

Product:	Match Sticks		
Scope:	Match Sticks.	Protocol No.	TYCP-01054-NA
		Version	1.0
		Issue Date	15 Jan 2013
		Prepared by	Intertek HK - TFH
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NB: Where there is no applicable US or CN standard, Intertek has chosen the most relevant International standards to assess the product safety and performance. For undated references, the latest edition of the referenced document (including any amendments) applies.

Attribute	Citation	Requirement / Limit	Result
Supplemental Protocol			
For US Only			
*†CA Prop 65 (mandatory in state California)	Intertek Protocol	Consent Judgment of related court cases based on California Proposition 65.	
<i>Note: Additional cost, sample size & TAT may be required if testing to one or more supplemental protocols is necessary. Please refer to the above referenced supplemental protocol(s) for additional information.</i>			
Chemical Analysis			
For US Only			
*Lead Content of Paints or Similar Surface Coating	16 CFR 1303 (Scope widened)	Shall not contain Lead or Lead compounds in which the Lead content is in excess of 0.009% by weight of the total content (90ppm).	
*†Toxic Elements in Packaging Components	TPCH	Shall comply with TPCH in those states with legislation. Total concentration of Pb, Cd, Hg and hexavalent Cr ≤ 100ppm.	
For Canada Only			
*Total Lead in Surface Coating	Canada Consumer Product Safety Act, Surface Coating Materials Regulations (Scope widened)	Shall not exceed 0.009% (90ppm) total lead.	
Physical Characteristic			
Overall Dimensions	ITS-M0059	Report overall dimensions; shall meet label claims (if applicable).	
Thickness - Splint	ITS-M0059	Report thickness; shall meet label claims (if applicable).	
Overall Weight	ITS-M0059	Report overall weight; shall meet label claims (if applicable).	
For US Only			
Type of match – classification	Fed. Spec. A-A-59489 Section 2	Type I (Paper – Class A: 30 Splint Book, Class B: 20 Splint Book, Class C: 10 Splint Book) Type II (Wood – Class A: Large, “Kitchen” Size Sticks, Class B: Medium Size Sticks, Class C: Small, “Pocket” Size Sticks)	
Match head	Fed. Spec. A-A-59489 Section 3.2	Shall be evenly applied over ends and sides of splints and sticks.	

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Count	Fed. Spec. A-A-59489 Section 3.3	Type I, Class A: Shall be 30 matches per book, with 15 splints on each of two rows. Type I, Class B: Shall be 20 matches per book, with 10 splints on each of two rows. Type I, Class C: Shall be 10 matches per book, with 5 splints on each of two rows. Type II, Class A: Average number shall not be less than 250 per box & no box shall contain less than 230 matches. Type II, Class B: Average number shall not be less than 27 per box & no box shall contain less than 21 matches. Type II, Class C: Average number shall not be less than 32 per box & no box shall contain less than 30 matches.																															
Dimensions	Fed. Spec. A-A-59489 Section 3.4	<table border="1"> <thead> <tr> <th rowspan="2">Classification</th> <th colspan="2">Length</th> <th rowspan="2">Width</th> </tr> <tr> <th>Splint / stick with head</th> <th>Splint, head and base</th> </tr> </thead> <tbody> <tr> <td>Type I, Class A</td> <td>35 ± 3mm (1-3/8" ± 1/8")</td> <td>48 ± 3mm (1-7/8" ± 1/8")</td> <td>48 ± 2mm (1-7/8" ± 1/16")</td> </tr> <tr> <td>Type I, Class B</td> <td>35 ± 3mm (1-3/8" ± 1/8")</td> <td>48 ± 3mm (1-7/8" ± 1/8")</td> <td>30 ± 2mm (1-3/16" ± 1/16")</td> </tr> <tr> <td>Type I, Class C</td> <td>35 ± 3mm (1-3/8" ± 1/8")</td> <td>48 ± 3mm (1-7/8" ± 1/8")</td> <td>16 ± 2mm (5/8" ± 1/16")</td> </tr> <tr> <td>Type II, Class A</td> <td>60 ± 3mm (2-3/8" ± 1/8")</td> <td>-</td> <td>2.5mm (0.10")</td> </tr> <tr> <td>Type II, Class B</td> <td>50 ± 3mm (2" ± 1/8")</td> <td>-</td> <td>2.3mm (0.09")</td> </tr> <tr> <td>Type II, Class C</td> <td>44 ± 3mm (1-3/4" ± 1/8")</td> <td>-</td> <td>2mm (0.08")</td> </tr> </tbody> </table>	Classification	Length		Width	Splint / stick with head	Splint, head and base	Type I, Class A	35 ± 3mm (1-3/8" ± 1/8")	48 ± 3mm (1-7/8" ± 1/8")	48 ± 2mm (1-7/8" ± 1/16")	Type I, Class B	35 ± 3mm (1-3/8" ± 1/8")	48 ± 3mm (1-7/8" ± 1/8")	30 ± 2mm (1-3/16" ± 1/16")	Type I, Class C	35 ± 3mm (1-3/8" ± 1/8")	48 ± 3mm (1-7/8" ± 1/8")	16 ± 2mm (5/8" ± 1/16")	Type II, Class A	60 ± 3mm (2-3/8" ± 1/8")	-	2.5mm (0.10")	Type II, Class B	50 ± 3mm (2" ± 1/8")	-	2.3mm (0.09")	Type II, Class C	44 ± 3mm (1-3/4" ± 1/8")	-	2mm (0.08")	
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NOTE: Type I represents width of each row. Type II represents width of each match stick.																																	
Striking Surface	Fed. Spec. A-A-59489 Section 3.5	The striking surface on the outside match book or box shall be coated with a preparation which will be used to ignite the matches. The striking surface shall not peel or rub off.																															
Construction & Workmanship																																	
Sharp Points / Edges	With reference to 16 CFR 1500.48 / 1500.49	Shall have no sharp points/edges as received, other than those required for function.																															
Defects	Visual Check	Shall have no discernible surface degradation, including crazing, shivering, bubbles, cracks, stains, deformations, chips, fractures, heavy lines, waves, shear marks, scratches, scuff marks, indentations, or blisters.																															
For US Only																																	
Workmanship	Fed. Spec. A-A-59489	No defects. (No splints, cracks or crumbled match heads)																															
Friction	16 CFR 1202.4(a)(c)	Shall be located on the outside back cover near the bottom of the matchbook and none shall be located on the inside of the cover.																															
Cover	16 CFR 1202.4(b)	Shall remain closed without external force.																															

