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1 SCOPE

- 1.1 This method describes a procedure for performing the Small Component Test on products or the components of products described in item 13 of Part II of Schedule I to the Hazardous Products Act (HPA) for children under 3 years of age to determine if they meet the applicable requirements set out in the Hazardous Products (Toys) Regulations by observing if the products or the components could cause obstruction of the pharyngeal orifice or ingestion or aspiration of the product or any component thereof. Toy products or components of toy products that are constructed entirely of soft textile fibre material are exempt. Since the numerical values of performance measures are based upon regulatory requirements, the tolerances for these values have been chosen such that no test parameter is applied to the product that results in a more severe condition than that specified in the regulation.

2 APPLICABLE DOCUMENTS


- 2.1 The Hazardous Products Act (HPA).
- 2.2 Hazardous Products (Toys) Regulations and other HPA regulations that include requirements for small components.
- 2.3 PSL Project Report 2001- 0627: New Method: TEST PROCEDURES TO DETERMINE MECHANICAL HAZARDS - SMALL COMPONENTS.

3 SAMPLING

- 3.1 The following test procedure should be conducted on the number of specimens provided or received.

4 APPARATUS

- 4.1 Truncated Right Circular Cylinder (Small Parts Cylinder). See **Figure 1**.
- 4.2 A Force Gauge capable of measuring up to 5 N with a precision of 0.05 N, and a 12.75 mm (± 0.50 mm) diameter flat bottom tip attachment.
- 4.3 A 35 mm (± 0.50 mm) diameter flat bottom 0.45 kg (+0, -0.005 kg) mass.

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5 TESTING PROCEDURE

5.1 The procedure shall be as follows:

5.1.1 Attempt to place any product or component of a product that is separate or that has detached, into the Small Parts Cylinder without the use of force.

NOTE: The orientation of the product or any component of the product that is separate or that has detached is important. Different orientations should be used when performing this test.

5.2 The following additional procedures are for **toys** only:

5.2.1 After the product or component of the product is inserted in the Small Parts Cylinder, observe if it is totally enclosed initially, or by laying a 35 mm diameter flat bottom 0.45 kg mass across the top of the Small Parts Cylinder.

5.2.2 If the product or component of the product is partially enclosed in the Small Parts Cylinder or can be manipulated to become enclosed, then, using a force gauge with a 12.75 mm diameter flat bottom tip, apply a force not exceeding 4.45 N on top of the component. If still not totally enclosed, release this force and proceed with a second attempt of this same force in the same manner but applied at a different location to the product or component of the product under test, or by using the 0.45 kg mass with a 35 mm diameter flat bottom.

5.3 Results


5.3.1 Record the description of any product or component of the product that is totally enclosed in the Small Parts Cylinder and whether it was totally enclosed with or without force or manipulation to alter the orientation of insertion. If force or manipulation was required to enclose the product or component, record the force and the type of manipulation.

6 QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

6.1 Ensure that all measuring instruments are functional and are calibrated with traceability to national or international standards.

6.2 Testing and the results obtained according to this method include uncertainty associated with the:

(i) uncertainty of any or all calibrations by an accredited calibration laboratory of the apparatus stated and used in this method,

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(ii) standard uncertainty or standard deviation of a series of repeated measurements of masses or with instruments stated and used in this method (documented in the Equipment Record binder),

(iii) a coverage factor ($k = 2$) to express an expanded uncertainty ($U = k u_c$, where u_c is the combined standard uncertainty) for a level of confidence of approximately 95%, assuming normal distribution (Reference: General Guidelines for Evaluating and Expressing the Uncertainty of Accredited Laboratories' Measurement Results, CLAS Reference Document 5, May 1999).

7 TEST REPORT

7.1 The test report shall contain the following information:

- 7.1.1 A description of the product to include brand, style, country of origin, photo and UPC.
- 7.1.2 The number of sample elements tested.
- 7.1.3 The results of the tests (conducted in the sequence presented in section 5 of this test method) with specific details for any non-compliances or potential problems observed.
- 7.1.4 The analyst's name and signature, as well as the name(s) and signature(s) of the reviewer(s).

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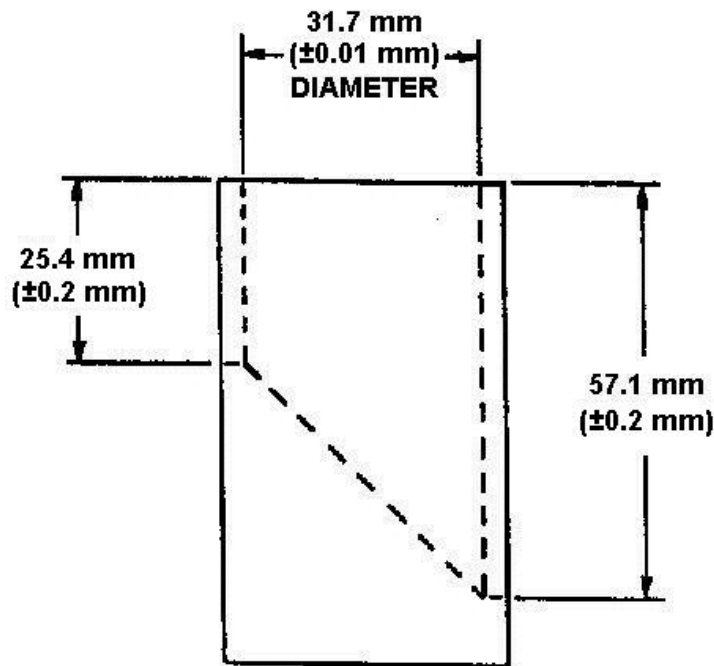


Figure 1: Truncated Right Circular Cylinder.

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