



## Fomtec® Enviro Ultra

### FOMTEC Enviro Ultra

Fomtec Enviro Ultra is a multi-purpose alcohol resistant firefighting foam concentrate that has no intentionally added PFAS (fluorinated surfactants and polymers). The unique formulation of Fomtec Enviro Ultra enables the foam to rapidly cover burning surfaces and gain control and extinguish the fire. As a result, it is effective against both hydro carbon fires and polar solvents fuel fires.

- New Generation alcohol resistant Fluorine Free Foam
- High performance foam concentrate for municipal and industrial fire & rescue applications.
- UL 162 listed with excellent fire performance on hydrocarbon fuel and polar solvent fuel fires
- For Class A & B fires
- Low & Medium Expansion



## DESCRIPTION

The fire suppression mechanism of Fomtec Enviro ULTRA utilizes the foam blankets' ability to block oxygen supply to the fuel and the high-water content cools the fuel surface reducing the evaporation of flammable vapours. Additionally, the foam blanket prevents the reignition of an extinguished fuel surface. When applied on polar solvents, a polymeric membrane is formed and makes it possible for the foam blanket to extinguish effectively.

Fomtec Enviro ULTRA has been tested and listed for use with freshwater at 3% and with seawater at 6%.

Fomtec Enviro ULTRA can be used at 3% with fresh water for low and medium discharge devices. When used with seawater at 3% the fire performance is slightly reduced on hydrocarbon fuels. This may be compensated by an increased application rate or increased proportioning ratio i.e. 6%.

For use on class A type fires induction ratio of 0.3 - 1% is recommended depending on application and discharge device.

## APPLICATION

Fomtec Enviro ULTRA is intended for use on Class B hydrocarbon fuel fires such as Oil, Diesel and Gasoline well as polar solvents such as IPA, Acetone, Ethanol, and Methanol. Fomtec Enviro ULTRA is suitable for use on Class A fuel fires such as wood, paper, textiles etc.

Fomtec Enviro ULTRA is especially suited whenever a fluorine free alternative with high fire performance is required.

Designed for mobile firefighting applications with the use of aspirating foam discharge devices such as low and medium expansion foam branch pipes and monitors, where application rates and technique can be adjusted to the specifics of each incident.

## FIRE PERFORMANCE & FOAMING

The fire performance of Fomtec Enviro ULTRA has been measured and documented according to the "Performance Test" stated in the document. Minimum recommended application densities range from 0.16 gpm/ft<sup>2</sup> on Class B hydrocarbon fuels (Type III) to 0.22 gpm/ft<sup>2</sup> on polar solvents such as IPA or Acetone (Type II)

The foaming properties are depending on the equipment used and other variables such as water and ambient temperatures. Average expansion 8:1, average ¼ drainage time 17:00 minutes using UNI 86 test nozzle.

## EQUIPMENT

Fomtec Enviro ULTRA can easily be proportioned at the correct dilution using conventional proportioning equipment. The equipment should be designed to the foam type.

## COMPATIBILITY

Fomtec Enviro ULTRA can be used together with foam compatible powders and other expanded foams.

Fomtec Enviro ULTRA concentrate should not be mixed with other foam concentrates.

For material compatibility please refer to Fomtec Technical Advices FTA 20 addressing the topic.

## TYPICAL DATA

|                                 |                        |
|---------------------------------|------------------------|
| Appearance                      | Clear yellowish liquid |
| Specific gravity at 20°C        | 1,013 ± 0.01 g/ml      |
| Viscosity                       | Pseudoplastic*         |
| pH                              | 6,5 to 8,5             |
| Freezing point                  | -4°C                   |
| Recommended storage temperature | 0 to 55°C              |
| Suspended sediment (v/v)        | Less than 0,2%         |

\*) See detailed viscosity data below

## ENVIRONMENTAL

Fomtec Enviro ULTRA is formulated using raw materials specially selected for their fire performance and their environmental profile. The product contains no intentionally added fluorinated surfactants, polymers and other organohalogens. Fomtec Enviro ULTRA is biodegradable and contains no PFOS or PFOA. The handling of spills of concentrate or foam solutions should however be undertaken according to local regulations. Normally sewage systems can dispose of foam solution based on this type of foam concentrate, but local sewage operators should be consulted.

Full details will be found in the Material Safety Datasheet (MSDS). For more detailed information please consult Fomtec Technical Advices FTA 40.

## STORAGE / SHELF LIFE

Stored in original unbroken packaging the product will have a long shelf life. Shelf life in excess of 10 years will be found in temperate climates. As with all foams, shelf life will be dependent on storage temperatures and conditions.

For storage recommendations and material compatibility please refer to our Fomtec Technical Advices FTA 10 addressing the topic.

## INSPECTION/TESTING/ MAINTENANCE

The foam concentrate should be tested annually. The testing should be made by a suitable laboratory for analysis of foam concentrates and should measure: pH, specific gravity, expansion, drainage time. Storage containers should be inspected and reevaluated for the suitability of the storage location in regard to temperature fluctuations (temperature should be as stable as possible). Exposure to direct sunlight should be avoided.

