

WEST BENGAL AUTHORITY FOR ADVANCE RULING  
GOODS AND SERVICES TAX  
14 Beliaghata Road, Kolkata – 700015  
(Constituted under section 96 of the West Bengal Goods and Services Tax Act, 2017)

BENCH

Ms Susmita Bhattacharya, Joint Commissioner, CGST & CX  
Mr Joyjit Banik, Senior Joint Commissioner, SGST

Preamble

A person within the ambit of Section 100 (1) of the Central Goods and Services Act, 2017 or West Bengal Goods and Services Act, 2017 (hereinafter collectively called 'the GST Act'), if aggrieved by this Ruling, may appeal against it before the West Bengal Appellate Authority for Advance Ruling, constituted under Section 99 of the West Bengal Goods and Services Act, 2017, within a period of thirty days from the date of communication of this Ruling, or within such further time as mentioned in the proviso to Section 100 (2) of the GST Act.

Every such appeal shall be filed in accordance with Section 100 (3) of the GST Act and the Rules prescribed thereunder, and the Regulations prescribed by the West Bengal Authority for Advance Ruling Regulations, 2018.

Name of the applicant	SYNTHETIC MOULDERS LIMITED
Address	16, N.S.ROAD, 1 <sup>ST</sup> FLOOR,KOLKATA-700001
GSTIN	19AADCS8890G1ZS
Case Number	03 of 2021
ARN	AD190221004369B
Date of application	February 23, 2021
Order number and date	03/WBAAR/2021-22 dated 28.05.2021
Applicant's representative heard	Sri Rajkumar Banerjee, Authorised Representative Smt Payel Agarwal, Authorised Representative

1.1 At the outset, we would like to make it clear that the provisions of the Central Goods and Services Tax Act, 2017 (the CGST Act, for short) and the West Bengal Goods and Services Tax Act, 2017 (the WBGST Act, for short) have the same provisions in like matter except for certain provisions. Therefore, unless a mention is specifically made to such dissimilar provisions, a reference to the CGST Act would also mean reference to the corresponding similar provisions in the WBGST Act. Further to the earlier, henceforth for the purposes of these proceedings, the expression 'GST Act' would mean the CGST Act and the WBGST Act both.

1.2 The applicant is stated to be a manufacturer of aerobic micro organism/ protein derived thereof which, according to the applicant, reduces the requirement of cement in all cementitious / concrete application.

1.3 The applicant has made this application under sub-section (1) of section 97 of the GST Act and the rules made there under raising following question vide serial number 14 of the application in FORM GST ARA-01:

*What shall be the HSN Code and rate of tax applicable on supply of aerobic micro organism/protein derived thereof used as a biological agent to reduce the requirement of cement in all cementitious / concrete application.*

1.4 The aforesaid question on which the advance ruling is sought for is found to be covered under clause (a) of sub-section (2) of section 97 of the GST Act.

1.5 The applicant states that the question raised in the Application has neither been decided by nor is pending before any authority under any provision of the GST Act.

1.6 The officer concerned from the Revenue has raised no objection to the admission of the Application.

1.7 The Application is, therefore, admitted.

## 2. Submission of the applicant

2.1 The applicant submits that he has recently engaged in the business of manufacturing & supply of aerobic micro-organism/protein derived thereof. It has been claimed by the applicant that the goods so manufactured by him reduces the requirement of cement in all cementitious / concrete application.

2.2 Generation of such protein, as stated by the applicant, involves sequence of processes which may be summarised as follows:

- Firstly aerobic micro-organisms are cultured in a fermenter along with its necessary growth medium. The cultured solution is centrifuged to isolate bacterial cell and the supernatant is disposed off. These micro-organism mixed with silica powder shall be sold in the market.
- Another possibility is that this bacterial cell is lysed using sonication machine. The bacterial cell after lysis releases natural crude protein. Silica powder is added to the mix of lysed bacterial cells and released protein to reduce the pungent odour. This final product will be sold and shall be used in the concrete/cementitious mix to make mortar, plaster, bricks, ready mix concrete etc.

2.3 The applicant submits that this bacterial protein works in extracting silica in the form of nano silica from any silica rich substrate. Higher silica leaching activity within the concrete mix leads to higher strength and durability of the concrete. Hence, the cement percentage in the concrete mix can be reduced while increasing the ratio of such cheaper material like fly ash, stone dust etc.in the concrete mix. This will help in reducing the cost without compromising on the quality of concrete mix. It also imparts self -healing properties in mortar, plaster, bricks etc. and increases acid resistance of the same.

