TECHNICAL DATA SHEET

PROFLEX AR (AR-FFFP)

All-Purpose Film Forming FluoroProtein foam

AR-FFFP (Film Forming FluoroProtein) foam concentrate
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.

PROFLEX AR is a complex composition of hydrolysed proteins with the addition of fluorocarbon surfactants, corrosion inhibitors, and special natural soluble polymers, which give the foam both outstanding film-forming abilities on the surface of hydrocarbon fires and the added benefit of a dense intermediate layer on polar solvent fires (alcohols, ethers, ketones), suppressing foam damaging vapour emissions whilst still maintaining high burn-back resistance.

Principle of Operation

PROFLEX AR Alcohol-resistant foam concentrate is ideal for use on large critical fires in the petroleum industry. Whilst combining the main qualities of two foam types; the rapid fire knock-down capability of film-forming foams and the high resistance to burn back afforded by fluoroprotein type foams, it's soluble polymer content also enables it to be used on both hydrocarbon fuel and polar solvent fires

Induction Ratio

PROFLEX AR is available in following standard versions:

- 3-3 3 % dilution on hydrocarbon and polar solvent fires
- 3-6 3 to 6 % dilution on hydrocarbon fires and 6% dilution on 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

PROFLEX 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

PROFLEX AR is **PROFLEX-AR** foam concentrate is primarily designed for:

Petroleum industry

Chemical industry

Vessels for transport of chemical products

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General Characteristics

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

PROFLEX AR can be used with fresh and sea water.

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

Storage and Shelf-life

PROFLEX 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.

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

Physico-Chemical Characteristics

Foam concentrate	**u.m.**	**3 et 6 %**
Density @ 20°C	kg/l	1.10±0.02
pH @ 20°C		6 - 8
Viscosity @ 20°C	cPs	700 - 1500
Pour point*	°C	≤ - 15
Undissolved solids	% V/V	≤ 0.2
Surface tension	mN/m	≤ 18.5
Interfacial tension solution / cyclohexane	mN/m	≤ 5

Typical Foam Properties

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

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

Foam solution %	**3%**	**6%**
Expansion Ratio	≥ 6	≥ 6.5
25% drainage time	≥ 4’	≥ 6’

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