SCHEME OF TESTING AND INSPECTION
FOR CERTIFICATION OF
SODIUM ALGINATE, FOOD GRADE
ACCORDING to IS 5191:1993
(First Revision)
(Incorporating Amendment No. 1)

1. Laboratory - A laboratory shall be maintained which shall be suitably equipped and staffed to carry out the different tests in accordance with the methods given in the Indian Standards.

2. Test Record - All records of analysis and tests shall be kept in suitable forms approved by the Bureau of Indian Standards.

2.1 Copies of any records that may be required by BIS shall be made available at any time on request.

2.2 Quality Control - It is recommended that, as far as possible, Statistical Quality Control (SQC) methods may be used for controlling the quality of the products as envisaged in this Scheme [See IS 397 (Part 1): 2003, IS 397(Part 2):2003 and IS 397 (Part 3):2003].

2.2.1 The following instruments/equipments are required to be brought under calibration control, as per frequency to be decided depending upon the usage.

2.3 In addition, effort should be made to gradually introduce a Quality Management System in accordance with IS/ISO 9001:2000.

3. Standard Mark – The Standard Mark(s), as given in column (1) of the First Schedule of the licence shall be printed on each container of Sodium Alginate, Food Grade or printed on the label applied to it, as the case may be, provided always that the material in each container to which the mark is thus applied conforms to every requirement of the specification.

4. Marking – The following information shall be given legibly indelibly on each container or on the label applied to each container:

   a) Name of the material information including the words ‘Food Grade’;
   b) Name and address of the manufacturer;
   c) Minimum net mass or content (in g or kg);
   d) Batch number or code number;
   e) Date of manufacture; and
   f) Any other details required under the Standard of Weights & Measures (Packaged Commodities) Rules, 1977/ Prevention of Food Adultration Rules, 1955; and
   g) Licence No. (CM/L……………)
   h) BIS Website address (www.bis.org.in)
5. Levels of Control - The analysis and tests, as indicated in Table 1 and at the levels of control specified therein, shall be carried out on the whole production of the factory which is covered by this scheme and appropriate records and charts maintained in accordance with para 2 above. All the production which conforms to the Indian Standard and covered by this licence shall be marked with the Standard Mark.

6. Control unit – For the purpose of this Scheme, Sodium Alginate, Food grade dried and blended at a a time using the same consignment of raw material shall constitute a control unit.

7. A sample drawn from a batch of material and tested, shall conform at all the requirements laid down in the specification. In the event of failure of the sample in one or more the requirements the entire material of the batch, be either reprocessed for rectifying the defect or else rejected. Such reprocessed material when tested again shall conform to all the requirements of the specification.

8. Raw Materials – Routine analysis of various raw materials used in manufacturing of Sodium Aliginate, Food Grade shall be tested in the factory or alternatively raw materials of known composition may be used.

9. Hygienic Condition - Sodium Benzoate, Food Grade shall be processed and packed under hygienic conditions and the manufacturing premises shall be maintained thoroughly clean and under hygienic conditions. It shall be also stored and distributed under hygienic conditions.

10. Rejection - A separate record shall be maintained giving information relating to the rejection of units of Sodium Alginate, Food Grade, which do not conform to the specification and the method of their disposal. Such material, if packed in containers, shall in no case be stored together with that conforming to the specification.

11. Samples - The licensee shall supply, free of charge, the sample or samples required in accordance with the Bureau of Indian Standards (Certification) Regulations from his factory or godown. BIS shall pay for the samples taken by it from the open market.

12. Replacement - Whenever a complaint is received soon after the goods with the Standard Mark have been purchased and used, and if there is adequate evidence that the goods have not been misused, defective goods or their components shall be replaced or repaired free of cost by the licensee in case the complaint is proved to be genuine and the warranty period (where applicable) has not expired. The final authority to judge conformity of the product to the Indian Standard shall be with BIS. The firm should have its own complaint investigation systems as per IS 15400.
12.1 In the event of any damages caused by the goods bearing the Standard Mark, or claim being filed by the consumer against BIS Standard Mark and not "conforming to" the relevant Indian Standard, entire liability arising out of such non conforming product shall be of licensee and BIS shall not in any way be responsible in such cases.

