



PROTOCOL # 100-Z																		
CANDLE INCLUDING FREESTANDING TAPER TEALIGHT VOTIVE FILLED NOVELTY CANDLES																		
Performance Test	Test Method	Samples	Requirement	Rating (Section or exec. Summary which failed items can be referenced)														
Initial Package																		
Label Verification																		
Labeling / Packaging Review	FPLA 16 CFR 500	All Samples	Should be legibly marked with the following information: Distributor's name, trademark or other means of identification of the manufacturer or packer & address (City, State & Zip) Product identification Net quantity of the contents in terms of weight, measure or numerical count (Metric & US Standard) or a combination so as to give accurate information and facilitate value comparison by the consumer See 16 CFR 500.21 at the end of the protocol for guidelines on Product Display Panel minimum requirements. This also includes the calculations for finding the PDP by candle type.															
Country of Origin Marking	19 CFR 134	All Samples	Shall indicate country of origin legibly and permanently and in a conspicuous place. It must also be in a close proximity and in comparable size to the name of country or locality other than the country of origin appears on the marking. Must be visible at point of purchase.															
Verify Label Claims	Visual Check	All Samples	The labeling must comply and valid with all claims.															
Expression of Measure – For Candle	16 CFR 500.7/ 16 CFR 501.7	All Samples	Regularly shaped candles shall be labeled with count (if applicable), length or height, diameter or width and net weight: <table><tr><td>Type of Candle</td><td>Measure</td></tr><tr><td>Filled/Tea Light</td><td>Wax Weight Only</td></tr><tr><td>Tapered/Irregular Decorative</td><td>Height Only</td></tr><tr><td>Votive/Circular</td><td>Height x Diameter</td></tr><tr><td>Votive/Irregular</td><td>Height Only</td></tr><tr><td>Pillar/Circular</td><td>Height x Diameter</td></tr><tr><td>Pillar/Square</td><td>Height x Width</td></tr></table> Note: Tapered candles and irregular shaped decorative candles which are either hand dipped or molded shall be labeled with count and length or height in inches, but the diameter of such candle is not needed to be expressed. (US Standard & Metric for all candles)	Type of Candle	Measure	Filled/Tea Light	Wax Weight Only	Tapered/Irregular Decorative	Height Only	Votive/Circular	Height x Diameter	Votive/Irregular	Height Only	Pillar/Circular	Height x Diameter	Pillar/Square	Height x Width	
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Multiunit Package Candles	FPLA 16 CFR 500.27	All Samples	Multiunit package candles shall be labeled with: the number of individual units the net quantity (weight and/or measure) of each individual unit the total quantity (net weight) of the multi-unit package (US Standard & Metric for all candles)															
Variety Package Candles	FPLA 16 CFR 500.28	All Samples	Variety package candles shall be labeled with the number of units for each identical commodity followed by the net quantity of that commodity (weight and/or measure) the total quantity (count and/or net weight) of the variety package (US Standard & Metric for all candles)															
California Registration Certificate	Visual Check (CA Dept of Pesticide Regulation)	All Samples	California Registration Certificate must be supplied by manufacturer along with the completed copy of the CA application (Citronella candle with paraffin wax as the only inert ingredient is exempted).															
