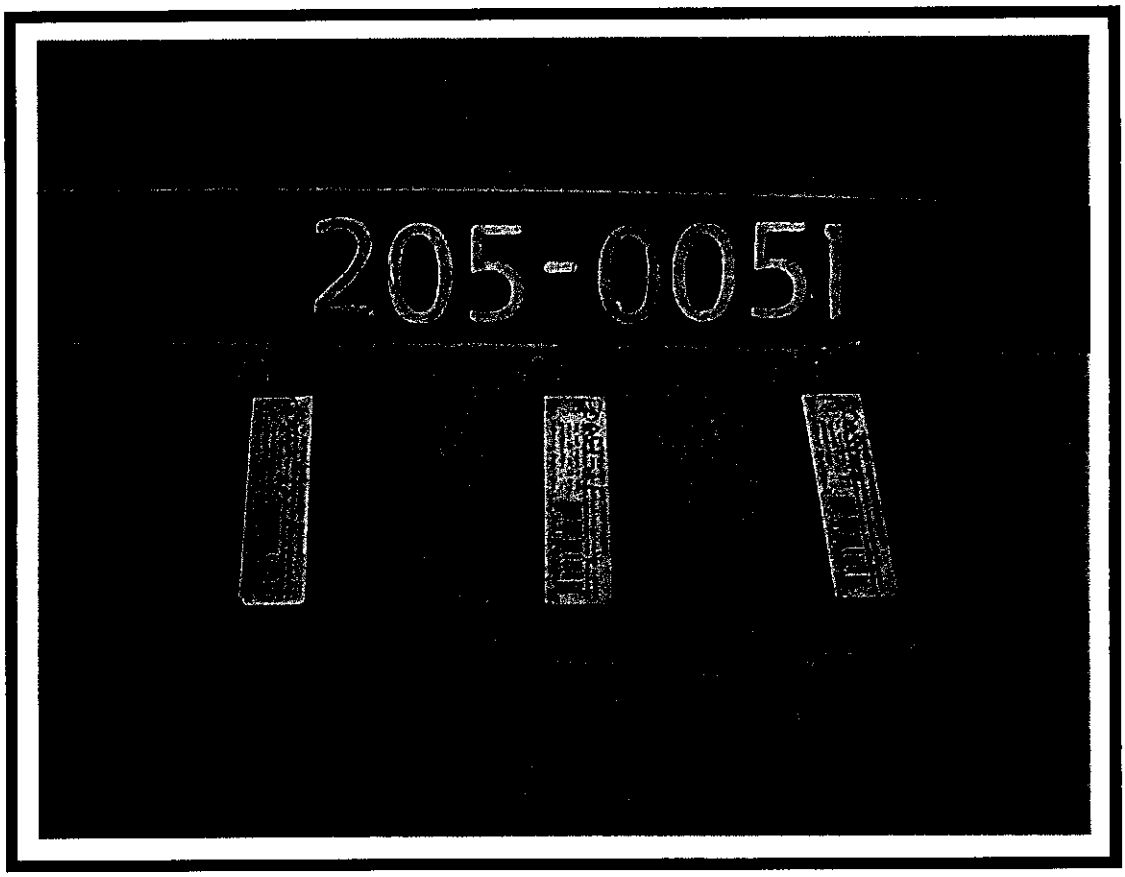
REPORT

Lab Number: (5104)205-0051



Index	
Cover	1 Page
Report	3 Pages
Protocol	9 Pages
1 Exhibit	1 Page
Other	N/A

TEST REPORT

LIGHTER ASSOCIATION, INC.
1920 N. STREET, NW
WASHINGTON , DC, DISTRICT OF COLUMBIA, 20036 UNITED STATES

ATTN: DAVID BAKER

LAB LOCATION:	BUFFALO - HARDLINES
LAB NUMBER:	(US) (5104) 205-0051
CLIENT NO.:	NOT LISTED
DEPARTMENT:	NOT LISTED
DATE IN:	JULY 23, 2004
DATE OUT:	AUGUST 31, 2004
MOD. LOG IN:	N/A
WORKING DAYS:	27
ADDENDUM DATE:	N/A

OVERALL RATING	
PASS	
CORRECTIVE ACTION REQUIRED	
FAIL	X

TESTING FOR
MC-4085-US
DISPOSABLE LIGHTERS (ASTM F400)

DEVELOPMENT		**PRODUCTION**	X	**CUSTOMER COMPLAINT**		**OTHER**			

Sample Description:	Gil Lighters								
Final Packaging:	**Yes** (submitted for review)	X	**No** (not submitted for review)						
Manufacturer:	Not Listed								
Country of Origin:	China				**Style:**	Not Listed			
Color:	Various				**SKU Number:**	Not Listed			
Re-test:	**Yes:**		**No:**	X	**Charge Vendor:**	**Yes:**		**No:**	X
Previous Report No.:	N/A								
Addendum Report:	**Yes:**		**No:**	X					
Reason For Addendum:	N/A								

TEST PROPERTY	PASS	C.A.R.	FAIL	COMMENTS
Labeling	X			
Physical Characteristics	X			
Construction Qualities			X	
Performance			X	
Analytical				Not Tested

EXECUTIVE SUMMARY: At the request of the client, submitted samples were tested per ASTM F400. All sections of the standard were evaluated, except Child Resistance per client request.

The samples provided received a FAIL rating for the following reasons :

Construction and Workmanship :

Defects – Does not meet all tested performance requirements. See Performance below for details.

Performance :

- Section 3.5.2 – Lighter # 125 and # 97 did not completely extinguish exposed flame within 2 seconds. Requirement –Will completely extinguish exposed flame within 2 seconds.

- Section 4.9 –Lighter # 118 the body of the lighter shattered during Pressure tests. Requirement – Shall be capable of withstanding two times the internal vapor pressure occurring at 131°F of the fuel recommended by the manufacturer.

RECOMMENDATION FOR IMPROVEMENT:

- Provide a sample that meets the Construction and Workmanship requirements.
- Provide a sample that meets the Performance requirements.

Bureau Veritas
Consumer Products Services, Inc.

Rufus K. Moberly
Associate Product Test Engineer,
Hardlines Department
Technical Consulting and Support Services

Bureau Veritas
Consumer Products Services, Inc.

Glenn Sylvia
V.P. of Hardlines

Bureau Veritas
Consumer Products Services, Inc.

James V. Zappa
Product Test Engineer
Hardlines Department
Technical Consulting and Support Services

/kni

BUREAU VERITAS

BV Lab Number:	(5104)205-0051
Technician Name:	DC/NS
Test Date:	July 27, 2004
Reviewed By/Date:	RKM 8/30/04

BUREAU VERITAS TEST PROTOCOL FOR
MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
LABELING					
Instructions and Warnings	ASTM F400-00, Section 6.1	All	All lighters shall be accompanied by the appropriate instructions or warnings, or both, communicating proper method of use.	M	PASS
	ASTM F400-00, Section 6.2	All	This safety information shall be conspicuously placed on the product or on a separate brochure or pamphlet packaged with the lighters or on a product packaging at the point of sale with contrasting background color, type size, or style that makes it distinct from other information.	M	PASS
	ASTM F400-00, Section 6.3	All	For all lighters, the safety information shall be accompanied in close proximity by the specific signal word "WARNING."	M	PASS
	ASTM F400-00, Section 6.4	All	For all lighters, the safety information shall contain the following statements:	See Below	-
	ASTM F400-00, Section 6.4.1	All	"Keep away from children" or "keep out of reach of children"	M	PASS
	ASTM F400-00, Section 6.4.2	All	Ignite lighter away from face and clothing.	M	PASS
	ASTM F400-00, Section 6.5	All	Use one of the following as appropriate for the lighter type:	See Below	-
	ASTM F400-00, Section 6.5.1	All	Be sure flame is out after use. (Self-extinguishing lighters)	M	PASS
	ASTM F400-00, Section 6.5.2	All	This lighter does not self-extinguish; close cover to put out. (Non-self-extinguishing lighters)	N/A	-
	ASTM F400-00, Section 6.6	All	For all lighters, the safety information may include the substance of the following as appropriate for the lighter type:	See Below	-
	ASTM F400-00, Section 6.6.1	All	Contains flammable gas under pressure.	M	PASS
	ASTM F400-00, Section 6.6.2	All	Contains flammable fluid.	N/A	-
	ASTM F400-00, Section 6.6.3	All	When filled, will contain flammable fluid.	N/A	-
	ASTM F400-00, Section 6.6.4	All	Never expose to heat above 120°F (49°C) or to prolonged sunlight.	M	PASS
	ASTM F400-00, Section 6.6.5	All	Never puncture or put in fire.	M	PASS

BV Lab Number: (5104)205-0051
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 6.6.6	All	Extreme heat is present above the visible flame. Extra care should be taken to prevent burn injury or fire. (premixing burner lighters)	N/A	-
	ASTM F400-00, Section 6.6.7	All	Do not keep lit for more than 10 seconds. (premixing burner lighters)	N/A	-
	ASTM F400-00, Section 6.7	All	Refillable gas lighters shall be accompanied by specific instructions as to the correct procedure to accomplish the refill operation, including type of fuel recommended.	N/A	-
	ASTM F400-00, Section 6.8.1	All	Fluid lighters shall be accompanied by the substance of the following:	See Below	-
	ASTM F400-00, Section 6.8.1.1	All	Fill only with the type of fluid recommended by the manufacturer.	N/A	-
	ASTM F400-00, Section 6.8.1.2	All	Fill slowly, never overfill.	N/A	-
	ASTM F400-00, Section 6.8.1.3	All	Wipe lighter and hands dry before igniting.	N/A	-
Product Markings	ASTM F400-00, Section 8	All	All lighters shall bear a permanent logo or name that identifies the manufacturer or distributor.	M	PASS
PACKAGING					
Retail Shelf Packaging	TM-HL-0002	All	Shall have final retail shelf packaging with scannable UPC stamp/label. Scanned numbers shall match as per supplied UPC label.	834810000369	PASS
PHYSICAL CHARACTERISTICS					
Dimensions (If Specified)	TM-HL-0001	1	Report overall dimensions.	3 ¼" x 1" x ½"	-
Weight (If Specified)	TM-HL-0001	1	Report weight.	17.0g	-
CONSTRUCTION & WORKMANSHIP					
Defects	TM-HL-0002	All	Shall be free of aesthetic defects and shall meet the structural requirements as tested under IV. Performance.	NM – Failed Pressure Tests	FAIL

BV Lab Number: (5104)205-0051
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
PERFORMANCE					
Flame Generation	ASTM F400-00, Standard Consumer Safety Specification for Lighters	1	Lighters shall require a deliberate manual operation to produce a flame. These operations shall conform to at least one of the following requirements:	See Below	-
	ASTM F400-00, Section 3.1.1	1	A system such that positive action on the part of the consumer is required to generate and maintain a flame.	M	PASS
	ASTM F400-00, Section 3.1.2	1	A system that requires two or more independent motions to generate a flame.	M	PASS
	ASTM F400-00, Section 3.1.3	1	A system that requires an actuating force equal to or greater than 3.4 lbf (15 N) to generate a flame.	N/T	-
Flame Control	ASTM F400-00, Section 3.2	1	The maximum attainable flame height for lighters shall be limited with a setting or by product design, or both.	M	PASS
	ASTM F400-00, Section 3.2.1 when tested in accordance with 7.1.	1	Nonadjustable fluid lighters:	See Below	-
		1	Shall not be capable of producing a flame height greater than 4.75 in. (120 mm).	N/A	-
	ASTM F400-00, Section 3.2.2 when tested in accordance with 7.1.	1	Nonadjustable postmixing and premixing burner lighters:	See Below	-
		1	Shall have a maximum attainable flame height of no more than 2 in. (50 mm).	N/A	-
	ASTM F400-00, Section 3.2.3 when tested in accordance with 7.1.	1	Adjustable postmixing burner Lighters:	See Below	-
		1	Shall not be capable of producing a flame height greater than 4.75 in. (120 mm) when deliberately adjusted by the consumer for maximum flame height.	M	PASS
	ASTM F400-00, Section 3.2.4, when tested in accordance with 7.1.	1	Adjustable premixing burner lighters:	See Below	-

BV Lab Number: (5104)205-0051
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Shall not be capable of producing a flame height in excess of 3 in. (75 mm) when deliberately adjusted by the consumer for maximum flame height..	N/A	-
	ASTM F400-00, Section 3.2.5, when tested in accordance with 7.1.		Adjustable postmixing burner lighters:	See Below	-
		1	The first strike will not produce a flame height in excess of 4 in. (100 mm).	M	PASS
	ASTM F400-00, Section 3.2.6, when tested in accordance with 7.1.	1	Adjustable premixing burner lighters:	See Below	-
		1	The first strike will not produce a flame height in excess of 2.5 in. (60 mm).	N/A	-
	ASTM F400-00, Section 3.2.7, when tested in accordance with 7.1.	1	All adjustable flame height lighters:	See Below	-
		1	Shall not be capable of producing a flame height in excess of 2 in. (50 mm) when set at the lowest possible flame height..	M	PASS
Flame Height Adjustment	ASTM F400-00, Section 3.3	1	Adjustable lighters shall require a deliberate manual operation to increase the flame height when the lighter is used in the normal fashion.	M	PASS
	ASTM F400-00, Section 3.3.1	1	Flame control actuators protrude from the body of the lighter. Shall require a minimum actuating force of 0.25 lbf (1 N) applied over the entire range of adjustment in a tangential direction.	M	PASS
	ASTM F400-00, Section 3.3.2	1	Adjustable gas lighters having rotary movement flame control actuators approximately at right angles to the flame shall perform as follows:	See Below	-
	ASTM F400-00, Section 3.3.2.1	1	The flame control actuator is at the top of the lighter.	M	PASS
		1	Moving the actuator to the left shall produce a decrease in flame height.	M	PASS
	ASTM F400-00, Section 3.3.2.2	1	The flame control actuator is at the bottom of the lighter.	N/A	-
		1	A clockwise movement shall produce a decrease in flame height.	N/A	-

BV Lab Number: (5104)205-0051
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 3.3.3	1	Adjustable gas lighters requiring motion of the flame control actuator approximately parallel to the flame axis shall decrease or increase the flame height according to the direction of the movement.	N/A	-
	ASTM F400-00, Section 3.3.4	1	Adjustable flame height lighters.	See Below	-
		1	Shall indicate the direction of movement to produce a higher or lower flame height.	M	PASS
	ASTM F400-00, Section 3.3.4	1	On lighters whose adjusting mechanisms conform to sections 3.3.2 and 3.3.3, the direction of movement shall be permanently imprinted or engraved on the lighter or may be of a nonpermanent tag or stick-on label, in the vicinity of the adjusting mechanism and be readily visible and understandable.	M	PASS
	ASTM F400-00, Section 3.3.5	1	On lighters whose adjusting mechanisms do not conform to sections 3.3.2 and 3.3.3, the direction of movement shall be permanently imprinted or engraved on the lighter, in the vicinity of the adjusting mechanism and be readily visible and understandable.	N/A	-
Spitting or Sputtering and Flaring	ASTM F400-00, Section 3.4, when tested in accordance with 7.2.	1	Gas lighters when set at the maximum flame height, shall exhibit no spitting or sputtering, or flaring.	M	PASS
Flame Extinction	ASTM F400-00, Section 3.5.1, when tested in accordance with 7.3	1	Adjustable postmixing burner lighters, after a 5-second burn at maximum flame height, when extinguished in the intended manner, shall have any exposed flame completely extinguished within 2 seconds.	M	PASS
	ASTM F400-00, Section 3.5.2, when tested in accordance with 7.3.	1	Adjustable postmixing burner lighters at a flame height of 2 in. (50 mm), or the maximum height of adjustment allows, or nonadjustable postmixing burner lighters at their permanently set flame heights, after a 10 second burn:	See Below	-
		1	When extinguished in the intended manner, shall have any exposed flame completely extinguished within 2 seconds after such action is completed.	NM #97, #125	FAIL
		1	For gas lighters that have shields, an additional 2 second afterburn is acceptable if the flame height does not extend above the shield.	M	PASS

