

# **SULFUR DYES FROM CHINA, INDIA, AND THE UNITED KINGDOM**

Determinations of the Commission  
in Investigations Nos. 731-TA-548,  
550, and 551 (Preliminary) Under  
the Tariff Act of 1930, Together  
With the Information Obtained  
in the Investigations



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Note.--Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report.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

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigations Nos. 731-TA-548, 550, and 551 (Preliminary)

SULFUR DYES FROM CHINA, INDIA, AND THE UNITED KINGDOM

Determinations

On the basis of the record<sup>1</sup> developed in the subject investigations, the Commission determines,<sup>2</sup> pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports from China, India, and the United Kingdom of sulfur dyes,<sup>3</sup> provided for subheadings 3204.15.10, 3204.15.20, 3204.15.30, 3204.15.35, 3204.15.40, 3204.15.50, 3204.19.30, 3204.19.40, and 3204.19.50 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value (LTFV).

Background

On April 10, 1992, a petition was filed with the Commission and the Department of Commerce by Sandoz Chemicals Corporation, Charlotte, NC, alleging that an industry in the United States is materially injured or

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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> Vice Chairman Brunsdale determined that two like products exist and voted in the negative on sulfur dyes in the pre-reduced, liquid "ready-to-dye" form and in the affirmative on all other sulfur dyes.

<sup>3</sup> Sulfur dyes are synthetic organic coloring matter containing sulfur. Sulfur dyes are obtained by high-temperature sulfurization of organic material containing hydroxy, nitro or amino groups, or by reaction of sulfur and/or alkaline sulfide with aromatic hydrocarbons. For the purposes of these investigations, sulfur dyes include, but are not limited to, sulfur vat dyes with the following color index numbers: Vat Blue 42, 43, 44, 45, 46, 47, 49, and 50 and Reduced Vat Blue 42 and 43. Sulfur vat dyes also have the properties described above. All forms of sulfur dyes are covered, including the reduced (leuco) or oxidized state, presscake, paste, powder, concentrate, or so-called "pre-reduced, liquid ready-to-dye" forms.

## VIEWS OF THE COMMISSION

Based on the record in these preliminary investigations, we unanimously determine that there is a reasonable indication that an industry in the United States is threatened with material injury by reason of imports of sulfur dyes from China, India, and the United Kingdom that are alleged to be sold at less than fair value (LTFV).<sup>1</sup>

I. THE LEGAL STANDARD FOR PRELIMINARY DETERMINATIONS

The legal standard in preliminary antidumping investigations requires the Commission to determine whether, based on the best information available at the time of the preliminary determination, there is a reasonable indication of material injury or threat thereof to a domestic industry by reason of the subject imports.<sup>2</sup> To reach an affirmative determination, the Commission must find that there is more than a mere possibility of material injury.<sup>3</sup> On the other hand, the Commission will reach a negative determination only when "(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of such injury; and (2) no likelihood exists that contrary evidence will arise in a final investigation."<sup>4</sup>

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<sup>1</sup>Material retardation is not an issue in these investigations.

<sup>2</sup>19 U.S.C. § 1673b(a). See also Calabrian Corporation v. United States International Trade Commission, Slip Op. 92-69 (CIT May 13, 1992) (citing American Lamb, 785 F.2d 994, (Fed. Cir. 1986)).

<sup>3</sup>American Lamb Co., 785 F.2d 994, 1002 (Fed. Cir. 1986).

<sup>4</sup>Id. at 1001-1004.

subject to investigation as follows:

Sulfur dyes are synthetic, organic, coloring matter containing sulfur. Sulfur dyes are obtained by high temperature sulfurization of organic material containing hydroxy, nitro or amino groups, or by reaction of sulfur and/or alkaline sulfide with aromatic hydrocarbons. For purposes of these investigations, sulfur dyes include, but are not limited to, sulfur vat dyes with the following color index numbers: Vat Blue 42, 43, 44, 45, 46, 47, 49, and 50 and Reduced Vat Blue 42 and 43. Sulfur vat dyes also have the properties described above. All forms of sulfur dyes are covered, including the reduced (leuco) or oxidized state, presscake, paste, powder, concentrate, or so-called "pre-reduced, liquid ready-to-dye" forms.<sup>8</sup>

Sulfur dyes are relatively inexpensive dyes that are applied primarily to vegetable or "cellulosic" fibers, such as cotton, rayon, and linen. They also are used in lesser quantities to dye paper, leather, and certain synthetic fibers. The vast majority of sulfur dyes is used to dye cotton textiles, with approximately half used to dye denim.<sup>9</sup>

To manufacture sulfur dyes, raw materials first are converted to chemical intermediates to produce a substance with many of the physical and chemical characteristics of the finished dye. This intermediate product is generally water-insoluble and must be "solubilized" before the dye is sold to end-users.<sup>10</sup> Solubilization involves reacting dye intermediates with additional chemicals so

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<sup>8</sup>57 Fed. Reg. 19600 (May 7, 1992); Report at Appendix A.

<sup>9</sup>See Report at A-10. The vast majority of both the subject imported sulfur dyes and the domestically-produced sulfur dyes is a type of dye known as sulfur black 1.

<sup>10</sup>Report at A-7 to A-8. Sulfur dyes must be solubilized (*i.e.*, in a water-soluble or "reduced" state) before they can be applied to fabric.

to refer to sulfur dyes that primarily are used to dye leather.<sup>15</sup>

Atul Products Limited exports from India and Biddle-Sawyer Corporation imports a dye known as soluble sulfur black 1. These respondents assert that the particular type of dye produced in the United States like soluble sulfur black 1 is a separate like product. They argue that soluble sulfur black 1 (as compared to other sulfur dyes) has different physical characteristics and uses; is not interchangeable; is sold through separate channels of distribution; is perceived differently by customers and producers; is manufactured using different manufacturing facilities and production employees; and is more expensive.<sup>16</sup>

For purposes of these preliminary investigations, we find that there is a single like product consisting of all sulfur dyes. We reach this determination in light of the similarities in physical characteristics, uses, interchangeability, and channels of distribution between soluble sulfur dyes and all other sulfur dyes. Both Sandoz and C.H. Patrick sell some of their soluble sulfur dye

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<sup>15</sup>Report at A-5 to A-6, n.14. Unlike other sulfur dyes, "soluble sulfurs" are obtained by reacting sulfur dyes with thiosulfonic acid to produce thiosulphonic acid derivatives which are inherently water soluble.

<sup>16</sup>These respondents contend that soluble sulfur dye has a different chemical structure than all other sulfur dyes. They note that the two dyes have different color index numbers, and that soluble sulfur dye is imported and sold to end users as a water soluble powder, while other sulfur dye is sold to end users as "ready-to-dye" liquid solutions. Respondents maintain that soluble sulfur dye has a use different than other sulfur dye because soluble sulfur dyes are used almost exclusively to dye leather and paper rather than textiles. Thus they argue that soluble sulfur dye is sold to a specialized niche market in which other sulfur dye does not compete. Post-Conference Brief of Atul and Biddle Sawyer at 2-9.

Patrick and Southern Dye Company<sup>21 22</sup> should be excluded from the domestic industry because they import the subject merchandise.

A. Whether U.S. Solubilizers Are "Producers"

Petitioner argues that the Commission should not consider domestic solubilizers, which convert subject imports into solubilized dyes, as part of the domestic industry.<sup>23</sup> Petitioner asserts that the solubilization process performed in the United States is a relatively minor operation which requires very little capital investment.<sup>24</sup>

Respondents C.H. Patrick and Southern Dye assert that they are part of the domestic industry because they process the imported product to a significant degree while adding significant value. In addition, they note that the imported products cannot be used

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<sup>21</sup>Southern Dye produces its dyes under a tolling agreement with another company. Tolling is an arrangement under which the seller of a product purchases the raw material and delivers it to a processor. The processor then processes, in this case "finishes" or "solubilizes," the product and delivers the finished product to the customer. Typically, the processor never takes title to the raw materials and only charges the purchaser of the raw materials a processing fee. The statute compels us to include all domestic producers, whether or not they use toll agreements, in the domestic industry. See, e.g., Refined Antimony Trioxide From the People's Republic of China, Inv. No. 731-TA-517 (Final), USITC Pub. 2497 (April 1992); Shop Towels From Bangladesh, Inv. No. 731-TA-514, (Final), USITC Pub. 2487 (March 1992).

<sup>22</sup>A third company Burris Chemical, was a solubilizer of sulfur dyes until September of 1989, when it was acquired by C.H. Patrick. In addition, some textile manufacturers may solubilize sulfur dyes for their own use. If so, their number and the amounts of dye involved are believed to be small. Report at A-20, n.56. We will investigate this possibility in any final investigations.

<sup>23</sup>Post-Conference Brief of Sandoz at 14; Post-Conference Brief of C.H. Patrick, James Robinson, and Southern Dye at 3-4.

<sup>24</sup>Tr. at 11, 16-17.

account.<sup>28</sup>

Information obtained in these investigations indicates that, for C.H. Patrick and Southern Dye, the value added by the solubilization process is significant.<sup>29</sup> Moreover, C.H. Patrick appears to have made a substantial capital investment in its solubilization operations.<sup>30</sup> There also is evidence on the record to support the claims of C.H. Patrick and Southern Dye that the process requires specialized equipment and skilled personnel.<sup>31</sup> Finally, we note that the solubilization process appears to be more appropriately characterized as "fabrication," rather than "assembly." Accordingly, we conclude that U.S. solubilizers of sulfur dye are part of the domestic industry.

#### B. Related Parties

Petitioner Sandoz further contends that the Commission should

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<sup>28</sup>See, e.g., Heavy Forged Handtools From the People's Republic of China, Inv. No. 731-TA-457 (Final), USITC Pub. No. 2357 (February 1991) at 17.

<sup>29</sup>Report at appendix E, Tables E-4 to E-6.

<sup>30</sup>Post-Conference Brief of C.H. Patrick, James Robinson, and Southern Dye at Exhibit 2. Because Southern Dye produces under a tolling arrangement, it has not made a comparable investment in its solubilizing operations. Report at Table 3, n.10.

<sup>31</sup>Tr. at 88; Post-Conference Brief of C.H. Patrick, James Robinson, and Southern Dye at Exhibit 2. Petitioner argues that solubilization is a relatively simple process. C.H. Patrick, James Robinson, and Southern Dye argue that, in addition to specialized equipment, the standardization process involves several instrumental and analytical checks of the liquid and that the amount and ratio of the chemicals must be kept within tight specifications. They also contend that a great deal of technology is involved in the finishing process and that they spent many months developing a process that would optimize the overall performance of its finished liquids. Post-Conference Brief of C.H. Patrick, James Robinson, and Southern Dye at Exhibit 2.

primary factors the Commission examines in deciding whether appropriate circumstances exist to exclude a related party include:

- (1) the percentage of domestic production attributable to related producers;
- (2) the reason why importing producers choose to import the articles under investigation -- to benefit from the unfair trade practice or to enable them to continue production and compete in the domestic market; and
- (3) the competitive position of the related domestic producer vis-a-vis other domestic producers.<sup>38</sup>

The Commission considers whether each producer's books are kept separately from those of related parties and whether the primary interests of the producers lie in domestic production or in importation.<sup>39</sup>

Both C.H. Patrick and Southern Dye import unsolubilized sulfur dye from the subject countries, convert and sell it as solubilized "ready-to-use" dye. Petitioner asserts the solubilizers should not be included in the domestic industry because they have benefitted from the allegedly unfair imports.<sup>40</sup>

Some respondents argue that C.H. Patrick and Southern Dye should not be excluded because petitioner has refused to sell unsolubilized sulfur dyes to them, and therefore, they have had no choice but to import unsolubilized sulfur dyes for their respective

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<sup>38</sup>See, e.g., Torrington v. United States, Slip Op. 92-49 at 10 and 11 (CIT, April 3, 1992) (Court upheld the Commission's practice of examining these factors in determining that appropriate circumstances did not exist to exclude a related party).

<sup>39</sup>See, e.g., PET Film, Inv. Nos. 731-TA-458 & 459 (Final), USITC Pub. 2383 at 17-18 (May 1991).

<sup>40</sup>Post-Conference Brief of Sandoz at 16.

we have not included C. H. Patrick and Southern Dye in our evaluation of the domestic industry.

#### IV. CONDITION OF THE INDUSTRY

In assessing whether there is a reasonable indication of material injury to a domestic industry, or threat thereof, by reason of allegedly dumped imports, the Commission is instructed to consider "all relevant economic factors which have a bearing on the state of the industry in the United States . . . ." <sup>45</sup> In undertaking that assessment, we consider, among other relevant factors, U.S. consumption, production, shipments, capacity utilization, employment, wages, financial performance, capital investment, and research and development expenses. <sup>46</sup> No single factor is considered dispositive in evaluating the condition of the industry. In each investigation, the Commission considers the particular nature of the industry under investigation in the "context of the business cycle and conditions of competition that are distinctive to the affected industry." <sup>47</sup> We note at the outset that much of the information on the domestic industry is confidential; our discussion, therefore, will be general in nature.

Apparent U.S. consumption of sulfur dyes increased by quantity

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<sup>45</sup>19 U.S.C. § 1677(7)(C)(iii).

<sup>46</sup>See 19 U.S.C. § 1677(7)(C)(iii).

