net sales \*\*\* from \$\*\*\* million in 1992 to \$\*\*\* million in 1993, then \*\*\* to \$\*\*\* million in 1994. Net sales \*\*\* from \$\*\*\* thousand in interim 1994 to \$\*\*\* thousand in interim 1995.

<sup>50</sup> Net unit sales value \*\*\* from \$\*\*\* per ton in AMT's fiscal year 1993 to \$\*\*\* in fiscal year 1995 and from \$\*\*\* per ton in interim 1994 to \$\*\*\* in interim 1995. *Id.*

<sup>51</sup> Gross profits \*\*\* from, \$\*\*\* thousand in fiscal 1993 to \$\*\*\* thousand in fiscal 1995. Cost of goods sold per ton \*\*\* from \$\*\*\* in fiscal 1993 to \$\*\*\* in fiscal 1995. *Id.*

Operating income followed a \*\*\* trend as the industry was able to \*\*\* its per unit selling, general and administrative expenses.<sup>52</sup> Nonetheless, operating income \*\*\* between fiscal years 1993 and 1994 as \*\*\* and unit sales values \*\*\*.<sup>53</sup> Operating losses \*\*\* in fiscal year 1995 although unit sales values \*\*\*.<sup>54</sup> Operating \*\*\*, however, continued as such improvements were \*\*\* in units costs of goods sold.

Although financial performance when measured in terms of gross profit as a percentage of net sales \*\*\* between the interim periods, operating losses and net losses as a percentage of net sales \*\*\* between those periods.<sup>55</sup> The \*\*\* in net losses between the interim periods occurred despite improvements in productivity<sup>56</sup> and a \*\*\* in cost of goods sold.<sup>57</sup> The deterioration in financial performance was accompanied by a \*\*\* in the domestic industry's capital expenditures during the investigatory period, including \*\*\* between the interim periods.<sup>58 59</sup>

#### IV. NO MATERIAL INJURY BY REASON OF LTFV IMPORTS

In final antidumping duty investigations, the Commission determines whether an industry in the United States is materially injured by reason of the imports subject to investigation that Commerce has determined to be sold at LTFV.<sup>60</sup> In making this determination, the Commission must consider the volume of imports, their effect on prices for the like product, and their impact on domestic

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<sup>52</sup> SG&A costs were \*\*\* from \$\*\*\* per ton in fiscal 1993 to \$\*\*\* per ton in fiscal 1995. SG&A costs, however, \*\*\* on a per-ton basis between the interim periods of 1994 and 1995. Table VI-2, CR at VI-3, PR at VI-2.

<sup>53</sup> *Id.*

<sup>54</sup> AMT's operating \*\*\* from \$\*\*\* in fiscal year 1993 to \$\*\*\* in fiscal year 1994 before \*\*\* to \$\*\*\* in 1995. Operating losses, however, \*\*\* from interim 1994 to interim 1995. CR at VI-5, PR at VI-2.

<sup>55</sup> Table VI-2, CR at VI-3, PR at VI-2. Gross profits, as a ratio to net sales, \*\*\* from \*\*\* percent to \*\*\* percent from interim 1994 to interim 1995. Operating losses, however, \*\*\* from \*\*\* percent to \*\*\* percent of net sales, while net losses also \*\*\*.

<sup>56</sup> Table III-4, CR at III-12, PR at III-5.

<sup>57</sup> Although cost of goods sold \*\*\* from 1992 to 1994 as a percentage of net sales from \*\*\* percent, COGS \*\*\* from interim 1994 to interim 1995 from \*\*\* to \*\*\* percent. Table VI-2, CR at VI-3, PR at VI-2.

<sup>58</sup> These expenditures \*\*\* by \*\*\* percent from 1992 to 1994, and were \*\*\* to \*\*\* in interim 1995, from \*\*\* in interim 1994. Table VI-5, CR at VI-9, PR at VI-3.

<sup>59</sup> Based on the foregoing, Commissioner Rohr and Commissioner Newquist find that while the petitioner may be experiencing material injury, the domestic manganese sulfate industry as a whole, is not. See 19 U.S.C. § 1677(4)(A)("[t]he term 'industry' means . . . those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product"); 19 U.S.C. § 1673d(b)(1)("[t]he Commission shall make a final determination of whether an industry in the United States . . .")(emphasis supplied). Industry-wide performance indicators, such as production, shipments, inventories, and employment, evidence an industry which, in their view, is not presently injured. Commissioner Rohr and Commissioner Newquist note that although their "condition of the industry" finding is complicated by the nature of the industry's financial data, such data are not in conflict with the other industry-wide performance indicia -- which do not reflect an injured industry. Accordingly, having found no material injury, Commissioner Rohr and Commissioner Newquist proceed directly to the no threat of material injury analysis and do not join the following "no causation" discussion.

<sup>60</sup> 19 U.S.C. § 1673d(b). The statute defines "material injury" as "harm which is not inconsequential, immaterial or unimportant." 19 U.S.C. § 1677(7)(A).

producers of the like product, but only in the context of U.S. production operations.<sup>61</sup> Although the Commission may consider alternative causes of injury to the domestic industry other than the LTFV imports, it is not to weigh causes.<sup>62 63 64 65</sup>

For the reasons discussed below, we find that the domestic industry producing manganese sulfate is not materially injured or threatened with material injury by reason of LTFV imports from China.

#### A. The Volume of Subject Imports

The volume of subject imports increased from 3,397 to 5,394 metric tons between 1992 and 1993 before declining to 4,635 metric tons in 1994. Further, subject import volume declined in

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<sup>61</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>62</sup> See, e.g., Citrosuco Paulista, S.A. v. United States, 704 F. Supp. 1075, 1101 (Ct. Int'l Trade 1988). Alternative causes may include the following:

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

S. Rep. No. 249, 96th Cong., 1st Sess. 74 (1979). Similar language is contained in the House Report. H.R. Rep. No. 317, 96th Cong., 1st Sess. 46-47 (1979).

<sup>63</sup> For Chairman Watson's interpretation of the statutory requirement regarding causation, see Certain Calcium Aluminate Cement Clinker from France, Inv. No. 731-TA-645 (Final), USITC Pub. 2772 at I-14 n.68 (May 1994).

<sup>64</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 (CIT 1989); Citrosuco Paulista, 704 F. Supp. at 1101.

<sup>65</sup> Commissioner Crawford notes that the statute requires that the Commission determine whether a domestic industry is "materially injured by reason of" the 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 LTFV imports, not by reason of 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, at 75. The legislative history makes it clear, however, 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 LTFV imports are "the principal, a substantial or a significant cause of material injury." S. Rep. No. 249, at 74. Rather, it is to determine whether any injury "by reason of" the allegedly subsidized and 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).

interim 1995 as compared to interim 1994, decreasing to 1,606 from 2,080 metric tons.<sup>66</sup> The value of subject imports followed a similar trend, increasing from 1992 to 1993 and then declining in 1994 and between the interim periods in 1994 and 1995.<sup>67</sup>

The market share of subject imports increased from \*\*\* percent of apparent domestic consumption in 1992 to 20.3 percent in 1994.<sup>68</sup> The subject imports lost market share between the interim periods, however, declining from 17.5 percent during the first six months of 1994 to 12.3 percent of apparent consumption in the comparable period of 1995.<sup>69</sup>

Despite the absolute volume of subject imports and the increases in subject import market share that occurred during the period, we do not find the volume of subject imports to be significant.<sup>70</sup> First, gains in shipment volume and market share by the subject imports were mostly at the expense of nonsubject imports from Mexico. While subject import shipment volume increased by \*\*\* metric tons from 1992 to 1994, domestic industry shipments declined by only \*\*\* metric tons during the period, while nonsubject imports from Mexico declined by \*\*\* metric tons.<sup>71</sup> Consequently, domestic industry market share in 1994 was only slightly lower than in 1992, at the beginning of the period of investigation,<sup>72</sup> whereas the market share of nonsubject imports from Mexico increased slightly between 1992 and 1993 before declining substantially in 1994.<sup>73</sup>

The decline in domestic industry shipments and market share was confined to 1993, moreover, and is largely explained by an apparent interruption of shipments that occurred when Koch Industries sold and transferred its Pittsburg plant to Allied in early 1993.<sup>74</sup> By 1994, however, Allied had \*\*\* both production and shipments from the plant \*\*\*, and the domestic industry approached pre-1993 levels of both production and shipments.<sup>75</sup> Domestic industry shipments and market share continued to increase between the interim periods as well.

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<sup>66</sup> Table IV-1, CR at IV-5, PR at IV-3.

<sup>67</sup> Table IV-1, CR at IV-5, PR at IV-3. The value of subject imports increased from \$1.2 to \$1.7 million from 1992 to 1993 before declining to \$1.5 million in 1994. The value of subject imports also declined from \$643,000 in interim 1994 to \$582,000 in interim 1995.

<sup>68</sup> Table IV-3, CR at IV-12, PR at IV-7.

<sup>69</sup> *Id.*

<sup>70</sup> Vice Chairman Nuzum does not join in this statement. She finds the volume of subject imports to be significant, particularly when measured against the volume of domestic production and shipments. She does not find the increases, however, in the volume of subject imports to be significant, for the reasons discussed *infra* in the text. Table A-1, CR at A-3, PR at A-3.

<sup>71</sup> Table IV-2, CR at IV-9, PR at IV-5.

<sup>72</sup> Table IV-3, CR at IV-12, PR at 7. Domestic industry market share declined from \*\*\* to \*\*\* percent from 1992 to 1993, but improved markedly in 1994 to \*\*\* percent. The domestic producers continued to reclaim market share in the interim periods increasing to \*\*\* percent in 1995 compared to \*\*\* percent in 1994.

<sup>73</sup> *Id.* The market share of nonsubject imports from Mexico increased to \*\*\* percent in 1993 from \*\*\* percent in 1992, but then declined to \*\*\* percent in 1994.

<sup>74</sup> Allied assumed ownership and control of the plant in January 1993 from Koch Industries which had previously operated the facility. CR III-2, PR at III-2. Koch shipped \*\*\* metric tons of manganese sulfate from the facility in 1992, whereas Allied shipped only \*\*\* metric tons during its first year of operation of the plant. Tables III-1 and III-2, CR at III-5-8, PR at III-2-3.

<sup>75</sup> *Id.* Domestic industry shipments in 1994 equaled \*\*\* metric tons compared to \*\*\* in 1992. Further, domestic industry shipments in interim 1995 increased to \*\*\* metric tons from \*\*\* metric tons in 1994. Table IV-2, CR at IV-9, PR at IV-5.

The significance of the volume of the subject imports was also minimized by the differing end uses and customers for the Chinese manganese sulfate.<sup>76</sup> The subject imports were overwhelmingly used by purchasers for animal feed and were sold largely to end users.<sup>77</sup> In contrast, domestic producers sold manganese sulfate primarily for use as fertilizer and chiefly to distributors.<sup>78</sup> In addition, the subject imports, which consisted mostly of manganese sulfate powder, and to a lesser extent of soft granules, were found to be poorly suited for use as fertilizer, the chief use of the domestic product.<sup>79</sup>

For these reasons, we find that the volume of subject imports is not significant.<sup>80</sup>

## B. The Effect of Subject Imports on Domestic Prices

In evaluating the effect of LTFV imports on domestic prices, the Commission considers whether there has been significant price underselling by imports and whether the imports depress prices to a significant degree or prevent price increases that otherwise would have occurred, to a significant degree.<sup>81</sup> A number of factors are relevant to our determination of the price effects of subject imports on domestic producers' prices, including the level of substitutability among the domestic and imported products, and the level of competition among the domestic producers.

Manganese sulfate in powder form accounted for most of the volume of subject imports.<sup>82</sup> While powder represented a declining proportion of subject imports after granular imports were introduced in the U.S. market in 1993, powder still accounted for \*\*\* of such imports in 1994 and continued to represent more than a \*\*\* of subject imports during the first six months of 1995.<sup>83</sup> In contrast, powder never represented more than \*\*\* percent of domestic industry shipments.<sup>84</sup> Purchasers, moreover, stated that powder was limited by its physical characteristics primarily to use in animal feed,<sup>85</sup> and that only fine granular manganese sulfate produced by Allied was suitable for

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<sup>76</sup> Although the Commission did not find separate and distinct market segments for manganese sulfate because of substantial overlap in the sale of domestic and subject imports for use in both animal feeds and fertilizer, we did find limited substitutability between the subject imports and the domestic product based on differences in the physical properties of the respective products and their relative suitability to particular end uses.

<sup>77</sup> CR at I-11, II-1-3, PR at I-6, II-1-2.

<sup>78</sup> CR at I-11, II-1-2, PR at I-6, II-1-2.

<sup>79</sup> CR at I-8, PR at I-5.

<sup>80</sup> Commissioner Crawford notes that the significance of the volume of imports cannot be determined in a vacuum. She makes her finding of the significance of volume in the context of the price and impact effects of these imports. For the reasons discussed below, she finds that the volume of imports is not significant in this investigation.

<sup>81</sup> 19 U.S.C. § 1677(7)(C)(ii).

<sup>82</sup> Table II-2, CR at II-3, PR at II-2.

<sup>83</sup> *Id.* Powder accounted for \*\*\* percent of subject imports in 1992, \*\*\* percent in 1993, and approximately \*\*\* percent in 1994.

<sup>84</sup> *Id.* In 1994, the domestic industry shipped \*\*\* metric tons of manganese sulfate, but only \*\*\* metric tons of powder. Although fine granular manganese sulfate also competes with manganese sulfate powder, fine granules never represented more than \*\*\* percent of subject imports. *Id.*

<sup>85</sup> CR at I-3, PR at I-2. Purchasers stated that the dust associated with powder clogged machinery used by the fertilizer industry and made the use of powder impractical. CR at I-8, PR at I-5.

the same end use.<sup>86</sup> In addition, imports of large granular manganese sulfate from China were found by purchasers to be unsuitable for use in fertilizer and, thus, inferior to domestic large granules for that end use.<sup>87</sup> Accordingly, we find limited substitutability between the subject imports and the domestic product.

We find no significant underselling by manganese sulfate from China. While there was evidence of underselling in price comparisons involving large granular manganese sulfate (product 1) from China, there was no consistent pattern of underselling for manganese sulfate powder (product 3) or fine granular manganese sulfate (product 2). Indeed, for product 3, Chinese powder oversold the domestic product in five of the seven comparisons between July 1993 and June 1995.<sup>88</sup> Because the bulk of the subject imports consisted of powder, we give more weight to the price comparisons involving product 3, manganese sulfate powder.<sup>89</sup>

We also find no evidence of significant price depressing effects by the subject imports. Prices for AMT, the domestic producer accounting for \*\*\* of the domestic shipments of product 1, showed \*\*\* between 1993 and 1994, the period for which most comparisons were available.<sup>90</sup> While Allied introduced a large granular product in 1993, the \*\*\* does not follow a consistent pattern and does not show any obvious correlation with the prices of the subject imports. Similarly, domestic prices for product 2 \*\*\* throughout the period of investigation without relationship to subject import prices.<sup>91</sup> Moreover, Chinese sales of fine granular manganese sulfate (product 2) were relatively small and declining in volume, and price comparisons for the fine granular products are limited in number.<sup>92</sup> Domestic prices for product 3 also were \*\*\* at the end of the investigation as they were at the beginning, and the margin of overselling by the subject imports in the interim period of 1995 was significant.

While the record suggests that domestic prices have been suppressed relative to costs,<sup>93</sup> we find that this is not due to a significant degree to the subject imports, given the lack of significant underselling, the limited substitutability of the subject imports for the domestic product, and the lack of correlation in pricing patterns between the domestic product and those of the subject imports. Indeed, we find recent overselling by the subject imports for product 3, which represents the bulk of

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<sup>86</sup> *Id.* Fine granular manganese sulfate represented approximately \*\*\* of domestic shipments. Purchasers stated that the lower solubility and manganese content of AMT's product made it less desirable for use in animal feed and in some circumstances, was not usable in that end use.

<sup>87</sup> CR at I-8, PR at I-5.

<sup>88</sup> Table V-5, CR at V-12, PR at V-5.

<sup>89</sup> Commissioner Crawford rarely gives much weight to evidence of underselling since it usually reflects some combination of differences in quality, other nonprice factors, or fluctuations in the market during the period in which price comparisons were sought.

<sup>90</sup> AMT's prices during this period \*\*\* by less than \*\*\* percent. Shipments of large granular manganese sulfate from China represented \*\*\* percent of subject import shipments in 1993 but increased to \*\*\* percent of such shipments by 1994. Table II-2, CR at II-3, PR at II-2.

<sup>91</sup> Table V-4, CR at V-11, PR at V-5.

<sup>92</sup> Based on the available data, fine granular manganese sulfate accounted for approximately \*\*\* percent of shipments of subject imports in 1993 and \*\*\* percent of such imports in 1994. Table II-2, CR at II-3, PR at II-2. \*\*\* shipments of fine granular subject imports were reported for either 1992 or the 1995 interim period. *Id.*

<sup>93</sup> Cost of goods sold \*\*\* from \*\*\* percent of net sales in 1993 to \*\*\* percent of such sales in 1995. Table VI-2, CR at VI-3, PR at VI-2. During the same period, net unit sales value only \*\*\* from \*\*\* to \*\*\* per ton, or by less than \*\*\* percent. *Id.*

imports during the period of investigation. Additionally, the domestic industry's cost of goods sold \*\*\* in interim 1995 compared to interim 1994, \*\*\* costs on the industry's financial condition.<sup>94</sup>

In view of the foregoing, we conclude that the subject imports have not suppressed or depressed prices to a significant degree.<sup>95</sup>

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<sup>94</sup> Table VI-2, CR at VI-3, PR at VI-2.

<sup>95</sup> 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 these investigations, if subject imports had been fairly traded, the price of Chinese product would have increased significantly and a significant portion of imports from China would have been priced out of the market. The ability of domestic producers to have raised prices under these circumstances depends on competitive conditions in the market for manganese sulfate involving both supply and demand side considerations.

A significant factor in determining what the effects of higher subject import prices would have been on domestic prices is the overall demand elasticity for manganese sulfate in the U.S. market. This elasticity is determined primarily by the availability of alternative products and the share of downstream product cost that manganese sulfate represents. Although substitutes exist for manganese sulfate, most responding purchasers did not view them as being commercially viable. Also, because manganese sulfate is a micronutrient that is required in very small quantities in the downstream products in which it is used, it accounts for a relatively small percentage of the final product cost of agricultural or animal feed products. When the price of an input is a small part of the cost of the total product cost, changes in the price of the input are less likely to alter demand for the downstream product, and by extension, for the input product. The evidence indicates that the manganese sulfate market is characterized by a relatively low elasticity of demand. That is, purchasers will not change their consumption significantly in response to changes in price.

Even in a market characterized by relatively low demand elasticity, the composition of overall demand can be sensitive to the relative prices of the alternative sources of the product. If subject imports had been fairly priced, they would have become more expensive relative to domestic products and nonsubject imports. In such a case, there would have been a shift in the composition in demand toward the relatively cheaper products. The magnitude of this shift depends on the substitutability of subject imports for products from alternative sources. As noted above, substitutability between subject imports and the domestic product is quite limited. Subject imports and nonsubject imports from Mexico, however, are good substitutes. It is likely that a significant portion of total subject imports would not have been sold in the domestic market if they had been fairly priced. Most purchasers that were unwilling to pay higher prices for the subject imports would have switched to the relatively less expensive nonsubject imports. Nonsubject imports had a substantial presence in the market over the period of investigation. Some purchasers also would have sought to switch to the relatively less expensive domestic product. Therefore, it is likely that if subject imports had been fairly priced, most of the demand previously supplied by subject imports would have shifted to the relatively cheaper nonsubject imports from Mexico.

Whether domestic producers would have been able to increase prices if subject imports had been priced fairly is also affected by supply side considerations, including the amount of the domestic industry's available production capacity and inventories, and the level of competition in the market. As noted above, Allied produces manganese sulfate as a coproduct of another, much more valuable product. Allied's production quantity of manganese sulfate is not responsive to changes in the price of manganese sulfate. AMT, however, was operating in 1994 at a capacity utilization rate of \*\*\*, and had \*\*\* available production capacity. Also, Allied and AMT maintained significant inventories of manganese sulfate that could have been used to meet increased demand for the domestic product. Most importantly, nonsubject imports have been a substantial presence in the market throughout the period of investigation. The presence of such substantial quantities of nonsubject imports, combined with AMT's \*\*\* production capacity and the domestic producers' available

(continued...)



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

We conclude that the subject imports had no adverse impact on the domestic industry sufficient to warrant an affirmative determination. The domestic industry held a relatively stable share of a gradually growing market.<sup>96</sup> Domestic production volume increased while capacity utilization rates remained relatively constant.<sup>97</sup> Thus, the increased volume of the subject imports was not reflected in any deterioration in the level of production and shipments by the domestic industry. In fact, the subject imports largely displaced nonsubject imports from Mexico and not the domestic product. In addition, there was no reduction in the number of workers employed in the domestic industry, and increases in labor productivity improved the efficiency of the domestic industry's operations.<sup>98</sup>

Although information obtained by the Commission indicates that the financial condition of the domestic industry deteriorated during the period of investigation<sup>99</sup>, there is no correlation between the volume and prices of the subject imports and the domestic industry's condition. There was neither significant underselling by the subject imports nor significant price suppressing or depressing effects by the imports. The operating losses of the domestic industry \*\*\* from 1993 to 1994 and again between 1994 and 1995,<sup>100</sup> despite a decline in subject import volume after 1993 and increases in prices for the subject imports in the first six months of 1995. Moreover, Allied, the industry's \*\*\* producer (accounting for \*\*\* of domestic production in 1994), indicated that \*\*\*.<sup>101</sup>

Accordingly, we conclude that the domestic industry is not materially injured by reason of LTFV imports of manganese sulfate from China.<sup>102</sup>

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<sup>95</sup>(...continued)

inventories, indicate that the domestic industry would not have been able to sustain a significant price increase. Accordingly, Commissioner Crawford finds that subject imports did not have significant price effects on the domestic industry.

<sup>96</sup> Table IV-3, CR at IV-12, PR at IV-7.

<sup>97</sup> Table III-1, CR at III-5, PR at III-2.

<sup>98</sup> Table III-4, CR at III-11-12, PR at III-5.

<sup>99</sup> Table VI-2, CR at VI-3, PR at VI-2.

<sup>100</sup> CR at VI-5, PR at VI-2. Operating losses \*\*\* from \*\*\* in 1993 to \*\*\* in 1994 before \*\*\* to \*\*\* in 1995. Operating losses were \*\*\* in interim 1995 than in the comparable period of 1994 as such \*\*\* from \*\*\* to \*\*\*.

<sup>101</sup> CR at appendix F, F-3; PR at F-3.

<sup>102</sup> In her analysis of material injury by reason of subject 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 imports been fairly traded. In assessing the impact of 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 and research and development as required by 19 U.S.C. § 1677(C)(iii). These factors 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 and sales is critical, because the impact on other industry indicators (e.g., employment, wages, etc.) is derived from this impact.

The domestic industry would not have been able to increase its prices significantly if subject imports had been sold at fairly traded prices. Therefore, any impact of dumped imports on the domestic industry would have been on the domestic industry's output and sales.

(continued...)

## V. NO THREAT OF MATERIAL INJURY BY REASON OF LTFV IMPORTS

Section 771(7)(F) of the Act directs the Commission to determine whether a U.S. industry is threatened with material injury by reason of imports "on the basis of evidence that the threat of material injury is real and actual injury is imminent." The Commission is not to make such a determination "on the basis of mere conjecture or supposition."<sup>103</sup>

We have considered all the statutory factors that are relevant to this investigation.<sup>104</sup> The presence or absence of any single factor is not dispositive.<sup>105</sup> We do not find that there is a threat of material injury to the domestic industry by reason of the subject imports.

First, any underutilized capacity or increase in unused capacity in China is not likely to result in a significant increase in the subject imports. Based on the record in this investigation, the capacity of Chinese manufacturers to produce manganese sulfate has not substantially increased.<sup>106</sup> Further, respondents stated that the two Chinese manufacturers who sold them manganese sulfate required more than two years to bring production to the quality levels required for export to the United States.<sup>107</sup> Chinese production increased by a relatively small amount from 1992 to 1994, and by a

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<sup>102</sup>(...continued)

As she noted earlier, Commissioner Crawford finds that had subject imports not been dumped, the increase in demand for domestic manganese sulfate would have been small. Domestic suppliers could easily have increased their production and sales to satisfy the increased demand. The domestic industry's output and sales, however, and therefore its revenues, would not have increased significantly. She therefore, finds that, had subject imports not been dumped, the impact on the domestic industry's output and sales would not have been significant.

Had subject imports not been dumped, the domestic industry would not have been able to increase its prices, output or sales, and therefore its revenues, significantly. Consequently the domestic industry would not have been materially better off if the subject imports had been fairly traded. Therefore, Commissioner Crawford finds that the domestic industry producing manganese sulfate is not materially injured by reason of LTFV imports of manganese sulfate from China.

