**L.N. 40 of 1996**

# QUALITY CONTROL (EXPORTS, IMPORTS AND LOCAL GOODS) ACT (CAP. 225)

## Matches Order 1996 (Order No. M19 of 1996)

IN exercise of the powers conferred by section 3 of the Quality Control (Exports, Imports and Local Goods) Act, the Malta Board of Standards has made the following order:–

Citation and commencement.

**1.1** This order may be cited as the Matches Order, 1996, and may be referred to as Order No. M19 of 1996.

**1.2** This order shall become operative on a date after the lapse of 20 days from the day on which it is laid on the Table of the House of Representatives, which date shall be notified by the Board in the Gazette.

Scope.

**2.1** This order specifies requirements for the safety and labelling of matches available to the general public, including book matches, and gives the necessary tests to establish compliance with these requirements.

Conformity.

**3.1** No item to which this order applies shall, unless it complies with this order —

**3.1.1** be sold, offered for sale, exposed for sale or kept in possession of any person for the purpose of being sold;

**3.1.2** be locally manufactured or imported into Malta for local use.

Definitions.

**4.1** In this order:

**4.1.1** "match" means a splint tipped with a head of composition which will ignite when struck against an appropriate surface;

**4.1.2** "splint" means a rigid stick of combustible material providing support during ignition of a match and the fuel for its continued burning;

**4.1.3** "safety match" means a match which requires to be struck against a surface incorporating a complementary composition to that of its head to ignite successfully and consistently: provided that safety matches can occasionally, and with difficulty, be ignited successfully upon other surfaces;

**4.1.4** "strike-anywhere match" means a match which can be ignited successfully and consistently by being struck against a rough surface;

**4.1.5** "match container" means an individual retail package for retaining the matches and incorporating the means for igniting these in the form of a striking surface. Matches are available in such typical containers as boxes, drums and books;

**4.1.6** "wrapped packet" means a packet containing a number of containers offered for retail sale.

Sample size.

**5.1** In order to carry out all the required tests, the sample shall consist of a number of containers such that the aggregate nominal number of matches shall not be less than 2000.

Conditioning.

**6.1** Prior to testing for performance, samples shall be maintained at 20 ± 5°C and 60 ± 10% r.h. for not less than 24 hours.

Testing shall commence within 30 seconds of transfer of samples from the conditioning to the testing areas.

Visual inspection of containers.

**7.1** The visual inspections shall be carried out from a distance of 300 ± 50 mm with the unaided eye, or using normal corrected vision only, at an ambient light level sufficient to provide not less than 250 lux at the surface under inspection.

**7.2** Containers shall incorporate a substantially uniformly distributed area of an appropriate striking surface none of which shall be present on the inside of the container in a position where contact with the match heads can occur during normal access to the contents.

Performance.

**8.1 Striking.**

When 125 unbroken matches with heads are tested as described in Appendix A, no match shall explode or undergo fragmentation or detachment of head during ignition, nor break and detach the head after ignition. Moreover there shall be not more than:

**8.1.1** five matches which drop hot ash during ignition,

**8.1.2** five matches which fracture without separation after ignition.

**8.2 Safety matches.**

It shall not be possible to strike any match described as a safety match on a fresh surface of grade P600 waterproof silicon carbide paper.

**8.3 Afterglow.**

When tested in accordance with the method laid down in Appendix B, no more than two matches shall exhibit an afterglow other than a pinpoint glow located immediately beneath the head.

**8.4 Thermal stability.**

When tested as described in Appendix C, containers of matches shall not ignite spontaneously.

**8.5 Striking surface.**

When tested as described in D, the striking surface of a match container shall be capable of igniting all of its contents on not more than half of the available surface without ignition of any area of the surface exceeding 40mm$^2$ or loss of burning fragments.

**8.6 Impact.**

When the full containers are tested as described in Appendix E, they shall not ignite and no more than 4% of the containers shall release individual matches in excess of 1% of the contents.

Fractional values resulting from these percentages should be rounded down to the nearest whole number.