<sup>47</sup>19 U.S.C. § 1677(7)(C)(iii). These issues were not raised by any of the parties to this investigation, nor did the Commission receive any information relevant to business cycle considerations. Respondents did at one point, however, refer without elaboration to "the cyclical nature of the textile industry." Tr. at 119.

released during application of the dyes to textiles.<sup>53</sup>

Sandoz's production capacity remained constant over the period of investigation. Production, capacity utilization, shipments, and net sales decreased from 1989 to 1990, but then increased in 1991, resulting in an overall increase over the period of investigation.<sup>54</sup> In addition, the average unit value increased minimally over the 1989 to 1991 period.<sup>55</sup> U.S. shipments decreased in both quantity and value from 1989 to 1990, but increased in 1991, resulting in a net increase during the period of investigation, although less than the increase in domestic consumption.<sup>56</sup> End-of-period inventories decreased throughout the period of investigation.<sup>57</sup>

The number of U.S. workers producing all sulfur dyes remained relatively constant over the period of investigation. Hours worked and total compensation paid, however, declined concurrently with a rise in productivity. The industry also experienced a decline

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<sup>53</sup>Report at A-49 to A-50.

<sup>54</sup>Report at Tables 4, 5, and 10. Any final investigations will provide additional data for a longer period of time which may prove useful in analyzing the condition of the industry.

<sup>55</sup>See Report at Table 5.

<sup>56</sup>Report at Table 5 and Table 2. Sandoz attributes the overall increase in its U.S. shipments in 1991 to rising sales of its lower-priced Deniblack 4G, which it states have come at the expense of one of its higher priced dyes. Report at A-27. The overall increase may also be due to the 1990 introduction of its new environmentally safer product. Report at A-27.

<sup>57</sup>Report at Table 6.

on research and development increased.<sup>66</sup> Aggregate environmental expenses as a percentage of net sales increased between 1989 and 1990, but decreased in 1991.<sup>67</sup>

In the event of any final investigations, we intend to collect additional data regarding the financial implications of changes in the product mix of sulfur dyes offered by the domestic industry over the period of investigation. We also intend to collect additional information regarding the industry's costs of manufacturing its various sulfur dyes. Further issues we may explore in any final investigations include the relative importance of price in purchasers' decisionmaking,<sup>68</sup> and the significance, if any, of the relatively recent entry into the sulfur dye industry of Southern Dye, a solubilizer which produces under a tolling arrangement and specializes in environmentally safer sulfur dyes.

In sum, in spite of an apparent increase in demand, the domestic sulfur dye industry has experienced deteriorating financial performance, indicated by decreases in capital expenditures, operating income, net income, the ratio of gross profit to net sales and cash flow. These factors suggest that this industry may be vulnerable to the effects of allegedly LTFV

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<sup>66</sup>Report at Table 16.

<sup>67</sup>Report at A-36.

<sup>68</sup>There is evidence in the record that for many end-users, price considerations are less important than such non-price factors as dyeing characteristics, after-sales service, environmental considerations, and the availability of a second source of supply. Tr. at 88-90, 94; Report at A-53 to A-55. The cost of dyes makes up a small percentage of the cost of fashion items.

questions;

(2) the presence of sales or offers to sell in the same geographic markets of imports from different countries and the domestic like product;

(3) the existence of common or similar channels of distribution for imports from different countries and the domestic like product; and

(4) whether the imports are simultaneously present in the market.<sup>73</sup>

No single factor is determinative and the list of factors is not exclusive; these factors are intended to provide the Commission with a framework for determining whether the imports compete with each other and with the domestic like product. Only a "reasonable overlap" of competition is required.<sup>74</sup>

Some of the Indian imports consist of unsolubilized sulfur dye used in the textile industry. No one has contended that these unsolubilized imports from India do not compete with unsolubilized imports from China or the United Kingdom, or with the domestic like product. With respect to soluble sulfur dye, we have little

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<sup>73</sup>See e.g., Certain Circular, Welded, Non-Alloy Steel Pipes and Tubes From Brazil, the Republic of Korea, Mexico, Romania, Taiwan, and Venezuela, Inv. No. 701-TA-311 and Inv. Nos. 731-TA-532-537 (Preliminary), USITC Pub. 2454 (November 1991). Both the Court of International Trade and the Federal Circuit upheld the Commission's use of these four factors in Fundicao Tupy, S.A. v. United States, 678 F. Supp. 898 (CIT 1988), aff'd, 859 F.2d 915 (Fed. Cir. 1988).

<sup>74</sup>See Polyethylene Terephthalate Film, Sheet, and Strip From Japan and the Republic of Korea, Inv. Nos. 731-TA-458 and 459 (Final), USITC Pub. 2383 (May 1991); Weiland Werke, AG v. United States, 718 F. Supp. 50, 52 (CIT 1989) ("Completely overlapping markets are not required."); Granges Metallverken AB v. United States, 716 F. Supp. 17, 21, 22 (CIT 1989) ("The Commission need not track each sale of individual sub-products and their domestic counterparts to show that all imports compete with all other imports and all domestic like products . . . the Commission need only find evidence of reasonable overlap in competition.").

## 2. The Negligible Import Exception

The statute provides that the Commission is not required to cumulate imports from a particular country in any case in which the Commission determines that "imports of the merchandise subject to investigation [from that particular country] are negligible and have no discernible adverse impact on the domestic industry."<sup>78</sup> In determining whether the imports are negligible, the Commission considers all relevant economic factors, including whether:

(I) the volume and market share of the imports are negligible,

(II) sales transactions involving the imports are isolated and sporadic, and

(III) the domestic market for the like product is price sensitive by reason of the nature of the product, so that a small quantity of imports can result in price suppression or depression.<sup>79</sup>

A number of factors analyzed by the Commission suggest that the imports from India are not negligible and should be cumulated with imports from China and the United Kingdom. The level of Indian import penetration over the period of investigation is higher than the level of import penetration in other cases in which the Commission declined to apply the negligible imports exception.<sup>80</sup> In addition, imports of sulfur dye from India have not been

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<sup>78</sup>19 U.S.C. section 1677(7)(C)(v).

<sup>79</sup>19 U.S.C. § 1677(7)(C)(v).

<sup>80</sup>See, e.g., Torrington Co. v. United States, Slip Op. 92-49 (CIT April 3, 1992); Silicon Metal from the People's Republic of China, Inv. No. 731-TA-72 (Final), USITC Pub. 2359 (June 1991) at 24-26; Small Business Telephone Systems and Subassemblies Thereof from Japan and Taiwan, Inv. Nos. 731-TA-426 & 428 (Final), USITC Pub. 2237 at 32-33 (November 1989).

real and that actual injury is imminent."<sup>83</sup> We consider all the relevant statutory factors under the particular facts of the investigation.<sup>84</sup> <sup>85</sup> The presence or absence of any single threat factor is not dispositive.<sup>86</sup>

In these preliminary investigations, we find a reasonable indication that, in light of its condition, the domestic industry is threatened with material injury by reason of the allegedly LTFV imports.<sup>87</sup> As in our analysis of the condition of the domestic

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<sup>83</sup>19 U.S.C. § 1677(7)(F)(ii). While an analysis of the statutory threat factors necessarily involves projection of future events, our determination is not made based on supposition, speculation on conjecture, but on the statutory directive of real and imminent injury. See, e.g., S. Rep. No. 249, 96th Cong., 1st Sess. 88-89 (1979); Hannibal Industries Inc. v. United States, 712 F. Supp. 332, 338, (CIT 1989).

<sup>84</sup>19 U.S.C. § 1677(7)(F)(i). Several of the factors are not relevant here. Since there are no subsidy allegations, factor I regarding subsidies is not applicable. Also, factor VIII, regarding potential product-shifting from other products covered by antidumping orders to sulfur dyes, is not applicable. Finally, factor IX, regarding raw and processed agricultural products, is not applicable to the facts of this case.

<sup>85</sup>See U.S.C. § 1677(7)(F)(i)(I)-(X). We also must consider whether dumping findings or antidumping remedies in markets of foreign countries against the same class of merchandise suggest a threat of material injury to the domestic industry. 19 U.S.C. § 1677(7)(F)(iii)(I). We received no information about dumping findings against the subject products in foreign markets for us to consider in this investigation.

<sup>86</sup>See, e.g., Rhone Poulenc, S.A. v. United States, 592 F. Supp. 1318, 1324 n.18 (CIT 1984).

<sup>87</sup>Commissioner Rohr notes that the version of the Commission's opinion which was issued on and delivered to Commerce on the date that it was due stated that the Commission found a reasonable indication of a threat of material injury to the domestic industry "in light of its vulnerable condition." This phrase was changed after the determination was final at a time when only clerical and typographical corrections are to be made to an opinion. In his view, such substantive changes as the deletion of this concept are

capacity and their production. However, the Commission's review of that information shows that it consists of general estimates, rather than actual figures for production and production capacity. Moreover, the total of the production data provided by the firms shows significantly less production than that estimated by the petitioner. In addition, the Commission also was unable to obtain information on exports of sulfur dyes to the United States by Chinese producers. The limited information we have concerning the degree of capacity utilization for the Chinese sulfur dye industry indicates that the Chinese industry is operating at less than full capacity.<sup>90</sup>

Very little information was obtained regarding Indian producers or production capacity.<sup>91</sup> Information provided by the U.S. embassy in Bombay indicates that there are currently six firms in India that produce sulfur dyes. The Commission was able to obtain complete information on the operations of one of those firms. There is reason to believe, however, that that firm's data is the most significant for purposes of the Commission's decision making.

We have more complete information regarding the capacity of James Robinson, the sole producer of sulfur dyes in the United Kingdom. Capacity utilization for James Robinson appears to have been relatively high over the period of investigation, and James Robinson has stated that they have no plans to increase capacity

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<sup>90</sup>Report at Table 19.

<sup>91</sup>See Report at A-41 to A-43.

subject imports for 1991.<sup>97</sup>

With respect to "the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise,"<sup>98</sup> the pricing data we obtained is inconclusive. It was difficult to develop meaningful pricing data, and we therefore found price information to be of limited value in making our determination. Specifically, the questionnaire responses received by the Commission indicated that imports of sulfur dyes are virtually all unsolubilized dyes.<sup>99</sup> Since the domestic producer, Sandoz, sells only solubilized sulfur dyes, Sandoz's prices for solubilized dyes are not directly comparable with the prices charged by importers for unsolubilized dyes. Thus, meaningful price comparisons between the subject imports and the domestic like product are not available.<sup>100</sup> We will address this difficulty in the event of any final investigations.

The Commission was able to compare delivered prices for sales

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<sup>97</sup>Report at A-47, A-44, and transcript of Commission meeting of May 20, 1992.

<sup>98</sup>19 U.S.C. §1677(7)(F)(i)(IV).

<sup>99</sup>Report at A-52. The one exception was relatively small amounts of soluble sulfur dye imported by Biddle Sawyer and Keystone for sale to the leather industry. Report at A-52, n.108.

<sup>100</sup>Report at A-52. As stated above, the imported material enters the United States in both liquid and powder form of varying concentrations. Concentrations vary not only from one country to another, but from factory to factory within countries. Report at A-52. In addition to questions of solubilized products versus unsolubilized imports, there are questions of what solubilized products to compare when there are variously priced versions of the solubilized product. Report at A-53.

cumulated imports increased from 1989 to 1990, but then declined in 1991.<sup>104</sup>

We also lack information regarding "any other demonstrable adverse trends that indicate the probability that the importation (or sale for importation) of the merchandise (whether or not it is actually being imported at the time) will be the cause of actual injury."<sup>105</sup> Finally, there is evidence to suggest that the subject imports will adversely affect the domestic industry's research and development efforts.<sup>106</sup>

In these preliminary investigations, we find that: (1) the record as a whole does not contain clear and convincing evidence that there is no material injury or threat of material injury; and (2) additional evidence is likely to arise in a final investigation.<sup>107</sup> Thus, based on the record and all the reasons set forth above, we determine that there is a reasonable indication that the domestic industry producing sulfur dyes is threatened with material injury by reason of the subject imports.

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<sup>104</sup>Report at Table 18 and A-39. In general, importing firms other than solubilizers did not report maintaining inventories. Report at A-39.

<sup>105</sup>19 U.S.C. § 1677(7)(F)(i)(VII).

<sup>106</sup>Report at Appendix G. Because there is a single domestic producer, information regarding the tenth threat factor, the actual and potential negative effects on the existing development and production efforts of the domestic industry, is business proprietary.

<sup>107</sup>American Lamb, 785 F.2d at 1001.

CONCURRING AND DISSENTING VIEWS OF VICE CHAIRMAN ANNE BRUNSDALE  
Sulfur Dyes from China, India, and the United Kingdom

Invs. Nos. 731-TA-548, 550, and 551 (Preliminary)

I analyze the like product, and thus many other issues, in these investigations somewhat differently than my colleagues. The parties did not anticipate this analysis in their briefs, so I encourage them to discuss it fully in any final investigation.

I. Like Product

I join my colleagues' discussion of why soluble sulfur dye is not a separate like product. However, I would not stop the analysis there, because I feel the record strongly indicates another like product issue -- i.e., whether concentrated sulfur dye and solubilized sulfur dye are separate like products.

In Polyethylene Terephthalate Film etc. from Japan and Korea, Inv. Nos. 731-TA-458 and 459 (Final) USITC Pub. 2383, I distilled the usual multipart test the Commission uses (and which is repeated at note 7, above), to focus on whether dumping would induce significant substitution between two or more potential like products by either producers or consumers. In this case, Commerce defined the articles under investigation to include both the various forms of concentrated sulfur dye and solubilized sulfur dye (the "so-called 'pre-reduced, liquid ready-to-dye' forms." App. B-5.)