BV Lab Number: (5104)205-0051
Technician Name: DC/NS

BUREAU VERITAS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 3.5.3, when tested in accordance with 7.3.	1	Adjustable premixing burner lighters, after a 5 second burn at maximum flame height:	N/A	-
		1	When extinguished in the intended manner, shall have any exposed flame completely extinguished in no more than 5 seconds.	N/A	-
	ASTM F400-00, Section 3.5.4, when tested in accordance with 7.3.	1	Adjustable premixing burner lighters, when set at a flame height of 2 in. (50 mm) or the maximum flame height the adjustment allows, if lower than 50 mm, or nonadjustable premixing burner lighters at their permanently set flame heights, after a 10 second burn, when closed in the intended manner:	See Below	-
		1	Shall have any exposed flame completely extinguished in no more than 5 seconds.	N/A	-
Volumetric Displacement	ASTM F400-00, Section 3.6, when tested in accordance with 7.14.	1	Liquid portion of the fuel shall not exceed 85% of the volumetric capacity of the fuel chamber.	M 84.5%	PASS
Drop Test	ASTM F400-00, Section 4.2.1, when tested in accordance with Section 7.4.	1	Postmixing and premixing burner lighters must be capable of withstanding three separate 5-ft. (1.5 m) drops.	See Below 23°C -10°C	-
		1	Without fuel tank fragmentation.	M M	PASS
		1	Without resulting in sustained self-ignition.	M M	PASS
		1	Without gas escape exceeding 15 mg/min.	M M	PASS
		1	Without impairing the subsequent safe operation of the lighter.	M M	PASS
	ASTM F400-00, Section 4.2.2, when tested in accordance with Section 7.3.	1	Fluid lighters must be capable of withstanding three separate 5 ft. (1.5 m) drops.	See Below	-
		1	Without fuel tank rupture.	N/A	-
	ASTM F400-00, Section 4.2.3	1	Without resulting in sustained self-ignition.	N/A	-

BV Lab Number: (5104)205-0051
Technician Name: DC/NS

BUREAU VERITAS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Without impairing the subsequent safe operation of the lighter.	N/A	-
	ASTM F400-00, Section 4.3.1	1	Lighters that are still operable in the intended manner after testing, sections 4.2.1 or 4.2.2, shall be capable of meeting all the applicable requirements of section 3.	M	PASS
Temperature Test	ASTM F400-00, Section 4.3, when tested in accordance with Section 7.5.	1	Lighters shall be capable of withstanding a temperature of 131°F (55°C) for 4 hours.	M	PASS
		1	Lighters that are still operable in the intended manner shall be capable after return to 73 ± 4°F (23 ± 2°C) of meeting the applicable requirements in section 3.	M	PASS
Burning Test	ASTM F400-00, Section 4.4	1	Adjustable gas lighters set at maximum, nonadjustable gas lighters at their permanently set flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a burning time of 5 seconds in any hand-held attitude without evidence of any burning or distortion of components so as to cause a hazardous condition.	M	PASS
	ASTM F400-00, Section 4.4.1	1	Adjustable gas lighters set at 50 mm (2 inches) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at the permanent flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a burning time of 10 seconds in any hand-held attitude with the lighter in a position 45° below the horizontal with no burning or distortion of components so as to cause hazardous conditions.	M	PASS
Continuous Burn	ASTM F400-00, Section 4.5, when tested in accordance with Section 7.6.	1	Adjustable gas lighters, with flame set at 2 inches (50 mm) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at permanent flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a continuous burning time of 2 minutes with the flame in a vertical attitude without causing a hazardous condition.	M	PASS
Cycling Burn	ASTM F400-00, Section 4.6, when tested in accordance with Section 7.7.	1	Adjustable gas lighters, with flame set at 2 inches (50 mm) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at permanent flame height, or fluid type lighters:	See Below	-

BV Lab Number: (5104)205-0051
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Shall be capable of withstanding a burning time of 20 seconds, repeated 10 times.	M	PASS
External Finish	ASTM F400-00, Section 4.7	1	Lighters shall have no external sharp edges that could cause accidental cuts or abrasions to the consumer when handled or used in the intended manner.	M	PASS
Compatibility	ASTM F400-00, Section 4.8 when tested in accordance with 7.8 and 7.9	1	Components of gas and fluid lighters that come in contact with the fuel recommended shall not deteriorate after exposure so as to fail any of the criteria herein or allow gas to escape exceeding 15 mg/minute.	M	PASS
Pressure Tests	ASTM F400-00, Section 4.9, when tested in accordance with Section 7.10.	1	Gas lighters shall be capable of withstanding an internal pressure of two times the vapor pressure occurring at 131°F (55°C) of the fuel recommended by the manufacturer.	NM #118 Body of Lighter Shattered See Exhibit #1	FAIL
Refilling of Lighters	ASTM F400-00, Section 5.1, when tested in accordance with Section 7.11 – 7.13	1	Refillable fluid lighters shall include specific instructions and warnings as applicable in accordance with section 6.	N/A	-
	ASTM F400-00, Section 5.2, when tested in accordance with Section 7.11.	1	Refillable fluid lighters having a sealed fluid reservoir shall be free of fuel leakage from both the sealed reservoir and sealing closure.	N/A	-
	ASTM F400-00, Section 5.3	1	Refillable gas lighters shall have specific training instructions and warnings as applicable in accordance with section 6.	N/A	-
	ASTM F400-00, Section 5.4, when tested in accordance with Section 7.13.	1	Refillable gas lighters: The refilling valve in a pressurized fuel tank lighter shall be secure enough so as not to allow an escape of gas exceeding 15 mg/min.	N/A	-
Certification	16 CFR 1212	1	Certification Showing Qualification Tests For Child Resistance Has Been Conducted Using Appropriate Surrogate Lighters And Child Panels Specified In The Regulations Must Be Submitted For Verification	N/T – Per Client Request	-

Key:
M Meets
NA Not Applicable
NM Does Not Meet
NT Not Tested

BV Lab Number: (5104)205-0051
Technician Name: DC/NS

BUREAU VERITAS

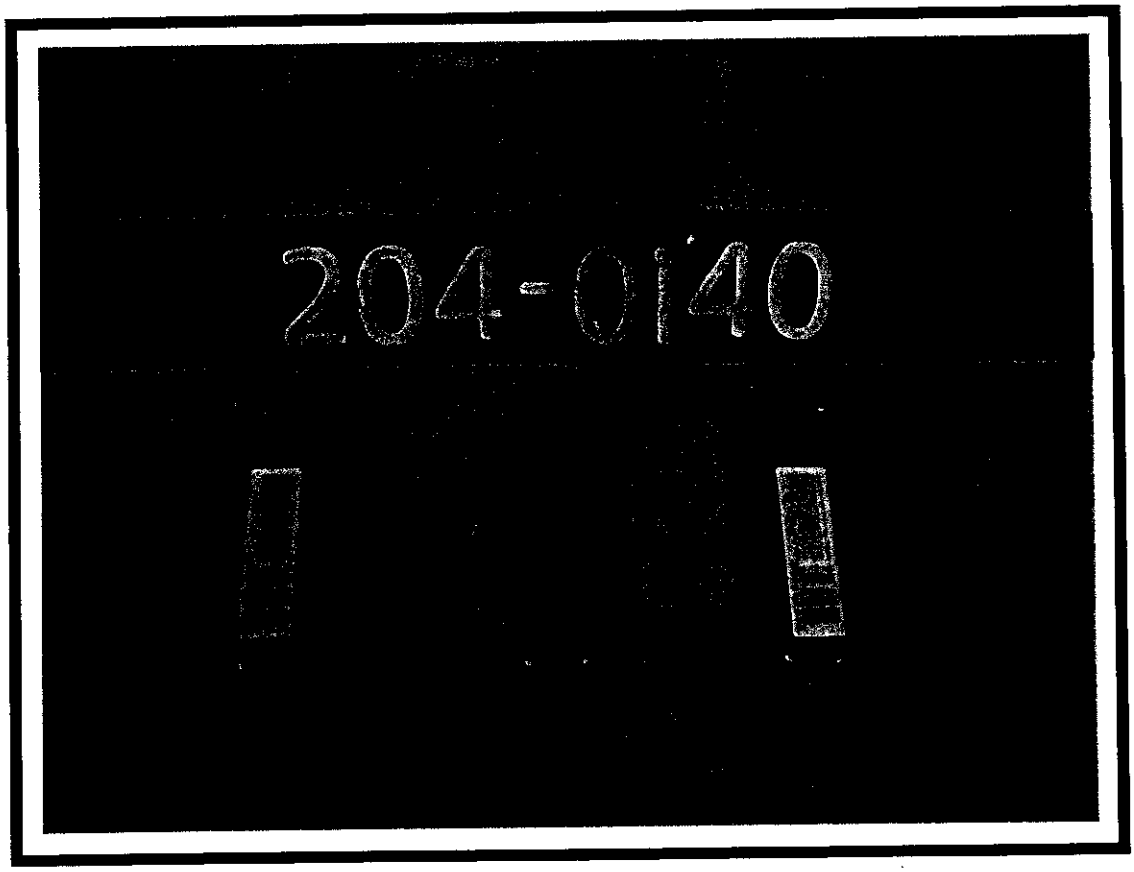
* Additional Charge For This Test ** Mandatory Requirement

No. Of Samples Required For Complete Testing:	20
No. Of (Fully Packed) Cartons For Transit Testing:	1
No. Of Working Days For Complete Testing:	7

Client Approval:
Creation Date: June 3, 2003
Editorial Revision Date: March 26, 2004
Pricing Review Date:
Technical Review Date:

REPORT

Lab Number: (5104)204-0140



Index	
Cover	1 Page
Report	2 Pages
Protocol	9 Pages
3 Exhibits	1 Page
Other	N/A

TEST REPORT

LIGHTER ASSOCIATION, INC.
1920 N. STREET, NW
WASHINGTON , DC, DISTRICT OF COLUMBIA, 20036 UNITED STATES

ATTN: DAVID BAKER

LAB LOCATION: BUFFALO - HARDLINES
LAB NUMBER: (US) (5104)204-0140

CLIENT NO.: NOT LISTED
DEPARTMENT: NOT LISTED

DATE IN: JULY 22, 2004
DATE OUT: AUGUST 31, 2004
MOD. LOG IN: N/A
WORKING DAYS: 28 DAYS
ADDENDUM DATE: N/A

OVERALL RATING	
PASS	
CORRECTIVE ACTION REQUIRED	
FAIL	X

TESTING FOR
DISPOSABLE LIGHTERS (ASTM F400)
MC-4085-US

DEVELOPMENT		PRODUCTION	X	CUSTOMER COMPLAINT		OTHER		

Sample Description:	New York Lighter				
Final Packaging:	**Yes** (submitted for review)	X	**No** (not submitted for review)		
Manufacturer:	Not Listed				
Country of Origin:	China		**Style:**	Not Listed	
Color:	Various		**SKU Number:**	Not listed	
Re-test:	**Yes:**		**No:** X	**Charge Vendor:**	**Yes:** **No:** X
Previous Report No.:	N/A				
Addendum Report:	**Yes:**		**No:** X		
Reason For Addendum:	N/A				

TEST PROPERTY	PASS	C.A.R.	FAIL	COMMENTS
Labeling	X			
Physical Characteristics	X			
Construction Qualities	X			
Performance			X	
Analytical				Not Tested

EXECUTIVE SUMMARY: At the request of the client, submitted samples were tested per ASTM F400. All sections of the standard were evaluated, except for Child Resistance per client request.

The samples provided received a FAIL rating for the following reasons :

Performance :

- Spitting Sputtering and Flaring, section 3.4 – Lighters # 34 and # 60 exhibited flaring greater than 2". Requirement – Variation of more than 2" is not allowed.

RECOMMENDATION FOR IMPROVEMENT:

- Provide a sample that meets the Performance requirements.

Bureau Veritas
Consumer Products Services, Inc.

Rufus K. Moberly
Associate Product Test Engineer,
Hardlines Department
Technical Consulting and Support Services

Bureau Veritas
Consumer Products Services, Inc.

Glenn Sylvia
V.P. of Hardlines

Bureau Veritas
Consumer Products Services, Inc.

James V. Zappa
Product Test Engineer
Hardlines Department
Technical Consulting and Support Services

/pk

BUREAU VERITAS

BV Lab Number:	(5104)204-0140
Technician Name:	DC/NS
Test Date:	July 27, 2004
Reviewed By/Date:	RKM 8/30/04

BUREAU VERITAS TEST PROTOCOL FOR
MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
LABELING					
Instructions and Warnings	ASTM F400-00, Section 6.1	All	All lighters shall be accompanied by the appropriate instructions or warnings, or both, communicating proper method of use.	M	PASS
	ASTM F400-00, Section 6.2	All	This safety information shall be conspicuously placed on the product or on a separate brochure or pamphlet packaged with the lighters or on a product packaging at the point of sale with contrasting background color, type size, or style that makes it distinct from other information.	M	PASS
	ASTM F400-00, Section 6.3	All	For all lighters, the safety information shall be accompanied in close proximity by the specific signal word "WARNING."	M	PASS
	ASTM F400-00, Section 6.4	All	For all lighters, the safety information shall contain the following statements:	See Below	-
	ASTM F400-00, Section 6.4.1	All	"Keep away from children" or "keep out of reach of children"	M	PASS
	ASTM F400-00, Section 6.4.2	All	Ignite lighter away from face and clothing.	M	PASS
	ASTM F400-00, Section 6.5	All	Use one of the following as appropriate for the lighter type:	See Below	-
	ASTM F400-00, Section 6.5.1	All	Be sure flame is out after use. (Self-extinguishing lighters)	M	PASS
	ASTM F400-00, Section 6.5.2	All	This lighter does not self-extinguish; close cover to put out. (Non-self-extinguishing lighters)	N/A	-
	ASTM F400-00, Section 6.6	All	For all lighters, the safety information may include the substance of the following as appropriate for the lighter type:	See Below	-
	ASTM F400-00, Section 6.6.1	All	Contains flammable gas under pressure.	M	PASS
	ASTM F400-00, Section 6.6.2	All	Contains flammable fluid.	N/A	-
	ASTM F400-00, Section 6.6.3	All	When filled, will contain flammable fluid.	N/A	-
	ASTM F400-00, Section 6.6.4	All	Never expose to heat above 120°F (49°C) or to prolonged sunlight.	M	PASS
	ASTM F400-00, Section 6.6.5	All	Never puncture or put in fire.	M	PASS

BV Lab Number: (5104)204-0140
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 6.6.6	All	Extreme heat is present above the visible flame. Extra care should be taken to prevent burn injury or fire. (premixing burner lighters)	N/A	-
	ASTM F400-00, Section 6.6.7	All	Do not keep lit for more than 10 seconds. (premixing burner lighters)	N/A	-
	ASTM F400-00, Section 6.7	All	Refillable gas lighters shall be accompanied by specific instructions as to the correct procedure to accomplish the refill operation, including type of fuel recommended.	N/A	-
	ASTM F400-00, Section 6.8.1	All	Fluid lighters shall be accompanied by the substance of the following:	See Below	-
	ASTM F400-00, Section 6.8.1.1	All	Fill only with the type of fluid recommended by the manufacturer.	N/A	-
	ASTM F400-00, Section 6.8.1.2	All	Fill slowly, never overfill.	N/A	-
	ASTM F400-00, Section 6.8.1.3	All	Wipe lighter and hands dry before igniting.	N/A	-
Product Markings	ASTM F400-00, Section 8	All	All lighters shall bear a permanent logo or name that identifies the manufacturer or distributor.	M	PASS
PACKAGING					
Retail Shelf Packaging	TM-HL-0002	All	Shall have final retail shelf packaging with scannable UPC stamp/label. Scanned numbers shall match as per supplied UPC label.	09364537	PASS
PHYSICAL CHARACTERISTICS					
Dimensions (If Specified)	TM-HL-0001	1	Report overall dimensions.	3 1/8" x 1" x ½"	-
Weight (If Specified)	TM-HL-0001	1	Report weight.	17.08g	-
CONSTRUCTION & WORKMANSHIP					
Defects	TM-HL-0002	All	Shall be free of aesthetic defects and shall meet the structural requirements as tested under IV. Performance.	M	PASS

