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time of testing shall be between 68 °F. and 86 °F. Hold a burning paraffin candle whose diameter is at least 1 inch, so that the flame is in contact with the surface of the sample at the end of the major axis for 5 seconds or until the sample ignites, whichever is less. Remove the candle. By means of a stopwatch, determine the time of combustion with self-sustained flame. Do not exceed 60 seconds. Extinguish flame with a CO₂ or similar nondestructive type extinguisher. Measure the dimensions of the burnt area and calculate the rate of burning along the major axis of the sample.

§ 1500.45 Method for determining extremely flammable and flammable contents of self-pressurized containers.

(a) *Equipment required.* The test equipment consists of a base 8 inches wide, 2 feet long, marked in 6-inch intervals. A rule 2 feet long and marked in inches is supported horizontally on the side of the base and about 6 inches above it. A paraffin candle 1 inch or more in diameter, and of such height that the top third of the flame is at the height of the horizontal rule, is placed at the zero point in the base.

(b) *Procedure.* The test is conducted in a draft-free area that can be ventilated and cleared after each test. Place the self-pressurized container at a distance of 6 inches from the flame source. Spray for periods of 15 seconds to 20 seconds (one observer noting the extension of the flame and the other operating the container) through the top third of the flame and at a right angle to the flame. The height of the flame should be approximately 2 inches. Take three readings for each test, and average. As a precaution do not spray large quantities in a small, confined space. Free space of previously discharged material.

§ 1500.46 Method for determining flashpoint of extremely flammable contents of self-pressurized containers.

Use the apparatus described in §1500.43a. Use some means such as dry ice in an open container to chill the pressurized container. Chill the container, the flash cup, and the bath solution of the apparatus (brine or glycol

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may be used) to a temperature of about 25 °F below zero. Puncture the chilled container to exhaust the propellant. Transfer the chilled formulation to the test apparatus and test in accordance with the method described in §1500.43a.

[51 FR 28544, Aug. 8, 1986]

§ 1500.48 Technical requirements for determining a sharp point in toys and other articles intended for use by children under 8 years of age.

(a) *Objective.* The sharp point test prescribed by paragraph (d) of this section will be used by the Commission in making a preliminary determination that points on toys and other articles intended for use by children under 8 years of age, and such points exposed in normal use or as a result of reasonably foreseeable damage or abuse of such toys and articles, present a potential risk of injury by puncture or laceration under section 2(s) of the Federal Hazardous Substances Act (15 U.S.C. 1261(s)). The Commission will further evaluate points that are identified as presenting a potential risk of puncture or laceration injury to determine the need for individual product regulatory action.

(b) *Scope*—(1) *General.* The sharp point test of paragraph (d) of this section is applicable to toys or other articles that are introduced into interstate commerce on or after December 22, 1978. The sharp point test shall be applied to any accessible portion of the test sample before and after subjecting the test sample to the use and abuse tests of §§1500.51, 1500.52, and 1500.53 (excluding the bite test-paragraph (c) of each section).

(2) *Exemptions.* (i) Toys and other children's articles that are the subject of any of the following regulations are exempt from this §1500.48: The regulations for bicycles, non-full-size baby cribs, and full-size baby cribs (parts 1508, 1509, and 1512, of this chapter).

(ii) Toys that by reason of their functional purpose necessarily present the hazard of sharp points and that do not have any nonfunctional sharp points are exempt from this §1500.48: *Provided*, Each toy is identified by a conspicuous, legible, and visible label at the time of any sale, as having functional sharp

points. An example of such toys is a toy sewing machine with a needle.

(iii) Articles, besides toys, intended for use by children that by reason of their functional purpose necessarily present the hazard of sharp points and that do not have any nonfunctional sharp points are exempt from this § 1500.48. An example of such articles is a ball-point pen.

(c) *Accessibility*—(1) *General*. Any point that is accessible either before or after these tests of §§ 1500.51, 1500.52, and 1500.53 (excluding the bite test—paragraph (c) of each section) are performed shall be subject to the sharp point test of paragraph (d) of this section.

(2) *Accessible points*. (i) An accessible point for a toy or article intended for children 3 years of age or less is one that can be contacted by any portion forward of the collar of the accessibility probe designated as probe A in figure 2 of this section.