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Attribute	Citation	Requirement / Limit	Result
Bridges / Broken Bridges	16 CFR 1202.4(d)	Shall be no bridges or broken bridges.	
Matchhead Condition	16 CFR 1202.4(e)	Shall not be chipped, split, cracked, or crumbled.	
Matchhead Location	16 CFR 1202.4(f)	No portion of matchhead shall be located outside the cover when closed.	
Staple/Assembly Device	16 CFR 1202.4(g)(h)	Shall not be within or touching the friction area and shall be fully clinched so that the ends are flattened or turned into the cover.	
For Canada Only			
Match Ignition Compound	Canada Consumer Product Safety Act, Hazardous Products (Matches) Regulation, Section 5(a)	The ignition compound shall be uniformly applied to the end of the splint of the match.	
	Canada Consumer Product Safety Act, Hazardous Products (Matches) Regulation, Section 5(c)	The ignition compound shall not, upon being ignited, crack, explode or drop as glowing particles from the match	
Match Striking Tip	Canada Consumer Product Safety Act, Hazardous Products (Matches) Regulation, Section 5(b)	The tip shall not be split, chipped, cracked or crumbling or adhere to the striking tip of another match.	
Match Splint	Canada Consumer Product Safety Act, Hazardous Products (Matches) Regulation, Section 5(d)	The splint of the match shall not have an afterglow that lasts longer than three seconds	
Match Head Location	Canada Consumer Product Safety Act, Hazardous Products (Matches) Regulation, Section 6(a)	The cover shall be constructed such that all the match heads are covered when the book is closed.	
Staple/Assembly Device	Canada Consumer Product Safety Act, Hazardous Products (Matches) Regulation, Section 6(b)	The fastening wire shall not pierce or loosen the striking surface.	
Friction Paint	Canada Consumer Product Safety Act, Hazardous Products (Matches) Regulation, Section 6(c)	Friction paint shall not be on the inside cover within 1 inch of the match head.	
Striking Surface Location	Canada Consumer Product Safety Act, Hazardous Products (Matches) Regulation, Section 7	Shall be located on the opposite side of the opening.	