BV Lab Number: (5104)204-0140
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
PERFORMANCE					
Flame Generation	ASTM F400-00, Standard Consumer Safety Specification for Lighters	1	Lighters shall require a deliberate manual operation to produce a flame. These operations shall conform to at least one of the following requirements:	See Below	-
	ASTM F400-00, Section 3.1.1	1	A system such that positive action on the part of the consumer is required to generate and maintain a flame.	M	PASS
	ASTM F400-00, Section 3.1.2	1	A system that requires two or more independent motions to generate a flame.	M	PASS
	ASTM F400-00, Section 3.1.3	1	A system that requires an actuating force equal to or greater than 3.4 lbf (15 N) to generate a flame.	N/A	-
Flame Control	ASTM F400-00, Section 3.2	1	The maximum attainable flame height for lighters shall be limited with a setting or by product design, or both.	M	PASS
	ASTM F400-00, Section 3.2.1 when tested in accordance with 7.1.	1	Nonadjustable fluid lighters:	See Below	-
		1	Shall not be capable of producing a flame height greater than 4.75 in. (120 mm).	N/A	-
	ASTM F400-00, Section 3.2.2 when tested in accordance with 7.1.	1	Nonadjustable postmixing and premixing burner lighters:	See Below	-
		1	Shall have a maximum attainable flame height of no more than 2 in. (50 mm).	N/A	-
	ASTM F400-00, Section 3.2.3 when tested in accordance with 7.1.	1	Adjustable postmixing burner Lighters:	See Below	-
		1	Shall not be capable of producing a flame height greater than 4.75 in. (120 mm) when deliberately adjusted by the consumer for maximum flame height.	M	PASS
	ASTM F400-00, Section 3.2.4, when tested in accordance with 7.1.	1	Adjustable premixing burner lighters:	See Below	-

BV Lab Number: (5104)204-0140
Technician Name: DC/NS

BUREAU VERITAS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Shall not be capable of producing a flame height in excess of 3 in. (75 mm) when deliberately adjusted by the consumer for maximum flame height..	N/A	-
	ASTM F400-00, Section 3.2.5, when tested in accordance with 7.1.		Adjustable postmixing burner lighters:	See Below	-
		1	The first strike will not produce a flame height in excess of 4 in. (100 mm).	M	PASS
	ASTM F400-00, Section 3.2.6, when tested in accordance with 7.1.	1	Adjustable premixing burner lighters:	See Below	-
		1	The first strike will not produce a flame height in excess of 2.5 in. (60 mm).	N/A	-
	ASTM F400-00, Section 3.2.7, when tested in accordance with 7.1.	1	All adjustable flame height lighters:	See Below	-
		1	Shall not be capable of producing a flame height in excess of 2 in. (50 mm) when set at the lowest possible flame height..	M	PASS
Flame Height Adjustment	ASTM F400-00, Section 3.3	1	Adjustable lighters shall require a deliberate manual operation to increase the flame height when the lighter is used in the normal fashion.	M	PASS
	ASTM F400-00, Section 3.3.1	1	Flame control actuators protrude from the body of the lighter. Shall require a minimum actuating force of 0.25 lbf (1 N) applied over the entire range of adjustment in a tangential direction.	M	PASS
	ASTM F400-00, Section 3.3.2	1	Adjustable gas lighters having rotary movement flame control actuators approximately at right angles to the flame shall perform as follows:	See Below	-
	ASTM F400-00, Section 3.3.2.1	1	The flame control actuator is at the top of the lighter.	M	PASS
		1	Moving the actuator to t he left shall produce a decrease in flame height.	M	PASS
	ASTM F400-00, Section 3.3.2.2	1	The flame control actuator is at the bottom of the lighter.	N/A	-
		1	A clockwise movement shall produce a decrease in flame height.	N/A	-

BV Lab Number: (5104)204-0140
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 3.3.3	1	Adjustable gas lighters requiring motion of the flame control actuator approximately parallel to the flame axis shall decrease or increase the flame height according to the direction of the movement.	N/A	-
	ASTM F400-00, Section 3.3.4	1	Adjustable flame height lighters.	See Below	-
		1	Shall indicate the direction of movement to produce a higher or lower flame height.	M	PASS
	ASTM F400-00, Section 3.3.4	1	On lighters whose adjusting mechanisms conform to sections 3.3.2 and 3.3.3, the direction of movement shall be permanently imprinted or engraved on the lighter or may be of a nonpermanent tag or stick-on label, in the vicinity of the adjusting mechanism and be readily visible and understandable.	M	PASS
	ASTM F400-00, Section 3.3.5	1	On lighters whose adjusting mechanisms do not conform to sections 3.3.2 and 3.3.3, the direction of movement shall be permanently imprinted or engraved on the lighter, in the vicinity of the adjusting mechanism and be readily visible and understandable.	N/A	-
Spitting or Sputtering and Flaring	ASTM F400-00, Section 3.4, when tested in accordance with 7.2.	1	Gas lighters when set at the maximum flame height, shall exhibit no spitting or sputtering, or flaring.	NM #34 & #60 Flaring Apparent	FAIL
Flame Extinction	ASTM F400-00, Section 3.5.1, when tested in accordance with 7.3	1	Adjustable postmixing burner lighters, after a 5-second burn at maximum flame height, when extinguished in the intended manner, shall have any exposed flame completely extinguished within 2 seconds.	M	PASS
	ASTM F400-00, Section 3.5.2, when tested in accordance with 7.3.	1	Adjustable postmixing burner lighters at a flame height of 2 in. (50 mm), or the maximum height of adjustment allows, or nonadjustable postmixing burner lighters at their permanently set flame heights, after a 10 second burn:	See Below	-
		1	When extinguished in the intended manner, shall have any exposed flame completely extinguished within 2 seconds after such action is completed.	M	PASS
		1	For gas lighters that have shields, an additional 2 second afterburn is acceptable if the flame height does not extend above the shield.	M	PASS

BV Lab Number: (5104)204-0140
Technician Name: DC/NS

BUREAU VERITAS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 3.5.3, when tested in accordance with 7.3.	1	Adjustable premixing burner lighters, after a 5 second burn at maximum flame height:	N/A	-
		1	When extinguished in the intended manner, shall have any exposed flame completely extinguished in no more than 5 seconds.	N/A	-
	ASTM F400-00, Section 3.5.4, when tested in accordance with 7.3.	1	Adjustable premixing burner lighters, when set at a flame height of 2 in. (50 mm) or the maximum flame height the adjustment allows, if lower than 50 mm, or nonadjustable premixing burner lighters at their permanently set flame heights, after a 10 second burn, when closed in the intended manner:	See Below	-
		1	Shall have any exposed flame completely extinguished in no more than 5 seconds.	N/A	-
Volumetric Displacement	ASTM F400-00, Section 3.6, when tested in accordance with 7.14.	1	Liquid portion of the fuel shall not exceed 85% of the volumetric capacity of the fuel chamber.	M 77.6%	PASS
Drop Test	ASTM F400-00, Section 4.2.1, when tested in accordance with Section 7.4.	1	Postmixing and premixing burner lighters must be capable of withstanding three separate 5-ft. (1.5 m) drops.	See Below 23°C -10°C	-
		1	Without fuel tank fragmentation.	M M	PASS
		1	Without resulting in sustained self-ignition.	M M	PASS
		1	Without gas escape exceeding 15 mg/min.	M M	PASS
		1	Without impairing the subsequent safe operation of the lighter.	M M	PASS
	ASTM F400-00, Section 4.2.2, when tested in accordance with Section 7.3.	1	Fluid lighters must be capable of withstanding three separate 5 ft. (1.5 m) drops.	See Below	-
		1	Without fuel tank rupture.	N/A	-
	ASTM F400-00, Section 4.2.3	1	Without resulting in sustained self-ignition.	N/A	-

BV Lab Number: (5104)204-0140
Technician Name: DC/NS

BUREAU VERITAS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Without impairing the subsequent safe operation of the lighter.	N/A	-
	ASTM F400-00, Section 4.3.1	1	Lighters that are still operable in the intended manner after testing, sections 4.2.1 or 4.2.2, shall be capable of meeting all the applicable requirements of section 3.	M	PASS
Temperature Test	ASTM F400-00, Section 4.3, when tested in accordance with Section 7.5.	1	Lighters shall be capable of withstanding a temperature of 131°F (55°C) for 4 hours.	M	PASS
		1	Lighters that are still operable in the intended manner shall be capable after return to 73 ± 4°F (23 ± 2°C) of meeting the applicable requirements in section 3.	M	PASS
Burning Test	ASTM F400-00, Section 4.4	1	Adjustable gas lighters set at maximum, nonadjustable gas lighters at their permanently set flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a burning time of 5 seconds in any hand-held attitude without evidence of any burning or distortion of components so as to cause a hazardous condition.	M	PASS
	ASTM F400-00, Section 4.4.1	1	Adjustable gas lighters set at 50 mm (2 inches) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at the permanent flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a burning time of 10 seconds in any hand-held attitude with the lighter in a position 45° below the horizontal with no burning or distortion of components so as to cause hazardous conditions.	M	PASS
Continuous Burn	ASTM F400-00, Section 4.5, when tested in accordance with Section 7.6.	1	Adjustable gas lighters, with flame set at 2 inches (50 mm) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at permanent flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a continuous burning time of 2 minutes with the flame in a vertical attitude without causing a hazardous condition.	M Flaring greater than 2" noted.	PASS
Cycling Burn	ASTM F400-00, Section 4.6, when tested in accordance with Section 7.7.	1	Adjustable gas lighters, with flame set at 2 inches (50 mm) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at permanent flame height, or fluid type lighters:	See Below	-

BV Lab Number: (5104)204-0140
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Shall be capable of withstanding a burning time of 20 seconds, repeated 10 times.	M	PASS
External Finish	ASTM F400-00, Section 4.7	1	Lighters shall have no external sharp edges that could cause accidental cuts or abrasions to the consumer when handled or used in the intended manner.	M	PASS
Compatibility	ASTM F400-00, Section 4.8 when tested in accordance with 7.8 and 7.9	1	Components of gas and fluid lighters that come in contact with the fuel recommended shall not deteriorate after exposure so as to fail any of the criteria herein or allow gas to escape exceeding 15 mg/minute.	M	PASS
Pressure Tests	ASTM F400-00, Section 4.9, when tested in accordance with Section 7.10.	1	Gas lighters shall be capable of withstanding an internal pressure of two times the vapor pressure occurring at 131°F (55°C) of the fuel recommended by the manufacturer.	M	PASS
Refilling of Lighters	ASTM F400-00, Section 5.1, when tested in accordance with Section 7.11 – 7.13	1	Refillable fluid lighters shall include specific instructions and warnings as applicable in accordance with section 6.	N/A	-
	ASTM F400-00, Section 5.2, when tested in accordance with Section 7.11.	1	Refillable fluid lighters having a sealed fluid reservoir shall be free of fuel leakage from both the sealed reservoir and sealing closure.	N/A	-
	ASTM F400-00, Section 5.3	1	Refillable gas lighters shall have specific training instructions and warnings as applicable in accordance with section 6.	N/A	-
	ASTM F400-00, Section 5.4, when tested in accordance with Section 7.13.	1	Refillable gas lighters: The refilling valve in a pressurized fuel tank lighter shall be secure enough so as not to allow an escape of gas exceeding 15 mg/min.	N/A	-
Certification	16 CFR 1212	1	Certification Showing Qualification Tests For Child Resistance Has Been Conducted Using Appropriate Surrogate Lighters And Child Panels Specified In The Regulations Must Be Submitted For Verification	N/T – Per Client Request	-

Key:
M Meets
NA Not Applicable
NM Does Not Meet
NT Not Tested

BV Lab Number: (5104)204-0140
Technician Name: DC/NS

BUREAU VERITAS

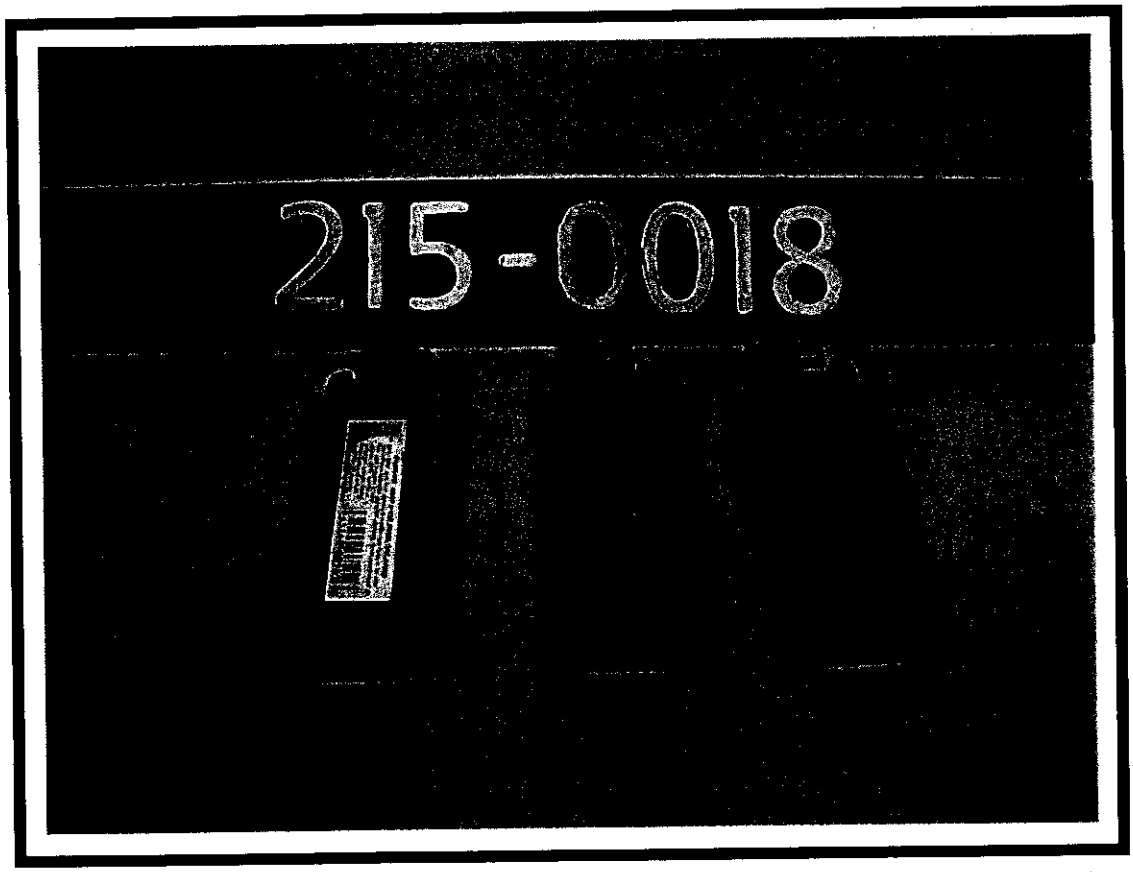
* Additional Charge For This Test ** Mandatory Requirement

No. Of Samples Required For Complete Testing:	20
No. Of (Fully Packed) Cartons For Transit Testing:	1
No. Of Working Days For Complete Testing:	7

Client Approval:
Creation Date: June 3, 2003
Editorial Revision Date: March 26, 2004
Pricing Review Date:
Technical Review Date:

REPORT

Lab Number: (5104)215-0018



Index	
Cover	1 Page
Report	2 Pages
Protocol	9 Pages
Exhibits	N/A
Other	N/A

TEST REPORT

LIGHTER ASSOCIATION, INC.
1920 N. STREET, NW
WASHINGTON , DC, DISTRICT OF COLUMBIA, 20036 UNITED STATES

ATTN: DAVID BAKER

LAB LOCATION: BUFFALO - HARDLINES
LAB NUMBER: (US) (5104) 215-0018

CLIENT NO.: NOT LISTED
DEPARTMENT: NOT LISTED

DATE IN: AUGUST 2, 2004
DATE OUT: SEPTEMBER 9, 2004
MOD. LOG IN: SEPTEMBER 8, 2004
WORKING DAYS: 1
ADDENDUM DATE: N/A

OVERALL RATING

PASS	X
CORRECTIVE ACTION REQUIRED	
FAIL	

TESTING FOR
DISPOSABLE LIGHTERS (ASTM F400)
MC-4085-US

DEVELOPMENT		PRODUCTION	X	CUSTOMER COMPLAINT		OTHER		

Sample Description:	Easy-Lite Lighters								
Final Packaging:	**Yes** (submitted for review)		X	**No** (not submitted for review)					
Manufacturer:	Not Listed								
Country of Origin:	United States				**Style:**	Not Listed			
Color:	Various				**SKU Number:**	Not Listed			
Re-test:	**Yes:**		**No:**	X	**Charge Vendor:**	**Yes:**		**No:**	X
Previous Report No.:	N/A								
Addendum Report:	**Yes:**		**No:**	X					
Reason For Addendum:	N/A								

TEST PROPERTY	PASS	C.A.R.	FAIL	COMMENTS
Labeling	X			
Physical Characteristics	X			
Construction Qualities	X			
Performance	X			
Analytical				Not Tested

EXECUTIVE SUMMARY: At the request of the client, submitted samples were tested per ASTM F400. All sections of the standard were evaluated, except Child Resistance per client's request.