2.4 The applicant claims that use of such isolated bacterium and its protein in concrete technology is unique and shall result in reduction in cement consumption and shall also improve the ecological footprint as production process of cement is second biggest cause of carbon dioxide generation globally.

2.5 For the purpose of classification of the goods so manufactured by him, the applicant has placed his reliance on following advance rulings stating that the supply involved in the instant case is similar

to the ones wherein bio-fertilisers or anaerobic micro-organisms are supplied for further use as an organic manure or an organic fertiliser to increase the productivity of the soil and/or crop.

- (i) In the case of M/s. Rhizo Organic [Advance Ruling No. RAJ/AAR/2018-19/04 dated 16.06.2018], the AAR, Rajasthan has observed that bio-fertilizers are made of animals (micro-organism) and hence covered within the standard description of the HSN Code 3101.
- (ii) In the case of M/s. Elefo Biotech Pvt. Ltd. [Advance Ruling No. 18/2018-19 dated 06.02.2019], the AAR, Uttarakhand has observed that Anaerobic Microbial Inoculums (AMI) manufactured by the applicant will be classified under sub-heading 31010099 and accordingly GST will be leviable @ 5% on supply of these products

2.6 The applicant, thus, submits that the instant supply should also be classified under chapter sub-heading 3101.00 of the heading 3101 under Customs Tariff Chapter and supply of the said goods will attract tax at Nil rate or @ 5% depending on the fact whether the goods are put up in Unit Container and bearing a brand name or not.

### 3. Submission of the Revenue and reply of the applicant

3.1 The concerned officer from the revenue submits that on going through the process, it is observed that the main product is cultured solution of microorganism i.e. cultures of micro-organism which falls under HSN Code 3002 90 30 of the Central Excise Tariff Act, 1985 specifically which is described as "Cultures of micro-organisms (excluding yeast)" and attracts GST rate of 12% as per serial no.61 of Schedule II in West Bengal State Notification No. 1125-F.T.dated 28.06.2017..

3.2 Relevant portion of the HSN Code 3002 reads as follows-

Chapter / Heading / Sub-heading / Tariff item	Description of Goods	CGST Rate (%)	SGST / UTGST Rate (%)	IGST Rate (%)	Compensation Cess
3002	Animal blood prepared for therapeutic, prophylactic or diagnostic uses; antisera and other blood fractions and modified immunological products, whether or not obtained by means of biotechnological processes; toxins, <u>cultures of micro-organisms (excluding yeasts)</u> and similar products	6	6	12	

3.3 In respect of the advance ruling as relied upon by the applicant, the revenue is of the view that both the cases are related to classification of Bio-Fertilizers or Organic Fertilizers or Organic Manure and hence classified under chapter sub heading 3101.

3.4 The applicant, vide his submission through e-mail dated 09.05.2021 has denied to accept the view expressed by the revenue towards classification of the goods manufactured by him.

3.5 It has been submitted by the applicant that the revenue has wrongly classified the goods under HSN code of 3002 90 30 of the Central Excise Tariff Act, 1985 since the applicant is not dealing in the cultured solution of the micro-organism, rather it deals in the microbes itself (similar to the case as referred to in the above AAR pronounced by the authorities of Rajasthan and Uttarakhand). Culturing of such microbes is just an intervening process through which the bacterial cells are allowed to grow in a fermenter with the necessary growth medium. This solution after being centrifuged is disposed off resulting in required isolated bacterial cells. These microbial cells are sold in the market after being mixed with silica powder by putting it in a unit container.

3.6 Further, the applicant has developed its processes wherein it captively consumes the released bacterial cells generated from the above process for generation of the natural crude protein by way of further lysing of the released cells using a sonication machine. This protein on generation releases a pungent odour. To curb the odour, the released protein and the dead microbial cells are mixed with silica powder which is then sold in the market.

3.7 The applicant argues that he doesn't supply cultured solution of the micro-organism as interpreted by the department reiterating that culturing of instant microbes is an intervening process which is used to generate the final product: processed aerobic bacteria isolated from the cultured solution and / or the protein derived thereof.

3.8 The applicant further contends that the microbes mentioned in the above referred cases of M/s Rhizo Organic and M/s. Elefo Biotech Pvt. Ltd. is similar to the micro-organism of the instant case. The only difference being that they were living microbes whereas in the instant case, it is the dead microbes that are being sold for which the applicant has already taken permission from the Department of Biodiversity, Conservation and Attractions vide order bearing No. 629/2L(Bio)-3/2019 dated 18.08.20. The applicant submits that the referred microbes increase the productivity of the soil / used in bio-toilet. Very similarly, the instant microbes extract silica in the form of nano silica from any silica rich substrate resulting in increasing the strength and durability of the concrete in which it is mixed.