<sup>103</sup> 19 U.S.C. § 1677(7)(F)(ii). An affirmative threat determination must be based upon "positive evidence tending to show an intention to increase the levels of importation." Metallwerken Nederland B.V. v. United States, 744 F. Supp. 281, 287 (Ct. Int'l Trade 1990), citing, American Spring Wire Corp. v. United States, 590 F. Supp. 1273, 1280 (Ct. Int'l Trade 1984), aff'd, 760 F. 2d 249 (Fed. Cir. 1985).

<sup>104</sup> 19 U.S.C. § 1677(7)(F)(i)(I)-(X). In addition, the Commission must consider whether dumping findings or antidumping remedies in markets of foreign countries against the same class or kind of merchandise suggest a threat of material injury to the domestic industry. 19 U.S.C. § 1677(7)(F)(iii)(I). There is no evidence of any third country antidumping findings or remedies against manganese sulfate from China.

Factor I is not relevant because no subsidy is involved. Factor VIII is not applicable as none of the foreign producers's manganese sulfate facilities is used to produce other products subject to final antidumping or countervailing duty orders. Because this investigation does not involve an agricultural product, Factor IX is not applicable.

<sup>105</sup> See, e.g., Rhone Poulenc. S.A. v. United States, 592 F. Supp. 1318, 1324 n.18 (Ct. Int'l Trade 1984).

<sup>106</sup> Production capacity for the two Chinese producers which provided data in the investigation shows that capacity increased from \*\*\* metric tons in 1992 to \*\*\* metric tons in 1994. Table VII-1, CR at VII-3; PR at VII-1. These producers accounted for \*\*\* of subject imports in 1994. Information provided to the Commission indicated that four other Chinese companies may have exported the subject merchandise to the United States during the period of investigation. CR at VII-4, PR at VII-2.

<sup>107</sup> CR at VII-3-4, PR at VII-2. Respondents estimated that a third producer with whom they were familiar was still two to three years away from meeting the necessary quality requirements. Id.

more substantial amount between the interim periods.<sup>108</sup> Between 1992 and 1994, however, the capacity utilization of the Chinese producers providing data to the Commission increased and was projected to increase further in calendar years 1995 and 1996.<sup>109</sup> At the same time, these producers' inventories were declining as a percentage of both their production and shipments.<sup>110</sup>

Moreover, a significant portion of the manganese sulfate manufactured by reporting Chinese producers was exported to third countries.<sup>111</sup> There is no evidence that Chinese producers are preparing to shift exports from those other markets to the United States. Indeed, the volume of subject imports declined from 1993 to 1994 and in interim 1995 as compared to interim 1994. Any increased productive capacity or existing unused capacity in China is thus not likely to result in a significant increase in imports of the merchandise to the United States.

Although the subject imports' market share increased from 1992 to 1994, those gains in market share were primarily at the expense of nonsubject imports from Mexico.<sup>112 113</sup> Further, market penetration by the subject imports declined between the interim periods of 1994 and 1995.<sup>114</sup> Domestic producers' market share in 1994 was only marginally lower than in 1992, and was improving in the interim period of 1995 relative to interim 1994.<sup>115</sup> In addition, the level of imports from China decreased between 1993 and 1994, and between the interim periods,<sup>116</sup> although importers' U.S. shipments continued to increase between 1993 and 1994,<sup>117</sup> as importers reduced inventories. We find no likelihood that the volume or market share of subject imports will increase to an injurious level.

Importer inventories of the subject imports increased erratically during the period of investigation,<sup>118</sup> but as a percentage of shipments were lower than the domestic producer and non-

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<sup>108</sup> Table VII-1, CR at VII-3, PR at VII-1. Production increased from \*\*\* metric tons from 1992 to 1994 and from \*\*\* metric tons between the interim periods.

<sup>109</sup> Table VII-1, CR at VII-3, PR at VII-1. Capacity utilization increased from \*\*\* percent in 1992 to \*\*\* percent in 1994, and from \*\*\* percent to \*\*\* percent between the interim periods in 1994 and 1995. Capacity utilization is projected to remain at \*\*\* levels during 1996.

<sup>110</sup> *Id.* Inventories as a percentage of production \*\*\* percent in 1992 to \*\*\* percent in 1994. Inventories as a percentage of production \*\*\* between the interim periods, and were projected to \*\*\* in 1996.

<sup>111</sup> Table VII-1, CR at VII-3, PR at 1. Third country markets accounted for more than \*\*\* percent of Chinese shipments during the period of investigation. In addition, while shipments to the Chinese producers' domestic market \*\*\* between 1993 and 1994, domestic shipments in 1995 are projected to surpass earlier levels.

<sup>112</sup> Table IV-3, CR at IV-12, PR at IV-7.

<sup>113</sup> Commissioner Newquist's assessment of the threat of material injury reflects the diminishing share of U.S. consumption accounted for by the subject imports.

<sup>114</sup> *Id.* Their market share declined from 17.5 to 12.3 percent.

<sup>115</sup> *Id.* Domestic producers' market share declined from \*\*\* to \*\*\* percent from 1992 to 1994, but increased from \*\*\* to \*\*\* percent when the 1994 and 1995 interim periods are compared.

<sup>116</sup> Table IV-1, CR at IV-5, PR at IV-3. Subject imports declined from 5,394 metric tons in 1993 to 4,635 metric tons in 1994. Subject imports also declined between the interim periods from 2,080 in 1994 to 1,606 metric tons in 1995.

<sup>117</sup> Table IV-2, CR IV-9, PR at IV-5. U.S. shipments of subject imports increased from 4,480 to 4,826 metric tons between 1993 and 1994.

<sup>118</sup> Table VII-2, CR at VII-5, PR at VII-3. Such inventories increased between 1992 and 1993, before declining between 1993 and 1994. Inventory levels in 1994, however, remained higher than those in 1992.

subject import inventories.<sup>119</sup> Subject import inventories declined when the interim periods of 1994 and 1995 are compared.<sup>120</sup>

We further find no probability that subject imports will enter the United States at prices that will have a depressing or suppressing effect on domestic prices. We have found that such imports are not currently having a significant depressing or suppressing effect on domestic prices.<sup>121</sup> As discussed previously, non-price factors play a significant role in the manganese sulfate market thereby limiting the ability of subject imports to affect domestic prices adversely. There is no evidence that these market conditions will change in the immediate future, and that subject imports from China will be any more likely to affect prices adversely in the immediate future than they have during the period of investigation.

Finally, we find no other demonstrable adverse trends indicating the probability that the subject imports will be the cause of actual material injury to the domestic industry.<sup>122</sup> For all the reasons stated above, we find that the domestic industry is not threatened with material injury by reason of subject imports from China.

## CONCLUSION

In light of the foregoing, we determine that the domestic manganese sulfate industry is not materially injured or threatened with material injury by reason of LTFV imports of manganese sulfate from China.

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<sup>119</sup> Table VII-2, CR at VII-5, PR at VII-3. Whereas U.S. importers' inventories of the subject merchandise in 1994 equaled 18 percent of U.S. shipments, inventories of non-subject imports from Mexico in the same year equaled \*\*\* percent of shipments and U.S. producer inventories equaled \*\*\* percent of domestic industry shipments in 1994. Table III-3, CR at III-9, PR at III-4.

<sup>120</sup> Table VII-2, CR at VII-5, PR at VII-3. Inventories of subject imports declined from \*\*\* to 598 metric tons between the interim periods.

<sup>121</sup> Commissioner Rohr and Commissioner Newquist do not join the discussion of no present effect on prices. They concur, however, that there is no indication that the subject imports will imminently depress or suppress domestic prices.

<sup>122</sup> Last year, the Court of Appeals for the Federal Circuit ruled that the Commission is compelled as a matter of law to consider all economic factors bearing on the issue of threat and cannot limit its analysis to the enumerated statutory criteria when there is other pertinent information in the record. Suramerica de Aleaciones Laminadas, C.A. v. United States, 44 F.3d 978, 984 (Fed. Cir. 1994). The Federal Circuit specifically found that lack of support for the petition by members of the domestic industry is a factor which the Commission must consider carefully, particularly if lack of support is "publicly expressed." Id. In the instant investigation, Allied stated \*\*\*. CR at Appendix F, F-3; PR at F-3. Allied and AMT entered into a contract in July 1995, whereby AMT will purchase all of Allied's coproduct and process the coproduct into finished forms of manganese sulfate, making AMT the principal domestic producer of manganese sulfate.

## ADDITIONAL VIEWS OF VICE CHAIRMAN JANET A. NUZUM

### Manganese Sulfate from the People's Republic of China Inv. No. 731-TA-725 (Final)

This case presents unusual circumstances with respect to the structure of the domestic industry, which warrant additional comment. The U.S. industry producing manganese sulfate consists of only two producers. Petitioner American MicroTrace Corp. ("AMT") is a domestic manufacturer of manganese sulfate and zinc sulfate. The other, larger domestic producer, AlliedSignal, is a large diversified corporation which manufactures manganese sulfate as a co-product to its production of anisic aldehyde.

In antidumping investigations, the Commission is required to assess the impact of unfair imports on the domestic industry producing the like product. The term domestic "industry" is defined under section 771(4)(A) of the Tariff Act as either "the producers as a whole" or "those producers whose collective output constitutes a major proportion of the total domestic production." The underlying purpose of this standard is to ensure that an injury finding is not triggered merely by injurious effects to a single producer rather than the collective interests of the industry. Accordingly, the Commission ordinarily collects data and information from as many domestic producers as possible, and aggregates the data to an industry-wide level. This approach works well when presented with a collection of producers which generally face the same conditions of competition.

In this investigation, however, we are presented with two major U.S. producers which face very different conditions of competition. AMT is a relatively small company which produces manganese sulfate, along with zinc sulfate, at its Fairbury, Nebraska facility. Its manganese sulfate operation is a deliberate line of business<sup>1</sup> which uses equipment dedicated to the production of manganese sulfate.<sup>2</sup>

AlliedSignal Incorporated ("Allied"), on the other hand, is a publicly traded, Fortune-100 corporation with a multitude of business interests in a range of different industries. Allied produces manganese sulfate at its Pittsburg, Kansas facility as a co-product in its production of anisic aldehyde. Although its manganese sulfate production exceeds that of AMT, Allied does not produce manganese sulfate as a deliberate line of business based solely on conditions in the manganese sulfate market. Conditions affecting its anisic aldehyde production have significant influence over Allied's manganese sulfate operations. In fact, Allied's revenues from its anisic aldehyde are larger than its revenues from manganese sulfate. Changes in the price of manganese sulfate appear to have little effect on Allied's coproduction of manganese sulfate.<sup>3</sup> Clearly, the conditions of competition facing Allied's manganese sulfate interests are substantially different than those facing AMT's manganese sulfate interests.

Under these circumstances, the traditional approach of simply aggregating the data obtained from the two domestic producers would distort the realities of the marketplace by ignoring the differences in the nature of their operations. Although the focus of our analysis is required to be on

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<sup>1</sup> CR at III-5, PR at III-2, citing Hearing Transcript, p. 43.

<sup>2</sup> Transcript of preliminary conference, p. 46.

<sup>3</sup> CR at II-4, PR at II-2.

domestic producers "as a whole", the statute does not preclude the Commission from examining the condition of the domestic industry on a company-by-company basis. Such an approach would still be consistent with the statutory focus on the domestic industry as a whole so long as we base our determination on the overall situation, not solely on a particular company's situation.

In this investigation, therefore, I scrutinized the condition of each of the two domestic producers separately. I also examined the indicators of performance by the domestic industry as a whole, taking into account the different position each producer occupies in the domestic industry. I considered the role of Allied as a domestic producer that is, by virtue of its own business strategies, less vulnerable to the effects of subject imports. One would expect, for example, a producer like Allied to be less affected than AMT by changes in manganese sulfate prices or in volume competition.

As I reviewed this record, I was particularly conscious of the potential policy implications of the peculiar circumstances before us. In my view, a policy issue would be posed if the larger size of Allied, which has less direct interests in manganese sulfate production, effectively precluded other domestic producers with direct interests in manganese sulfate production from being able to obtain relief under the antidumping and countervailing duty laws. That is not, however, the basis for this negative determination in the instant case.

In the usual investigation, the lack of injurious effects on a larger producer who accounts for a majority of domestic production would likely overshadow the injurious impact of subject imports on the remainder of the domestic industry. Here, however, that larger producer faces very different conditions of competition, and is influenced by a wider range of business interests, than its smaller domestic competitor. These differences between the two domestic producers may, and should, be taken into account in assessing the impact of unfair imports on the industry as a whole. In this investigation, the attenuated relationship between the unfair imports and Allied's manganese sulfate operations, coupled with the lack of a sufficient causal link between the subject imports and declines in AMT's financial performance, provide the basis for a negative determination. The record fails to provide clear evidence of either adverse volume effects by the subject imports or adverse price effects by the subject imports. This negative determination is therefore driven by the facts in this investigation, not by operation of the legal definition of domestic industry.

# PART I: INTRODUCTION

## BACKGROUND

This investigation results from a petition filed by American MicroTrace Corp. (AMT), Virginia Beach, VA, on November 30, 1994, alleging that an industry in the United States is materially injured and threatened with material injury by reason of less-than-fair-value (LTFV) imports of manganese sulfate<sup>1</sup> from the People's Republic of China (China).<sup>2</sup> Information relating to the background of the investigation is provided below.<sup>3</sup>

<i>Date</i>	<i>Action</i>
November 30, 1994 . . . . .	Petition filed with Commerce and the Commission; institution of Commission's preliminary investigation
December 28, 1994 . . . . .	Commerce's notice of initiation
January 17, 1995 . . . . .	Commission's preliminary determination
May 11, 1995 . . . . .	Commerce's preliminary determination (60 FR 26021, May 16, 1995); institution of the Commission's final investigation (60 FR 27555, May 24, 1995)
October 2, 1995 . . . . .	Commerce's final determination (60 FR 52155, Oct. 5, 1995) <sup>4</sup>
October 3, 1995 . . . . .	Commission's hearing <sup>5</sup>
October 27, 1995 . . . . .	Commission's vote
November 6, 1995 . . . . .	Commission determination transmitted to Commerce

## THE PRODUCT

The imported product subject to this investigation is manganese sulfate, an inorganic chemical with the chemical formula  $MnSO_4$ . This section presents information on both imported and

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<sup>1</sup> For purposes of this investigation, manganese sulfate consists of manganese sulfate monohydrate ( $MnSO_4 \cdot H_2O$ ) and any other forms, whether or not hydrated, without regard to form, shape, or size, the addition of other elements, the presence of other elements as impurities, and/or the method of manufacture. Manganese sulfate is classified (along with other miscellaneous sulfates) in subheading 2833.29.50 of the HTS with a most-favored-nation tariff rate of 3.7 percent ad valorem, applicable to imports from China.

<sup>2</sup> A summary of the data collected in the investigation is presented in app. A. The Commission has not conducted any previous investigations on manganese sulfate.

<sup>3</sup> *Federal Register* notices cited in the tabulation are presented in app. B.

<sup>4</sup> Commerce calculated final LTFV margins to be as follows: 32.48 percent for merchandise exported by China National Nonferrous Metals Import and Export Company (CNIEC), and 362.23 percent for all other exporters. Commerce found critical circumstances for merchandise subject to the 362.23 percent rate, but did not find critical circumstances for merchandise subject to the 32.48 percent rate.

<sup>5</sup> A list of witnesses appearing at the hearing is presented in app. C.

domestically produced manganese sulfate, as well as information related to the Commission's "domestic like product" determination.<sup>6</sup>

### Physical Characteristics and Uses

Manganese sulfate is principally used as a source of manganese, an essential element required in small amounts by both plants and animals. Because only small amounts of manganese are required, the material is referred to as an essential trace element, or as a micronutrient. In plants, manganese is used in photosynthesis, plant enzyme systems, nitrate assimilation, and iron metabolism. Crops that require manganese include citrus, soybeans, cucumbers, and cabbage. In animals, manganese is required in enzymes used in energy metabolism, in bone development, and in reproduction. Because manganese is required in only small quantities, manganese sulfate is typically employed as an additive blended with other fertilizers or with animal feed.

Agricultural and animal feed applications for manganese sulfate account for the preponderance of the market for this chemical. Manganese sulfate is also used in such industrial applications as industrial water treatment systems; in the production of bricks; in catalysts; in pigments; in the making of paint dryers; and in the production of organomanganese fungicides. High-purity manganese sulfate is used for medical and other specialized chemical applications.

In most commercial applications, manganese sulfate is in the monohydrate form, that is, the manganese sulfate molecule is combined with a single molecule of water to form the monohydrate,  $\text{MnSO}_4 \cdot \text{H}_2\text{O}$ . Manganese sulfate monohydrate can be produced and sold in three basic forms: large granular, fine granular, and powder. For liquid applications, where rapid dissolving is preferred, generally either the powder or the fine granular form is used. For applications where the manganese sulfate is to be blended as a solid with other fertilizers, the particle size of the manganese sulfate (usually in granular form) must be approximately equal to that of the other components of the fertilizer blend to assure that the distribution of fertilizers in the blend remains uniform. In dry fertilizer applications, manganese sulfate is generally used in granular rather than powder form, whereas in dry animal-feed applications, it is usually dispensed either as powder or as fine granules.

Although manganese compounds are found in nature, they are commonly in the form of manganese dioxide and manganese carbonate ores. Because these chemicals are insoluble, plants and animals cannot readily absorb the manganese contained in the compounds. In contrast, manganese sulfate is a soluble compound, and thus the manganese in this chemical can be more readily used by plants and animals as a micronutrient. Impurities in the manganese sulfate product include various trace elements that are found in the ore, such as boron, cadmium, and arsenic. These impurities, however, are not present in amounts that are sufficient to pose a health risk to plants and animals. Some regulatory authorities are reviewing the level of impurities, with an eye to reducing the maximum levels allowed.

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<sup>6</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.



## Interchangeability

There are several physical distinctions between the various forms of manganese sulfate produced in the United States and those produced in China for export that may affect the degree of interchangeability among products from those sources.

### Manganese Content

According to the petitioner, AMT, the manganese sulfate that it produced during the period examined was produced from manganous oxide.<sup>7</sup> The AMT product has typically contained 29 percent total manganese by weight. Because the soluble manganese sulfate included some unreacted insoluble material, however, its usable content has been somewhat lower (about 27.8 percent).<sup>8</sup>

Manganese sulfate imported from China has a higher manganese content (about 31 percent) than the material produced by AMT, and it contains a lower percentage of insoluble materials.<sup>9</sup> The higher manganese content of the Chinese material may be attributable either to a higher grade of ore used to make the manganese sulfate or to a more extensive purification process, or to a combination of both.<sup>10</sup> The manganese content of the product produced by AlliedSignal, Inc. (Allied), Morristown, NJ, the other current domestic producer (about 32 percent), is also significantly higher than that of the material produced by AMT.

According to the respondents, the lower manganese content of AMT's product is a factor that precludes AMT from being a major player in the animal feed market.<sup>11</sup> According to the petitioner, the manganese content of its manganese sulfate is only slightly lower than that of the Chinese product and does not preclude it from being an active player in the animal feed market.<sup>12</sup>

### Solubility

The solubility of manganese sulfate supplied by major suppliers to the U.S. market (including the Chinese material), other than the manganese sulfate produced by AMT, is over 99 percent.<sup>13</sup> The manganese sulfate offered by Allied is almost 100 percent soluble whereas the solubility of the

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<sup>7</sup> Petition, pp. 7-8; supplement to petition, Dec. 14, 1994, p. 6; transcript of the Commission's hearing ("transcript"), pp. 45-46.

<sup>8</sup> Petition, p. 4, app. 1; an AMT official stated that AMT could \*\*\*. \*\*\*, AMT, staff meeting, Dec. 13, 1994. See also transcript, pp. 97-102. Indeed, AMT is in the process of modifying its production process to produce, at modest cost, a more soluble (100 percent) and more highly concentrated (31 to 32 percent manganese) manganese sulfate product, \*\*\*. Petitioners' posthearing brief, app. 5, p. 1.

<sup>9</sup> Respondents' prehearing brief, p. 12.

<sup>10</sup> \*\*\*, AMT, staff conversation, Dec. 16, 1994. According to a Chinese expert on \*\*\*, the manganese sulfate produced by Xian Lu (one of the two Chinese facilities that are capable of producing product suitable for export) is, he believes, of high quality because of \*\*\* (respondents' prehearing brief, Sept. 28, 1995, exhibit 8).

<sup>11</sup> Respondents' prehearing brief, pp. 9-11; Keith Mizwicki, Sales Manager and Director of Technical Services for Micronutrients for the Engineered Minerals Division of J.M. Huber Corp., respondent's prehearing brief, exhibit 4, and Daniel Salisbury, Purchasing Manager for the Engineered Minerals Division of J.M. Huber Corp., respondent's prehearing brief, exhibit 5.

<sup>12</sup> Transcript, pp. 26-31.

<sup>13</sup> \*\*\*.

manganese sulfate imported from China is between that of AMT's product (96 percent) and that of Allied's product, but close to 100 percent. The slightly lower solubility of the manganese sulfate produced by AMT does not prevent that company from participating in the liquid fertilizer and liquid feed sector, a market that accounts for a significant share of manganese sulfate consumption. In 1994, \*\*\* percent of AMT's shipments of manganese sulfate went to the liquid fertilizer market.<sup>14</sup> During the period examined, \*\*\* manganese sulfate imported from China was used in the liquid fertilizer market.<sup>15</sup>

According to the respondents, however, the lower solubility of AMT's product is a factor that precludes AMT from being a major player in the animal feed market.<sup>16</sup> According to the petitioner, the biological solubility of its manganese sulfate in animal feed is satisfactory, and, therefore, AMT is not precluded from being an active player in the animal feed market.<sup>17</sup>

The issue of solubility of manganese chemicals in animal feeds differs significantly from that of fertilizers because in animals the manganese chemical is digested before it is absorbed in the bloodstream. The issue of the interchangeability of the Chinese and AMT product, with regard to solubility, must therefore relate to biological availability and not necessarily to *in vitro* solubility. For example, according to data provided by a trade journal, the biological availability of manganous oxide is equal to that of manganese sulfate for pigs and for ruminants (cud-chewing animals) and is almost equal for poultry use, even though *in vitro* manganous oxide is far less soluble than manganese sulfate.<sup>18</sup> This fact is consistent with the widespread use of manganous oxide in animal feed applications.<sup>19</sup> Although other studies have indicated that manganese sulfate is superior to manganous oxide in animal feed applications, it appears unlikely, given the successful use of even a relatively insoluble form of manganese in animal feed applications, that the slight difference in solubility between the Chinese and the AMT manganese sulfate product would result in a major difference in biological availability.<sup>20</sup>

Respondents contend that recent work has demonstrated that manganese sulfate has a significantly higher bioavailability than manganous oxide in animal feeds related to its higher solubility. As a result, manganous oxide is being replaced by manganese sulfate, \*\*\*. Therefore, according to respondents, a customer would prefer purchasing manganese sulfate from China rather than purchasing AMT's ManGro™ product because of the higher solubility of the Chinese product, its higher manganese content, \*\*\*, all of which are factors contributing to a higher bioavailability.<sup>21</sup> Also, according to respondents, customers prefer the Chinese product in animal feed because it has a high purity; that is, a lower level of manganous oxide contamination, as evidenced by its lighter color.

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<sup>14</sup> Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

<sup>15</sup> Respondents' posthearing brief, exhibit 3.

<sup>16</sup> Respondents' prehearing brief, pp. 9-11, exhibits 4 and 5.

<sup>17</sup> Transcript, pp. 26-31.

<sup>18</sup> *Industrial Minerals*, Jan. 1992, table 3, p. 36.

<sup>19</sup> Reidios, in Ullmann, *Encyclopedia of Industrial Chemistry*, 1990, p. 131.

<sup>20</sup> Transcript, p. 30. At most, according to respondents, a premix containing AMT's ManGro™ product would have to contain about 20 percent more of AMT's micronutrients than an equivalent premix containing manganese sulfate imported from China; respondents' posthearing brief, p. 6.

<sup>21</sup> Respondents' posthearing brief, pp. 8-9, A-19 to A-20, and exhibit 1.

## Color

The higher purity forms of manganese sulfate are a pale pinkish color.<sup>22</sup> According to the respondent, the darker color of AMT's manganese sulfate, ManGro™, reflects residue contamination with manganous oxide;<sup>23</sup> this dark color suggests the possibility that manganous oxide or manganous dioxide was substituted for manganese sulfate, rendering it undesirable for animal feed applications.<sup>24</sup> According to the petitioner, the fact that the color of its manganese sulfate is darker than the color of the Chinese product does not imply that it is not producing a product of consistent quality and does not preclude AMT from being an active player in the animal feed market.<sup>25</sup>

## Particle Size

During the earlier part of the period examined, China shipped manganese sulfate exclusively in powder form; however, more recently, China has begun to ship granular material.<sup>26</sup> During 1992 \*\*\* granular product was exported from China. \*\*\*.

