



09.07 Firefighting Foams and Retardants SOP

Section 1 - Purpose and Objectives

(1) To ensure that the safety of CFA members is upheld, while conserving the environment and wildlife when handling, storing and using firefighting foams and retardants.

Section 2 - Scope

(2) This procedure applies to all CFA members.

Section 3 - Procedure

Foam

(3) Where a brigade is issued with Class A Foam or Class B Foam, they should ensure that a sufficient number of CFA members are appropriately trained and familiarised in the use of these systems.

(4) Only CFA members trained in the handling and use of firefighting foams should use these systems at an operational response.

(5) CFA approved foam concentrates are listed in Schedule 1.

(6) All other foams should be documented, photographed, stored on a bunded pallet, covered and then secured on a hardstand area where possible in preparation for collection and disposal.

(7) Batch mixing of firefighting foams is not permitted.

Handling of foam

(8) CFA members should wear approved Personal Protective Clothing (PPC) and Protective Equipment (PE) issued for use with firefighting foams.

(9) Approved Personal Protective Clothing (PPC) and Protective Equipment (PE) for handling firefighting foam concentrate and solution:

- a. Wildfire or Structural firefighting garments as appropriate for the risk environment.
- b. Nitrile or neoprene gloves.
- c. Rubber or leather firefighting boots.
- d. Safety goggles.
- e. P2 respirator (non-cartridge type).
- f. Wildfire or Structural helmet.

(10) Protective Equipment (PE) kits for handling firefighting foam concentrate should be carried on appliances equipped with firefighting foams.

(11) Foam Management Kits should be kept on the tanker and inspected for expired items and replenished at least annually.

(12) If applicable, Personal Protective Clothing (PPC) and Protective Equipment (PE) decontamination and request for cleaning should be done in accordance with CFA or relevant agency guidelines.

(13) For further information on storage, filling, spillage and waste disposal refer to:

- a. [ChemAlert](#) for Safety Data Sheets (SDS).
- b. [Guidelines for Class A and B Foam Ordering, Storage, Filling and Recycling](#).

Operational considerations

(14) Considerations should be made for local wildlife and biodiversity when discharging firefighting foams such as:

- a. Foams and retardants may be toxic for aquatic life so every effort should be taken to ensure that firefighting foams do not enter bodies of water where operationally practicable.
- b. Plan for containment and disposal of firefighting foams and potential runoff.
- c. Take care when filling tanks.
- d. Minimise repetitive application – do not use the foam on the one spot.

(15) To comply with the Environment Protection Act 2017, CFA members should ensure that firefighting foam is not discharged into the storm water network, mitigating environmental risks wherever reasonably practicable.

(16) Where operationally practicable, CFA members should avoid the use of firefighting foams in areas where use may impact water ways, water sources or sensitive areas such as organic and certified properties.

- a. Every reasonable effort should be made to alert organic and certified property owner/occupier(s) to potential issues that may result from contact with, or contamination from, firefighting foams.

Non-operational considerations

(17) Non-operational activities that may require the use of foam are:

- a. Training.
- b. Testing of equipment.
- c. Use of a Compressed Air Foam System (CAFS).

(18) Non-operational foam use should adhere to clauses 14-16.

(19) When foam use is required for non-operational activities, foam use should be minimal and with the smallest amount of foam to achieve the required outcome.

(20) Avoid discharging foam in reticulated areas.

(21) Where Class A or Class B Foam is used for any non-operational or training purpose, at any location, including at brigades and on private or public land, ensure that all foam is either:

- a. captured;
- b. allowed to evaporate safely (sweep/shovel any remnants); and/or

c. disposed of in line with clause 13a&b.

Retardants

(22) Only appropriately authorised and trained CFA members shall handle, mix and/or load retardant. Handling and use of retardant should be in line with the manufacturer's guidance and directions.

(23) CFA members handling retardant at approved airbases, shall be appropriately skilled and authorised to do so by the agency controlling the airbase.

(24) For further information refer to [13.03 Working with Firebombing Aircraft SOP](#) and the relevant [Interagency Aviation Operating Procedures](#) (IAOPs). Specifically:

- a. GO 3.01 Airbase Operations.
- b. GO 3.02 Aviation Fuel and Aircraft Refuelling Operations.
- c. GO 3.04 Fixed Wing Firebombing Aircraft Loading Operations.
- d. EQ 5.02 Personal Protective Equipment Aviation Operations.

Safety Note

(25) All foam and retardant operators should be familiar with the product's Safety Data Sheet (SDS), accessible on [ChemAlert](#), and have access to the information in case of an emergency.

