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1 SCOPE

- 1.1 This method describes the test procedure to determine whether a sample of candles constitutes relight candles i.e. candles that relight spontaneously, and is applicable to item 29 of Part I of Schedule I to the Hazardous Products Act (HPA).
- 1.2 This method is applicable to birthday and “joke” candles (including sparklers) but is not applicable to regular household candles or potpourri candles.
- 1.3 This method is provided to facilitate laboratory procedures only. It is the trader's responsibility to ensure that the product is tested according to, and meets the requirements of the HPA.

2 APPLICABLE DOCUMENTS


- 2.1 Product Safety Reference Manual: *Book 4 - Flammable Products*
- 2.2 D. Lévesque, “Method Update: F-21 Test Method for Relight Candles”, Product Safety Laboratory Project Report No. 99-0528, March 2000

3 APPARATUS

- 3.1 A candle holder made of metal or other fire-resistant material that can hold a candle upright.
- 3.2 A stopwatch or a similar timing device capable of measuring time with a maximum error of 1 second.

4 PROCEDURE

- 4.1 Randomly select 10 candles from the sample.
- 4.2 Condition the candles at 23±2°C and 40±10% relative humidity for at least 24 hours prior to testing. These same conditions apply for testing.
- 4.3 Position a candle in the candle holder.
- 4.4 Light the candle and allow it to burn for one minute.
- 4.5 Extinguish the candle by blowing and start the stopwatch.
- 4.6 Wait until the candle re-ignites spontaneously or the wick stops smoldering.

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- 4.7 If the candle re-ignites spontaneously, record time to re-ignition and discontinue testing for that candle.
- 4.8 If the wick has stopped smoldering, repeat steps 4.4 to 4.8 until the candle has been tested a maximum of 10 times.
- 4.9 Repeat steps 4.3 to 4.8 for each candle selected in 4.1.

5 QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

- 5.1 Temperature and humidity conditions should be controlled and recorded (see F-00).
- 5.2 Testing must be conducted in a draft-free area (see F-00).
- 5.3 The Quality Control section of the method has not been developed and will be added when completed.

6 TEST REPORT


- 6.1 The test report should contain the following information:
 - 6.1.1 A description of the sample.
 - 6.1.2 The time to re-ignition after the candle was extinguished by blowing.

7 PRECISION AND BIAS

This section of the test method has not been developed and will be added when completed.

8 SAMPLING

A minimum of 50 candles should be submitted for testing.

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APPENDIX

STANDARD REPORT FORMAT

Product Description

The product was a wax candle 62 mm long and 5 mm in diameter and came in three different colours: red, yellow and blue.

Results

This table contains the time to re-ignition of the candles after they were allowed to burn for one minute and then blown out. Candles from each package were chosen for a total of ten candles. Each candle was tested ten times or until it re-ignited.

Candle	Time to Re-ignition (s)									
	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10
1	-	-	-	-	-	5				
2	2									
3	-	-	-	-	-	-	-	-	-	-
4	-	-	-	1						
5	4									
6	-	3								
7	-	-	22							
8	5									
9	2									
10	-	-	-	53						

Note: - (hyphen) designates no re-ignition of the candle.