



HARMONIZED SYSTEM
COMMITTEE

NC0790E1

-
32nd Session

O. Eng.

Brussels, 23 October 2003.

CLASSIFICATION OF A PRODUCT BY THE NAME OF "YTTRIA C"

(Item VI.9 on Agenda)

Reference documents :

NC0724E1 (HSC/31)
NC0730E2, Annex IJ/10 (HSC/31 – Report)

NC0760E1 (HSC/32)

I. BACKGROUND

1. After the preparation of Doc. NC0760E1, on 16 October 2003, the Secretariat received the following note from the **US** Administration regarding the classification of a product by the name "**Yttria C**". The note is reproduced below. The Secretariat has numbered the paragraphs with a view to facilitating discussion.

II. NOTE BY THE **US** ADMINISTRATION

"Introduction

2. At its 31st Session, the Harmonized System Committee held an initial discussion on the classification of this product. The Committee decided to continue its examination at its next session. It was agreed that the Committee would decide at that time whether the matter should be referred to the Scientific Sub-Committee.
3. The classification of "**Yttria C**" represents a disagreement between the **United States** and the **European Community**. Consultations between the parties have not led to a mutually satisfactory resolution of the issue. The **United States** considers that "**Yttria C**" should be classified as yttrium oxide (yttria) in heading 28.46.
4. In this instance the **United States** urges that the Committee avail itself of the expertise of the Scientific Sub-Committee by referring the matter there before deciding on the classification of "**Yttria C**". The Scientific Sub-Committee is the appropriate body to examine the technical data pertaining to this product.

Note : Shaded parts will be removed when documents are placed on the WCO documentation database available to the public.

File No. 2981

Description of the Merchandise

5. "Yttria C" is an yttrium oxide product, presented in powder form, that is used as a metal casting refractory. It is a large particle yttrium oxide manufactured by sintering with a small amount of vanadium pentoxide. The sintering process results in a product of increased particle size. Such increase in size is considered a desirable property in connection with refractory applications of yttrium oxide. After sintering "Yttria C" contains approximately 0.3 % vanadium pentoxide. Accordingly, the product is 99.7 % pure yttrium oxide. We note that another method of producing large particle yttrium oxide is by fusing the yttrium oxide and grinding it to the desired particle size. The product produced in this manner is 100 % yttrium oxide and is used in the same refractory applications as "Yttria C".

Classification

6. The competing HS headings are :

- 28.46 Compounds, inorganic or organic, of rare-earth metals, of yttrium or of scandium, or of mixtures of these metals; and
- 38.24 Prepared binders for foundry molds 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.

7. As aptly stated by the Secretariat in Doc. NC0724E1, paragraph 20, the first question to be considered is whether the small, trace amounts of vanadium pentoxide identified in the "Yttria C" product are acceptable impurities that result from manufacturing, in which case classification in heading 28.46 would be appropriate, or whether the "Yttria C" is a mixture of chemical compounds specifically prepared with a particular use in mind, in which case classification would be directed to heading 38.24.

8. Section Note 1(b) to Section VI provides as follows : "Subject to paragraph (a) above, goods answering to a description in heading 28.43 or 28.46 are to be classified in those headings and in no other heading of this Section." Chapter Note 1 (a) to chapter 28 states, in pertinent part, "[E]xcept where the context otherwise requires, the headings of this Chapter apply only to : (a) [S]eparate chemical elements and separate chemically defined compounds, whether or not containing impurities, . . .".

9. By way of guidance, the Explanatory Note to Chapter Note 1 to Chapter 28 states, in pertinent part, that :

The term "impurities" applies exclusively to substances whose presence in the single chemical compound results solely and directly from the manufacturing process (including purification). The substances may result from any of the factors involved in the process and are principally the following :

- (a) Unconverted starting materials.
- (b) Impurities present in the starting materials.
- (c) Reagents used in the manufacturing process (including purification).
- (d) By-products.

