

(iii) Does not produce a flame, and
 (iv) produces an audible, or audible and visual, signal that will be clearly discernible when the surrogate multi-purpose lighter is activated in each manner that would produce a flame in a fueled production multi-purpose lighter.

(2) This definition does not require a multi-purpose lighter to be modified with electronics or the like to produce a signal. Manufacturers may use a multi-purpose lighter without fuel as a surrogate multi-purpose lighter if a distinct audible signal, such as a "click," can be heard clearly when the mechanism is operated in each manner that would produce a flame in a production lighter and if a flame cannot be produced in a production multi-purpose lighter without the signal. But see § 1212.4(f)(1).

(d) *Child-resistant mechanism* means the mechanism of a multi-purpose lighter that makes the lighter resist successful operation by young children, as specified in § 1212.3.

(e) *Model* means one or more multi-purpose lighters from the same manufacturer or importer that do not differ in design or other characteristics in any manner that may affect child resistance. Lighter characteristics that may affect child resistance include, but are not limited to, size, shape, case material, and ignition mechanism (including child-resistant features).

§ 1212.3 Requirements for multi-purpose lighters.

(a) A multi-purpose lighter subject to this part 1212 shall be resistant to successful operation by at least 85% of the child-test panel when tested in the manner prescribed by § 1212.4.

(b) The child-resistant mechanism of a multi-purpose lighter subject to this part 1212 must:

(1) Operate safely when used in a normal and convenient manner,

(2) Comply with this § 1212.3 for the reasonably expected life of the lighter,

(3) Not be easy to deactivate or prevent from complying with this § 1212.3.

(4) Except as provided in paragraph (b)(5) of this section, automatically reset when or before the user lets go of the lighter.

(5) The child-resistant mechanism of a multi-purpose lighter subject to this part 1212 that allows hands-free operation must:

(i) Require operation of an additional feature (e.g., lock, switch, etc.) after a flame is achieved before hands-free operation can occur;

(ii) Have a manual mechanism for turning off the flame when the hands-free function is used; and either

(iii) Automatically reset when or before the user lets go of the lighter when the hands-free function is not used; or

(iv) Automatically reset when or before the user lets go of the lighter after turning off the flame when the hands-free feature is used.

§ 1212.4 Test protocol.

(a) *Child test panel.* (1) The test to determine if a multi-purpose lighter is resistant to successful operation by children uses a panel of children to test a surrogate multi-purpose lighter representing the production multi-purpose lighter. Written informed consent shall be obtained from a parent or legal guardian of a child before the child participates in the test.

(2) The test shall be conducted using at least one, but no more than two, 100-child test panels in accordance with the provisions of § 1212.4(f).

(3) The children for the test panel shall live within the United States.

(4) The age and sex distribution of each 100-child panel shall be:

(i) 30±2 children (20 ±1 males; 10±1 females) 42 through 44 months old;

(ii) 40±2 children (26±1 males; 14±1 females) 45 through 48 months old;

(iii) 30±2 children (20±1 males; 10±1 females) 49 through 51 months old.

NOTE TO PARAGRAPH (a)(4): To calculate a child's age in months: Subtract the child's birth date from the test date. The following calculation shows how to determine the age of the child at the time of the test. Both dates are expressed numerically as Month-Day-Year.

Example: Test Date (e.g., 8/3/94) minus Birth Date—(e.g., 6/23/90). Subtract the number for the year of birth from the number for the year of the test (i.e., 94 minus 90 = 4). Multiply the difference in years by 12 months (i.e., 4 years × 12 months = 48 months). Subtract the number for the month of the birth date from the number of the month of the test date (i.e., 8 minus 6 = 2 months). Add the difference in months obtained above to the

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number of months represented by the difference in years described above (48 months + 2 months = 50 months). If the difference in days is greater than 15 (e.g., 16, 17 . . .), add 1 month. If the difference in days is less than -15 (e.g., -16, -17), subtract 1 month (e.g., 50 months - 1 month = 49 months). If the difference in days is between -15 and 15 (e.g., -15, -14, . . . 14, 15), do not add or subtract a month.