Minimum Risk Pesticide Labeling Requirements	40 CFR 152.25(f)	All Samples	Minimum risk pesticide products shall not list an EPA registration number or EPA establishment number. Minimum risk pesticide products shall not list claims that it will: - control or mitigate microorganisms that pose a threat to human health, including, but not limited to disease transmitting bacteria or viruses. - control insects or rodents carrying specific diseases, including, but not limited to ticks that carry Lyme disease; or - make additional prohibited claims including, but not limited to: "clinically proven," "scientifically proven," or "certified germ kill" (additional examples found on EPA website)															

Minimum Risk Pesticide Labeling Requirements - Ingredients	40 CFR 152.25 (f)	All Samples	<p>Active Ingredients: The products active ingredient(s) may only be those that are: - Permitted in Table 1 in 40 CFR 152.25 (f)(1). Product labeling shall include name of each active ingredient, identified by the "label display name" in Table 1, and percentage (by weight).</p> <p>Inert Ingredients: The products inert ingredient(s) may only be those that are: - Commonly consumed food commodities described in 40 CFR 152.25 (f) (2). - Animal feed items described in 40 CFR 180.950(b) - Edible fats and oils described in 40 CFR 180.950(c) - Permitted in Table 2 in 40 CFR 152.25 (f)(2)(iv). Product labeling shall include the name of each inert ingredient, identified by "label display name" in Table 2.</p> <p>- the product contains inert ingredients from the approved FIFRA list (Paraffin) (Colorants are not listed)</p> <p>Fail if labeling is not compliant to the requirement(s)</p>	
Minimum Risk Pesticide Labeling Requirements - Contact Information	40 CFR 152.25 (f)(3)(iii)	All Samples	<p>The name of the producer or company for whom the product must appear on the product label. If the company name is not the producer, the company name must be qualified by appropriate words such as "Packed for [insert name], " "Distributed by [insert name]," or "Sold by [insert name]," to show that the name is not that of the producer. The contact information shall include the street address, ZIP code, and telephone number. The company name and contact information must be displayed prominently on the product label.</p> <p>Fail if labeling is not compliant to the requirement(s).</p>	
Cautionary Labeling for Candle	ASTM F2058	All Samples	<p>Candle, or candle and its container or package shall have a label meeting the requirements of ASTM F2058 either in text-only option or text-and-pictogram option. The symbol / information shall be given on the label as below:</p> <p>Text-Only Option</p> <p>- Safety alert symbol: - Signal word: WARNING - The statements: "Burn within sight. Keep away from things that can catch fire. Keep away from children." or their practical equivalents</p> <p>Pictogram Option</p> <p>- Safety alert symbol: - Pictogram</p> <p></p> <p>Text-and-</p>	
Cautionary Labeling Review (Applicable to All Small Candles – e.g. Taper, Tealight, Votive, etc.) For Gel Candles, With Prior Approval from Kohl's	ASTM F2058 -07 (R2014) & Kohl's Requirement	All Samples	<p>WARNING </p> <p>- Burn within sight - Keep away from things that catch fire - Keep away from children and pets</p> <p>Do not burn more than 2 hours at one time. Keep candle out of drafts.</p>	
Adult Tracking Label: **If space limitations exist, contact Kohl's Quality Assurance & Product Integrity teams to discuss minimum required information (MR.QA.PI@kohls.com)	Kohl's Requirement	All Samples	Can be included on packaging when necessary: Kohl's Assigned Factory Number Manufacture Date (Month/Year) UPC #	
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Analytical				

*Lead In Scrapable Surface Coating	CPSC-CH- E1003-09	1 Sample	≤90 ppm (0.0090% by weight). (CPSA – 16 CFR 1303)	
*Petroleum Wax (Paraffin Wax) Content (Applicable to Mixed - Wax Candles Imported From China Only)	Federal Register, Volume 71, No. 194 & US CBPL Method, Chapter 34	1 Sample	Must not composed of any amount of petroleum wax Note: following candles are outside the scope of the Antidumping Duty Order: - Candles contain petroleum wax but also contain 50% or more beeswax - Candles contain petroleum wax but contain insect-repellent ingredients (such as citronella oil or lemongrass oil) and are labeled as an insect-repellent for outdoor use - Birthday Candle - Novelty Candle	
*Safety Data Sheet (SDS)	29 CFR 1910.1200 (g)	All Samples	29 CFR 1910.1200 (g) To be rated as a PASS/FAIL Vendor must submit SDS for review at the time of testing. SDS report must be attached to the test report.	
Refer to protocol Hardlines Regulatory Supplement for additional State & Federal Regulations	Refer to Protocol 1800	All Samples	All samples shall be reviewed against the requirements of the Hardlines Regulatory Supplemental Protocol (State Regulation Only) to determine if additional testing or labeling is required	
Physical Characteristics				
Weight Of Candle (gms.& ozs)	Std. Measure	1 Sample	As claimed (-0%) (Report the total wax weight only; this does not include the weight of container or wrappings).	
Dimensions	Std. Measure	1 Sample	Must comply with claims (-0%)	
Kohl's Workmanship Review	Visual Check	All Samples	- No major defects; one minor defect allowed. - All components shall be provided as claimed and shall not be deformed or fractured - All hardware shall be provided - All welds shall be smoothly finished and free from pits and splatter - All components shall not contain any burrs or sharp edges (Test by touch or sight) - Product shall not contain any loose components or unsecured fastening where rigidity is required	
Fragrance	Sensory	All Samples	Must comply with claims.	
Construction Qualities				
Wick Length (In.)	Std. Measure	All Samples	Sufficient length for lighting (Min. 1/4" exposed wick)	
Shape & Dimensions	Visual Check	All Samples	As approval sample	
Construction, Type, Defects etc.	Visual Check	All Samples	As approval sample	
Metal Cored Wicks	Visual Check	All Samples	No metal core allowed in wick.	

