

Ottawa, Thursday, April 13, 2000

Appeal No. AP-99-010

IN THE MATTER OF an appeal heard on November 23, 1999,
under section 67 of the *Customs Act*, R.S.C. 1985 (2d Supp.) c. 1;

AND IN THE MATTER OF decisions of the Deputy Minister of
National Revenue dated January 20 and April 7, 1999, with
respect to requests for re-determination under sections 63 and 60,
respectively, of the *Customs Act*.

BETWEEN

PHOSYN PLC

Appellant

AND

THE DEPUTY MINISTER OF NATIONAL REVENUE

Respondent

DECISION OF THE TRIBUNAL

The appeal is allowed.

Pierre Gosselin
Pierre Gosselin
Presiding Member

Raynald Guay
Raynald Guay
Member

Zdenek Kvarda
Zdenek Kvarda
Member

Susanne Grimes
Susanne Grimes
Acting Secretary

UNOFFICIAL SUMMARY

Appeal No. AP-99-010

PHOSYN PLC

Appellant

and

THE DEPUTY MINISTER OF NATIONAL REVENUE

Respondent

This is an appeal pursuant to section 67 of the *Customs Act* from decisions of the Deputy Minister of National Revenue (now the Commissioner of the Canada Customs and Revenue Agency) dated January 20 and April 7, 1999. The goods in issue are micronutrient fertilizers, for use in the agricultural industry, that are marketed under the brand names Mancozin, Coptrel 500, Mantrac 500, Zintrac 700 and Bortrac 150. The issue in this appeal is whether the goods in issue are properly classified under tariff item No. 3824.90.90 as other chemical preparations, as determined by the respondent, or should be classified under tariff item No. 3105.10.00 as fertilizers in packages of a gross weight not exceeding 10 kg and under tariff item No. 3105.90.00 as other fertilizers, as claimed by the appellant.

HELD: The appeal is allowed. The Tribunal must classify the goods in issue according to Rule 1 of the *General Rules for the Interpretation of the Harmonized System* and must determine their classification according to the terms of the headings and any relative Section or Chapter Notes. The Tribunal is of the view that the evidence demonstrates that the goods in issue are fertilizers, as that term is used in heading No. 31.05. In applying Note 6 to Chapter 31, the Tribunal is also of the view that, based on the evidence, the goods in issue are used as fertilizers and that they contain, as an essential constituent, a fertilizing element, nitrogen, in the form of urea or ethanolamine. The Tribunal finds, therefore, that the goods in issue should be classified under tariff item No. 3105.10.00 as fertilizers in packages of a gross weight not exceeding 10 kg and under tariff item No. 3105.90.00 as other fertilizers.

Place of Hearing: Ottawa, Ontario

Date of Hearing: November 23, 1999

Date of Decision: April 13, 2000

Tribunal Members: Pierre Gosselin, Presiding Member
Raynald Guay, Member
Zdenek Kvarda, Member

Counsel for the Tribunal: Marie-France Dagenais

Clerk of the Tribunal: Anne Turcotte

Appearances: Gregory O. Somers and Benjamin P. Bedard, for the appellant
Michael Roach, for the respondent

Appeal No. AP-99-010

PHOSYN PLC

Appellant

and

THE DEPUTY MINISTER OF NATIONAL REVENUE

Respondent

TRIBUNAL: PIERRE GOSSELIN, Presiding Member
RAYNALD GUAY, Member
ZDENEK KVARDA, Member

REASONS FOR DECISION

INTRODUCTION

This is an appeal pursuant to section 67 of the *Customs Act*¹ from decisions of the Deputy Minister of National Revenue (now the Commissioner of the Canada Customs and Revenue Agency) dated January 20 and April 7, 1999, made under sections 63 and 60, respectively, of the Act. The goods in issue are micronutrient fertilizers, for use in the agricultural industry, that are marketed under the brand names Mancozin, Coptrel 500, Mantrac 500, Zintrac 700 and Bortrac 150. The issue in this appeal is whether the goods in issue are properly classified under tariff item No. 3824.90.90 of Schedule I to the *Customs Tariff*² as other chemical preparations, as determined by the respondent, or should be classified under tariff item No. 3105.10.00 as fertilizers in packages of a gross weight not exceeding 10 kg and under tariff item No. 3105.90.00 as other fertilizers, as claimed by the appellant.

