

## केन्द्रीय मुहर विभाग-2

हमारा संदर्भ: सीएमडी-2/16:646

10 01 2018

विषय: आई एस 646:1986“लिक्विड क्लोरीन, टेक्निकल ” की एस टी आई (डॉक एस टी आई 646/1 जनवरी 2018) का कार्यान्वयन

सक्षम प्राधिकारी द्वारा अनुमोदितआई एस 646:1986 “लिक्विड क्लोरीन, टेक्निकल ” की एस टी आई(डॉक एस टी आई 646/1 जनवरी 2018) तुरंत कार्यान्वयन हेतु संलग्न है।

सभी क्षेत्रीय/शाखा कार्यालयों से अनुरोध है कि उपरोक्त एस टी आई का अनुपालन तत्कालप्रभाव से सुनिश्चित करें ।

(अरुण पुच्छकायला)  
वैज्ञानिक.सी

प्रमुख (सीएमडी-2) (हस्ता/-)

सभी क्षेत्रीय/शाखा/प्रयोगशाला कार्यालयों को परिचालित

## CENTRAL MARKS DEPARTMENT-2

Our ref: CMD-2/16: 646

10 01 2018

Subject:Implementation of STI(Doc: STI/646/1, January 2018) “Liquid Chlorine, Technical as per IS 646:1986

ROs/BOs may please find enclosed the STI (Doc: STI/646/1, January 2018) of IS 646:1986, “Liquid Chlorine, Technical’, duly approved by the Competent Authority.

All ROs/BOs are requested to ensure implementation of the STI with immediate effect.

(Arun Pucchakayala)  
Scientist C

Head (CMD-2) (sd/-)

All ROs/BOs/Lab

Copy to: ITS for hosting on BIS Intranet.

**SCHEME OF TESTING AND INSPECTION  
FOR CERTIFICATION OF  
LIQUID CHLORINE, TECHNICAL  
ACCORDING TO IS 646: 1986(Second Revision)  
(Incorporating Amendment No.1)**

**1. LABORATORY**

- 1.1 A laboratory shall be maintained, which shall be suitably equipped and staffed where the tests shall be carried out in accordance with the methods given in the specification.
- 1.2 All testing apparatus/measuring instruments shall be periodically checked, verified and calibrated as appropriate and records of such checks/verification, calibration shall be maintained.

**2. TEST RECORDS**

- 2.1 All records of tests and analysis as per this Scheme of Testing and Inspection shall be kept in suitable forms (See Form-1).
- 2.2 Copies of any records or charts that may be required by the Bureau shall be made available at any time on request.

**3. QUALITY CONTROL**

- 3.1 It is recommended that, as far as possible, statistical quality control (SQC) methods may be used for controlling quality during production as envisaged in this scheme [See IS 397 (Various Parts)].
- 3.2 In addition, efforts should be made to gradually introduce a Quality Management System in accordance with IS/ISO 9001.

**4. STANDARD MARK**

- 4.1 The Standards Mark as given in column (1) of the First Schedule of the license, specified for Liquid Chlorine, Technical, shall be stenciled or printed on the label affixed on each container of Liquid Chlorine, Technical provided always that the material in each container to which the mark is thus applied conforms to every requirement of the specification.
- 4.2 Marking – Each container shall be legibly and indelibly marked/ affixed with a label having the following information:
  - a) Manufacturer's name and address;
  - b) Minimum Chlorine Content
  - c) Nominal capacity

- d) Batch/Lot number for traceability to batch from which it is made
- e) Licence No: CM/L .....
- f) Date of Manufacture (Year, Month )
- g) Any specific requirement of law under the Gas Cylinder Rules
- h) BIS website details: [www.bis.gov.in](http://www.bis.gov.in)

## **5. PACKING**

5.1 The material shall be supplied as per information provided under Cl. 3 of IS 646.

## **6. LEVELS OF CONTROL**

6.1 Control unit - For the purpose of this scheme, production carried out in a day shall constitute a control unit.

6.2 Inspection and tests at various levels of control specified in Table 1 shall be carried out on all quantities of Liquid Chlorine, Technical produced, which is intended to be covered under this scheme and appropriate records as per para 2 and charts as per para 3 of this STI shall be maintained. All production which conforms to the Indian Standard and covered by the licence shall be marked with BIS Standard Mark.