Although the Chinese material is of a relatively high manganese assay, purchasers have reported discrepancies between the published specifications and the actual product. According to the respondent, quality problems have arisen with regard to the durability of the granular Chinese product and it has been deemed unsuitable for many fertilizer applications.<sup>27</sup> According to one distributor, problems have also arisen with the Chinese material in powder form because of problems typically associated with powder, such as dust.<sup>28</sup> Some distributors report that they typically screen the Chinese product before passing it on to the end users.<sup>29</sup> According to the petitioner, however, the quality of the Chinese product has been improving.<sup>30</sup>

## End Uses

According to the petitioner, its manganese sulfate products are suitable for both fertilizer and animal feed applications.<sup>31</sup> Thus, AMT's mini-granular grade (which has a particle size that is large enough to be used in fertilizer applications yet is small enough to be used in animal feed applications) is, according to the petitioner, suitable to be used in both types of applications.<sup>32</sup> According to the respondents, as discussed above, the Chinese manganese sulfate product is generally suitable for animal feed applications but not for fertilizer use, whereas AMT's manganese sulfate is generally

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<sup>22</sup> Mannsville Chemical Product Corp., *Chemical Products Synopsis*, July 1992.

<sup>23</sup> Respondents' prehearing brief, pp. 15-17, and exhibits 4 and 5.

<sup>24</sup> *Ibid.*

<sup>25</sup> Transcript, pp. 25-33.

<sup>26</sup> Respondents' prehearing brief, exhibit 3; transcript, pp. 128-131.

<sup>27</sup> Transcript, p. 129.

<sup>28</sup> \*\*\*.

<sup>29</sup> *Ibid.*

<sup>30</sup> Transcript of the conference in the preliminary investigation ("conference transcript"), Dec. 21, 1994, p. 26.

<sup>31</sup> Transcript, pp. 25-26.

<sup>32</sup> *Ibid.*, pp. 24-26.

suitable for fertilizer applications but not for animal feed use.<sup>33</sup> According to the respondents, based on an analysis of purchaser questionnaires, the majority of the manganese sulfate purchasers for feed do not regard the AMT product as being suitable for animal feed, or they are not familiar with the product.<sup>34</sup> Respondents indicate that, in contrast to the manganese sulfate produced by AMT, manganese sulfate from Mexico (produced by Sulfamex) is suitable for use in animal feed applications.<sup>35</sup> Through its distributor, Imperial Products, Allied sold both fertilizer grade and animal feed material in the U.S. market during the period examined. In the first 6 months of 1995, Allied indicated that its material was not to be sold directly into the animal feed market.<sup>36</sup> As a result of its current marketing arrangement with AMT, however, Allied's product will now be sold by AMT after being processed, dried, and prepared into powder and granular form at AMT's production facility in Fairbury, NE, for use in both end use markets.<sup>37</sup>

### Channels of Distribution

Manganese sulfate is a low valued, relatively heavy, commodity product, shipped in large quantities. As a result, transportation, storage, and distribution costs are significant. Manganese sulfate is shipped in bulk, or in 25-kilo bags, or in 1-ton super sacks and shipped by truck, rail, and barge.

Channels of distribution of manganese sulfate are slightly different for each of the two main end uses (animal feed premixes and fertilizer blends).<sup>38</sup> For animal feed use, U.S. producers and importers sell manganese sulfate to a premixer who mixes the manganese sulfate with other micronutrients to make customized blends that are then sold directly to large animal feed manufacturers, such as Purina or Cargill.<sup>39</sup> These premixers keep in stock quantities of all the micronutrients, including manganese sulfate, which they ship separately to smaller feed premixers or to feed manufacturers who modify their food mixtures in-house. There are believed to be fewer than 10 large regional premixers. Large premixers include \*\*\*.<sup>40</sup> The demand for manganese sulfate in animal feed is generally stable over the entire year, but increases slightly in the winter months.

For fertilizer use, U.S. manganese sulfate manufacturers generally sell to regional distributors that sell the product to regional fertilizer blenders.<sup>41</sup> Imported Chinese manganese sulfate is reportedly sold directly to wholesalers or is stored in regional warehouses. A large number of

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<sup>33</sup> Respondents concede that \*\*\*. Transcript, p. 161. \*\*\*. Respondents' posthearing brief, pp. 11-12, Exhibit 3.

<sup>34</sup> Respondents' prehearing brief, Sept. 28, 1995, pp. 8-9. During 1992-94, ManGro™ sales to the animal feed market ranged between \*\*\* metric tons, accounting for from \*\*\* percent of sales. During interim 1995, ManGro™ sales to the animal feed market amounted to \*\*\* metric tons, or \*\*\* percent of sales. Petitioner's posthearing brief, app. 10.

<sup>35</sup> Respondents' prehearing brief, p. 6 and exhibits 4 and 5; Schnell Publishing Co., *Chemical Marketing Reporter*, 1995 Information Access Co., Jan. 9, 1995, exhibit 1.

<sup>36</sup> This decision was \*\*\*.

<sup>37</sup> Transcript, p. 40.

<sup>38</sup> The combined sales of manganese sulfate for animal feed and for agricultural uses account for approximately 95 percent of total sales. The use of manganese sulfate in agriculture is somewhat larger than the use in animal food, and, within agricultural uses, citrus is the largest consumer.

<sup>39</sup> Manganese sulfate is sold to the animal food industry only in powder or in fine granular form.

<sup>40</sup> \*\*\*.

<sup>41</sup> Manganese sulfate is sold to the agriculture industry only as a granular or as a fine granular product.

fertilizer blenders blend small quantities of micronutrients with the major fertilizer products such as phosphorous, nitrogen, and potassium, and sell this blend within a radius of about 100 miles. The regional distributor often acts as a middle man for the U.S. manganese sulfate producer, carrying credit and supplying the latest technical and product information. These distributors may sell micronutrients from more than one supplier. For large blenders (for instance, regional cooperatives), the regional distributor may place an order and have the manganese sulfate delivered directly from the manufacturer to the blender.

Unlike the animal feed market, the market for fertilizer micronutrients is seasonal; thus, it is critical to build inventories at various points along the distribution chain. Market participants consistently noted regional availability as a significant factor in selling manganese sulfate. AMT stores \*\*\*, and Allied \*\*\*.<sup>42</sup> The Chinese reportedly store their material in California and on the East Coast.

### Customer and Producer Perceptions

In addition to manganese sulfate, there are a number of other manganese products that have been used in both fertilizer and animal feed applications. In response to a question in the Commission's producers' questionnaire on substitutes for manganese sulfate, AMT listed \*\*\*, and Allied listed \*\*\*.<sup>43</sup> In response to a question in the importers' questionnaire, one importer answered, "manganous oxide;" one answered, "manganous oxide and manganese chelates/proteinates;" one answered, "manganous oxide for animal feed, manganese chelates, manganous oxide, manganese oxysulfate, and manganese ferroalloys fines for fertilizers;" one answered, "manganese oxysulfate;" one answered, "possibly other sources of manganese compounds;" one answered, "none;" and four answered, "don't know" or "not sure." In response to questions in the purchasers' questionnaire, 11 firms answered "none" or "essentially no substitutes," and 5 answered, "manganous oxide," one of them mentioning also manganese oxysulfate.

The essential function of all these products is the same, namely, to serve as a source for manganese as a nutrient. The number of criteria that help determine which manganese product may be the preferred source in a given situation is discussed below. Some of these criteria are fairly flexible, and two end users with similar requirements may opt to use different manganese products. Other criteria are, however, fairly rigid, and manganese products that do not meet these criteria are excluded from consideration. In general, manganese sulfate and the competitive manganese products discussed below are widely distributed in markets throughout the United States, although the relative amount of consumption of these manganese products may vary considerably by region or state.

Manganous oxide is a substitute, although an imperfect one, for manganese sulfate in both animal-feed and plant applications.<sup>44</sup> Although manganous oxide is only slightly soluble, especially

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<sup>42</sup> Mexico is the largest foreign supplier of manganese sulfate to the U.S. market. Mexican manganese sulfate is reportedly stored in Mobile, AL, Fresno, CA, and Laredo, TX.

<sup>43</sup> AMT noted that \*\*\*. Petitioner's posthearing brief, app. 4.

<sup>44</sup> According to the petitioner, manganous oxide cannot be used in agricultural applications because of its insolubility. Manganous oxide can be used in animal feed applications but is less efficient than manganese sulfate; conference transcript, p. 30. Although manganese sulfate may be superior to manganous oxide in many

(continued...)

in acidic soils, the manganese ion eventually will dissolve. Some studies have indicated that because of the insolubility of manganous oxide relative to manganese sulfate, a user must purchase significantly more manganous oxide than manganese sulfate in order to achieve the same beneficial effect.

Because of its insolubility, manganous oxide is not used in plant foliar spray applications and is not the preferred source of manganese in high-pH arid soils characteristic of some central and western States and even in some eastern States, such as portions of North Carolina, where overliming is common because of poor drainage. Manganous oxide, however, is significantly less expensive than manganese sulfate, and, therefore, the use of manganous oxide will likely continue in those markets where its technical feasibility is not questioned. Its relative insolubility, often considered to be a disadvantage, may be an advantage in highly moist climates where runoff may be a problem; in contrast, the more soluble manganese sulfate may tend to leach out too quickly for it to be available to the plant. In animal feed applications, manganous oxide is reportedly being displaced by manganese sulfate because of concern about the insolubility of the product.<sup>45</sup>

Another substitute for manganese sulfate is manganese oxysulfate. In this product, manganese oxide is sulfated with sulfuric acid and granulated; the product can be considered to be a mix of manganous oxide and manganese sulfate. Producers sell oxysulfate with varying proportions of oxide and sulfate. It is reportedly easier to granulate and handle than manganous oxide. Manganese oxysulfate is more soluble than manganous oxide but less soluble than manganese sulfate. It is, therefore, especially useful in fertilizer applications where an intermediate level of solubility is desired. It is not, however, sufficiently soluble to be generally used in foliar spray applications. In terms of price, it is significantly less expensive than manganese sulfate. The commercial purity of manganese oxysulfate sold in the United States, however, is not adequate to allow it to be used in animal feed applications. Thus, virtually all the manganese oxysulfate sold in the United States is used as a fertilizer.

Manganese sucrate, a third possible substitute, is produced from manganous oxide by reacting the manganous oxide with a sucrate binder followed by granulation. Manganese sucrate is especially useful in alkaline soils because the presence of the sucrate binder prevents the manganese ion from being oxidized; should oxidation occur, the manganese would not be readily available to the plant. Manganese sucrate is not sufficiently soluble to be used in foliar spray applications. \*\*\*.<sup>46</sup> According to an industry source, \*\*\*.<sup>47</sup>

Smaller quantities of other manganese compounds, including manganese chloride, manganese nitrate, and manganese chelates, are also used. These products are soluble and are used in foliar spray applications in competition with manganese sulfate.

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<sup>44</sup> (...continued)

agricultural applications, manganous oxide can be and is used in agricultural applications, such as citrus crops. According to Thomas Jones at the U.S. Bureau of Mines, published data for domestic consumption of manganous oxide for animal feed and fertilizer combined between the late 1970s and 1990 ranged between 18,000 and 36,000 metric tons annually. Data as to the relative use of manganous oxide in animal feed and fertilizer applications were not available. See Thomas Jones, *Chemical Industry Applications of Industrial Minerals and Metals*, U.S. Bureau of Mines, pp. 75-79, Sept. 1993.

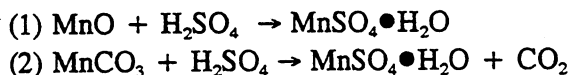
<sup>45</sup> \*\*\*.

<sup>46</sup> \*\*\*.

<sup>47</sup> Ibid.

## Common Manufacturing Facilities and Production Employees

Worldwide, manganese sulfate is typically produced by the reaction of sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) either with manganous oxide (MnO) or with manganese carbonate (MnCO<sub>3</sub>) in an agitated reactor, as shown in the chemical reactions displayed below:



AMT uses the first procedure shown above to produce powdered and granular manganese sulfate from manganous oxide that it purchases.<sup>48</sup> To produce a powder, the manganese sulfate, which first appears as a wet slurry, is simply dried in a rotary or spray dryer. To produce manganese sulfate in granular form, the manganese sulfate slurry is normally sprayed in a granulator. In this apparatus, the droplets of manganese sulfate are circulated and partially dried until they coalesce as moist granules. Upon further drying in a rotary dryer, hard granules are formed.

According to the petitioners, the Chinese production process is similar to the process used by AMT.<sup>49</sup> Counsel for the respondents, however, has stated that manganese sulfate is produced in China \*\*\*.<sup>50</sup>

\* \* \* \* \* \*<sup>51 52</sup>

Manganese sulfate is also produced as a by-product or co-product.<sup>53</sup> Allied produces manganese sulfate as a co-product of anisic aldehyde production. \*\*\*.<sup>54</sup>

U.S. producers of anisic aldehyde and hydroquinone were asked whether they had produced manganese sulfate as a by-product or co-product in recent years. None of these producers (other than Allied) reported that they produced manganese sulfate during the period for which data were collected in this investigation. One company, \*\*\*, reported that it had produced the by-product manganese sulfate but that it terminated production in 1991 because of unfavorable market conditions.<sup>55</sup>

### Price

Although it is difficult to compare prices for the various forms of manganese products used in fertilizers and animal feeds because of variations in grades, physical composition, end uses, manganese content, and solubility, the price per unit of manganese is generally lower for manganous oxide and higher for manganese sulfate. The price of manganese oxysulfate is higher than the price of manganous oxide \*\*\* which is, in turn, lower than the price of manganese sulfate. The relatively

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<sup>48</sup> AMT did not sell the powdered form of manganese sulfate during the period examined.

<sup>49</sup> Transcript, p. 198.

<sup>50</sup> Meeting with Commission staff, May 23, 1995; respondents' prehearing brief, p. 37.

<sup>51</sup> \*\*\*.

<sup>52</sup> \*\*\*.

<sup>53</sup> Manganese sulfate was produced in the United States as a by-product of hydroquinone manufacture by Eastman Chemical Co. (Eastman), a division of the Kodak Corp. Production of the chemical ceased in 1986.

<sup>54</sup> Allied, submission to the Commission, Aug. 30, 1995.

<sup>55</sup> \*\*\*, staff conversation, Aug. 7, 1995.

low price of manganous oxide appears to be a major reason that it continues to be used despite its limited solubility.

The Commission received price data for three forms of U.S.-produced and imported Chinese manganese sulfate: granular or prilled form (particle size approximately -6 +16 Tyler), granular or prilled form (particle size approximately -20 +40 Tyler), and powder (standard form). During most quarters, AMT \*\*\*.<sup>56</sup> Koch \*\*\*. Allied, however, \*\*\*. Price differences between the granular and powdered forms of the imported Chinese subject product varied and did not show a consistent pattern.

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<sup>56</sup> \*\*\*.



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

### **BUSINESS CYCLES**

Manganese sulfate is principally used as a source of manganese, a micronutrient required by both plants and animals. The vast majority of manganese sulfate is used in agricultural and animal feed applications. These are both mature sectors of the economy where demand is expected to grow very slowly in the future. Demand for fertilizer is seasonal, but predictable, while demand for animal feed is generally constant throughout the year.

### **MARKET SEGMENTS**

The petitioner and respondents differ as to the extent to which the U.S. manganese sulfate market is segmented. Respondents argue that, primarily, there are two distinct market segments—the animal feed market and the fertilizer market. Respondents maintain that the physical characteristics of the manganese sulfate (granule size and durability, manganese content, solubility, and color) dictate which market the manganese sulfate is sold into. Respondents claim that imported Chinese manganese sulfate is largely restricted to the animal feed market because of its small and inconsistent granule size, high manganese content, high solubility, and white color. Respondents maintain that AMT's manganese sulfate (ManGro™) is largely restricted to the fertilizer market because of its large and consistent granule size, lower manganese content, lower solubility, and darker color. Respondents assert that Allied does not allow its manganese sulfate to be sold for use in animal feed applications. For these reasons, respondents maintain that there is relatively little direct competition between U.S. producers and importers of the Chinese subject product.

The petitioner, on the other hand, argues that the physical differences between imported Chinese manganese sulfate and ManGro™ are not dispositive. Petitioner points out that Allied did not restrict its manganese sulfate sales to the fertilizer market until September 1994 and, up to that point, had sold significant quantities of manganese sulfate for use in the feed industry.<sup>1</sup> Petitioner maintains that the overlap of competition in the two markets is significantly greater than that proposed by the respondents. Furthermore, petitioner claims that, even if the U.S.-produced and imported Chinese products are sold in different markets, changes in the price of manganese sulfate used in the feed industry affect prices of manganese sulfate used in the fertilizer market.

Reported shipments of AMT-produced and imported Chinese manganese sulfate, by end use application, are presented in table II-1.<sup>2</sup> Reported shipments of U.S.-produced and imported Chinese manganese sulfate, by form, are presented in table II-2.

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<sup>1</sup> In addition, petitioner reports that it has entered into an agreement with Allied to process its manganese sulfate liquor and plans to sell the processed manganese sulfate in the animal feed market.

<sup>2</sup> Imperial (at the time the \*\*\* distributor of Allied manganese sulfate) reported that \*\*\* percent of its manganese sulfate sales went to the animal feed market and \*\*\* percent went to the fertilizer market.

Table II-1

Manganese sulfate: U.S. shipments of AMT-produced and imported Chinese manganese sulfate, by end-use application, 1992-94 and Jan.-June 1995

\* \* \* \* \*

Table II-2

Manganese sulfate: U.S. shipments of U.S.-produced and imported Chinese manganese sulfate, by granular form, 1992-94 and Jan.-June 1995

\* \* \* \* \*

U.S. producers and importers of the Chinese subject product tended to sell through different channels of distribution. In 1994, U.S. producers sold \*\*\* percent of their manganese sulfate to unrelated distributors and \*\*\* percent to unrelated end users. At the same time, importers of the Chinese subject product sold 78.1 percent of their subject product to unrelated end users (primarily animal feed premixers), 19.0 percent to unrelated distributors, and 2.9 percent to related distributors.

U.S. producers and respondents agree that the U.S. market for manganese sulfate is not segmented geographically. Although delivery costs for manganese sulfate are relatively high, both the U.S. producers and the respondents reported selling manganese sulfate nationally.

### SUPPLY AND DEMAND CONSIDERATIONS<sup>3</sup>

#### U.S. Supply

##### Domestic Production

Based on the available information, staff believes that U.S. manganese sulfate producers have little flexibility to respond to changes in demand. Allied, which accounted for \*\*\* percent of U.S. shipments in 1994, produces manganese sulfate as a co-product of its production of anisic aldehyde. As Allied's revenues from manganese sulfate are small relative to its revenues from anisic aldehyde production, changes in the price of manganese sulfate have little effect on Allied's co-product production of manganese sulfate. Other factors that inhibit U.S. producers' ability to react to changes in demand include AMT's \*\*\* capacity levels, the significant investment required by new firms to enter the market, and the lack of alternate markets for U.S.-produced manganese sulfate. Factors that suggest supply flexibility include \*\*\* of excess capacity reported by AMT and \*\*\* inventories of manganese sulfate.

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<sup>3</sup> Analysis of supply and demand considerations is based on data that are supplied in Part III and Part IV of this report.

### *AMT's capacity*

AMT's average end-of-period capacity to produce manganese sulfate \*\*\* during 1992-94. This suggests that AMT's ability to increase its productive capacity significantly is inhibited in the short run.

The production of manganese sulfate requires a significant investment in capital equipment. AMT reported that the original cost of the fixed assets associated with the production of manganese sulfate was \$\*\*\* in 1994. In addition, the fact that there have been only three producers of manganese sulfate in the United States during the past 3 years suggests that it may be difficult for firms to enter the industry in the short run.

AMT's average end-of-period capacity utilization rates \*\*\* from \*\*\* percent in 1992 to \*\*\* percent in 1994. The \*\*\* levels of available excess capacity suggest that AMT can \*\*\* increase or decrease production in response to a change in the price of manganese sulfate.

### *Inventory levels*

\*\*\* levels of inventories held by U.S. producers suggest greater flexibility in responding to changes in demand. End-of-period inventories as a percentage of total U.S. producers' shipments increased \*\*\* from \*\*\* percent in 1992 to \*\*\* percent in 1993 and continued to increase to \*\*\* percent in 1994. The existence and level of these inventories suggest that U.S. producers could sell from inventory in response to increases in the price of manganese sulfate.

### *Export markets*

U.S. producers reported \*\*\* export shipments of manganese sulfate during the investigation period. \*\*\* export markets suggests that U.S. manganese sulfate producers are unable to react to changes in demand by shifting shipments between the U.S. and export markets.

### **Subject Imports**

Available information indicates that Chinese manganese sulfate producers are also inhibited in their ability to respond to changes in demand in the U.S. market. Although substantial alternate markets exist for Chinese-produced manganese sulfate, Chinese producers reported low levels of excess capacity and inventories of manganese sulfate. Furthermore, entering the manganese sulfate market requires significant capital investment.

### *Industry capacity*

Reported Chinese producers' capacity to produce manganese sulfate increased by \*\*\* percent during 1992-94, and their capacity utilization rates ranged between \*\*\* and \*\*\* percent. The relatively slow capacity growth rate and high capacity utilization rates suggest that the responding Chinese producers cannot greatly increase production in the short run in response to changes in demand in the U.S. market.

### *Inventory levels*

Chinese producers' ratio of inventories to total shipments averaged \*\*\* percent during 1992-94. Chinese producers' relatively low inventory levels imply that they cannot shift large amounts of manganese sulfate from inventory to the U.S. market in response changes in demand.

### *Alternate markets*

Chinese producers' home market shipments accounted for \*\*\* percent of their total shipments of manganese sulfate in 1992, \*\*\* percent in 1993, and \*\*\* percent in 1994. The share of Chinese producers' total shipments going to the U.S. market increased from \*\*\* percent in 1992 to \*\*\* percent in 1993, and to \*\*\* percent in 1994. Chinese producers' shipments to other export markets ranged between \*\*\* and \*\*\* percent. The availability of large alternate markets suggests that Chinese producers have the ability to shift substantial amounts of manganese sulfate between these markets and the U.S. market in response to relative changes in price.

### **Nonsubject Imports**

Imports of Mexican manganese sulfate account for the vast majority of nonsubject country imports. During 1992-94, imported Mexican manganese sulfate accounted for \*\*\* percent of U.S. apparent consumption of manganese sulfate, on average. U.S. shipments of the Mexican subject product \*\*\* by \*\*\* percent in 1993, then \*\*\* by \*\*\* percent in 1994. At the same time, unit values for these shipments \*\*\* by \*\*\* percent, from \$\*\*\* per metric ton in 1992 to \$\*\*\* per metric ton in 1993, and \*\*\* by \*\*\* percent to \$\*\*\* in 1994. The \*\*\* in Mexican imports following \*\*\* in price of the Mexican product suggests that Mexican producers have some flexibility to react to changes in the U.S. manganese sulfate market.

### **U.S. Demand**

Based on available information, staff believes that the quantity of manganese sulfate demanded will not change significantly with changes in the price level of the subject product. Although substitutes for manganese sulfate exist, most responding purchasers did not view them as being commercially viable.

U.S. consumption of manganese sulfate was relatively flat during the investigation period, falling by \*\*\* percent in 1993 then increasing by \*\*\* percent in 1994 for an overall increase of \*\*\* percent during 1992-94. The seasonal demand for fertilizer products results in a slightly seasonal demand for manganese sulfate.

### **Substitute Products**

Manganous oxide is a substitute, although an imperfect one, for manganese sulfate in both animal feed and plant applications. Other possible substitutes for manganese sulfate include

manganese oxysulfate, manganese succrate, and, to a lesser extent, manganese chloride, manganese nitrate, and manganese chelates.<sup>4</sup>

Eleven of 16 responding purchasers reported that there were no substitutes for manganese sulfate in their uses. Five purchasers reported that manganous oxide could be used as a substitute. These purchasers reported that although manganous oxide is generally less expensive than manganese sulfate, the manganese in manganous oxide is not as soluble and is, therefore, less biologically available. Responding purchasers reported that, during the investigation period, prices for manganous oxide either increased or remained the same relative to the prices for manganese sulfate. No purchasers reported switching between manganese sulfate and manganous oxide because of changes in their relative prices. Respondents maintain that, over the last few years, manganese sulfate has steadily replaced manganous oxide used in animal feeds. Reasons for this switch include a desire for the greater bioavailability of manganese sulfate and manganous dioxide contaminants in manganous oxide.

### **Cost Share**

As manganese sulfate is a micronutrient that is required in only small quantities, it is typically used as an additive that is blended with other fertilizers or with animal feed. Manganese sulfate, therefore, accounts for only a relatively small percentage of the total cost of the final agricultural or animal feed product in which it is used.

