



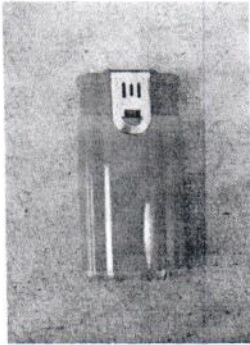
# 中华人民共和国宁波出入境检验检疫局技术中心

NINGBO ENTRY-EXIT INSPECTION AND QUARANTINE  
TECHNOLOGY CENTER OF THE PEOPLE'S REPUBLIC OF CHINA



Application No. : 231400001270  
Report No.: ANB14019  
February 20, 2014  
Page 1 of 6

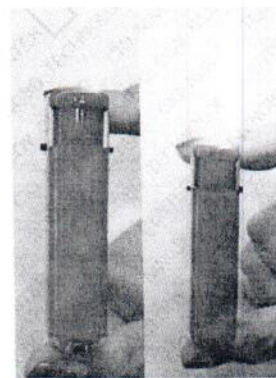
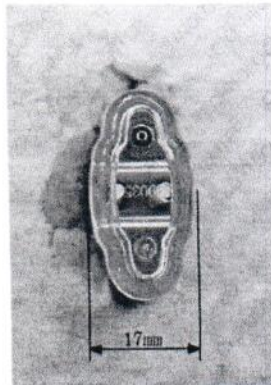
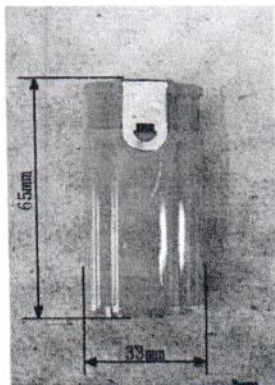
## TEST REPORT

<p><b>Sample Name:</b> FH-930 Lighter  <b>Brand:</b> ----  <b>Model and Weight:</b> 65mm×33mm×17mm/23.9g  <b>Date of Report:</b> February 20, 2014  <b>Date of Test:</b> From January 22, 2014 to February 20, 2014  <b>Units:</b> 150 pcs</p>	
<p><b>Test Requested:</b>  <b>ISO9994:2005+AMD.1:2008 Lighters-Safety Specification</b></p>	

### Determinant Result

Through inspection this lot of samples Do meet ISO9994 Lighters-Safety Specification.

### Photographs:



0119949

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### Results:

The product was adjustable. The 150 sample elements were numbered from 1 to 150. 1#~108# were for test, and 109#~150# were for sample reservation. The product had normal burning.

### Flame Height Measurement (Clause 5.2)

1#~9# elements were subject to the Flame Height Measurement.

**Criteria:** 3.1-In order to minimize the possibility of inadvertent ignition, or self-ignition, lighters shall require a deliberate manual operation to produce a flame. This operation shall conform to at least one of the following requirements:

- a) positive action on the part of the user shall be required to generate and maintain a flame;
- b) two or more independent actions by the user shall be required to generate a flame;
- c) an actuating force equal to, or greater than, 15 N shall be required to generate a flame

3.2-Maximum flame heights specified in this International Standard, for both postmixing burner lighters and premixing burner lighters, will be reconsidered periodically with a view to gradual reduction in line with technological progress.

For adjustable lighters, the maximum flame height that a user will obtain under different conditions of use shall comply with the following requirements when tested in accordance with 5.2.

Adjustable postmixing burner lighters shall have the flame height adjusted by the manufacturer in such a manner that the lighter, when first ignited by the user - without changing the adjustment - will not produce a flame height greater than 100 mm.

Adjustable postmixing burner lighters shall not be capable of producing a flame height greater than 120 mm when deliberately adjusted by the user to the manufacturer's design limit for maximum flame height.

Adjustable premixing burner lighters shall have the flame height adjusted by the manufacturer in such a manner that the lighter, when first ignited by the user — without changing the adjustment — will not produce a flame height greater than 60 mm.

Adjustable premixing burner lighters shall not be capable of producing a flame height greater than 75 mm when deliberately adjusted by the user to the manufacturer's design limit for maximum flame height.

Adjustable postmixing and premixing burner lighters shall not be capable of producing a flame height greater than 50 mm when set at the lowest possible flame height.

The maximum attainable flame height for lighters shall be limited by pre-setting or by product design, or both.

**Results:** *No defects were observed*



### **Spitting, Sputtering and Flaring Test (Clause 5.3)**

**10#~18# elements were subject to the Spitting, Sputtering and Flaring Test.**

**Criteria:** 3.4-Gas lighters, when set at the maximum flame height, shall exhibit no spitting or sputtering, or flaring, when tested in accordance with 5.3.

4.7-The following types of lighter shall be capable of withstanding a burning time of 5 s when held in a position such that the top of the wick, or burner valve orifice, is at an angle of 45° below the horizontal, without evidence of any burning or distortion of components so as to cause a hazardous condition:

a) adjustable gas lighters, with the flame height set at maximum.

The following types of lighter shall be capable of withstanding a burning time of 10 s when held in a position such that the top of the wick, or burner valve orifice, is at an angle of 45° below the horizontal, without evidence of any burning or distortion of components so as to cause a hazardous condition:

c) adjustable gas lighters, with the flame height set at 50 mm, or the maximum flame height the adjustment allows if lower than 50 mm.

**Results:** *No defects were observed*

### **Flame Extinction Test (Clause 5.4)**

**19#~27# elements were subject to the Flame Extinction Test.**

**Criteria:** 3.5- When a lighter is extinguished in the intended manner, for example by closing a cover or by releasing a button or a lever, it shall meet the following requirements with respect to extinction time.

