Slip Op. 03 - 60

UNITED STATES COURT OF INTERNATIONAL TRADE

DREXEL CHEMICAL COMPANY,	:	
Plaintiff,	:	
v.	:	**Before: MUSGRAVE, JUDGE**
THE UNITED STATES,	:	Court No. 98-02-00295-S
Defendant.	:	

[Plaintiff challenged Customs' determination that certain entries of Diuron Technical and Diuron 80-WP herbicides imported from Malaysia were not entitled to duty-free treatment because they did not qualify as products of a beneficiary developing country under the Generalized System of Preferences, 19 U.S.C. § 2463 (Supp. V 1993 & 1994). Trial was held to determine whether a dual substantial transformation took place in the manufacture of the subject merchandise enabling the value of chemicals imported into Malaysia to be included in considering whether 35 percent of the appraised value of the merchandise was derived from materials produced in Malaysia or processing operations performed in Malaysia. **Held:** The Court finds that a dual substantial transformation took place in the manufacture of Diuron Technical and Diuron 80-WP; thus the subject entries shall be reliquidated duty-free.]

Decided: June 5, 2003

Adduci, Mastriani & Schaumberg, L.L.P. (*V. James Adduci, II* and *Maureen F. Brown*) for Plaintiff.

Robert D. McCallum, Jr., Assistant Attorney General; *John J. Mahon*, Acting Attorney in Charge, International Trade Field Office, Commercial Litigation Branch, Civil Division, United States Department of Justice (*Saul Davis*) for Defendant.

OPINION

This action concerns the proper classification of certain entries of Diuron Technical and Diuron 80-WP herbicides imported from Malaysia between March 1993 and March 1994 by Plaintiff

Drexel Chemical Company ("Drexel"). The United States Customs Service, now organized as the Bureau of Customs and Border Protection, ("Customs") classified the entries of Diuron Technical under subheading 2924.21.1500 of the Harmonized Tariff Schedule of the United States ("HTSUS"), which specifies a duty rate of 13.5% *ad valorem*, and Diuron 80-WP under HTSUS subheading 3808.30.1000 which specifies a duty rate of $0.18/kg plus 9.7%. Drexel asserts that the Diuron Technical should have been classified under A2924.21.1500 and the Diuron 80-WP under A3808.30.1000, the "A" prefix indicating that the merchandise is eligible for duty-free entry pursuant to the Generalized System of Preferences ("GSP"), 19 U.S.C. § 2463 (Supp. V 1993 & 1994), as the product of a beneficiary developing country. Resolution of this dispute turns on whether chemicals imported into Malaysia and used in the production of the Diuron Technical and Diuron 80-WP underwent a dual substantial transformation. After trial on this issue, the Court finds that there was a dual substantial transformation and therefore holds that Customs erred in denying the subject merchandise duty-free treatment.

Standard of Review

The Court has jurisdiction over this action pursuant to 28 U.S.C. § 1581(a). Customs' classification decisions are reviewed *de novo*. *See Northwest Airlines, Inc. v. United States*, 22 CIT 797, 798, 17 F. Supp. 2d 1008, 1010 (1998). The factual determinations underlying classification decisions are afforded a presumption of correctness by 28 U.S.C. § 2639(a)(1) and the burden of proof is on the party challenging the classification. *Id*. Nevertheless, it is the Court's role to "consider whether the government's classification is correct, both independently and in comparison

with the importer's alternative." *Jarvis Clark Co. v. United States*, 733 F.2d 873, 878 (Fed. Cir. 1984).

Title 19, section 2463(b)(1) of the United States Code provides for duty-free treatment of

> any eligible article which is the growth, product, or manufacture of a beneficiary developing country if–
>
> (A) that article is imported directly from a beneficiary developing country into the customs territory of the United States; and
>
> (B) the sum of (i) the cost or value of the materials produced in the beneficiary developing country . . ., plus (ii) the direct costs of processing operations performed in such beneficiary developing country . . . is not less than 35 percent of the appraised value of such article at the time of its entry into the customs territory of the United States.