Consumers cannot readily switch between concentrated and solubilized sulfur dye, most obviously because the solubilization of concentrated dye involves performing a complex series of

downstream products are "like" the upstream product being imported. The reason is that the imports of the upstream product could not possibly harm the downstream portions of the integrated producer's operations. As we held last year, "[b]roadening the definition of like product, and hence the definition of the domestic industry, to include products which result from further processing of the articles subject to investigation, has the effect of including within the definition of the domestic "industry" producers of a downstream product whose interest, as consumers, in the investigation is contrary to the domestic producers of those articles . . . corresponding directly to the articles subject to investigation." Tungsten Ore Concentrates from the People's Republic of China, Inv. No. 731-TA-497 (Preliminary), USITC Pub. 2367 at 9. See also Nepheline Syenite from Canada, Inv. No. 731-TA-525 (Final), USITC Pub. 2502 at 8 n.15.

This focus on whether there is a coincidence of economic interest between producers of the upstream and downstream products strikes me as being exactly right. Consider the difficult case of an integrated producer. Even if imports of the upstream product reduced the market price of the upstream product in general, an integrated producer's marginal cost of making the downstream product would not change, and so its production should not be affected. One exception would be if the imports became so cheap that even an integrated producer began using them, instead of its own upstream product, as input for its downstream

is called an "upstream" product. The last factor is positively mystical: I have never been able to understand what it means to say that an upstream product imparts to a downstream product "its essential characteristics." See, e.g., Fresh and Chilled Atlantic Salmon from Norway, Inv. No. 701-TA-302 (Final), USITC Pub. 2371 at 9 (discussing the salmonness of baby salmon compared to adult salmon). And the second and third factors, the cost of processing the upstream product into the downstream product and the interchangeability of the two, really make more sense on the consumer substitutability side of the like product analysis.

The remaining factor, whether the upstream product is used only in the downstream product, is much more useful. It helps us focus on what I regard as the key question of whether there is a coincidence, or at least a near coincidence, of economic interest between those who make the upstream product and those who make the downstream product. When we are asked to decide whether a domestically produced product is "like" an imported one, we are not being invited to play at free association, we are being directed to determine where the economic impact of particular imports will be felt most directly. If our like product analysis deviates from a focus on the coincidence of economic interest between those who produce upstream and downstream products, it may blind us from recognizing the full impact that imports under investigation may be having on American industry.

What then are we to do in an investigation like this one, where the scope includes both upstream and downstream products?

Finding only one like product in this investigation quickly leads to two knotty problems, neither of which in my view can be untangled very well at all. The first is the question of whether the solubilizers are part of the domestic industry, and the second is whether they are related parties.

Domestic Industry. I agree with my colleagues that the "domestic industry" means the domestic producers of the like product. But that just raises the question of what it means to "produce" a product when so much of the raw material comes from abroad. The Commission used to focus on the value-added to that raw material in the United States. As we stated in Color Television Receivers From Korea and Taiwan, Inv. Nos. 731-TA-134, 135 (Final), USITC Pub. 1514 ("Color Televisions") at 7-8, "[t]he first issue which the Commission may examine in order to determine whether a firm is a 'domestic producer,' where significant parts or components are imported and assembled in a domestic facility, is the value added to the product in the United States."

It is certainly not easy to make a complete and accurate accounting of the value being added. As the Commission pointed out in Color Televisions, the "rules of allocation and the problem of inter-party transfers may cause value-added analysis to be misleading." Id. at 8. But the difficulty is not only in accounting. It is in the meaning of "value" as well. Thus, the Commission also began looking at what it called "indicia of U.S. production activity" -- that is, the four or five or six factors

today, that the purpose of the related parties provision is "to minimize any distortion in the aggregate data bearing on the condition of the domestic industry that might result from including related parties whose operations may be shielded from the effects of the subject imports." Op. at 12-13, supra. This formulation is geared, I think, to a bifurcated approach where aggregated statistics are used to gauge the abstract health of a domestic industry. The majority of the Commission does not use this approach anymore, and I suspect we will need to reexamine the purpose of the related parties provision sometime soon. Moreover, this formulation seems aimed only at parties whose domestic production of the like product is reduced by their purchase of imports. Here, the solubilizers' domestic production of the like product may well be increased by their purchase of imports. The operations of the solubilizers are one of the effects of the subject imports, not something that is "shielded from" them.

Furthermore, the majority's discussion of the specific factors it considers suffers from the same conclusoriness that I object to in the discussion of whether the solubilizers should be included in the domestic industry. The first factor is the percentage of domestic production attributable to related producers. I would have thought that the relevant percentage is the ratio of the related parties' production to total domestic production, because their inclusion if that percentage is small would be less likely to affect the aggregate statistics for the

supra, seems to me to be equally unhelpful. What, exactly, is "the competitive position?" In these investigations, the majority construes it to mean the relative financial performance of Sandoz and the solubilizers, but makes no effort to tie that relative performance into the statistic-distorting justification for the Commission's traditional related party analysis. This construction may reflect an implicit assumption that the solubilizers' relatively better performance is due to some unfair advantage they might receive from relying on imports of dumped concentrate, but one must question the validity of this assumption in the absence of information on the relative percentage of concentrate costs to costs of producing solubilized dye, and in light of perfectly plausible alternative explanations for the petitioner's declining profitability that the majority notes elsewhere. Op. at 18 n.62.

Nevertheless, if the goal of our like product and domestic industry analysis is to define an industry so that any deleterious effects of dumping will be plainly visible, then I must agree with my colleagues' ultimate conclusion that the solubilizers are not part of the same industry as Sandoz. But the path they take to reach this sensible result is unnecessarily twisted, because they find one like product where there are really two.

### III. Reasonable Indications of Material Injury or Threat

Having defined two like products and therefore two domestic industries, I must then determine whether there is a reasonable

too might further lower the odds of future material injury by reason of dumped solubilized dye.

The Concentrated Dye Industry. In contrast, it is easy to see a reasonable indication that the domestic concentrated dye industry (i.e. Sandoz) is being materially injured by the dumping of concentrated dye. The cumulated market share<sup>5</sup> of the dumped imports is reasonably large, and the dumping margins (though little more than the petitioner's allegations at this point) are very large. Report at A-19. Though there are some hints in the record that the substitutability of the solubilized dye made from foreign and domestic concentrates (and thus perhaps the concentrates themselves) might be limited, see Report at A-53 to A-55, I certainly cannot say that these hints amount to clear and convincing evidence that the domestic concentrated dye industry is not being materially injured.<sup>6</sup>

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<sup>5</sup> I join the majority's discussion of cumulation, and apply it to my analysis of material injury. See op. at 20 n.70.

<sup>6</sup> I also expressly join the majority's discussion finding a reasonable indication that a domestic industry is threatened with material injury by reason of the subject imports though, of course, I would limit that conclusion to the domestic concentrated dye industry.

**INFORMATION OBTAINED IN THE INVESTIGATIONS**

## INTRODUCTION

On April 10, 1992, a petition was filed with the U.S. International Trade Commission (Commission) and the U.S. Department of Commerce (Commerce) by counsel for Sandoz Chemicals Corp. (Sandoz), Charlotte, NC, alleging that an industry in the United States is being materially injured and is threatened with further material injury by reason of imports from China, Hong Kong, India, and the United Kingdom of sulfur dyes (including sulfur vat dyes)<sup>1</sup> that are alleged to be sold in the United States at less than fair value (LTFV).<sup>2</sup> Accordingly, effective April 10, 1992, the Commission instituted antidumping investigations Nos. 731-TA-548, 549, 550, and 551 (preliminary), respectively, under section 733(a) of the Tariff Act of 1930, to determine whether there is a reasonable indication that an industry in the United States is materially injured, or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise into the United States.

The statute directs the Commission to make its preliminary determinations within 45 days after receipt of the petition or, in these investigations, by May 26, 1992. Notice of the institution of these investigations 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 on April 17, 1992 (57 F.R. 13756).<sup>3</sup> The Commission held a public conference in Washington, DC, on May 1, 1992, at which time all interested parties were allowed to present information and data for consideration by the Commission.<sup>4</sup> The Commission has not conducted a previous investigation on the subject product.

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<sup>1</sup> Sulfur dyes are synthetic organic coloring matter containing sulfur. Sulfur dyes are obtained by high-temperature sulfurization of organic material containing hydroxy, nitro, or amino groups or by reaction of sulfur and/or alkaline sulfide with aromatic hydrocarbons. For the purposes of these investigations, sulfur dyes include, but are not limited to, sulfur vat dyes with the following color index numbers: Vat Blue 42, 43, 44, 45, 46, 47, 49, and 50 and Reduced Vat Blue 42 and 43. Sulfur vat dyes also have the properties described above. All forms of sulfur dyes are covered, including the reduced (leuco) or oxidized state, presscake, paste, powder, concentrate, or so-called "pre-reduced, liquid ready-to-dye" forms. The sulfur dyes subject to these investigations are classifiable under subheadings 3204.15.10, 3204.15.20, 3204.15.30, 3204.15.35, 3204.15.40, 3204.15.50, 3204.19.30, 3204.19.40, and 3204.19.50 of the Harmonized Tariff Schedule of the United States (HTS).

<sup>2</sup> Petitioner is also alleging the existence of critical circumstances, stating a reasonable basis exists to suspect that, during a relatively short period, there have been massive imports of sulfur dyes from China and the United Kingdom.

<sup>3</sup> Copies of the Commission's and Commerce's Federal Register notices are presented in app. A.

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

The term "sulfur dyes" actually refers to a series of dyes<sup>8</sup> that are shipped and/or sold in a variety of physical forms, including presscake, grains, powders, pastes, and liquids.<sup>9</sup> Additionally, the product may be sold as reduced, water-soluble dye or in its non-reduced, water-insoluble form. In general, sulfur dyes must be in a water-soluble (or reduced) state before being applied by an end user to a substrate.<sup>10</sup> Almost all of the sulfur dyes produced in the United States are sold as a ready-to-use (pre-reduced) liquid. Imported dyes are usually shipped into the United States as an insoluble liquid or insoluble powder and are then converted into the pre-reduced, solubilized liquid form before sale to end users.<sup>11</sup> Textile mills, the major end users, prefer to purchase the product as a solubilized liquid. There are also, however, sales of imported and domestically produced "solubilised sulphur dyes," usually in the form of a soluble powder, that are widely used in the leather and tanning industries.<sup>12,13,14</sup>

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<sup>7</sup> (...continued)

At the time of filing the petition, the petitioner was not aware of sulfur vat dyes other than the sulfur vat blue dyes listed above. However, other types of sulfur vat dyes almost certainly exist (e.g., C.I. Vat Green 7).

<sup>8</sup> The first synthesized sulfur black dye was produced in 1893, a development that stimulated the use of numerous organic compounds as starting material for additional sulfur dyes. Sulfur Black 1 was discovered in 1898; today it is still the number one volume dye in the textile industry. Before the 1930s, all sulfur dyes were produced in powder form and required chemical reduction by end users before they could be applied to a substrate. This step was eliminated by the next major development in the industry, i.e., the creation in 1936 of the first ready-to-use (pre-reduced) sulfur dye solution. The inventor of this solution patented the process and formed the Southern Dyestuff Co. (Sodyeco), which manufactured and marketed the product as "Sodyesul Liquids." Sodyeco has been in operation continuously since 1936 and is now part of Sandoz Chemicals Corp., the petitioner. Petition, p. 14.

<sup>9</sup> The actual chemical composition of many sulfur dyes is still unknown. However, the chemical structure of both "conventional" sulfur dyes and sulfur vat dyes can be readily identified by the presence of sulfide or polysulfide linkages. Petition, p. 17.

<sup>10</sup> Sulfur dyes consist of polymerized molecules containing numerous sulfur-sulfur chemical bonds. These bonds are broken during a reduction process when chemical reagents are added, placing the dye in a water-soluble form. After application, the dyes are returned to a water-insoluble form (by chemical oxidation) and thus attached or "fixed" to the substrate.

<sup>11</sup> There are currently two known solubilizers in the United States: C.H. Patrick & Co., Inc. (C.H. Patrick), Taylors, SC; and Southern Dye and Chemical Co. (Southern Dye), Greenville, SC. These firms import or purchase the vast majority of the subject imports.

<sup>12</sup> As further explained in app. C, "solubilised sulphur" dyes constitute a separate generic class in the Colour Index from other described sulfur dyes. They are referred to in this report by their C.I. name, i.e., "solubilised

(continued...)

dyes are essentially fungible after solubilization.<sup>17</sup> Respondents disagree, stating that sulfur dyes from different sources demonstrate varying performance characteristics which solubilizers incorporate into and use to differentiate their finished products.<sup>18</sup>

The specific types of sulfur dyes produced by the petitioner are listed in appendix D (table D-1). Included in the table (and in these investigations) are sulfur vat dyes. Such dyes comprised approximately \*\*\* percent of total U.S. shipments of sulfur dyes by Sandoz during 1989-91. Sulfur vat dyes are a hybrid class of dyes, resembling both sulfur dyes and vat dyes. They can be sold and applied to the substrate in the form of most sulfur dyes (i.e., pre-reduced to a water-soluble liquid using aqueous alkaline, sodium sulfide, and/or sodium sulfydrate) or like a vat dye (i.e., as a non-reduced, water-insoluble paste requiring different reduction and oxidation agents). Most of the sulfur vat dyes consumed in the United States are of the former type.<sup>19</sup>

### Manufacturing and Solubilization of Sulfur Dyes

#### KEY MANUFACTURING STEPS

Sulfur dyes (along with other synthetic organic dyes and pigments) are produced by a series of batch (or unit) processes using raw materials supplied by the petrochemical industry.<sup>20</sup> The raw materials are first converted into

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<sup>17</sup> Petition, p. 57. Conference transcript, p. 28.