(5) No child with a permanent or temporary illness, injury, or handicap that would interfere with the child's ability to operate the surrogate multi-purpose lighter shall participate.

(6) Two children at a time shall participate in testing of surrogate multi-purpose lighters. Extra children whose results will not be counted in the test may be used if necessary to provide the required partner for test subjects, if the extra children are within the required age range and a parent or guardian of each such child has signed a consent form.

(7) No child shall participate in more than one test panel or test more than one surrogate multi-purpose lighter. No child shall participate in both surrogate multi-purpose lighter testing and either surrogate cigarette lighter testing or child-resistant package testing on the same day.

(b) *Test sites, environment, and adult testers.* (1) Surrogate multi-purpose lighters shall be tested within the United States at 5 or more test sites throughout the geographical area for each 100-child panel if the sites are the customary nursery schools or day care centers of the participating children. No more than 20 children shall be tested at each site. In the alternative, surrogate multi-purpose lighters may be tested within the United States at one or more central locations, provided the participating children are drawn from a variety of geographical locations.

(2) Testing of surrogate multi-purpose lighters shall be conducted in a room that is familiar to the children on the test panel (for example, a room the children frequent at their customary nursery school or day care center). If the testing is conducted in a room that initially is unfamiliar to the children (for example, a room at a central location), the tester shall allow at least 5 minutes for the children to become accustomed to the new environ-

ment before starting the test. The area in which the testing is conducted shall be well-lighted and isolated from distractions. The children shall be allowed freedom of movement to work with their surrogate multi-purpose lighters, as long as the tester can watch both children at the same time. Two children at a time shall participate in testing of surrogate multi-purpose lighters. The children shall be seated side by side in chairs approximately 6 inches apart, across a table from the tester. The table shall be normal table height for the children, so that they can sit up at the table with their legs underneath and so that their arms will be at a comfortable height when on top of the table. The children's chairs shall be "child size."

(3) Each tester shall be at least 18 years old. Five or 6 adult testers shall be used for each 100-child test panel. Each tester shall test an approximately equal number of children from the 100-child test panel (20±2 children each for 5 testers and 17±2 children each for 6 testers).

NOTE: When a test is initiated with five testers and one tester drops out, a sixth tester may be added to complete the testing. When a test is initiated with six testers and one tester drops out, the test shall be completed using the five remaining testers. When a tester drops out, the requirement for each tester to test an approximately equal number of children does not apply to that tester. When testing is initiated with five testers, no tester shall test more than 19 children until it is certain that the test can be completed with five testers.

(c) *Surrogate multi-purpose lighters.* (1) Six surrogate multi-purpose lighters shall be used for each 100-child panel. The six multi-purpose lighters shall represent the range of forces required for operation of multi-purpose lighters intended for use. All of these surrogate multi-purpose lighters shall have the same visual appearance, including color. The surrogate multi-purpose lighters shall be labeled with sequential numbers beginning with the number one. The same six surrogate multi-purpose lighters shall be used for the entire 100-child panel. The surrogate multi-purpose lighters may be used in more than one 100-child panel test. The surrogate multi-purpose lighters shall

not be damaged or jarred during storage or transportation. The surrogate multi-purpose lighters shall not be exposed to extreme heat or cold. The surrogate multi-purpose lighters shall be tested at room temperature. No surrogate multi-purpose lighter shall be left unattended.

(2) Each surrogate multi-purpose lighter shall be tested by an approximately equal number of children in a 100-child test panel (17±2 children).

NOTE: If a surrogate multi-purpose lighter is permanently damaged, testing shall continue with the remaining multi-purpose lighters. When a multi-purpose lighter is dropped out, the requirement that each multi-purpose lighter be tested by an approximately equal number of children does not apply to that lighter.

(3) Before each 100-child panel is tested, each surrogate multi-purpose lighter shall be examined to verify that it approximates the appearance, size, shape, and weight of a production multi-purpose lighter intended for use.

(4) Before and after each 100-child panel is tested, force measurements shall be taken on all operating components that could affect child resistance to verify that they are within reasonable operating tolerances for the corresponding production multi-purpose lighter.