3.9 Furthermore, relying on the advance ruling in the matter of M/s. Elefo Biotech (supra), the applicant argues that in the above-referred case, the microbes particularly Anaerobic Microbial Inoculums (AMI) was also cultured in the necessary growth medium and were given in large quantities to be fed in Bio-toilets. Had all the cultured micro-organism been classified under the HSN code of 3002 90 30 of The Central Excise Tariff Act, 1985 described as "Cultures of micro-organisms (excluding yeast)", then the AMI would also have been classified by the Hon'ble members of the Uttarakhand AAR Bench under the HSN code 3002 90 30 instead of sub-heading 3101.00 of The Central Excise Tariff Act, 1985 by attracting GST rate of 12% as per serial no. 61 of Schedule II in Notification No. 1125-F.T. dated 28.06.2017. But since the chapter 30 of The Central Excise Tariff Act, 1985 deals with "Drugs and Pharmaceuticals", therefore the said AMI wasn't held to be classified under the said chapter. Very similarly, the instant goods cannot be said to be a drug or pharmaceutical and therefore should be classified under the residual chapter for microbes i.e under chapter 31. In view of the said submissions, the applicant states that classification under the chapter 30 of The Central Excise Tariff Act, 1985 is not justified.

3.10 Another distinguishable factor between the instant product and the category of "Drugs and Pharmaceuticals" is that in case of "Drugs and Pharmaceutical", the suppliers deals with culture of microbes along with isolation of desired product by various purification steps which ultimately leads to

numerous value addition steps which itself increase the cost of the item. But here in the instant case, the applicant is simply dealing with only sonicated culture of microbes and no isolation or purification steps is further present. The product (culture of microbes) is assimilated with only silica and sold in the market. There is no value added steps at-all.

3.11 The applicant has already sold a few sample quantities of the developed product prior to its application before the Hon'ble bench of AAR precisely in the month of October, 2020 to test the effectiveness of the said goods in the market where tax has been inadvertently charged @ 18% considering the instant goods under the HSN code 3507.

#### 4. Observations & Findings of the Authority

4.1 We have gone through the records of the issue as well as submissions made by the authorised representative of the applicant during the course of personal hearing. We find that the applicant, vide his written submission, has declined to accept the view taken by the revenue that the goods manufactured by him is a 'cultured solution of microorganism'. However, the applicant has admitted that culturing of instant microbes is an intervening process which is used to generate the final product viz., processed aerobic bacteria isolated from the cultured solution and / or the protein derived thereof.

4.2 It has been stated earlier that the applicant, in support of his argument that the goods so manufactured by him should be classified under chapter sub-heading 3101.00 of the heading 3101, has placed his reliance on two advance rulings.

4.3 At the outset, we would like to deal with the relevance and applicability of the said two advance rulings with regard to the instant case. In the case of M/s. Elefo Biotech Pvt. Ltd. the applicant sought advance ruling for classification of "Anaerobic Microbial Inoculums (AMI)". The AAR observed that Anaerobic Microbial Inoculums (AMI) i.e., Animal Dung is nothing but an organic manure i.e., organic fertilizer. Further, in the case of M/s. Rhizo Organic, the issue was to decide whether Bio Fertilizer shall be covered under the definition of Organic Manure (HSN Code 3101) where the AAR has answered in the affirmative. It, therefore, appears that both the cases were related to classification of Bio-fertilizers or organic manure. However, we are of the view that the goods involved in the instant case, by no stretch of imagination can be treated as Bio-fertilizers or organic manure. Hence, the ratio of the said advance rulings, according to us, is not applicable to the instant case.

4.4 Now, we come to the submission made by the concerned officer from the revenue where it has been observed that the main product is cultured solution of microorganism i.e. cultures of microorganism which falls under HSN Code 3002 90 30 of the Central Excise Tariff Act, 1985. To accept this proposition, it is necessary to see the description of the goods that fall under Chapter 30 with particular reference to the relevant Tariff Items there under. Chapter 30 covers goods, described as "Pharmaceutical products". Tariff item under 3002 broadly covers following description of goods: HUMAN BLOOD; ANIMAL BLOOD PREPARED FORTHERAPEUTIC, PROPHYLACTIC OR DIAGNOSTIC USES; ANTISERA, OTHER BLOOD FRACTIONS AND IMMUNOLOGICAL PRODUCTS, WHETHER OR NOT MODIFIED OR OBTAINED BY MEANS OF BIOTECHNOLOGICAL PROCESSES; VACCINES, TOXINS, CULTURES OF MICRO-ORGANISMS (EXCLUDING YEASTS) AND SIMILAR PRODUCTS.