19 U.S.C. § 2463(b)(1) (Supp. V 1993 & 1994). The term "produced in the beneficiary developing country" is defined to mean that "the constituent materials of which the eligible article is composed . . . are either (1) [w]holly the growth, product, or manufacture of the beneficiary developing country; or (2) [s]ubstantially transformed in the beneficiary developing country into a new and different article of commerce. 19 C.F.R. § 10.177(a) (1993 & 1994). A substantial transformation occurs when material undergoes "a processing that results in a new article having a distinctive name, character, or use." *Torrington Co. v. United States*, 8 CIT 150, 154, 596 F. Supp. 1083, 1086 (1984), *aff'd* 764 F.2d 1563 (Fed. Cir. 1985). "All three of these elements need not be met before a court may find a substantial transformation." *SDI Technologies, Inc. v. United States*, 21 CIT 895, 897, 977 F. Supp. 1235, 1239 (1997) (citing *Koru North America v. United States*, 12 CIT 1120, 1126, 701 F. Supp. 229, 234 (1988), *aff'd* 155 F.3d 568 (Fed. Cir. 1998)).

Background

Drexel imports herbicides and similar products which it markets under its own label. Trial Record ("TR.") 29-30. Diuron and DCU[1] are common names for dichloro diphenyl dimethyl urea, TR. 136, which acts as an herbicide by inhibiting the Hill Reaction[2] in plants, TR. 114. Diuron Technical is used to formulate other herbicides such as Diuron 4-L and Diuron 80-WP. TR. 33-34. Diuron 80-WP is a dry, powdered herbicide that the end-user mixes and applies with a spray tank. TR. 34-35. The merchandise at issue was purchased from Ancom, a Malaysian company not affiliated with Drexel. TR. 35-36.

At trial, Dr. David Barnes, a chemist who was an official with Ancom during the relevant time period, testified as an expert regarding the production of the Diuron products. The first step in production involves the reaction of imported dichlorophenyl isocynate and dimethylamine along with solvents to produce DCU. TR. 115. This is performed by Polytensides, a separate unit of Ancom. TR. 118-119. The reaction time in this process lasts half an hour and it then takes six to seven hours to remove the solvents. TR. 115-116. Two workers are required to run the DCU production plant. TR. 129. After the reaction, the DCU, which is in a molten state, is drained into 3' by 3' stainless steel trays and allowed to cool overnight, forming a crystalline cake weighing 100 to 150 pounds. TR. 103, 116. After cooling, the cake is broken up and stored in drums at the Polytensides plant. TR. 118.

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[1] The terms "Diuron" and "DCU" are interchangeable. TR. 99. At trial, counsel and the witnesses referred to the initial product as DCU and the finished product as Diuron. To maintain clarity the Court adopts the same use of these terms in this Opinion.

[2] The Hill Reaction is the process through which plants synthesize carbohydrates in the form of sap. TR. 113-114.

When Ancom receives an order, it requisitions the DCU cake from Polytensides. TR. 119. The DCU cake is then put through a "sugar mill" to grind it into smaller particles to make it easier to handle. TR. 119-120, 132. During this initial grinding process silica and clay are added to the DCU to coat the surface of the particles and prevent them from agglomerating. TR. 120. Grinding would be impossible without the silica and clay. TR. 132. After this, the DCU is in a powder form. TR. 120. The powdered DCU is then placed in a ribbon blender and additional silica and clay are added until the mixture is 97.5 percent DCU. TR. 121. If Diuron 80-WP is being produced a dry surfactant is added during the blending in addition to the silica and clay. TR. 133. After blending, the mixture is air milled in an impact mill and run through a classifier whereby particles five microns or less in size are continuously taken off the top and larger particles fall to the bottom and are ground further until all the particles are five microns or less. TR. 122. This process takes eight to nine hours, TR. 134, and requires six to eight workers, TR. 134. The milling process is the final step in the production of Diuron Technical and Diuron 80-WP, and once this is complete the ground material is bagged and placed on pallets. TR. 133-134.

