

# ALCOHOL RESISTANT AQUEOUS FILM FORMING FOAM

#### 1. Description

The alcohol resistance aqueous film forming foam is the film forming foam solution made for extinguishing the fire of polar solvents(water miscible) and hydrocarbon fuels(water immiscible).

The AR-AFFF contains the special polysaccharide polymer film for that it forms the foam, aqueous film and polymer film in between the combustible substance and air when extinguishing the fire.

Therefore, these are the foam concentrates that can effectively apply to the fires from the released oils that are immiscible water, such as gasoline, kerosene, diesel and others, and the fires from alcohols, esters, ketones and others that miscible water.

#### 2. Features

The foam has outstanding sealing and spreading that it extinguishes the fire quickly.

The aqueous film is formed to apply in the oil fire.

When used, it quickly extinguishes the fire with the aqueous film as well as the outstanding polymer film functions.

The special polymer film ingredient is contained that it is particularly effective in the fires with the acceptability combustible substance (alcohols, esters, ketones, solvents and others).

It is appropriate to the fires in ships, paint plants, solvent handling places and others.

There is almost no change of properties when keeping it for a long period of time.

When keeping it, there is no generation of sedimentation.

Depending on the method of use, there is for high viscosity or low viscosity.

# KT-AR33 ALCOHOL RESISTANT AQUEOUS FILM FORMING FOAM



# 3. Application / Limitation:

NKT-AR33 (AR-AFFF) concentrates that can effectively apply to the fires from the released oils that are immiscible water, such as gasoline, kerosene, diesel and others, and the fires from alcohols, esters, ketones and others that miscible water. Usage temperature and maximum continuous storage temperature are -5°C to 50°C. Nominal use concentration is 3%.

- Suites, Engine room and others in ship
- General fire and oil fire
- Fire inside of large storage
- Large storage, aircraft hangar and others
- Fire in underground tunnel
- Fire in underground common areas

The storage facilities and piping arrangement onboard the vessel are to be designed and constructed with regard to seawater exposure (where applicable), and the minimum allowed temperature for the foam liquid.





# 4. Approvals

Designated by the Hellenic Republic of Greece as Notified Body according to Council Directive 96/98/EC on Marine Equipment as amended, did undertake the EC Type Examination procedures for the product identified below according to the following specific standards and that the product is found to meet the specific standards in compliance with the requirements of Annex A.1, Section 1, item No. A.1/3.58 and Annex B, Module B in Council Directive 96/98/EC as amended by

#### Commission Directive 2013 / 52 / EU:

- SOLAS 1974 as amended, IMO Reg. II-2/10,
- IMO MSC.1/Circ.1239, IMO MSC.1/Circ.1276,
- IMO Res. MSC.98(73)-(FSS Code) 6, 14,
- IMO MSC.1/Circ.1312, IMO MSC.1/Circ.1312/Corr.1

### 5. Physical Properties

Normal use concentration	3 %
Appearance	Yellow Brown
Density (20°C)	1.025
Viscosity	1,500cst
Pour Point	-5.0°C
PH (20°C)	7.0-8.0
Expansion	Min 5.0 Times
25% Drainage Time	Min. 200 Sec.
Ignition Point	90°C Over

#### 6. Shelf-Life

NKT-AR33 concentrates has a 20-22 year shelf-life in a sealed container.

#### 7. Flushing Instructions

Flushing is mandatory for all Class B foam tanks before adding NKT-AR33 concentrates.

Once NKT-AR33 concentrates has been added, flow product to ensure foam tank is operating properly.

## 8. Shipping Information

NKT-AR33 concentrate is available in pails, drums, totes or bulk shipment.