Performance				
Burning Characteristics or Abnormalities**	ASTM F2417 (mod)	1 Sample (hourly readings)	Report any other abnormalities (e.g. glitter popping, small rocks exploding, etc.) that may result in property damage and / or be a potential hazard when test in accordance with the applicable section of the Standard. Mod: 1 sample shall only be used.	Note: Candle will not be continuously burnt during the test. It will only be burnt during the working hour (i.e. burn for 8 hours per working day).
Visual Smoke (For Indoor Candles Only)	Visual Check	1 Sample (hourly readings)	Smoke is analyzed hourly and recorded as "Intermittent" or "Continuous". The total number of readings must not exceed 20% (Intermittent) / 10% (Continuous) of the total number of hours burned.	
Flame Height	ASTM F2417-17	1 Sample	Flame height of candle (other than religious / ceremonial candle) shall not exceed 3 in. Religious / ceremonial candle flame height shall not exceed 3.75 in. NOTE: For outdoor candle, the result shall be reported as data only.	
Afterglow	Visual Check	1 Sample	Afterglow of the tip shall extinguish within 30 seconds.	
Overflow	Visual Check	1 Sample	Molten wax shall not escape from candle and reach surface upon which candle is burned	
Candle Container Integrity	ASTM F2417-17	1 Sample	Container of filled candle, including tealight shall not crack or break when tested.	
Secondary Ignition	ASTM F2417-17	1 Sample	Candle and candle ensemble except religious / ceremonial candle and non-freestanding birthday candle shall not exhibit secondary ignition during the test.	
Flame Impingement	ASTM F2417 Section 4.4	1 Sample	Freestanding candle shall not impinge on the supporting surface when tested.	
*Plastic Container Used for Candle	ASTM F2417 Section 4.6	10 Unused Empty Plastic Container	Plastic container used for candle shall meet the following requirements when tested: - Total burn time for ten plastic candle container shall be less than or equal to 300 seconds. - No single burn time of a plastic container shall exceed 30 seconds. - No single plastic container shall be completely consumed during testing.	
Coatings in Candles	ASTM F2417-17 Section 4.7	24 Samples	Candle which contains a coating (such as a painted surface) except non-freestanding birthday, religious / ceremonial candle, and filled candle where there is a noncombustible material, such as glass, between the flame and the coated surface, shall meet the following requirements when a minimum of 24 identical candles are tested: - Candle flame heights shall not exceed 3 in; - Secondary ignition shall not occur; - Freestanding candle flames shall not impinge on the supporting surface; - Freestanding candles shall not tip over on a level surface.	Except non-freestanding birthday candles, religious/ceremonial candles, and filled candles where there is a noncombustible material such as glass, between the flame and the coated surface
Burning Time	Std. Measure	1 Sample	As approval sample – must comply with claims (-0%) (Report claimed & actual length of burn time in hours and minutes) **Candles are subjected to burning performance test on a flat table surface with aluminum foil to protect table surface. Votive candles are placed in a votive candle holder supplied by the laboratory for evaluation. ##The following guidelines shall be followed to determine the length of time interval for a single cycle of candle burning performance test: Burn tealight candles and tealight ensembles to their end of useful life in one continuous burn. Burn gel-containing candles for 8h. Burn extended use candles for the prescribed length of time. Burn all other candles for 4h.	Actual: Claim:
Stability	ASTM F2417-17 Section 4.5	1 Sample	Freestanding candle and filled candle, including tealight candle and ensemble shall not tip over when placed at a 10.0° (-0°/+0.5°) incline from horizontal. Asymmetrical candle and ensemble shall not tip over when placed at a 10.0° (-0°/+0.5°) incline from horizontal at any position when rotated around the vertical axis. While burning according to the test method as specified, freestanding candles shall not tip over on a level surface.	