The samples provided received a PASS rating for the tested sections of ASTM F400.

RECOMMENDATION FOR IMPROVEMENT: None.

Note: Bureau Veritas Consumer Products Services, Inc. randomly purchased samples from various retail sources within a one hundred mile radius of Buffalo, NY. The date code of the item is 3/2004.

Bureau Veritas
Consumer Products Services, Inc.

Rufus K. Moberly
Associate Product Test Engineer,
Hardlines Department
Technical Consulting and Support Services

Bureau Veritas
Consumer Products Services, Inc.

Glenn Sylvia
V.P. of Hardlines

Bureau Veritas
Consumer Products Services, Inc.

James V. Zappa
Product Test Engineer
Hardlines Department
Technical Consulting and Support Services

/kni

BV Lab Number: (5104)215-0018
Technician Name: DC/NS
Test Date: August, 2004
Reviewed By/Date: RKM – 9/8/04

BUREAU VERITAS

BUREAU VERITAS TEST PROTOCOL FOR MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
LABELING					
Instructions and Warnings	ASTM F400-00, Section 6.1	All	All lighters shall be accompanied by the appropriate instructions or warnings, or both, communicating proper method of use.	M	PASS
	ASTM F400-00, Section 6.2	All	This safety information shall be conspicuously placed on the product or on a separate brochure or pamphlet packaged with the lighters or on a product packaging at the point of sale with contrasting background color, type size, or style that makes it distinct from other information.	M	PASS
	ASTM F400-00, Section 6.3	All	For all lighters, the safety information shall be accompanied in close proximity by the specific signal word "WARNING."	M	PASS
	ASTM F400-00, Section 6.4	All	For all lighters, the safety information shall contain the following statements:	See Below	-
	ASTM F400-00, Section 6.4.1	All	"Keep away from children" or "keep out of reach of children"	M	PASS
	ASTM F400-00, Section 6.4.2	All	Ignite lighter away from face and clothing.	M	PASS
	ASTM F400-00, Section 6.5	All	Use one of the following as appropriate for the lighter type:	See Below	-
	ASTM F400-00, Section 6.5.1	All	Be sure flame is out after use. (Self-extinguishing lighters)	M	PASS
	ASTM F400-00, Section 6.5.2	All	This lighter does not self-extinguish; close cover to put out. (Non-self-extinguishing lighters)	N/A	-
	ASTM F400-00, Section 6.6	All	For all lighters, the safety information may include the substance of the following as appropriate for the lighter type:	See Below	-
	ASTM F400-00, Section 6.6.1	All	Contains flammable gas under pressure.	M	PASS
	ASTM F400-00, Section 6.6.2	All	Contains flammable fluid.	N/A	-
	ASTM F400-00, Section 6.6.3	All	When filled, will contain flammable fluid.	N/A	-
	ASTM F400-00, Section 6.6.4	All	Never expose to heat above 120°F (49°C) or to prolonged sunlight.	M	PASS
	ASTM F400-00, Section 6.6.5	All	Never puncture or put in fire.	M	PASS

BV Lab Number: (5104)215-0018
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 6.6.6	All	Extreme heat is present above the visible flame. Extra care should be taken to prevent burn injury or fire. (premixing burner lighters)	N/A	-
	ASTM F400-00, Section 6.6.7	All	Do not keep lit for more than 10 seconds. (premixing burner lighters)	N/A	-
	ASTM F400-00, Section 6.7	All	Refillable gas lighters shall be accompanied by specific instructions as to the correct procedure to accomplish the refill operation, including type of fuel recommended.	N/A	-
	ASTM F400-00, Section 6.8.1	All	Fluid lighters shall be accompanied by the substance of the following:	See Below	-
	ASTM F400-00, Section 6.8.1.1	All	Fill only with the type of fluid recommended by the manufacturer.	N/A	-
	ASTM F400-00, Section 6.8.1.2	All	Fill slowly, never overfill.	N/A	-
	ASTM F400-00, Section 6.8.1.3	All	Wipe lighter and hands dry before igniting.	N/A	-
Product Markings	ASTM F400-00, Section 8	All	All lighters shall bear a permanent logo or name that identifies the manufacturer or distributor.	M	PASS
PACKAGING					
Retail Shelf Packaging	TM-HL-0002	All	Shall have final retail shelf packaging with scannable UPC stamp/label. Scanned numbers shall match as per supplied UPC label.	365860005016	PASS
PHYSICAL CHARACTERISTICS					
Dimensions (If Specified)	TM-HL-0001	1	Report overall dimensions.	3 ¼" x 1" x ½"	-
Weight (If Specified)	TM-HL-0001	1	Report weight.	16.2g	-
CONSTRUCTION & WORKMANSHIP					
Defects	TM-HL-0002	All	Shall be free of aesthetic defects and shall meet the structural requirements as tested under IV. Performance.	M	PASS

BV Lab Number: (5104)215-0018
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
PERFORMANCE					
Flame Generation	ASTM F400-00, Standard Consumer Safety Specification for Lighters	1	Lighters shall require a deliberate manual operation to produce a flame. These operations shall conform to at least one of the following requirements:	See Below	-
	ASTM F400-00, Section 3.1.1	1	A system such that positive action on the part of the consumer is required to generate and maintain a flame.	M	PASS
	ASTM F400-00, Section 3.1.2	1	A system that requires two or more independent motions to generate a flame.	M	PASS
	ASTM F400-00, Section 3.1.3	1	A system that requires an actuating force equal to or greater than 3.4 lbf (15 N) to generate a flame.	N/A	-
Flame Control	ASTM F400-00, Section 3.2	1	The maximum attainable flame height for lighters shall be limited with a setting or by product design, or both.	M	PASS
	ASTM F400-00, Section 3.2.1 when tested in accordance with 7.1.	1	Nonadjustable fluid lighters:	See Below	-
		1	Shall not be capable of producing a flame height greater than 4.75 in. (120 mm).	N/A	-
	ASTM F400-00, Section 3.2.2 when tested in accordance with 7.1.	1	Nonadjustable postmixing and premixing burner lighters:	See Below	-
		1	Shall have a maximum attainable flame height of no more than 2 in. (50 mm).	N/A	-
	ASTM F400-00, Section 3.2.3 when tested in accordance with 7.1.	1	Adjustable postmixing burner Lighters:	See Below	-
		1	Shall not be capable of producing a flame height greater than 4.75 in. (120 mm) when deliberately adjusted by the consumer for maximum flame height.	M	PASS
	ASTM F400-00, Section 3.2.4, when tested in accordance with 7.1.	1	Adjustable premixing burner lighters:	See Below	-

BV Lab Number: (5104)215-0018
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Shall not be capable of producing a flame height in excess of 3 in. (75 mm) when deliberately adjusted by the consumer for maximum flame height..	N/A	-
	ASTM F400-00, Section 3.2.5, when tested in accordance with 7.1.		Adjustable postmixing burner lighters:	See Below	-
		1	The first strike will not produce a flame height in excess of 4 in. (100 mm).	M	PASS
	ASTM F400-00, Section 3.2.6, when tested in accordance with 7.1.	1	Adjustable premixing burner lighters:	See Below	-
		1	The first strike will not produce a flame height in excess of 2.5 in. (60 mm).	N/A	-
	ASTM F400-00, Section 3.2.7, when tested in accordance with 7.1.	1	All adjustable flame height lighters:	See Below	-
		1	Shall not be capable of producing a flame height in excess of 2 in. (50 mm) when set at the lowest possible flame height..	M	PASS
Flame Height Adjustment	ASTM F400-00, Section 3.3	1	Adjustable lighters shall require a deliberate manual operation to increase the flame height when the lighter is used in the normal fashion.	M	PASS
	ASTM F400-00, Section 3.3.1	1	Flame control actuators protrude from the body of the lighter. Shall require a minimum actuating force of 0.25 lbf (1 N) applied over the entire range of adjustment in a tangential direction.	M	PASS
	ASTM F400-00, Section 3.3.2	1	Adjustable gas lighters having rotary movement flame control actuators approximately at right angles to the flame shall perform as follows:	See Below	-
	ASTM F400-00, Section 3.3.2.1	1	The flame control actuator is at the top of the lighter.	M	PASS
		1	Moving the actuator to the left shall produce a decrease in flame height.	M	PASS
	ASTM F400-00, Section 3.3.2.2	1	The flame control actuator is at the bottom of the lighter.	N/A	-
		1	A clockwise movement shall produce a decrease in flame height.	N/A	-

BV Lab Number: (5104)215-0018
Technician Name: DC/NS

BUREAU VERITAS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 3.3.3	1	Adjustable gas lighters requiring motion of the flame control actuator approximately parallel to the flame axis shall decrease or increase the flame height according to the direction of the movement.	N/A	-
	ASTM F400-00, Section 3.3.4	1	Adjustable flame height lighters.	See Below	-
		1	Shall indicate the direction of movement to produce a higher or lower flame height.	M	PASS
	ASTM F400-00, Section 3.3.4	1	On lighters whose adjusting mechanisms conform to sections 3.3.2 and 3.3.3, the direction of movement shall be permanently imprinted or engraved on the lighter or may be of a nonpermanent tag or stick-on label, in the vicinity of the adjusting mechanism and be readily visible and understandable.	M	PASS
	ASTM F400-00, Section 3.3.5	1	On lighters whose adjusting mechanisms do not conform to sections 3.3.2 and 3.3.3, the direction of movement shall be permanently imprinted or engraved on the lighter, in the vicinity of the adjusting mechanism and be readily visible and understandable.	N/A	-
Spitting or Sputtering and Flaring	ASTM F400-00, Section 3.4, when tested in accordance with 7.2.	1	Gas lighters when set at the maximum flame height, shall exhibit no spitting or sputtering, or flaring.	M	PASS
Flame Extinction	ASTM F400-00, Section 3.5.1, when tested in accordance with 7.3	1	Adjustable postmixing burner lighters, after a 5-second burn at maximum flame height, when extinguished in the intended manner, shall have any exposed flame completely extinguished within 2 seconds.	M	PASS
	ASTM F400-00, Section 3.5.2, when tested in accordance with 7.3.	1	Adjustable postmixing burner lighters at a flame height of 2 in. (50 mm), or the maximum height of adjustment allows, or nonadjustable postmixing burner lighters at their permanently set flame heights, after a 10 second burn:	See Below	-
		1	When extinguished in the intended manner, shall have any exposed flame completely extinguished within 2 seconds after such action is completed.	M	PASS
		1	For gas lighters that have shields, an additional 2 second afterburn is acceptable if the flame height does not extend above the shield.	M	PASS

BV Lab Number: (5104)215-0018
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 3.5.3, when tested in accordance with 7.3.	1	Adjustable premixing burner lighters, after a 5 second burn at maximum flame height:	N/A	-
		1	When extinguished in the intended manner, shall have any exposed flame completely extinguished in no more than 5 seconds.	N/A	-
	ASTM F400-00, Section 3.5.4, when tested in accordance with 7.3.	1	Adjustable premixing burner lighters, when set at a flame height of 2 in. (50 mm) or the maximum flame height the adjustment allows, if lower than 50 mm, or nonadjustable premixing burner lighters at their permanently set flame heights, after a 10 second burn, when closed in the intended manner:	See Below	-
		1	Shall have any exposed flame completely extinguished in no more than 5 seconds.	N/A	-
Volumetric Displacement	ASTM F400-00, Section 3.6, when tested in accordance with 7.14.	1	Liquid portion of the fuel shall not exceed 85% of the volumetric capacity of the fuel chamber.	M #151 – 83.7%	PASS
Drop Test	ASTM F400-00, Section 4.2.1, when tested in accordance with Section 7.4.	1	Postmixing and premixing burner lighters must be capable of withstanding three separate 5-ft. (1.5 m) drops.	See Below 23°C -10°C	-
		1	Without fuel tank fragmentation.	M M	PASS
		1	Without resulting in sustained self-ignition.	M M	PASS
		1	Without gas escape exceeding 15 mg/min.	M M	PASS
		1	Without impairing the subsequent safe operation of the lighter.	M M	PASS
	ASTM F400-00, Section 4.2.2, when tested in accordance with Section 7.3.	1	Fluid lighters must be capable of withstanding three separate 5 ft. (1.5 m) drops.	See Below	-
		1	Without fuel tank rupture.	N/A	-
	ASTM F400-00, Section 4.2.3	1	Without resulting in sustained self-ignition.	N/A	-

BV Lab Number: (5104)215-0018
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Without impairing the subsequent safe operation of the lighter.	N/A	-
	ASTM F400-00, Section 4.3.1	1	Lighters that are still operable in the intended manner after testing, sections 4.2.1 or 4.2.2, shall be capable of meeting all the applicable requirements of section 3.	N/A	-
Temperature Test	ASTM F400-00, Section 4.3, when tested in accordance with Section 7.5.	1	Lighters shall be capable of withstanding a temperature of 131°F (55°C) for 4 hours.	M	PASS
		1	Lighters that are still operable in the intended manner shall be capable after return to 73 ± 4°F (23 ± 2°C) of meeting the applicable requirements in section 3.	M	PASS
Burning Test	ASTM F400-00, Section 4.4	1	Adjustable gas lighters set at maximum, nonadjustable gas lighters at their permanently set flame height, or fluid type lighters:	M	PASS
		1	Shall be capable of withstanding a burning time of 5 seconds in any hand-held attitude without evidence of any burning or distortion of components so as to cause a hazardous condition.	M	PASS
	ASTM F400-00, Section 4.4.1	1	Adjustable gas lighters set at 50 mm (2 inches) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at the permanent flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a burning time of 10 seconds in any hand-held attitude with the lighter in a position 45° below the horizontal with no burning or distortion of components so as to cause hazardous conditions.	M	PASS
Continuous Burn	ASTM F400-00, Section 4.5, when tested in accordance with Section 7.6.	1	Adjustable gas lighters, with flame set at 2 inches (50 mm) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at permanent flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a continuous burning time of 2 minutes with the flame in a vertical attitude without causing a hazardous condition.	M	PASS
Cycling Burn	ASTM F400-00, Section 4.6, when tested in accordance with Section 7.7.	1	Adjustable gas lighters, with flame set at 2 inches (50 mm) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at permanent flame height, or fluid type lighters:	See Below	-