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Performance Test			
Functionality	ITS-M0061	Shall function as intended as received.	
Effects of Extreme Temperature and Humidity	ITS-M0007	Shall have no corrosion or visual change (e.g. peeling off of coating and/or plating) after one cycle of following conditioning: <ul style="list-style-type: none"> o 16 h at 0 °F; o 8 h at 120 °F, 95% RH. Match sticks after subjected to the above conditioning shall still be functional.	
For US Only			
Performance Test	Fed. Spec. A-A-59489 Section 3.7	100 matches shall be tested. Each match shall be struck on the striking surface until it ignites or becomes damaged. 5 or more failures shall result in rejection of the lot.	
Humidity Resistance Test	Fed. Spec. A-A-59489 Section 3.8	100 matches shall be conditioned at 95% RH & 100°F for 6 hrs. Immediately upon removal from the chamber, each match shall be struck on the striking surface until it ignites or becomes damaged. 30 or more failures shall result in rejection of the lot.	
Igniting Performance - Match	Fed. Spec. A-A-59489	Must ignite effectively without breakage of the splint, head or without cracking, exploding or afterglow.	
Spontaneous Ignition – Hot Air Oven	Fed. Spec. EE-M-101J Section 4.3.2	Note: Matches must be conditioned for a minimum of 48 hrs in at atmosphere maintained at 50 % R.H. at 73.5 +/-2°F (22 to 24°C) prior to the following testing. Place matches in wooden block fixture in circulating hot air oven and raise the temperature to 194 +/- 2°F (90°C) per Section. Expose matches to this environment for 2 hrs. Matches shall not ignite during this period.	
For Canada Only			
Spontaneous Ignition Test	Canada Consumer Product Safety Act, Hazardous Products (Matches) Regulation, Schedule I	Shall not ignite after 2 hours in an oven @ 194°F +/- 2°F (90°C +/- 1°C).	
Labeling Requirement			
Parts Labeling	ITS-M0060	Shall match the actual content if present.	
Use Labeling	ITS-M0060	Use, care and/or assembly instructions that are clear and understandable shall be provided in language appropriate to destination countries.	
Instructions	ITS-M0060	Shall provide an easy understandable instructions regarding assembly, use and maintenance	
Verify Label Claims	Actual Use	Shall comply with all claims.	
For US Only			
One Time Use Products	F.P. & L. Act (16 CFR 500)	Manufacturer, packer, or distributor's name & address (city, state & zip).	
†Fair Packaging and	OR	Product Identification.	

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Labeling Act OR All Other Products †Uniform Packaging and Labeling Regulations	NIST Uniform Laws and Regulations Handbook 130	Net quantity of contents shall be expressed in terms of weight or mass, measure, numerical count, or combination so as to give accurate information to facilitate consumer comparison (U.S. and metric units).											
†Country of Origin Marking	19 CFR 134.11	Shall indicate country of origin legibly, permanently, and in comparable size and close proximity to any mention of country other than country in which the article was manufactured or produced. Shall be visible at point of purchase.											
Marking	16 CFR 1202.6	The manufacturer's or private labeler's name and city or a symbol which will identify the name and city shall appear on the matchbook. In addition, every private labeler must label the matchbook with a code which enables it to identify, if requested, the manufacturer of the product. Boxes or cartons in which two or more caddies are shipped shall be marked "For safety, store in a cool, dry place."											
†Plastic Bag Warning Statement (If applicable)	Visual Check / Requirements Based on Various State Laws	<p>If plastic bags with a thickness less than 1 mil and an opening size $\geq 5"$ in diameter are present, the following warning statement shall be printed in a prominent place on each bag in English and appeared on both sides:</p> <p>WARNING: Keep this bag away from babies and children. Do not use in cribs, beds, carriages or playpens. The thin film may cling to nose and mouth and prevent breathing. This bag is not a toy.</p> <p>If the total length and width is $> 40"$, the warning shall be repeated in 20-inch intervals. The font size shall adhere to:</p> <table border="1" data-bbox="695 1312 1237 1476"> <thead> <tr> <th>Total Length and Width of Bag</th> <th>Font</th> </tr> </thead> <tbody> <tr> <td>60 inches or more</td> <td>at least 24 point</td> </tr> <tr> <td>40 inches to less than 60 inches</td> <td>at least 18 point</td> </tr> <tr> <td>25 inches to less than 40 inches</td> <td>at least 14 point</td> </tr> <tr> <td>less than 25 inches</td> <td>at least 10 point</td> </tr> </tbody> </table>	Total Length and Width of Bag	Font	60 inches or more	at least 24 point	40 inches to less than 60 inches	at least 18 point	25 inches to less than 40 inches	at least 14 point	less than 25 inches	at least 10 point	
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†Pre-packaged Product	Consumer Packaging and Labelling Act, R.S. 1985, c. C-38 and Regulations, C.R.C., c. 417	The net quantity declaration shall present on Principal Display Panel (PDP) in English and French, metric units. The numerical quantity shall be bold type with letter height based on the size of Principle Display Surface (X): <table border="1"> <thead> <tr> <th>Size of Principle Display Surface</th> <th>Minimum letter height</th> </tr> </thead> <tbody> <tr> <td>$X \leq 32 \text{ cm}^2 (5 \text{ in}^2)$</td> <td>1.6 mm (1/16 in)</td> </tr> <tr> <td>$32 \text{ cm}^2 < X \leq 258 \text{ cm}^2 (40 \text{ in}^2)$</td> <td>3.2 mm (1/8 in)</td> </tr> <tr> <td>$258 \text{ cm}^2 < X \leq 645 \text{ cm}^2 (100 \text{ in}^2)$</td> <td>6.4 mm (1/4 in)</td> </tr> <tr> <td>$645 \text{ cm}^2 < X \leq 25.8 \text{ dm}^2 (400 \text{ in}^2)$</td> <td>9.5 mm (3/8 in)</td> </tr> <tr> <td>$25.8 \text{ dm}^2 (400 \text{ in}^2) < X$</td> <td>12.7 mm (1/2 in)</td> </tr> </tbody> </table> All other information in the net quantity declaration (i.e. units of measurement statements, abbreviations, symbols, etc.) shall be shown in minimum 1.6 mm letter height.	Size of Principle Display Surface	Minimum letter height	$X \leq 32 \text{ cm}^2 (5 \text{ in}^2)$	1.6 mm (1/16 in)	$32 \text{ cm}^2 < X \leq 258 \text{ cm}^2 (40 \text{ in}^2)$	3.2 mm (1/8 in)	$258 \text{ cm}^2 < X \leq 645 \text{ cm}^2 (100 \text{ in}^2)$	6.4 mm (1/4 in)	$645 \text{ cm}^2 < X \leq 25.8 \text{ dm}^2 (400 \text{ in}^2)$	9.5 mm (3/8 in)	$25.8 \text{ dm}^2 (400 \text{ in}^2) < X$	12.7 mm (1/2 in)	
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Product identification shall be shown on Principal Display Panel (PDP) in English and French, minimum 1.6 mm letter height.															
Dealer's name and principal place of business (address) shall be shown on any part of label except bottom, English or French, minimum 1.6 mm letter height. For imported goods, the name and address of the dealer outside Canada or the name and address of Canadian dealers shall be preceded by "imported by" (" <i>importé par</i> ") or "imported for" (" <i>importé pour</i> "), unless a statement of geographic origin is located immediately adjacent to the name and address of a Canadian dealer, and shown with letter height at least as large as those used in the declaration of the Canadian dealer's principal place of business.															
The Language of Inscription (mandatory in Quebec)	The Charter of French Language, Title I, Chapter VII, Clause 51 & Regulations adopted under the Charter of French Language	Every inscription on the following shall be drafted in French, <ul style="list-style-type: none"> - product - product container or wrapping - document or object supplied with it (e.g. directions for use, warranty certificates) No inscription in another language may be given greater prominence than that in French. For exceptions, check the following webpage:– http://www.olf.gouv.qc.ca/english/regulations/reg_business.htm#div1													
†Country of Origin	Customs Tariff, Marking of Imported Goods Regulations, SOR/94-10	The country of origin marking of Non-NAFTA imported goods shall be present in English or French.													