The tariff nomenclature relevant to the issue in this appeal is as follows:

- 31.05 Mineral or chemical fertilizers containing two or three of the fertilizing elements nitrogen, phosphorus and potassium; other fertilizers; goods of this Chapter in tablets or similar forms or in packages of a gross weight not exceeding 10 kg.
- 3105.10.00 -Goods of this Chapter in tablets or similar forms or in packages of a gross weight not exceeding 10 kg.
- 3105.90.00 -Other
- 38.24 Prepared binders for foundry moulds and cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included; residual products of the chemical or allied industries, not elsewhere specified or included.
- 3824.90 -Other
- 3824.90.90 ---Other

EVIDENCE

Dr. Kevin Moran, Technical Director, Phosyn plc, gave evidence on the appellant's behalf. Dr. Moran was qualified by the Tribunal as an expert in fertilizer production and design, agronomy and

1. R.S.C. 1985 (2d Supp.), c. 1 [hereinafter Act].
2. R.S.C. 1985 (3d Supp.), c. 41.

chemistry. Dr. Moran described the goods in issue as micronutrients, for use in the agricultural industry, which were designed to be mixed with water and sprayed onto the foliage of crops to correct micronutrient deficiencies. He testified that the products, commercially known as Coptrel 500, Mancozin, Mantrac 500 and Zintrac 700, are liquid suspension concentrates containing nitrogen in the form of urea. Dr. Moran described the role of urea in those four products. He testified that urea is used because it is an antifreeze and increases permeability, enhances the foliar absorption of micronutrients and improves the nitrogen content of leaves. Dr. Moran also described the composition of Bortrac 150, a concentrated liquid solution containing ethanalamine, as a fundamental organic nitrogen compound. He stated that ethanalamine is an essential constituent and that the product would simply not be able to deliver the high concentration of liquid boron contained in the solution if the nitrogen were removed. He further explained that the role of ethanalamine in Bortrac 150 is to provide nitrogen to the crops.

Dr. Moran testified that, in his opinion, there is absorption of organic material through the surface of leaves and that there is value in the foliar application of nitrogenous fertilizers. He made reference to scientific literature that supports his views.³ Finally, Dr. Moran indicated that the goods in issue are classified as fertilizers in heading No. 31.05 in all the countries to which the appellant exports its products.

In cross-examination, Dr. Moran acknowledged that the goods in issue are fundamentally designed to correct specific deficiencies in micronutrients for plants and are not recommended as a treatment for nitrogen deficiency, as they only supply a small percentage of nitrogen. Dr. Moran also acknowledged that there is no mention of the nitrogen content on the labels of the products in issue and that there is no reference to nitrogen on the technical data sheets produced by the appellant. He further stated that the goods in issue do not, nor are they intended to, supply the total nitrogen requirements of the plant and are not sold as nitrogen fertilizers.

Ms. Darlene Blair, Acting National Manager, Fertilizer Section, Canadian Food Inspection Agency (the Agency), gave evidence on the respondent's behalf. Ms. Blair was qualified by the Tribunal as an expert in the composition, efficacy, use and regulation of fertilizers in Canada. Ms. Blair describes urea as the most common fertilizer source of nitrogen in Canada. She stated that the amount of nitrogen supplied by the goods in issue is negligible compared to the nitrogen requirements of plants and that the goods in issue do not have any positive fertilizing effect on the crop. She testified that the Agency does not accept, as a general practice, the foliar application of nitrogenous fertilizers. She further testified that, in her opinion, the foliar application of major plant nutrients has no effect on crop yield or quality, but admitted that the Agency had never done an in-depth scientific review of urea as a penetrating agent.

