

Quick guide to firefighting foam

Frequently asked questions

What is the Queensland Firefighting Foam Policy and does it apply to me?

The Queensland Government's Operational Policy *Environmental Management of Firefighting Foam* sets out the environmental management standards that need to be met by foam users. The policy applies to anyone who handles, transports, disposes, stores, uses, or releases firefighting foams in Queensland. Firefighting foam extinguishers are generally distinguished by their blue band, and foam concentrates come in various sized containers such as 20L containers, 200L drums, and 1000L containers.

What is the concern?

No foam is environmentally friendly. All foams have potential adverse effects, and risks are specific to the situation and location. The combination of chemicals used in firefighting foams can have short- and long-term impacts on biota, soils and waterways through their persistence, bioaccumulation, toxicity and biochemical oxygen demand. All reasonable effort should be made to prevent their release to the environment, particularly waterways.

How do I determine what firefighting foam I have?

1. Start by photographing/noting the label on the firefighting foam, and getting a copy of the Safety Data Sheet.
2. Use the information on the label to determine whether you have Class A or B foam by following the below steps.
3. Determine your type of foam (non-persistent or persistent):
 - a. **Non-persistent foams** are often clearly labelled as 'Class A', or 'Class B Fluorine Free'. Note that foams labelled 'PFOS & PFOA free' are often not non-persistent foams.
 - b. **Persistent foams** include foams containing fluorinated chemicals (fluorochemicals, fluorinated surfactants, proprietary foamer blend)—check the safety data sheet for these chemicals. Common types of persistent firefighting foams are AFFF, FP, FFFP, and their alcohol resistant varieties.
4. If it is **persistent foam**—there are three main types of persistent foams recognized under the policy:
 - a. **C6-pure fluorinated foams** are labelled as such, and operators choosing to use C6-pure should confirm with the manufacturer that the formulation of the foam is compliant with the policy. C6-pure foams are the only fluorinated foams with allowable uses in Queensland.
 - b. **Long-chain fluorinated foams** are formulated with concentrations of long-chain fluorinated chemicals which do not meet the requirements of the policy. Any container of AFFF, FP or FFFP that is not confirmed with the manufacturer as C6-pure should be treated as a long-chain fluorinated foam until it has been sampled and analysed in accordance with the policy on Environmental Management of Firefighting Foams.
 - c. **PFOS fluorinated foams** were primarily manufactured by 3M prior to 2003 when they were discontinued. 3M lightwater is the most prevalent PFOS fluorinated foam.
5. Once you have determined your foam type, please follow the diagram over the page for a summary of what next steps to consider.

I am required to replace my firefighting foam—what do I need to consider when choosing a replacement?

Choosing a firefighting foam involves balancing considerations such as effectiveness of the foam for the intended firefighting application, infrastructure requirements, costs and budgeting, and potential environmental impacts. When deciding on the most appropriate foam for a particular application, the user has an obligation to carefully consider the full range of short- and long-term risks and how best practice environmental management can be achieved while protecting life, property, and the environment.

How do I manage and dispose of firefighting foam waste?

When managing firefighting foam use and disposal, it is important to assess the relative sensitivities and risks by:

- determining practical mitigation measures; and
- making a balanced decision on options, e.g. Product-Procedures-Containment-etc.

Regulated waste management services may be found through the local yellow pages. A site specific disposal plan for firefighting foam wastes must be written as soon as practicable.

Firefighting foam glossary

The following terms are commonly used when talking about firefighting foam:

AFFF	Aqueous Film Forming Foam
AR	Alcohol Resistant
FP	Fluoroprotein
FFFP	Film Forming Fluoroprotein
PFAS	Per- and poly-fluoroalkyl substances, including more well-known chemicals like perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA)
Class A foam	A foam used on solid combustible fires (e.g. wood, tyres, paper, bushfires)
Class B foam	A foam used on flammable liquid fires (e.g. hydrocarbons, solvents)

Who can I contact for more information?

Further information and resources can be found online at www.qld.gov.au/firefightingfoampolicy

Alternatively, the Queensland Government's PFAS Project Team can be contacted by emailing PFASProjectTeam@des.qld.gov.au or calling **13 QGOV (7468)**.



Management of firefighting foam and disposal

