M-FIRE TECHNOLOGIES

Control the Uncontrollable

AF-31-EV is a breakthrough fire inhibitor engineered to defeat the most dangerous fires of the modern era — from lithium-based to high-heat, stored energy, and volatile industrial blazes. With unmatched cooling power and zero toxic byproducts, it rapidly halts thermal runaway, suppresses reignition, and neutralizes fire at its core.

This isn't just suppression — it's total control.

AF-31 EV

WHAT IS AF-31 EV?

AF-31 EV is a next-generation fire suppression agent specifically engineered to combat lithium-ion battery fires. Completely free of toxic chemicals, carcinogens, and harmful off-gassing, it offers a clean, safe, and highly effective solution for one of today's most dangerous fire threats.

AF-31 EV ADVANTAGE

AF-31 EV is the only environmentally responsible suppressant proven to both extinguish lithium-ion fires and prevent reignition—delivering unmatched protection across a wide range of battery-related fire scenarios.

UL GreenGuard Gold

AF-31 EV sets the highest standard for environmental safety, earning the top certified seal of UL GreenGuard Gold.

Environmentally Friendly

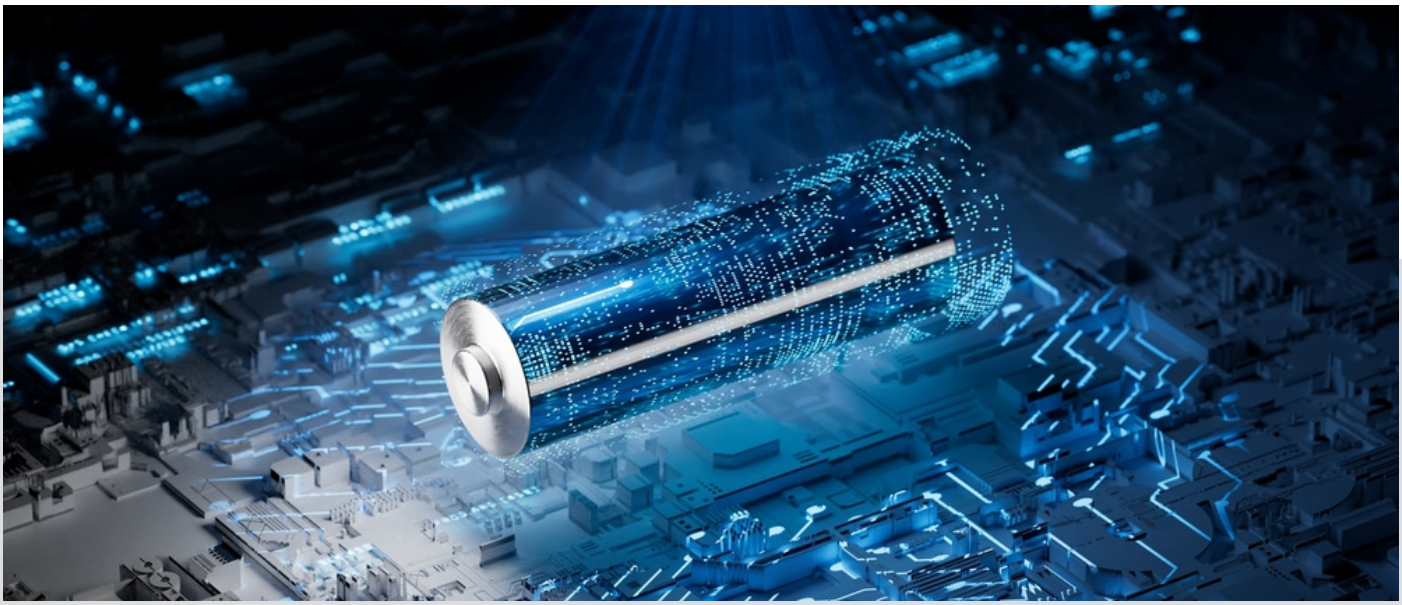
AF-31 EV is free of ammonia, urea, gums, gels, sulfate, phosphate, PFAS, AVD, and any known carcinogens. No off-gassing, ODS, or VOCS.

Rapid Extinguishment

AF-31 EV rapidly extinguishes lithium-ion battery fires and prevents reignition. AF-31 EV saves water and prevents contaminated runoff from reaching waterways.

Prevents Reignition

AF-31 EV extinguishes lithium-ion fires and interrupts the necessary elements for a fire to reignite. AF-31 EV is the most effective lithium-ion extinguishing agent in the world because it simultaneously prevents reignition.



UNIQUE RISKS OF LITHIUM-ION FIRES

Lithium-ion battery fires ignite suddenly, often without warning, and can reach extreme temperatures exceeding 2,000°C (over 3,600°F). These fires release hazardous fumes, pose explosion risks, and can continue to erupt even while burning. Even after initial suppression, they remain highly volatile, with a significant risk of reignition, minutes—or even hours—later.

TOXIC ATMOSPHERES

Lithium-ion fires produce hazardous vapor clouds that are toxic to inhale.

HIGH BURN TEMPERATURE

In thermal runaway, battery cell temperatures rise incredibly fast (milliseconds) resulting in extremely high temperatures.

PRODUCES ITS OWN OXYGEN

When lithium-ion batteries burn, oxygen is released. Smothering the fire is an ineffective strategy.

CHALLENGES OF EXTINGUISHING LITHIUM-ION FIRES

Lithium-ion battery fires are extremely challenging due to thermal runaway. This is an unstable chemical process that releases gases and form toxic vapor clouds. There is also a significant risk of lithium-ion batteries reigniting potentially even weeks after initially extinguished. These fires are dangerous and have explosive potential due to the excessive amount of hydrogen gas being released. Lithium-ion fires in electric vehicles are especially challenging because firefighters have difficulty reaching the batteries that are most commonly located on the bottom of the car.

AF-31 EV: THE SOLUTION

- Paradigm shift in how we address thermal runaway. Proven extinguishing agent for lithium-ion fires.
- AF-31 EV extinguishes lithium-ion fires faster, more effectively, and requires significantly less water.
- Can be used to extinguish any lithiumion fire; EV cars, E-bikes, Energy storage facility, Telecommunication, etc.

M-FIRE TECHNOLOGIES

STAY AHEAD OF THE MOST DANGEROUS FIRES OF OUR TIME

AF-31-EV delivers the strength, speed, and reliability to extinguish even the most stubborn lithium and high-intensity fires — before they reignite. Protect what matters. Trust the chemistry built for the future of fire.

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