Ms. Blair described the role of the Agency and the registration process of products under the *Fertilizers Act*.⁴ She explained that the Agency registers three types of product, namely, micronutrient fertilizers, fertilizer-pesticide combinations and most supplements, but does not register fertilizers that contain micronutrients in combination with a major plant nutrient such as nitrogen. She testified that the Agency requires that fertilizers contain 24 percent of major plant nutrients combined in order to be acceptable for sale and labelled as nitrogenous fertilizers. She stated that the goods in issue are registered under the *Fertilizers Act* as micronutrient fertilizers that contain no nitrogen, phosphorus or potassium, as

3. W. Franke, "Mechanisms of Foliar Penetration of Solutions" (1966), 18 *Annual Review of Plant Physiology* at 281-95; B.N. Mathur, N.K. Agrawal and V.S. Singh, "Effect of Soil Versus Foliar Application of Urea on the Yield of American Cotton Variety '320F'" (1967), 38 *Indian Journal of Agricultural Science* at 811-15; and Kyung-Ku Shim, J.S. Titus and W.E. Splittstoesser, "The Utilization of Post-harvest Urea Sprays by Senescing Apple Leaves" (1972), 97 *J. Amer. Soc. Hort. Sci.* at 592-96.

4. R.S.C. 1985, c. F-10.

their nitrogen content does not meet the 24 percent minimum. She further stated that urea is considered by the Agency as a formulant, a secondary element to the active ingredient of a product which supplies the guaranteed constituents to the plant. She testified that the Agency does not require the presence of urea as a formulant in fertilizers. She also testified that the presence of urea as an antifreeze in the goods in issue is not required by the Agency and that some fertilizers do not contain an antifreeze agent or use other antifreeze agents. She stated that, even if urea were not present in the goods in issue, they would still be registered as micronutrient fertilizers and, in her opinion, would still be effective. Finally, with respect to Bortrac 150, she testified that the fertilizer value of ethanalamine has not been definitively established in the scientific literature and that not every micronutrient fertilizer that supplies boron contains ethanalamine.

In cross-examination, Ms. Blair acknowledged that, in some special circumstances, the foliar application of nitrogen might be an appropriate practice. She further acknowledged that the minimum percentage requirement for nitrogen content in nitrogenous fertilizers prescribed by the Agency's regulations is being reviewed.

ARGUMENT

The appellant submitted that the goods in issue are fertilizers and are classified as such in international trade. It submitted that each of the goods in issue is classified as a fertilizer in over 30 jurisdictions to which the appellant ships those products, but not in Canada.

The appellant submitted that the goods in issue should be classified in accordance with Rule 1 of the *General Rules for the Interpretation of the Harmonized System*,⁵ which provides that classification be based on the terms of the heading. It submitted that the goods in issue should be classified in Chapter 31 of Schedule I to the *Customs Tariff*, which is entitled "Fertilizers". It further submitted that heading No. 31.05 clearly provides a more accurate and more specific description of the goods in issue. The appellant also referred to Note 6 to Chapter 31, which reads as follows:

For the purpose of heading No. 31.05, the term "other fertilizers" applies only to products of a kind used as fertilizers and containing, as an essential constituent, at least one of the fertilizing elements nitrogen, phosphorus or potassium.

The appellant argued that Note 6 to Chapter 31 sets out two tests: the first is whether the product is used as a fertilizer; and the second is whether it contains as an essential constituent at least one of the fertilizing elements, namely, nitrogen, phosphorus or potassium. It submitted that there is uncontradicted evidence before the Tribunal that the goods in issue are used as fertilizers to supply plant nutrients by presenting nutritionally necessary elements to plants in a physically and chemically available form and, thus, meet the definition of the term "fertilizer" found in Appendix A of Memorandum D19-1-1.⁶ It further submitted that the goods in issue are labelled and sold as fertilizers. It also argued that the goods in issue contain nitrogen, as an essential constituent, in the form of either urea or ethanalamine. The appellant argued that nitrogen is essential to the nature and functioning of these products.