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Marking	Canada Consumer Product Safety Act, Hazardous Products (Matches) Regulation, Section 4	<p>The following shall be placed on the book, box or container that covers or encloses the matches in a clear and legible manner:</p> <p>a) The manufacturer of matches that have been manufactured in Canada, or</p> <p>b) The importer or distributor of matches that have been manufactured outside Canada</p> <p>The name and mailing address of the wholesaler of matches that have been manufactured in Canada may be shown in place of the name and address of the manufacturer of those matches if an identification number, assigned to the manufacturer by the Minister of Consumer and Corporate Affairs, shall be shown in close proximity to the name and address of the wholesaler.</p>	

Remark: Additional tests may be incurred subject to the final samples reviewed by Intertek.

Key: *: Additional charge items †: Mandatory Requirement

Testing Charge & Sample Size & Turnaround Time

Basic Package Price (Listed Price)	USD 644 for US market; USD 192 for Canada market		
Sample size for basic package	300 matches for US market; 2 box of matches with at least 15 matches for Canada market (additional samples may be required for tests with additional charge)		
Turnaround time for basic package	7 working days		
Additional charge (Subject to client discount)		Additional sample size	
a. CA Prop 65	On quote	Subject to actual sample	
b. Lead Content of Paints or Similar Surface Coating (US)	USD 31 per coating	0.5 grams of coating on finished product	
c. Toxic Elements in Packaging Components	USD 54 per result	0.5 grams per material	
d. Total Lead in Surface Coating (CN)	USD 31 per coating	0.5 grams of coating on finished product	
Remark: Price quoted above is Listed price based on our Hong Kong laboratory pricing. Please check with local laboratories to confirm exact pricing for your region.			

Revision History

Issue No.	Revision date	Changes	Prepared by	Approved by
1.0	08 Oct 2012	Initial release	Mondy Tung	Taylor (Emily) on 08 Jan 2013