Arguments

In the present case, there is no dispute that the initial reaction of imported dichlorophenyl isocynate ("DCPI") and dimethylamine ("DMA") to produce the DCU cake was a substantial transformation. Def.'s Proposed Findings of Fact and Conclusions of Law Statement at 1. Nevertheless, since the DCPI and DMA were not from a beneficiary developing country, the DCU cake is not entitled to duty-free treatment under the GSP. *See Torrington*, 8 CIT at 153, 596 F. Supp.

at 1085-86. The issue is whether the subsequent air milling of the DCU into fine particles, five microns or less in size, effected a second substantial transformation, thus enabling the value of the DCU cake to be counted toward the requirement set forth in 19 U.S.C. § 2463(b)(1) that 35 percent of the appraised value of the merchandise be derived from materials produced or processing operations performed in the beneficiary developing country.

Drexel's argument that a second substantial transformation did occur is based on Dr. Barnes's testimony that, while the intrinsic structure of the Diuron molecule remained unchanged through the manufacturing process, TR. 136, the properties of the material underwent "enormous changes" which made it an herbicide, TR. 137. Dr. Barnes explained that the grinding process freed valance bonds, thus enabling the Diuron to adsorb to a plant leaf in large enough quantities in order to act as an herbicide. TR. 138-140. Dr. Barnes explained that adsorption is "a chemical phenomenon" involving Van der Waal forces which bond molecules together with ionic and hydrogen bonds. TR. 139. Diuron is very insoluble in water, so without this fine grinding, not enough of the Diuron could be taken into the plant leaf to inhibit the Hill Reaction and kill the plant. TR. 140. Drexel argues that this testimony shows that the final air milled Diuron Technical and Diuron 80-WP products have a different character than the DCU.

Drexel also argues that the DCU is a separate commercial product. At trial, Mr. Robert Shockey, the founder of Drexel and currently its vice-president of finance, testified that between March 1993 and March 1994, Drexel sold a form of DCU to Alpha Chemical for use as an accelerator in making fiberglass. TR. 36. Drexel entered into evidence an office memorandum describing a container of 98 percent Diuron without media being entered in September 1993, a

sample of which was acceptable to Alpha. Pl.'s Ex. 8 at 1. Mr. Shockey testified that 98 percent Diuron without media was "as close to the pure DCU as we can get it." TR. 38. This is consistent with Dr. Barnes testimony that the DCU cake is roughly ground in the "sugar mill" when it first comes to the Ancom plant to make it easier to handle and that a minimum amount of silica and clay have to be added to make the grinding possible. TR. 132. Mr. Shockey further testified that the DCU sold to Alpha was a special shipment with less clay and silica than the Diuron it regularly imported because Alpha was having trouble using the regular Diuron. TR. 38. Although the purchase order from Alpha, dated June 11, 1993, described the product as "Diuron Technical Grade 97% same as sample send to us from lot," Pl.'s Ex. 8 at 6, Mr. Shockey explained that because of Drexel's prior dealings with Alpha they knew to supply it with the 98 percent Diuron without media (*i.e.* without clay and silica). Mr. Shockey speculated that Alpha had described the material incorrectly as Diuron Technical because it did not know what to call it otherwise. TR. 39. In addition to Mr. Shockey's testimony, Dr. Barnes testified that Ancom had sold DCU for use in paint manufacturing and for use in the water treatment industry. TR. 142-143.

Customs argues that there is not a second substantial transformation in the production of the Diuron products at issue, but that the DCU cake is merely an intermediate product. Customs places great emphasis on the fact that the grinding processes do not change the structure of the Diuron molecule, which is present in the initial DCU cake, and argues that this molecule is the essence of Diuron Technical and Diuron 80-WP because it is the component which inhibits the Hill Reaction. Although the grinding process enhances the ability of this molecule to act as an herbicide, it does not "change the intrinsic or inherent properties of the Diuron in the cake form." Def.'s Proposed

Findings of Fact and Conclusions of Law Statement at 10.