Container Temperature During Burning (If Applicable)	Kohl's TM 33	1 Sample	No adverse temperature development during burning. The external surface temperature shall not be more than - 140°F (60°C) for metal, and - 175°F (79°C) for ceramic / glass	Minimum: Maximum: Average:																					
16 CFR 500.21 LABELING REQUIREMENTS - FOR REFERENCE ONLY	<p>Candles with Sticker Label PDP Calculation: (CONTAINER HEIGHT) x (DIAMETER) x 1.26 = PDP (cm²/in²)</p> <p>Candles without Sticker Label (Screenprint) PDP Calculation: (HEIGHT x CIRCUMFERENCE) x 40% = PDP (cm²/in²)</p> <p>Candles with STICKER LABEL on Top of the Cylindrical Container: πr^2 = PDP (cm²/in²)</p> <p>Candles with STICKER LABEL on Rectangular Container: Height(cm/in) x Depth (cm/in) = PDP (cm²/in²)</p> <table><tr><th colspan="3">Table 1. Minimum Height of Numbers and Letters</th></tr><tr><th>Area of Principal Display Panel</th><th>Minimum Height of Numbers and Letters</th><th>Minimum Height; Label Information Blown, Formed, or Molded on Surface of Container</th></tr><tr><td>≤ 32 cm² (5 in²)</td><td>1.6 mm (¹/₁₆ in)</td><td>3.2 mm (¹/₈ in)</td></tr><tr><td>> 32 cm² (5 in²) ≤ 161 cm² (25 in²)</td><td>3.2 mm (¹/₈ in)</td><td>4.8 mm (³/₁₆ in)</td></tr><tr><td>> 161 cm² (25 in²) ≤ 645 cm² (100 in²)</td><td>4.8 mm (³/₁₆ in)</td><td>6.4 mm (¹/₄ in)</td></tr><tr><td>> 645 cm² (100 in²) ≤ 2581 cm² (400 in²)</td><td>6.4 mm (¹/₄ in)</td><td>7.9 mm (⁵/₁₆ in)</td></tr><tr><td>> 2581 cm² (400 in²)</td><td>12.7 mm (¹/₂ in)</td><td>14.3 mm (⁹/₁₆ in)</td></tr></table> <p>Symbols: ≤ means less than or equal to; < means less than; > means greater than. NOTE: The type size requirements specified in this table do not apply to the “e” mark [see Section 6.5.1, NOTE].</p>			Table 1. Minimum Height of Numbers and Letters			Area of Principal Display Panel	Minimum Height of Numbers and Letters	Minimum Height; Label Information Blown, Formed, or Molded on Surface of Container	≤ 32 cm² (5 in²)	1.6 mm (¹ / ₁₆ in)	3.2 mm (¹ / ₈ in)	> 32 cm² (5 in²) ≤ 161 cm² (25 in²)	3.2 mm (¹ / ₈ in)	4.8 mm (³ / ₁₆ in)	> 161 cm² (25 in²) ≤ 645 cm² (100 in²)	4.8 mm (³ / ₁₆ in)	6.4 mm (¹ / ₄ in)	> 645 cm² (100 in²) ≤ 2581 cm² (400 in²)	6.4 mm (¹ / ₄ in)	7.9 mm (⁵ / ₁₆ in)	> 2581 cm² (400 in²)	12.7 mm (¹ / ₂ in)	14.3 mm (⁹ / ₁₆ in)	
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Protocol Version	Update	Revised by / Date	Approved By / Date
100-0	Initial Release	CY Chan Feb 10, 2004	Roger Mayerson Mar 08, 2004
100-1	Revised Cautionary Labeling, approved sample, only required for Candle imported from China and Vendor do not pay Paraffin Duty.	Simon Leung Apr 28, 2004	Bill Stark May 10, 2004
100-2	Revised Flame Height	Simon Leung June 21, 2004	Roger Mayerson July 01, 2004
100-3	Revised Visual Smoke to Indoor Candles Only	Simon Leung Aug 11, 2004	Roger Mayerson Aug 13, 2004
100-4	Updated ASTM PS 59 – 02 to F 2417 – 04	Simon Leung Sep 15, 2004	Roger Mayerson Sep 22, 2004
100-5	Revised Wick Length, Cautionary Labeling Review and Add Container Temperature During Burning Test	Simon Leung Dec 20, 2004	Roger Mayerson Dec 20, 2004
100-6	Revised Labeling Review, Cautionary Labeling Review, Candle Burning Performance and Paraffin Content Test Requirements	Simon Leung Aug 20, 2005	Ro Jain Aug 25, 2005
100-7	Revised Protocol Title. Add Variety Package Candles To FPLA Review. Updated Cautionary Labeling Review To ASTM F2058 – 07. Updated Paraffin/Palm Oil Content Test & Title. Price Adjustment	Simon Leung Apr 18, 2008	Ro Jain Apr 21, 2008
100-8	Citronella Candle – Vendor to Clarify with Kohl's for ADD & the Need to Do Petroleum Wax/Palm Oil Wax Content Test.	Simon Leung Oct. 31, 2008	Ro Jain Oct. 31, 2008