## **SUBSTITUTABILITY ISSUES**

### **Factors Affecting Purchasing Decisions**

Quality, price, availability, supplier's status as a traditional supply source, and service were the factors most often cited by purchasers as important considerations in the manganese sulfate market. Sixteen of 17 responding purchasers cited quality as a major factor in deciding from whom to purchase manganese sulfate, and 11 of these purchasers rated quality as the most important factor. Sixteen purchasers also cited price as a major factor; three of these purchasers rated price as the most important factor. Two purchasers rated their supplier's status as a traditional supply source to be the most important factor.

Purchasers were asked to rate 10 factors in terms of their importance in choosing between U.S.-produced and imported Chinese manganese sulfate. On average, the responding purchasers ranked quality, speed of delivery, and the form of the product (granular vs. powder) as the most important factors in their decision to buy the domestic product. For their purchases of the imported Chinese manganese sulfate, purchasers rated quality, manganese content, and price as the most important determining factors.

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<sup>4</sup> For a more detailed discussion of substitute products, see the section of this report entitled "Customer and Producer Perceptions."

## Comparison of Domestic Products and Subject Imports

Most purchasers reported that U.S.-produced and imported Chinese manganese sulfate are differentiated by such factors as manganese content and solubility, quality and form of product, delivery lead times, minimum quantity order requirements, and packaging. Ten of 17 responding purchasers reported that there were significant nonprice differences among the manganese sulfate products that they buy from various suppliers. These purchasers mainly specified the different manganese content levels and solubilities of the U.S. and Chinese products. Koch- and Allied-produced manganese sulfate has the highest manganese content (about 32 percent) and solubility (near 100 percent). Manganese sulfate imported from China has a manganese content of about 31 percent and solubility of greater than 99 percent. AMT-produced manganese sulfate has the lowest manganese content (about 29.0 percent) and the lowest solubility (96 percent) of these three supply sources.<sup>5</sup> Purchasers also cited differences in product quality and purity, form of product (powder vs. granular), packaging, and credit terms as significant factors in their purchase decisions.

Purchasers were asked whether they consider the petitioner's product, ManGro™, to be manganese sulfate or some other product. Eight purchasers reported that ManGro™ was either an unsuitable product for the feed industry, an impure product unlike the Chinese or Mexican product, or some other product entirely.<sup>6</sup> Five purchasers reported that ManGro™ was manganese sulfate, and two purchasers were unfamiliar with the product.

Purchasers were asked to rate how manganese sulfate produced in China compares with the U.S. product in terms of 10 factors.<sup>7</sup> Responding purchasers rated the imported Chinese product as being superior in terms of price (that is, less expensive), quality, and manganese content. The domestic product was rated superior in terms of speed of delivery, service, status as a traditional supply source, packaging, and credit terms.

Purchasers that bought the domestic product even though the Chinese product was available at a lower price cited such reasons as contractual obligations, their business relationship with the supplier, and purchases of other products from the same supplier. Purchasers that bought the imported Chinese product even though the domestic product was available at a lower price cited such factors as reliability and availability of supply.

Sales of manganese sulfate are also differentiated by such factors as delivery lead times, reliability, and minimum quantity order size. U.S. producers reported average delivery lead times of \*\*\*. Importers' average delivery lead times ranged from 1 to 7 days for sales from inventory, but were substantially longer (1 to 4 months) for orders from China. AMT reported that it had no

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<sup>5</sup> For a more detailed discussion of the physical characteristics of the U.S.-produced and imported Chinese manganese sulfate, see the section of this report entitled "The Product."

<sup>6</sup> \*\*\* reported that "ManGro™ is a fertilizer material suitable only for soil application. It contains manganese sulfate." \*\*\* reported that "It is not "pure" manganese sulfate although it is highly soluble. I do not consider it to be "manganese sulfate" when compared with the Chinese or Mexican product." \*\*\* reported that "Have never seen a sample of ManGro™, but have been told that particle size is too large for my use in animal premixes. Also that it is off-color (not white)." \*\*\* characterize ManGro™ as "other product." \*\*\* reported that "We understand that ManGro™ is a fertilizer product that contains manganese sulfate, but that ManGro™ is not itself manganese sulfate." \*\*\* characterizes ManGro™ as "Manganese sulfate, but not pure." \*\*\* reported that "It is not suitable for use in the feed industry." \*\*\* characterized it as "other product."

<sup>7</sup> The specified factors are quality, form of product, manganese content, price, speed of delivery, service, credit terms, traditional source, multiple supply source, and packaging.

minimum order size requirements. Three importers reported standard quantity requirements of a container load (20 short tons).

### Nonsubject Country Imports

Responding purchasers reported that the quality of the domestically produced manganese sulfate was either inferior or comparable to that of the nonsubject country product.<sup>8</sup> Alternatively, purchasers reported that the quality of the imported Chinese subject product was either superior or comparable to that of the nonsubject country manganese sulfate.<sup>9</sup> All seven responding purchasers reported that, during 1994, prices for manganese sulfate imported from nonsubject countries were lower than prices for the domestic product. Conversely, all 10 responding purchasers reported that prices for imported nonsubject country product were higher than prices for the imported Chinese product.

The Commission's questionnaire asked purchasers of imported manganese sulfate to indicate whether, in the absence of the imported manganese sulfate from China, they would shift their purchases to domestically produced manganese sulfate, to the imported manganese sulfate from nonsubject countries, or to some combination of both. Ten purchasers of Chinese manganese sulfate during the period for which data were collected in this investigation answered the question. Of the 10 purchasers, 4 indicated that they would purchase a combination of domestically produced and nonsubject country product,<sup>10</sup> 3 indicated that 100 percent of their purchases would consist of nonsubject country product,<sup>11</sup> 2 indicated that 100 percent of their purchases would consist of domestically produced product,<sup>12</sup> and 1 stated that "We will be out of the sulfate business if this happens."<sup>13</sup>

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<sup>8</sup> Five purchasers rated the quality of the domestic product as being comparable and three rated it as being inferior to that of the imported nonsubject country manganese sulfate.

<sup>9</sup> Seven purchasers rated the quality of the imported Chinese product as being comparable, four rated it as being superior, and one rated it as being inferior to that of the imported Mexican manganese sulfate.

<sup>10</sup> The four purchasers are \*\*\*. They purchased an aggregate of \*\*\* metric tons of the Chinese product in 1993, \*\*\* metric tons in 1994, and \*\*\* metric tons in January-June 1995. \*\*\*, distributors to the fertilizer market, indicated that they would purchase 50 percent domestically produced product and 50 percent nonsubject country product; \*\*\*, a wholesaler to the animal feed market, indicated that it would purchase 80 percent domestically produced product and 20 percent nonsubject country product; and \*\*\* indicated that the mix would depend "on price and quality of alternatives."

<sup>11</sup> The three purchasers are \*\*\*. They purchased an aggregate of \*\*\* metric tons of the Chinese product in 1993, \*\*\* metric tons in 1994, and \*\*\* metric tons in January-June 1995.

<sup>12</sup> The two purchasers are \*\*\*. They purchased an aggregate of \*\*\* metric tons of the Chinese product in 1993, \*\*\* metric tons in 1994, and \*\*\* metric tons in January-June 1995.

<sup>13</sup> The purchaser is \*\*\*. \*\*\* purchased \*\*\* metric tons of the Chinese product in 1993, \*\*\* metric tons in 1994, and \*\*\* metric tons in January-June 1995.

## ELASTICITY ESTIMATES<sup>14</sup>

### Supply Elasticity<sup>15</sup>

The domestic supply elasticity for manganese sulfate measures the sensitivity of quantity supplied by U.S. producers to a change in the U.S. market price of manganese sulfate. The elasticity of domestic supply depends on several factors, including Allied's production of manganese sulfate as a co-product, AMT's level of excess capacity, the ease with which AMT can alter productive capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced manganese sulfate.<sup>16</sup> Analysis of these factors indicates that, overall, U.S. producers are unlikely to substantially alter their supply of manganese sulfate in response to relative changes in the demand for their product; thus, the domestic supply elasticity is estimated to be moderate to low, or in the range of 2 to 4.

### U.S. Demand Elasticity

The U.S. demand elasticity for manganese sulfate measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of manganese sulfate. This estimate depends on factors discussed earlier such as the existence, availability, and commercial viability of substitute products, as well as the component cost share of manganese sulfate in the production of the downstream products. Based on available information, the demand elasticity for manganese sulfate is believed to be in the range of -0.25 to -0.75. Purchasers would not likely be very sensitive to changes in the price of manganese sulfate and would continue to demand fairly constant quantities of this product over a considerably wide range of prices.

### Substitution Elasticity

The elasticity of substitution largely depends upon the degree to which the U.S. manganese sulfate market is segmented and on the extent to which product differentiation determines to which segment of the market U.S.-produced and imported manganese sulfate is sold.<sup>17</sup> Product differentiation, in turn, depends on such physical composition factors as manganese content, solubility, particle size, color, and so forth and on such conditions of sale as delivery lead times, reliability of supply, standard minimum quantity requirements, product service, and so forth. Based on available information discussed earlier, the elasticity of substitution between domestic and imported Chinese manganese sulfate is likely to be between 1 and 3. The elasticity of substitution between domestic and imported nonsubject country manganese sulfate should be somewhat higher, or in the range of 2 to 4. The elasticity of substitution between imported Chinese and imported nonsubject country manganese sulfate should be significantly higher, or in the range of 3 to 5.

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<sup>14</sup> COMPAS runs using these elasticity estimates are presented in appendix G.

<sup>15</sup> A supply function is not defined in the case of a noncompetitive market.

<sup>16</sup> Domestic supply response is assumed to be symmetrical for both an increase and a decrease in demand for the domestic product. Therefore, factors opposite to those resulting in increased quantity supplied to the U.S. market result in decreased quantity supplied to the same extent.

<sup>17</sup> The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and U.S. like products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject imported product (or vice versa) when prices change.



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

### INFORMATION PRESENTED IN THIS SECTION

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 margins of sales at LTFV was presented earlier in this report, and information on the volume and pricing of imports of manganese sulfate from China is presented in Part IV entitled "U.S. Imports, Apparent Consumption, and Market Shares" and in Part V entitled "Pricing and Related Data," respectively. Information on the other factors specified is presented in this section and in Part VI and (except as noted) is based on the questionnaire responses of all known U.S. producers of manganese sulfate during the period for which data were collected in the investigation.

### U.S. PRODUCERS

In the preliminary investigation, the Commission found that AMT and Allied were the only firms currently producing and selling manganese sulfate in the United States. During the period examined, however, there were actually four firms that participated, at least in part, in manganese sulfate production: Allied, AMT, Eagle Picher Industries (Eagle Picher), and Koch Chemical Co. Allied accounts for about \*\*\*, and AMT \*\*\* of U.S. production of manganese sulfate, based on full-year 1994 data. Each producing firm provided data in response to the Commission's questionnaires.<sup>1</sup> Of the four producers reporting data, Eagle Picher reported \*\*\*, whereas AMT, Koch, and Allied reported production of \*\*\*. Although AMT produces powdered manganese sulfate, it does not sell it commercially; rather it \*\*\*.<sup>2</sup> \*\*\*. \*\*\* took a position on the petition.

Manganese sulfate has been produced at AMT's Fairbury, NE, plant since 1979. Prior to 1988, however, the plant was owned and operated by Eagle Picher, a large chemical conglomerate. In 1988, AMT, having purchased the Fairbury plant, continued uninterruptedly to produce both manganese sulfate and zinc sulfate until September 1994.<sup>3</sup> Then, AMT discontinued manganese sulfate production for 2 months until it resumed such production in December 1994.<sup>4</sup> AMT continued to produce zinc sulfate in Fairbury, as well as at a smaller plant in Bartlesville, OK, throughout the period.<sup>5</sup> AMT serves a national market from its Fairbury facility.<sup>6</sup>

Allied's production of manganese sulfate dates from January 1993, when it purchased Koch's manganese sulfate production operations. Allied currently produces powdered manganese sulfate in its Pittsburg, KS, facility \*\*\*. In its questionnaire response, Allied indicated that \*\*\*.<sup>7</sup>

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<sup>1</sup> The Commission issued a subpoena requiring Allied to complete the Commission's questionnaires.

<sup>2</sup> AMT indicated that its customers would accept granular product for applications normally using the powdered product; field visit with AMT, Dec. 13, 1994.

<sup>3</sup> Upon purchasing the Fairbury plant, AMT \*\*\*. Field visit with AMT, Dec. 13, 1994.

<sup>4</sup> AMT explained this by noting that "our shipments of manganese sulfate had decreased and, as a result, our inventories had risen to unsustainable levels." Transcript, p. 56; Cliff Braun, President, AMT, petitioner's posthearing brief, app. 8.

<sup>5</sup> AMT claims to be \*\*\* of zinc sulfate in the United States. During the period examined, zinc sulfate generally comprised over \*\*\* percent of AMT's total production. Field visit with AMT, Dec. 13, 1994.

<sup>6</sup> Transcript, p. 86.

<sup>7</sup> Allied did, however, \*\*\*. \*\*\*.

In July 1995, AMT and Allied concluded a marketing agreement regarding manganese sulfate whereby Allied would supply liquid manganese sulfate to AMT, which would then dry it into granules and powder and sell the resultant product to its fertilizer and feed customers. AMT also indicated that it will continue to sell product produced from liquid manganese sulfate developed in its Fairbury facility.<sup>8</sup>

Koch produced manganese sulfate at Allied's current production facility (the "Jayhawk plant") before January 22, 1993, when it sold the operation to Allied.<sup>9</sup> Eagle Picher performed tolling operations throughout the period examined for Koch (before January 1993) and for Allied (after January 1993). During the period examined, \*\*\*.<sup>10</sup>

Until the mid-1980s, Eastman Chemical Co. (Eastman), a division of Kodak, was the major domestic producer of manganese sulfate. Eastman produced manganese sulfate as a by-product of its production of hydroquinone (a high-volume chemical used in photography), and sold it under the trade name Techmagnum. In 1986, Eastman discontinued manufacturing hydroquinone by this process, and sold its inventories and trade name to Sulfamex, a Mexican firm. Sulfamex remains a major market participant for manganese sulfate, accounting for all reported shipments of imports from Mexico and for \*\*\* reported shipments of imports from nonsubject sources.

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

U.S. capacity to produce manganese sulfate, based on the reported capacities of the two facilities involved, rose steadily from 1992 to 1994 (table III-1).<sup>11</sup> The increase was accounted for by \*\*\*. Aggregate production also increased, but at a slightly slower rate than aggregate capacity. AMT's production, however, \*\*\*. Aggregate capacity utilization \*\*\* from 1992 to 1994; AMT's utilization level \*\*\* from \*\*\* percent in 1992 to \*\*\* percent in 1994.

Table III-1

Manganese sulfate: U.S. capacity, production, and capacity utilization, by firms, 1992-94, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*

As noted earlier in the section of this report entitled "The Product," the production processes used by AMT and Allied to manufacture manganese sulfate differ significantly. Allied produces manganese sulfate as a co-product of its production of anisic aldehyde, whereas AMT's manganese sulfate output results from a deliberate production decision.<sup>12</sup> AMT operates its plant \*\*\*. AMT reported that \*\*\*.<sup>13</sup> AMT noted that in August 1995 it began the process of expanding its capacity

<sup>8</sup> Transcript, p. 40.

<sup>9</sup> Koch is a division of Koch Industries, Wichita, KS.

<sup>10</sup> \*\*\*. Data supplied by Eagle Picher are not included in the aggregate data on the U.S. industry presented in this report because to do so would be to double-count the data. Salient data regarding Eagle Picher are, however, presented separately in appendix A.

<sup>11</sup> In spite of the increase in capacity, aggregate U.S. capacity in 1994 was less than \*\*\* percent of apparent U.S. consumption of manganese sulfate.

<sup>12</sup> Transcript, p. 43.

<sup>13</sup> AMT also commented in its questionnaire response that costs to \*\*\*. \*\*\*.

in order to accommodate increased supply of feedstock obtained from Allied.<sup>14</sup> In doing so, it intends to increase the manganese content and solubility of its product to levels comparable to those of the Mexican and Chinese products.<sup>15</sup>

AMT commented that there is a slight degree of seasonality in the production of manganese sulfate in that production follows the fertilizer market, which is strong in the early spring and weak in the autumn months.<sup>16</sup> AMT reported \*\*\*. AMT procures its manganous oxide feedstock from \*\*\*. According to AMT, manganous oxide prices \*\*\*.<sup>17</sup>

### U.S. PRODUCERS' SHIPMENTS

All three producers reported data on their domestic shipments of manganese sulfate. \*\*\*. All of AMT's commercial shipments were \*\*\*, whereas Allied and Koch \*\*\*. AMT summarized the approximate percentage of its 1994 sales accounted for by each of the major applications as follows: \*\*\*.<sup>18</sup>

As seen in table III-2, the quantity and value of U.S. producers' domestic shipments fluctuated considerably from 1992 to 1994, first declining, in terms of quantity, by nearly \*\*\* percent from 1992 to 1993, then rebounding in 1994 to \*\*\* percent of their 1992 level. Unit values fell consistently throughout the 1992-94 period. \*\*\*, both the quantity and value of AMT's shipments \*\*\* from 1992 to 1994, and unit values of those shipments \*\*\*.

Table III-2

Manganese sulfate: U.S. producers' domestic shipments, by firms, 1992-94, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*

### U.S. PRODUCERS' INVENTORIES

Data on end-of-period inventories of manganese sulfate during the period examined, as supplied by all three producers, are presented in table III-3. With regard to these data, end-of-period inventories increased \*\*\* over the period examined. \*\*\*, both absolutely and as a ratio to U.S. shipments.

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<sup>14</sup> AMT indicated that it would convert the floor space in its Fairbury plant formerly used to produce zinc sulfate to manganese sulfate capacity and create new production capacity for zinc sulfate that would enable a tripling of production of that product. Transcript, pp. 62, 103.

<sup>15</sup> This will be done in part by installing an additional filter in the plant. Transcript, pp. 97, 212.

<sup>16</sup> Conference transcript, p. 67.

<sup>17</sup> Transcript, p. 45.

<sup>18</sup> As Eagle Picher was \*\*\*. Koch did not produce manganese sulfate in 1994, and Allied was unable to determine the eventual destination of its product.

Table III-3

Manganese sulfate: End-of-period inventories of U.S. producers, by firms, 1992-94, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*

Because production of manganese sulfate fluctuates on a seasonal basis, inventories of manganese sulfate fluctuate as well. AMT noted that inventories are higher in the second half of the year, as inventory levels increase in anticipation of the spring fertilizer buying season.<sup>19</sup> AMT \*\*\*.<sup>20</sup> \*\*\*. No responding firm reported any unusual occurrences having an impact on inventory levels.

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

All producers provided data on the number of production and related workers (PRWs) engaged in the production of manganese sulfate, the total hours worked by such workers, and the wages and total compensation paid to such workers during the period examined (table III-4).<sup>21</sup> These data show increases in the number of employees and total hours worked during 1992-94, with somewhat larger increases in wages and total compensation. On an hourly basis, total compensation increased as well. Moreover, between 1992 and 1994, productivity increased, whereas unit labor costs declined.<sup>22</sup>

AMT characterized the manufacturing process for manganese sulfate as \*\*\*.<sup>23</sup> Workers in AMT's plant are primarily skilled; AMT estimated that the training process for machine operators takes from 12 to 18 months.<sup>24</sup> Moreover, workers are generally not transferred to other lines within the production facility. Eagle Picher noted, however, that \*\*\*. None of the responding firms reported that its production employees were represented by any union. \*\*\*. AMT, however, noted that \*\*\*.<sup>25</sup>

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<sup>19</sup> Conference transcript, p. 67.

<sup>20</sup> Field visit with AMT, Dec. 13, 1994.

<sup>21</sup> Unlike the aggregate data for capacity, production, shipments, and inventories, data from the toll producer, Eagle Picher, are included in the aggregate data for employment.

<sup>22</sup> AMT noted at the hearing that it expects productivity to increase substantially as a result of the reconfiguration of its Fairbury facility and, in particular, of the start-up of manganese sulfate production using capacity previously devoted to zinc sulfate production. Transcript, p. 63.

<sup>23</sup> Field visit with AMT, Dec. 13, 1994.

<sup>24</sup> Conference transcript, p. 35.

<sup>25</sup> As seen in the table, \*\*\*. Jeff Winton, Shearman & Sterling, conversation with ITC staff, Aug. 7, 1995.

Table III-4

Average number of production and related workers producing manganese sulfate, hours worked,<sup>1</sup> wages and total compensation paid to such employees, and hourly wages, productivity, and unit labor costs,<sup>2</sup> by firms, 1992-94, Jan.-June 1994, and Jan.-June 1995<sup>3</sup>

Item	1992	1993	1994	Jan.-June--	
				1994	1995
Number of production and related workers (PRWs)					
AMT .....	***	***	***	***	***
Koch Chemical <sup>4</sup> .....	***	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Eagle Picher .....	***	***	***	***	***
Allied .....	( <sup>5</sup> )	***	***	***	***
Total .....	20	21	21	22	20
Hours worked by PRWs (1,000 hours)					
AMT .....	***	***	***	***	***
Koch Chemical <sup>4</sup> .....	***	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Eagle Picher .....	***	***	***	***	***
Allied .....	( <sup>5</sup> )	***	***	***	***
Total .....	39	43	44	22	20
Wages paid to PRWs (1,000 dollars)					
AMT .....	***	***	***	***	***
Koch Chemical <sup>4</sup> .....	***	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Eagle Picher .....	***	***	***	***	***
Allied .....	( <sup>5</sup> )	***	***	***	***
Total .....	394	434	442	225	212
Total compensation paid to PRWs (1,000 dollars)					
AMT .....	***	***	***	***	***
Koch Chemical <sup>4</sup> .....	***	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Eagle Picher .....	***	***	***	***	***
Allied .....	( <sup>5</sup> )	***	***	***	***
Total .....	498	551	571	291	277
Hourly wages paid to PRWs					
AMT .....	\$***	\$***	\$***	\$***	\$***
Koch Chemical <sup>4</sup> .....	***	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Eagle Picher .....	***	***	***	***	***
Allied .....	( <sup>5</sup> )	***	***	***	***
Average .....	10.10	10.09	10.05	10.23	10.60

Table continued on next page.

Table III-4--Continued

Average number of production and related workers producing manganese sulfate, hours worked,<sup>1</sup> wages and total compensation paid to such employees, and hourly wages, productivity, and unit labor costs,<sup>2</sup> by firms, 1992-94, Jan.-June 1994, and Jan.-June 1995<sup>3</sup>

Item	1992	1993	1994	Jan.-June-- 1994	1995
<u>Hourly total compensation paid to PRWs</u>					
AMT . . . . .	\$***	\$***	\$***	\$***	\$***
Koch Chemical <sup>4</sup> . . . . .	***	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Eagle Picher . . . . .	***	***	***	***	***
Allied . . . . .	( <sup>5</sup> )	***	***	***	***
Average . . . . .	12.77	12.81	12.98	13.23	13.85
<u>Productivity (metric tons per 1,000 hours)</u>					
AMT . . . . .	***	***	***	***	***
Koch Chemical <sup>4 6</sup> . . . . .	***	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Allied <sup>7</sup> . . . . .	( <sup>5</sup> )	***	***	***	***
Average . . . . .	***	***	***	***	***
<u>Unit labor costs (per metric ton)</u>					
AMT . . . . .	\$***	\$***	\$***	\$***	\$***
Koch Chemical <sup>4 6</sup> . . . . .	***	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Allied <sup>7</sup> . . . . .	( <sup>5</sup> )	***	***	***	***
Average . . . . .	***	***	***	***	***

<sup>1</sup> Includes hours worked plus hours of paid leave time.

<sup>2</sup> On the basis of total compensation paid.

<sup>3</sup> Firms providing employment data accounted for 100 percent of reported total U.S. shipments (based on quantity) in 1994.

<sup>4</sup> Koch Chemical discontinued production on Jan. 22, 1993.

<sup>5</sup> Not applicable.

<sup>6</sup> For 1992, includes hours worked by Eagle Picher employees.

<sup>7</sup> For 1993, 1994, Jan.-June 1994, and Jan.-June 1995, includes hours worked by Eagle Picher employees.

Note.--Average ratios are calculated using data of firms supplying both numerator and denominator information.

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

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

### U.S. IMPORTERS

In the preliminary investigation, the Commission received responses to its questionnaire from 12 firms that represent 95 percent, by value, of 1993 imports from China, based on official Commerce import statistics. In this final investigation, the Commission sent importers' questionnaires to the 12 firms that responded in the preliminary investigation and to 12 additional firms that either did not respond or provided untimely or unusable data, for a total of 24 firms.<sup>1</sup>

The Commission received usable data on imports of manganese sulfate from 12 companies. In addition, four firms reported that they did not import any of the products covered by the questionnaire, and four firms failed to respond to the questionnaire.<sup>2</sup> Of the four nonresponding companies, none is known to be a significant importer of the subject merchandise from China. Ten firms reported imports of manganese sulfate from China, one from Mexico (Sulfamex), and two firms from other sources.<sup>3</sup> Companies responding to the Commission's questionnaire accounted for virtually 100 percent, by value, of 1994 imports from China, based on official U.S. import statistics.