Adjustable postmixing burner lighters, when tested in accordance with 5.4, shall have any flame completely extinguished within 2 s; Adjustable premixing burner lighters, when tested in accordance with 5.4, shall have any flame completely extinguished in no more than 5 s

1) after a 10 s burn when set at a flame height of 50 mm, or the maximum flame height the adjustment allows if lower than 50 mm;

2) after a 5 s burn when set at maximum flame height.

In the case of postmixing burner lighters that have shields, an additional 2 s afterburn (i.e. continuous burning) is acceptable if the flame, during this additional 2 s period, does not extend above the shield.

**Results:** *No defects were observed*



### Fuel Compatibility Test (Clause 5.5)

**100#~108# elements were subjected to the Fuel Compatibility Test.**

**Criteria:** 4.2-Components of gas lighters that come into contact with the fuel recommended by the manufacturer shall not deteriorate after exposure to the fuel, so as to cause the lighter to fail any of the criteria contained in this specification or allow gas escape exceeding 15 mg/min, when tested in accordance with 5.5.

Lighters that meet this requirement, and that are still able to be ignited in the intended manner, shall subsequently be capable of meeting all applicable requirements of 3.1 to 3.5, inclusive.

**Results:** *No defects were observed*

### Refilling Test (Clause 5.6)

**82#~90# elements were subjected to the Refilling Test.**

**Criteria:** 4.3- Refillable gas lighters shall have a pressurized fuel reservoir whose refilling valve shall be secure enough to prevent an escape of gas exceeding 15 mg/min, when tested in accordance with 5.6.

**Results:** *No defects were observed*

### Fuel Volumetric-displacement Test (Clause 5.7)

**91#~99# elements were subjected to the Fuel Volumetric-displacement Test.**

**Criteria:** 3.6-For gas lighters shipped with fuel, the liquid portion of the fuel shall not exceed 85 % of the volumetric capacity of the fuel reservoir when tested in accordance with 5.7.

**Results:** *No defects were observed*

### Drop Test (Clause 5.8)

**28#~36#/37#~45# elements were subject to the Drop Test.**

**Criteria:** 4.4-Without impairing their subsequent safe operation, lighters shall be capable of withstanding three separate  $(1.5 \pm 0.1)$  m drops conducted in accordance with 5.8:

- (a) without fuel reservoir rupture/fragmentation
- (b) without sustained self-ignition

In addition, for gas lighters, gas escape shall not exceed 15 mg/min.

Lighters that meet this requirement, and that are still able to be ignited in the intended manner, shall subsequently be capable of meeting all applicable requirements of 3.1 to 3.5, inclusive.

**Results:** *No defects were observed*



#### Elevated Temperature Test (Clause 5.9)

46# ~ 54# elements were subjected to the Elevated Temperature Test.

**Criteria:** 4.5 Gas lighters, and fluid lighters with a sealed compartment filled with non-absorbed fuel, shall be capable of withstanding a temperature of 65 °C for 4 h when tested in accordance with 5.9.

Lighters that meet this requirement, and that are able to be ignited in the intended manner, shall be capable after stabilization at a temperature of  $(23 \pm 2)$  °C of meeting all the applicable requirements of 3.1 to 3.5, inclusive.

**Results:** *No defects were observed.*

#### Internal-pressure Test (Clause 5.10)

55# ~ 63# elements were subjected to the Internal-pressure Test.

**Criteria:** 4.6 Gas lighters shall be capable of withstanding an internal pressure of twice the vapour pressure at 55 °C of the fuel recommended by the manufacturer, increasing the pressure at a rate not exceeding 69 kPa/s, when tested in accordance with 5.10. Observe whether there is any rapid drop of pressure during the course of the test.

**Results:** *No defects were observed.*

#### Cyclic-burning-time Test (Clause 5.11)

64# - 72# elements were subjected to the Cyclic-burning-time Test.

**Criteria:** 4.8- The following types of lighter shall be capable of withstanding a burning time of 20 s - repeated 10 times - when tested in accordance with 5.11:

c) adjustable gas lighters, with the flame height set at 50 mm (or the maximum flame height the adjustment allows) if lower than 50 mm.

Lighters that meet this requirement, and that are still able to be ignited in the intended manner, shall subsequently be capable of meeting all applicable requirements of 3.1 to 3.5, inclusive.

**Results:** *No defects were observed.*

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Application No. : 231400001270

Report No.: ANB14019

February 20, 2014

Page 6 of 6

### Continuous-burn-time Test (Clause 5.12)

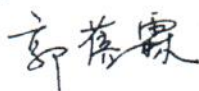
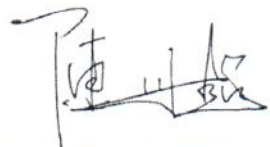

73#~81# elements were subjected to the Continuous-burn-time Test.

**Criteria:** 4.9- The following types of lighter shall be capable of withstanding a continuous burning time of 2 min with the flame in a vertically upward position without causing a hazardous condition, when tested in accordance with 5.12:

Adjustable gas lighters, with the flame height set at 50 mm, or the maximum flame height the adjustment allows if lower than 50 mm.

**Results:** *No defects were observed*



<b>Test by:</b>  <b>Date:</b> February 20, 2014	<b>Reviewed by:</b> 	<b>Official Seal:</b> 
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- Remark: 1.This report is invalid without the written approval of the laboratory.
- 2.The copy of this report is invalid.
- 3.The report would be avoid without authorized signature and seal.
- 4.The samples will be keeping from February 20, 2014 to February 19, 2015.