(5) Before and after testing surrogate multi-purpose lighters with each child, each surrogate multi-purpose lighter shall be operated outside the presence of any child participating in the test to verify that it produces a signal. If the surrogate multi-purpose lighter will not produce a signal before the test, it shall be repaired before it is used in testing. If the surrogate multi-purpose lighter does not produce a signal when it is operated after the test, the results for the preceding test with that multi-purpose lighter shall be eliminated. An explanation shall be recorded on the data collection record. The multi-purpose lighter shall be repaired and tested with another eligible child (as one of a pair of children) to complete the test panel.

(d) *Encouragement.* (1) Prior to the test, the tester shall talk to the children in a normal and friendly tone to make them feel at ease and to gain their confidence.

(2) The tester shall tell the children that he or she needs their help for a special job. The children shall not be promised a reward of any kind for participating, and shall not be told that the test is a game or contest or that it is fun.

(3) The tester shall not discourage a child from attempting to operate the surrogate multi-purpose lighter at any time (either verbally or with body language such as facial expressions), unless a child is in danger of hurting himself or another child. The tester shall not discuss the dangers of multi-purpose lighters or matches with the children to be tested prior to the end of the 10-minute test.

(4) Whenever a child has stopped attempting to operate the surrogate multi-purpose lighter for a period of approximately one minute, the tester shall encourage the child to try by saying "keep trying for just a little longer."

(5) Whenever a child says that his or her parent, grandparent, guardian, etc., said never to touch lighters, say "that's right—never touch a real lighter—but your [parent, etc.] said it was OK for you to try to make a noise with this special lighter because it can't hurt you."

(6) The children in a pair being tested may encourage each other to operate the surrogate multi-purpose lighter and may tell or show each other how to operate it. (This interaction is not considered to be disruption as described in paragraph (e)(2) of this section.) However, neither child shall be allowed to touch or operate the other child's multi-purpose lighter. If one child takes the other child's surrogate multi-purpose lighter, that surrogate lighter shall be immediately returned to the proper child. If this occurs, the tester shall say "No. He (she) has to try to do it himself (herself)."

(e) *Children who refuse to participate.*

(1) If a child becomes upset or afraid, and cannot be reassured before the test starts, select another eligible child for participation in that pair.

(2) If a child disrupts the participation of another child for more than 1 minute during the test, the test shall be stopped and both children eliminated from the results. An explanation

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shall be recorded on the data collection record. These two children should be replaced with other eligible children to complete the test panel.

(3) If a child is not disruptive but refuses to attempt to operate the surrogate multi-purpose lighter throughout the entire test period, that child shall be eliminated from the test results and an explanation shall be recorded on the data collection record. The child shall be replaced with another eligible child (as one of a pair of children) to complete the test panel.

(f) *Test procedure.* (1) To begin the test, the tester shall say "I have a special lighter that will not make a flame. It makes a noise like this." Except where doing so would block the child's view of a visual signal, the adult tester shall place a 8½ by 11 inch sheet of cardboard or other rigid opaque material upright on the table in front of the surrogate multi-purpose lighter, so that the surrogate multi-purpose lighter cannot be seen by the child, and shall operate the surrogate multi-purpose lighter once to produce its signal. The tester shall say "Your parents said it is OK for you to try to make that noise with your lighter." The tester shall place a surrogate multi-purpose lighter in each child's hand and say "now you try to make a noise with your lighter. Keep trying until I tell you to stop."

NOTE: For multi-purpose lighters with an "off/on" switch, the surrogate lighter shall be given to the child with the switch in the "on," or unlocked, position.

(2) The adult tester shall observe the children for 5 minutes to determine if either or both of the children can successfully operate the surrogate multi-purpose lighter by producing one signal of any duration. If a child achieves a spark without defeating the child-resistant feature, say "that's a spark—it won't hurt you—try to make a noise with your lighter." If any child successfully operates the surrogate multi-purpose lighter during this first 5-minute period, the lighter shall be taken from that child and the child shall not be asked to try to operate the lighter again. The tester shall ask the successful child to remain until the other child is finished.

