

# Fire Extinguishers

## Requirement for main fire extinguishers

IF a transport unit **is not** carrying dangerous goods in accordance with ADR 1.1.3.6, it has to be equipped with at least one portable fire extinguisher for the inflammability classes\* A, B and C, with a minimum capacity of 2kg dry powder (or an equivalent capacity for any other suitable extinguishing agent) suitable for fighting a fire in the engine or cab of the transport unit [ADR 8.1.4.1(a)]

IF the transport unit **is** carrying dangerous goods in accordance with ADR 1.1.3.6, it need be equipped only with a single portable fire extinguisher for the inflammability classes\* A, B and C, with a minimum capacity of 2kg dry powder (or an equivalent capacity for any other suitable extinguishing agent) [ADR 8.1.4.2]. The additional fire extinguisher requirements (paras. 4 - ) do not apply.

IF the vehicle is equipped with a fixed fire extinguisher, automatic or easily brought into action for fighting a fire in the engine, the portable extinguisher need not be suitable for fighting a fire in the engine [ADR 8.1.4.3 para. 2]

The capacity of the fire extinguisher(s) required under ADR 8.1.4.1(a) may be deducted from the minimum total capacity of the additional fire extinguishers required under 8.1.4.1(b) below [ADR 8.1.4.1(c)].

## Requirements for additional fire extinguishers

These are set out in ADR 8.1.4.1(b):

for transport units with a maximum permissible mass of up to and including 3.5 tonnes

one or more portable fire extinguishers for the inflammability classes\* A, B and C with a minimum total capacity of 4 kg dry powder (or an equivalent capacity for any other suitable extinguishing agent)

for transport units with a maximum permissible mass of more than 3.5 tonnes up to and including 7.5 tonnes

one or more portable fire extinguishers for the inflammability classes\* A, B and C, with a minimum total capacity of 8 kg dry powder (or an equivalent capacity for any other suitable extinguishing agent), of which at least one shall have a minimum capacity of 6 kg

for transport units with a permissible maximum mass of > 7.5 tonnes

one or more 12kg (or equivalent rating for suitable extinguishing agents) dry powder fire extinguisher for the inflammability classes\* A, B and C suitable for fighting a fire in the engine or cab of the vehicle - at least one shall have a minimum capacity of 6kg

The requirements for additional fire extinguishers do not apply to transport units carrying dangerous substances of Class 6.2 [ADR 8.5 S3]

## Further requirements relating to fire extinguishers

These are set out in ADR 8.1.4.3 - 8.1.4.5:

The extinguishing agent has to be suitable for use on a vehicle and has to comply with the relevant requirements of BS EN 3 Portable fire extinguishers, Parts 1 to 6 (BS EN 3-1:1996, BS EN 3-2:1996, BS EN 3-3:1994, BS EN 3-4:1996, BS EN 3-5:1996, and BS EN 3-6:1995) [ADR 8.1.4.3, para. 1]\*\*;

The extinguishing agent must not be liable to release toxic gases— (a) into the driver's cab; or (b) when under the influence of the heat of a fire. [ADR 8.1.4.3, para. 2];

The portable fire extinguishers have to be fitted with a seal verifying that they have not been used. They also have to bear a mark of compliance with a standard\*\* recognized by a competent authority and an inscription at least indicating the date (month, year) of the next recurrent inspection or of the maximum permissible period of use, as applicable. [ADR 8.1.4.4, paras. 1, 2];

The fire extinguishers must be periodically inspected in accordance with authorized national standards\*\* in order to guarantee their functional safety. [ADR 8.1.4.4, para. 3];

The fire extinguishers have to be installed on the transport units in such a way that (i) the vehicle crew can get at them easily; and, (ii) their operational safety is not affected by the weather.

Also, ADR 8.2.2.4.5 requires that, as a minimum, individual practical exercises accompanying theoretical training as part of the initial driver training programme must cover: first aid, fire-fighting, and what to do in case of an accident or incident; and,

ADR 8.3.2 requires the vehicle crew to know how to use the fire-fighting appliances.

## British Standards

\*BS EN:2 1992 Classification of fires (ISBN 0 580 21356 0):

- Class A fires involving solid materials, usually of an organic nature, in which combustion normally takes places with the formation of glowing embers
- Class B fires involving liquids or liquefiable solids
- Class C fires involving gases
- Class D fires involving metals

\*\*BS EN:3 1996 Portable fire extinguishers :

<i>BS EN:3-1 1996</i>	<i>Part 1: Description, duration of operation, Class A and B fire test</i>	<i>0 580 25853 X</i>
<i>BS EN:3-2 1996</i>	<i>Part 2: Tightness, dielectric test, tamping test, special provisions</i>	<i>0 580 25854 8</i>
<i>BS EN:3-3 1996</i>	<i>Part 3: Construction, resistance to pressure, mechanical tests</i>	<i>0 580 25855 6</i>
<i>BS EN:3-4 1996</i>	<i>Part 4: Charges, minimum required fire</i>	<i>0 580 25856 4</i>
<i>BS EN:3-5 1996</i>	<i>Part 5: Specification and supplementary tests</i>	<i>0 580 25857 2</i>
<i>BS EN:3-6 1996</i>	<i>Part 6: Provision for the attestation of conformity of portable fire extinguishers in accordance with EN 3 Part 1 to Part 5</i>	<i>0 580 25858 0</i>

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