**9.1** Every container and every wrapped packet of matches shall bear a label showing in clear and easily readable print the following information: Labelling.

**9.1.1** The brand name or trade mark, or the name and address of the manufacturer.

**9.1.2** Where the brand name is not entered in a list kept by the Director of Industry nor is the trade mark registered with the Comptroller of Industrial Property, the inclusion in the label of the name and address of the manufacturer shall be compulsory.

**9.1.3** The warning "Keep away from children" in letters not less than 1.4mm in height.

**9.2** Only matches which comply with paragraph 8.2 shall be labelled "safety matches".

## Appendix A

## Method of test for striking performance

A.1 The matches shall be struck by holding them firmly between the first finger and thumb at an angle of 30° to 40° to the friction paint and struck away from the operator in a direction such that the head is trailing, with the minimum pressure necessary to ensure ignition. The tests shall be carried out with the match container held over an A4 sheet of white tissue paper of grammage $40 \pm 5 g/m^2$.

The match should be held at approximately 15mm from the head or, for short and/or flexible matches, at a position consistent with normal use of the product.

A.2 Record any breakage or fracture of the splint prior to ignition and whether ignition occurs or is delayed.

A.3 At ignition, record any explosion or fragmentation of the match head or any breaking or fracture of the splint which results in separation of the broken pieces.

A.4 During ignition, record any dropping of hot ash sufficient to mark permanently the tissue paper with burn marks.

A.5 Following ignition, record any breakage or fracture of the splint or detachment of the burnt head.

A.6 For matches described as safety matches, carry out A.1 substituting a supported fresh sheet of grade P600 waterproof silicon carbide paper complying with BS 871 for the striking surface of the match container and record whether ignition can be initiated.

## Appendix B

## Method of test for afterglow

B.1 Place the bases of the splints of 25 matches into holes in a metal plate 20 ± 0.5mm apart, arranged in a 5 x 5 array.

B.2 In a darkened room, apply a flame to an outside row of the matches and tilt the metal plate so as to ignite all of the matches on the plate as quickly as possible.

B.3 Allow the splints to burn away completely and, when the flame dies out, examine the ashed remains of the splints for any afterglow, ignoring any pinpoint glow immediately beneath the head.

B.4 Where afterglow is considered to persist for longer than 3 seconds repeat the test on a further 25 matches struck as directed in A.1 and examine them individually.

B.5 Repeat B.1 to B.4 on a second group of 25 matches and record a cumulative result for the 50 matches tested.

## Appendix C

### Method of test for thermal stability

C.1 Place full containers of matches in a single layer without contact between any of the containers, in an air circulating oven maintained at 120 ± 5°C.

C.2 Retain the containers in the oven for 30 minutes and record any instance of spontaneous ignition during this period.

## Appendix D

### Method of test for performance of striking surface

D.1 For containers of average contents up to and including 50 matches, strike the entire contents of the container, using the method described in A.1, on an area of striking surface restricted to 50 ± 5% of that provided on the container.

The area of striking surface may be controlled, e.g. by using one side only of a matchbox with a striking surface on both sides or by masking off a section of the available striking surface with cellulose tape.

D.2 For containers of average contents exceeding 50 matches, strike not less than 10% of the contents or 50 matches, whichever is the greater, using the method described in A.1, on that percentage of the striking surface provided determined by:

$$\frac{\text{no. of matches struck}}{\text{total contents}} \times 50 \pm 5\%$$

D.3 During the striking process, record any ignition of the striking surface and the area of this, measured to the nearest $mm^2$, and /or the loss of any burning particles from the striking surface.

D.4 Record the number of matches successfully ignited as the durability of the striking surface.

## Appendix E

## Method of test for impact resistance

E.1 Drop the full container of matches onto a smooth level concrete surface from a height of 1m ± 50mm such that it impacts squarely upon that side or end of the container adjacent to the match heads.

E.2 Repeat E.1 twice.

E.3 Record any ignition of the contents or the release of any separated individual matches.

In preparing this order reference was made to British Standard 3795.

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