




**net
zero**



Investing in NFPA 18A

Hazard Control for Airport Executives and Aircraft Rescuers with Encapsulator Agents

What is an Encapsulator Agent?

In 2022, NFPA 18A 'Standard on Water Additives for Fire Control and Vapor Mitigation' was released. This standard is the first of its kind, outlining the criteria an agent must meet to be classified as an Encapsulator Agent. The Spherical Micelle Stability Test protocol included in Section 7.7 evaluates a concentrate's ability to render hydrocarbon fuel nonflammable. If an agent does not meet this criteria, it is not a true Encapsulator Agent recognized by the NFPA 18A standard and the information included therein does not apply.



* FAA AC 150/5210-6E

As aviation leaders transition away from fluorinated foams due to high levels of PFAS, the need for fluorine-free alternatives increases. Encapsulator Agents are included in the FAA 'Circular for Aircraft Fire Extinguishing Agents'. While foams work on a mechanical level, Encapsulator Agents work on a molecular level, changing the composition of a water droplet with the introduction of spherical micelles. This allows Encapsulator Agents to extinguish fires that can't be fought effectively with foams or water.

Preparing for Net Zero

Encapsulator Agents are Versatile Enough to Mitigate SAF and New Technology Hazards

Is your airport prepared?

The introduction of sustainable aviation fuel and electric-powered vehicles, ground support equipment, charging stations, crash tenders, and aircrafts is just the beginning. Many aircraft rescue firefighters and ARFF training centers are nervous about the limitations of fluorine-free foams in the face of net zero hazards. NFPA 11 states that foam is not appropriate for use on a three-dimensional flowing fuel fire, a hazard that's abundant within an aviation setting. Additionally, testing suggests that foam is inadequate for lithium-ion battery hazard mitigation and water is inefficient.





Mitigating Lithium-ion Battery Hazards in Aviation

F-500 EA® sits on a foundation of over 15 years of testing for lithium-ion battery fires recognized by NFPA 18A Annex 4.3.

Encapsulator Agents are the Future of ARFF and Aircraft Hangar Fire Protection

Hazard Comparison

	AFFF	AR-AFFF	SFFF	Water	F-500 EA®
Class A	✓	✓	✓	✓	✓
Class B (Flat Spill)	✓	✓	✓		✓
Class B (Three-dimensional)					✓
Class C (Energized Environments)					✓
Class D					✓
Lithium-ion Batteries				✓	✓

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