 Health Canada / Santé Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>  <b>Book 5 - Laboratory Policies and Procedures</b>	Page <b>M00.3-1</b>	Effective / En vigueur 2001-11-30
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method M-00.3 <b>TEST PROCEDURES TO DETERMINE THE MECHANICAL HAZARDS          - SHARP POINTS -</b>			Amendment number- / Numéro de la modification 29

## 1 SCOPE

- 1.1 This method describes a procedure for performing the Sharp Point Test on products or the components of products described in item 13 of Part II of Schedule I to the Hazardous Products Act (HPA) to determine if they meet the applicable requirements set out in the Hazardous Products (Toys) Regulations and to determine if the points on products or the components are sharp and could cause injury to a child. Toys and other products that by reason of their functional purpose require a point to be sharp 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 sharp points.
- 2.3 PSL Project Report 2001: 0625 New Method: TEST PROCEDURES TO DETERMINE THE MECHANICAL HAZARDS - SHARP POINTS.

## 3 SAMPLING

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

## 4 APPARATUS

- 4.1 A Sharp Point Tester (see **Figure 1**) or other suitable test device yielding equivalent results and having the following equivalent specifications:
- i) Gauging cap slot opening -  $1.02 \text{ mm} \pm 0.10 \text{ mm}$  by  $1.14 \text{ mm} \pm 0.10 \text{ mm}$ ;
  - ii) Sensing head gap -  $0.38 \text{ mm} \pm 0.01 \text{ mm}$  ; and
  - iii) Sensing head spring resistance force -  $2.22 \text{ N}$  ( $2.12 \pm 0.10 \text{ N}$ ).
- 4.2 A force gauge with a precision of 0.05 N.

 Health Canada / Santé Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>  <b>Book 5 - Laboratory Policies and Procedures</b>	Page <b>M00.3-2</b>	Effective / En vigueur 2001-11-30
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method M-00.3 <b>TEST PROCEDURES TO DETERMINE THE MECHANICAL HAZARDS          - SHARP POINTS -</b>			Amendment number- / Numéro de la modification 29

## 5 TESTING PROCEDURE

5.1 The procedure shall be as follows:

5.1.1 Identify and locate projections, corners and any surface deformations on the product that are exposed, meet applicable accessibility<sup>1</sup> requirements and that may present a hazardous sharp point. Note the restrictions or applicability of the testing procedure depending on the following material and product characteristics:

Plastic (toys): plastic points or corners that are suspected of being potentially hazardous sharp points (except for the exemption mentioned in 1.1) that are exposed initially or prior to reasonably foreseeable use testing, and plastic points or corners that are exposed under the conditions of reasonably foreseeable use.

Plastic (non-toy articles): plastic points or corners that are exposed only upon initial visual and tactile examination.


Ends of wire: wire ends that are exposed only under the conditions of reasonably foreseeable use.

Metal (non-wire ends), wood and glass (all products): points or corners of which that are exposed only upon initial visual and tactile examination.

Cut edges of metal tubing (non-toy articles): points or corners of which that are unprotected and exposed upon initial visual and tactile examination, or are located along cut edges of metal tubing that have become exposed when protective caps have been removed by a force of up to 90 N applied in any direction.

<sup>1</sup>

Refer to pages M12-46 and M12-47 of the Test Method for Cribs and Cradles to determine accessibility of product occupants to sharp points.

 Health Canada / Santé Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>  <b>Book 5 - Laboratory Policies and Procedures</b>	Page <b>M00.3-3</b>	Effective En vigueur 2001-11-30
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method M-00.3 <b>TEST PROCEDURES TO DETERMINE THE MECHANICAL HAZARDS          - SHARP POINTS -</b>			Amendment number- Numéro de la modification 29

- 5.1.2 Adjust the sharp point tester or other suitable test device in accordance with the manufacturer's operating instructions (Refer to Standard Operating Procedure for the Sharp Point Tester).
- 5.1.3 Insert the test point of the product into the slot opening of the sharp point tester and apply sufficient force to trigger the sensing head (nominally 4.45 N) or a force that won't damage or deform the test point.
- 5.1.4 Observe whether or not the indicator lamp lights up.
- 5.1.5 Repeat steps 5.1.3 and 5.1.4 for each projection, corner and surface deformation that was identified and located in step 5.1.1.

5.2 Results


- 5.2.1 Record the location on the product of any points that activated the Sharp Point Tester.

**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,
  - (ii) standard uncertainty or standard deviation of a series of repeated measurements with the force gauge (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 should contain the following information:

 Health Canada / Santé Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>  <b>Book 5 - Laboratory Policies and Procedures</b>	Page <b>M00.3-4</b>	Effective / En vigueur 2001-11-30
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method M-00.3 <b>TEST PROCEDURES TO DETERMINE THE MECHANICAL HAZARDS          - SHARP POINTS -</b>			Amendment number- / Numéro de la modification 29

- 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).



**Figure 1: Typical Sharp Point tester.**

..... END .....