



شركة المصنع السعودي لأجهزة الإطفاء  
SAUDI FACTORY FOR FIRE EQUIPMENT Co.

# Technical Data Sheet

## SFR-ECO 1% AFFF

### Foam Concentrate

Nominal 1% Aqueous Film Forming Foam



UL FILE NO. EX6069



We are very proud to be a vital part of the development of Saudi Arabia and Middle East since **1983** in fire protection industry.

### SFFECO

was the First Fire Fighting Company in the Kingdom of Saudi Arabia to be granted the ISO 9001 certification based on recommendations from LPCB of UK for the whole organization and its activities.

SFFECO is an ISO9001 certified manufacturing company, a market leader and specialize in manufacturing of fire-fighting equipment in the world. SFFECO has a long standing established reputation for pioneering innovation ever since its foundation in 1983.

SFFECO has its own state-of-the-art manufacturing plants in Riyadh and Dubai producing end-to-end range of products for the fire fighting industry matching international standards in quality.

SFFECO with its innovative approach provides the entire gamut of products that caters to the needs of the Fire Protection and Fire Fighting industry. This makes SFFECO a one-stop-shop for customers, fulfilling their end-to-end needs in products, solutions and services for the industry.

SFFECO continually expands upon its knowledge and services to keep its clients updated with the latest Fire Fighting Technology in the world. The product range manufactured by SFFECO confirms and holds approval to international standards.

### Quality Services

With a large number of highly qualified staff, SFFECO is certified and licensed to supply equipment with its own comprehensive designs, installations, commissioning and maintenance services throughout the GCC, Asian, African and European countries. SFFECO provides excellent after sales service and earns utmost customer satisfaction by providing functional and technical training and support, and by resolving and troubleshooting issues arising at the client site.

### Facilities

As global leaders, SFFECO believes in manufacturing quality products and services and extended exceptional service standards in the global market thereby rewarding our customers by keeping their investments safe and secure. The manufacturing plant has grown steadily since 1983 to accommodate modern hi-tech equipment and highly skilled professionals and optimal ISO certified operations to enable roll out of products that match global standards to serve the growing market needs.



## Description

SFR-ECO1% AFFF, a non-toxic, environment friendly, biodegradable clear liquid with no stratification or turbidity, is a fluoro-chemical foam concentrate, commonly known as AQUEOUS FILM FORMING FOAM concentrate (AFFF), which represents a major advancement in foam technology for effective extinguishment of class A and class B fires, as low and Medium expansion foam.

## Environmental Chemistry

As per U.S. EPA SNAP Program [US Environmental Agency 2010/15 PFOA Stewardship Program] Foam Concentrates should be manufactured based on environmental friendly C6 Fluorinated surfactant.

SFR-ECO1% AFFF is Reengineered with Environmentally safe C6 [Short Chain molecules] Fluoro Telomer-derived Fluorosurfactants which neither contains nor breaks down into PFOS and contains only traces of PFOA below the limit of detection [0.5 ppm].

## Features

- Rapid Flame Knock Down on Class B Fires
- Strong Fuel VaporSuppressions
- Long Shelf Life, Usable as Pre-Mix
- Sub Zero Pour Point,
- Excellent Fuel Shedding Property
- Compatible with Fresh / Sea Water and with Dry Powder and Suitable for use as Twin Agent

## High Risk Protection

Civil and military aviations, oil refineries, offshore oil platforms, oil tankers, bulk fuel oil storage etc.