13. Stop Marking - The marking of the product shall be stopped under intimation to BIS, if at any time, there is some difficulty in maintaining the conformity of the product to the specification or the testing equipment goes out of order. The marking may be resumed as soon as the defects are removed under intimation to BIS.

The marking of the product shall be stopped immediately if directed to do so by BIS for any reason. The marking may then be resumed only after permission by BIS. The information regarding resumption of marking shall also be sent to BIS.

14. Production Data - The licensee shall send to BIS as per the enclosed proforma to be authenticated by a Chartered Accountant or by the manufacturer by giving an affidavit / undertaking, a statement of quantity produced, marked and exported by him and the trade value thereof end of each operative year of the licence.
### TABLE 1 LEVELS OF CONTROL

(Para 5 of the Scheme of Testing and Inspection)

<table>
<thead>
<tr>
<th>Cl.</th>
<th>Requirement</th>
<th>Test Method</th>
<th>LEVELS OF CONTROL</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clause</td>
<td>Clause</td>
<td>No. of Sample</td>
<td>Frequency</td>
</tr>
<tr>
<td>3.1</td>
<td>Description</td>
<td>3.1</td>
<td>One</td>
<td>Each control unit</td>
</tr>
<tr>
<td>3.2</td>
<td>Identification Tests</td>
<td>3.1</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td>3.2.1 to 3.2.6</td>
<td>Solubility</td>
<td>3.2.1 to 3.2.6</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td>3.3 Table 1</td>
<td>i) Purity as (C6H7O6 Na)n, (on dry basis)</td>
<td>App. A</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td>ii) Moisture</td>
<td>App. B</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td>iii) Matter insoluble in water</td>
<td>App. A-3</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td>iv) Viscosity of a one percent solution (m/m),</td>
<td>App. C</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td>v) Ash (on dry basis)</td>
<td>A-4</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td>vi) Acid insoluble ash (on dry basis) percent by mass Max</td>
<td>A-5</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td>vii) Lead (as Pb),</td>
<td>9</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td>viii) Arsenic (as As),</td>
<td>8</td>
<td>-do-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ix) Heavy Metals (as Pb)</td>
<td>A-6</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td>x) E. Coli</td>
<td>IS 5887(Part 1):1976</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td>xi) Salmonella</td>
<td>IS 5887(Part 3):1976</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td>xii) Total Plate count, per g,</td>
<td>IS 5402:2002</td>
<td>One</td>
<td>-do-</td>
</tr>
<tr>
<td></td>
<td>xiii) Yeast and Mould per g,</td>
<td>IS 5403:1999</td>
<td>one</td>
<td>-do-</td>
</tr>
</tbody>
</table>
**FORM 1**  
(IS 5191:1993)  
Sodium Alginate, Food Grade  
MANNER OF KEEPING TEST RECORD

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Batch No.</th>
<th>Date of Mfg.</th>
<th>Quantity in the batch in Kg</th>
<th>Cumulative Quantity</th>
<th>Description</th>
<th>Identification Tests</th>
<th>Purity As ((C_6H_7O_6Na)_n)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1) (2) (3) (4) (5) (6) (7) (8)</td>
<td>3.2.1 3.2.2 3.2.3 3.2.4 3.2.5 3.2.6</td>
<td></td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
<td>(7)</td>
<td>(8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Moisture %</th>
<th>Matter Insoluble in water</th>
<th>Viscosity</th>
<th>Ash</th>
<th>Acid Insoluble Ash</th>
<th>Lead (Pb)</th>
<th>Arsenic (As)</th>
<th>Heavy Metals (Pb)</th>
<th>E. Coli</th>
<th>Salmonella</th>
<th>Total plating count</th>
<th>Yeast and Mould</th>
<th>Remarks</th>
</tr>
</thead>
</table>
APPENDIX I
PROFORMA FOR OBTAINING PRODUCTION DETAILS
(Period to be covered by the Report being to )* 

Name of Licensee

CM/L No.