The largest U.S. importers of manganese sulfate from China in 1994 were \*\*\*, that are related to the Chinese trading companies that export manganese sulfate. These firms accounted for \*\*\* percent, by volume, of imports from China in 1994, \*\*\* percent in 1993, and \*\*\* percent in 1992. Other, unrelated, importers were primarily resellers and distributors of chemical fertilizer and animal-feed products.<sup>4</sup> \*\*\* of the current U.S. producers of manganese sulfate \*\*\*. One importer, \*\*\*, reported that it imports manganese sulfate for use in a manufacturing facility that produces various fertilizer products.

The most important source of imports, other than China, during the period examined was Mexico. Only one firm, the Mexican manufacturer Industrias Sulfamex S.A. de C.V. (Sulfamex), reported imports from Mexico during the period examined. This firm apparently has a monopoly on the distribution of Mexican manganese sulfate within the United States; \*\*\*. As seen in table IV-1 in the section of this report entitled "U.S. Imports," the volume of its imports ranged from \*\*\* times the volume of subject imports throughout the period.

Several importers reporting data are subsidiaries of, or related to, larger domestic or foreign companies. These firms and their related companies are presented in the tabulation below:

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<sup>1</sup> The Commission also sent importers' questionnaires to U.S. producers of manganese sulfate.

<sup>2</sup> In addition, two firms could not be reached with a questionnaire, and two firms (both importers from nonsubject sources) submitted data that were unusable. None of these firms is believed to be a significant importer of the subject merchandise from China.

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

<sup>4</sup> One firm, \*\*\*, reported that it had to exit the animal-feed market in mid-1994 because of lower prices of (unspecified) imports. \*\*\*, letter to the Commission, Aug. 16, 1995.

<u>Firm</u>	<u>Parent company</u>	<u>Percent ownership</u>
***	***	100
***	***	100
***	***	100
***	***	56
	***	25
	***	19
***	***	100

### U.S. IMPORTS

Imports of manganese sulfate are provided for under a "basket" import tariff category (*Harmonized Tariff Schedule (HTS)* subheading 2833.29.50) that also provides for sulfates of all other metals not specially enumerated in HTS heading 2833. Accordingly, import data presented below are based on responses to Commission questionnaires. The Commission received data from virtually all major importers of manganese sulfate from China during the period examined.<sup>5</sup> Data on imports of manganese sulfate from countries other than China reported in response to Commission questionnaires constitute \*\*\* percent, by value, of total imports from those sources in 1994 based on official statistics.<sup>6</sup> With the exception of product from Mexico, however, for which the Commission has complete coverage, most of the imports from nonsubject countries in the official statistics are believed to consist of products other than manganese sulfate.<sup>7</sup>

As seen in table IV-1 and figure IV-1, the volume of imports from China first surged markedly from 1992 to 1993, by 59 percent, then declined somewhat in 1994 to a level 36 percent above that of 1992. Imports from China also fell off slightly when the interim January-June periods are compared. Unit values of imports from China declined slightly overall during the period examined.

The volume of imports from Mexico, as reported by Sulfamex, \*\*\* throughout the period, with \*\*\*. Such imports were from \*\*\* times greater, in terms of quantity, than imports from China over the 1992-94 period, as well as in the interim periods.

In its questionnaire the Commission also requested importers to provide information on their company transfers, domestic shipments, and export shipments of imported merchandise. The vast majority of importers reported sales as domestic shipments, with only one firm, \*\*\*, reporting any

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<sup>5</sup> In other investigations involving imports from China, the Commission has received allegations of transshipments through Hong Kong of product manufactured in China. The Commission did not receive such allegations in this investigation. Imports of manganese sulfate from Hong Kong, based on official import statistics, were minimal and occurred only in 1992 and 1993.

<sup>6</sup> Data on imports of manganese sulfate, based on official U.S. import statistics, are presented in app. D. Import data for China and Mexico are believed to consist virtually exclusively of imports of manganese sulfate. Data on imports from other sources are believed to consist mainly of imports of other metallic sulfates.

<sup>7</sup> Reported imports of manganese sulfate from nonsubject countries, other than Mexico, were limited to imports by two firms, \*\*\*. As seen in table IV-1, unit values for these products are \*\*\* those associated with the subject imports.



Table IV-1

Manganese sulfate: U.S. imports, by sources, 1992-94, Jan.-June 1994, and Jan.-June 1995

Item	1992	1993	1994	Jan.-June--	
				1994	1995
<i>Quantity (metric tons)</i>					
China	3,397	5,394	4,635	2,080	1,606
Nonsubject sources:					
Mexico	***	***	***	***	***
Other sources	***	***	***	***	***
Subtotal	***	***	***	***	***
Total	***	***	***	***	***
<i>Value (1,000 dollars)</i>					
China	1,174	1,720	1,509	643	582
Nonsubject sources:					
Mexico	***	***	***	***	***
Other sources	***	***	***	***	***
Subtotal	***	***	***	***	***
Total	***	***	***	***	***
<i>Unit value (per metric ton)</i>					
China	\$345	\$319	\$326	\$309	\$362
Nonsubject sources:					
Mexico	***	***	***	***	***
Other sources	***	***	***	***	***
Subtotal	***	***	***	***	***
Total	***	***	***	***	***

Note.--Unit values are calculated using data of firms supplying both numerator and denominator information.

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

Figure IV-1

Manganese sulfate: U.S. imports, by sources, 1992-94, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*

export shipments and two additional firms, \*\*\*, reporting company transfers.<sup>8</sup> There is no indication on the record that imports from China are concentrated in any particular region of the United States.<sup>9</sup>

Commerce found "critical circumstances" for imports from China subject to the 362.23-percent antidumping duty rate. Monthly U.S. import data for such imports are presented in the tabulation below (*metric tons*):

<u>Year and month</u>	<u>Volume of imports</u> <u>(metric tons)</u>
*   *   *   *   *   *   *	

The data were obtained by subtracting imports not subject to the 362.23-percent rate from monthly official import statistics.<sup>10</sup> Accordingly, the data are approximate at best.

### APPARENT U.S. CONSUMPTION

As noted in the section of this report entitled "U.S. Producers," manganese sulfate was produced in two facilities during the period examined: AMT's Fairbury, NE facility and the "Jayhawk plant" in Pittsburg, KS, operated first by Koch and later by Allied. The Commission received data on U.S. shipments of domestic product from both of these plants for the entire period examined.

The Commission also received data on U.S. shipments of imports from virtually all firms importing manganese sulfate from China and from Sulfamex, the only firm known to import the subject merchandise from Mexico. Accordingly, apparent consumption presented in this section is based on data compiled in response to Commission questionnaires.<sup>11</sup> Appendix D presents an alternative calculation of apparent consumption with import data based on official U.S. import statistics.

Apparent consumption of manganese sulfate, in terms of quantity, declined slightly from 1992 to 1993, then rose in 1994 (table IV-2, figure IV-2). In terms of value, however, the trend was somewhat different, with small decreases throughout the 1992-94 period. With regard to both quantity and value, shipments of imports from China increased consistently over the 3 calendar years, while U.S. producer shipments and shipments of imports from Mexico declined overall.

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<sup>8</sup> These firms \*\*\*.

<sup>9</sup> Transcript, p. 132.

<sup>10</sup> Respondents' posthearing brief, exhibit 9. Data therein comprise exports to the United States and thus may not represent actual imports during the months in question.

<sup>11</sup> Coverage of imports from nonsubject countries, other than Mexico, is less complete; for example, reported imports in 1994 comprise only 2 percent, by quantity, of official U.S. import statistics. Official statistics, however, cover products not subject to investigation; accordingly, the true extent of questionnaire coverage is likely to be considerably higher.

Table IV-2

Manganese sulfate: U.S. shipments of domestic product, U.S. shipments of imports, by sources, and apparent U.S. consumption, 1992-94, Jan.-June 1994, and Jan.-June 1995.

Item	1992	1993	1994	Jan.-June--	
				1994	1995
<i>Quantity (metric tons)</i>					
Producers' U.S. shipments . . . . .	***	***	***	***	***
Importers' U.S. shipments:					
China . . . . .	***	4,480	4,826	2,394	1,766
Nonsubject sources:					
Mexico . . . . .	***	***	***	***	***
Other sources . . . . .	***	***	***	***	***
Subtotal . . . . .	***	***	***	***	***
Total . . . . .	***	***	***	***	***
Apparent consumption . . . . .	23,374	23,060	23,799	13,656	14,382
<i>Value (1,000 dollars)</i>					
Producers' U.S. shipments . . . . .	***	***	***	***	***
Importers' U.S. shipments:					
China . . . . .	1,218	1,779	1,808	891	659
Nonsubject sources:					
Mexico . . . . .	***	***	***	***	***
Other sources . . . . .	***	***	***	***	***
Subtotal . . . . .	***	***	***	***	***
Total . . . . .	***	***	***	***	***
Apparent consumption . . . . .	11,147	10,943	10,632	6,100	6,604
<i>Unit value (per metric ton)</i>					
Producers' U.S. shipments . . . . .	\$***	\$***	\$***	\$***	\$***
Importers' U.S. shipments:					
China . . . . .	***	397	375	372	373
Nonsubject sources:					
Mexico . . . . .	***	***	***	***	***
Other sources . . . . .	***	***	***	***	***
Subtotal . . . . .	***	***	***	***	***
Total . . . . .	***	***	***	***	***
Apparent consumption . . . . .	477	475	447	447	459

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

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

Figure IV-2

Manganese sulfate: U.S. shipments of U.S. producers and U.S. shipments of imports, by sources, 1992-94, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*

The demand for manganese sulfate is essentially derived from the demand for plant fertilizer and animal feed products.<sup>12</sup> Parties were evenly split on whether demand for manganese sulfate over the period examined has increased, decreased, or remained the same. AMT indicated that demand over the period examined has been essentially flat; moreover, there are no distinct trends in consumption, even when the end-use markets are viewed separately.<sup>13</sup> Respondents asserted, however, that the use of manganese sulfate in animal feed has increased steadily in recent years, replacing manganous oxide.<sup>14</sup> According to AMT, there is a persistent global oversupply of manganese sulfate, which may account for the fact that there are few worldwide producers of the product.<sup>15</sup> No party reported that there have been any inroads into the manganese sulfate market by potential substitute products, such as manganous oxide or manganese oxysulfate.

#### U.S. MARKET SHARES

The Commission received usable U.S. shipment data from all the known U.S. producers of manganese sulfate. Reported shipments of imports of manganese sulfate from China comprise a substantial majority of total imports of the subject merchandise from China according to official U.S. import statistics.<sup>16</sup> Data on the penetration of the U.S. market for manganese sulfate by imports, therefore, as presented in table IV-3, are based on information submitted in response to Commission questionnaires. An alternative calculation of market penetration, using official U.S. import statistics, is presented in appendix D.

Based on responses to Commission questionnaires, imports from China increased their share of the U.S. market for manganese sulfate from \*\*\* percent in 1992 to 20 percent in 1994, in terms of quantity. The U.S. producers' share, again in volume terms, fell in 1993, but recovered somewhat in 1994, for an overall loss of \*\*\* percentage points for the 1992-94 period. The share of imports from Mexico in the U.S. market fell by \*\*\* percentage points from 1992 to 1994, but rebounded slightly when the interim January-June periods are compared.

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<sup>12</sup> Transcript, p. 72.

<sup>13</sup> Ibid., p. 73.

<sup>14</sup> Transcript, p. 126.

<sup>15</sup> Conference transcript, p. 33.

<sup>16</sup> Data on shipments of imports from Mexico are similarly complete.

Table IV-3

Manganese sulfate: Apparent U.S. consumption and market shares, 1992-94, Jan.-June 1994, and Jan.-June 1995

Item	1992	1993	1994	Jan.-June-	
				1994	1995
<i>Quantity (metric tons)</i>					
Apparent consumption . . . . .	23,374	23,060	23,799	13,656	14,382
<i>Value (1,000 dollars)</i>					
Apparent consumption . . . . .	11,147	10,943	10,632	6,100	6,604
Share of the quantity of U.S. consumption (percent)					
Producers' U.S. shipments . . . . .	***	***	***	***	***
Importers' U.S. shipments:					
China . . . . .	***	19.4	20.3	17.5	12.3
Nonsubject sources:					
Mexico . . . . .	***	***	***	***	***
Other sources . . . . .	***	***	***	***	***
Subtotal . . . . .	***	***	***	***	***
Total . . . . .	***	***	***	***	***
Share of the value of U.S. consumption (percent)					
Producers' U.S. shipments . . . . .	***	***	***	***	***
Importers' U.S. shipments:					
China . . . . .	10.9	16.3	17.0	14.6	10.0
Nonsubject sources:					
Mexico . . . . .	***	***	***	***	***
Other sources . . . . .	***	***	***	***	***
Subtotal . . . . .	***	***	***	***	***
Total . . . . .	***	***	***	***	***

Note.--Shares are computed from the unrounded figures.

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



# PART V: PRICING AND RELATED DATA

## FACTORS AFFECTING PRICING

### Raw Material and Transportation Costs

Prices for the principal raw material used to produce manganese sulfate, manganous oxide, were stable during the last 4 years.<sup>1</sup> During 1994, raw material costs accounted for \*\*\* percent of AMT's total cost of producing manganese sulfate.

Transportation charges from China to the U.S. market are estimated to be 22.1 percent.<sup>2</sup> \*\*\* of AMT's sales were to locations \*\*\*. AMT considers inland transportation costs to be important, accounting for percent \*\*\* of its delivered costs. Most importers also reported that transportation costs were an important factor. Transportation costs were reported to account for \*\*\* to \*\*\* percent of their total delivered costs. Many importers, however, reported only ocean transportation costs.

### Importer Mark-ups

During 1994, the unit value of U.S. import shipments of Chinese subject product was 15.0 percent higher than the unit value of U.S. imports of Chinese subject product.

### Commerce Margin of Dumping

On September 29, 1995, Commerce made its final determination that manganese sulfate from China is being, or is likely to be, sold in the United States at LTFV. The final margins are as follows (in percent):

<u>Chinese producer/exporter</u>	<u>LTFV margins</u>
CNIEC.....	32.48 <sup>3</sup>
PRC-wide.....	362.23

Commerce's period of investigation was June 1, 1994, through November 30, 1994. To determine whether sales to the United States of manganese sulfate by CNIEC were made at LTFV, Commerce compared the United States price (USP) with the foreign market value (FMV). USP was calculated using purchase prices based on f.o.b. foreign-port prices to unrelated purchasers. FMV was based on the factors of production reported by two factories in China (Yan Jiang and Xian Lu), which produced the subject merchandise for export to the United States.<sup>4</sup> The sales examined by Commerce accounted for all sales made by CNIEC during the Commerce period of investigation.

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<sup>1</sup> Hearing transcript, p. 45.

<sup>2</sup> This estimate is derived from official U.S. import data (under HTS subheading 2833.29.50) and represents the transportation and other charges included in imports valued on a c.i.f. basis.

<sup>3</sup> In 1994, CNIEC accounted for \*\*\* percent of importers' U.S. shipments of Chinese manganese sulfate.

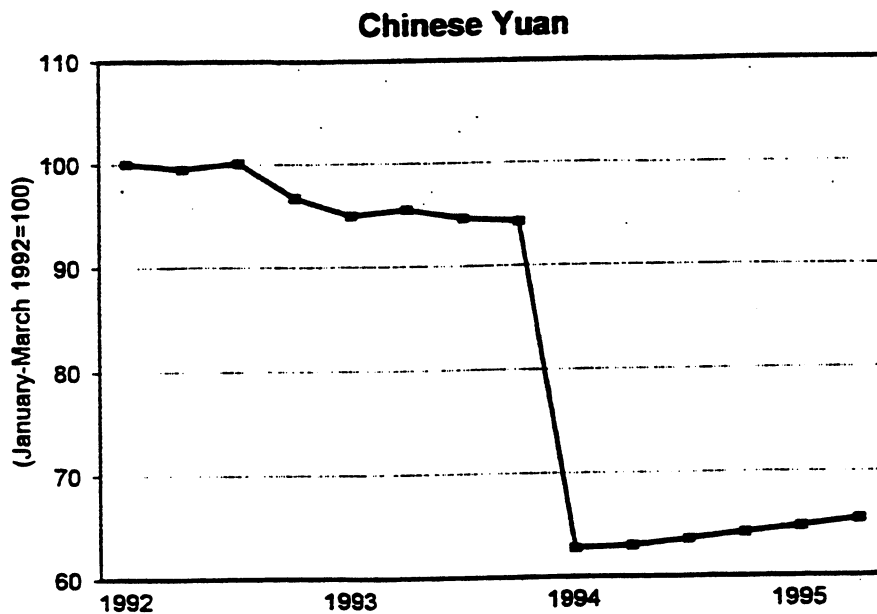
<sup>4</sup> Commerce applied certain "surrogate country" values to the Chinese factors of production. The surrogate country for which data were used was India.

\*\*\* of the CNIEC sales examined by Commerce were found to be at LTFV, with margins ranging from \*\*\* to \*\*\* percent. The PRC-wide margin in this case is based on best information available (BIA).

### Exchange Rates

The nominal value of the Chinese yuan (figure V-1) depreciated by 5.8 percent in relation to the U.S. dollar during January 1992-December 1993. Beginning January 1, 1994, the Peoples Bank of China changed the manner in which the official exchange rate was determined. In the first quarter of 1994, the nominal value of the Chinese yuan fell by 31.4 percent; it then increased by 2.6 percent over the rest of the period. Producer price index information for China is unavailable, thus real exchange rates cannot be calculated.<sup>5</sup>

Figure V-1  
Indexes of the nominal exchange rates between the Chinese yuan and the U.S. dollar, by quarters, Jan. 1992-June 1995



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

<sup>5</sup> Mexico is the primary source of nonsubject imports in this investigation. During 1992-94, the nominal value of the Mexican peso fell relatively gradually, by 14.7 percent overall. The nominal exchange rate fell sharply in the first quarter of 1995, by 33.9 percent, and fell another 1.6 percent in the second quarter of 1995. The real exchange rate for the Mexican peso increased by 10.1 percent during 1992-93, fell by 9.4 percent during 1994, and, then, fell sharply by 33.2 percent in the first quarter of 1995.



## Tariff Rates

Manganese sulfate is provided for (along with other miscellaneous sulfates) in subheading 2833.29.50 of the *HTS*, with a most-favored-nation tariff rate of 3.7 percent ad valorem, applicable to imports from China.

## PRICING PRACTICES

Prices for manganese sulfate depend on a variety of factors, including the quantity, quality, manganese content, solubility, and form (granular vs. powder) of the purchased manganese sulfate, packaging and delivery costs, costs of production, availability of the product to the supplier, and current market conditions. There are currently two domestic manufacturers of manganese sulfate, AMT and Allied.<sup>6</sup> Both AMT and Allied quote prices on an f.o.b. plant basis.<sup>7</sup> AMT offers a price list and a \*\*\* discount to distributors.<sup>8</sup> AMT and Allied sold \*\*\* percent of their products on a spot basis. In addition, \*\*\* AMT and Allied sold \*\*\* of their products in 50-pound bags.

Importers of the Chinese subject product sold manganese sulfate both on the spot market and through contracts, which were renegotiated quarterly or yearly. Only two importers reported supplying a price list. Typical sales terms were net 30 days, and a receipt of a preshipment sample verifying content and purity was always required. Responses varied as to whether the buyer or the seller paid the transportation costs. The majority of imported Chinese manganese sulfate was sold in 25-kilogram bags or in 1-metric ton supersacks. A standard volume was 20 metric tons, which represents one container or one truck trailer.

## PRICE DATA

U.S. producers and importers of manganese sulfate provided f.o.b. and delivered prices and total quantities and values of three representative subject products sold to unrelated U.S. end users and distributors for each quarter during January 1992-June 1995.<sup>9</sup> The pricing data presented in this section are per gross metric ton of material and not per unit of contained soluble manganese.

**Product 1: Manganese sulfate monohydrate ( $MnSO_4 \cdot H_2O$ ), 29 to 32 percent manganese, 95 to 99 percent soluble manganese, granular or prilled form (particle size approximately -6 +16 Tyler).**

**Product 2: Manganese sulfate monohydrate ( $MnSO_4 \cdot H_2O$ ), 29 to 32 percent manganese, 95 to 99 percent soluble manganese, granular or prilled form (particle size approximately -20 +40 Tyler).**

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<sup>6</sup> Allied took over Koch's manganese sulfate production facilities in January 1993.

<sup>7</sup> AMT's plant is in Fairbury, NE; Allied's plant is in Pittsburg, KS.

<sup>8</sup> AMT maintains that, because of the low prices of Chinese imports, AMT has had to price its manganese sulfate on a case-by-case basis at prices substantially below its list prices.

<sup>9</sup> The Commission requested suppliers of the subject product to provide separate pricing data for sales of manganese sulfate with manganese content of less than 30 percent and with manganese content of greater than 30 percent. Staff combined the pricing data reported for each of these manganese content categories into one manganese content category (between 29 and 32 percent manganese content) for purposes of comparison.

**Product 3: Manganese sulfate monohydrate (MnSO<sub>4</sub>•H<sub>2</sub>O), 29 to 32 percent manganese, 95 to 99 percent soluble manganese, powder (standard form).**

Three U.S. producers and eight importers provided pricing data, although not necessarily for all products or quarters during January 1992-June 1995.<sup>10</sup> The responding domestic producers accounted for 100 percent of the reported U.S. shipments of U.S.-produced manganese sulfate in 1994. The responding importers accounted for 99 percent of U.S. shipments of imported Chinese subject product in 1994.<sup>11</sup>

**Price Trends**

Unit values for sales of AMT-produced manganese sulfate either \*\*\* during the period, or \*\*\* during the middle of the period and \*\*\* at the end of the period (tables V-1-V-5, figures V-2-V-7).<sup>12</sup> Unit values for AMT product 1 sold to end users ranged between \$\*\*\* and \$\*\*\* in 1992, between \$\*\*\* and \$\*\*\* in 1993, between \$\*\*\* and \$\*\*\* in 1994, and between \$\*\*\* and \$\*\*\* in 1995. Unit values for AMT product 2 sold to end users \*\*\* by \*\*\* percent during the first half of 1992 and the first three quarters of 1993, then \*\*\* during the rest of the period. Unit values for AMT product 1 sold to distributors were \*\*\*, ranging between \$\*\*\* and \$\*\*\* during the investigation period. Unit values for AMT product 2 sold to distributors \*\*\* during 1992 and the first quarter of 1993, \*\*\*, by \*\*\* percent, in the second quarter of 1993 and \*\*\*, then \*\*\*, by \*\*\* percent to \$\*\*\* and \$\*\*\* during the rest of the period.<sup>13</sup>

Table V-1

Manganese sulfate: Unit values and total quantities of U.S.-produced and imported Chinese product 1 sold to end users, by quarters, Jan. 1992-June 1995

\* \* \* , \* \* \* \*

<sup>10</sup> Three U.S. producers (AMT, Koch, and Allied) reported pricing data for sales of manganese sulfate. AMT produces manganese sulfate for sale on the open market to a variety of end users and distributors. Koch, and later Allied, produced manganese sulfate as a co-product in their manufacture of anisic aldehyde. Koch's and Allied's co-production of manganese sulfate was then sold to a \*\*\*, Imperial. For this reason, the unit value data reported by Koch and Allied are presented separately from AMT's unit value data.

<sup>11</sup> Evaluation of the manganese sulfate price data is complicated by the fact that the U.S.-produced and the imported Chinese subject products are, for the most part, sold through different channels of distribution and, to a lesser extent, utilized in different end uses (in part because of the different soluble manganese contents and granular forms of the AMT-produced and imported Chinese subject products).

<sup>12</sup> The responding producers and importers also submitted f.o.b. and delivered price data for their largest quarterly sales of manganese sulfate. However, the price data for the largest quarterly sales did not account for end-of-period quantity discounts, warehousing credits, etc., which were accounted for in the unit value data. For this reason, staff elected to base its pricing information on unit value data.

<sup>13</sup> AMT maintains that this \*\*\* in unit values for AMT product 2 sold to distributors was the result of \*\*\* offered by AMT in an attempt to compete with the imported Chinese subject product. \*\*\*, AMT, telephone interview with Commission staff, Sept. 6, 1995.

