

## TECHNICAL DATA SHEET

# PROVEX AR (AR-FP) All-Purpose FluoroProtein foam liquid

All Purpose FluoroProtein (AR-FP) foam concentrate

**NEWTONIAN** (Non viscose)

Use on Hydrocarbon and Polar Solvents fires - Low & Medium Expansion

### Composition



- ✓ NO PFOS
- ✓ NO PFOA

This Formulation contains only telomer-based fluorosurfactants with a short chain (C6 or below) that cannot degrade in the environment into PFOA or other PFCA's.

#### IMPORTANT:

C6 telomer-based fluorosurfactants are NOT bioaccumulative or toxic to the environment.

**PROVEX AR** is a versatile all-purpose Fluoroprotein foam concentrate and is a composition of hydrolysed proteins, fluorocarbon surfactants, foam stabilisers and corrosion inhibitors. Its specific formulation and alco-oleophobic characteristics result in the formation of a foam blanket which, due to its low-viscosity Newtonian properties, is highly fluid and also highly resistant to the destructive action of polar solvents (alcohols, ketones, ethers, etc.) and other hydrocarbons.

### Principle of Operation



**PROVEX AR** foam rapidly extinguishes hydrocarbon and polar solvent fires and its exceptional heat resistance makes **PROVEX AR** the most suitable foam for the protection of large petroleum plants and petrochemical installations where there is a high risk of fire spreading.

Furthermore, such versatile qualities mean that a single foam concentrate can be utilised for protection against all types of fire risk, thus minimizing the foam storage requirements and eliminating the possibility of an incorrect foam concentrate being chosen for a particular fire-fighting event.

### Induction Ratio



**PROVEX AR** is available in following standard versions:

- 3-3 3 % dilution on hydrocarbon and polar solvent fires
  - 6-6 6 % dilution on hydrocarbon and polar solvent fires
- 6 % dilution: 6 L foam concentrate + 94 L water = 100 L foam solution  
- 3 % dilution: 3 L foam concentrate + 97 L water = 100 L foam solution

### Method of Application

**PROVEX AR** can be used in direct application (nozzle or monitor) on hydrocarbon fires, and in gentle (indirect) application on polar solvent fires.

## Fields of Application

**PROVEX AR** Newtonian foam concentrate is primarily designed for:



Petrochemical  
Complexes



Chemical Plants



Petroleum plants



Chemical tankers and  
transportation vessels

## General Characteristics

**PROVEX AR** conforms to all national and international standards and particularly to European standards EN 1568-1, 3 and 4.

**PROVEX AR** can be used with fresh and sea water.

**PROVEX AR** properties are not impaired in case of freezing. It recovers its initial properties as soon as it is defrosted.

## Storage and Shelf-life



**PROVEX AR** has a long shelf life if stored properly in the original intact and unsealed packaging. Its shelf life may exceed 10 years if maintained correctly. As with all foam liquids, storage temperature and conditions are important factors for an optimal shelf life.

If the product is frozen during storage or transport, gentle thawing will render the product completely usable and without any impairment of its properties.

**PROVEX AR** is recommended to be stored away from important temperature variations and corrosive atmospheres.

## Physico-Chemical Characteristics

Foam concentrate	u.m.	3 & 6 %
Density @ 20°C	kg/l	1.15±0.02
pH @ 20°C		6 - 8
Viscosity @ 20°C	cPs	≤ 100
Pour point*	°C	≤ - 15
Undissolved solids	% V/V	≤ 0.2

## Typical Foam Properties

The foam properties of **PROVEX AR** vary depending on the performance characteristics of the foaming equipment used and the operating conditions.

**PROVEX AR** tested in accordance with the EN 1568:3 and 4 gives the following typical properties:

Foam solution %	3%	6%
Expansion Ratio	≥ 6	≥ 7
25% drainage time	≥ 3'30"	≥ 5'