The appellant submitted that nitrogen plays three important roles in the goods in issue. In Mancozin, Coptrel 500, Mantrac 500 and Zintrac 700, the nitrogen component in the form of urea acts as an antifreeze, promotes greater absorption of the metal micronutrient and is actually absorbed by the plant to contribute to the plant's nitrogen needs. The appellant argued that Note 6 to Chapter 31 does not require that a fertilizer containing nitrogen, phosphorus or potassium satisfy a plant's total requirement for these elements. The

5. *Supra* note 2, Schedule I [hereinafter General Rules].

6. (29 August 1997), "Agricultural and Food Products".

goods in issue are intended to correct deficiencies, not to act as bulk fertilizers, and nothing in Note 6 precludes them from playing that role. It further argued that removing the nitrogen in the goods in issue would result in an entirely different product. The appellant submitted that the evidence filed by both parties unanimously endorsed the foliar application of nitrogen as beneficial to the plants.

The appellant argued that Rule 3 of the General Rules, which provides, in part, that composite goods consisting of different materials shall be classified as if they consisted of the material which gives them their essential character, should not be applied in the present circumstances, since the goods in issue are not merely a mixture of different substances. It argued that the nitrogen in the goods in issue is an essential constituent insofar as it assists in the absorption of the micronutrients and that micronutrients and nitrogen work together, not merely cumulatively. The appellant further argued that the only evidence before the Tribunal is on the beneficial aspects and the important functions of nitrogen and its role as an essential constituent of the goods in issue.

Finally, the appellant submitted that laboratory report of the Department of National Revenue (now Canada Customs and Revenue Agency) shows that the goods in issue do contain nitrogen in the form of urea or ethanolamine and that the Agency's considerations are completely irrelevant to tariff classification.

The respondent argued that the goods in issue cannot be classified as "other fertilizers" in heading No. 31.05, as they do not meet the requirements found in Note 6 to Chapter 31. He argued that it is useful to see how the goods in issue are registered under the *Fertilizers Act*. He submitted that the goods in issue are considered specialty fertilizers under section 2 of the *Fertilizers Regulations*⁷ and are defined as fertilizers that do not contain any major plant nutrients and do contain lesser plant nutrients other than calcium, magnesium and sulphur. He also submitted that a major plant nutrient is further defined in the *Fertilizers Regulations* to mean nitrogen, phosphorus or potassium.

The respondent argued that Note 6 to Chapter 31 contemplates that the main purpose of fertilizers is to deliver one of the three major named nutrients, namely, nitrogen, phosphorus or potassium, and that fertilizers which deliver micronutrients, such as the goods in issue, are not covered by Note 6. He also argued that products with incidental amounts of these major nutrients are simply not covered by this note. He submitted that it is clear from the evidence that the goods in issue are used to supply micronutrients and to correct specific micronutrient deficiencies. He also submitted that the product labels and the appellant's technical data sheets do not refer to any nitrogen content.

The respondent submitted that the only nitrogen present in the goods in issue is urea and that the urea is not an essential constituent of the goods in issue. He made reference to different dictionary definitions of the terms "essential" and "constituent".⁸ He argued that, in summary, "essential" refers to something that is absolutely necessary or fundamental and that "constituent" refers to something that is an essential part or component of the system or a group. He submitted that, to determine whether urea is an essential constituent of the goods in issue, the Tribunal has to look at its functions, which are to act as an antifreeze agent, to speed up absorption and to supply nitrogen. He argued that, while it is true that urea is an antifreeze agent, the goods in issue would still be able to function and deliver micronutrients in the absence of urea. With respect to the accelerated absorption of micronutrients in the presence of urea, he argued that, if this theory is accepted, there are other formulas that could speed up absorption, such as glycol, and that micronutrients could still be absorbed without urea. He also argued that, while it is true that urea supplies

7. C.R.C., c. 666, s. 6 (1978).

8. *The Concise Oxford Dictionary* and *McGraw-Hill Dictionary of Scientific and Technical Terms*, s.v. "essential" and "constituent".

nitrogen to the plants, its contribution is so negligible that the presence of urea in the goods in issue is not essential. Finally, with respect to Bortrac 150, he argued that Ms. Blair's evidence indicated that the fertilizer value of ethanolamine has not been definitively established in the scientific literature and that not every micronutrient fertilizer that supplies boron contains ethanolamine.