(26) Physical contact with foam or retardant concentrate or solution, without appropriate protective clothing and equipment, should be avoided.

- a. If contact occurs, clean the area with water and neutral soap and refer to the relevant Safety Data Sheet (SDS).

(27) Immediately flush eyes if splashed with foam or retardant concentrate or solution.

- a. Flush with clean water or saline wash in the Foam Management Kit. If applicable, contact lenses should be removed.

(28) In the event of contact with hazardous substances, refer to 11.02 Medical Monitoring - Biological and Hazardous Substances SOP.

(29) In the case a serious or notifiable incident occurs, refer to 14.06 Notifications of Injuries and Fatalities SOP.

(30) All incidents should be reported to CFASafe.

Environmental Note

(31) The Incident Controller must give careful consideration of the environmental implications of using retardants and firefighting foams in environmentally sensitive areas.

(32) CFA members have a responsibility to minimise contamination of sites and must report environmental notifiable incident to the Environment Protection Authority (EPA) as soon as reasonably practical.

(33) CFA values the importance and protection of Victoria's Cultural Heritage. Upon discovering a site of cultural significance, CFA members should contact the Incident Controller as soon as possible to notify CFA Cultural Heritage Advisors.

(34) Where practicable, discharging of foam near sites of cultural significance should be avoided.

Section 4 - Definitions

(35) Commonly defined terms are located in the CFA [centralised glossary](#).

Section 5 - Related Documents

(36) [Guidelines for Class A and B Foam Ordering, Storage, Filling and Recycling](#)

(37) [How to search for a safety data sheet](#)

(38) [Personal Protective Clothing Decontamination Flow Chart](#)

(39) 11.02 Medical Monitoring - Biological and Hazardous Substances SOP

(40) 13.03 Working with Firebombing Aircraft SOP

(41) 14.06 Notification of Injuries and Fatalities SOP

(42) 16.00 [Environmental Care](#) SO

(43) [Environment Policy](#)

(44) [CFA Contingency Plan - For discovery of Aboriginal Cultural Heritage](#)

(45) [J02.06 - Aviation Resources Readiness \(Bushfire\)](#)

Section 6 - Schedule 1

Approved foam concentrates:

| Class A | Class B | High Expansion Foam |
|------------------|-------------------------------|---------------------|
| PHOS-CHEK WD881A | SOLBERG RE-HEALING RF 3X6 ATC | SOLBERG HI-EX FOAM |

Status and Details

| | |
|----------------------------|--|
| Status | Not Yet Approved |
| Effective Date | To Be Advised |
| Review Date | To Be Advised |
| Approval Authority | |
| Approval Date | To Be Advised |
| Expiry Date | Not Applicable |
| Accountable Officer | Jason Heffernan Chief Officer |
| Responsible Officer | Garry Cook Deputy Chief Officer Operational Response & Coordination |
| Author | Grace Sweet grace.sweet@cfa.vic.gov.au |
| Enquiries Contact | Operational Response and Coordination |

Glossary Terms and Definitions

"CFA member" - Refers to all CFA volunteers, volunteer auxiliary workers, officers, employees and secondees.

"Personal Protective Clothing (PPC)" - Includes clothing used to provide protection to CFA members from the risks associated with performing a specific operational task for which they are competent and endorsed

"Protective Equipment (PE)" - An object that is utilised during the execution of CFA operational activities and training, which includes breathing apparatus, gas suits, gas monitoring equipment, oxygen resuscitation equipment, safety harnesses and all technical rescue equipment.

"Notifiable incident" - A notifiable incident is the death of a person, a serious or critical injury or illness of a person, or a dangerous or near-miss incident; that occurs due to business or workplace activities.

"Class A Foam" - An additive to water which improves and extends the fire extinguishing capacity of the water for Class A fires (eg. wildfires).

"Class A" - An additive to water which improves and extends the fire extinguishing capacity of the water.

"Class B Foam" - A chemical concentrate added to water that combines foaming agents and surfactants specifically formulated for extinguishing class B fires (eg. flammable and combustible liquids).

"Firefighting foams" - Refer to Class A and Class B foam.

"Retardant" - A chemical generally mixed with water designed to retard combustion.

"Environmental Notifiable Incident" - a pollution incident that causes or threatens to cause material harm to human health or the environment (Environment Act 2017).

"CFASafe" - CFASafe is an electronic system that is used to report health and safety incidents, hazards and near miss for CFA members, contractors and visitors.