Table V-2

Manganese sulfate: Unit values and total quantities of U.S.-produced product 2 and imported Chinese products 2 and 3 sold to end users, by quarters, Jan. 1992-June 1995

\* \* \* \* \*

Table V-3

Manganese sulfate: Unit values and total quantities of U.S.-produced and imported Chinese product 1 sold to distributors, by quarters, Jan. 1992-June 1995

\* \* \* \* \*

Table V-4

Manganese sulfate: Unit values and total quantities of U.S.-produced and imported Chinese product 2 sold to distributors, by quarters, Jan. 1992-June 1995

\* \* \* \* \*

Table V-5

Manganese sulfate: Unit values and total quantities of U.S.-produced and imported Chinese product 3 sold to distributors, by quarters, Jan. 1992-June 1995

\* \* \* \* \*

Figure V-2

Manganese sulfate: Unit values of U.S.-produced and imported Chinese product 1 sold to end users, by quarters, Jan. 1992-June 1995

\* \* \* \* \*

Figure V-3

Manganese sulfate: Unit values of U.S.-produced and imported Chinese product 2 sold to end users, by quarters, Jan. 1992-June 1995

\* \* \* \* \*

Figure V-4

Manganese sulfate: Unit values of imported Chinese product 3 sold to end users, by quarters, Jan. 1992-June 1995

\* \* \* \* \*

Figure V-5

Manganese sulfate: Unit values of U.S.-produced and imported Chinese product 1 sold to distributors, by quarters, Jan. 1992-June 1995

\* \* \* \* \*

Figure V-6

Manganese sulfate: Unit values of U.S.-produced and imported Chinese product 2 sold to distributors, by quarters, Jan. 1992-June 1995

\* \* \* \* \*

Figure V-7

Manganese sulfate: Unit values of U.S.-produced and imported Chinese product 3 sold to distributors, by quarters, Jan. 1992-June 1995

\* \* \* \* \*

Both Allied and Koch sold manganese sulfate \*\*\* during the investigation period. Available unit values for Allied product 1 \*\*\* by \*\*\* percent in the first quarter of 1994, \*\*\* at the end of the period. Unit values for Koch product 2 \*\*\* by \*\*\* percent during 1992. Product 2 unit values \*\*\* in the first quarter of 1993 (when Allied took over Koch's production equipment) and throughout the rest of 1993. Allied's product 2 unit values \*\*\* percent in the first quarter of 1994 and \*\*\* until the second quarter of 1995 when they \*\*\* by \*\*\* percent to \*\*\*. Unit values for Koch's product 3 similarly \*\*\* by \*\*\* percent during 1992. Unit values for Allied's product 3 \*\*\* during 1993. Allied's product 3 unit values \*\*\*, by \*\*\* percent, in the first quarter of 1994, \*\*\* by \*\*\* percent in the third quarter of 1994, then \*\*\* by \*\*\* percent at the end of the period, \*\*\*.

Available unit values for sales of imported Chinese manganese sulfate fluctuated during the investigation period without distinct upward or downward trends.<sup>14</sup> Unit values for the three sales of Chinese product 1 to end users made during the period fell between the third quarter of 1993 and the second quarter of 1994, then increased in the first quarter of 1995. Unit values for sales of Chinese product 3 to end users fluctuated during the period, falling sharply in the second quarter of 1992, returning to their original levels in the fourth quarter of 1992, falling to their lowest point in the first quarter of 1995, then increasing sharply at the end of the period. Available unit values for Chinese product 1 sold to distributors increased from their lowest point in the second quarter of 1993, increased further in the fourth quarter of 1993, returned to their original price levels by the third quarter of 1994, and, then, increased dramatically in 1995. Available unit values for Chinese product 2 sold to distributors increased from their lowest point in the second quarter of 1993 to their highest point in the third quarter of 1993, before declining to their original price levels during the next four quarters. Available unit values for Chinese product 3 sold to distributors fluctuated upward to a peak in the third quarter of 1993, fluctuated downward to their lowest point in the third quarter of 1994, and increased to their highest point at the end of the period.

<sup>14</sup> \*\*\*.

## Price Comparisons

There were 19 instances in which comparisons were possible between AMT-produced and imported Chinese manganese sulfate (table V-6). The imported Chinese subject product was priced below the AMT product in 13 quarters by margins ranging between \*\*\* and \*\*\* percent and above it in 6 quarters by margins ranging from \*\*\* to \*\*\* percent. For sales to end users, imported Chinese product 1 was priced below AMT product 1 in all three available quarters by margins ranging between \*\*\* and \*\*\* percent. End user sales of imported Chinese product 2 were priced below end user sales of AMT-produced product 2 in the only available quarter of comparison by \*\*\* percent. For sales to distributors, imported Chinese product 1 was priced below AMT-produced product 1 in eight quarters by margins ranging from \*\*\* to \*\*\* percent and above it in one quarter by a margin of \*\*\* percent. Distributors' sales of imported Chinese product 2 were priced below those of AMT-produced product 2 in one quarter by \*\*\* percent, and above in five quarters by margins ranging from \*\*\* to \*\*\* percent.

There also were 27 instances in which comparisons were possible between distributors' sales of Koch/Allied product and imported Chinese manganese sulfate (table V-7). The imported Chinese subject product was priced below the Koch/Allied product in 18 quarters by margins ranging between \*\*\* and \*\*\* percent and above it in 9 quarters by margins ranging from \*\*\* to \*\*\* percent. Imported Chinese product 1 was priced below Koch/Allied product 1 in five quarters by margins ranging between \*\*\* and \*\*\* percent and above it in four quarters by margins ranging between \*\*\* and \*\*\* percent. Distributors' sales of imported Chinese product 2 were priced below those of Koch/Allied-produced product 2 in all six available quarters by margins ranging between \*\*\* and \*\*\* percent. Distributors' sales of imported Chinese product 3 were priced below those of Koch/Allied-produced product 3 in seven quarters by margins ranging between \*\*\* and \*\*\* percent and above it in five quarters by margins ranging between \*\*\* and \*\*\* percent.

Table V-6

Manganese sulfate: Margins of underselling/(overselling) for sales of AMT-produced and imported Chinese manganese sulfate, by channels of distribution, products, and quarters, Jan. 1992-June 1995

\* \* \* \* \*

Table V-7

Manganese sulfate: Margins of underselling/(overselling) for sales of Koch/Allied-produced and imported Chinese manganese sulfate to distributors, by products and by quarters, Jan. 1992-June 1995

\* \* \* \* \*

## LOST SALES AND LOST REVENUES

AMT alleged that, during the period examined, it lost \*\*\* of manganese sulfate sales because of imported Chinese product.<sup>15</sup> In its questionnaire response, AMT maintained that it lost revenues

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<sup>15</sup> Petitioner's postconference brief, p. 23.

on sales of \*\*\* short tons of manganese sulfate because of imports from China.<sup>16</sup> AMT did not provide details concerning the initial rejected price quotations or the total delivered values. AMT's questionnaire response stated \*\*\*.

\*\*\* denied that his company switched from selling AMT product because of the presence of low-priced Chinese product. \*\*\* noted that \*\*\*. \*\*\* stated that purity and soluble manganese content are important attributes for animal feed. Animal feed premixers regularly prepare micronutrient premixes in 50-pound bags, and the higher the available manganese content, the less manganese sulfate required to achieve a desired percentage. If the manganese content is too low, the blender might not be able to make up a 50-pound bag that has room for the required amounts of the other micronutrients. Referring to the differences in end use for granular versus powder, \*\*\* stated that \*\*\*.

\*\*\*, president of \*\*\*, also denied replacing the AMT product with the Chinese product. \*\*\* company is \*\*\*. \*\*\* said that \*\*\*. \*\*\* also stated that manganese content was a significant factor. For example, 8 percent filler (that is, 92-percent soluble manganese) can add to shipping costs. Furthermore, the higher purity product is increasingly available on the market, and customers are becoming accustomed to this product.

\*\*\*, president of \*\*\*, did not report any purchases of imported Chinese product, but stated that \*\*\* company has lost sales to Chinese imports. \*\*\* is a wholesaler/distributorship that \*\*\*.<sup>17</sup> \*\*\* also stated that Florida soil needs more micronutrients than other soils do in other regions of the country (such as the Chesapeake Bay area), and, therefore, farmers use considerable amounts of fertilizer each year. \*\*\* offers commercial services to its customers, such as carrying credit, warehousing, and emergency overnight delivery \*\*\*. \*\*\* believed that the Chinese product was sold through a broker in large batches of approximately 300 tons. In his opinion, \*\*\*. \*\*\* noted that when manganese sulfate is sold on a percent-manganese-per-ton basis, Chinese product is selling at almost \$\*\*\* less per ton than the Mexican or the AMT product that he sells.

Staff also contacted two large fertilizer blenders, \*\*\*. \*\*\* stated that manganese sulfate accounts for less than \*\*\* percent of \*\*\*'s business on a dollar basis. \*\*\* maintained that service and reliability are as important as price is when purchasing manganese sulfate. \*\*\* buys from \*\*\*, with \*\*\* largest purchases coming from \*\*\*.<sup>18</sup> \*\*\*. \*\*\* annually buys \*\*\*, and \*\*\* has not noticed any price declines in recent years. According to \*\*\*, \*\*\*.

\*\*\* also stated that manganese sulfate accounts for an extremely small portion of his company's sales.<sup>19</sup> \*\*\* pays list price minus a percentage, and it sells manganese sulfate for \*\*\*. During the past few years, \*\*\* has sold about \*\*\* bags annually.

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<sup>16</sup> \*\*\*.

<sup>17</sup> \*\*\*.

<sup>18</sup> \*\*\*.

<sup>19</sup> \*\*\* stated that \*\*\* is \*\*\*. The company's total revenues in 1993 were approximately \*\*\*, while its sales of manganese sulfate were \*\*\*.

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

## INTRODUCTION

Complete financial information was provided on manganese sulfate operations, in addition to overall establishment operations, only by the petitioner. The petitioner's data have been verified, and the revisions are incorporated in the data presented in this section. These data represent \*\*\* percent of U.S. production of manganese sulfate in 1994. The other U.S. producers, Allied and Koch, provided limited financial data.

### OVERALL ESTABLISHMENT OPERATIONS

Income-and-loss data on AMT's overall operations are presented in table VI-1.<sup>1</sup> In addition to the product under investigation, AMT indicated in its questionnaire response that it produces \*\*\* various forms of zinc sulfate in its overall establishment operations. AMT's manganese sulfate net sales in fiscal year 1995 were \*\*\* percent of its overall establishment net sales.

Table VI-1

Income-and-loss experience of AMT on the overall operations of its establishment wherein manganese sulfate is produced, fiscal years 1993-95, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*

### OPERATIONS ON MANGANESE SULFATE

Income-and-loss data for AMT's manganese sulfate operations are presented in table VI-2, and the income-and-loss data for the toller of Allied's operations (formerly Koch's), Eagle Picher, are presented in appendix E. Eagle-Picher's tolling data for Allied's products are not included in this section since Allied's data were \*\*\*. AMT's manganese sulfate was produced at its Fairbury, NE, plant, which also produced zinc sulfate during the period of the investigation. AMT indicated that the products are processed independently of each other, both for manufacturing and accounting purposes, although there were plant overhead expenses that had to be allocated between the products. A comparison of the respective overhead rates as a percentage of cost of goods indicated \*\*\*. AMT experienced \*\*\*. The breakout of cost of goods sold into the three major components, based on data submitted in response to Commission questionnaires, is presented in the following tabulation (in 1,000s):

\* \* \* \* \*

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<sup>1</sup> AMT's fiscal year ends on June 30.

Table VI-2

Income-and-loss experience of AMT on its operations producing manganese sulfate, fiscal years 1993-95, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*

The decrease in quantities sold from fiscal years 1993 to 1995 \*\*\*. Selling, general, and administrative (SG&A) expenses \*\*\*.<sup>2</sup> The SG&A expenses \*\*\*. Although the correct SG&A expenses \*\*\*. Based on reasonableness tests performed at the verification, however, the original and the revised SG&A expenses \*\*\*. Accordingly, alternative expenses are presented in the following tabulation using a common allocation procedure, the ratio of overall establishment SG&A expenses to overall establishment net sales.

\* \* \* \* \*

Koch provided data on its Pittsburg, KS, ("Jayhawk plant") operations from January 1992 to January 1993, and Allied provided data from its date of purchase of its plant in January 1993 through interim 1995. Both sets of data, however, had \*\*\*. \*\*\*.

### VARIANCE ANALYSIS

The variance analysis, table VI-3, covers the one producer, AMT, that provided sufficient financial data for an assessment of changes in profitability as related to changes in pricing, cost, and volume. \*\*\*. The information for the variance analysis is derived from information presented in table VI-2. \*\*\*.

Table VI-3

Variance analysis for AMT on its operations producing manganese sulfate, fiscal years 1993-95, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*

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

AMT's value of property, plant, and equipment, its total assets, and its return on total assets are presented in table VI-4. AMT's capital expenditures are presented in table VI-5. AMT indicated \*\*\* for research and development during the period of investigation.

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<sup>2</sup> \*\*\*.



Table VI-4

Value of assets and return on assets of AMT's establishment wherein manganese sulfate is produced, fiscal years 1993-95, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*

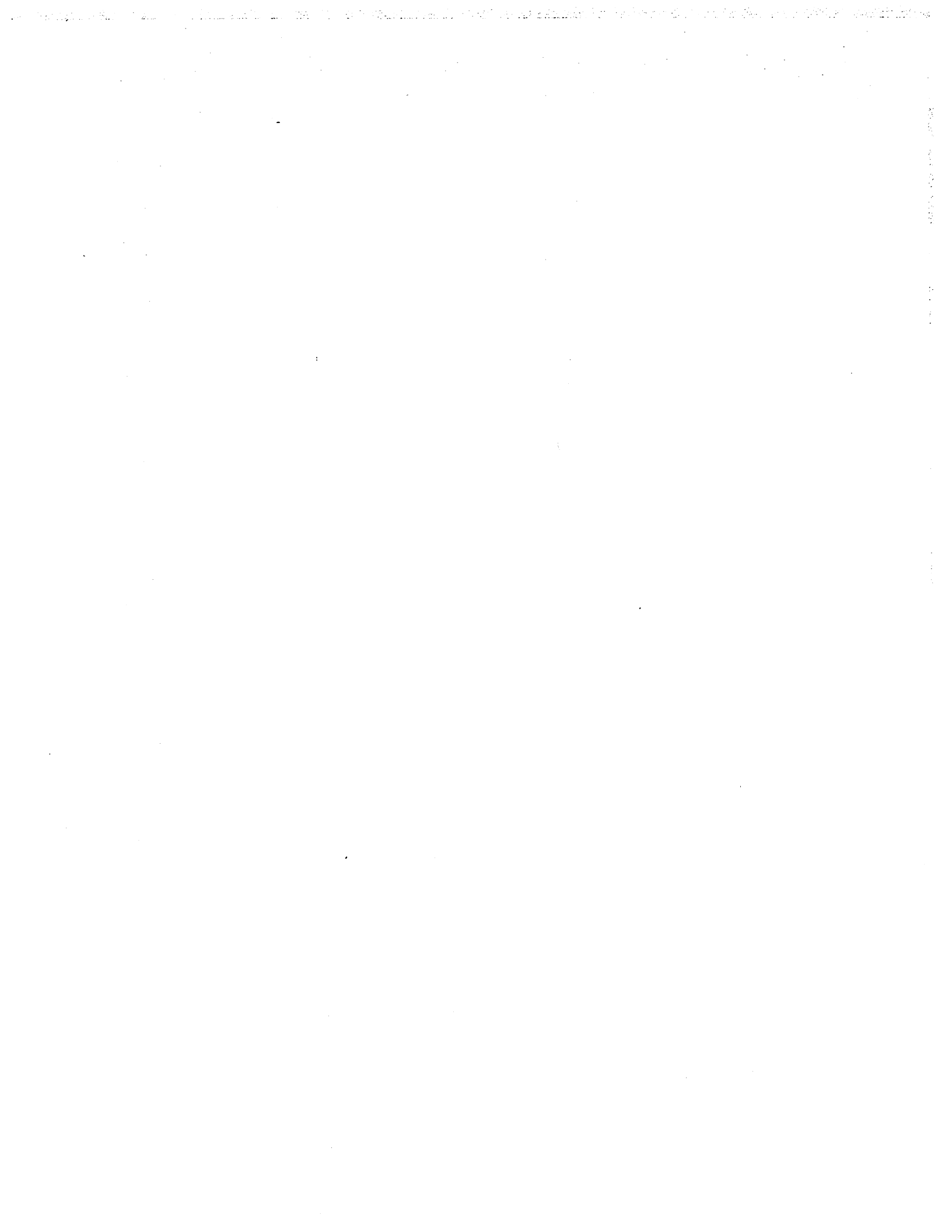
Table VI-5

Capital expenditures by AMT, fiscal years 1993-95, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*

**CAPITAL AND INVESTMENT**

The Commission requested U.S. producers to describe any actual or potential negative effects of imports of manganese sulfate from China on their firms' growth, investment, ability to raise capital, or development and production efforts (including efforts to develop a derivative or more advanced version of the product). Their responses are shown in appendix F.



## PART VII: THREAT CONSIDERATIONS

### INFORMATION PRESENTED IN THIS SECTION

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 manganese sulfate from China is presented in the parts entitled "U.S. Imports, Apparent Consumption, and Market Shares" and "Pricing and Related Data," respectively, and information on the effects of imports of manganese sulfate from China on U.S. producers' existing development and production efforts is presented in appendix F. Information on the manganese sulfate industry in China, including the potential for "product-shifting;" inventories of U.S. imports of manganese sulfate from China; and on any other applicable threat indicators is presented in this section of the report.

There is no indication that manganese sulfate from China has been the subject of any other import relief investigations, including antidumping findings or antidumping remedies, in the United States or in any other countries.

### THE INDUSTRY IN CHINA

The petition identified two firms, China National Nonferrous Import & Export Corp. (CNIEC) and Hunan Chemicals Import and Export Corp. (Hunan), that it alleged were offering manganese sulfate produced in China for export to the United States, but did not identify any specific manganese sulfate manufacturers.<sup>1</sup> As both CNIEC and Hunan were represented by counsel, the Commission requested such counsel to provide data on the industry's capacity, production, shipments, and inventories of manganese sulfate. Complete responses were received from both firms, covering product manufactured by Xian Lu Chemical Factory, Ltd. (Xian Lu) and by Yan Jiang Chemical Plant (Yan Jiang).<sup>2</sup> The data obtained are presented in table VII-1.

Table VII-1

Manganese sulfate: Chinese capacity, production, inventories, capacity utilization, and shipments, 1992-94, Jan.-June 1994, Jan.-June 1995, and projected 1995-96

\* \* \* \* \*

As seen from the table, Chinese production of manganese sulfate grew slowly from 1992 to 1993, but then increased its rate of growth in 1994 and when the interim January-June periods are compared. Capacity increased throughout the period examined and is projected to continue to increase. Home market shipments declined substantially in 1994, whereas exports to all markets increased. Exports to the United States are projected to be lower in 1995 and 1996 than in 1994. Export patterns are not expected to change from 1995 to 1996, whereas capacity utilization is predicted to remain high.

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<sup>1</sup> These firms, identified in the petition as China National Chemicals Import and Export Corp. and Hunan Chemicals and Medicines Company, Ltd., respectively, are believed to be the same firms that eventually submitted data.

<sup>2</sup> Both Xian Lu and Yan Jiang \*\*\*.

In their responses, Yan Jiang and Xian Lu claimed to represent 100 percent of exports of manganese sulfate from China to the United States during the period examined. A comparison of table VII-1 to table IV-1, however, shows that exports to the United States (table VII-1) in 1994 account for only \*\*\* percent, by volume, of imports reported in responses to the Commission's importer's questionnaires (table IV-1). The Commission requested counsel for CNIEC and Hunan to identify any additional manufacturers and exporters of manganese sulfate to the United States. Counsel reported that \*\*\*. Counsel noted that, other than Xian Lu and Yan Jiang, there is \*\*\*<sup>3</sup> At the hearing, counsel acknowledged that there may be a total of six production facilities in China that produce manganese sulfate, whether or not for export.<sup>4</sup>

In addition, the Commission requested the U.S. Embassy in Beijing to provide data on the operations of any firms not represented by counsel in this investigation. On September 12, 1995, the Embassy responded via fax that, because Chinese Customs does not keep separate export statistics for manganese sulfate, it could not provide any data in response to the Commission's request.

### U.S. IMPORTERS' INVENTORIES

Of the 10 firms reporting imports of manganese sulfate from China, only 5 carried end-of-period inventories of those imports during the period examined (table VII-2). End-of period inventories of imports from China surged markedly from 1992 to 1994, peaking in 1993. Inventories of imports from nonsubject sources declined steadily, but were consistently higher than those associated with imports from China.

Importers did not report any unusual problems in sourcing from China during the period examined, or with the overall quality of the product. Lead times from China were reported as anywhere from one to four months. The two largest importers of manganese sulfate from China, \*\*\*, reported \*\*\* levels of inventories during the period examined. The majority of importers from China noted that manganese sulfate is sold on a seasonal basis and generally cannot be held in inventory longer than 6 to 10 months before it begins to harden.<sup>5</sup>

In its questionnaire, the Commission requested importers to list any expected deliveries of manganese sulfate from China after June 30, 1995. No firm reported any such expected deliveries.

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<sup>3</sup> Respondents' posthearing brief, p. A-13.

<sup>4</sup> Transcript, pp. 145, 171-72. Importer questionnaire responses, however, identified several other firms exporting the subject merchandise to the United States: in particular, \*\*\*.

<sup>5</sup> Sulfamex reported that \*\*\*.

Table VII-2

Manganese sulfate: End-of-period inventories of U.S. importers, by sources, 1992-94, Jan.-June 1994, and Jan.-June 1995

Item	1992	1993	1994	Jan.-June--	
				1994	1995
<i>Quantity (metric tons)</i>					
China	246	***	870	***	598
Nonsubject sources:					
Mexico	***	***	***	***	***
Other sources	***	***	***	***	***
Subtotal	***	***	***	***	***
Total	***	***	***	***	***
<i>Ratio to U.S. shipments of imports (percent)</i>					
China	***	***	18.0	***	16.9
Nonsubject sources:					
Mexico	***	***	***	***	***
Other sources	6.4	20.5	35.8	34.3	16.7
Average	26.8	20.4	20.0	19.2	17.0
Average, all imports	22.7	21.9	19.4	18.2	17.0

Note.-- Ratios are calculated using data where both comparable numerator and denominator information were supplied. Part-year inventory ratios are annualized.

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



**APPENDIX A**  
**SUMMARY DATA**





Table A-1

Manganese sulfate: Summary data concerning the U.S. market, 1992-94, Jan.-June 1994, and Jan.-June 1995

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

Item	Reported data					Period changes			
	1992	1993	1994	Jan.-June-		1992-94	1992-93	1993-94	1994-95
				1994	1995				
U.S. consumption quantity:									
Amount	23,374	23,060	23,799	13,656	14,382	+1.8	-1.3	+3.2	+5.3
Producers' share <sup>1</sup>	***	***	***	***	***	***	***	***	***
Importers' share: <sup>1</sup>									
China	***	19.4	20.3	17.5	12.3	***	***	+0.9	-5.3
Non-subject sources:									
Mexico	***	***	***	***	***	***	***	***	***
Other sources	***	***	***	***	***	***	***	***	***
Subtotal	***	***	***	***	***	***	***	***	***
Total	***	***	***	***	***	***	***	***	***
U.S. consumption value:									
Amount	11,147	10,943	10,632	6,100	6,604	-4.6	-1.8	-2.8	+8.3
Producers' share <sup>1</sup>	***	***	***	***	***	***	***	***	***
Importers' share: <sup>1</sup>									
China	10.9	16.3	17.0	14.6	10.0	+6.1	+5.3	+0.7	-4.6
Non-subject sources:									
Mexico	***	***	***	***	***	***	***	***	***
Other sources	***	***	***	***	***	***	***	***	***
Subtotal	***	***	***	***	***	***	***	***	***
Total	***	***	***	***	***	***	***	***	***
U.S. imports from-									
China:									
U.S. shipments quantity	***	4,480	4,826	2,394	1,766	***	***	+7.7	-26.2
U.S. shipments value	1,218	1,779	1,808	891	659	+48.3	+46.0	+1.6	-26.0
Unit value	\$***	\$397	\$375	\$372	\$373	***	***	-5.7	+0.3
Ending inventory quantity	246	***	870	***	598	+253.7	***	***	***
Mexico:									
U.S. shipments quantity	***	***	***	***	***	***	***	***	***
U.S. shipments value	***	***	***	***	***	***	***	***	***
Unit value	\$***	\$***	\$***	\$***	\$***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Other sources:									
U.S. shipments quantity	***	***	***	***	***	***	***	***	***
U.S. shipments value	***	***	***	***	***	***	***	***	***
Unit value	\$***	\$***	\$***	\$***	\$***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Non-subject sources:									
U.S. shipments quantity	***	***	***	***	***	***	***	***	***
U.S. shipments value	***	***	***	***	***	***	***	***	***
Unit value	\$***	\$***	\$***	\$***	\$***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All sources:									
U.S. shipments quantity	***	***	***	***	***	***	***	***	***
U.S. shipments value	***	***	***	***	***	***	***	***	***
Unit value	\$***	\$***	\$***	\$***	\$***	***	***	***	***

Table continued on next page.

