

Australian/New Zealand Standard™

Cigarette lighters

Part 1: General requirements

[ISO title: Lighters—Safety specification]



Standards Australia



AS/NZS 4867.1:2002

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CS-024, Cigarette Lighters. It was approved on behalf of the Council of Standards Australia on 31 January 2002 and on behalf of the Council of Standards New Zealand on 27 February 2002. It was published on 14 March 2002.

The following interests are represented on Committee CS-024:

Australian Competition and Consumer Commission
Australian Lighter Association
Australian Retailers Association
Consumer & Business Affairs Victoria
Consumers Federation of Australia
Kidsafe
New Zealand Employers and Manufacturers Association
New Zealand Fire Service
Office of Consumer and Business Affairs South Australia
Safekids (New Zealand)
TestSafe Australia
The Treasury, Consumer Affairs Division

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Part 1: General requirements

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-024, Cigarette Lighters.

This Standard is identical with and has been reproduced from, ISO 9994:1995, *Lighters—Safety specification*.

The objective of this Standard is to provide consumers with cigarette lighters that ensure a reasonable degree of safety for normal use or reasonably foreseeable misuse, in order to reduce potential hazards to users.

This Standard is Part 1 of a two part series. AS/NZS 4867.2, *Cigarette lighters*, Part 2: *Child resistance requirements* contains tests for assessing compliance with 16 CFR CPSC 1210.

The Committee understands that AQLs referred to in Annexes A and B of this Standard were developed with large volume manufacturing in mind and that they are being reviewed by ISO on an ongoing basis.

The Committee understands that each lighter submitted for testing, should undergo all the tests required by Clause 5 in numerical sequence, as set out in the Standard, unless otherwise stated. Lighters should be examined prior to and after each test to ensure they are free of damage. Any damaged lighter will be replaced by a new sample before proceeding with further testing.

The Committee understands that Clause 7 of this Standard means identifying the importer of lighters into Australia or New Zealand and that each lighter must have a means of being uniquely identified.

As this Standard is reproduced from an international Standard, the following applies.

- (a) Its number appears on the cover and title page while the International Standard number appears only on the cover.
- (b) In the source text, 'this International Standard' should read 'this Australian/New Zealand Standard'.
- (c) A full point substitutes for a comma when referring to a decimal marker.

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AUSTRALIAN/NEW ZEALAND STANDARD

Cigarette lighters

Part 1: General requirements

1 Scope

This International Standard establishes requirements for lighters to ensure a reasonable degree of safety for normal use or reasonably foreseeable misuse of such lighters by users.

The safety specification given in this International Standard applies to all flame-producing products commonly known as cigarette lighters, cigar lighters and pipe lighters. It does not apply to matches, nor does it apply to other flame-producing products intended solely for igniting materials other than cigarettes, cigars, and pipes.

Lighters, being flame-producing devices, can, as do all flame sources, present a potential hazard to users. The safety specification given in this International Standard cannot eliminate all hazards, but is intended to reduce potential hazards to users.

2 Definitions

For the purposes of this International Standard, the following definitions apply.

2.1 lighter: Manually operated flame-producing device, employing a petrochemical derivative as a fuel, normally used for deliberately igniting cigarettes, cigars, and pipes, and which may foreseeably be used to ignite materials such as paper, wicks, candles, and lanterns.

NOTE 1 Lighters are specifically not intended for use as candles, flashlights, or for other uses requiring an extended burn time.

2.1.1 fluid lighter: Lighter, with an exposed wick, that employs as fuel liquid hydrocarbons such as hexane whose gauge vapour pressure at 24 °C does not exceed 34,5 kPa.

2.1.2 gas lighter: Lighter that employs as fuel liquefied hydrocarbons such as *n*-butane, isobutane and propane whose gauge vapour pressure at 24 °C exceeds 104 kPa.

2.2 disposable lighter: Lighter marketed with an integral supply of fuel and that is not intended to be refuelled.

2.3 refillable lighter: Lighter intended to be refuelled either by transferring fuel from an external container or by inserting a new prefilled fuel reservoir.

2.4 adjustable lighter: Lighter provided with a mechanism for the user to vary the flame height.

2.5 non-adjustable lighter: Lighter that is not provided with a user-accessible mechanism to adjust the flame height. (The flame height is preset by the manufacturer.)

2.6 automatically adjusting pipe lighter: Lighter characterized by an automatic increase in flame height when tilted from an upright position, designed specifically for the purpose of lighting pipes.