It should be noted, however, that such substances are not in all cases regarded as “impurities” permitted under Note 1 (a). When such substances are deliberately left in the product with a view to rendering it particularly suitable for specific use rather than for general use, they are not regarded as permissible impurities.

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(C) Products which remain classified in Chapter 28, even when they are not separate chemical elements nor separate chemically defined compounds.

There are certain exceptions to the rule that this Chapter is limited to separate chemical elements and separate chemically defined compounds. These exceptions include the following products : . . .

Heading 28.46 – Compounds, inorganic or organic, of rare-earth metals, of yttrium or of scandium or of mixtures of these metals.

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The compounds of this heading include : . . .

(2) Other rare-earth metal compounds. Yttrium oxide (yttria), terbium oxide (terbia), mixtures of ytterbium oxides (ytterbia) and of oxides of other rare-earth metals of commerce are reasonably pure. The heading includes mixtures of salts derived directly from such mixtures of oxides.

10. In accordance with the Section Note quoted above, if “Yttria C” is classifiable in heading 28.46, it can not be classified in heading 38.24.
11. We find that the instant merchandise is classifiable as yttrium oxide of heading 28.46. The merchandise consists of 99+% yttrium oxide. The trace amount of vanadium pentoxide found in the product is an impurity which “result[s] solely and directly from the manufacturing process.” While a sintering aid is not included among the enumerated exemplars of an impurity (unconverted starting material, impurity in the starting material, reagent or byproduct), it need not be so listed to be considered an impurity. The Explanatory Note makes clear that the list of impurities is illustrative, not exhaustive.
12. The important point is that the vanadium pentoxide is added to aid in the manufacture of the larger particle yttrium oxide product, Yttria C. Much like a reagent, the sintering aid has no use as such in the final use of the merchandise. Rather, it is an impurity resulting from a particular, less expensive, manufacturing process of larger particle yttrium oxide. Furthermore, the sintering aid could be removed without affecting the characteristics of the larger-particle yttrium oxide; on the other hand, it is not necessary to remove the sintering aid, since its presence does not affect the end product.
13. Therefore, the United States does not consider that the sintering aid is deliberately left in the product with a view to rendering it particularly suitable for specific use rather than for general use. The minute amount of sintering aid left in the product meets the definition of an impurity in Note 1 (a) to Chapter 28 rather than that of a substance added “intentionally for special purposes” vis-à-vis the use of “Yttria C” as a metal casting refractory. As the Explanatory Note states, “[T]he compounds of this heading include: . . . Yttrium Oxide . . . reasonably pure.” “Yttria C” is indisputably reasonably pure yttrium oxide. As such, it falls within the meaning of the terms of the heading.

Conclusion

14. The "Yttria C" product as presented should be classified in heading 28.46 by application of General Interpretative Rule 1. The vanadium oxide is used as a sintering agent to produce economically an yttrium oxide product of large particle size and low surface area. The vanadium oxide and its reaction products have no intended function in "Yttria C"'s use in the preparation of ceramic molds for reactive metals.
15. The Scientific Sub-Committee should be called upon to establish definitively for the Committee's benefit "Yttria C"'s precise chemical identity and applications, and to determine the role of the sintering agent in its manufacture and uses."

III. SECRETARIAT COMMENTS

16. As indicated in paragraph 3 above, the classification of the "Yttria C" product represents a disagreement between the United States and the European Community. The United States considers that "Yttria C" should be classified as yttrium oxide (yttria) in heading 28.46 while the EC has expressed the view that the product should be classified in heading 38.24 (see paragraph 9 of Doc. NC0724E1).
17. In accordance with Article 10 of the HS Convention, the matter has been submitted to the Committee to consider the classification of the product under dispute, since consultations between the parties have not led to any resolution of the issue.

IV. CONCLUSION

18. The Committee is invited to take into account of the note by the US Administration and its request that the matter be submitted to the Scientific Sub-Committee, when examining this agenda item.
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