Table A-1—Continued

Manganese sulfate: Summary data concerning the U.S. market, 1992-94, Jan.-June 1994, and Jan.-June 1995

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

Item	Reported data					Period changes			
	1992	1993	1994	Jan.-June—		1992-94	1992-93	1993-94	Jan.-June
				1994	1995				1994-95
U.S. producers <sup>1</sup> —									
Ending capacity quantity . . . . .	***	***	***	***	***	***	***	***	***
Production quantity . . . . .	***	***	***	***	***	***	***	***	***
Capacity utilization <sup>1</sup> . . . . .	***	***	***	***	***	***	***	***	***
U.S. shipments:									
Quantity . . . . .	***	***	***	***	***	***	***	***	***
Value . . . . .	***	***	***	***	***	***	***	***	***
Unit value . . . . .	\$***	\$***	\$***	\$***	\$***	***	***	***	***
Export shipments:									
Quantity . . . . .	***	***	***	***	***	***	***	***	***
Exports/shipments <sup>1</sup> . . . . .	***	***	***	***	***	***	***	***	***
Value . . . . .	***	***	***	***	***	***	***	***	***
Unit value . . . . .	\$***	\$***	\$***	\$***	\$***	***	***	***	***
Ending inventory quantity . . . . .	***	***	***	***	***	***	***	***	***
Inventory/shipments <sup>1</sup> . . . . .	***	***	***	***	***	***	***	***	***
Production workers . . . . .	20	21	21	22	20	+5.0	+5.0	0	-9.1
Hours worked (1,000s) . . . . .	39	43	44	22	20	+12.8	+10.3	+2.3	-9.1
Wages paid (\$1,000) . . . . .	394	434	442	225	212	+12.2	+10.2	+1.8	-5.8
Total compensation (\$1,000) . . . . .	498	551	571	291	277	+14.7	+10.6	+3.6	-4.8
Hourly wages . . . . .	\$10.10	\$10.09	\$10.05	\$10.23	\$10.60	-0.6	-0.1	-0.5	+3.6
Hourly total compensation . . . . .	\$12.77	\$12.81	\$12.98	\$13.23	\$13.85	+1.6	+0.4	+1.3	+4.7
Productivity (metric tons per									
1,000 hours) . . . . .	***	***	***	***	***	***	***	***	***
Unit labor costs . . . . .	\$***	\$***	\$***	\$***	\$***	***	***	***	***
Net sales <sup>3</sup>									
Quantity . . . . .	***	***	***	***	***	***	***	***	***
Value . . . . .	***	***	***	***	***	***	***	***	***
Unit sales value . . . . .	\$***	\$***	\$***	\$***	\$***	***	***	***	***
Cost of goods sold (COGS) . . . . .	***	***	***	***	***	***	***	***	***
Gross profit (loss) . . . . .	***	***	***	***	***	***	***	***	***
SG&A expenses . . . . .	***	***	***	***	***	***	***	***	***
Operating income or (loss) . . . . .	***	***	***	***	***	***	***	***	***
Capital expenditures . . . . .	***	***	***	***	***	***	***	***	***
Unit COGS . . . . .	\$***	\$***	\$***	\$***	\$***	***	***	***	***
Unit SG&A expenses . . . . .	\$***	\$***	\$***	\$***	\$***	***	***	***	***
Unit operating income or (loss) . . . . .	\$***	\$***	\$***	\$***	\$***	***	***	***	***
COGS/sales <sup>1</sup> . . . . .	***	***	***	***	***	***	***	***	***
Operating income or (loss)/sales <sup>1</sup> . . . . .	***	***	***	***	***	***	***	***	***

<sup>1</sup> "Reported data" are in percent and "period changes" are in percentage points.<sup>2</sup> Not applicable.<sup>3</sup> Financial data are for AMT only.

Note.—Period changes are derived from the unrounded data. Period changes involving negative period data are positive if the amount of the negativity decreases and negative if the amount of the negativity increases. Unit values are calculated from the unrounded figures. Part-year inventory ratios are annualized.

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

Figure A-1

Manganese sulfate: Salient data for the U.S. market, 1992-94

\* \* \* \* \*

Table A-2

Manganese sulfate: Summary data concerning the toll production of Eagle Picher, 1992-94, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*



**APPENDIX B**  
***FEDERAL REGISTER NOTICES***



Act). The estimated margins are shown in the "Continuation of Suspension of Liquidation" section of this notice.

#### *Case History*

Since the preliminary determination on May 9, 1995 (59 FR 25885, May 16, 1995), the following events have occurred:

On May 12, 1995, the Department issued an additional supplemental questionnaire to respondents China National Nonferrous Metals Import and Export Company ("CNIEC") and its U.S. subsidiary, Hunan Chemicals Import and Export Company ("Hunan Chemicals"), Xian Lu Chemical Factory, and Yan Jiang Chemical Factory. The Department received responses and subsequent revisions to those submissions from respondents in June 1995.

Petitioner, American Microtrace Corporation, submitted clerical error allegations following the Department's preliminary determination. The Department found that clerical errors were made in the preliminary determination; however, these errors did not result in a combined change of at least 5 absolute percentage points in, and no less than 25 percent of, any of the original preliminary dumping margins. Accordingly, no revision to the preliminary determination was made (see Notice of Amended Preliminary Determinations of Sales at Less Than Fair Value: Antidumping Duty Investigations of Pure and Alloy Magnesium from the Russian Federation and Pure Magnesium from Ukraine, (60 FR 7519, February 8, 1995)).

In June and July 1995, we verified the respondents' questionnaire responses. Additional publicly available published information on surrogate values was submitted by petitioner and respondents on August 4, 1995, and comments from the respective parties were submitted on August 11, 1995. Petitioner and respondents filed case briefs on August 18, 1995, and rebuttal briefs on August 25, 1995.

#### *Scope of Investigation*

The product covered by this investigation is manganese sulfate, including manganese sulfate monohydrate ( $MnSO_4 \cdot H_2O$ ) and any other forms, whether or not hydrated, without regard to form, shape or size, the addition of other elements, the presence of other elements as impurities, and/or the method of manufacture. The subject merchandise is currently classifiable under subheading 2833.29.50 of the Harmonized Tariff Schedule of the United States ("HTSUS"). Although the

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[A-570-841]

#### **Notice of Final Determination of Sales at Less Than Fair Value: Manganese Sulfate From the People's Republic of China**

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

**EFFECTIVE DATE:** October 5, 1995.

**FOR FURTHER INFORMATION CONTACT:** Ellen Grebasch, Dorothy Tomaszewski or Erik Warga, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230; telephone: (202) 482-3773; (202) 482-0631 or (202) 482-0922, respectively.

#### **Applicable Statute and Regulations**

Unless otherwise indicated, all citations to the statute and to the Department's regulations are in reference to the provisions as they existed on December 31, 1994.

#### **Final Determination**

We determine that manganese sulfate from the People's Republic of China (PRC) is being, or is likely to be, sold in the United States at less than fair value (LTFV), as provided in section 733 of the Tariff Act of 1930, as amended (the

HTSUS subheading is provided for convenience and customs purposes, our written description of the scope of this proceeding is dispositive.

#### Period of Investigation

The period of investigation ("POI") is June 1, 1994, through November 30, 1994.

#### Best Information Available

As stated in the preliminary determination, we have based the duty deposit rate for all other exporters in the PRC ("the 'PRC-wide' rate") on best information available ("BIA"). The evidence on record indicates that the responding companies may not account for all exports of the subject merchandise.

In the case of Hunan Chemicals, verification revealed that, for its sole POI sale to the U.S., there was no evidence that Hunan Chemicals knew at the time of its sale to its customer that the merchandise was destined for the United States. Therefore, we have not treated that transaction as a sale by Hunan Chemicals to the United States. Accordingly, Hunan Chemicals will be subject to the "PRC-wide" deposit rate for manganese sulfate. (see Comment 2, "Interested Party Comments" section of this notice).

Because information has not been presented to the Department to prove otherwise, other PRC exporters not participating in this investigation are not entitled to separate dumping margins. In the absence of responses from all exporters, therefore, we are basing the country-wide deposit rate on BIA, pursuant to section 776(c) of the Act. (See, e.g., Final Determination of Sales at Less Than Fair Value: Antidumping Duty Investigation of Pure Magnesium From Ukraine (61 FR 16433, March 30, 1995)).

In determining what to use as BIA, the Department follows a two-tiered methodology, whereby the Department normally assigns lower margins to those respondents who cooperated in an investigation and margins based on more adverse assumptions for those respondents who did not cooperate in an investigation. As outlined in the Final Determination of Sales at Less Than Fair Value: Certain Hot-Rolled Carbon Steel Flat Products, Certain Cold-Rolled Carbon Steel Flat Products, and Certain Cut-to-Length Carbon Steel Plate From Belgium (58 FR 37083, July 9, 1993), when a company refuses to provide the information requested in the form required, or otherwise significantly impedes the Department's investigation, it is appropriate for the Department to assign to that company the higher of (a)

the highest margin alleged in the petition, or (b) the highest calculated rate of any respondent in the investigation. In this investigation, we are assigning to any PRC company, other than those specifically identified below, the "PRC-Wide" deposit rate of 362.23 percent, *ad valorem*. This margin represents the highest margin in the petition, as recalculated by the Department for purposes of the final determination. In the preliminary determination, we adjusted the BIA rate by reassigning the value for ocean freight based on the highest reported ocean freight charge incurred by a responding company—CNEC—because the surrogate value cited for ocean freight in the petition appeared to be aberrational (e.g., the unit charge for ocean freight deducted from gross unit price equals 68 percent of the gross unit price). (See Calculation Memorandum for the Preliminary Determination of Sales at Less Than Fair Value: Manganese Sulfate from the People's Republic of China (59 FR 25885, May 16, 1995)). For the final determination, we determined CNEC's reported ocean freight charges are based on non-market economy rates (see Comment 7, "Interested Party Comments" section of this notice). Therefore, we adjusted the PRC-wide rate, as recalculated in the preliminary determination, to reflect the market economy rate determined by the Department as the appropriate surrogate value for ocean freight in final margin calculation for CNEC.

#### Separate Rates

CNEC and Hunan Chemicals have each requested a separate rate. Because, as explained above, we determined that Hunan Chemicals had no reported sales to the U.S. during the POI, Hunan Chemicals is precluded from being considered for a separate rate, the request of this company will not be further analyzed (see Final Determination of Sales at Less Than Fair Value: Nitromethane from the People's Republic of China (59 FR 14834, March 30, 1994)).

To establish whether a firm is sufficiently independent to be entitled to a separate rate, the Department uses criteria that were developed in the Final Determination of Sales at Less Than Fair Value: Sparklers from the People's Republic of China (56 FR 20588, May 6, 1991) ("Sparklers") and in Final Determination of Sales at Less Than Fair Value: Silicon Carbide from the People's Republic of China (59 FR 22585, May 2, 1994) ("Silicon Carbide"). Under the separate rates criteria, the Department assigns a separate rate only when an exporter can demonstrate the absence of

both *de jure*<sup>1</sup> and *de facto*<sup>2</sup> governmental control over export activities.

CNEC's business license indicates that it is owned "by all the people." As stated in the Silicon Carbide, "ownership of a company by all the people does not require the application of a single rate." Accordingly, CNEC is eligible to be considered for a separate rate.

#### De Jure Control

CNEC has submitted copies of the following laws in support of its claim of absence of *de jure* control: "Law of the People's Republic of China on Industrial Enterprises Owned by the Whole People," adopted on April 13, 1988 ("1988 Law"); "Regulations for Transformation of Operational Mechanism of State-Owned Industrial Enterprises," approved on August 23, 1992 ("1992 Regulations"); and the "Temporary Provisions for Administration of Export Commodities," approved on December 21, 1992 ("Export Provisions"). The 1988 Law states that enterprises have the right to set their own prices (see Article 26). This principle was restated in the 1992 Regulations (see Article IX). The Export Provisions list those products subject to direct government control. Manganese sulfate does not appear on the Export Provisions list and is not, therefore, subject to the constraints of these provisions. The 1994 Quota Measure supersedes earlier laws dealing with the export of the named commodities. Manganese sulfate was not named in the 1994 Quota Measure and does not, therefore, appear to be subject to the export quota regulation of this measure.

The Department stated in Silicon Carbide that the existence of the 1988 Law and the 1992 Regulations support a finding that the respondents are not subject to *de jure* control either by the central government or otherwise. However, we found in Silicon Carbide

<sup>1</sup> Evidence supporting, though not requiring, a finding of *de jure* absence of central control includes: (1) An absence of restrictive stipulations associated with an individual exporter's business and export licenses; (2) any legislative enactments decentralizing control of companies; or (3) any other formal measures by the government decentralizing control of companies.

<sup>2</sup> The factors considered include: (1) Whether the export prices are set by or subject to the approval of a governmental authority; (2) whether the respondent has authority to negotiate and sign contracts and other agreements; (3) whether the respondent has autonomy from the government in making decisions regarding the selection of management; and (4) whether the respondent retains the proceeds of its export sales and makes independent decisions regarding disposition of profits or financing of losses (see Silicon Carbide).



and other reports (see "PRC Government Findings on Enterprise Autonomy," in Foreign Broadcast Information Service-China-93-133 (July 14, 1993)) that laws shifting control from the government to the enterprises themselves have not been implemented uniformly. Therefore, the Department has determined that an analysis of *de facto* control is critical to determining whether respondents are, in fact, subject to governmental control.

#### *De Facto Control*

During verification, our examination of correspondence and sales documentation revealed no evidence that CNIEC's export prices are set, or subject to approval, by any governmental authority. That CNIEC has the authority to negotiate and sign contracts and other agreements independent of any government authority was evident from our examination of correspondence and written agreements and contracts. We also noted that CNIEC retained proceeds from its export sales and made independent decisions regarding disposition of profits and financing of losses (based on our examination of financial records and purchase invoices). Finally, we have determined that CNIEC has autonomy from the central government in making decisions regarding the selection of management, based on our examination of management election notices, staff congress election ballots and minutes from the last company election meeting. According to CNIEC's company constitution, the company president is elected by the staff congress. Examination of management documents and correspondence provided no evidence of involvement by the central or provincial government in CNIEC's management selection process. Further, there is no evidence in this proceeding that any exporters are subject to common control.

#### *Conclusion*

Given that the record of this investigation demonstrates a *de jure* and *de facto* absence of governmental control over the export functions of CNIEC, we determine that CNIEC should receive a separate rate.

#### *Fair Value Comparisons*

To determine whether sales by CNIEC of manganese sulfate from the PRC to the United States were made at less-than-fair value prices, we compared the United States price ("USP") to the foreign market value ("FMV"), as specified in the "United States Price"

and "Foreign Market Value" sections of this notice.

#### *United States Price*

USP for CNIEC was calculated on the same basis as in the preliminary determination. Certain adjustments were made to the CNIEC's reported U.S. sales, based on verification findings, as follows: reported quantities were changed for certain transactions; one sale was added and another reported sale was determined actually to be two sales; and no deduction for marine insurance was made since it was determined that this charge was not incurred. We also rejected CNIEC's reported ocean freight in favor of a surrogate freight rate (see Comment 7, "Interested Party Comments" section of this notice) For the one unreported sale discovered at verification, adjustments for freight charges and duty were made using the highest figures for any transportation charges reported by CNIEC as best information available ("BIA"). (See Calculation Memorandum, attached to the Concurrence Memorandum, on file in room B-099 of the Main Commerce Department Building, for details of adjustments made.)

#### *Foreign Market Value*

We calculated FMV based on Yan Jiang's and Xian Lu's factors of production cited in the preliminary determination, making adjustments based on verification findings. To calculate FMV, the verified factor amounts were multiplied by the appropriate surrogate values for the different inputs. We have used the same surrogate values as the preliminary determination with the exception of certain factors. The identities of certain factors were deemed proprietary by the Department and, therefore, their names are not disclosed in this notice. The two factors in question will be referred to as "factor X" and "factor Z" for the remaining sections of this notice.

For Xian Lu and Yan Jiang we used verified packing factor amounts to calculate packing cost for the final calculations.

#### *Surrogate Country*

Section 773(c)(4) of the Act requires the Department to value the factors of production, to the extent possible, in one or more market economy countries that are (1) at a level of economic development comparable to that of the non-market economy country, and (2) significant production of comparable merchandise. The Department has determined that India is the country most comparable to the PRC in terms of

overall economic development and significant production of comparable merchandise. (See memorandum from the Office of Policy to the file, dated April 13, 1995.) To value factors of production, we have obtained and relied upon published, publicly available information wherever possible.

#### *Verification*

As provided in section 776(b) of the Act, we verified the information submitted by respondents for use in our final determination. We used standard verification procedures, including examination of relevant accounting and production records and original source documents provided by respondents.

#### *Interested Party Comments*

##### **Comment 1: Dumping Margins Based on BIA**

Petitioner asserts that the Department should calculate the dumping margins for CNIEC and Hunan Chemicals based on the highest margins alleged in the petition as BIA. First, petitioner notes that respondents failed to file questionnaire responses to section A for the responding companies within the deadline established by the Department and failed to request an extension before that deadline expired. Further, according to petitioner, the perpetual revision of the responses has reduced the credibility of the information presented in respondents' submissions.

Respondents contend that there is no legal basis in this case for the use of BIA to calculate the responding trading companies' respective margins. Respondents note that the Department accepted and verified the respondents' questionnaire responses. According to respondents, the minor deviations and discrepancies discovered at verification were well within the limits of what the Department accepts as correcting insignificant errors found at verification.

#### *DOC Position*

Given the special circumstances outlined in the Memorandum to the File dated June 8, 1995, the Department exercised its discretion to accept the questionnaire responses (19 CFR 353.31(b)(1)). Further, except for Hunan Chemicals' response, the discrepancies discovered at verification were not such that the overall reliability of the responses was called into question. Therefore, the Department is basing its final determination on verified information from questionnaire responses from CNIEC and supplier factories.

### Comment 2: Hunan Chemicals' Status as Respondent

Petitioner contends that the Department has no basis for determining a company-specific margin for Hunan Chemicals. According to petitioner, evidence on the record for its only reported sale indicates that Hunan Chemicals did not know, at the time of sale, that the merchandise it sold to the third country trading company was ultimately destined for the United States. All documentary evidence on the record indicates that Hunan Chemicals only learned that the merchandise was destined for the United States at the time of shipment, after the sale had already been made.

Respondents argue that the Department should continue to treat Hunan Chemicals' only reported sale as a U.S. sale and, therefore, assign Hunan Chemicals a separate rate for the final determination because of the following evidence on the record: (1) The bill of lading for the shipment in question listed the destination as a U.S. port; (2) PRC Customs export statistics' printout of exports to the United States showed that this shipment was sent to the United States; and, (3) correspondence from a company in New York with respect to this shipment was dated before the issuance of this sales contract.

#### DOC Position

We agree with petitioner. Based on the evidence on the record, we determine that this transaction was not a U.S. sale made by Hunan Chemicals. The sales contract for the reported sale did not stipulate the ultimate destination. The customer listed on the sales contract was a non-U.S. trading company. The actual sales documents (*i.e.*, sales contract, invoice, bill of lading), sales records, or accounting records do not mention the name of the company with the New York address found on the facsimile correspondence dated before the issuance of the sales contract. Further, the sales correspondence up to and including the date of sale does not mention the identity of the U.S. customer or the ultimate destination as the United States. The terms of delivery on the sales invoice were not to the United States. The fact that the bill of lading lists the U.S. port as destination of the shipment does not prove that Hunan Chemicals knew the ultimate destination at the time of the sale because this shipping document was issued well after the date of the sales contract which established the date of sale in this case. The PRC Customs

export statistics do not provide any supporting evidence as to the company's knowledge at the date of the sale that the destination of the shipment was the United States. Even though Hunan Chemicals cooperated in supplying the requested information and permitting verification, absence of a viable U.S. sale made by Hunan Chemicals gives the Department no choice but to reject the company as a respondent in this investigation. Therefore, based on the record of this investigation, the Department did not calculate a separate margin for Hunan Chemicals for the final determination. Accordingly, Hunan Chemicals will be subject to the "PRC-wide" rate.

### Comment 3: Surrogate Value for Factor X

(*N.b.*, Due to the proprietary nature of this issue, the following discussion is presented in non-confidential form. A more detailed analysis of the interested parties' positions and the Department's position is given in the September 28, 1995, decision memorandum to the file.)

Petitioner asserts that the surrogate value for factor X from the Indian Minerals Yearbook ("Yearbook") used in the preliminary determination is aberrational and should not be used in the final determination. In support of its assertion, petitioner (1) cites to past cases where the Yearbook value was not chosen as the surrogate value; (2) observes that the Yearbook value is significantly lower than other values on the record for comparable material, including a price quotation from a PRC supplier; and (3) notes that there is no evidence on the record of any company in India purchasing the material at the price listed in the Yearbook.

Moreover, petitioner argues that the type of material respondents claim to use is different from the type of material priced in the Yearbook. Based on these reasons, petitioner requests the Department to use publicly available published value information in the TEX Report (for a material that petitioner characterizes as similar to that used by the PRC producers) and adjust the price to account for any differences.

Respondents assert that the material used by the PRC producers is in fact the same material as priced in the Yearbook. Contrary to petitioner's claims, respondents contend that the Department has no basis for determining the Yearbook price as aberrational since the Yearbook price reflects a publicly available, published domestic price in the chosen surrogate country based on credible source used in past cases. Accordingly, respondents request that the Department use the Yearbook unit

price as the appropriate surrogate value for factor X in the final determination.

#### DOC Position

We have determined to use the Yearbook price for valuing factor X. Contrary to petitioner's suggestion, the Yearbook has been used repeatedly by the Department as a reasonable source of publicly available public information for factor valuation. Additionally, information submitted by petitioner does not establish that the value is aberrational. Specifically, with the exception of one price provided by petitioner, all other prices apply to products which are less comparable to the input used by the PRC producers than the product described in the Yearbook. Hence, those values are not appropriate to value factor X; and, the evidence provided does not allow us to use them to test whether the Yearbook price is correct. With respect to the one price provided by petitioner that is for a comparable product, the information is not publicly available published information. Therefore, consistent with our policy (see Notice of Final Determination of Sales at Less Than Fair Value: Antidumping Duty Investigation of Certain Carbon Steel Butt-Weld Pipe Fittings From the PRC (57 FR 21062, May 18, 1992)), we will give preference to the Yearbook price.

Further, a comparison of the Yearbook price to a non-market export price quotation for the comparable material, as petitioner suggested, cannot be considered a reasonable or meaningful test of whether a surrogate value is aberrational. It has been the Department's practice not to rely on prices set in non-market economies due to state controls imposed on prices, wages, currency and production as well as the absence of market forces in the economy. Petitioner asserts that a non-market economy price quotation would be an understatement of the market price due to price controls. However, the Department cannot be certain that the quoted export price is in fact an understatement due to the market distortions existing in a non-market economy.

### Comment 4: Surrogate Value for Factor Z

(*N.b.*, Due to the proprietary nature of this issue, the following discussion is presented in non-confidential form. A more detailed analysis of the interested parties' positions and the Department's position is given in the September 28, 1995, decision memorandum to the file.)

Respondents argue that the Chemical Weekly price used to value factor Z in the preliminary determination is an

inappropriate surrogate value for the following reasons: (1) it includes selling and movement expenses for smaller quantity purchases not normally incurred in bulk purchases, and (2) it is for a different type of material.

According to respondents, the PRC producers bought a different type of material in bulk quantities. While not considered publicly available published information, respondents suggest that a more appropriate surrogate value data for this material is a price quotation based on information that respondents obtained from the Department's US&FCS office in New Delhi and market research correspondence since those prices are for a more comparable material and reflect a unit price figure for bulk quantity purchases. Respondents also suggest that, if the Department does not decide to change the surrogate value, it should adjust the surrogate value used in the preliminary determination to reflect the actual quality of the material and further adjust the value to reflect a unit price exclusive of any selling/movement expenses that are normally included in the retail price from Chemical Weekly.

Petitioner counters that the Department's choice of a surrogate value for factor Z in the preliminary determination is appropriate because it is based on publicly available information from an Indian publication and has been accepted by the Department in past investigations as an appropriate surrogate value for factor Z. Petitioner asserts that the alternative suggested by respondents is not a preferred surrogate value under the Department's hierarchy because it stems from individuals' statements and single transactions—information which does not demonstrate that the Chemical Weekly price is in any way an "incorrect" or aberrational value for the material.

Further, petitioner argues that the Department should not make an adjustment for the difference in material type allegedly used by the PRC producers. Petitioner considers the disclosure of the specific type of material as new information since this information was not provided to petitioner until August 4, 1995, when it was disclosed in respondents' factor valuation submission. Therefore, petitioner urges the Department to reject respondents' arguments to adjust the surrogate value in the Chemical Weekly for differences in type and as best information available, to assume that the PRC producers value factor Z without adjustment.

