
I·CAT
ENVIRONMENTAL
SOLUTIONS
iFiRE
fire suppression additive
'change that doesn't
cost the earth'
Environmentally
FRIENDLY

What is iFiRE

I-CAT iFire is an innovative anionic surfactant that has been extensively researched and developed over several years. iFire is a macromolecule that acts as an active surface agent to lower the surface tension of water and other liquids. The properties of the liquid or water are manipulated to neutralise the magnetic charges of particles, thus reducing the surface tension. iFire is used as a water treatment agent to improve the wetting ability of water. This attribute makes iFire the perfect product to improve the fire extinguishing ability and effectiveness of the water.

Benefits

- iFiRE is an effective wetting agent that increases the wetting ability of the water. When used in fire suppression, it increases the effectiveness of suppression with the water.
- Use less water or liquid than without iFiRE, thus suppressing the fire with less effort.
- Keeps fire from reigniting.
- Used in low concentrations, thus economical.

iFire is the perfect product to improve the fire extinguishing ability and effectiveness of the water.

Contains NO toxic elements!

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The Technology

Neutralize the magnetic charges of the salts in the water, to reduce:

- Surface tension.
- Interfacial tension.

Primary properties:

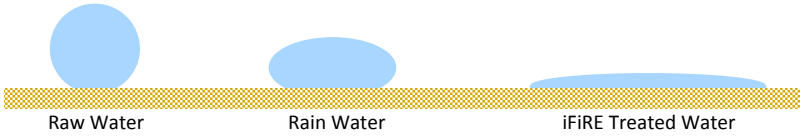
- Wetting - Increases adhesion of the liquid to a solid particle.
- Emulsification - Allows water and oil-based droplets to break up in finer globules and to stay in suspension for longer.
- De-agglomeration - Prevention of particles to flocculate, cluster or agglomerate together.

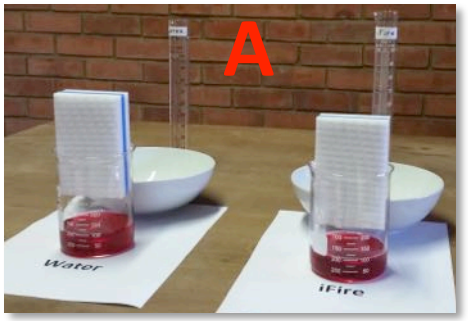
Secondary properties:

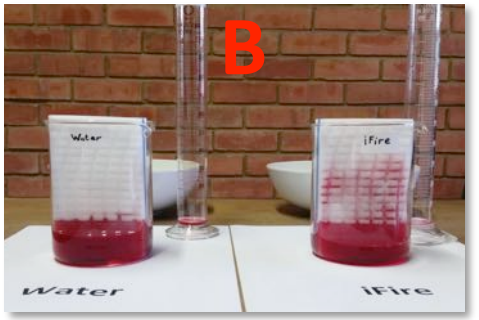
- Anti-static - Static & steric charges within the solutions are neutralized.

Wetting:

Wetting is the contact between a liquid and a solid surface, resulting from intermolecular interactions when the two are brought together.







Two identical sponges were used to illustrate the effective neutralization of the water tension when iFiRE is added. The iFiRE water immediately absorbs almost 50% more than untreated water and over 50% more in 3 minutes.

Why neutralize surface tension?

Due to the lack of wetting and emulsification properties, water is NOT IDEAL for Fire Fighting.

- Fine dusts, carbon and oil based materials float on 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 dust 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 re-combustion.

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iFiRE

fire suppression additive

USES

- Additive to fire fighting liquids.
- Additive in water-based fire extinguishers.
- Additive for forest and agriculture fire fighting.

INDUSTRIES

- Forestry.
- Agriculture.
- Mining.
- Transport.
- Manufacturing.

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ISO 9001 QUALITY ASSURANCE

DATE

INSTRUCTIONS OF USE:
Add to water volume at 0.05%.

Dosage	Water Volume (litres)	iFIRE (ml)
@0.05%	500	250
@0.05%	1000	500
@0.05%	5000	2500

COMPOSITION:
According to the Workplace Hazardous Materials Information System (WHMIS), this product should not be considered a controlled product; however, the product MSDS contains valuable information important to the proper use of the product. The MSDS should be retained and be available to employees and other users/handlers of this product.

Non-Toxic, Non-Corrosive, Potential Irritant.

ELEMENT	CONCENTRATION (%)	CAS NUMBER
Aqua Content	80.0	
Anionic Surfactant	20.0	68585-34-2

Rinse mouth with water. Drink plenty of water and obtain medical advice. If large quantity is ingested seek medical advice.

Wash with water before the dispersion dries. Remove contaminated clothing.

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water.

BATCH NO.

ttl00 LARGE ENTERPRISE 2014 QUALIFIER

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