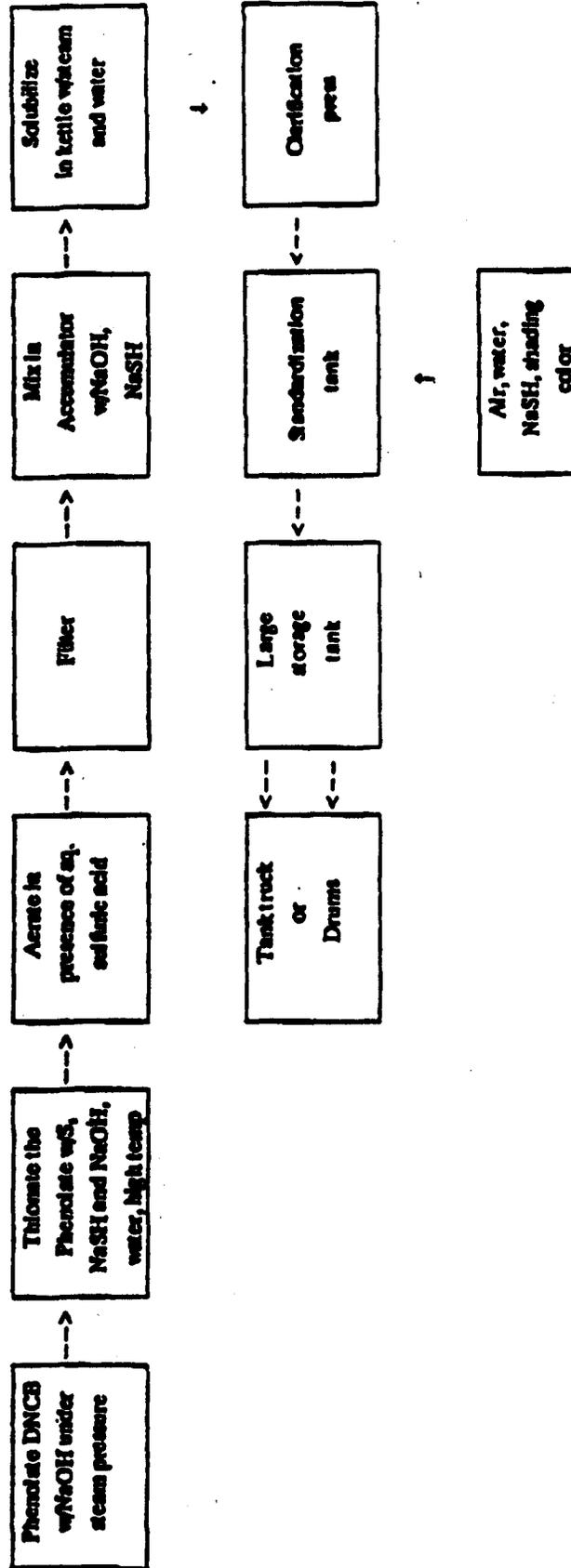
<sup>18</sup> For example, products from India exhibit excellent \*\*\*, the Chinese powders show favorable \*\*\*, and the U.K. concentrate has the best \*\*\*. These different traits are reportedly manifested at the customer level, where dyes for different application techniques are not always interchangeable. Response by \*\*\* to the Commission's questionnaire.

<sup>19</sup> Only \*\*\* percent of domestically-produced sulfur vat dyes are manufactured and sold as a vat dye (i.e., in the form of a non-reduced, water-insoluble paste). Petition, p. 18. Also, at least some of the sulfur vat dyes imported by distributors were sold by solubilizers as, or in a blend with (and thus indistinguishable from), non-vatted sulfur dyes. Staff conversation with attorney for \*\*\*, May 4, 1992; response by \*\*\* to the Commission's questionnaire.

Petitioner testified at the Commission's conference that the price of a sulfur vat dye sold in a pre-reduced form (i.e., like a sulfur dye) is less than it would be if sold as a vat paste. Also, because they share common reducing agents, sulfur vat dyes may be combined with other sulfur dyes to produce a variety of shades. Conference transcript, p. 63.

<sup>20</sup> Historically, synthetic organic dyes (which include sulfur dyes) were known as coal tar dyes because they were derived from raw materials found in coal tar. The raw materials that become the building blocks for synthetic organic dyes (and synthetic organic pigments) are aromatic compounds such as benzene, toluene, xylene, naphthalene, and anthracene, which are supplied by the petrochemical industry.

Figure 1.--Manufacturing steps for sulfur dyes



Source: Sandoz

\*If concentrated powder is collected and shipped overseas for the subsequent scubblizing and standardizing steps, additional drying, milling and drumming steps will be added to the process shown.

As shown, over \*\*\* percent of all sulfur dyes were used on textiles (almost all of which were cotton or a cotton blend); only a small portion were used on leather and paper. Slightly more than half of all sulfur dyes were applied to denim, although wearing apparel and, to a lesser extent, yarn were also significant end uses for sulfur dyes other than sulfur vat dyes.<sup>28</sup> Sulfur vat dyes were used primarily for uniforms and tents because of their greater water fastness, but were also sold for application to denim (\*\*\*).

#### Substitute Products and Like Product Issues

In their post-conference briefs submitted to the Commission, both petitioner and counsel for James Robinson, Southern Dye, and C.H. Patrick have argued that sulfur dyes do not compete with other types of dyes for sales.<sup>29</sup> However, in order to further examine the areas of competition among dyes and associated like product issues, the Commission, in its questionnaires, also gathered information on the following categories of dyes:

- (1) Other products likely to be used on denim (which include vat dyes (most specifically indigo));
- (2) Other products likely to be used on cellulose (which include direct and fiber reactive dyes);<sup>30</sup> and
- (3) Other products likely to be used on textiles (which include acid dyes, basic dyes, disperse dyes, fluorescent brightening agents, and mordant dyes).

Table 1 identifies the end-use substrates on which the common application classes can be used.<sup>31</sup> In general, for a dye to be selected for a specific commercial use, it must meet clearly defined dyeing criteria which are dictated by (1) the substrate to be dyed, (2) the requirements of the finished end product, and (3) the requirements of the application process.<sup>32</sup> The most

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<sup>28</sup> \*\*\*. In 1991, \*\*\* percent of C.H. Patrick's and \*\*\* percent of Southern Dye's U.S. shipments were to denim mills. \*\*\*.

<sup>29</sup> Petitioner's post-conference brief, pp. 2-5. Post-conference brief submitted by counsel for James Robinson, Southern Dye, and C.H. Patrick, pp. 2-3.

<sup>30</sup> In addition, azoic dyes can be used on cellulose. However, a limited number of such dyes are currently in use.

<sup>31</sup> Because of their chemical structure, certain categories of dyes react more efficiently with certain types of material.

<sup>32</sup> Because of such factors as temperature and pressure (which affect the dye), certain application processes can only be used with specified dyes. The selected application method also is determined by the shape and construction of the substrate. Also, for large-volume products such as toweling and sheets, certain application methods are more cost efficient than others.

(continued...)

important dyeing characteristics are shade, color strength, fastness (to water, heat, sunlight, chlorine, and other chemicals), bleed resistance, environmental safety, and price.<sup>33</sup> In order to examine the substitutability of various dye classes and related like product issues, the Commission gathered information on the comparability of different types of dyes. The information presented in the three following sections is largely based upon responses to the Commission's questionnaires and, as noted, statements by parties at the Commission's conference and in their post-conference briefs.

#### DESCRIPTION AND USE OF SUBSTITUTE PRODUCTS ON DENIM

Only sulfur dyes and indigo (almost all of which is blue) are used to dye denim.<sup>34,35</sup> Indigo is a type of vat dye and constitutes a separate chemical class from the other classes of vat dyes. Sulfur dyes and indigo react somewhat differently when applied to the substrate (i.e. denim); such differences are used by textile manufactures to create various fashion looks. Indigo when applied remains at least partially on the outside of the textile fiber; denim dyed with indigo will fade naturally when exposed to chlorine in wash-water. Sulfur dyes are not chlorine fast (as are indigo and the other vat dyes) and must be treated in a laundering process (which is usually done by an outside "wash house") to create a unique version of the currently popular "distressed look." There is no commercially usable black indigo dye; blue sulfur dyes are used for overalls.

Sulfur dyes may be used with indigo dyes on a common substrate (i.e., the yarn that will be used to form denim) to obtain a darker shade than would be obtained from indigo alone.<sup>36</sup> However, the dyes are never physically added together but are separately applied to the substrate. (The reduction agents used for vat dyes are different from and cannot be combined with those used for sulfur dyes.)

Indigo is produced domestically and imported (by, among other firms, \*\*\*). There is only one known original U.S. manufacturer of indigo.<sup>37</sup>

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<sup>33</sup> As shown in table 1, sulfur dyes as a class are the least expensive dyes per pound to purchase. Petitioner testified this is due to less expensive raw materials and the shorter "reaction time" required in manufacturing. Conference transcript, p. 62.

<sup>34</sup> Until 6 years ago, virtually all the denim produced in the United States was dyed blue using indigo. In the middle 1980s, U.S. suppliers began developing black sulfur dyes suitable for denim, spurring a market for the product. Petition, p. 7. Petitioner estimates that black denim currently comprises \*\*\* to \*\*\* percent of total domestic denim production. Additional information on this topic and subsequent product developments is presented in the section of this report on "Factors Affecting Demand."

<sup>35</sup> Both sulfur and indigo are applied to denim on a ball warp or denim range; other dyes cannot be used on the range.

<sup>36</sup> Conference transcript, p. 57.

<sup>37</sup> \*\*\*. \*\*\*.

- \*\*\*..... Reported competition between sulfur dyes and its vat and fiber reactives on about 20 percent of its sales. Both dye types are used for these specific applications: continuous and jig dyeing of woven fabrics for apparel and home furnishings; exhaust dyeing of knit fabrics for apparel; and garment dyeing of knit and woven goods for apparel.<sup>41</sup>
- \*\*\*..... Reported competition between sulfur dyes and direct and fiber reactive dyes (and pigments) on applications accounting for about 3 to 5 percent of its sales. All types of dyes are used on cotton and cotton blends; a specific dye is selected for reasons of cost and fastness properties.<sup>42</sup>
- \*\*\*..... Reported competition between sulfur dyes and black fiber reactive dyes on about 10 percent of its sales. Both types of dyes can be used on knits, woven fabrics, and garments (in a batch process).

Other manufacturers of dyes (including \*\*\*, \*\*\*, \*\*\*, and \*\*\*, producers of direct and fiber reactive dyes) reported no "competition" with sulfur dyes.

#### OTHER SUBSTITUTE PRODUCT ISSUES

There has been minimal information gathered by or presented to the Commission that identifies any competition between sulfur dyes and dye classes that are used on noncellulosic substrates. As noted earlier, some sulfur dyes are used to dye leather and paper. Price lists submitted by Sandoz (and information presented in table 1) show that dyes from numerous classes find an application on leather and paper products. However, the various dye classes cannot generically be used for those dyeing purposes. Rather, specific dyes within each class are suitable.<sup>43</sup>

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<sup>41</sup> However, the dye used is selected for characteristics specific to the dye. \*\*\* stated that "a customer will select a sulfur dye type when the dye cost per lb. of fabric is of prime importance. For chlorine and light fastness characteristics a vat dye will be used. Fiber-reactive dyes will be used when a higher overall quality is needed; a greater shade range is needed; and/or a more easily controlled dyeing process is required."

\*\*\* further stated that "imported sulfur dyes have slowed the growth of our fiber-reactive dyes in exhaust process for knits in apparel end-uses. This trend has accelerated in 1991 and seems to be accelerating further. A large portion of our domestically produced fiber-reactive product line could ultimately be replaced by imported sulfur dyes."

<sup>42</sup> However, the firm further stated that "sulfur dyes are almost always selected because of their low cost in producing full and deep shades of primarily navy and black. There are cases where their fastness properties make them the dyestuff of choice."

<sup>43</sup> At the Commission's conference, Keystone (an importer of the soluble powder used on leather) testified that sulfur dyes compete with a type of pre-  
(continued...)

## U.S. Tariff Treatment

As stated in the petition and in Commerce's notice of initiation and the Commission's notice of investigation, the imported dyes subject to these investigations are those classified in subheadings 3204.15.10, 3204.15.20, 3204.15.30, 3204.15.35, 3204.15.40, 3204.15.50, 3204.19.30, 3204.19.40, and 3204.19.50 of the HTS.

The Commission's further review of the Colour Index and the HTS shows that three sulfur black dyes are classified in subheading 3204.19.30.<sup>47</sup> The remaining sulfur black dyes (which are believed to consist primarily of soluble sulfur dyes) and all colored sulfur dyes (other than sulfur vat dyes) are classified in HTS subheadings 3204.19.40 or 3204.19.50.<sup>48</sup> Both of these subheadings are residual ("basket") subheadings that include dyes other than sulfur dyes.

After reviewing the chemistry outlined in the Colour Index for each individually listed vat dye in HTS subheadings 3204.15.10, 3204.15.20, 3204.15.30, and 3204.15.35 and after informal discussion with the U.S. Customs national import specialist for dyes, it seems most likely that sulfur vat dyes

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<sup>46</sup> (...continued)

that, to a large extent, are not physically or chemically changed by their application method or by the substrate on which they are incorporated. Dry Color Manufacturers Association, Alexandria, VA, Pigments--A Primer, pp. 1-2.

<sup>47</sup> This HTS subheading includes only sulfur black 1 (C.I. 53185), sulfur black 10 (C.I. 53190), and sulfur black 2 (C.I. 53195). The column 1-general duty rate is 3.3 cents per kilogram plus 14 percent ad valorem; the column 2 rate is 6.6 cents per kilogram plus 28 percent ad valorem. Eligible imports may receive duty-free entry under both the Caribbean Basin Recovery Act and the United States-Israel Free-Trade Implementation Act of 1985. The 1992 rate of duty on eligible imports of these products under the United States-Canada Free-Trade Agreement is 0.6 cents per kilogram plus 2.8 percent ad valorem.

