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## OMNITERRA FIRE

### TECHNOLOGY:

Omniterra Fire offers a groundbreaking anionic surfactant that has been extensively researched and developed over a period of 11 years. Omniterra Fire is primarily used in the pre-treatment of water. The quality of water and its properties are manipulated in an entirely natural way. This product neutralizes the magnetic charges of particles in the water thus reducing surface and interfacial tension.

[www.advalli.com](http://www.advalli.com)

For any queries please contact: [rudy@phoenix-harvest.com](mailto:rudy@phoenix-harvest.com) / +1 (254) 630 3712



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## **BENEFITS OF REDUCED SURFACE AND INTERFACIAL TENSION:**

- \* Increased adhesion of the liquid to a solid particle thus resulting in a powerful **wetting** agent.
  
- \* Allows for water and oil-based droplets to break down into finer globules and to stay in suspension for longer, resulting in powerful **emulsification**.
  
- \* Prevention of particles to cluster or agglomerate together, thus resulting in powerful **de-agglomeration**.

## **FIRE FIGHTING USING WATER ONLY:**

Due to the lack of wetting and emulsification properties, water is **not** optimally suited for firefighting:

- \* Fine dust, carbon and oil-based materials float on the water surface.
- \* Addition of more water will just sink to the bottom and materials will continue to float on the water surface.
- \* The water surface tension prevents and limits the integration of oil based material and dusts into water.
- \* On combustion, the materials will continue to burn whilst floating, even when more water is added.
- \* When material is burning, a carbon surface is formed, and this layer reduces water penetration to allow for re-combustion.

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## **FIRE FIGHTING BENEFITS WITH OMNITERRA FIRE:**

Product bearing water will:

- \* Emulsify burning oil-based materials with Fire Fighting water
- \* Wet carbon surface which forms on burning matter surface
- \* Providing cooling
- \* Drastically reduce water requirement
- \* Suppress smoke and gases in fire
- \* Prevent re-combustion
- \* Reduce time to extinguish fire
- \* Bio-degradable and environmentally friendly
- \* Small dosages required

## **DOSAGE AND APPLICATION:**

The required dosage of Omniterra Fire to water is : 0,0005%

As an example, for 10 000 liters of water we require 5 liters of Omniterra Fire.

OR

For 2642 US gallons of water, we will require approximately 1.5 US gallons of Omniterra Fire

## **CASE STUDY:**

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**Tyres:**



The efficiency of Omniterra Fire in extinguishing tyre fires was demonstrated in the Following case executed by a South African municipal fire department, namely Durban city.

TEST	WITHOUT OMNITERRA FIRE	WITH OMNITERRA FIRE
WATER USED	3000 LITERS	250 LITERS
OMNITERRA FIRE DOSAGE	0	0,585 LITERS
TIME	10 MINUTES	28 SECONDS

TEST	WITHOUT OMNITERRA FIRE	WITH OMNITERRA FIRE
WATER USED	792.5 US Gallons	66 US Gallons
OMNITERRA FIRE DOSAGE	0	0,15 US Gallons
TIME	10 MINUTES	28 SECONDS

For further case studies, please refer to Omniterra Fire testing by

Conducted at the Fire Service College 25th & 26th August 2016 Moreton in Marsh  
GL56

ORH

United Kingdom

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