

**Guidance
Note**



Fire Industry Association



**Environmental Guidance –
Powder Fire Extinguisher Disposal**

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1. INTRODUCTION

This FIA guide is intended to give advice on the environmental issues relating to fire fighting powder, with particular reference to fire extinguishers. It covers the applicable legislation, how to handle the extinguishers/powder at the customer's site and looks at the available options for collection and disposal.

2. TYPES OF FIRE EXTINGUISHING POWDER

The main types of powder in use are:

- ABC
 - o Monoammonium phosphate
 - o Monoammonium phosphate plus ammonium sulphate
- BC
 - o Sodium bicarbonate (eg 'standard bc')
 - o Potassium bicarbonate (eg 'purple k')
 - o Potassium allophosphate plus potassium bicarbonate (eg 'monnex')
 - o Potassium sulphate (eg 'super k')
 - o Potassium chloride
- D
 - o Sodium chloride
 - o Potassium chloride
 - o Graphite

3. HANDLING OF EXTINGUISHERS OFF SITE/AT SERVICE DEPOT

3.1. Collection

Note: To transport any waste, you as a company are required to hold a waste carrier's licence. An item is defined as waste the moment the owner no longer requires or has possession of the item.

When transporting extinguishers from customers' sites, you will need to comply with the requirements of the ADR 2017 (see Fact File 78). The ADR states that UN No. 1044 fire extinguishers provided with protection against inadvertent discharge and secured packaged in strong outer packaging, are exempt from the ADR requirements; this can mean the original packages secured in the van or a secure lockable cage. If you transport extinguishers not secured as described above, you will have to comply, and this means your drivers will have to be fully trained and certificated under ADR 2017.

Note: Under the Environmental Protection (Duty of Care) Regulations, a duty of care note must be given to the client when you remove waste from their site.

There are a number of options available for the collection of media for disposal, and the practicality of each should be considered before agreeing a procedure for collecting and disposing of powder.

- Collecting the powder in a secure container in the technician's vehicle before transferring to a larger container at the service depot.

- Keeping the media in the extinguisher and replacing the old extinguisher with a replacement extinguisher. The extinguishers are returned to the service depot and emptied into a secure container for storage.
- Keeping the media in the extinguisher and replacing the old extinguisher with a replacement extinguisher. The old extinguishers or containers are then collected from the customer's site or service company's site by a licensed waste carrier.
- Keeping the media in the extinguisher and replacing the old extinguisher with a replacement extinguisher. The old extinguishers are then collected from the customer's site by a separate waste disposal company. *Note: This is common practice in other European countries.*
- Certain types of powder are classed as hazardous waste; it is classed as an irritant and if the concentration of monoammonium sulphate (MAP) and ammonium sulphate (Ammon sul) is more than 20%. Unless it is sent for further processing, disposal can only be via a carrier, licensed to carry and dispose of hazardous waste. In each case, a hazardous waste consignment note should be completed and retained for reporting to the EA.

3.2. Storage

Powder should be stored where possible in the original containers in dry, cool, well-ventilated place.

4. DISPOSAL OF POWDER

Depending on the type of powder used, different methods of disposal may be appropriate. The main methods are given below; for more detailed information on the best method of disposal for each type of powder contact the powder manufacturer.

4.1. Landfill

As a biodegradable solid waste, fire extinguisher powder in sealed containers can be disposed of in land fill sites.

4.2. Alternative methods of disposal – agricultural use

The silicon coating on powder needs to be considered when it is being offered for agricultural use and it may need to be removed before it can be used.

4.3. Recycling of components

Fire extinguisher parts and components should be recycled through registered facilities.

5. APPLICABLE REGULATIONS

Detailed information on the regulations that apply to powder fire extinguishers are given in FIA Fact File 24, however below is a list of the regulations that you will need to comply with:

- Environmental Protection (Duty of Care) Regulations 1991.
- Control of pollution (Amendment) Act 1989/ Controlled waste (registration of carriers & seizure of vehicles) Regulations 1991.
- The Environmental Permitting (England and Wales) (Amendment) Regulations 2009 (SI 1799 2009).
- Environmental Permitting (England and Wales) Regulations 2007 (SI 358 2007).

Detailed information on the regulations applicable can be found on the Environment Agency NetRegs website (section 6).

Note: The legislation referred to above applies to England and Wales, different legislation applies in Scotland and more information can be found on the Scottish Executive website (www.Scotland.gov.uk) or the Scottish Environment Agency website (<http://www.sepa.org.uk>).

6. SOURCES OF FURTHER INFORMATION

The following websites provide more information on environmental issues and legislation.

- Environment Agency
<http://www.environment-agency.gov.uk/>
- Environment Agency NetRegs
<http://www.netregs.gov.uk/>
- Envirowise
<http://www.envirowise.gov.uk/>

DISCLAIMER

The information set out in this document is believed to be correct in the light of information currently available but it is not guaranteed and neither the Fire Industry Association nor its officers can accept any responsibility in respect of the contents or any events arising from use of the information contained within this document.



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