(3) If either or both of the children are unable to successfully operate the surrogate multi-purpose lighter during the 5-minute period specified in §1212.4(f) (3), the adult tester shall demonstrate the operation of the surrogate multi-purpose lighter. To conduct the demonstration, secure the children's full attention by saying "Okay, give me your lighter(s) now." Take the surrogate multi-purpose lighters and place them on the table in front of you out of the children's reach. Then say, "I'll show you how to make the noise with your lighters. First I'll show you with (child's name) lighter and then I'll show you with (child's name) lighter." Pick up the first child's surrogate multi-purpose lighter. Hold the lighter approximately 2 feet in front of the children at their eye level. Hold the surrogate multi-purpose lighter in a comfortable operating position in one hand so both children can see the operation of the child-resistant mechanism and the ignition mechanism during each demonstration. Say "now watch the lighter." Look at each child to verify that they are both looking at the lighter. Operate the multi-purpose lighter one time in a normal manner according to the manufacturer's instructions. Do not exaggerate operating movements. Do not verbally describe the lighter's operation. Place the first child's lighter back on the table in front of you and pick up the second child's lighter. Say, "Okay, now watch this lighter." Repeat the demonstration as described above using the second child's multi-purpose lighter.

NOTE TO PARAGRAPH (f)(3): The demonstration is conducted with each child's lighter, even if one child has successfully operated the lighter. Testers shall conduct the demonstration in a uniform manner, including the words spoken to the children, the way the multi-purpose lighter is held and operated, and how the tester's hand and body is oriented to the children. All testers must be able to operate the surrogate multi-purpose lighters using only appropriate operating movements in accordance with the manufacturer's instructions. If any of these requirements are not met during the demonstration for any pair of children, the results for that pair of children shall be eliminated from the test. Another pair of eligible children shall be used to complete the test panel.

(4) Each child who fails to successfully operate the surrogate multi-purpose lighter in the first 5 minutes is then given another 5 minutes in which to attempt to complete the successful operation of the surrogate multi-purpose lighter. After the demonstrations, give the same surrogate multi-purpose lighter back to each child who did not successfully operate the surrogate multi-purpose lighter in the first 5 minutes by placing the multi-purpose lighter in the child's hand. Say "Okay, now you try to make the noise with your lighter(s)—keep trying until I tell you to stop." If any child successfully operates the surrogate multi-purpose lighter during this period, the surrogate multi-purpose lighter shall be taken from that child and the child shall not be asked to try to operate the lighter again. If the other child has not yet successfully operated the surrogate multi-purpose lighter, the tester shall ask the successful child to remain until the other child is finished.

NOTE: Multi-purpose lighters with an on/off switch shall have the switch returned to the position the child left it at the end of the first 5-minute test period before returning the lighter to the child.

(5) At the end of the second 5-minute test period, take the surrogate multi-purpose lighter from any child who has not successfully operated it.

(6) After the test is over, ask the children to stand next to you. Look at the children's faces and say: "These are special lighters that don't make fire. Real lighters can burn you. Will you both promise me that if you find a real lighter you won't touch it and that you'll tell a grownup right away?" Wait for an affirmative response from each child; then thank the children for helping.

(7) Escort the children out of the room used for testing.

(8) After a child has participated in the testing of a surrogate multi-purpose lighter, and on the same day, provide written notice of that fact to the child's parent or guardian. This notification may be in the form of a letter provided to the school to be given to a parent or guardian of each child. The notification shall state that the child participated, shall ask the parent or guardian to warn the child not to play

with lighters or matches, and shall remind the parent or guardian to keep all lighters and matches, whether child-resistant or not, out of the reach of children. For children who operated the surrogate multi-purpose lighter, the notification shall state that the child was able to operate the child-resistant multi-purpose lighter. For children who do not defeat the child-resistant feature, the notification shall state that, although the child did not defeat the child-resistant feature, the child may be able to do so in the future.