## Method of Application

- Low & Medium Expansion Branch Pipes and Monitors
- Balanced Pressure Pump Proportioning Equipment
- Around the Pump Proportioners
- Fixed and Portable In-Line Venturi type Inductors
- Fog Sprinklers and Monitors
- Top Pouring and Sub - Surface Injection
- Foam / Water Sprinklers

SFR-ECO1% AFFF can be used with standard & conventional low/medium expansion foam making equipments with fresh /sea/brackish water, either as a solution or through foam induction systems. This unique quality of SFR-ECO1% AFFF makes it suitable for use in special applications like crash Tenders/Monitors/Foam chambers Air-aspirating and nonaspirating sprinkler heads or spray nozzles/Air-aspirating foam nozzles/portable foam Extinguishers etc. SFR-ECO1% AFFF, applied into fixed water spray or sprinkler installations for protection of stores, ware-houses, tanker loading areas and other local risks involving a spilled fuel fire, has been found extremely effective. Various crude oils, gasoline, diesels fuels, aviation fuels, etc. its excellent wetting characteristics make it suitable in combating class A fires as well. It can be used with dry chemical extinguishing agents without regard to the order of application to provide even greater fire protection capability.

## Specifications



### Induction Rate

SFR-ECO1% AFFF is a superior for extinguishing flammable hydrocarbon fires at a unique 1% induction ration (1 parts of concentrate and 99 parts of water)

### Storage

When stored in the packaging supplied (polyethylene drums or pails) and within the temperature limits specified, the shelf life of SFR-ECO1% AFFF concentrate is about 15 years. Maximum recommended storage temperature is 1.7°C to 49°C. if the product is frozen during storage or transportation, thawing will render the product completely usable. Mixing after freeze thaw cycling is recommended.

### Material Of Construction

Foam concentrates have neutral pH and generally no corrosion problem will occur with metals or plastic. Recommended construction materials are stainless steel (Type 304 or 316), high density cross linked polyethylene (HDPE) or reinforce polyester (isophthalic) polyester resin, epoxy resin) with a vinyl ester resin internal layer coating (50-100 mils). Fittings in foam concentrate pumps and valves may be made from Brass (Red Brass, normal Brass) bronze or gunmetal.

### Compatibility

SFR-ECO1% AFFF is compatible with a wide range of conventional foams including most protein and fluoro-protein foams and can be applied simultaneously with other types of foams and dry powders for separate application, or as a twin-agent.

### Ordering Information

SFR-ECO1% AFFF is available in UV protected 20L, 30L capacity HDPE pails or 200L capacity HDPE drums as per IS 7959 and are UL recognized components.

### Typical Properties

PROPERTIES	AVERAGE VALUES
Appearance	Clear Amber Liquid
Smell	Characteristics
Specific Gravity	1.0-1.12
pH	6.5-8.5
Viscosity at 27±5°C	10 Cst max,
Surface Tension	18dyne/cm
Sediment (% v/v)	0.25% max
Expansion	6-10
25% drainage time	1 min,30s (min)
Shelf Life	15 years
Packing	Heavy duty plastic jerry
Storage / Usage temperature	35°F (1.7°C) to 120°F (49°C)

In line with our policy of continuous product improvement, SFFECO reserves the right to modify specifications without prior notice.

#### Factory & Head Office - Riyadh

2nd Industrial Area, Al-Kharj Road, Riyadh, KSA  
P.O. Box: 4441, Riyadh 14334  
Tel : +966 11 2650070, Fax: +966 11 2652190  
E-mail: riyadh@sffeco.com.sa

#### SFFECO Global - Dubai

P.O. Box: 261318, JAFZA South, Dubai U.A.E.  
Tel: +971 4 880 9890, Fax: +971 4 880 9822  
E-mail: sales@sffecoglobal.com

#### Jeddah Branch

P.O. Box: 16769, Jeddah – 21474, KSA  
Tel : +966 12 670 6009, Fax: +966 12 676 0307  
E-mail: jeddah@sffeco.com.sa

#### Dammam Branch

P.O. Box: 7162, Dammam – 31462, KSA  
Tel : +966 13 8351961, Fax: +966 13 8351968  
E-mail: dammam@sffeco.com.sa

#### Madinah Branch

Tel : 0148660959, 0148283256, Fax: 0148660969  
E-mail: madinah@sffeco.com.sa



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**SFFECO**.com