<sup>48</sup> HTS subheading 3204.19.40 includes chemicals not in production in the United States at the conclusion of the Tokyo Round. HTS subheading 3204.19.50 covers chemicals in production in the United States at the conclusion of the Tokyo Round (as determined by their inclusion in the Chemical Appendix to the Tariff Schedules of the United States).

The column 1-general duty rate for HTS subheading 3204.19.40 is 15 percent ad valorem; the column 2 rate is 50.5 percent ad valorem. Eligible imports under this subheading may receive duty-free entry under both the Caribbean Basin Recovery Act and the United States-Israel Free-Trade Implementation Act of 1985. The 1992 rate of duty on eligible imports of these products under the United States-Canada Free-Trade Agreement is 3 percent ad valorem.

The column 1-general duty rate for HTS subheading 3204.19.50 is 20 percent ad valorem; the column 2 rate is 50.5 percent. Eligible imports under this HTS subheading may receive duty-free treatment under both the Caribbean Basin Recovery Act and the United States-Israel Free-Trade Implementation Act of 1985. The 1992 rate of duty on eligible imports of these products under the United States-Canada Free-Trade Agreement is 4 percent ad valorem.

finished, liquid sulfur black 1 to major domestic customers reported in petitioner's Market Intelligence Surveys dated January 1, 1990, May 24, 1990, and January 14, 1992). (Adjustments included reducing ESP for the increased value resulting from solubilizing the concentrate after importation and before sale of the finished, liquid product to unrelated domestic purchasers.)<sup>53</sup>

(3) Petitioner maintained that it is necessary to calculate the FMV of sulfur dye produced in the United Kingdom on the basis of constructed value.<sup>54</sup> USP was calculated using the average f.o.b. unit value of sulfur black reported in Commerce data for January-December 1991, with adjustments made for estimated foreign inland freight charges.<sup>55</sup>

The estimated LTFV margins are as follows (in percent):

<u>Source</u>	<u>Petitioner's estimated LTFV margin</u>	<u>Commerce's recalculated LTFV margin</u>
China.....	213.16	117.18
India.....	109.25	17.55
United Kingdom...	182.03	162.57

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<sup>53</sup> Because petitioner could not document its calculated USP, Commerce based USP on the f.o.b. import value (adjusted for foreign inland freight).

<sup>54</sup> Petitioner stated that home market sales are inadequate as a basis for calculating FMV because British home market sales of sulfur dyes are (1) small in relation to the quantity sold for export to third countries and (2) below the cost of production (COP). However, because the petitioner did not adequately document home market prices, Commerce did not initiate a sales below COP investigation at this time. Commerce accepted FMV based on constructed value, but adjusted petitioner's estimates to account for labor rate differences and reduced reported SG&A expenses.

<sup>55</sup> All sales of U.K.-produced sulfur dyes for export to the United States are believed by petitioner to be made to unrelated U.S. purchasers or distributors.

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<sup>55</sup> All sales of U.K.-produced sulfur dyes for export to the United States are believed by petitioner to be made to unrelated U.S. purchasers or distributors.

Table 2

Dyes: Apparent U.S. consumption, by groupings of dyes,<sup>1</sup> 1989-91

(In 1,000 pounds)

Item	1989	1990	1991
* * *	*	*	*

<sup>1</sup> Excludes coloring matter of animal or vegetable origin; solvent dyes; food, drug, or cosmetic colors; and organic and inorganic pigments.

Note.--As shown in the source notes for tables 24, D-7, D-8, and D-9, producers' U.S. shipments for all types of dyes are compiled from data submitted in response to questionnaires of the U.S. International Trade Commission. Imports of subject sulfur dyes (including sulfur vat dyes) are also largely compiled from questionnaire responses. All other imports are compiled from official statistics of the Department of Commerce. As noted, responses to Commission questionnaires for dyes other than subject products were incomplete. Thus, apparent consumption (and the share of apparent consumption accounted for by U.S. producers) for dyes other than sulfur dyes are understated. The extent of that understatement may be determined for 1990 by comparing data presented in this table to those presented in table D-2 of app. D. The comparisons are as follows (in 1,000 pounds):

<u>Item</u>	<u>1990 apparent consumption</u>	
	<u>Table 2</u>	<u>Table D-2</u>
Other vat dyes.....	***	***
Direct and fiber reactive dyes.....	***	***
Other dyes.....	***	***

Source: Table 24 and tables D-7, D-8, and D-9 (app. D) of this report.

#### U.S. Producers and Solubilizers

The U.S. dye industry has existed since before World War I. It developed mainly in the northeastern States and North and South Carolina because of their proximity to the major textile-producing states (North Carolina, South Carolina, and Georgia) and to the refineries and chemical plants (in New Jersey) that provide raw materials to the dye industry. As shown in table 3, many of the current U.S. producers are affiliated with or are part of multinational firms, usually diversified chemical companies producing a variety of chemicals in addition to dyes. (In contrast, U.S.-owned dye manufacturers are relatively small chemical companies whose main products are dyes.) Individual companies do not specialize in the production of one type of dye, but rather produce and sell a wide variety of dye products. However,

firms often simply finish or purify a purchased product or market dyes that are imported or purchased from another U.S. manufacturer.<sup>58</sup>

The petitioner, Sandoz, and its predecessor, Southern Dyestuff Co., have been the leading producers of sulfur dyes in the United States since approximately 1936.<sup>59</sup> As shown in table 3, Sandoz also produces other types of dyes in addition to subject sulfur dyes.<sup>60</sup>

Sandoz is part of a Swiss-based multinational corporation, Sandoz Ltd., which produces a wide range of chemicals, pharmaceuticals, agro products (e.g. fungicides), seeds, food products, and materials used in construction. On a worldwide basis, Sandoz Ltd.'s chemical group produces dyes for textiles, leather, and paper, along with paper optical brighteners and pigments. The firm produces sulfur dyes in several countries in addition to the United States--specifically Brazil, Mexico, Spain, and Korea.<sup>61</sup>

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<sup>58</sup> In general, the major synthetic dye markets have developed certain internal infrastructures that include the importation of certain key intermediates. There is little integration back to the starting materials in the domestic industry because, in most cases, the cost involved to build manufacturing facilities for the relatively small amounts required is not economically feasible. Also, individual firms often import various types of dyes that, together with their domestic production, enable them to provide their customers with a wide range of dye products from which the user can select the types of dyes that best fit their needs.

<sup>59</sup> Currently, Sandoz is the only original U.S. producer of sulfur dyes in the United States. Prior to 1987, there were at least six additional U.S. manufacturers: Allied Chemical Co., American Cyanamid Co., Augusta Chemical Co., E.I. du Pont de Nemours & Co., Mobay Chemical Corp., and Sou Tex Chemical Co. Allied, Augusta, du Pont, and Sou Tex stopped manufacturing in the early 1970s. In 1977, American Cyanamid sold its sulfur dye production facilities to Mobay, which then shut down production in the spring of 1986. Sandoz testified at the Commission's conference that these firms stopped their operations due to the capital investment that would be required for them to meet new environmental controls. Conference transcript, pp. 50-51.

There is one new domestic dye production plant under construction: CIBA-GEIGY's St. Gabriel, LA, facility, which was expected to be in operation at the end of 1991. However, the plant (which is scheduled to produce acid, direct, disperse, and reactive dyes) will not manufacture sulfur dyes. Petition, pp. 5-6.

<sup>60</sup> Specifically, Sandoz manufactures acid, direct, disperse, fiber reactive, and vat dyes and fluorescent brightening agents in three U.S. facilities. However, the subject sulfur dyes are all produced at its Mt. Holly, NC, plant. That production facility is used primarily to manufacture subject dyes. Petition, p. 6. (There are also a limited number of vat dyes produced at Mt. Holly.)

<sup>61</sup> Sandoz testified at the conference that no imports from these plants enter the United States. \*\*\*. \*\*\*. (Staff conversation with Michael Dixon, Sandoz, Apr. 30, 1992.)

the western portion of the United States, where Sandoz does not maintain a sales network. \*\*\* percent of Sandoz's sales of sulfur dyes are made to purchasers located within 1,000 miles of its plant in Mt. Holly, NC. As noted earlier, \*\*\* percent of Sandoz's product is sold to textile producers and the remaining \*\*\* percent goes to producers of paper, leather, and ink. Sandoz's shipments of dyes to the textile industry are in a water-soluble liquid form; its shipments to paper, leather, and ink producers are in either liquid or powdered water-soluble forms.

Most of the imported sulfur dyes are also ultimately sold to the textile industry; however, the imported sulfur dyes destined for use in textiles must first be solubilized before they can be used by the textile mills. Two companies, C.H. Patrick and Southern Dye, currently solubilize virtually all of the imported dye used by the textile industry. C.H. Patrick, the larger of the two companies, uses unsolubilized powdered dyes from China and India and unsolubilized liquid dyes from the United Kingdom. C.H. Patrick buys the Chinese-and British-produced dyes from \*\*\*<sup>64</sup> and \*\*\* dyes from India. Most of C.H. Patrick's sales of its finished product are made directly to end users.<sup>65</sup> Sales to Graniteville, Patrick's parent company and only related customer, accounted for \*\*\* percent of its total sales to end users in 1991.

Southern Dye buys unsolubilized powdered dyes from \*\*\* through \*\*\*. Southern Dye does not have storage or solubilization facilities of its own. Rather, it has a toll arrangement with \*\*\* to provide storage and all finishing operations. Southern Dye sells to both distributors and end users in the southeast and on the west coast of the United States.

Biddle Sawyer Corp. and Keystone Aniline Corp. import solubilized sulfur dye powders that are used exclusively in the leather industry. Biddle Sawyer imports its solubilized powders from Atul Products in India and sells all of this product to \*\*\*, which resells to end users in the leather industry. Keystone imports its dyes from James Robinson Ltd. in the United Kingdom and resells to distributors and end users in the leather industry. The products imported by Biddle Sawyer and Keystone are not chemically altered in any way between production and end use.

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

Data in the following sections are shown separately for Sandoz's producing operations for sulfur dyes (excluding sulfur vat dyes) and for sulfur vat dyes. Data on production activities were also provided by the two

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<sup>64</sup> The liquid unsolubilized sulfur dyes from the United Kingdom are purchased through \*\*\*. The unsolubilized sulfur dye powder from China is purchased through \*\*\*.

<sup>65</sup> Before 1991 \*\*\*.

Table 4

All sulfur dyes: Sandoz's capacity,<sup>1,2</sup> production,<sup>3</sup> and capacity utilization, by types of sulfur dyes,<sup>4</sup> 1989-91

Item	1989	1990	1991
	*	*	*

<sup>1</sup> Reported production capability for both sulfur dyes and sulfur vat dyes is based on operating \*\*\* hours per week, \*\*\* weeks per year.

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

<sup>3</sup> Sandoz has not contracted with another firm to produce any sulfur dyes (including sulfur vat dyes) for it under a toll agreement.

<sup>4</sup> As presented in the listings within this table, "sulfur dyes" exclude sulfur vat dyes.

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

#### U.S. Producers' Shipments and Inventories

The quantity of Sandoz's U.S. shipments of all sulfur dyes decreased \*\*\* from 1989 to 1990, then increased \*\*\* in 1991 for a net increase of \*\*\* percent during the period (table 5). Data for petitioner's U.S. shipments by product line are presented in appendix D (table D-1). In its petition, Sandoz attributes the overall increase in U.S. shipments in 1991 to rising sales of its lower-priced Deniblack 4G. Petitioner stated:

Although introduced only three years ago, sales of Deniblack 4G now comprise \*\*\* of Petitioner's primary Sulfur Black 1 sales. Unfortunately, it is anticipated that the continued marketing success of Deniblack 4G will come at the expense of Petitioner's Sodyesul Black 4GCF, resulting in a \*\*\* of Petitioner's Sulfur Black sales revenue.<sup>69</sup> (Petition, p. 72.)

As shown in table D-1 the average 1991 unit price of Deniblack 4G (\$\*\*\*) was \*\*\* than that of Sodyesul black 4GCF (\$\*\*\*). Sales of Sodyesul black 4GCF declined steadily from 1989 to 1991, whereas sales of Deniblack 4G increased from \*\*\* percent of sulfur black 1 sales in 1989 to \*\*\* percent in 1991 (if the new environmentally safer product is excluded). The overall increase in petitioner's sales is also due to the 1990 introduction of its environmentally safer product, Sandozol black 4G-RDT. In 1991 Sandozol black 4G-RDT accounted for over \*\*\* percent of total sulfur dye sales by Sandoz in the United States.

<sup>69</sup> \*\*\*, \*\*\*.

## Combined Data for Sandoz and for U.S. Solubilizers

Table 7 presents data for the combined sulfur dye operations (including sulfur vat dyes) of Sandoz and the two solubilizers, C.H. Patrick and Southern Dye. As shown in table 7, production capacity for the group increased during 1989-91, as a result of C.H. Patrick's acquisition of the Burris Chemical facility in 1989.<sup>71,72</sup> Sandoz is \*\*\* the largest U.S. producer, accounting for over \*\*\* percent of U.S. sulfur dye production in 1991. The operations of C.H. Patrick accounted for \*\*\* percent of such production; those of Southern Dye for \*\*\* percent. Production and U.S. shipments of the firms' combined operations increased steadily, rising by \*\*\* percent and \*\*\* percent, respectively, from 1989 to 1991.<sup>73</sup> However, trends for individual firms varied, apparently as a result of specific product offerings. As discussed earlier, Sandoz attributes the overall increase in its 1991 U.S. shipments to rising sales of its lower-priced Deniblack 4G. Production (and U.S. shipments) by C.H. Patrick approximately \*\*\* from 1989 to 1990 due to its acquisition of Burris Chemical and the continued popularity of its dyes for black denim. \*\*\*. \*\*\*.<sup>74</sup> Data reported by Southern Dye \*\*\* through the period, reflecting the \*\*\* of its new environmentally safer products.