2.7 self-extinguishing lighter: Lighter that, once ignited, requires continuous intentional and positive action to maintain a flame and that is subsequently extinguished by the termination of such positive action.

2.8 non-self-extinguishing lighter: Lighter that, once ignited, does not require intentional or positive action by the user to maintain a flame and requires a subsequent, deliberate user action to extinguish the flame.

2.9 windproof lighter: Lighter (generally a fluid lighter, with an exposed wick and shield around it) designed to provide the user with a product having wind-resistant features.

NOTE 2 In this type of lighter, the shield is sometimes referred to as flameguard, windguard or windshield.

2.10 flame height: Linear distance from the tip of the visible flame to the top of the shield or, in the absence of a shield, from the tip of the visible flame to the top of the wick or burner valve orifice.

NOTE 3 Flame heights are measured in accordance with 5.2.

2.11 shield: Structure that totally or partially surrounds the burner valve orifice of a gas lighter or the wick of a fluid lighter.

2.12 burner valve: Component of a gas lighter which controls the release of fuel.

2.13 burner valve orifice: Tip of the burner valve from which fuel is released.

2.14 flaring: Variation of flame height from the steady-state flame condition.

2.15 sustained self-ignition: Propagation of a flame by other than deliberate manual operation, such as by dropping the lighter, so as to cause the ignition element to be activated and the flame to continue to burn.

2.16 spitting; sputtering: Flame phenomenon of a gas lighter wherein escape of non-evaporated liquefied gas produces a shower of burning liquid droplets which separate from the main flame.

3 Functional requirements

3.1 Flame generation

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 system such that positive action on the part of the user is required to generate and maintain a flame;
- a system that requires two or more independent actions by the user to generate a flame;
- a system that requires an actuating force equal to, or greater than, 15 N to generate a flame (see figure 1 or figure 2).

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

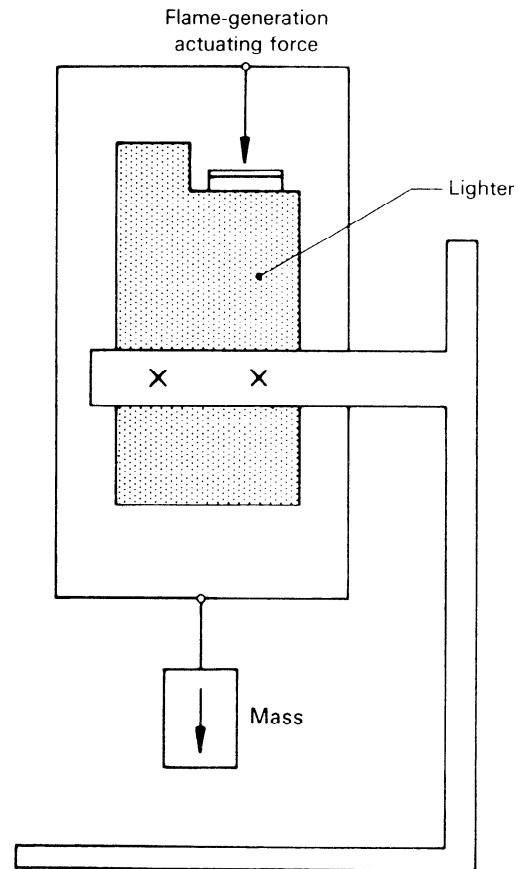


Figure 1 — Application of flame-generation actuating force as specified in 3.1 c): push-button actuator

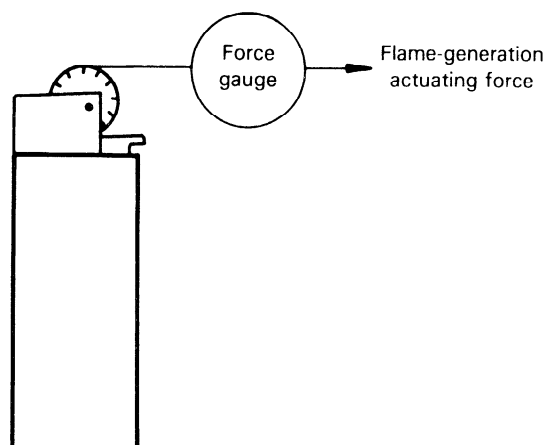


Figure 2 — Application of flame-generation actuating force as specified in 3.1 c): rotary actuator