Customs also argues that the DCU Drexel sold to Alpha was different from both the DCU cake produced at the Polytensides plant and the Diuron Technical and Diuron 80-WP at issue in this case because the product sold to Alpha was described as a fluffy powder but with very little clay or silica added. *Id*. at 6. Customs notes that the DCU cake was a solid rather than a powder, and the Diuron Technical and 80-WP had greater amounts of clay and silica added. *Id*. Customs also notes that Dr. Barnes testified that Ancom sold roughly ground DCU, not DCU cake, to the paint manufacturer and that the DCU that was sold was to be further ground with the paint pigment, similar to the grinding with clay and silica performed by Ancom, and would ultimately act as an algaecide and fungicide in the paint. *Id*. at 12.

Analysis

Prior decisions by this court in *Torrington Co. v. United States*, 8 CIT 150, 596 F. Supp. 1083 (1984), *aff'd* 764 F.2d 1563 (Fed. Cir. 1985), *Azteca Milling Co. v. United States*, 12 CIT 1153, 703 F. Supp. 949 (1988), *aff'd* 890 F.2d 1150 (Fed. Cir. 1989), and *Zuniga v. United States*, 16 CIT 459 (1992), *aff'd* 996 F.2d 1203 (Fed. Cir. 1993), are relevant to the present action. In *Torrington* the court held that there was a dual substantial transformation where wire from a non-beneficiary developing country was processed first into sewing machine needle blanks and then into finished needles in Portugal. 8 CIT at 154, 596 F. Supp. at 1086. The court found that the character of the wire changed in its processing into the needle blanks, noting that it "has been cut to a specific length, beveled to meet specifications, and its circumference has been altered." *Id.* The court also found

that the needle blanks were a "new and different article of commerce" based on two sales of the needle blanks by the plaintiff to a related company and instances where other companies imported similar merchandise. Furthermore, the court found that a second substantial transformation took place when the needle blanks were processed into industrial sewing machine needles by having an eye pressed into them, being mill flashed to remove excess material around the eye, and having a point placed on the needle along with identifying information regarding the size, type, and brand. 8 CIT at 155, 596 F. Supp. at 1087.

In *Azteca* the plaintiff alleged that three distinct intermediate products were formed during the production of tortilla and taco shell flour in Mexico. 12 CIT at 1156, 703 F. Supp. at 951. First, corn from the United States was cooked to form a product called nixtamal, which was then ground to form a second product called masa. The masa was then dried to form a third product referred to as tamale flour, which was finally sifted to form the tortilla and taco shell flour. The court found that

> [t]he products resulting at certain steps in plaintiff's patented process may be more refined than the constituent material of corn, but, nevertheless, are clearly recognizable as processed corn . . . . each product has not "lost the identifying characteristics of its constituent material."

12 CIT at 1158-59, 703 F. Supp. at 953 (quoting *Torrington Co. v. United States*, 764 F.2d 1563, 1569 (Fed. Cir. 1985)). Significantly, the court also found that the products formed at each stage of the production process were not "distinct 'articles of commerce'" because the plaintiff had not shown any commercial transactions or a market for them. Thus the court held that there had not been a dual substantial transformation. 12 CIT at 1159, 703 F. Supp. at 954.

Similarly, in *Zuniga* the plaintiff alleged that kiln furniture manufactured in Mexico was