(ii) An accessible point for a toy or article intended for children over 3 years up to 8 years of age is one that can be contacted by any portion forward of the collar of the accessibility probe designated as probe B in figure 2 of this section.

(iii) An accessible point for a toy or article intended for children of ages spanning both age groups is one that can be contacted by any portion forward of the collar of either probe A or B, as shown in figure 2 of this section.

(3) *Insertion depth for accessibility*. (i) For any hole, recess, or opening having a minor dimension (The minor dimension of an opening is the diameter of the largest sphere that will pass through the opening.) smaller than the collar diameter of the appropriate probe, the total insertion depth for accessibility shall be up to the collar on the appropriate probe. Each probe joint may be rotated up to 90 degrees to simulate knuckle movement.

(ii) For any hole, recess, or opening having a minor dimension larger than the collar diameter of probe A but less than 7.36 inches (186.9 millimeters), when probe A is used, or a minor dimension larger than the collar diameter of probe B but less than 9.00 inches (228.6 millimeters), when probe B is used, the total insertion depth for ac-

cessibility shall be determined by inserting the appropriate probe with the extension shown in figure 2 in any direction up to two and one-quarter times the minor dimension of the probe, recess, or opening, measured from any point in the plane of the opening. Each probe joint may be rotated up to 90 degrees to simulate knuckle movement.

(iii) For any hole, recess, or opening having a minor dimension of 7.36 inches (186.9 millimeters) or larger when probe A is used, or a minor dimension of 9.00 inches (228.6 millimeters), or larger when probe B is used, the total insertion depth for accessibility is unrestricted unless other holes, recesses, or openings within the original hole, recess, or opening are encountered with dimensions specified in paragraph (c)(3) (i) or (ii) of this section. In such instances, the appropriate paragraphs (c)(3) (i) or (ii) of this section shall be followed. If both probes are to be used, a minor dimension that is 7.36 inches (186.9 millimeters) or larger shall determine unrestricted access.

(4) *Inaccessible points*. Points shall be considered inaccessible without testing with a probe if they lie adjacent to a surface of the test sample and any gap between the point and the adjacent surface does not exceed 0.020 inch (0.50 millimeter) either before or after the tests of §§ 1500.51, 1500.52, and 1500.53 (excluding the bite test—paragraph (c) of each section) are performed.

(d) *Sharp point test method*—(1) *Principle of operation*. The principle of operation of the sharp point tester shown in figure 1 of this section is as follows (Detailed engineering drawings for a suggested sharp point tester are available from the Commission's Office of the Secretary.): A rectangular opening measuring 0.040 inch (1.02 millimeters) wide by 0.045 inch (1.15 millimeters) long in the end of the slotted cap establishes two reference dimensions. Depth of penetration of the point being tested determines sharpness. If the point being tested can contact a sensing head that is recessed a distance of 0.015 inch (0.38 millimeter) below the end cap and can move the sensing head a further 0.005 inch (0.12 millimeter) against a 0.5-pound (2.2-newton) force of a return spring, the point shall be identified as

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sharp. A sharp point tester of the general configuration shown in figure 1 of this section or one yielding equivalent results shall identify a sharp point. In conducting tests to determine the presence of sharp points, the Commission will use the sharp point tester shown in figure 1 of this section and the accessibility probes designated as A or B in figure 2 of this section.

(2) *Procedure.* (i) The sample to be tested shall be held in such a manner that it does not move during the test.

(ii) Part of the test sample may need to be removed to allow the sharp point testing device to test a point that is accessible by the criteria of paragraph (c) of this section. Such dismantling of the test sample could affect the rigidity of the point in question. The sharp point test shall be performed with the point supported so that its stiffness approximates but is not greater than the point stiffness in the assembled sample.