In our opinion, the goods manufactured by the applicant does not fall under the category of 'Pharmaceutical products'. So, we are unable to accept the submission of the revenue towards classification of the goods involved in the instant case.

4.5 The moot point to be decided in the instant case is the classification of the products, viz. processed aerobic bacteria isolated from the cultured solution and / or the protein derived thereof. It is found that there is no specific heading in the tariff for classification of the goods manufactured by the applicant. Moreover, we have already expressed our view that the goods involved in the instant case shall not be covered under chapter sub-heading 3101.00 of the heading 3101 as contended by the applicant or under HSN Code 3002 90 30 of the Central Excise Tariff Act, 1985 as submitted by the revenue. So, for the purpose of deciding the classification of the product in question, it is necessary now to analyse characteristics of the products manufactured by the applicant.

4.6 The nature, characteristic and uses of the goods, as claimed by the applicant, is summarised as under:

- The goods shall be used in the concrete/cementitious mix to make mortar, plaster, bricks, ready mix concrete etc.
- Use of such isolated bacterium and its protein in concrete technology shall result in reduction of cement consumption.
- Thus it improves the ecological footprint as production process of cement is the second largest cause of carbon dioxide generation globally.
- This bacterial protein works in extracting silica in the form of nano silica from any silica rich substrate.
- Higher silica leaching activity within the concrete mix leads to higher strength and durability of the concrete.
- The cement percentage in the concrete mix can be reduced while increasing the ratio of cheaper material like fly ash, stone dust etc. in the concrete mix.
- This will help in reducing the cost without compromising on the quality of concrete mix.
- It also imparts self-healing properties in mortar, plaster, bricks etc. and increases acid resistance of the same.

4.7 We would like to mention here that with regard to imparting self-healing properties, we have come across of an article on internet wherein it is stated that *"The principle of bacteria-based self-healing concrete is that carbonate precipitating bacteria are added into concrete during the mixing process. When cracking occurs, the bacteria will be activated to precipitate CaCO<sub>3</sub> to in-situ heal concrete cracks. This 'self-healing' property results in a recovery of water-tightness, and hence limits the penetration of corrosive substances into concrete structures and improves concrete durability."*

[\*Source: Application of bacteria in concrete: a critical review\_\_\_Nele De Belie\_\_\_N. De Belie, RILEM Technical Letters (2016) 1: 56 – 61]

4.8 In light of these properties and uses of the goods in concrete technology i.e, it provides higher strength and durability, imparts self-healing, increases resistance, there can be no denying that the item essentially bears the character of an additive. In Merriam-Webster dictionary, 'additive' is

defined as 'a substance added to another in relatively small amounts to effect a desired change in properties'.

4.9 When we proceed to find out whether any specific heading in the tariff for classification of the goods describes such type of additives or not, we find that "Prepared additives for cements, mortars or concretes" is classified under Tariff Item 3824 40 which reads as under:

3824: 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

- 3824 40 ..... *Prepared additives for cements, mortars or concretes*

4.10 So, we hold the view that the goods manufactured by the applicant shall be used as an additives in concrete technology for its basic property to enhance strength and durability along with imparting self-healing and therefore classifiable under tariff item 3824 40.

We also find that goods under following description falling under Chapter / Heading / Sub-heading / Tariff item 3824 is specified in entry serial number 97 of Schedule-III of Notification No. 1/2017-Central Tax (Rate) dated 28-6-2017 (as amended) and corresponding W.B.State Tax Notification No. 1125 F.T. dated 28.06.2017(as amended):

*'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'.*

In view of the above discussion, we rule as under:

### RULING

The product, viz. aerobic micro organism/protein derived thereof used as a biological agent to reduce the requirement of cement in all cementitious / concrete application as manufactured and to be supplied by the applicant falls under the description "*Prepared additives for cements, mortars or concretes*" and is classifiable under HSN 3824 40 of the First Schedule to the Customs Tariff Act, 1975.

The goods are covered under Sl. No. 97 of Schedule-III of Notification No. 1/2017-Central Tax (Rate) dated 28-6-2017 (as amended) and corresponding W.B.State Tax Notification No. 1125 F.T. dated 28.06.2017(as amended) attracting GST @ 18% (9% CGST +9% WBGST).

This Ruling is valid subject to the provisions under Section 103 until and unless declared void under Section 104(1) of the GST Act.

(SUSMITA BHATTACHARYA)  
Member

West Bengal Authority for Advance Ruling

(JOYJIT BANIK)  
Member

West Bengal Authority for Advance Ruling