The respondent submitted that the micronutrient content is the essential constituent of the goods in issue, since these products could not be sold without their micronutrient content. He made reference to the Tribunal's decisions in *Bernard Monastesse v. DMNR*⁹ and *Fleetguard International v. DMNRCE*¹⁰ where the Tribunal held that the term "essential" means that a product would not be able to function without the accessory, part or element in issue. In the present instance, he argued that the goods in issue could continue to function without urea. Finally, he argued that, since the goods in issue could not be classified in heading No. 31.05, they were properly classified as "chemical preparations" in heading No. 38.24.

DECISION

Section 10 of the *Customs Tariff* provides that the classification of imported goods under a tariff item shall be determined in accordance with the *General Rules* and the *Canadian Rules*.¹¹ Section 11 of the *Customs Tariff* provides that, in interpreting the headings and subheadings in Schedule I, regard shall be had to the *Compendium of Classification Opinions to the Harmonized Commodity Description and Coding System*¹² and the *Explanatory Notes to the Harmonized Commodity Description and Coding System*.¹³

The General Rules are structured in cascading form. If the classification of an article cannot be determined in accordance with Rule 1, then regard must be had to Rule 2, etc. Rule 1 provides the following:

The titles of Sections, Chapters and sub-Chapters are provided for ease of reference only; for legal purposes, classification shall be determined according to the terms of the headings and any relative Section or Chapter Notes and, provided such headings or Notes do not otherwise require, according to the [subsequent rules].

The competing headings in this appeal are as follows:

- 31.05 Mineral or chemical fertilizers containing two or three of the fertilizing elements nitrogen, phosphorus and potassium; other fertilizers; goods of this Chapter in tablets or similar forms or in packages of a gross weight not exceeding 10 kg.
- 38.24 Prepared binders for foundry moulds or cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included; residual products of the chemical or allied industries, not elsewhere specified or included.

Rule 1 of the General Rules provides that classification shall be determined according to the terms of the headings. The starting point in classifying the goods in issue is to consider the terms of heading Nos. 38.24 and 31.05 and any relative Chapter Notes and the Explanatory Notes, which may provide some guidance as to the appropriate interpretation of the terms of those headings.

9. (27 October 1995), AP-94-195.

10. (25 August 1992), AP-90-121.

11. *Supra* note 2, Schedule I.

12. Customs Co-operation Council, 1st ed. Brussels, 1987.

13. Customs Co-operation Council, 2d ed., Brussels, 1996 [hereinafter Explanatory Notes].

Heading No. 38.24 covers miscellaneous chemical products, while heading No. 31.05 deals specifically with fertilizers. The Tribunal notes that Chapter 31 is more closely related to the goods in issue, as it refers specifically to “fertilizers”. In the Tribunal’s view, the terminology used to explain which goods are covered by Chapter 38 seems to demonstrate that this chapter is a residual chapter dealing with chemical mixtures that cannot be classified elsewhere.

The Tribunal also looked at the term “fertilizer” defined in Memorandum D19-1-1, which provides as follows:

Any substance or mixture of substances containing nitrogen, phosphorus, potassium, or other plant food manufactured, sold, or represented for use as a plant nutrient, for example processed or unprocessed manure, micro nutrients, and fertilizer-pesticides.

It is the Tribunal’s view that, to be considered a “fertilizer” pursuant to this definition, the goods in issue must meet three tests, which can be summarized as follows:

- (a) they must be mixtures of substances containing nitrogen, phosphorus, potassium or other plant food;
- (b) they must be manufactured, sold or represented for use as plant nutrients; and
- (c) they must be, for example, micronutrients.