BV Lab Number: (5104)215-0018
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Shall be capable of withstanding a burning time of 20 seconds, repeated 10 times.	M	PASS
External Finish	ASTM F400-00, Section 4.7	1	Lighters shall have no external sharp edges that could cause accidental cuts or abrasions to the consumer when handled or used in the intended manner.	M	PASS
Compatibility	ASTM F400-00, Section 4.8 when tested in accordance with 7.8 and 7.9	1	Components of gas and fluid lighters that come in contact with the fuel recommended shall not deteriorate after exposure so as to fail any of the criteria herein or allow gas to escape exceeding 15 mg/minute.	M	PASS
Pressure Tests	ASTM F400-00, Section 4.9, when tested in accordance with Section 7.10.	1	Gas lighters shall be capable of withstanding an internal pressure of two times the vapor pressure occurring at 131°F (55°C) of the fuel recommended by the manufacturer.	M	PASS
Refilling of Lighters	ASTM F400-00, Section 5.1, when tested in accordance with Section 7.11 – 7.13	1	Refillable fluid lighters shall include specific instructions and warnings as applicable in accordance with section 6.	N/A	-
	ASTM F400-00, Section 5.2, when tested in accordance with Section 7.11.	1	Refillable fluid lighters having a sealed fluid reservoir shall be free of fuel leakage from both the sealed reservoir and sealing closure.	N/A	-
	ASTM F400-00, Section 5.3	1	Refillable gas lighters shall have specific training instructions and warnings as applicable in accordance with section 6.	N/A	-
	ASTM F400-00, Section 5.4, when tested in accordance with Section 7.13.	1	Refillable gas lighters: The refilling valve in a pressurized fuel tank lighter shall be secure enough so as not to allow an escape of gas exceeding 15 mg/min.	N/A	-
Certification	16 CFR 1212	1	Certification Showing Qualification Tests For Child Resistance Has Been Conducted Using Appropriate Surrogate Lighters And Child Panels Specified In The Regulations Must Be Submitted For Verification	N/T – Per Client Request	-

Key:
M Meets
NA Not Applicable
NM Does Not Meet
NT Not Tested

BV Lab Number: (5104)215-0018
Technician Name: DC/NS

BUREAU VERITAS

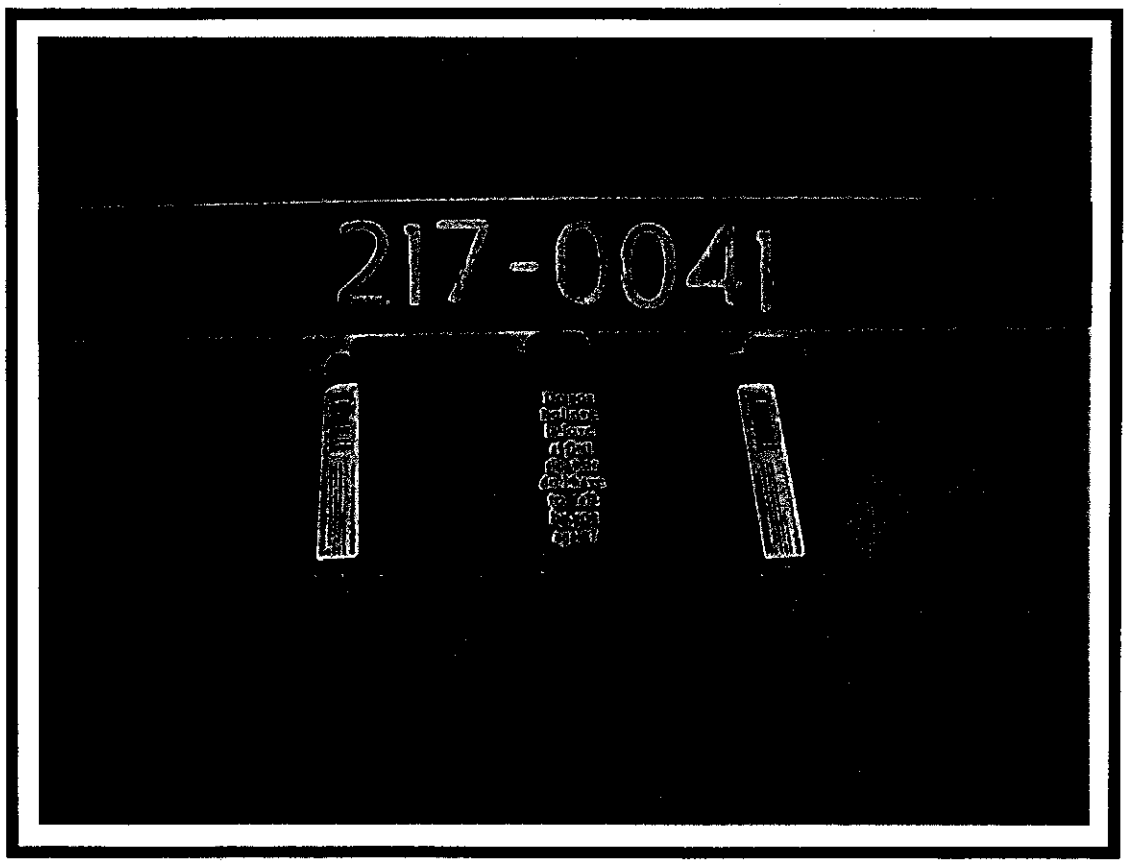
* Additional Charge For This Test ** Mandatory Requirement

No. Of Samples Required For Complete Testing:	20
No. Of (Fully Packed) Cartons For Transit Testing:	1
No. Of Working Days For Complete Testing:	7

Client Approval:
Creation Date: June 3, 2003
Editorial Revision Date: March 26, 2004
Pricing Review Date:
Technical Review Date:

REPORT

Lab Number: (5104)217-0041



Index	
Cover	1 Page
Report	2 Pages
Protocol	9 Pages
Exhibits	N/A
Other	N/A

TEST REPORT

LIGHTER ASSOCIATION, INC.
1920 N. STREET, NW
WASHINGTON , DC, DISTRICT OF COLUMBIA, 20036 UNITED STATES

ATTN: DAVID BAKER

LAB LOCATION: BUFFALO - HARDLINES
LAB NUMBER: (US) (5104) 217-0041

CLIENT NO.: NOT LISTED
DEPARTMENT: NOT LISTED

DATE IN: AUGUST 4, 2004
DATE OUT: SEPTEMBER 9, 2004
MOD. LOG IN: SEPTEMBER 8, 2004
WORKING DAYS: 1
ADDENDUM DATE: N/A

OVERALL RATING	
PASS	X
CORRECTIVE ACTION REQUIRED	
FAIL	

TESTING FOR
DISPOSABLE LIGHTERS (ASTM F400)
MC-4085-US

DEVELOPMENT		PRODUCTION	X	CUSTOMER COMPLAINT		OTHER		

Sample Description:	Rite Lite Lighters				
Final Packaging:	**Yes** (submitted for review) X		**No** (not submitted for review)		
Manufacturer:	Not Listed				
Country of Origin:	United States		**Style:**	Not Listed	
Color:	Various		**SKU Number:**	Not Listed	
Re-test:	**Yes:**	**No:** X	**Charge Vendor:**	**Yes:**	**No:** X
Previous Report No.:	N/A				
Addendum Report:	**Yes:**	**No:** X			
Reason For Addendum:	N/A				

TEST PROPERTY	PASS	C.A.R.	FAIL	COMMENTS
Labeling	X			
Physical Characteristics	X			
Construction Qualities	X			
Performance	X			
Analytical				Not Tested

EXECUTIVE SUMMARY: At the request of the client, submitted samples were tested per ASTM F400. All sections of the standard were evaluated, except Child Resistance per client's request.

The samples provided received a PASS rating for the tested sections of ASTM F400.

RECOMMENDATION FOR IMPROVEMENT: None.

Note: Bureau Veritas Consumer Products Services, Inc. randomly purchased samples from various retail sources within a one hundred mile radius of Buffalo, NY. The date code of the item is WFA2-42301.

Bureau Veritas
Consumer Products Services, Inc.

Rufus K. Moberly
Associate Product Test Engineer,
Hardlines Department
Technical Consulting and Support Services

Bureau Veritas
Consumer Products Services, Inc.

Glenn Sylvia
V.P. of Hardlines

Bureau Veritas
Consumer Products Services, Inc.

James V. Zappa
Product Test Engineer
Hardlines Department
Technical Consulting and Support Services

/kni

BUREAU VERITAS

BV Lab Number:	(5104)217-0041
Technician Name:	DC/NS
Test Date:	August 4, 2004
Reviewed By/Date:	RKM – 9/8/04

BUREAU VERITAS TEST PROTOCOL FOR
MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
LABELING					
Instructions and Warnings	ASTM F400-00, Section 6.1	All	All lighters shall be accompanied by the appropriate instructions or warnings, or both, communicating proper method of use.	M	PASS
	ASTM F400-00, Section 6.2	All	This safety information shall be conspicuously placed on the product or on a separate brochure or pamphlet packaged with the lighters or on a product packaging at the point of sale with contrasting background color, type size, or style that makes it distinct from other information.	M	PASS
	ASTM F400-00, Section 6.3	All	For all lighters, the safety information shall be accompanied in close proximity by the specific signal word "WARNING."	M	PASS
	ASTM F400-00, Section 6.4	All	For all lighters, the safety information shall contain the following statements:	See Below	-
	ASTM F400-00, Section 6.4.1	All	"Keep away from children" or "keep out of reach of children"	M	PASS
	ASTM F400-00, Section 6.4.2	All	Ignite lighter away from face and clothing.	M	PASS
	ASTM F400-00, Section 6.5	All	Use one of the following as appropriate for the lighter type:	See Below	-
	ASTM F400-00, Section 6.5.1	All	Be sure flame is out after use. (Self-extinguishing lighters)	M	PASS
	ASTM F400-00, Section 6.5.2	All	This lighter does not self-extinguish; close cover to put out. (Non-self-extinguishing lighters)	N/A	-
	ASTM F400-00, Section 6.6	All	For all lighters, the safety information may include the substance of the following as appropriate for the lighter type:	See Below	-
	ASTM F400-00, Section 6.6.1	All	Contains flammable gas under pressure.	M	PASS
	ASTM F400-00, Section 6.6.2	All	Contains flammable fluid.	N/A	-
	ASTM F400-00, Section 6.6.3	All	When filled, will contain flammable fluid.	N/A	-
	ASTM F400-00, Section 6.6.4	All	Never expose to heat above 120°F (49°C) or to prolonged sunlight.	M	PASS
	ASTM F400-00, Section 6.6.5	All	Never puncture or put in fire.	M	PASS

BV Lab Number: (5104)217-0041
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 6.6.6	All	Extreme heat is present above the visible flame. Extra care should be taken to prevent burn injury or fire. (premixing burner lighters)	N/A	-
	ASTM F400-00, Section 6.6.7	All	Do not keep lit for more than 10 seconds. (premixing burner lighters)	N/A	-
	ASTM F400-00, Section 6.7	All	Refillable gas lighters shall be accompanied by specific instructions as to the correct procedure to accomplish the refill operation, including type of fuel recommended.	N/A	-
	ASTM F400-00, Section 6.8.1	All	Fluid lighters shall be accompanied by the substance of the following:	See Below	-
	ASTM F400-00, Section 6.8.1.1	All	Fill only with the type of fluid recommended by the manufacturer.	N/A	-
	ASTM F400-00, Section 6.8.1.2	All	Fill slowly, never overfill.	N/A	-
	ASTM F400-00, Section 6.8.1.3	All	Wipe lighter and hands dry before igniting.	N/A	-
Product Markings	ASTM F400-00, Section 8	All	All lighters shall bear a permanent logo or name that identifies the manufacturer or distributor.	M	PASS
PACKAGING					
Retail Shelf Packaging	TM-HL-0002	All	Shall have final retail shelf packaging with scannable UPC stamp/label. Scanned numbers shall match as per supplied UPC label.	794080100032	PASS
PHYSICAL CHARACTERISTICS					
Dimensions (If Specified)	TM-HL-0001	1	Report overall dimensions.	3 ¼" x 1" x ½"	-
Weight (If Specified)	TM-HL-0001	1	Report weight.	18.4g	-
CONSTRUCTION & WORKMANSHIP					
Defects	TM-HL-0002	All	Shall be free of aesthetic defects and shall meet the structural requirements as tested under IV. Performance.	M	PASS

BV Lab Number: (5104)217-0041
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
PERFORMANCE					
Flame Generation	ASTM F400-00, Standard Consumer Safety Specification for Lighters	1	Lighters shall require a deliberate manual operation to produce a flame. These operations shall conform to at least one of the following requirements:	See Below	-
	ASTM F400-00, Section 3.1.1	1	A system such that positive action on the part of the consumer is required to generate and maintain a flame.	M	PASS
	ASTM F400-00, Section 3.1.2	1	A system that requires two or more independent motions to generate a flame.	M	PASS
	ASTM F400-00, Section 3.1.3	1	A system that requires an actuating force equal to or greater than 3.4 lbf (15 N) to generate a flame.	N/T	-
Flame Control	ASTM F400-00, Section 3.2	1	The maximum attainable flame height for lighters shall be limited with a setting or by product design, or both.	M	PASS
	ASTM F400-00, Section 3.2.1 when tested in accordance with 7.1.	1	Nonadjustable fluid lighters:	See Below	-
		1	Shall not be capable of producing a flame height greater than 4.75 in. (120 mm).	N/A	-
	ASTM F400-00, Section 3.2.2 when tested in accordance with 7.1.	1	Nonadjustable postmixing and premixing burner lighters:	See Below	-
		1	Shall have a maximum attainable flame height of no more than 2 in. (50 mm).	N/A	-
	ASTM F400-00, Section 3.2.3 when tested in accordance with 7.1.	1	Adjustable postmixing burner Lighters:	See Below	-
		1	Shall not be capable of producing a flame height greater than 4.75 in. (120 mm) when deliberately adjusted by the consumer for maximum flame height.	M	PASS
	ASTM F400-00, Section 3.2.4, when tested in accordance with 7.1.	1	Adjustable premixing burner lighters:	See Below	-

BV Lab Number: (5104)217-0041
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Shall not be capable of producing a flame height in excess of 3 in. (75 mm) when deliberately adjusted by the consumer for maximum flame height..	N/A	-
	ASTM F400-00, Section 3.2.5, when tested in accordance with 7.1.		Adjustable postmixing burner lighters:	See Below	-
		1	The first strike will not produce a flame height in excess of 4 in. (100 mm).	M	PASS
	ASTM F400-00, Section 3.2.6, when tested in accordance with 7.1.	1	Adjustable premixing burner lighters:	See Below	-
		1	The first strike will not produce a flame height in excess of 2.5 in. (60 mm).	N/A	-
	ASTM F400-00, Section 3.2.7, when tested in accordance with 7.1.	1	All adjustable flame height lighters:	See Below	-
		1	Shall not be capable of producing a flame height in excess of 2 in. (50 mm) when set at the lowest possible flame height..	M	PASS
Flame Height Adjustment	ASTM F400-00, Section 3.3	1	Adjustable lighters shall require a deliberate manual operation to increase the flame height when the lighter is used in the normal fashion.	M	PASS
	ASTM F400-00, Section 3.3.1	1	Flame control actuators protrude from the body of the lighter. Shall require a minimum actuating force of 0.25 lbf (1 N) applied over the entire range of adjustment in a tangential direction.	M	PASS
	ASTM F400-00, Section 3.3.2	1	Adjustable gas lighters having rotary movement flame control actuators approximately at right angles to the flame shall perform as follows:	See Below	-
	ASTM F400-00, Section 3.3.2.1	1	The flame control actuator is at the top of the lighter.	M	PASS
		1	Moving the actuator to the left shall produce a decrease in flame height.	M	PASS
	ASTM F400-00, Section 3.3.2.2	1	The flame control actuator is at the bottom of the lighter.	N/A	-
		1	A clockwise movement shall produce a decrease in flame height.	N/A	-