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<sup>71</sup> However, if the operations of Burris Chemical are also considered part of the U.S. industry, overall capacity to produce remained constant during 1989-91. No data are available on the manufacturing operations of Burris Chemical from January 1989 until it was sold to and incorporated into C.H. Patrick in September 1989.

<sup>72</sup> As shown in table 7, capacity utilization for C.H. Patrick is \*\*\* than that reported by Sandoz. The production capability reported by C.H. Patrick is theoretical in that the firm \*\*\*; the firm considers that it is currently operating \*\*\*.

C.H. Patrick also solubilizes imported indigo \*\*\*. \*\*\*. \*\*\*. \*\*\*. Staff conversation with attorney for C.H. Patrick, May 11, 1992.

<sup>73</sup> The greater increase in overall U.S. shipments (as compared with production) is due to the decrease in export shipments by Sandoz to its affiliates discussed earlier in this report.

<sup>74</sup> Staff conversation with attorney for C.H. Patrick, May 11, 1992.

### Financial Experience of U.S. Producers

Sandoz submitted separate financial data for (1) the overall operations of its establishment in which sulfur dyes and sulfur vat dyes are produced, (2) its sulfur dye operations, and (3) its sulfur vat dye operations. As indicated previously, Sandoz produces such dyes at its Holly Hill plant in Charlotte, NC.<sup>76</sup> The data for Sandoz are presented in this section of the report. Two other companies, C.H. Patrick and Southern Dye, provided income-and-loss data on their U.S. operations in solubilizing sulfur dyes from imported concentrate. These data are presented in appendix E.<sup>77</sup> However, later in this section a table summarizes and compares financial results for Sandoz and the two solubilizers on their sulfur dye and sulfur vat dye operations.

Seven companies, including Sandoz, provided income-and-loss data on their U.S. operations in producing vat dyes (other than sulfur vat dyes), direct and/or fiber reactive dyes, and certain other dyes.<sup>78</sup> These data are presented in appendix F.

### OVERALL ESTABLISHMENT OPERATIONS

Income-and-loss data of Sandoz on its overall establishment operations in which sulfur dyes and sulfur vat dyes are produced are shown in table 9.

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<sup>76</sup> As indicated in the petition, Sandoz Chemicals Corp. (Sandoz) is a New York corporation organized in 1983 and wholly owned by Sandoz Corp. which, in turn, is wholly owned by Sandoz Ltd. of Basle, Switzerland. Petitioner is a major domestic manufacturer of dyes, pigments, and coloring matter. Sandoz employs \*\*\* persons overall and \*\*\* workers at its sulfur dye production facilities. Petition, p. 5.

<sup>77</sup> As indicated in app. E, the value added (including selling, general, and administrative expenses) by the two solubilizers, as a share of the total cost of goods sold, rose from \*\*\* percent in 1989 to \*\*\* percent in 1990 and \*\*\* percent in 1991. Value added by C.H. Patrick, \*\*\*, was \*\*\* percent in 1991, compared with \*\*\* percent for Southern Dye. As noted elsewhere in this report, Southern Dye does not itself solubilize the imports, but rather has a toll arrangement with another firm.

<sup>78</sup> "Other" dyes, as defined in the Commission's questionnaires, included disperse dyes, acid dyes, mordant dyes, basic dyes, and fluorescent brightening agents.

Table 10

Income-and-loss experience of Sandoz on its U.S. operations producing sulfur dyes and sulfur vat dyes, 1989-91

Item	1989	1990	1991
	*	*	*

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

The net sales, operating income, and operating income margins for the solubilizers, as presented in appendix E, combined with Sandoz's sulfur dye and sulfur vat dye operations are shown in table 11. The combined operating income margins are \*\*\* from those of Sandoz \*\*\*.

Table 11

Income-and-loss experience of Sandoz and the two solubilizers (C.H. Patrick and Southern Dye) on their U.S. operations on sulfur dyes and sulfur vat dyes, by firms, 1989-91

Item	1989	1990	1991
	*	*	*

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

#### OPERATIONS ON SULFUR DYES

Income-and-loss data for Sandoz's sulfur dye operations, excluding sulfur vat dyes, are shown in table 12. Net sales of sulfur dyes decreased \*\*\* percent from \$\*\*\* million in 1989 to \$\*\*\* million in 1990, but then increased \*\*\* percent to \$\*\*\* million in 1991. The operating income margin was \$\*\*\* in 1989, \$\*\*\* in 1990, and \$\*\*\* in 1991. Operating income margins were \*\*\* percent in 1989, \*\*\* percent in 1990, and \*\*\* percent in 1991.

Raw material costs for sulfur vat dyes \*\*\* (as shown in the following tabulation, in 1,000 of dollars except as noted) and direct labor and factory overhead \*\*\* as a percent of cost of goods sold.

<u>Item</u>	<u>1989</u>			<u>1990</u>			<u>1991</u>		
	*	*	*	*	*	*	*	*	*

#### CAPITAL EXPENDITURES

Capital expenditures of Sandoz for its establishment in which sulfur dyes and sulfur vat dyes are produced and for its operations on such dyes are shown in table 14.

Table 14

Capital expenditures by Sandoz on its overall establishment, sulfur dye, and sulfur vat dye operations, 1989-91

(In 1,000 dollars)

<u>Item</u>	<u>1989</u>			<u>1990</u>			<u>1991</u>		
	*	*	*	*	*	*	*	*	*

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

#### INVESTMENT IN PRODUCTIVE FACILITIES

The investment in productive facilities and the annual return on total assets for Sandoz are presented in table 15 for its overall establishment, sulfur dye, and sulfur vat dye operations.

Table 15

Value of assets and return on assets of Sandoz for its overall establishment, sulfur dye, and sulfur vat dye operations, 1989-91

<u>Item</u>	<u>1989</u>			<u>1990</u>			<u>1991</u>		
	*	*	*	*	*	*	*	*	*

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

CONSIDERATION OF THE QUESTION OF  
THREAT OF MATERIAL INJURY

Section 771(7)(F)(i) of the Tariff Act of 1930 (19 U.S.C. § 1677(7)(F)(i)) provides that--

In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the merchandise, the Commission shall consider, among other relevant economic factors<sup>80</sup>--

(I) If a subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the subsidy is an export subsidy inconsistent with the Agreement),

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

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

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

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

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

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

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<sup>80</sup> Section 771(7)(F)(ii) of the act (19 U.S.C. § 1677(7)(F)(ii)) provides that "Any determination by the Commission under this title that an industry in the United States is threatened with material injury shall be made on the basis of evidence that the threat of material injury is real and that actual injury is imminent. Such a determination may not be made on the basis of mere conjecture or supposition."

U.S. Inventories of Sulfur Dyes from  
China, India, and the United Kingdom

Because of the structure of this industry, inventories can be maintained on two levels: by the importer and by the solubilizer. Also, inventories may be held by solubilizers either as an unsolubilized input material or as a finished, ready-to-ship product. In general, importing firms (other than solubilizers) did not report maintaining inventories.<sup>82</sup> The consistent exception was \*\*\*.<sup>83</sup> \*\*\* reported the following end-of-period inventories of that product:

<u>Item</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Inventory (pounds).....	***	***	***
Ratio to U.S. shipments (percent)..	***	***	***

End-of-period inventories of sulfur dyes (including sulfur vat dyes) reported by solubilizers are shown in table 18. As shown, inventories have declined steadily, decreasing from \*\*\* percent of solubilizers' U.S. shipments in 1989 to \*\*\* percent of such shipments in 1991, a level \*\*\* than that reported by the U.S. producer. The buildup in inventories during 1990 was partly due to product from \*\*\* held by \*\*\*.

Table 18

All sulfur dyes: U.S. solubilizers' end-of-period inventories of U.S. imports, their U.S. shipments, and inventories as a share of the quantity of shipments, by sources and by firms,<sup>1</sup> 1989-91

<u>Item</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
	*	*	*

<sup>1</sup> Data for both C.H. Patrick and Southern Dye are presented in quantities of liquid-equivalent. (C.H. Patrick maintains inventories of both the solubilized and unsolubilized product; all of Southern Dye's inventories were unsolubilized.)

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

<sup>82</sup> Sulfur dyes in their unsolubilized form are not chemically stable and should not be stored for any length of time.

<sup>83</sup> The only other exception was \*\*\*, which built up an inventory of \*\*\* pounds of unsolubilized powder at year-end 1990, which it sold during the next year. The firm sells to \*\*\*.

The data submitted by \*\*\* are presented in table 19. All of the data shown are for non-vatted sulfur dyes; no data on sulfur vat dyes were reported.

Table 19  
Sulfur dyes: Chinese capacity, production, capacity utilization, and shipments, 1989-91, and projected 1992 and 1993

(Quantities in 1,000 pounds, except as noted)

Item	1989	1990	1991	Projected--		
				1992	1993	
	*	*	*	*	*	*

Source: Compiled from data submitted by \*\*\*.

#### THE INDUSTRY IN INDIA

The petition stated there are two manufacturers of sulfur dyes in India, Atul Products, Ltd. (Atul) of Gujarat State, and Hickson & Dadjee, Ltd., (Hickson) of Bombay. However, an inquiry made by the Commission through the U.S. consulate in Bombay identified four additional producers: Amar Dye-Chem, Ltd., Bombay; Atic Industries, Gujarat State (and Arlabs, Ltd., Bombay); Indian Dyestuff Industries, Bombay; and Rainbow Dyestuff, Ltd., Bombay. The dyestuff industry in India is based primarily in the western Indian states of Gujarat and Maharashtra.<sup>88</sup> It began in 1940 with the manufacturing of synthetic organic dyes by Associated Research Laboratories. This company was acquired by the Lalbhai Group which, in turn, established Atul in the late 1940s.

Production of sulfur dyes in India has historically been oriented towards the large domestic market for textiles, in which the product is usually purchased as a soluble powder. (In contrast to production in the United States, textiles are produced in India by a widespread cottage industry, which is better able to use the powdered form than the pre-reduced liquid dyes purchased in the United States.)<sup>89</sup> Data supplied by the U.S. consulate for

<sup>88</sup> In addition to sulfur dyes (and sulfur vat dyes), acid dyes, azoic dyes, basic dyes, disperse dyes, reactive dyes, and naphtols, fast-colored bases, organic pigments, and optical brightening agents are produced in India. Production of all dyes is equally divided between large-scale, organized producers (of which there are currently 48) and approximately 900 smaller producers. Due to the substantial capital investment required, all manufacturing of sulfur dyes in India is by large-scale producers.

<sup>89</sup> Staff conversation with \*\*\*, Apr. 28, 1992.

Table 20

Sulfur dye operations of Atul: Capacity, production, capacity utilization, shipments, and inventories, 1989-91, and projected 1992 and 1993

(Quantities in 1,000 pounds, except as noted)

Item	1989	1990	1991	Projected--	
				1992	1993
	*	*	*	*	*

Source: Compiled from data submitted by counsel for Atul.

As shown in table 20, Atul \*\*\* its capacity to produce in 1991 and projects \*\*\* in 1993. The \*\*\* of Atul's production is consumed by the home market.

#### THE INDUSTRY IN THE UNITED KINGDOM

There is only one manufacturer of sulfur dyes in the United Kingdom, James Robinson Limited (Robinson), Huddersfield. Robinson has produced sulfur dyes since 1913. In its most recent fiscal year, sulfur dyes accounted for approximately \*\*\* of its total sales.<sup>93</sup> As shown in table 21, the majority of the sulfur dyes produced by James Robinson are exported to countries other than the United States.<sup>94</sup> Export destinations include \*\*\*. Exports of all sulfur dyes to the United States \*\*\* from 1989 to 1990, then \*\*\* by \*\*\* percent in 1991. \*\*\* are projected for 1992 and 1993. Overall production has \*\*\* since 1989, but is projected to \*\*\* by \*\*\* in 1992 and by \*\*\* percent in 1993. The capacity to produce \*\*\*. \*\*\*. Capacity utilization for all sulfur dyes \*\*\* from \*\*\* percent in 1989 to \*\*\* percent in 1991, reflecting \*\*\*. However, in 1992 and 1993, Robinson expects to operate at \*\*\*.

<sup>93</sup> Robinson also manufactures other specialty chemicals, including one disperse dye and cosmetic colors.

<sup>94</sup> \*\*\*.

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

U.S. Imports

As discussed earlier in this report, the majority of the sulfur dye imports are imported in an unsolubilized form that must be finished prior to sale to the end users, the point at which they compete with the domestically-produced product. (The primary exception is the soluble powder dyes that are generally sold to leather manufacturers and tanneries.) For this reason, the most precise measure of the quantity of imports (and of the impact they have on the domestic market) is U.S. shipments of the finished product.<sup>95</sup> The data presented in table 22 consist of U.S. shipments of the solubilizers (i.e., Burris Chemical, C.H. Patrick, and Southern Dye) and any reported U.S. shipments of sulfur dyes that were sold directly through importer/distributors.

