

## रेल कोच फैक्ट्री, कपूरथला

पत्र संख्या- MD35131

जारी करने की तिथि - 26/12/2023

**विषय: विशिष्टता प्रकाशन संख्या MDTs:14274 REV: 02.**

आपको सूचित किया जाता है विनिर्देश दस्तावेज़ आधिकारिक तौर पर जारी कर दिया गया है।  
कृपया जानकारी और अन्य आवश्यक कार्रवाई के लिए निम्नलिखित विशिष्टताओं की संलग्न प्रति प्राप्त करें

S. No	Description	Specification No.
1.	CHLORINE TABLET FOR USE IN IR-DRDO BIO TOILETS	MDTS:14274 REV: 02

**Dy.Cme/D-II**

CQM-I,II      CPLE      CWE/Fur      CMM/ HSQ      CMM/TKJ      CWE/Shell

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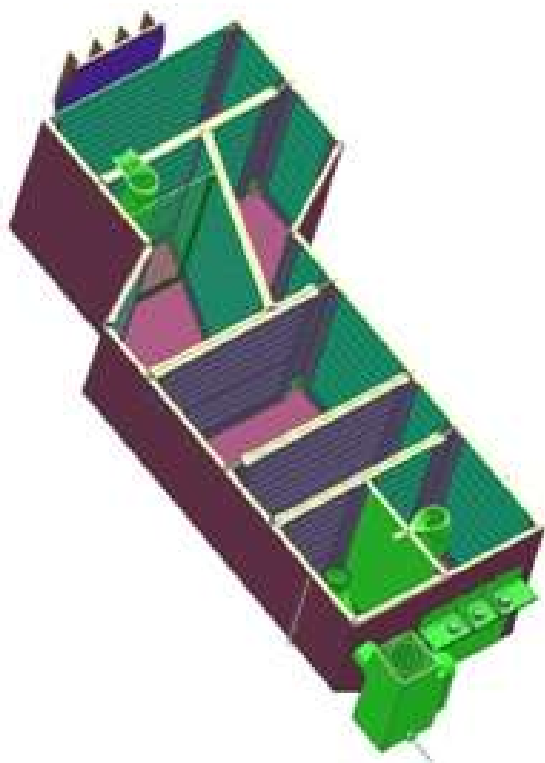


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## IR- DRDO बायो-टॉयलेट में उपयोग के लिए क्लोरीन टैबलेट

## CHLORINE TABLET FOR USE IN IR-DRDO BIO- TOILETS



Specification Number	MDTS-14274		
Revision Number	02	Date of Issue	19 December 2023

## FOREWORD

This specification covers the general and technical requirements of chlorine tablets which can be used in IR-DRDO bio-toilets (using anaerobic Bacteria) for reduction of faecal-coli forms of the discharged effluent from the bio-toilets

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**LIST OF AMENDMENTS**

S. No.	Amendment Date	Revision	Details
1.	24.09.20	Rev01	1. As per CAMTECH letter NO. IRCAMTECH/M/GLW/Bio Toilet dated 12.06.2020, Clause no. 4. 1, 4.2, 4.3, 4.4, 5, 6.1, 6.3 and 6.3.1 of IS: 9825:2003 incorporated and specification revised accordingly.
2.	19.12.2023	Rev02	1. Tablet size having $75 \pm 3$ mm in Diameter, having weight of $200 \pm 5$ gm incorporated as per Bio-Digester's requirement in IR Coaches in clause 5.3. 2. Clause 5.4 added as : The tablet shall be formulated for sustained release (should last for at least 21 days in tap water) 3. Clause 5.5 added as: Effective chlorine shall be more than $70 \pm 5$ %. 4. Clause 7.3.3 added as: Each chlorine tablet shall have manufacturer's Name/Logo graved/embossed on tablet. 5. Format updated and clauses rearranged.

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## **1 Introduction**

- 1.1 This specification covers the general and technical requirements of chlorine tablets which can be used in IR-DRDO bio-toilets (using anaerobic Bacteria) for reduction of faecal-coli forms of the discharged effluent from the bio-toilets.

## **2 Forward and Scope:**

- 2.1 The scope of this specification is to supply the chlorine tablets as per the specified properties. These will be used in IR-DRDO bio-toilets (using anaerobic Bacteria) for reduction of faecal-coli forms of the discharged effluent from the bio-toilets.

## **3 Eligibility conditions:**

- 3.1 The tenderer should be a reputed manufacture of chlorine tablets and should have all the requisite testing facilities or have authorization from reputed manufacture of chlorine tablets having requisite testing facilities. In absence of above, offers shall be deemed as incomplete and may not be considered.
- 3.2 The tenderer must submit detailed clause-wise comments on the specification indicating Manufacture and testing facilities. In absence of above, offers shall be deemed as incomplete and may not be considered.

## **4 List of standards Referred:**

<b>SN</b>	<b>Standard</b>	<b>Title</b>
1	IS:253-1985	Specification for Edible Common Salt.
2	IS :1065-1989	Bleaching Powder, Stable - Specification
3	IS: 7224-2006	Iodized Salt, Vacuum Evaporated Iodized Salt and Refined Iodized Salt - Specification
4	IS 9825-2003	Chlorine Tablets - Specification

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## 5 Technical requirements:

- 5.1 Formulation :** Chlorine tablets shall be a formulation from stable bleaching powder conforming to the requirements of IS 1065, using edible diluents like sodium chloride (see IS: 253) or iodized salt (see IS 7224).
- 5.2 Description:** The tablets shall be of uniform size and white to slightly yellowish white in appearance.
- 5.3 Size:** The tablet shall be of  $75 \pm 3$  mm diameter having weight of  $200 \pm 5$  g.
- 5.4** The tablet shall be formulated for sustained release (should last for at least 21 days in tap water)
- 5.5 Effective chlorine and Test method:** Effective chlorine shall be more than  $70 \pm 5\%$  chlorine. The available chlorine shall be determined by method prescribed in Annex 'A' of IS: 9825-2003.
- 5.6 Moisture and Test method:** The chlorine tablets shall not have moisture more than 2.0 percent by mass, when tested by the method prescribed in Annex 'B' of IS:9825-2003.

## 6 Shelf Life:

- 6.1** The material when taken out from the originally packed containers shall comply with the technical requirements prescribed in clause 5 above and a minimum of  $75 \pm 5$  percent available chlorine of the original should be assured on/or till 6 month.

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## 7 Packing, storing and Marking:

**7.1 Packing:** Packing condition shall be adequate and in good enough condition to avoid rubbing or wearing condition of tablets so stored. The tablets shall be packed in air-tight amber-colored glass bottles or plastics containers.

**7.2 Storing:** The material shall be stored in shade, at room temperature away from source of heat and moisture.

### 7.3 Marking:

**7.3.1** The containers shall be securely closed and marked with the following information:

**7.3.1.1** Name of the material.

**7.3.1.2** Size of tablets and the quantity of water recommended for treatment.

**7.3.1.3** Number of tablets in the bottle;

**7.3.1.4** Month and year of packing

**7.3.1.5** Indication of the source of manufacture;

**7.3.1.6** Batch number to enable the lot of manufacture to be traced from records;

**7.3.1.7** And Expiry date.

**7.3.2** A leaflet containing instructions for use shall be enclosed with each bottle.

**7.3.3** Each chlorine tablet shall have manufacturer's Name/Logo engraved/embossed/printed on tablet

## 8 Sampling:

**8.1** Representative samples of the material shall be drawn and their conformity to this standard shall be determined in accordance with the method prescribed in Annex 'C' of IS:9825-2003.