BV Lab Number: (5104)217-0041
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 3.3.3	1	Adjustable gas lighters requiring motion of the flame control actuator approximately parallel to the flame axis shall decrease or increase the flame height according to the direction of the movement.	N/A	-
	ASTM F400-00, Section 3.3.4	1	Adjustable flame height lighters.	See Below	-
		1	Shall indicate the direction of movement to produce a higher or lower flame height.	M	PASS
	ASTM F400-00, Section 3.3.4	1	On lighters whose adjusting mechanisms conform to sections 3.3.2 and 3.3.3, the direction of movement shall be permanently imprinted or engraved on the lighter or may be of a nonpermanent tag or stick-on label, in the vicinity of the adjusting mechanism and be readily visible and understandable.	M	PASS
	ASTM F400-00, Section 3.3.5	1	On lighters whose adjusting mechanisms do not conform to sections 3.3.2 and 3.3.3, the direction of movement shall be permanently imprinted or engraved on the lighter, in the vicinity of the adjusting mechanism and be readily visible and understandable.	N/A	-
Spitting or Sputtering and Flaring	ASTM F400-00, Section 3.4, when tested in accordance with 7.2.	1	Gas lighters when set at the maximum flame height, shall exhibit no spitting or sputtering, or flaring.	M	PASS
Flame Extinction	ASTM F400-00, Section 3.5.1, when tested in accordance with 7.3	1	Adjustable postmixing burner lighters, after a 5-second burn at maximum flame height, when extinguished in the intended manner, shall have any exposed flame completely extinguished within 2 seconds.	M	PASS
	ASTM F400-00, Section 3.5.2, when tested in accordance with 7.3.	1	Adjustable postmixing burner lighters at a flame height of 2 in. (50 mm), or the maximum height of adjustment allows, or nonadjustable postmixing burner lighters at their permanently set flame heights, after a 10 second burn:	See Below	-
		1	When extinguished in the intended manner, shall have any exposed flame completely extinguished within 2 seconds after such action is completed.	M	PASS
		1	For gas lighters that have shields, an additional 2 second afterburn is acceptable if the flame height does not extend above the shield.	M	PASS

BV Lab Number: (5104)217-0041
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 3.5.3, when tested in accordance with 7.3.	1	Adjustable premixing burner lighters, after a 5 second burn at maximum flame height:	N/A	-
		1	When extinguished in the intended manner, shall have any exposed flame completely extinguished in no more than 5 seconds.	N/A	-
	ASTM F400-00, Section 3.5.4, when tested in accordance with 7.3.	1	Adjustable premixing burner lighters, when set at a flame height of 2 in. (50 mm) or the maximum flame height the adjustment allows, if lower than 50 mm, or nonadjustable premixing burner lighters at their permanently set flame heights, after a 10 second burn, when closed in the intended manner:	See Below	-
		1	Shall have any exposed flame completely extinguished in no more than 5 seconds.	N/A	-
Volumetric Displacement	ASTM F400-00, Section 3.6, when tested in accordance with 7.14.	1	Liquid portion of the fuel shall not exceed 85% of the volumetric capacity of the fuel chamber.	M #151 – 82.5%	PASS
Drop Test	ASTM F400-00, Section 4.2.1, when tested in accordance with Section 7.4.	1	Postmixing and premixing burner lighters must be capable of withstanding three separate 5-ft. (1.5 m) drops.	See Below 23°C -10°C	-
		1	Without fuel tank fragmentation.	M M	PASS
		1	Without resulting in sustained self-ignition.	M M	PASS
		1	Without gas escape exceeding 15 mg/min.	M M	PASS
		1	Without impairing the subsequent safe operation of the lighter.	M M	PASS
	ASTM F400-00, Section 4.2.2, when tested in accordance with Section 7.3.	1	Fluid lighters must be capable of withstanding three separate 5 ft. (1.5 m) drops.	See Below	-
		1	Without fuel tank rupture.	N/A	-
	ASTM F400-00, Section 4.2.3	1	Without resulting in sustained self-ignition.	N/A	-

BV Lab Number: (5104)217-0041
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Without impairing the subsequent safe operation of the lighter.	N/A	-
	ASTM F400-00, Section 4.3.1	1	Lighters that are still operable in the intended manner after testing, sections 4.2.1 or 4.2.2, shall be capable of meeting all the applicable requirements of section 3.	N/A	-
Temperature Test	ASTM F400-00, Section 4.3, when tested in accordance with Section 7.5.	1	Lighters shall be capable of withstanding a temperature of 131°F (55°C) for 4 hours.	M	PASS
		1	Lighters that are still operable in the intended manner shall be capable after return to 73 ± 4°F (23 ± 2°C) of meeting the applicable requirements in section 3.	M	PASS
Burning Test	ASTM F400-00, Section 4.4	1	Adjustable gas lighters set at maximum, nonadjustable gas lighters at their permanently set flame height, or fluid type lighters:	M	PASS
		1	Shall be capable of withstanding a burning time of 5 seconds in any hand-held attitude without evidence of any burning or distortion of components so as to cause a hazardous condition.	M	PASS
	ASTM F400-00, Section 4.4.1	1	Adjustable gas lighters set at 50 mm (2 inches) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at the permanent flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a burning time of 10 seconds in any hand-held attitude with the lighter in a position 45° below the horizontal with no burning or distortion of components so as to cause hazardous conditions.	M	PASS
Continuous Burn	ASTM F400-00, Section 4.5, when tested in accordance with Section 7.6.	1	Adjustable gas lighters, with flame set at 2 inches (50 mm) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at permanent flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a continuous burning time of 2 minutes with the flame in a vertical attitude without causing a hazardous condition.	M	PASS
Cycling Burn	ASTM F400-00, Section 4.6, when tested in accordance with Section 7.7.	1	Adjustable gas lighters, with flame set at 2 inches (50 mm) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at permanent flame height, or fluid type lighters:	See Below	-

BV Lab Number: (5104)217-0041
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Shall be capable of withstanding a burning time of 20 seconds, repeated 10 times.	M	PASS
External Finish	ASTM F400-00, Section 4.7	1	Lighters shall have no external sharp edges that could cause accidental cuts or abrasions to the consumer when handled or used in the intended manner.	M	PASS
Compatibility	ASTM F400-00, Section 4.8 when tested in accordance with 7.8 and 7.9	1	Components of gas and fluid lighters that come in contact with the fuel recommended shall not deteriorate after exposure so as to fail any of the criteria herein or allow gas to escape exceeding 15 mg/minute.	M	PASS
Pressure Tests	ASTM F400-00, Section 4.9, when tested in accordance with Section 7.10.	1	Gas lighters shall be capable of withstanding an internal pressure of two times the vapor pressure occurring at 131°F (55°C) of the fuel recommended by the manufacturer.	M	PASS
Refilling of Lighters	ASTM F400-00, Section 5.1, when tested in accordance with Section 7.11 – 7.13	1	Refillable fluid lighters shall include specific instructions and warnings as applicable in accordance with section 6.	N/A	-
	ASTM F400-00, Section 5.2, when tested in accordance with Section 7.11.	1	Refillable fluid lighters having a sealed fluid reservoir shall be free of fuel leakage from both the sealed reservoir and sealing closure.	N/A	-
	ASTM F400-00, Section 5.3	1	Refillable gas lighters shall have specific training instructions and warnings as applicable in accordance with section 6.	N/A	-
	ASTM F400-00, Section 5.4, when tested in accordance with Section 7.13.	1	Refillable gas lighters: The refilling valve in a pressurized fuel tank lighter shall be secure enough so as not to allow an escape of gas exceeding 15 mg/min.	N/A	-
Certification	16 CFR 1212	1	Certification Showing Qualification Tests For Child Resistance Has Been Conducted Using Appropriate Surrogate Lighters And Child Panels Specified In The Regulations Must Be Submitted For Verification	N/T – Per Client Request	-

Key:
M Meets
NA Not Applicable
NM Does Not Meet
NT Not Tested

BV Lab Number: (5104)217-0041
Technician Name: DC/NS

BUREAU VERITAS

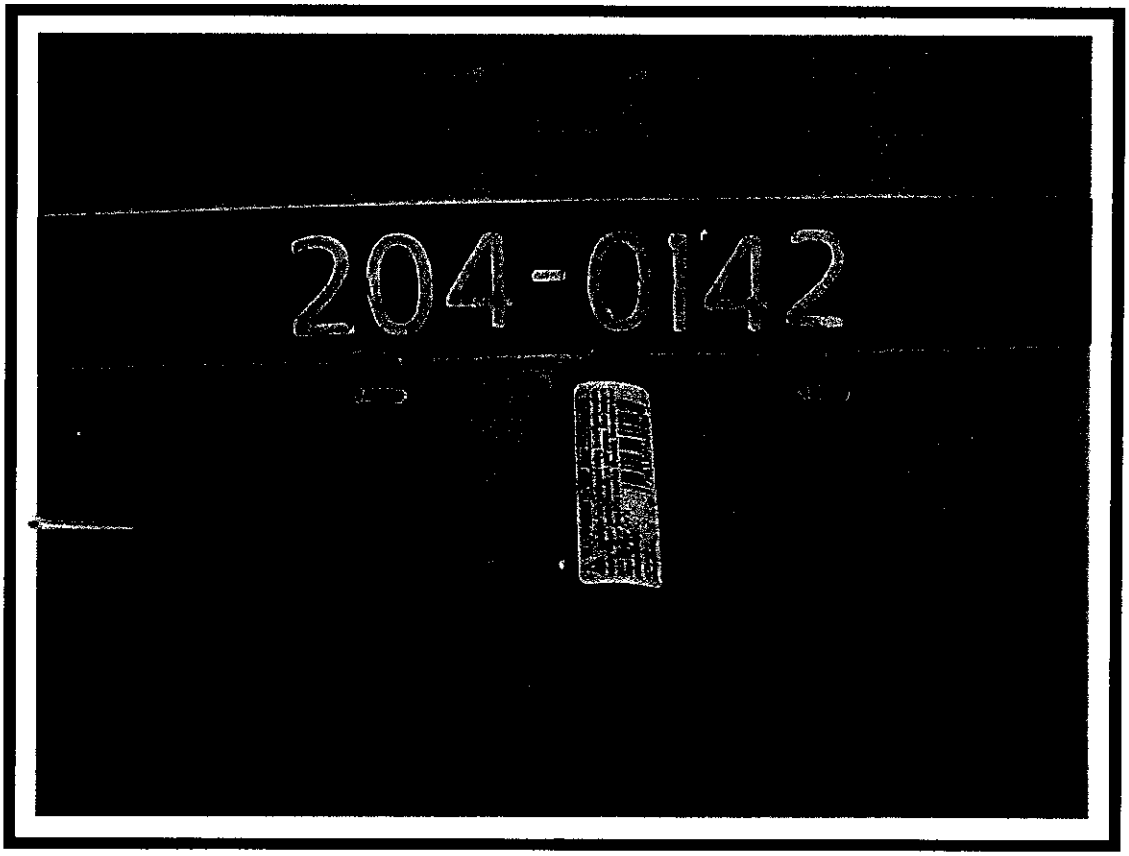
* Additional Charge For This Test ** Mandatory Requirement

No. Of Samples Required For Complete Testing:	20
No. Of (Fully Packed) Cartons For Transit Testing:	1
No. Of Working Days For Complete Testing:	7

Client Approval:
Creation Date: June 3, 2003
Editorial Revision Date: March 26, 2004
Pricing Review Date:
Technical Review Date:

REPORT

Lab Number: (5104)204-0142



Index	
Cover	1 Page
Report	2 Pages
Protocol	9 Pages
0 Exhibits	N/A
Other	N/A

TEST REPORT

LIGHTER ASSOCIATION, INC.
1920 N. STREET, NW
WASHINGTON , DC, DISTRICT OF COLUMBIA, 20036 UNITED STATES

ATTN: DAVID BAKER

LAB LOCATION: BUFFALO - HARDLINES
LAB NUMBER: (US) (5104)204-0142

CLIENT NO.: NOT LISTED
DEPARTMENT: NOT LISTED

DATE IN: JULY 22, 2004
DATE OUT: AUGUST 31, 2004
MOD. LOG IN: N/A
WORKING DAYS: 28 DAYS
ADDENDUM DATE: N/A

OVERALL RATING	
PASS	X
CORRECTIVE ACTION REQUIRED	
FAIL	

TESTING FOR
DISPOSABLE LIGHTERS (ASTM F400)
MC-4085-US

DEVELOPMENT		PRODUCTION	X	CUSTOMER COMPLAINT		OTHER		

Sample Description:	Bic Lighters									
Final Packaging:	**Yes** (submitted for review)		X	**No** (not submitted for review)						
Manufacturer:	Not Listed									
Country of Origin:	United States				**Style:**	Not Listed				
Color:	Various				**SKU Number:**	Not Listed				
Re-test:	**Yes:**		**No:**	X	**Charge Vendor:**	**Yes:**		**No:**	X	
Previous Report No.:	N/A									
Addendum Report:	**Yes:**		**No:**	X						
Reason For Addendum:	N/A									

TEST PROPERTY	PASS	C.A.R.	FAIL	COMMENTS
Labeling	X			
Physical Characteristics	X			
Construction Qualities	X			
Performance	X			
Analytical				Not Tested

EXECUTIVE SUMMARY: At the request of the client, submitted samples were tested per ASTM F400. All sections of the standard were evaluated, except Child Resistance per client's request.

The samples provided received a PASS rating for the tested sections of ASTM F400.

RECOMMENDATION FOR IMPROVEMENT:

None.

Bureau Veritas
Consumer Products Services, Inc.

Rufus K. Moberly
Associate Product Test Engineer,
Hardlines Department
Technical Consulting and Support Services

Bureau Veritas
Consumer Products Services, Inc.

Glenn Sylvia
V.P. of Hardlines

Bureau Veritas
Consumer Products Services, Inc.