100-A	Updated Test Methods to ASTM F 2417-09. Added Tea Light Cup Flammability Test. Changes protocol number from 100-8 to 100-A, price change	Simon Leung April 1, 2010	Ro Jain April 1, 2010
100-B	Updated lead in scrapable surface coating test method to CPSC method. Lowered lead in scrapable surface from 600 to 90ppm	Elizabeth Armstrong Sept 15, 2011	Ro Jain Sept 15, 2011
100-C	Update ASTM F2417 – 09 to ASTM F2417 - 11	John Wong Aug 20, 2012	Ro Jain Sept 6, 2012
100-D	Petroleum Wax /Palm Oil Wax Content & Cautionary Labeling Review Updated.	John Wong Feb 08, 2013	Ro Jain Apr 15, 2013
100-E	Cautionary Labeling Review Updated	Birkoff Chen Mar 14, 2014	Jeetendra Shelatkar Mar 25, 2014
100-F	Updated requirement of Container Temperature During Burning	Birkoff Chen Mar 31, 2014	Teana Robinette Apr 2, 2014
100-G	Updated lead content pricing	Candy Chan Jul 30, 2014	Jeetendra Shelatkar August 4, 2014
100-H	Change SGS In-house methods to international test methods	Birkoff Chen Sep 4, 2014	Teana Robinette Oct 27, 2014
100-I	Update ASTM F2417 – 11 to ASTM F2417 - 16	Gigi Au Nov 23, 2016	Teana Robinette Dec 8, 2016
100-J	Updated ASTM F2417 – 16 to ASTM F2417 - 17	Cindy Ng Nov 27, 2017	Teana Robinette Nov 27, 2017
100-K	Updated Wick length standards	Teana Robinette Aug 1, 2018	Teana Robinette Aug 1, 2018
100-L	Changed Container temp from 160F to 175F. Changed afterglow requirement from 15s to 30s	Teana Robinette Oct 1, 2018	Teana Robinette Oct 1, 2018
100-M	Updated burn timing test line.	Teana Robinette Nov 20, 2018	Teana Robinette Nov 20, 2018
100-N	Revised Cautionary Labeling	Charlene Swanson July 2, 2019	Charlene Swanson July 2, 2019
100-O	Updated Expression of Measure, Ingredient Review – Minimum Risk Pesticide Product, Other Conditions of Registration Exemption for Pesticide Product, Cautionary Labeling for Candle, Additional Cautionary Labeling, Burning Characteristics or Abnormalities, Flame Height, Candle Container Integrity, Secondary Ignition, Flame Impingement, Plastic Container Used for Candle, Coatings in Candles, and Stability. Updated Expression of Measure to have more detail for labeling.	Charlene Swanson July 2019	Charlene Swanson July 2019
100-P	Removed test line from Candles.Org for warning labels	Charlene Swanson August 2019	Charlene Swanson August 2019
100-Q	Updated “Workmanship” to “Kohl's Workmanship Review” and added requirements	Charlene Swanson December 2019	Charlene Swanson December 2019
100-R	Added and updated Adult Tracking label requirements	Charlene Swanson June 2020	Charlene Swanson June 2020
100-S	Added SDS requirement, added paraffin wax in parenthesis next to petroleum wax	Charlene Swanson August 2020	Charlene Swanson August 2020
100-T	Added test line in labeling for CA CPRTKA and at the footer of the protocol	Charlene Swanson February 2021	Charlene Swanson February 2021
100-U	Transferred Word Doc into Google Excel Spreadsheet	Violet Nelson May 4, 2022	Violet Nelson May 4, 2022
100-V	Updated Minimum Risk Pesticide Labeling Requirements (Ingredients and contact information)	Violet Nelson June 3, 2022	Violet Nelson June 3, 2022
100-W	Added NIST handbook 130 under labeling review for guidance on PDP display panel requirements.	Charlene Swanson November 2022	Charlene Swanson November 2022
100-X	Added in calculations for PDP	Elizabeth Armstrong Dec 2022	Elizabeth Armstrong Dec 2022
100-Y	Updated wick length requirements to state a minimum and not a maximum to meet industry standards	Charlene Swanson February 2023	Charlene Swanson February 2023
100-Z	Added 1800 Hardlines Regulatory Supplement for additional State & Federal Regulations	Isaac Grossman February 2025	Isaac Grossman February 2025