

## SCHEDULE 2

Regulation 6 and 23

### Essential Safety Requirements

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1.—(1) Each pyrotechnic article must attain the performance characteristics specified by the manufacturer to the UK notified body or a body notified to the European Commission under Article 10 of the Directive in order to ensure maximum safety and reliability.

(2) Each pyrotechnic article must be designed and manufactured in such a way that it can be disposed of safely by a suitable process with minimum effect on the environment.

(3) Each pyrotechnic article must function correctly when used for its intended purpose.

Each pyrotechnic article must be tested under realistic conditions. If this is not possible in a laboratory, the tests must be carried out under the conditions in which the pyrotechnic article is to be used.

The following information and properties, where applicable, must be considered or tested:

- (a) design, construction and characteristic properties, including detailed chemical composition (mass and percentage of substances used) and dimensions;
- (b) the physical and chemical stability of the pyrotechnic article in all normal, foreseeable environmental conditions;
- (c) sensitivity to normal, foreseeable handling and transportation;
- (d) compatibility of all components as regards their chemical stability;
- (e) resistance of the pyrotechnic article to moisture where it is intended to be used in humid or wet conditions and where its safety or reliability may be adversely affected by moisture;
- (f) resistance to low and high temperatures, where the pyrotechnic article is intended to be kept or used at such temperatures and its safety or reliability may be adversely affected by cooling or heating of a component or of the pyrotechnic article as a whole;
- (g) safety features intended to prevent untimely or inadvertent initiation or ignition;
- (h) suitable instructions and, where necessary, markings in respect of safe handling, storage, use (including safety distances) and disposal in the official language or languages of the recipient Member State;
- (i) the ability of the pyrotechnic article, its wrapping or other components to withstand deterioration under normal, foreseeable storage conditions;
- (j) specification of all devices and accessories needed and operating instructions for safe functioning of the pyrotechnic article.

During transportation and normal handling, unless specified by the manufacturer's instructions, the pyrotechnic articles should contain the pyrotechnic composition.

(4) Pyrotechnic articles must not contain—

- (a) commercial blasting agents, except for black powder or flash composition;
- (b) military explosives.

(5) The various groups of pyrotechnic articles must at least also comply with the following requirements.

#### A. Fireworks

2.—(1) The manufacturer or, where regulation 7(1)(b) or regulation 24(1)(b) applies, the importer must assign fireworks to different categories according to, as the case may be, regulation 4(1) or 4(3)

*Status: This is the original version (as it was originally made).*

characterised by net explosive content, safety distances, noise level, or similar. The category must be clearly indicated on the label.

- (2) For category 1 fireworks, the following conditions must be met—
  - (a) the safety distance must be at least 1 metre. However, where appropriate, the safety distance may be less;
  - (b) the maximum noise level must not exceed 120 dB (A, imp), or an equivalent noise level as measured by another appropriate method, at the safety distance;
  - (c) category 1 must not comprise bangers, banger batteries, flash bangers and flash banger batteries;
  - (d) throwdowns in category 1 must not contain more than 2.5 mg of silver fulminate.
- (3) For category 2 fireworks, the following conditions must be met—
  - (a) the safety distance must be at least 8 metres. However, where appropriate, the safety distance may be less;
  - (b) the maximum noise level must not exceed 120 dB (A, imp), or an equivalent noise level as measured by another appropriate method, at the safety distance.
- (4) For category 3 fireworks, the following conditions must be met—
  - (a) the safety distance must be at least 15 metres. However, where appropriate the safety distance may be less;
  - (b) the maximum noise level must not exceed 120 dB (A, imp), or an equivalent noise level as measured by another appropriate method, at the safety distance.
- (5) Fireworks may only be constructed of materials which minimise risk to health, property and the environment from debris.
- (6) The method of ignition must be clearly visible or must be indicated by labelling or instructions.
- (7) Fireworks must not move in an erratic and unforeseeable manner.
- (8) Fireworks of category 1, 2 and 3 must be protected against inadvertent ignition either by a protective cover, by the packaging, or by the construction of the article. Fireworks of category 4 must be protected against inadvertent ignition by methods specified by the manufacturer.

## **B. Other pyrotechnic articles**

- 3.—(1) Pyrotechnic articles must be designed in such a way as to minimise risk to health, property and the environment during normal use.
- (2) The method of ignition must be clearly visible or must be indicated by labelling or instructions.
- (3) The pyrotechnic article must be designed in such a way as to minimise risk to health, property and the environment from debris when initiated inadvertently.
- (4) Where appropriate, the pyrotechnic article must function properly until the ‘use by’ date specified by the manufacturer.

## **C. Ignition devices**

- 4.—(1) Ignition devices must be capable of being reliably initiated and be of sufficient initiation capability under all normal, foreseeable conditions of use.
- (2) Ignition devices must be protected against electrostatic discharge under normal, foreseeable conditions of storage and use.
- (3) Electric igniters must be protected against electromagnetic fields under normal, foreseeable conditions of storage and use.

(4) The covering of fuses must be of adequate mechanical strength and adequately protect the explosive filling when exposed to normal, foreseeable mechanical stress.

(5) The parameters for the burning times of fuses must be provided with the article.

(6) The electrical characteristics (for example, no-fire current, resistance) of electric igniters must be provided with the article.

(7) The wires of electric igniters must be sufficiently insulated and must be of sufficient mechanical strength, including the solidity of the link to the igniter, taking account of their intended use.