James V. Zappa
Product Test Engineer,
Hardlines Department
Technical Consulting and Support Services

/pk

BUREAU VERITAS

BV Lab Number:	(5104)204-0142
Technician Name:	DC/NS
Test Date:	July 27, 2004
Reviewed By/Date:	RKM 8/30/04

BUREAU VERITAS TEST PROTOCOL FOR
MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
LABELING					
Instructions and Warnings	ASTM F400-00, Section 6.1	All	All lighters shall be accompanied by the appropriate instructions or warnings, or both, communicating proper method of use.	M	PASS
	ASTM F400-00, Section 6.2	All	This safety information shall be conspicuously placed on the product or on a separate brochure or pamphlet packaged with the lighters or on a product packaging at the point of sale with contrasting background color, type size, or style that makes it distinct from other information.	M	PASS
	ASTM F400-00, Section 6.3	All	For all lighters, the safety information shall be accompanied in close proximity by the specific signal word "WARNING."	M	PASS
	ASTM F400-00, Section 6.4	All	For all lighters, the safety information shall contain the following statements:	See Below	-
	ASTM F400-00, Section 6.4.1	All	"Keep away from children" or "keep out of reach of children"	M	PASS
	ASTM F400-00, Section 6.4.2	All	Ignite lighter away from face and clothing.	M	PASS
	ASTM F400-00, Section 6.5	All	Use one of the following as appropriate for the lighter type:	See Below	-
	ASTM F400-00, Section 6.5.1	All	Be sure flame is out after use. (Self-extinguishing lighters)	M	PASS
	ASTM F400-00, Section 6.5.2	All	This lighter does not self-extinguish; close cover to put out. (Non-self-extinguishing lighters)	N/A	-
	ASTM F400-00, Section 6.6	All	For all lighters, the safety information may include the substance of the following as appropriate for the lighter type:	See Below	-
	ASTM F400-00, Section 6.6.1	All	Contains flammable gas under pressure.	M	PASS
	ASTM F400-00, Section 6.6.2	All	Contains flammable fluid.	N/A	-
	ASTM F400-00, Section 6.6.3	All	When filled, will contain flammable fluid.	N/A	-
	ASTM F400-00, Section 6.6.4	All	Never expose to heat above 120°F (49°C) or to prolonged sunlight.	M	PASS
	ASTM F400-00, Section 6.6.5	All	Never puncture or put in fire.	M	PASS

BV Lab Number: (5104)204-0142
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 6.6.6	All	Extreme heat is present above the visible flame. Extra care should be taken to prevent burn injury or fire. (premixing burner lighters)	N/A	-
	ASTM F400-00, Section 6.6.7	All	Do not keep lit for more than 10 seconds. (premixing burner lighters)	N/A	-
	ASTM F400-00, Section 6.7	All	Refillable gas lighters shall be accompanied by specific instructions as to the correct procedure to accomplish the refill operation, including type of fuel recommended.	N/A	-
	ASTM F400-00, Section 6.8.1	All	Fluid lighters shall be accompanied by the substance of the following:	See Below	-
	ASTM F400-00, Section 6.8.1.1	All	Fill only with the type of fluid recommended by the manufacturer.	N/A	-
	ASTM F400-00, Section 6.8.1.2	All	Fill slowly, never overfill.	N/A	-
	ASTM F400-00, Section 6.8.1.3	All	Wipe lighter and hands dry before igniting.	N/A	-
Product Markings	ASTM F400-00, Section 8	All	All lighters shall bear a permanent logo or name that identifies the manufacturer or distributor.	M	PASS
PACKAGING					
Retail Shelf Packaging	TM-HL-0002	All	Shall have final retail shelf packaging with scannable UPC stamp/label. Scanned numbers shall match as per supplied UPC label.	070330620957	PASS
PHYSICAL CHARACTERISTICS					
Dimensions (If Specified)	TM-HL-0001	1	Report overall dimensions.	3 ¼" x 1" x ½"	-
Weight (If Specified)	TM-HL-0001	1	Report weight.	22.44g	-
CONSTRUCTION & WORKMANSHIP					
Defects	TM-HL-0002	All	Shall be free of aesthetic defects and shall meet the structural requirements as tested under IV. Performance.	M	PASS

BV Lab Number: (5104)204-0142
Technician Name: DC/NS

BUREAU VERITAS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
PERFORMANCE					
Flame Generation	ASTM F400-00, Standard Consumer Safety Specification for Lighters	1	Lighters shall require a deliberate manual operation to produce a flame. These operations shall conform to at least one of the following requirements:	See Below	-
	ASTM F400-00, Section 3.1.1	1	A system such that positive action on the part of the consumer is required to generate and maintain a flame.	M	PASS
	ASTM F400-00, Section 3.1.2	1	A system that requires two or more independent motions to generate a flame.	M	PASS
	ASTM F400-00, Section 3.1.3	1	A system that requires an actuating force equal to or greater than 3.4 lbf (15 N) to generate a flame.	N/A	-
Flame Control	ASTM F400-00, Section 3.2	1	The maximum attainable flame height for lighters shall be limited with a setting or by product design, or both.	M	PASS
	ASTM F400-00, Section 3.2.1 when tested in accordance with 7.1.	1	Nonadjustable fluid lighters:	See Below	-
		1	Shall not be capable of producing a flame height greater than 4.75 in. (120 mm).	N/A	-
	ASTM F400-00, Section 3.2.2 when tested in accordance with 7.1.	1	Nonadjustable postmixing and premixing burner lighters:	See Below	-
		1	Shall have a maximum attainable flame height of no more than 2 in. (50 mm).	M	PASS
	ASTM F400-00, Section 3.2.3 when tested in accordance with 7.1.	1	Adjustable postmixing burner Lighters:	See Below	-
		1	Shall not be capable of producing a flame height greater than 4.75 in. (120 mm) when deliberately adjusted by the consumer for maximum flame height.	N/A	-
	ASTM F400-00, Section 3.2.4, when tested in accordance with 7.1.	1	Adjustable premixing burner lighters:	See Below	-

BV Lab Number: (5104)204-0142
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Shall not be capable of producing a flame height in excess of 3 in. (75 mm) when deliberately adjusted by the consumer for maximum flame height..	N/A	-
	ASTM F400-00, Section 3.2.5, when tested in accordance with 7.1.		Adjustable postmixing burner lighters:	See Below	-
		1	The first strike will not produce a flame height in excess of 4 in. (100 mm).	M	PASS
	ASTM F400-00, Section 3.2.6, when tested in accordance with 7.1.	1	Adjustable premixing burner lighters:	See Below	-
		1	The first strike will not produce a flame height in excess of 2.5 in. (60 mm).	N/A	-
	ASTM F400-00, Section 3.2.7, when tested in accordance with 7.1.	1	All adjustable flame height lighters:	See Below	-
		1	Shall not be capable of producing a flame height in excess of 2 in. (50 mm) when set at the lowest possible flame height..	N/A	-
Flame Height Adjustment	ASTM F400-00, Section 3.3	1	Adjustable lighters shall require a deliberate manual operation to increase the flame height when the lighter is used in the normal fashion.	N/A	-
	ASTM F400-00, Section 3.3.1	1	Flame control actuators protrude from the body of the lighter. Shall require a minimum actuating force of 0.25 lbf (1 N) applied over the entire range of adjustment in a tangential direction.	N/A	-
	ASTM F400-00, Section 3.3.2	1	Adjustable gas lighters having rotary movement flame control actuators approximately at right angles to the flame shall perform as follows:	See Below	-
	ASTM F400-00, Section 3.3.2.1	1	The flame control actuator is at the top of the lighter.	N/A	-
		1	Moving the actuator to the left shall produce a decrease in flame height.	N/A	-
	ASTM F400-00, Section 3.3.2.2	1	The flame control actuator is at the bottom of the lighter.	N/A	-
		1	A clockwise movement shall produce a decrease in flame height.	N/A	-

BV Lab Number: (5104)204-0142
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 3.3.3	1	Adjustable gas lighters requiring motion of the flame control actuator approximately parallel to the flame axis shall decrease or increase the flame height according to the direction of the movement.	N/A	-
	ASTM F400-00, Section 3.3.4	1	Adjustable flame height lighters.	See Below	-
		1	Shall indicate the direction of movement to produce a higher or lower flame height.	N/A	-
	ASTM F400-00, Section 3.3.4	1	On lighters whose adjusting mechanisms conform to sections 3.3.2 and 3.3.3, the direction of movement shall be permanently imprinted or engraved on the lighter or may be of a nonpermanent tag or stick-on label, in the vicinity of the adjusting mechanism and be readily visible and understandable.	N/A	-
	ASTM F400-00, Section 3.3.5	1	On lighters whose adjusting mechanisms do not conform to sections 3.3.2 and 3.3.3, the direction of movement shall be permanently imprinted or engraved on the lighter, in the vicinity of the adjusting mechanism and be readily visible and understandable.	N/A	-
Spitting or Sputtering and Flaring	ASTM F400-00, Section 3.4, when tested in accordance with 7.2.	1	Gas lighters when set at the maximum flame height, shall exhibit no spitting or sputtering, or flaring.	M	PASS
Flame Extinction	ASTM F400-00, Section 3.5.1, when tested in accordance with 7.3	1	Adjustable postmixing burner lighters, after a 5-second burn at maximum flame height, when extinguished in the intended manner, shall have any exposed flame completely extinguished within 2 seconds.	N/A	-
	ASTM F400-00, Section 3.5.2, when tested in accordance with 7.3.	1	Adjustable postmixing burner lighters at a flame height of 2 in. (50 mm), or the maximum height of adjustment allows, or nonadjustable postmixing burner lighters at their permanently set flame heights, after a 10 second burn:	See Below	-
		1	When extinguished in the intended manner, shall have any exposed flame completely extinguished within 2 seconds after such action is completed.	N/A	-
		1	For gas lighters that have shields, an additional 2 second afterburn is acceptable if the flame height does not extend above the shield.	N/A	-

BV Lab Number: (5104)204-0142
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
	ASTM F400-00, Section 3.5.3, when tested in accordance with 7.3.	1	Adjustable premixing burner lighters, after a 5 second burn at maximum flame height:	N/A	-
		1	When extinguished in the intended manner, shall have any exposed flame completely extinguished in no more than 5 seconds.	N/A	-
	ASTM F400-00, Section 3.5.4, when tested in accordance with 7.3.	1	Adjustable premixing burner lighters, when set at a flame height of 2 in. (50 mm) or the maximum flame height the adjustment allows, if lower than 50 mm, or nonadjustable premixing burner lighters at their permanently set flame heights, after a 10 second burn, when closed in the intended manner:	See Below	-
		1	Shall have any exposed flame completely extinguished in no more than 5 seconds.	N/A	-
Volumetric Displacement	ASTM F400-00, Section 3.6, when tested in accordance with 7.14.	1	Liquid portion of the fuel shall not exceed 85% of the volumetric capacity of the fuel chamber.	M #151 – 78.6%	PASS
Drop Test	ASTM F400-00, Section 4.2.1, when tested in accordance with Section 7.4.	1	Postmixing and premixing burner lighters must be capable of withstanding three separate 5-ft. (1.5 m) drops.	See Below 23°C -10°C	-
		1	Without fuel tank fragmentation.	M M	PASS
		1	Without resulting in sustained self-ignition.	M M	PASS
		1	Without gas escape exceeding 15 mg/min.	M M	PASS
		1	Without impairing the subsequent safe operation of the lighter.	M M	PASS
	ASTM F400-00, Section 4.2.2, when tested in accordance with Section 7.3.	1	Fluid lighters must be capable of withstanding three separate 5 ft. (1.5 m) drops.	See Below	-
		1	Without fuel tank rupture.	N/A	-
	ASTM F400-00, Section 4.2.3	1	Without resulting in sustained self-ignition.	N/A	-

BV Lab Number: (5104)204-0142
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Without impairing the subsequent safe operation of the lighter.	N/A	-
	ASTM F400-00, Section 4.3.1	1	Lighters that are still operable in the intended manner after testing, sections 4.2.1 or 4.2.2, shall be capable of meeting all the applicable requirements of section 3.	M	PASS
Temperature Test	ASTM F400-00, Section 4.3, when tested in accordance with Section 7.5.	1	Lighters shall be capable of withstanding a temperature of 131°F (55°C) for 4 hours.	M	PASS
		1	Lighters that are still operable in the intended manner shall be capable after return to 73 ± 4°F (23 ± 2°C) of meeting the applicable requirements in section 3.	M	PASS
Burning Test	ASTM F400-00, Section 4.4	1	Adjustable gas lighters set at maximum, nonadjustable gas lighters at their permanently set flame height, or fluid type lighters:	N/A	-
		1	Shall be capable of withstanding a burning time of 5 seconds in any hand-held attitude without evidence of any burning or distortion of components so as to cause a hazardous condition.	N/A	-
	ASTM F400-00, Section 4.4.1	1	Adjustable gas lighters set at 50 mm (2 inches) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at the permanent flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a burning time of 10 seconds in any hand-held attitude with the lighter in a position 45° below the horizontal with no burning or distortion of components so as to cause hazardous conditions.	N/A	-
Continuous Burn	ASTM F400-00, Section 4.5, when tested in accordance with Section 7.6.	1	Adjustable gas lighters, with flame set at 2 inches (50 mm) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at permanent flame height, or fluid type lighters:	See Below	-
		1	Shall be capable of withstanding a continuous burning time of 2 minutes with the flame in a vertical attitude without causing a hazardous condition.	N/A	-
Cycling Burn	ASTM F400-00, Section 4.6, when tested in accordance with Section 7.7.	1	Adjustable gas lighters, with flame set at 2 inches (50 mm) or the maximum flame height the adjustment allows if lower than 50 mm, nonadjustable gas lighters set at permanent flame height, or fluid type lighters:	See Below	-

BV Lab Number: (5104)204-0142
Technician Name: DC/NS

MC-4085-US

Disposable Lighters (ASTM F400)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
		1	Shall be capable of withstanding a burning time of 20 seconds, repeated 10 times.	N/A	-
External Finish	ASTM F400-00, Section 4.7	1	Lighters shall have no external sharp edges that could cause accidental cuts or abrasions to the consumer when handled or used in the intended manner.	M	PASS
Compatibility	ASTM F400-00, Section 4.8 when tested in accordance with 7.8 and 7.9	1	Components of gas and fluid lighters that come in contact with the fuel recommended shall not deteriorate after exposure so as to fail any of the criteria herein or allow gas to escape exceeding 15 mg/minute.	M	PASS
Pressure Tests	ASTM F400-00, Section 4.9, when tested in accordance with Section 7.10.	1	Gas lighters shall be capable of withstanding an internal pressure of two times the vapor pressure occurring at 131°F (55°C) of the fuel recommended by the manufacturer.	M	PASS
Refilling of Lighters	ASTM F400-00, Section 5.1, when tested in accordance with Section 7.11 – 7.13	1	Refillable fluid lighters shall include specific instructions and warnings as applicable in accordance with section 6.	N/A	-
	ASTM F400-00, Section 5.2, when tested in accordance with Section 7.11.	1	Refillable fluid lighters having a sealed fluid reservoir shall be free of fuel leakage from both the sealed reservoir and sealing closure.	N/A	-
	ASTM F400-00, Section 5.3	1	Refillable gas lighters shall have specific training instructions and warnings as applicable in accordance with section 6.	N/A	-
	ASTM F400-00, Section 5.4, when tested in accordance with Section 7.13.	1	Refillable gas lighters: The refilling valve in a pressurized fuel tank lighter shall be secure enough so as not to allow an escape of gas exceeding 15 mg/min.	N/A	-
Certification	16 CFR 1212	1	Certification Showing Qualification Tests For Child Resistance Has Been Conducted Using Appropriate Surrogate Lighters And Child Panels Specified In The Regulations Must Be Submitted For Verification	N/T – Per Client Request	-

Key:
M Meets
NA Not Applicable
NM Does Not Meet
NT Not Tested

BV Lab Number: (5104)204-0142
Technician Name: DC/NS

BUREAU VERITAS

* Additional Charge For This Test ** Mandatory Requirement

No. Of Samples Required For Complete Testing:	20
No. Of (Fully Packed) Cartons For Transit Testing:	1
No. Of Working Days For Complete Testing:	7

Client Approval:
Creation Date: June 3, 2003
Editorial Revision Date: March 26, 2004
Pricing Review Date:
Technical Review Date:

Statement of the National Association of State Fire Marshals
to the US Consumer Product Safety Commission
on Petition CP 02-1, requesting the adoption of ASTM F-400
as a mandatory standard for cigarette lighters
September 14, 2004

Chairman Stratton, Commissioners Gall and Moore, good morning. I am Robert Polk, of the Government Relations office of the National Association of State Fire Marshals (NASFM). I am former South Carolina State Fire Marshal and past chair of the Consumer Product Fire Safety Task Force of NASFM. As you know, NASFM is an organization of senior fire officials in the states. Our mission is to protect human life, property and the environment from fire. We have appeared before the Commission many times as an advocate for safer consumer products.

This morning we are addressing a petition by the Lighter Association to adopt a mandatory standard for cigarette lighters. We strongly recommend that you override the staff recommendation and vote to begin a regulatory proceeding to make the ASTM F-400 voluntary standard for cigarette lighters mandatory.

To do anything less would be a failure to carry out the mission of your Agency; would result in needless deaths and injuries; and, by continuing to allow substandard products to enter the country, would put undue pressure and costs on the States and on your own agency to track down and remove unsafe products from the hands of consumers. The Commission should never be a barrier to an industry wanting help to improve safety.

Failure to carry out the mission of your agency

From your website: "The U.S. Consumer Product Safety Commission is charged with protecting the public from unreasonable risks of serious injury or death from more than 15,000 types of consumer products under the agency's jurisdiction. The Commission is committed to protecting consumers and families from products that pose a fire, electrical, chemical, or mechanical hazard or can injure children."

We applaud the Commission for the child-resistant lighter standard and know that you are aware of our members' concerns about the need to bring certain novelty lighters into compliance with that standard. Child resistance is key, but by itself it is not enough: we need to start with a product that is free from mechanical and structural defects. It makes no sense to have spent so much effort on promulgating and enforcing the child resistance standard only to abdicate responsibility when it comes to basic safe construction of a product. If fire safety truly is one of your highest priorities as an agency, we urge you to demonstrate that by granting this petition.