Name of Articles(s) IS No.

Grade/type/Size/Variety/Class/ Rating

1.1 Brand/Trade/Name(s) of BIS Certification Marked Products

2. Total production of the article(s) licensed for certification marking

2.1 Total production of the article(s) conforming to Indian Standard

3. Production covered with BIS Certification Mark and its approximate value

a) Quantity
b) Value Rs.

3.1 Brand Name used on production covered under BIS Certification Mark

3.2 Calculation of marking fee on Unit-rate basis: Marking Fee per unit

a) Unit
b) Quantity covered with BIS Certification Mark

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*Information to be filled up by BO before forwarding to the licensee.

Note: In case a clause is not applicable, suitable remarks may be given against it.

c) Marking fee rounded off in whole rupees as obtained by applying unit rates given in (a) on quantity given in (b)

4. Quantity not covered with BIS Certification Mark. If any, and the reasons for such non-coverage

4.1 Brand Name under which non certified goods were sold

5. Quantity Exported with BIS Standard Mark and its value

5.1 Brand Name under which BIS Certified goods are exported

6. Authentication by Chartered Accountant
Our Ref: CMD-II/16:5191                                       5 Dec 2006

Subject: Implementation of revised Indian Standard for Sodium Alginate, food Grade (first revision)

Indian Standard specification for Sodium Alginate, food Grade has been revised as IS 5191:1993. In this revision, the main changes are as follows:-

1. Additional requirements of total plate count and Yeast & Mould have been incorporated in Table 1 of the Standard.
2. The method of test for the above additional requirements have been incorporated as IS 5402:2002 and IS 5403:1999 respectively.
3. The requirement of purity shall now be on dry basis.
4. The requirements of Lead and Arsenic have been changed from ‘10’ to ‘5’ and from ‘40’ to ‘10’ respectively.

Accordingly, the STI of IS 5191:1993 has been revised as DOC: STI/5191/BP/3 November 2006. In order to implement, revised standard and its Schemes of Testing and Inspection following procedure shall be followed:

For existing licensee:

1. Concerned BO to verify the manufacturing capability and availability of testing facilities according to the present Specification incorporating Amendment No. 1, with the licensee and obtained the declaration of additional test equipments /chemicals on CMD PF 306.
2. BO to ensure factory testing/independent testing depending upon the nature of test during routine surveillance visit. For all requirements to ensure the conformity of the product to the Indian Standard with Amendment no. 1.
3. BO to ensure endorsement in the licence as per present Indian Standard with Amendment no. 1 after obtaining following:
   a) Acceptance of revised STI.
   b) Declaration regarding availability of additional test equipments/chemicals from CMD/PF 306.
   c) Test report indicating conformity of the product to the present Specification incorporating Amendment no. 1.
4. Action shall be taken as per OM 2004, if the licensee fails to submit the acceptance of STI in stipulated time and if the sample fails in factory/independent testing according to the present Specification incorporating Amendment no. 1.

For Applicants:

1. All new applications may be recorded and processed as per IS 5191:1993 with Amendment No. 1.
2. New licence shall be granted during this period as per IS 5191:1993 with Amendment no 1. ROs/BOs shall ensure that new licensee shall implement the present standard with Amendment no. 1 and the revised STI within the stipulated period.


(A.K. Bhatnagar)
Scientist E

Sc.F&H(CMD-II)
Circulated to all RO’s/BO’s

Copy to: FAD- with a request to gazette it w.e.f. 23 January 2007.