(g) *Data collection and recording.* Except for recording the times required for the children to activate the signal, recording of data should be avoided while the children are trying to operate the multi-purpose lighters, so that the tester's full attention is on the children during the test period. If actual testing is videotaped, the camera shall be stationary and shall be operated remotely in order to avoid distracting the children. Any photographs shall be taken after actual testing and shall simulate actual test procedure(s) (for example, the demonstration). The following data shall be collected and recorded for each child in the 100-child test panel:

- (1) Sex (male or female).
- (2) Date of birth (month, day, year).
- (3) Age (in months, to the nearest month).
- (4) The number of the multi-purpose lighter tested by that child.
- (5) Date of participation in the test (month, day, year).
- (6) Location where the test was given (city, state, and the name of the site).
- (7) The name of the tester who conducted the test.
- (8) The elapsed time at which the child achieved any operation of the surrogate signal in the first 5-minute test period.
- (9) The elapsed time at which the child achieved any operation of the surrogate signal in the second 5-minute test period.
- (10) For a single pair of children from each 100-child test panel, photograph(s) or video tape to show how the multi-purpose lighter was held in the tester's hand, and the orientation of the tester's body and hand to the children, during the demonstration.

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(h) *Evaluation of test results and acceptance criterion.* To determine whether a surrogate multi-purpose lighter resists operation by at least 85% of the children, sequential panels of 100 children each, up to a maximum of 2 panels, shall be tested as prescribed below.

(1) If no more than 10 children in the first 100-child test panel successfully operated the surrogate multi-purpose lighter, the multi-purpose lighter represented by the surrogate multi-purpose lighter shall be considered to be resistant to successful operation by at least 85% of the child test panel, and no further testing is conducted. If 11 through 18 children in the first 100-child test panel successfully operate the surrogate multi-purpose lighter, the test results are inconclusive, and the surrogate multi-purpose lighter shall be tested with a second 100-child test panel in accordance with this §1212.4. If 19 or more of the children in the first 100-child test panel successfully operated the surrogate multi-purpose lighter, the lighter represented by the surrogate shall be considered not resistant to successful operation by at least 85% of the child test panel, and no further testing is conducted. (2)(i) If additional testing of the surrogate multi-purpose lighter is required by paragraph (h)(1) of this section, conduct the test specified by this §1212.4 using a second 100-child test panel and record the results. If a total of no more than 30 of the children in the combined first and second 100-child test panels successfully operated the surrogate multi-purpose lighter, the multi-purpose lighter represented by the surrogate multi-purpose lighter shall be considered resistant to successful operation by at least 85% of the child test panel, and no further testing is performed. If a total of 31 or more children in the combined first and second 100-child test panels successfully operate the surrogate multi-purpose lighter, the multi-purpose lighter represented by the surrogate shall be considered not resistant to successful operation by 85% of the child test panel, and no further testing is conducted.

(ii) Thus, for the first panel of 100 children, the surrogate passes if there are 0–10 successful operations by the children; the surrogate fails if there

are 19 or greater successful operations; and testing is continued if there are 11–18 successes. If testing is continued with a second panel of children, the surrogate passes if the combined total of the successful operations of the two panels is 30 or less, and it fails if there are 31 or more.

§ 1212.5 Findings.

(a) Before issuing a final rule, the Consumer Product Safety Act (CPSA), 15 U.S.C. 2058(f)(1), requires the Commission to consider and make appropriate findings for inclusion in the rule with respect to:

(1) The degree and nature of the risk of injury the rule is designed to eliminate or reduce;

(2) The approximate number of consumer products, or types or classes thereof, subject to such rule;

(3) The need of the public for the consumer products subject to such rule, and the probable effect of such rule, upon the utility, cost, or availability of such products to meet such need; and

(4) Any means of achieving the objective of the order while minimizing adverse effects on competition or disruption or dislocation of manufacturing and other commercial practices consistent with the public health and safety

(b) The CPSA, 15 U.S.C. 2058(f)(3), also requires the Commission to make the following findings before it promulgates a rule, and to include such findings in the rule:

(1) That the rule (including its effective date) is reasonably necessary to eliminate or reduce an unreasonable risk of injury associated with such product;

(2) That the promulgation of the rule is in the public interest;

(3) That the benefits expected from the rule bear a reasonable relationship to its costs; and

(4) That the rule imposes the least burdensome requirement that prevents or adequately reduces the risk of injury for which the rule is being promulgated.

(c) The required findings are included as appendix A to this part 1212.