Needless deaths and injuries from noncompliance

Absent a specific study, the Commission is well aware that staff is unable to link specific fire incidents with specific lighters, because our nation's current data system is not set up to capture information at that level of specificity.

We also would remind the Commission that ASTM F-400, like most product safety standards, is considered the minimum standard for mechanical and structural integrity. We are therefore puzzled by the uncertainty described in the briefing package about whether industry compliance levels are at 40% or 75%. The issue is that somewhere between 25% and 60% of lighters do not meet minimum fire safety requirements. We

fear that by agreeing that this is acceptable, the Commission may be setting a dangerous precedent for voluntary safety programs. Why would this aspect of safety be held to a lower standard than food and drug, transportation and building safety?

As the industry's own statistics demonstrate, portions of this industry believe that a standard need not be complied with as long as it is voluntary. The ASTM F-400 voluntary standard has been in effect since 1975, so there has been ample time for all portions of the industry to ensure total compliance if that were their goal.

We commend the Lighter Association for its commitment to safety and wish that all trade associations were as willing to step up and codify safety standards in this manner. By granting this petition, the Commission would be rewarding responsible industry behavior, and sending a message to others that, when it comes to safety, a level playing field is in everyone's best interests.

Undue pressure on the States and the Commission itself

A refusal to bring this standard to the level of a mandatory regulation is an invitation for substandard lighters to enter into the commerce of this country. We are baffled at why the Commission might forego this opportunity to bring US safety standards in line with those of our neighboring countries and trading partners. This refusal would impose an additional burden on fire officials and other authorities charged with ensuring the safety of the public -- not to mention on the Commission's own compliance staff, who still are responsible for locating defective products once they enter the country and facilitating the recall process. Your granting of this petition would enable substandard shipments to be stopped by Customs before they even enter the country, and put the resources of fire officials and your own agency to much more productive use.

In 1999, the law firm of Roger & Wells, LLP, wrote an opinion for NASFM on State Authority to Regulate the Safety of Imported Electrical Appliances. That opinion -- which we see as applying equally to other imported products, including cigarette lighters -- says that as long as the Commission has not established a federal standard that addresses the same risk, states can establish their own product safety standards in a way that will not constitute an unnecessary obstacle to trade. So, if the Commission fails to grant this petition, individual State Fire Marshals could require all cigarette lighters to demonstrate that they meet the ASTM F-400 standard prior to entering a state. This is not our preference, certainly, and it would create a confusing mosaic of state law.

But NASFM has a problem with the fact that its members might be forced to take on this additional burden because the Commission failed to do its job of protecting the public from harm. The fire service is often blamed when defective products end up injuring or killing people. We should be working together on issues like these. This is a model opportunity to take a strong stand for safety without creating an unreasonable economic or regulatory burden.

Commissioners, your staff is very capable, but they are wrong here. As Chairman Stratton told NASFM in Alaska last year, the Consumer Product Safety Act is very broad and subject to your interpretation. We are not lawyers, but we refuse to believe that the law does not allow you to say "yes" to an industry and firefighters who are asking for your help to improve safety. You have the opportunity to do the right thing by granting this petition, and we urge you to seize it – along with the shipments of substandard lighters waiting at our borders.

SLAI **Safety Lighter Association International**
P O BOX 5110,
Glendale Heights, IL. 60139
Tel: 800-585-5858, Fax: 800-458-7735
E-mail: safetylighter@aol.com

October 12, 2004

Re: Petition CP 02-1. Petition on Lighters

Safety Lighter Association International would like the opportunity to challenge the reply comments made by the Lighter Associations concerning petition CP 02-1. The Lighter Association, Inc has made several futile attempts requesting that ASTM F400-00, Safety Standard for Lighters, be adopted as a mandatory consumer product safety standard under the CPSA. In their attempts they have presented to the commission several inaccurate and false reply comments.

(1)

In, November of 2001, when the Lighter Association, Inc petitioned CP 02-1, its members accounted for approximately 60% of the lighters sold in the U.S. Today, less than three years later, its members account for less than half of the lighters sold in the U.S. This is fact taken directly out of the reply comment made by the Lighter Association. They claim to make this point because on the first page of the Executive Summary, the staff suggests "that at least 75% of the lighters sold in the U.S are purported to conform to ASTM-400." This suggests there is already substantial compliance with ASTM F400, thus eliminating any need for a mandatory standard. Their sole claim, the staff's suggestions are incorrect is based solely on data the Lighter Association annual statistical program collected claiming total sales of lighters sold in the U.S differs than the staff's findings. **We feel the Lighter Association concerns to mandate ASTM-400 standards are not because they are concern for the consumer or the quality of lighters but rather sales in the market.** They also claim all of their members comply with ASTM F400 **standard**s and other companies such as New York Lighter, Limited and Polycity Enterprise failed tests concluded by ACTS. This is completely false because several member of Lighter Association have failed to comply with ASTM-400 standards in the past. In regards to the companies mentioned above, which failed ACTS testing, we can completely understand why. ACTS, a testing laboratory based in Buffalo, New York, its primary earnings stems from members of the Lighter Association. To conclude, **their findings are not biased would be naïve.**

In their reply comment, the Lighter Association again brings up lighters imported from China routinely fail several of the basic safety standards set fourth in ASTM F400. However, the Lighter Association goes on to state this is based upon their testing and brands imported by their members are excluded. **We find this comment to be redundant and inaccurate, because we addressed this comment in the past petition.**

The new China inspection standard was published on June 1, 2001 and was effective on September 1 2001. The lighters being tested by the Lighter Association were manufactured and imported before the new inspection standard became effective. Here are some examples:

A: Spin-N-Lite Imported by Centerfire Inc., Los Angeles, CA. This company stopped importing this brand in 2000.

B: Lite-Up Imported By Spec Enterprises, S. El Monte, CA. This company stopped importing this brand in early 1996.

C: Wax Imported by Gladstrong Investments USA, Hacienda Heights, CA. This company stopped importing this brand in April 2001.

In another reply comment, Lighter Association mentions they do not understand why the staff is opposed to regulating in this area, because all but one of the comments filed supported the petition. **This is also completely false**. The Lighter Association itself has repeatedly read and refuted comments we have filed in the past. Does the Lighter Association simply choose **not to acknowledge SLAI and its members?** The Lighter Association also goes on to state "the one comment in opposition to the Petition (Zreative Products) confused the CR regulations with the issue of general safety" What the Lighter Association failed to mention is SLAI has firmly stated we are not confused with the issue at hand and in past petitions state why we feel the petition is unnecessary. This proves the Lighter Association deliberately misled the commission in stating "All but one of the comments filed supported the petition".

The Lighter Association goes on to use a comment made by Mr. Michael T. Bogumill, a former CPSC officer, who essentially says lighters imported from 1993-2000 could not meet the voluntary standard. Again, the Lighter Association fails to mention the lighters in reference by Mr. Bogumill were imported before the New China Standards were implemented and the quality of lighters being imported into the U.S today could pass the safety standards.

Another inaccurate reply comment made by the Lighter Association is China's laboratories are not used and are not reputable. While the Lighter Association makes their reply comment based primarily on the Lighters Association member's experiences in China, we can assure the Commission their reply comment is unmerited. Last year several CPSC staffs personally visited several laboratory and comment they were **impressed with the professionalism and proficiency in which the laboratory operated**. The CPSC staff goes on to commend Tianjin laboratory in particular for its outstanding commitment in meeting safety standards for lighters.

(2)

In regards to Public Meeting Concerning Petition Requesting that ASTM F400-00, Safety Standard for Lighters, Be adopted as Consumer Product Safety Standard, the testimony of

Lighter Association, Inc., Petitioner, General Counsel main argument for this petition is lighters imported from China do not meet ASTM 400 standards. However, all lighters exported from China are required to a mandatory inspection standard similar to that of ASTM F400. The Lighter Association claims lighters imported from China are not safe because they do not meet ASTM 400 standards. If ASTM 400, Safety Standard for Lighters adopted the **same pass/fail percentage rate requirements as Child-resistant** testing, lighters manufactured in China would meet ASTM 400 standards with certainty. In order for a lighter to pass a child-resistant testing, at least 85% of the children tested must be unable to operate the surrogate lighter (a substitute for an actual working lighter).

We suggest even if ASTM F400 becomes standard it should adopt a pass/fail rate. Every product which is tested for safety has a percentage in which it is allowed a pass/fail rate. Usually, the pass/fail percentage pertains to parts of the test in which the product being tested fails an insignificant part of the test. ASTM F400 is made up of 4 main requirements that include functional requirements, structural integrity requirements, functional requirements after structural integrity tests and final functional requirements. These main requirements are then separated into categories listed below:

Functional Requirements
- Flame Height Measurement
- Spitting or sputtering and flaring
- Flame Extinction
- Volumetric displacement

Structural Integrity Requirements
- Drop Test
- Temperature
- Continuous Burn
- Cycling Burn
- Compatibility

Functional Requirements after Structural Integrity Tests
- Flame Height Measurement
- Spitting or Sputtering and Flaring
- Flame Extinction

Final Functional Requirements
- Instructions and warnings
- Product Marking

For example: A company in Canada submitted 250 lighters to be tested. Out of the 250 lighters (1) lighter failed to meet ASTM F400, resulting in the failing of the entire examination. The (1) lighter which failed the test, passed every category with the exception of **ONE MINOR PART OF ONE MAIN CATEGORY**-sputtering in the functional requirement. It is this one reason the entire 250 lighter examination failed to meet ASTM F400 standard. It would be understandable to fail the lighter, had the lighter

failed the drop test or temperature test, **IMPORTANT** parts of the test that have the potential to cause substantial harm. To fail an entire 250 lighter examination based upon such an insignificant factor is unwarranted.

We feel it is important to implement a pass/fail factor percentage when evaluating the results of which lighters meet ASTM F400 because the current ASTM F400 standard is not realistic in providing fair testing. On September 14, 2004, another test results was submitted by the Lighter Association. The result found 6 lighters out of the 8 submitted failed. We believe if a pass/fail percentage equivalent to the pass/fail percentage allotted to CR testing were implemented, lighters that were submitted by the Lighter Association in the September 14, 2004 hearing would have met the ASTM 400 standard.

Again, we want to stress **Lighter Association's main objective in this petition is motivated from fear of losing market shares and not consumer safety.** The Lighter Association hopes by enforcing a mandatory safety standard, it will hurt China's free trade and it will. The fact it is businesses rather than consumers pushing for this petition proves Chinese Lighters is a commodity consumer want and feel safe purchasing. In the event, Chinese Lighters are banned from the U.S market, consumers will be subjected to pay higher prices and the members of the Lighter Association will have complete control of the market. Importers and manufactures are striving daily to improve quality of the lighters being imported into the U.S and consumers are reaping the benefits.

The CPSC is charged with protecting the public from unreasonable risk of serious injury or death from more than 15000 types of consumer products under the agency's jurisdiction. The staff states: "For the approximately 900 million lighters purchased by consumers in a year, the estimated risk of death from lighter malfunction is about 2.2 deaths per billion lighters. The estimated risk of injury is about 1.1 injuries per million lighters." This is just one of the many reason, the staff recommends against proceeding with a mandatory rule.

As with any product sold in the market, no product is one hundred percent fool proof. Often when injuries and deaths occur, it is due to the consumer's misuse or insufficient product knowledge. We believe the injuries the Lighter Association provide to the commission on injuries sustained from malfunction lighters could have been prevented had consumers used the lighters properly.

Lighter Association claims of "how many deaths will the Commission require to meet the cost benefit test in the statute" regarding lighters which purportedly caused 2 deaths? We would like to compare lighters to automobiles. Automobiles are a consumer product which has a death rate measured and compared to by the minute and an injury rate measure and compared by seconds. Yet, automobiles are not banned from being imported into the U.S and sales have steadily increased yearly.

In conclusion, we (SLAI members) strongly believe that adopting ASTM F400 standards will have no impact on the quality of lighters being imported into the U.S. The lighters currently being imported into the U.S are high-quality and are continue to improve daily. The results of lighters improving dramatically can be attributed to the new implementation of China's new standard. Every lighter must undergoes rigorous testing in China to meet standards BEFORE IMPORTATOIN INTO THE U.S. Thus, we feel it will be redundant to impose a mandatory ASTM F400-00, safety standard for lighters, consumer product safety standard. We feel without allotted pass/fail percentages, the ASTM F400-00 can not be considered a standard test. If mandatory ASTM F400-00 testing was adopted, the current system would provide inadequate unfair and biased test results.

The CPSC has taken the Lighter Association petition seriously and invested a large amount of time and funds in investigating what the effects would be if adopting ASTM F400 standard as mandatory standard would increase the quality of lighters and what benefit would the standard provide. The CPSC concluded on numerous occasions, the benefit does not outweigh the cost. We feel it is abundantly clear, once all facts are submitted to the commission; it is not the consumers but Lighter Association's member, whom would reap the benefit of adopting ASTM F400 standard as mandatory. Thus, we urge the commission to accept the staff's recommendations and bring to an end the Lighters Associations petition. In closing, we would like to thank the CPSC for thoroughly investigating and providing the commission with its recommendations and hope the Lighter Association and its members will suspend with wasting CPSC's time and money.

Sincerely,

Lincoln Lin
President
Safety Lighter Association International

Lighter pet comment 4

Zreative Product Inc

4335 Rowland Avenue, El Monte, CA 91731
Phone: 626-350-8830 Fax: 626-350-8380
Email: zreative@hotmail.com

10/13/2004

Re: Objecting the Petition CP 02-1, requesting that ASTM F400-00, Safety Standard for Lighters, be adopted as a mandatory Consumer Product Safety Standard

BY TOMMY WONG

To Whom It May Concern:

First of all, I have to commend the entire CPSC staff on their excellent work in their review briefing package. It is thorough, with concise supporting statistics, and the recommendation is very reasonable.

Since the CPSC staffs have demonstrated sufficient reasons with accurate statistical data to support their decision, we do not want to be redundant. However, there is couple of facts that we would like to share with you. With the help of Health Surveillance Division of PHAC, we have done a study on injury and death in Canada caused by lighters that are compliant with Health Canada. Surprisingly, the outcome is similar to the finding from your Executive Summary, i.e. 2 deaths per billion lighters. Hence it is obvious that mandating the voluntary standard would NOT reduce mortality incidents. It will only waste the precious time and effort of the CPSC staff which otherwise would have spent it on other more beneficial projects. There are more injury and death caused by motorcycle, moped as well as electrical appliances than lighters in the U.S. That is the reason why the staff concluded that it is not justified to accept this petition based on the cost benefit analysis. It is better off to deploy their limited resources to regulate other more urgent products since protecting the public from injury or death from more than 15000 types (not ONE) of consumer products is their mission.

Finally, we believe the motive of the petition is a financial/commercial issue. On page 1 of the Testimony of Lighter Association, Inc., it stated that their members have lost more than 20% of the market share in less than three years. Therefore, the best deterrent from losing further business would be imposing a new, tough regulation on their competitors. It will not work in this free, democratic society. A better way, may we suggest to the members of the Lighter Association, Inc., is to lower your PROFIT margin. Consumers are very smart. They buy by value, not just name brand. Incidentally, DjEEP lighter, which is made in France, also failed the safety test in Canada.

Stevenson, Todd A.

From: zreative zreative [zbesttom@hotmail.com]
Sent: Wednesday, October 13, 2004 10:06 PM
To: Stevenson, Todd A.
Cc: Khanna, Rohit Z.
Subject: response on the public meeting concerning lighter petition CP 02-1

petition astm.doc
(57 KB)

Dear Sir/Madam,

This is a submission in response to the Petition CP 02-1, which requested that the Commission adopt ASTM F-400, as a mandatory standard. Since the dead line is tomorrow, 10/14/04, I have no choice but email my reply to you. Thank you for your attention to this matter. Best regards.

Sincerely,

Tommy Wong

Don't just search. Find. Check out the new MSN Search!
http://search.msn.click-url.com/go/onm00200636ave/direct/01/