## ENVIRO BY FOMTEC

The Fomtec Enviro range comprises an extensive range of non-PFAS based foams suitable for use Emergency Response missions and System applications. Enviro foam concentrates are available for class A, class B fire hazards and products are available for low, medium, and high expansion discharge devices.

**enviro**  
by fomtec

## PACKAGING

We supply this product in 25 litre or 5 US gallon cans, 200 litre or 55 US gallon drums, and 1000 litre or 265 US gallon IBC containers. Larger bulk supply is available against special request.

### Fomtec Enviro ULTRA, 3 percent (FRESHWATER only)

| FUEL GROUP                              | MINIMUM RECOMMENDED DESIGN APPLICATION RATE |
|-----------------------------------------|---------------------------------------------|
| <b>Type III Application<sup>a</sup></b> |                                             |
| Hydrocarbons                            | 0.16                                        |
| <b>Type II Application<sup>b</sup></b>  |                                             |
| Hydrocarbons                            | 0.10                                        |
| Alcohols (Alc)                          | 0.21                                        |
| Methyl Alcohol (Ma)                     | 0.16                                        |
| Ethyl Alcohol (Ea)                      | 0.16                                        |
| Ketones (K)                             | 0.21                                        |

## APPROVALS AND LISTINGS

- UL 162, 8th Edition, topside type II and type III discharge devices

### Fomtec Enviro ULTRA, 6 percent

| FUEL GROUP                              | MINIMUM RECOMMENDED DESIGN APPLICATION RATE |
|-----------------------------------------|---------------------------------------------|
| <b>Type III Application<sup>a</sup></b> |                                             |
| Hydrocarbons                            | 0.16                                        |
| <b>Type II Application<sup>b</sup></b>  |                                             |
| Hydrocarbons                            | 0.10                                        |
| Alcohols (Alc)                          | 0.16                                        |
| Ketones (K)                             | 0.16                                        |

(a) Type III discharge outlet – A device that delivers the foam in a manner that causes the foam to fall directly onto the burning liquid as described in UL 162

(b) Type II discharge outlet – A device that delivers foam onto the burning liquid and partially submerges the foam and produces restricted agitation of the surface as described in UL 162

| Volume per piece | Packaging       | Part no    | Approx. shipping weight* | Dimensions (mm) L x W x H |
|------------------|-----------------|------------|--------------------------|---------------------------|
| 25 ltr           | Can             | I2-3371-01 | 26,7 kg                  | 295 x 260 x 441           |
| 200 ltr          | Drum            | I2-3371-02 | 212,5 kg                 | 581 x 581 x 935           |
| 1000 ltr         | Container       | I2-3371-04 | 1080 kg                  | 1200 x 1000 x 1150        |
| 5 US gal.        | Can             | I2-3371-00 | 20,3 kg                  | 295 x 260 x 441           |
| 55 US gal.       | Drum            | I2-3371-03 | 220,5 kg                 | 581 x 581 x 935           |
| 265 US gal.      | Container       | I2-3371-05 | 1085 kg                  | 1200 x 1000 x 1150        |
| Bulk             | Special request |            |                          |                           |

\* including packaging.

## VISCOSITY DATA - FLOW CURVES

The viscosity flow curves are determined by Brookfield RST rheometer from low to high shear rates. The viscosity curves below are determined by calculating the average value of at least 8 different measurements and add a safety margin of three standard deviations to the average. The viscosity curves are determined for 20°C and 5°C. In the table below the kinematic viscosity (mm<sup>2</sup>/s) is calculated as dynamic viscosity (mPa·s) divided by the specific gravity of the concentrate.

| Shear Rate (s <sup>-1</sup> ) | Dynamic Viscosity (mPa·s) 20°C | Dynamic Viscosity (mPa·s) 5°C | Kinematic Viscosity (mm <sup>2</sup> /s) 20°C | Kinematic Viscosity (mm <sup>2</sup> /s) 5°C |
|-------------------------------|--------------------------------|-------------------------------|-----------------------------------------------|----------------------------------------------|
| 10.7                          | 3083                           | 3258                          | 3043                                          | 3217                                         |
| 21.5                          | 1726                           | 1851                          | 1703                                          | 1827                                         |
| 53.7                          | 791                            | 870                           | 781                                           | 859                                          |
| 107.4                         | 444                            | 505                           | 438                                           | 499                                          |
| 214.8                         | 261                            | 304                           | 258                                           | 300                                          |
| 375.0                         | 174                            | 206                           | 171                                           | 204                                          |
| 537.0                         | 136                            | 164                           | 134                                           | 162                                          |
| 1074.0                        | 106                            | 121                           | 104                                           | 119                                          |
| 1611.0                        | 68                             | 88                            | 67                                            | 87                                           |
| 2148.0                        | 58                             | 75                            | 57                                            | 74                                           |
| 2792.2                        | 79                             | 87                            | 78                                            | 86                                           |