#### *DOC Position*

We agree with petitioner. The Department verified that the PRC producers use a specific type of factor Z. Verification did not reveal the nature of the purchase arrangements or the production process for the input (nor was any such information on the record prior to verification). Further, there is no evidence on the record to indicate that the surrogate value from the Chemical Weekly is aberrational for purposes of this investigation. In fact, the type of material used by PRC producers corresponds to the common description of the material priced in Chemical Weekly. Therefore, for purposes of the final determination, we are using the preliminary determination's surrogate value from the Chemical Weekly without adjustment.

#### *Comment 5: Packing Material Consumption and Surrogate Value*

Petitioner requests that the Department reject respondents' data for packing and rely on the petition's packing data as BIA since verification revealed that the reported factor consumption for packing was substantially understated. In the event that the Department decides to base its final determination on the information submitted by respondents, it should use the verified packing materials usage factor and not the understated figure originally reported by respondents. Further, petitioner asserts that the Department should use the surrogate unit value for "polypropylene bags" based on information in Monthly Statistics of Foreign Trade of India. Petitioner notes that this surrogate value was used in past cases (see, e.g., Final Determination of Sales at Less Than Fair Value: Silicon Carbide from PRC (59 FR 22585, May 2, 1994)) and respondents are in agreement with this choice of surrogate value for the packing materials (see respondents' August 11, 1995, submission on factor valuation).

Respondents alleged a discrepancy in the weight of the packing materials at verification of Xian Lu Chemical Plant, as noted in the corresponding verification report.

#### *DOC Position*

We have determined that the value for plastic bags (expressed in terms of weight) based on 1991–1992 UN Trade Statistics is the more appropriate surrogate value. Information concerning the exact type of plastic bag used by respondents was first presented to the Department in respondents' August 11, 1995, submission on publicly available published information for surrogate

values and, therefore, is untimely and too late to be verified for purposes of the final determination. Further, information on the record does not indicate that the UN Trade Statistics data is an inappropriate basis for surrogate value. The UN Trade Statistics are the most recent, publicly available, published information suitable for valuing plastic bags in this investigation.

Further, as we note no discrepancy in the verified weight of the 25 kilogram plastic bag used at Xian Lu Chemical Plant, no change from the amount noted in the Department's verification report is warranted.

#### *Comment 6: Surrogate Value for Unskilled Labor*

Respondents argue that the surrogate labor rate from the ILO Yearbook used to value unskilled labor in the preliminary determination is inappropriate because it is an aggregate labor rate for all skill levels of labor in India. According to respondents, the Department should adjust downward the surrogate labor rate used in the preliminary determination using formulae applied in previous cases.

Petitioner counters that the Department cannot accept respondents' argument because there is no factual evidence on the record of this investigation to support such a proposed adjustment. Petitioner maintains that it is impossible to know whether the formula used in the previous cases would be applicable to the unique circumstances of the manganese sulfate industry in India, or whether it is specific to the products involved in those cases. Further, petitioner contends that respondents failed to provide complete and verifiable information regarding their usage of different types of labor. Accordingly, petitioner urges the Department to reject respondents' request.

#### *DOC Position*

We agree with petitioner. For purposes of the final determination, the Department is valuing unskilled labor using the Indian labor rate reported in the ILO Yearbook without adjustment. Respondents' proposed method of (1) assuming that the ILO Yearbook labor rate is an average, semi-skilled labor rate, and (2) adjusting this labor rate to reflect unskilled and skilled labor rates using certain ratio adjustment factors was applied by the Department in a particular investigation based on the specific record of that investigation (see Final Determination of Sales at Less Than Fair Value: Antidumping Duty

Investigation of Helical Spring Lock Washers from the People's Republic of China ("HSLW") Concurrence Memorandum (September 20, 1993)). In another case, the Department has used the ILO Yearbook without adjustment (see, e.g., Preliminary Determination of Sales at Less Than Fair Value: Antidumping Duty Investigation of Certain Paper Clips from the PRC Calculation Memorandum (May 11, 1995), and Notice of Final Determination of Sales at Less Than Fair Value: Antidumping Duty Investigation of Certain Paper Clips from the PRC (59 FR 1168, October 7, 1994)).

Additionally, there is no evidence on the record of this case on which to base the application of the method proposed by respondents. The manganese sulfate production process and industry in this investigation are not comparable to those examined in HSLW. Because the production processes and industries are different, the type of skilled and unskilled labor used may vary significantly and, consequently, may affect the wage adjustments in each case. Therefore, there is no reasonable basis for applying the HSLW's assumptions and formulae to the ILO Yearbook Indian labor rate used in this investigation.

With respect to petitioner's argument concerning the absence of verified information on labor amounts, although the total labor hours reported by the PRC producers were not verifiable due to record keeping deficiencies, the reported hours exceeded the labor hours given in the petition. Therefore, our decision to use the PRC producers' reported hours represents an adverse inference for purposes of the final determination.

#### Comment 7: Ocean Freight

Petitioner asserts that verification demonstrated that U.S. sales were shipped via a non-market economy carrier, China Ocean Shipping Company ("COSCO"). Petitioner requests that the Department revise the final margin calculations for CNIEC to use a market-economy ocean freight rate as a surrogate value instead of the reported ocean freight rates.

Petitioner further argues that the ocean freight rates provided by petitioner are not aberrational, and should be used in the final determination. Petitioner maintains that only its information is provided from a publicly available market-economy source, and representative of terms similar to those verified to have applied to CNIEC's shipments. Accordingly, petitioner also requests that the Department revise its preliminary

determination calculation of the "PRC-wide" deposit rate by using market-economy ocean freight rates instead of the reported ocean freight used in the preliminary determination.

Respondents argue that CNIEC's reported ocean freight was verified as a market economy freight rate. According to respondents, the Department verified that CNIEC's U.S. subsidiary purchased ocean freight services in the United States from a U.S. company and paid in U.S. dollars.

#### DOC Position

We agree in part with petitioner. In NME proceedings, the Department's consistent methodology has been to determine whether a good or service obtained through a market-economy transaction is, in fact, sourced from a market economy rather than merely purchased in a market economy (see, e.g., Final Determination of Sales at Less Than Fair Value: Antidumping Duty Investigation of Ferrovandium and Nitrided Vanadium from the Russian Federation (60 FR 27962, May 26, 1995)). Because the good or service is produced in a NME, the Department cannot rely on the transaction as a basis for valuation because the underlying costs and expenses are not market-based. Verification indicated that COSCO performed the service. Although CNIEC's U.S. subsidiary arranges ocean freight through a U.S.-based company, the company's costs for contracting ocean freight with COSCO, a NME provider (see, e.g., Notice of Final Results of Antidumping Administrative Review: Iron Castings from the PRC (56 FR 2742, January 24, 1991)), cannot be relied on unless found to be representative of market-economy freight rates. The record of this case does not indicate that the COSCO rates are representative of market economy rates and, thus, the rate charged to CNIEC's U.S. subsidiary cannot be used for purposes of the final determination.

When a service, such as ocean freight, is determined to be provided by a non-market carrier, it has been the Department's practice to use a surrogate rate from a market economy country to value that service (see, e.g., Final Determination of Sales at Less Than Fair Value: Antidumping Duty Investigation of Disposable Pocket Lighters from the PRC (60 FR 22361, May 5, 1995); Final Determination of Sales at Less Than Fair Value: Antidumping Duty Investigation of Sebacic Acid from the PRC (59 FR 28053, May 31, 1994); and Final Determination of Sales at Less Than Fair Value: Antidumping Duty Investigation of Sparklers from the PRC (56 FR 20588, May 6, 1991)).

Therefore, we have valued ocean freight using a surrogate, market-economy value based on international shipping rates.

#### Comment 8: Brokerage and Handling

Petitioner contends that foreign brokerage and handling should be deducted from USP. Further, these charges should be valued at market economy rates provided on the record by petitioner. Petitioner requests that the Department adjust the margin calculations to account for this movement charge and apply a market economy value for services a forwarder provides in the final margin calculations.

Respondents counter that CNIEC did not incur any separate foreign brokerage and handling charges. According to respondents, any foreign brokerage and handling charges incurred by CNIEC are subsumed in the freight rate.

#### DOC Position

We agree with respondents. No separate brokerage or handling charges were reported in respondents' questionnaire responses or discovered at CNIEC's verification. Accordingly, such charges were not valued or accounted for in CNIEC's final margin calculation.

#### Comment 9: Marine and Foreign Inland Insurance

Because verification revealed that marine insurance and foreign inland insurance were provided by non-market economy suppliers, petitioner requests that the Department use market economy surrogate rates, as provided in petitioner's July 7, 1995, submission, to value these two movement expenses, where appropriate.

Respondents argue that verification revealed that neither CNIEC nor its U.S. subsidiary obtained marine insurance for their manganese sulfate shipments within the POI and, therefore, petitioner's proposed surrogate value for marine insurance is inapplicable in this case.

#### DOC Position

Verification revealed no indication that marine insurance was incurred by CNIEC or its U.S. subsidiary; therefore, this expense is not considered for purposes of the final margin calculation. However, we did confirm that foreign inland insurance was obtained by CNIEC from a non-market provider and, therefore, we have valued this expense based on market-economy surrogate rates in the margin calculation.

**Comment 10: Adjusted Calculation to Reflect Actual Working Days in India for Surrogate Labor Rate**

Petitioner requests that, if the Department chooses to rely upon the reported labor factor amounts in the questionnaire responses, the Department adjust the factors to account for labor practices in India. According to petitioner, if the PRC producers report that their workers worked more hours than the total number of hours worked in India during a normal work week, the Department should value the excess hours at double the normal labor rate as "overtime."

Respondents assert that there is no basis under law, precedent or practice to value PRC producers' "excess" hours at double the rate the Department decides to use as its surrogate value based on labor practices in India. Further, respondents counter that there is no indication on the record that any of the PRC producers' employees work over the hours calculated based on Indian labor practices. Accordingly, respondents request that the Department reject such a request.

**DOC Position**

We agree with respondents. While the Department does use information on labor practices in India to convert daily, weekly, and monthly wage rates from India into hourly wage rates, it is not Department practice to apply the surrogate country's overtime policies in valuing NME labor. Further, because our questionnaire did not require NME producers to report potential "overtime" hours worked as a component of "regular" hours, there was no opportunity for this issue to be fully analyzed, verified, and commented upon by interested parties.

**Critical Circumstances**

In our preliminary determination, we found that critical circumstances existed for all non-responding trading companies, but not for Hunan Chemicals or CNIEC.

Under 19 CFR 353.16(a), critical circumstances exist if (1) There is a history of dumping in the United States or elsewhere of the class or kind of merchandise which is the subject of this investigation; or the importer knew or should have known that the producer or reseller was selling the merchandise which is the subject of this investigation at less than its fair value; and (2) there have been massive imports of the class or kind of merchandise which is the subject of this investigation over a relatively short period.

In determining whether imports have been massive over a short period of

time, 19 CFR 353.16(f) instructs consideration of: (i) The volume and value of the imports; (ii) seasonal trends; and (iii) the share of domestic consumption accounted for by the imports.

Further, 19 CFR 353.16(f)(2) states that imports will not generally be considered massive unless they have increased by at least 15 percent over the imports during the immediately preceding period of comparable duration.

In accordance with 19 CFR 353.16, we preliminarily determined that critical circumstances did not exist for CNIEC and Hunan Chemicals based on the following criteria: (1) The finding of no imputed knowledge of dumping to importers because the estimated dumping margins were less than 15 percent (the threshold where, as here, only ESP sales are involved) and (2) the adverse assumption, based on BIA, that massive imports of manganese sulfate occurred over a relatively short period of time. (See Preliminary Determination Notice of Sales at Less Than Fair Value: Manganese Sulfate from PRC (59 FR 25885, May 16, 1995)).

For the final determination, we continue, as BIA, to determine that critical circumstances exist for all non-respondent exporters. The "PRC-wide" margin of 362.23 percent for those exporters exceeds the 25 percent threshold for imputing a knowledge of dumping to the importers of the merchandise. In addition, we have adversely assumed, as BIA, a massive increase in imports from these non-respondent exporters. We, therefore, determine that critical circumstances exist for all non-respondent exporters in this investigation.

Since the preliminary determination, we have determined that Hunan Chemicals is not a respondent and will not be assigned a separate rate. Therefore, we extend to Hunan Chemicals the same BIA-based determination of critical circumstances applied to the non-responding trading companies.

Additionally, CNIEC submitted shipment information following the preliminary determination which has now been verified. While CNIEC's margin (32.48%) does indicate that importers knew, or should have known, that CNIEC's merchandise was being sold at LTFV prices, CNIEC's shipment data shows that there has been no massive increase in the shipments from CNIEC in the period following the filing of the petition. Accordingly, for CNIEC, we determine that critical circumstances do not exist.

**Continuation of Suspension of Liquidation**

In accordance with section 733(d)(1) and 735(c)(4)(B) of the Act, we are directing the Customs Service to continue to suspend liquidation of all entries of manganese sulfate from the PRC from all non-responding trading companies, that are entered, or withdrawn from warehouse for consumption, on or after February 14, 1995, which is the date that is 90 days prior to the date of publication of our notice of preliminary determination in the Federal Register. This retroactive suspension will now also apply to Hunan Chemicals. In addition, we are instructing Customs to suspend liquidation from the date of publication of this notice in the Federal Register for all entries of manganese sulfate from the PRC sold by CNIEC. The Customs Service shall require a cash deposit or posting of a bond equal to the estimated amount by which the FMV exceeds the USP as shown below. These suspension of liquidation instructions will remain in effect until further notice.

The weighted-average dumping margins are as follows:

Manufacturer/producer/exporter	Margin percentage	Critical circumstances
CNIEC .....	32.48	No.
"PRC-Wide" Rate	362.23	Yes.

**ITC Notification**

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

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

52162

Federal Register / Vol. 60, No. 193 / Thursday, October 5, 1995 / Notices

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Dated: September 28, 1995.

**Susan G. Esserman,**  
*Assistant Secretary for Import  
Administration.*

[FR Doc. 95-24805 Filed 10-4-95; 8:45 am]

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Investigation No. 731-TA-725 (Final)

**Manganese Sulfate From The People's Republic of China**

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

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

**SUMMARY:** The Commission hereby gives notice of the institution of final antidumping investigation No. 731-TA-725 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) (the Act) to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from the People's Republic of China (China) of manganese sulfate, provided for in subheading 2833.29.50 of the Harmonized Tariff Schedule of the United States.<sup>1</sup>

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

**EFFECTIVE DATE:** May 11, 1995.

**FOR FURTHER INFORMATION CONTACT:** Jonathan Seiger (202-205-3183), Office of Investigations, U.S. International Trade Commission, 500 E Street S.W., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202-205-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-205-2000. Information can also be obtained by calling the Office of Investigations' remote bulletin board system for personal computers at 202-205-1895 (N.8.1).

<sup>1</sup> The product covered by this investigation is manganese sulfate, including manganese sulfate monohydrate (MnSO<sub>4</sub>·H<sub>2</sub>O) and any other forms, whether or not hydrated, without regard to form, shape, or size, the addition of other elements, the presence of other elements as impurities, and/or the method of manufacture.

**SUPPLEMENTARY INFORMATION:**

**Background**

This investigation is being instituted as a result of an affirmative preliminary determination by the Department of Commerce that imports of manganese sulfate from China are being sold in the United States at less than fair value within the meaning of section 733 of the Act (19 U.S.C. § 1673b). The investigation was requested in a petition filed on November 30, 1994, by American MicroTrace Corporation, Virginia Beach, VA.

**Participation in the Investigation and Public Service List**

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

**Limited Disclosure of Business Proprietary Information (BPI) Under an Administrative Protective Order (APO) and BPI Service List**

Pursuant to section § 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in this final investigation available to authorized applicants under the APO issued in the investigation, provided that the application is made not later than twenty-one (21) days after the publication of this notice in the *Federal Register*. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

**Staff Report**

The prehearing staff report in this investigation will be placed in the nonpublic record on September 20, 1995, and a public version will be issued thereafter, pursuant to § 207.21 of the Commission's rules.

**Hearing**

The Commission will hold a hearing in connection with this investigation beginning at 9:30 a.m. on October 3, 1995, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or before September 22, 1995. A nonparty who has testimony that may aid the Commission's

deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on September 26, 1995, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by §§ 201.6(b)(2), 201.13(f), and 207.23(b) of the Commission's rules. Parties are strongly encouraged to submit as early in the investigation as possible any requests to present a portion of their hearing testimony *in camera*.

**Written Submissions**

Each party is encouraged to submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of § 207.22 of the Commission's rules; the deadline for filing is September 27, 1995. Parties may also file written testimony in connection with their presentation at the hearing, as provided in § 207.23(b) of the Commission's rules, and posthearing briefs, which must conform with the provisions of § 207.24 of the Commission's rules. The deadline for filing posthearing briefs is October 12, 1995; witness testimony must be filed no later than three (3) days before the hearing. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before October 12, 1995. All written submissions must conform with the provisions of § 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of §§ sections 201.6, 207.3, and 207.7 of the Commission's rules.

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

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

Issued: May 19, 1995.

27556

Federal Register / Vol. 60, No. 100 / Wednesday, May 24, 1995 / Notices

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By order of the Commission.

**Donna R. Koehnke,**

*Secretary.*

[FR Doc. 95-12725 Filed 5-23-95; 8:45 am]

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**APPENDIX C**  
**LIST OF WITNESSES**



## CALENDAR OF PUBLIC HEARING

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

Subject: MANGANESE SULFATE FROM THE PEOPLE'S REPUBLIC OF CHINA

Inv. No.: 731-TA-725 (Final)

Date and Time: October 3, 1995 - 9:30 a.m.

Sessions were held in connection with the investigation in the Main Hearing Room, 500 E Street, S.W., Washington, DC.

In support of the imposition of antidumping duties:

Shearman and Sterling  
Washington, DC  
on behalf of--

American MicroTrace Corp. ("AMT")

Cliff Braun, President, AMT  
Michael Barry, Vice President, Technical and Environmental  
Affairs, AMT  
Albert C. Davis, Vice President of Engineering, AMT  
Perry Hohman, Vice President of Finance and  
Administration, AMT

William L. Traylor, Jr., Chairman of the Board,  
Traylor Chemical and Supply Company

Bradlee Hess, International Trade Specialist,  
Shearman and Sterling  
Dr. Eduardo F. Goldszal, Economist, Shearman and Sterling

Jeffrey M. Winton--OF COUNSEL

In opposition to the imposition of antidumping duties:

Pepper, Hamilton and Scheetz  
Washington, DC  
on behalf of--

Metaland International, Inc.  
Minmet (K.N.) USA, Inc.  
Yan Jiang Chemical Factory  
Xian Lu Chemical Plant  
Hunan Chemicals Import and Export Corp.  
China National Nonferrous Metals Import and Export Corp.

Richard G. Parise, Vice President and General Manager--  
Trace Minerals, Engineered Metals Div., J.M. Huber Corp.  
Keith Mizwicki, Sales Manager and Director of Technical  
Services for Micronutrients, Engineered Metals Div.,  
J.M. Huber Corp.  
Daniel Salisbury, Purchasing Manager, Engineered Metals  
Div., J.M. Huber Corp.

Dr. Seth T. Kaplan, Director of Economic Research, Trade  
Resources Company  
Paul A. Zucker, Economist, Trade Resources Company

Elliot J. Feldman )  
John J. Burke )--OF COUNSEL  
Jonathan D. Cahn )

**APPENDIX D**

**OFFICIAL U.S. IMPORT STATISTICS AND ESTIMATES OF APPARENT  
CONSUMPTION AND MARKET PENETRATION BASED ON SUCH STATISTICS**



Table D-1

Manganese and certain other sulfates (HTS subheading 2833.29.50):<sup>1</sup> U.S. imports, by sources, 1992-94, Jan.-June 1994, and Jan.-June 1995

Item	1992	1993	1994	Jan.-June--	
				1994	1995
<i>Quantity (metric tons)</i>					
China	3,590	5,168	4,005	2,120	804
Non-subject sources:					
Mexico	12,439	11,567	10,121	5,493	7,077
Other sources	1,882	3,945	3,335	1,968	1,085
Subtotal	14,322	15,512	13,457	7,461	8,162
All sources	17,912	20,679	17,462	9,580	8,966
<i>Value (1,000 dollars)</i>					
China	1,374	1,776	1,196	602	287
Non-subject sources:					
Mexico	7,106	6,497	5,926	3,298	3,618
Other sources	3,681	6,989	6,457	4,073	2,400
Subtotal	10,788	13,486	12,383	7,372	6,018
All sources	12,161	15,263	13,579	7,974	6,305
<i>Unit value (per metric ton)</i>					
China	\$383	\$344	\$299	\$284	\$356
Non-subject sources:					
Mexico	571	562	586	600	511
Other sources	1,956	1,772	1,936	2,070	2,213
Average	753	869	920	988	737
All sources	679	738	778	832	703

<sup>1</sup> Sulfates of magnesium, aluminum, chromium, nickel, copper, zinc, barium, cobalt, iron, and vanadium are classified in other HTS numbers.

Note.—Unit values are calculated from unrounded figures.

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

Table D-2

Manganese sulfate: U.S. shipments of domestic product, U.S. imports, by sources, and apparent U.S. consumption, 1992-94, Jan.-June 1994, and Jan.-June 1995

Item	1992	1993	1994	Jan.-June--	
				1994	1995
<i>Quantity (metric tons)</i>					
Producers' U.S. shipments . . . . .	***	***	***	***	***
U.S. imports from--					
China . . . . .	3,590	5,168	4,005	2,120	804
Mexico . . . . .	12,439	11,567	10,121	5,493	7,077
Other sources . . . . .	1,882	3,945	3,335	1,968	1,085
Total . . . . .	17,912	20,679	17,462	9,580	8,966
Apparent consumption . . . . .	***	***	***	***	***
<i>Value (1,000 dollars)</i>					
Producers' U.S. shipments . . . . .	***	***	***	***	***
U.S. imports from--					
China . . . . .	1,374	1,776	1,196	602	287
Mexico . . . . .	7,106	6,497	5,926	3,298	3,618
Other sources . . . . .	3,681	6,989	6,457	4,073	2,400
Total . . . . .	12,161	15,263	13,579	7,974	6,305
Apparent consumption . . . . .	***	***	***	***	***

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

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

Table D-3

Manganese sulfate: Apparent U.S. consumption and market shares, 1992-94, Jan.-June 1994, and Jan.-June 1995

\* \* \* \* \*



**APPENDIX E**

**INCOME-AND-LOSS DATA OF  
EAGLE PICHER, ALLIED, AND KOCH**



**Table E-1**

**Income-and-loss experience of Eagle Picher on its tolling operations for manganese sulfate, fiscal years 1992-94, Jan.-June 1994, and Jan.-June 1995**

\* \* \* \* \*

**Table E-2**

**Income-and-loss experience of Allied and Koch on their operations producing manganese sulfate, fiscal years 1992-94, Jan.-June 1994, and Jan.-June 1995**

\* \* \* \* \*



**APPENDIX F**

**EFFECTS OF IMPORTS FROM CHINA ON PRODUCERS'  
EXISTING DEVELOPMENT AND PRODUCTION  
EFFORTS, GROWTH, INVESTMENT, AND  
ABILITY TO RAISE CAPITAL**



Responses of U.S. producers to the following questions:

1. Since January 1, 1992, has your firm experienced any actual negative effects on its growth, investment, ability to raise capital, or existing development and production efforts, including efforts to develop a derivative or more advanced version of the product, as a result of imports of manganese sulfate from China?

\* \* \* \* \*

2. Does your firm anticipate any negative impact of imports of manganese sulfate from China?

\* \* \* \* \*

3. Has the scale of capital investments undertaken been influenced by the presence of imports of manganese sulfate from China?

\* \* \* \* \*





**APPENDIX G**  
**COMPAS METHODOLOGY**



## ASSUMPTIONS

The COMPAS model is a supply and demand model that assumes that domestic and imported products are less than perfect substitutes. Such models, also known as Armington models, are relatively standard in applied trade policy analysis and are used extensively for the analysis of trade policy changes both in partial and general equilibrium. Based on the discussion in the two previous sections, the staff selects a range of estimates that represent price-supply, price-demand, and product-substitution relationships (i.e., supply elasticity, demand elasticity, and substitution elasticity) in the U.S. manganese sulfate market. The model uses these estimates with data on market shares, Commerce's estimated margins of dumping, transportation costs, and current tariffs to analyze the likely effect of unfair pricing of the subject imports on the U.S. like product industry.

## FINDINGS

Staff estimates that the dumping of imports from China has suppressed revenues in the U.S. manganese sulfate industry by between \*\*\* and \*\*\* percent. Staff further estimates price and volume suppression to range from \*\*\* percent to \*\*\* percent, respectively. More detailed effects of the dumping and the modelling assumptions used for the full range of scenarios are presented on the following pages.

\* \* \* \* \*  
\* \* \* \* \*

