

§ 173.183

stoppers wire tied for securement. If transportation is to take place when and where freezing weather is possible, a suitable antifreeze solution must be used to prevent freezing. Each packaging must conform to the requirements of part 178 of this subchapter at the Packing Group I performance level.

§ 173.183 Nitrocellulose base film.

Films, nitrocellulose base, must be packaged in packagings conforming to the requirements of part 178 of this subchapter at the Packing Group III performance level, as follows:

(a) In steel drums (1A2), aluminum drums (1B2), steel jerricans (3A2), wooden (4C1, 4C2), plywood (4D) or reconstituted wood (4F) boxes or plywood drums (1D) with each reel in a tightly closed metal can, polypropylene canister, or strong cardboard or fiberboard inner packaging with cover held in place by adhesive tape or paper; or

(b) In fiberboard (4G) boxes or fiber drums (1G) with a single tightly closed metal can, polypropylene canister, or strong cardboard or fiberboard inner packaging with cover held in place by adhesive tape or paper; authorized only for not over 600 m (1969 feet) of film.

[Amdt. 173-224, 55 FR 52643 Dec. 21, 1990, as amended by Amdt. 173-255, 61 FR 50627, Sept. 26, 1996]

§ 173.184 Highway or rail fusee.

(a) A fusee is a device designed to burn at a controlled rate and to produce visual effects for signaling purposes. The composition of the fusee must be such that the fusee will not ignite spontaneously or undergo marked decomposition when subjected to a temperature of 75 °C (167 °F) for 48 consecutive hours.

(b) Fusees (highway and railway) must be packaged in steel drums (1A2), steel jerricans (3A2), wooden (4C1, 4C2), plywood (4D) or reconstituted wood (4F) boxes or in fiberboard boxes (4G), plywood (1D) or fiber (1G) drums. If the fusees are equipped with spikes packagings must have reinforced ends to prevent penetration of spikes through the outer packagings; packages must be capable of passing drop test requirements (§173.603 of this subchapter), including at least one drop with spike in a downward position, and other re-

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quirements of part 178 of this subchapter, at the Packing Group II performance level.

[Amdt. 173-224, 55 FR 52643, Dec. 21, 1990, as amended at 66 FR 45379]

§ 173.185 Lithium batteries and cells.

(a) Except as otherwise provided in this subpart, a lithium cell or battery is authorized for transportation only if it conforms to the provisions of this section. For the purposes of this subchapter, "lithium content" means the mass of lithium in the anode of a lithium metal or lithium alloy cell, except in the case of a lithium ion cell where the "equivalent lithium content" in grams is calculated to be 0.3 times the rated capacity in ampere-hours. The lithium-equivalent content of a battery equals the sum of the grams of lithium-equivalent content contained in the component cells of the battery.

(b) *Exceptions.* Except for primary (non-rechargeable) lithium batteries and cells transported aboard passenger-carrying aircraft, cells and batteries are not subject to any other requirements of this subchapter if they meet the following:

(1) Each cell with a liquid cathode may contain not more than 0.5 g of lithium content. Each cell with a solid cathode may contain not more than 1.0 g of lithium content. Each lithium ion cell may contain not more than 1.5 g of equivalent lithium content;

(2) Each battery with a liquid cathode may contain an aggregate quantity of not more than 1.0 g of lithium content. Each battery with a solid cathode may contain an aggregate quantity of not more than 2.0 g of lithium content. Each lithium-ion battery may contain an aggregate quantity of not more than 8.0 grams of equivalent lithium content;

(3) Each cell or battery containing a liquid cathode must be hermetically sealed;

(4) Cells and batteries must be packed in such a way so as to prevent short circuits and must be packed in strong packagings, except when installed in equipment; and

(5) The outside of each package that contains a primary (non-rechargeable) lithium battery or cell must be marked "PRIMARY LITHIUM BATTERIES—