The Tribunal notes that the goods in issue are mixtures of substances containing nitrogen, often referred to as micronutrient fertilizers. The Tribunal acknowledges that the goods in issue are labelled, marketed and sold as fertilizers by the appellant, a company specialized in the manufacture of fertilizers. The Tribunal also notes that the goods in issue are used as plant nutrients and that the Agency has registered these goods as fertilizers and allowed them to be labelled as such. Accordingly, the Tribunal is of the opinion that the goods meet the tests prescribed by the definition in Memorandum D19-1-1 and, thus, qualify for the appellation “fertilizers”.

It is also the Tribunal’s view that the goods in issue are fertilizers, as that term is used in heading No. 31.05. The Tribunal comes to that conclusion after reviewing Note 6 to Chapter 31.

The Tribunal agrees with the appellant that Note 6 to Chapter 31 sets out two tests. The tests foreseen by Note 6 are that the products must be used as fertilizers and must contain, as an essential constituent, as least one of the fertilizing elements, namely, nitrogen, phosphorus or potassium. The Tribunal is satisfied, based on the evidence presented, that the goods in issue are fertilizers and that they contain at least one of the fertilizing elements.

Having reached these conclusions, the Tribunal must further determine whether the nitrogen contained in the goods in issue is an essential constituent of these products. The Tribunal notes that Note 6 requires that fertilizers contain, as an essential constituent, at least one of the fertilizing elements. This note does not prescribe minimum value in terms of the content of the fertilizing element nor does it prescribe any specific function for the fertilizing element beyond the fact that it has to be essential to the product. The Tribunal accepts the evidence that nitrogen, present in four of the five goods in issue in the form of urea, plays an important role in the goods in issue because of its multiple functions. First, there is uncontradicted evidence that urea acts as an antifreeze to lower the freezing point of the fertilizer and, thus, allows the fertilizer to be more easily stored at ambient temperatures in Canada. While it is true that other compounds, such as glycol, could perform the same function, it is clear, in the Tribunal’s view, that urea was chosen because of its non-toxicity. With respect to the accelerated absorption of micronutrients in the presence of urea, the Tribunal acknowledges the scientific papers and the appellant’s own tests filed by Dr. Moran,

which demonstrate that the presence of urea increased absorptive capacity, and concludes that the presence of nitrogen in the form of urea is essential to the success of the goods in issue. Finally, the Tribunal is persuaded by the evidence that urea does contribute to the nitrogenous requirements of the plants. The Tribunal notes that, while it is clear that the Agency does not advocate the foliar application of nitrogenous fertilizers as a method of meeting the essential nitrogenous requirements of plants, it did acknowledge the evidence that nitrogen could be absorbed through leaves. Given this, it is the Tribunal's view that urea is an essential constituent to the function of these products.

With respect to Bortrac 150, the respondent's evidence was that the fertilizer value of ethanolamine has not been definitively established in the scientific literature and that not every micronutrient fertilizer that supplies boron contains ethanolamine. However, it is clear that, similarly to the other goods in issue, ethanolamine is an antifreeze and contributes to the plant's nitrogen needs. Given this, the Tribunal concludes that Bortrac 150 should be treated exactly like the other goods in issue.

The Tribunal is persuaded that the combination of the effects of urea or ethanolamine gives the goods in issue their distinct nature and allows the producers to use and market them as fertilizers. The Tribunal is also persuaded that the goods in issue contain nitrogen, a fertilizing element, in the form of urea or ethanolamine, and that this component is essential to the success of these products. Accordingly, the goods in issue, commercially known as Mancozin, Coptrel 500, Mantrac 500, Zintrac 700 and Bortrac 150, should be classified under tariff item No. 3105.10.00 as fertilizers in packages of a gross weight not exceeding 10 kg and under tariff item No. 3105.90.00 as other fertilizers.

For the foregoing reasons, the appeal is allowed.

Pierre Gosselin
Pierre Gosselin
Presiding Member

Raynald Guay
Raynald Guay
Member

Zdenek Kvarda
Zdenek Kvarda
Member