6.3 One sample shall be taken from each control unit and tested for requirements. If the sample fails to satisfy the requirement of any of the characteristics, the particular control unit shall be considered unfit for the purpose of marking. This material may, however, be reprocessed and the defect rectified.

6.4 In respect of all other clauses of the specification and at all the stages of production, the factory shall maintain appropriate controls and checks to ensure that the product conforms to the various requirements of the specification.

## **7 . REJECTIONS**

7.1 A separate record shall be maintained giving information relating to the rejection of control unit of Liquid Chlorine, Technical, which do not conform to the specification and the method of their disposal. Such material, if packed shall not be stored together with that conforming to the specification.

## **8. SAMPLES**

8.1 The licensee shall supply, free of charge, the samples required in accordance with the Bureau of Indian Standards (Certification) Regulations, 1988, as amended from time to time, from the factory or godown. BIS may draw samples from the open market, if available.

## **9. REPLACEMENT**

9.1 Whenever a complaint is received soon after the goods with Standard Mark has been purchased and used, and if there is adequate evidence that the goods have not been

misused, defective goods or their components are 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.

- 9.2 The final authority to judge the conformity of the product to the Indian Standard shall be with BIS. 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.

## **10. STOP MARKING**

- 10.1 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 their product to the Specification, or the testing equipment goes out of order or due to any other reason. The marking may be resumed as soon as the defects are removed under intimation to BIS.
- 10.2 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.

## **11. PRODUCTION DATA**

- 11.1 The licensee shall send to BIS a statement of quantity produced, marked and exported by him and the value thereof at the end of each operative year of the licence as per the enclosed proforma which has to be authenticated by a Chartered Accountant.

Table 1.....

IS 646: 1986 LIQUID CHLORINE, TECHNICAL  
TABLE 1 LEVEL OF CONTROL  
(Clause 6 of scheme of testing and Inspection)

TEST DETAILS					LEVEL OF CONTROL	
Clause	Requirements	Test Method		No. of samples	Frequency	Remarks
		Clause	Reference			
2.1	Description	2.1, 4	IS 646	One	Once in a month	Test is to be carried out with utmost care as the exposure to liquid chlorine is very harmful and could be fatal.
2.2	Composition	2.2, Appendix A, 4	IS 646	One	Every control unit	
2.3	Moisture	2.3, 0.2, Appendix B, 4	IS 646	One	Fortnightly	
3	Packing and Marking	3.1 3.2 3.3 3.4	IS 646	Adequate inspection to ensure that the containers are suitably packed and marked as per the stipulated requirements.		

FORM-1  
RECORDS OF CHEMICAL ANALYSIS AND PHYSICAL TEST  
(Para 2.1 of scheme of testing and Inspection)  
LIQUID CHLORINE, TECHNICAL

S1.No	Date of Manufacture	Control unit/Batch No/Lot No	Quantity of material in the batch	Description	Composition	Moisture
(1)	(2)	(3)	(4)	(6)	(7)	(8)

**PROFORMA FOR OBTAINING PRODUCTION DETAILS**

Period covered	
Name of Licensee	
Name of Articles (s)	IS No.
Grade/Type/Size/Variety/Class/Rating	
Brand/Trade/Name(s) of Product covered under BIS Certification Mark	
Total production of the articles(s) licensed for certification marking	
Total production of the article(s) conforming to Indian Standard	
Production covered with BIS Certification Mark and its Value :	
a) Quantity	
Brand Name used on production covered under BIS Certification Mark	
Calculation of marking fee on unit-rate basis; Marking Fee per unit	
a) Unit	
b) Quantity covered with BIS Certification Mark	
c) Marking fee rounded off in whole rupees as obtained by applying unit rates given in (a) on quantity given in (b)	
Quantity not covered with BIS Certification Mark, if any.	
Reasons for such non-coverage	
Brand Name under which non-ISI goods were sold	
Quantity exported with BIS Standard Mark and its value	
Brand Name under which BIS Certified goods are exported	
Authentication by Chartered Accountant	