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<sup>95</sup> In addition, utilizing this point of measurement adjusts for the various quantities of solubilized liquid dye that are obtained from a set quantity of the unfinished form. This variance depends upon the characteristics (i.e., the size and distribution of dye molecules, concentration, solubility, tinctorial value, impurities) and age of the raw material. The raw material characteristics vary from factory to factory and from country to country. (Responses by \*\*\* and \*\*\* to the Commission's questionnaire.) The footnotes to table 22 list the estimated amounts of sulfur dye in liquid form that were obtained from the imports of the unsolubilized product reported by U.S. solubilizers. A summary of these "conversion ratios" follows:

<u>Item</u>	<u>Conversion ratio</u> (Solubilized to unsolubilized)
Sulfur dyes from China.....	***
Sulfur vat dyes from China.....	***
Sulfur dyes from India.....	***
Sulfur dyes from the United Kingdom.....	***
Sulfur vat dyes from the United Kingdom.....	***

As shown in table 22, the majority of Chinese-produced and Indian-produced sulfur dyes are imported as an unsolubilized powder. Unsolubilized dyes from the United Kingdom are exported to the United States as a liquid. Sulfur vat dyes are believed to be largely imported as a presscake.

U.S. importers are largely unaware of the amount of liquid, solubilized dye that can be produced from material they import and distribute.

Table 23

All sulfur dyes: Importers' and solubilizers' U.S. shipments of imports from subject countries and imports from other countries,<sup>1</sup> by sources and by types of sulfur dyes,<sup>2</sup> 1989-91

Item	1989	1990	1991
	*	*	*

<sup>1</sup> As presented in the listings within this table, "sulfur dyes" exclude sulfur vat dyes.

<sup>2</sup> The quantity and value of imports from other sources is presented as compiled by the U.S. Department of Commerce without adjustment.

Source: Table 22 and (for imports from other sources) official statistics of the U.S. Department of Commerce. (Such statistics are maintained only for certain sulfur black dye. However, no imports of other sulfur dyes from other sources were \*\*\*)

The following tabulation presents the quantity of imports of sulfur black dye under HTS no. 3204.19.30<sup>98</sup> as compiled in official Commerce data (in 1,000 pounds):

<u>Source</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
China.....	1,910	3,335	3,158
Hong Kong.....	406	1,000	164
Subtotal.....	2,316	4,335	3,322
India.....	35	196	77
United Kingdom.....	1,858	2,168	1,228
Subtotal subject countries..	4,209	6,699	4,627
All other.....	453	695	206
Total.....	4,662	7,394	4,833

The above imports consist principally of unsolubilized sulfur dyes and thus cannot be directly compared with the data presented in table 23. However, as shown in the above tabulation, the trend of sulfur dye imports from China (and Hong Kong)<sup>99</sup> differs somewhat from that demonstrated by importers' U.S. shipments. Specifically, imports (of sulfur black, as compiled by Commerce) increased by 87.2 percent from 1989 to 1990 (\*\*\*) less than reported U.S. shipments of imports), then actually decreased by 23.4 percent in 1991.

<sup>98</sup> Sulfur black dyes are believed to make up the majority of total sulfur dye imports.

<sup>99</sup> All exports to the United States from Hong Kong are believed to have been produced in China.

sold as sulfur vat dyes is even higher, ranging between \*\*\* percent and \*\*\* percent by quantity during the period.) The majority of the subject imports are from China. In 1991, such imports accounted for \*\*\* percent, by quantity, and \*\*\*, by value, of total U.S. shipments. The shares of the domestic market accounted by the other subject countries (India and the United Kingdom) and other sources are smaller. In 1991, in terms of quantity, India accounted for \*\*\* percent of the market, the United Kingdom for \*\*\* percent, and other sources for \*\*\* percent.

As shown in table 24, the market penetration ratios of imports from China increased sharply<sup>101</sup> from 1989 to 1990 (in terms of both quantity and value), then remained somewhat constant from 1990 to 1991. In terms of quantity, imports from India \*\*\* by less than \*\*\* from 1989 to 1991; imports from the United Kingdom irregularly \*\*\* their share of the U.S. market by slightly over \*\*\* percentage points in 1991.

### Factors Affecting Demand

The demand for sulfur dyes depends upon sales of certain textiles, primarily cotton, and to a lesser extent, leather and colored paper. The demand for sulfur dyes has increased significantly in recent years largely because of the increased popularity of black denim and other cotton fabrics. Prior to the 1980s virtually all denim was blue. However, since that time the demand for other colors of denim, particularly black, has grown rapidly.<sup>102</sup>

Both Sandoz and C.H. Patrick (a solubilizer) have reported aggressive research and development efforts in recent years to produce sulfur dyes and dye pretreatments that will give black denim a "stone washed look" or a "distressed look" and allow the material to maintain certain shade characteristics as it fades after repeated washings. These developments, combined with a strong marketing campaign for these dyes and techniques, have resulted in increasing sales. Black sulfur dyes currently represent approximately \*\*\* percent of the total U.S. production of sulfur dyes and \*\*\* percent of the imported sulfur dyes used by the U.S. textile industry.

Demand for sulfur dyes for use in leather has also increased in recent years. Keystone (an importer) states that this increase in demand has resulted from the introduction of new colors offered by importers. According to Keystone, these colored sulfur dyes have replaced premetallized acid dyes that are imported primarily from Germany.

The production and use of sulfur dyes has created some environmental problems that have posed some limits on the growth in sales of sulfur dyes.

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<sup>101</sup> Although, as discussed in the previous section of this report, the magnitude of the 1989-90 increase of Chinese imports, and thus the corresponding increase in market penetration, is somewhat suspect.

<sup>102</sup> Although Sandoz estimated in its petition (p. 7) that sales of black denim have grown from a very small share to over \*\*\* percent of the total denim market, \*\*\* has stated in its questionnaire that black denim sales \*\*\*.

familiar product when the same dye producer offers a less expensive alternative that is designed specifically for the same end use. For example, Avondale Mills, a textile producer, continues to use C.H. Patrick's higher priced 4RB even though C.H. Patrick promises the same results with its Denim Black 2000.<sup>105</sup> Cone Mills, the largest domestic manufacturer of denim, uses Sandoz's Black 4GCF despite the cheaper alternative, Deniblack, that Sandoz reports has an identical effect on denim.<sup>106</sup>

### Prices

Sandoz and C.H. Patrick sell their sulfur dyes almost exclusively to end users in the textile industry,<sup>107</sup> while Southern Dye sells to both distributors and end users in the textile industry (see "Channels of Distribution" section). Sales are generally made through direct contacts between sales representatives from the dye companies and purchasing agents at the textile mills. However, when new dyes or dye pretreatments create novel effects, the marketing staff of a dye company will often produce sample fabrics that display these effects and then contact designers and garment manufacturers rather than the textile mill. If a designer is interested in the new product, the dye producer can create what is known as a pull-through sale whereby the garment manufacturer places an order with the textile company specifying both the fabric and the dye. \*\*\* and \*\*\* report that they quote prices to their major customers in response to the estimated quantity that the customer anticipates using during a given period of time. These estimates are generally verbal agreements that are renegotiated approximately every 6 months. \*\*\*.

Sandoz publishes a price list that specifies a discount of \$0.01 per pound for drum shipments exceeding 10,000 pounds and \$0.04 per pound for tank truck shipments exceeding 30,000 pounds. Sandoz's questionnaire responses indicate that in the first quarter of 1992 it \*\*\*. One of Sandoz's least expensive and largest selling sulfur dyes \*\*\*. Sandoz quotes its prices on a delivered basis for most of its customers, but its price list specifies surcharges for delivery to certain parts of the country outside of the southeastern United States.

C.H. Patrick publishes a price list that allows volume discounts similar to those of Sandoz. C.H. Patrick reported \*\*\*. C.H. Patrick also quotes prices on a delivered basis in the southeastern United States where most of its customers are located, while sales to other parts of the country include a surcharge for delivery. Southern Dye does not publish a price list; prices are established through negotiation with its customers.

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<sup>105</sup> Conference transcript, p. 178

<sup>106</sup> Ibid, p. 71

<sup>107</sup> Sandoz sells \*\*\* percent of its sulfur dyes to end users in the paper, leather, and ink industries. C.H. Patrick sells \*\*\* to the textile industry. Approximately \*\*\* percent of its sales are directly to end users and the remaining \*\*\* percent are to \*\*\*.

Table 25

Delivered prices to end users of certain solubilized Sulfur Black 1 dyes, by quarters, by products, and by companies, January 1989-March 1992

(Per pound)				
Period	Sandoz		C.H. Patrick	Southern Dye
	Sodyesul Black 4GCF	Deni- Black 4G	Patcosul Black 4RB <sup>1</sup>	Sulfur Black B-4G <sup>2</sup>

\* \* \* \* \*

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

The price of \*\*\* ranged from \$\*\*\* to \$\*\*\* during the 13-quarter period. The price was lower in 1991 and the first quarter of 1992 than it had been in most of the earlier quarters.

\*\*\* reported prices for \*\*\* quarters for which prices were requested. Prices of \*\*\* were first reported at \$\*\*\* per pound in the third quarter of 1989; they decreased to \$\*\*\* in the first quarter of 1990, and returned to \$\*\*\* for the next three quarters, increased to \$\*\*\* in the first quarter of 1991, and remained there for the last five quarters.

Comparisons of prices of the domestic producer and the domestic solubilizers present conceptual problems, and margins of underselling have not been computed. In addition to questions of solubilized products versus unsolubilized imports, there are questions of what solubilized products to compare. Sandoz and C.H. Patrick reported prices of their general-purpose dyes Patcosul Black 4RB and Sulfur Black B-4G, as competing most closely with Sandoz's DeniBlack 4G, a product very similar to Sandoz's Sodyesul Black 4GCF. The selling prices of solubilized dyes reported by C.H. Patrick and Southern Dye generally \*\*\*. The data show that \*\*\*. \*\*\*, however, is priced lower than \*\*\* in 11 out of 13 quarters and is lower than \*\*\* in 8 out of 11 quarters.

#### Lost Sales and Lost Revenues

The U.S. producer, Sandoz, submitted 12 lost sale allegations totalling \*\*\* pounds valued at \$\*\*\* and 11 lost revenue allegations totalling \*\*\* pounds valued at \$\*\*\* for the period January 1989 to March 1992. Staff was able to contact six of the textile manufacturers named in the allegations.

Sandoz reported separately for alleged lost sales to \*\*\* mills owned by \*\*\*. Sandoz stated that the combined value of the sales exceeded \$\*\*\* million and were awarded to \*\*\*. The Commission staff contacted \*\*\*, the director of

Sandoz alleged that sales of sulfur dyes to \*\*\* of \*\*\*, valued at \$\*\*\*, were lost to imported dyes since \*\*\*. The staff contacted \*\*\*. \*\*\* stated that although in recent years \*\*\* has been buying some of its black sulfur dyes from \*\*\* he thought that Sandoz had overestimated the value of these sales.

\*\*\* stated that price is a big factor in its purchasing decisions and that they use the least expensive product that will do the job. However, while Sandoz's DeniBlack works well on its denim fabric it does not produce satisfactory results in its finishing plant where \*\*\* has been used in recent years. \*\*\* feels that the service and the support of Sandoz and \*\*\* are comparable.

### Exchange Rates

Quarterly data reported by the International Monetary Fund indicate that the currencies of two of the three countries subject to this investigation depreciated in relation to the U.S. dollar over the period from January-March 1989 through January-March 1992 (table 26).<sup>111,112</sup> The nominal values of the Indian and British currencies depreciated by 41 and 1.4 percent, respectively. When adjusted for movements in producer price indexes in the United States and the specified countries, the real value of the Indian currency depreciated by 21.9 percent and the British currency appreciated by 9.7 percent during the periods for which data were collected.

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<sup>111</sup> International Financial Statistics, May 1992.

<sup>112</sup> The value of the currency of the People's Republic of China is determined by the Government of China rather than the free market. Therefore, an accurate description of movements in the Chinese exchange rate cannot be presented.

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

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[Investigation Nos. 731-TA-548, 549, 550, and 551 (Preliminary)]

**Sulfur Dyes From China, Hong Kong, India, and the United Kingdom**

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

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

**SUMMARY:** The Commission hereby gives notice of the institution of preliminary antidumping investigation Nos. 731-TA-548, 549, 550 and 551 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from China, Hong Kong, India, and the United Kingdom of sulfur dyes.<sup>1</sup>

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<sup>1</sup> Sulfur dyes are synthetic organic coloring matter or preparations based on synthetic organic coloring matter containing sulfur; they are obtained by high temperature sulfurization of organic material containing hydroxy, nitro, or amino groups, or by reaction of sulfur or alkaline sulfide with aromatic hydrocarbons. Such preparations are of a kind used for coloring any material or used as ingredients in the manufacture of coloring preparations. For the purposes of these investigations, sulfur dyes include sulfur vat dyes, which have been assigned the following color index numbers: Vat Blue 42, 43, 44, 45, 47, 49, and 50 and reduced Vat Blue 42 and 43.

[A-533-805, A-570-818, A-412-809]

**Initiation of Antidumping Duty Investigations; Sulfur Dyes, Including Sulfur Vat Dyes, From India, the People's Republic of China, and the United Kingdom**

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

**EFFECTIVE DATE:** May 7, 1992.

**FOR FURTHER INFORMATION CONTACT:** Kate Johnson, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone (202) 377-6830.

**INITIATION OF INVESTIGATIONS:**

**The Petition**

On April 10, 1992, we received a petition filed in proper form by Sandoz Chemicals Corporation (petitioner). Supplements to the petition were received on April 14, 27, and 28, 1992. In accordance with 19 CFR 353.12, the petitioner alleges that sulfur dyes, including sulfur vat dyes (sulfur dyes), from India, the People's Republic of China (PRC), and the United Kingdom (UK) are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are materially injuring, or threaten material injury to, a U.S. industry.

