



Fire Industry Association

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Environmental Guidance – Powder Fire Extinguisher Disposal

1. Introduction

This Fact File is intended to give guidance 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 customers 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**
 - Monoammonium Phosphate
 - Monoammonium Phosphate plus Ammonium Sulphate
- **BC**
 - Sodium Bicarbonate (e.g. "Standard BC")
 - Potassium Bicarbonate (e.g. "Purple K")
 - Potassium Allophonate plus Potassium Bicarbonate (e.g. "Monnex")
 - Potassium Sulphate (e.g. "Super K")
 - Potassium Chloride
- **D**
 - Sodium Chloride
 - Potassium Chloride
 - Graphite

3. 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**

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 more information can be found on the Scottish Executive website ([.Scotland.gov.uk](http://www.scotland.gov.uk)) or the Scottish Environment Agency website ([://www.sepa.org.uk](http://www.sepa.org.uk)).

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4. Handling of Extinguishers off site/at service depot

4.1. Collection

Note: To transport any waste you as a company are required to hold a waste carriers 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 2009 (see Fact File 23). The extinguishers should be secure outer packaging, this can be the original packages secured in the van or a secure lockable cage. If you transport extinguishers not secured as described above your drivers will have to be fully trained and certificated under ADR 2009.

Note: Under the Environmental Protection (Duty of Care) Regulations 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 companies 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 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 MAP and 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 Disposal,

4.2. Storage

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

5. 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.

5.1. Landfill

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

5.2. Alternative methods of disposal

5.2.2. Agricultural

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.

6. Recycling of components

Wherever possible fire extinguisher parts and components should be recycled through registered facilities.

7. Applicable Regulations

Detailed information on the regulations that apply to foam fire extinguishers are given in Fact File 20, however below is a list of some of the regulations that you will need to comply with:

- **The Groundwater Regulations 1998**
- **Water Resources Act 1991**
- **Water Industries Act 1991**
- **Environmental Protection (Duty of Care) Regulations 1991**
- **Control of pollution (Amendment) Act 1989/ Controlled waste (registration of carriers & seizure of vehicles) Regulations 1991**
- **The Trade Effluents (Prescribed Processes and Substances) Regulations 1989**
- **The Environmental Permitting (England and Wales) (Amendment) Regulations 2009 (SI 1799 2009)**
- **Environmental Permitting (England and Wales) Regulations 2007 (SI 358 2007)**

8. Sources of Further information

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

- Environment Agency
[://www.environment-agency.gov.uk/](http://www.environment-agency.gov.uk/)
- Environment Agency NetRegs
[://www.netregs.gov.uk/](http://www.netregs.gov.uk/)
- Envirowise
[://www.envirowise.gov.uk/](http://www.envirowise.gov.uk/)

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