entitled to duty free treatment because the raw materials imported from the United States were substantially transformed into three intermediate products during the course of production. *Id*. at 459-60. The court rejected the plaintiff's arguments, finding that the first alleged product, "castable," was never created in the manufacture of the goods at issue and that its functional equivalent was neither commercially recognized nor susceptible of trade. *Id*. at 464. The court found that the second alleged product, "casting slip," was not a new and different article of commerce, holding that "the simple addition of water and dispersing agents did not cause the casting slip to lose the "identifying characteristics" of its components." *Id*. at 465 (quoting *Azteca v. United States*, 890 F.2d 1150 (Fed. Cir. 1989)). Moreover, the court found testimony by the plaintiff's President and Chief Executive Office that he had denied one inquiry to sell casting slip insufficient evidence that this product was an article of commerce. The court was equally unimpressed with the plaintiff's argument that the casting slip was readily susceptible of trade based on testimony that competitors could derive the plaintiff's confidential formula from the slip and testimony that the casting slip was not saleable because it did not remain in suspension and could not be sold at a competitive price. *Id*. at 465-66. Finally, the court found that the plaintiff failed to produce evidence that the third alleged product, "greenware," lost the identifying characteristics of its component ingredients or that it had a different character or use, *id*. at 467 (citation omitted), and also failed to prove that it was a new article of commerce in light of unrebutted testimony that commercially sold greenware had a different formulation, *id*.

In the present action the Court finds the processing of the DCU into the Diuron Technical and 80-WP similar to the processing of the needle blanks into the finished needles in *Torrington*.

Customs argues that the present case is more analogous to *Azteca* and *Zuniga* in that the identifying characteristic, namely the Diuron molecule, is equally present in the DCU cake and the final products. Nevertheless, the Court finds that in this instance the final product has gained new identifying characteristics in addition to the diuron molecule. The Court finds that the air milling process causes not only a physical change in the size of the particle, but also a chemical change as valance bonds are freed, enabling the Diuron molecule to adsorb to a plant leaf. TR. 138-139. Moreover, while the Diuron molecule is equally present both before and after the air milling process, the DCU "is useless as a herbicide," but "[t]he final product that comes out is a herbicide." TR. 137. Based on these findings, the Court concludes that there was a change in the character of the DCU in its processing into Diuron Technical and Diuron 80-WP.

The Court also finds that Drexel has demonstrated that the DCU is an article of commerce through the testimony regarding the sales by Drexel to Alpha and Ancom to the paint manufacturer. Although Customs makes much of the fact that the DCU that was sold in these transactions was not in cake form, but had been roughly ground in the "sugar milling" process, the Court is not persuaded that this matters. Drexel has argued that it is the air milling process, by which the DCU is reduced to particles five microns or less in size, that transforms the DCU into an herbicide. Indeed, Dr. Barnes testified on cross-examination that prior to the time the DCU is air milled and run through the classifier it is not a different article of commerce from the original cake form. TR. 171-172. While Customs also contends that the ultimate use of the DCU in paint manufacturing is to be ground with the pigment and thereby impart its herbicidal properties to the finished paint, the Court finds this immaterial. The needle blanks that were sold in *Torrington* were likewise destined to be

finished into needles, but they were found to be separate articles of commerce with a different character from the finished needles. 8 CIT at 154, 596 F. Supp. at 1087. Thus even if "sugar milled" DCU is ultimately sold to a manufacturer for further processing and ultimate use as an herbicide, it is nevertheless an article of commerce with a different character than the finished product.

Finally, the *Torrington* court noted that "the GSP was enacted to promote 'economic diversification, and export development' in less developed countries." 8 CIT at 156, 596 F. Supp. at 1087 (quoting S. Rep. No. 1298, 93d Cong., 2d Sess. 4, *reprinted in* 1974 U.S.C.C.A.N.7186, 7187). Based on the technical nature of the manufacturing operations performed by Polytensides and Ancom in Malaysia and the value of the machinery required, which was at least 1.5 million dollars, *see* TR. 130 and 134, the Court finds that the goals of the GSP have been satisfied in this instance.

Conclusion

Taking the record as a whole, upon consideration of the testimony of the witnesses called at trial, the arguments made by counsel during trial, and the papers submitted post-trial, the Court finds that a dual substantial transformation occurred in the manufacture of Diuron Technical and Diuron 80-WP. Customs shall therefore reliquidate the entries at issue duty-free under HTSUS subheading A2924.21.1500 or A3808.30.1000.

R. KENTON MUSGRAVE, JUDGE

Dated: June 5, 2003
New York, New York