The petitioner has stated that it has standing to file the petition because it is an interested party, as defined under sections 771(9)(C) of the Act, and because the petition was filed on behalf of the U.S. industry producing the product subject to these investigations. If any interested party, as described under paragraphs (C), (D), (E), or (F) of section 771(9) of the Act, wishes to register support for, or opposition to, this petition, it should file a written notification with the Assistant Secretary for Import Administration.

Under the Department's regulations, any producer or reseller seeking exclusion from a potential antidumping duty order must submit its request for exclusion within 30 days of the date of the publication of this notice. The procedures and requirements are contained in 19 CFR 353.14.

**Scope of Investigations**

Sulfur dyes are synthetic, organic, coloring matter containing sulfur. Sulfur dyes are obtained by high temperature sulfurization of organic material containing hydroxy, nitro or amino groups, or by reaction of sulfur and/or alkaline sulfide with aromatic hydrocarbons. For purposes of these investigations, sulfur dyes include, but are not limited to, sulfur vat dyes with the following color index numbers: Vat Blue 42, 43, 44, 45, 46, 47, 49 and 50 and Reduced Vat Blue 42 and 43. Sulfur vat dyes also have the properties described above. All forms of sulfur dyes are covered, including the reduced (leuco) or oxidized state, presscake, paste, powder, concentrate, or so-called "pre-reduced, liquid ready-to-dye" forms. The sulfur dyes subject to these investigations are classifiable under subheadings 3204.15.10, 3204.15.20, 3204.15.30, 3204.15.35, 3204.15.40, 3204.15.50, 3204.19.30, 3204.19.40 and 3204.19.50 of the Harmonized Tariff Schedule of the United States (HTS). The HTS subheadings are provided for convenience and customs purposes. Our written description of the scope of these investigations is dispositive.

**United States Price and Foreign Market Value**

**India**

Petitioner based United States price (USP) on an observed price of reduced liquid sulfur dye. However, since petitioner was unable to document this price, we based USP on the f.o.b. import value of sulfur dye concentrate also contained in the petition. In the petition, petitioner submitted an amount for foreign inland freight. Although the foreign inland freight figure also had no documentation, we deducted this figure from USP as best information available since it: (1) Related to India; and (2) was very small in relation to USP.

Petitioner has no information as to whether finished, liquid sulfur dyes are sold in the Indian home market. Therefore, petitioner calculated the foreign market value (FMV) of Indian-produced imports on the basis of constructed value (CV).

Petitioner based the CV raw material costs for sulfur dyes on the actual costs

the PRC, and UK are materially injuring, or threaten material injury to, a U.S. industry. Any ITC determinations which are negative will result in the respective investigations being terminated; otherwise, the investigations will proceed according to statutory and regulatory time limits.

This notice is published pursuant to section 732(c)(2) of the Act and 19 CFR 353.13(b).

Dated: April 30, 1992.

Francis J. Saller,

*Acting Assistant Secretary for Import Administration.*

[FR Doc. 92-10726 Filed 5-6-92; 8:45 am]

BILLING CODE 3510-06-M

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**APPENDIX B**

**LIST OF WITNESSES APPEARING AT THE COMMISSION'S CONFERENCE**

LIST OF THE PARTICIPANTS IN THE PUBLIC CONFERENCE

Investigations Nos. 731-TA-548, 550, and 551 (Preliminary)

SULFUR DYES FROM CHINA, INDIA, AND THE UNITED KINGDOM

Those listed below appeared at the United States International Trade Commission's conference held in connection with the subject investigations on May 1, 1992, in Conference Room B, at the USITC Building, 500 E Street, S.W., Washington, DC.

In support of the imposition of antidumping duties

Galvin & Mlawski--Counsel  
New York, NY  
Riggle and Craven--Counsel  
Chicago, Illinois  
on behalf of--

Sandoz Chemicals Corporation

Michael Dixon, Marketing Development Manager (Textiles), Sandoz  
Chemicals Corporation  
Robert Coley, Vice President, Textile Marketing, Sandoz Chemicals  
Corporation

John J. Galvin, Esq.--OF COUNSEL  
David Craven, Esq.--OF COUNSEL

In opposition to the imposition of antidumping duties

Siegel, Mandell & Davidson--Counsel  
New York, NY  
on behalf of--

Atul Products Limited  
Biddle Sawyer Corporation

Brian S. Goldstein, Esq.--OF COUNSEL  
David Newman, Esq.--OF COUNSEL

**APPENDIX C**

**ADDITIONAL INFORMATION ON THE CLASSIFICATION OF DYES**

## CLASSIFICATION OF DYES

Approximately 7,000 synthetic organic dyes have been discovered in the last 100 years.<sup>1</sup> Individual dyes are listed and cross-referenced in the Colour Index under two classification schemes--one based on the recognized usage or "application" class, the other based on the chemical structure or constitution of the dye. Under the application classification scheme, products are listed under one of some 12 general categories and assigned a C.I. generic name such as Sulfur Black 1.<sup>2</sup> When the chemical structure or preparation method of a dye is known, dyes are also cross-classified in the Colour Index under one of approximately 30 categories and assigned a separate 5 digit C.I. constitution number. (For example, the C.I. constitution number for Sulfur Black 1 is 53185.) Dyes classified in any one chemical class may widely differ in their usage or application class.

When indexed in the Colour Index, the subject sulfur dyes (not including some of the sulfur vat dyes)<sup>3</sup> are classified and provided with the generic names "C.I. Sulphur" dyes, "C.I. Leuco Sulphur" dyes, or "C.I. Solubilised Sulphur" dyes. "C.I. Leuco Sulphur" dyes are the pre-reduced or soluble form of the parent or "C.I. Sulphur" dyes. Therefore, they are assigned identical C.I. constitution numbers. "C.I. Solubilised Sulphur" dyes carry different C.I. constitution numbers from the parent sulfur dye (when the manufacturing method is known) as chemically they are the thiosulphonic acid derivatives of the parent dye. According to the Colour Index (p. 3650):

"it is impossible to differentiate with any degree of certainty between material dyed with C.I. Sulphur dyes, C.I. Leuco Sulphur dyes, and C.I. Solubilised Sulphur dyes. It follows that the fastness properties are similar and consequently no attempt has been made to draw any distinction between the three groups in this respect."

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<sup>1</sup> Of the 7,000 known dyes, there are approximately 650 dyes with assigned C.I. generic names that are currently manufactured and sold commercially in the United States. (Synthetic Organic Chemicals, U.S. production and sales, U.S. International Trade Commission.) In addition, there are numerous dyes sold domestically and worldwide that are combinations or blends of individual dyes.

<sup>2</sup> The application or use categories are based on one or more rather loosely defined production, use, or application characteristics. The major application classes for synthetic organic dyes are acid, azoic, basic, direct, disperse, fiber reactive, sulfur, and vat dyes.

<sup>3</sup> Sulfur vat dyes are not classified separately in the Colour Index but are assigned to various sulfur dye and vat dye categories (e.g., C.I. Vat Blue 43, C.I. Vat Green 7, C.I. Sulfur Red 10, and C.I. Sulfur Black 11.)

**APPENDIX D**  
**ADDITIONAL STATISTICAL TABLES**

Table D-1

All sulfur dyes: U.S. shipments of Sandoz Chemicals Corp., 1989-91, and average unit price, by types, 1991

Type	U.S. shipments			Average unit price <sup>1</sup>
	1989	1990	1991	
	<u>1,000 pounds</u>	<u>1,000 pounds</u>	<u>1,000 pounds</u>	<u>Per pound</u>
	*	*	*	*

<sup>1</sup> Calculated from unrounded data.

Source: Petition and information obtained during Mar. 31, 1992, visit to Sandoz.

Table D-2

Dyes: Apparent U.S. consumption, by types,<sup>1</sup> 1990

Type	(In 1,000 pounds)			Apparent consumption
	Producers' U.S. shipments		Imports	
	*	*	*	*

<sup>1</sup> Excludes coloring matter of animal or vegetable origin; solvent dyes; food, drug, or cosmetic colors; and organic and inorganic pigments.

Source: Producers' U.S. shipments of sulfur dyes (including sulfur vat dyes) were submitted in response to questionnaires of the U.S. International Trade Commission. Producer's U.S. shipments of the other types of dyes listed are based on production data submitted by all known domestic producers of the listed dyes (who produce more than a pre-defined minimum) for the Commission's annual report entitled Synthetic Organic Chemicals (SOC) (inv. No. 332-135). Such production data includes (1) intracompany consumption and company transfers and (2) production for other firms under toll agreements. (Quantities are commercial concentrations expressed in terms of standard product strength based on dyeing performance and include data only from original manufacturers). Production is adjusted downward (using official statistics of the U.S. Department of Commerce) to exclude producers' export shipments. Imports are compiled from official statistics of the U.S. Department of Commerce. Imports of sulfur dyes (including sulfur vat dyes) are from table 23 of this report. Imports of other dyes were compiled from official statistics of the U.S. Department of Commerce. (The SOC report containing 1991 data is not yet available; thus, data for 1990 are presented in this table.)

Table D-6

Average number of U.S. production and related workers producing subject sulfur dyes, hours worked,<sup>1</sup> wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs,<sup>2</sup> by types of firms and by products, 1989-91<sup>3</sup>

Item	1989		1990		1991	
	*	*	*	*	*	*

<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 \*\*\* percent of reported total U.S. shipments (based on quantity) in 1991.

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

Table D-7

Subject sulfur dyes and vat dyes: Certain salient data of U.S. producers (including U.S. solubilizers of sulfur dyes),<sup>1</sup> 1989-91

Item	1989		1990		1991	
	*	*	*	*	*	*

<sup>1</sup> Solubilizer shipments are removed from apparent consumption to avoid double counting, since the origin of all solubilizer sulfur dyes is from imported product.

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

**APPENDIX E**

**INCOME-AND-LOSS DATA AND VALUE ADDED  
ON U.S. SOLUBILIZATION OPERATIONS**

Table E-1

Income-and-loss experience of C.H. Patrick and Southern Dye on their U.S. operations solubilizing sulfur dyes and sulfur vat dyes, fiscal years 1989-91

Item	1989	1990	1991
	*	*	*

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

Table E-2

Income-and-loss experience of C.H. Patrick on its U.S. operations solubilizing sulfur dyes and sulfur vat dyes, fiscal years 1989-91

Item	1989	1990	1991
	*	*	*

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

Table E-3

Income-and-loss experience of Southern Dye on its U.S. operations solubilizing sulfur dyes and sulfur vat dyes, fiscal years 1989-91

Item	1989	1990	1991
	*	*	*

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

**APPENDIX F**

**INCOME-AND-LOSS DATA ON U.S. OPERATIONS PRODUCING  
VAT DYES (OTHER THAN SULFUR VAT DYES), DIRECT AND FIBER  
REACTIVE DYES, AND CERTAIN OTHER DYES**

U.S. producers of vat dyes (other than sulfur vat dyes), direct and fiber reactive dyes, and certain other dyes<sup>1</sup> were requested to provide income-and-loss data through operating income on each of those classes of dyes. These data are shown in tables F-1 through F-3. The data, combined with Sandoz's income-and-loss data, are summarized in the following tabulation (in 1,000 dollars except as noted):

<u>Item</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
*	*	*	*

The producers of vat dyes (excluding sulfur vat dyes), direct and/or fiber reactive dyes, and other dyes were also requested to provide data on capital expenditures. These data and Sandoz's capital expenditures for sulfur dyes and sulfur vat dyes are shown in the following tabulation (in 1,000 dollars):

<u>Item</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
*	*	*	*

Table F-1

Income-and-loss experience of U.S. producers<sup>1</sup> of vat dyes (excluding sulfur vat dyes) on those operations, fiscal years 1989-91

---

<u>Item</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
*	*	*	*

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<sup>1</sup> The producers are \*\*\*.

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

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<sup>1</sup> "Other" dyes, as defined in the Commission's questionnaires, included disperse dyes, acid dyes, mordant dyes, basic dyes, and fluorescent brightening agents.

**APPENDIX G**

**COMMENTS RECEIVED FROM U.S. PRODUCERS  
ON THE IMPACT OF IMPORTS OF SULFUR DYES AND SULFUR VAT DYES  
FROM CHINA, INDIA, AND THE UNITED KINGDOM  
ON THEIR GROWTH, INVESTMENT, ABILITY  
TO RAISE CAPITAL, AND DEVELOPMENT  
AND PRODUCTION EFFORTS**

COMMENTS RECEIVED FROM U.S. PRODUCERS ON THE IMPACT OF IMPORTS OF SULFUR DYES AND SULFUR VAT DYES FROM CHINA, INDIA, AND THE UNITED KINGDOM ON THEIR GROWTH, INVESTMENT, ABILITY TO RAISE CAPITAL, AND DEVELOPMENT AND PRODUCTION EFFORTS

The Commission requested Sandoz to describe and explain the actual and potential negative effects, if any, of imports of sulfur dyes and sulfur vat dyes from China, India, and the United Kingdom on its growth, investment, ability to raise capital, and development and production efforts (including efforts to develop a derivative or improved version of its product).

Actual Negative Effects

\* \* \* \* \*

Influence of Imports on Capital Investment

\* \* \* \* \*

The Commission also requested the solubilizers and U.S. producers of vat dyes (other than sulfur vat dyes), direct and/or fiber reactive dyes, and other dyes to describe and explain the actual negative effects, if any, of imports of sulfur dyes and sulfur vat dyes from China, India, and the United Kingdom on their growth, investment, ability to raise capital, and development and production efforts (including efforts to develop a derivative or improved version of its product).

\* \* \* \* \*