(iii) Using the general configuration shown in figure 1 of this section, the adjustment and operation of the sharp point tester is as follows: Hold the sharp point tester and loosen the lock ring by rotating it so that it moves towards the indicator lamp assembly a sufficient distance to expose the cali-

bration reference marks on the barrel. Rotate the gaging can clockwise until the indicator lamp lights. Rotate the cap counterclockwise until an equivalent of five divisions (the distance between the short lines on the cap) have passed the calibration reference mark. Lock the gaging cap in this position by rotating the lock ring until it fits firmly against the cap. Insert the point into the gaging slot in all directions in which it was accessible by the criteria of paragraph (c) of this section, and apply a force of 1.00 pound (4.45 newtons). A glowing light identifies the point as sharp.

(iv) The test instruments used by the Commission in its tests for compliance with this regulation shall have gaging slot opening dimensions no greater than 0.040 inch by 0.045 inch and shall have the sensing head recessed a depth of no less than 0.015 inch. The force applied by the Commission when inserting a point into the gaging slot shall be no more than 1.00 pound.

(e) For the purpose of conformance with the technical requirements prescribed by this §1500.48, the English figures shall be used. The metric approximations are provided in parentheses for convenience and information only.

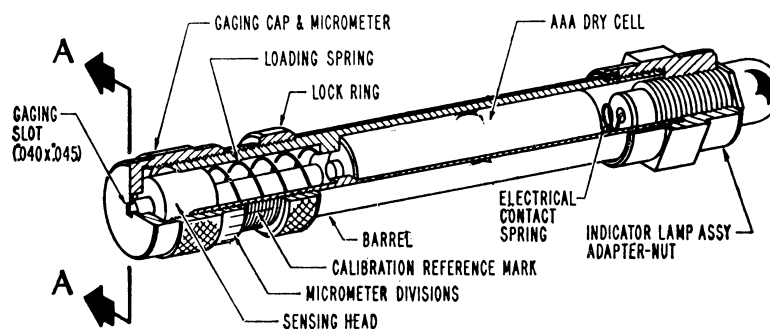
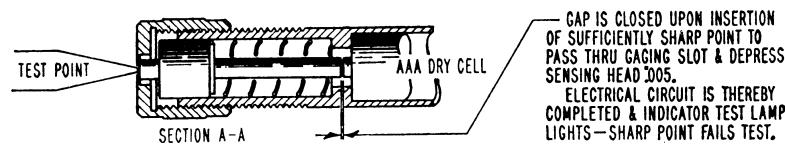
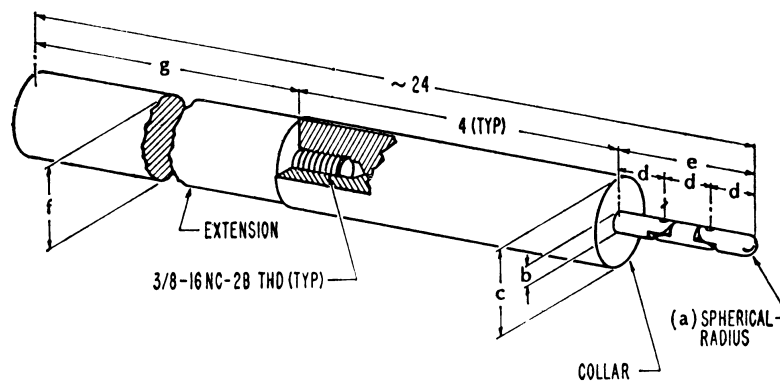


FIG 1—SHARP POINT TESTER



| | a | b | c | d | e | f | g |
|-----------------------------|------|------|-------|------|-------|-------|----------|
| (CHILDREN 0-36 MONTHS INCL) | | | | | | | |
| PROBE A | .110 | .220 | 1.020 | .577 | 1.731 | 1 | 18 9/32 |
| PROBE B | .170 | .340 | 1.510 | .760 | 2.280 | 1 1/2 | 17 25/32 |

ALL DIMENSIONS IN INCHES

FIG 2—ACCESSIBILITY PROBES

§ 1500.49 Technical requirements for determining a sharp metal or glass edge in toys and other articles intended for use by children under 8 years of age.

(a) *Objective.* The sharp edge test method prescribed by paragraph (d) of this section will be used by the Com-

mission in making a preliminary determination that metal or glass edges on toys and other articles intended for use by children under 8 years of age, and such edges exposed in normal use or as a result of reasonably foreseeable damage or abuse of such toys and articles, present a potential risk of injury by