

F-500 Encapsulator Agent and Landfill Fires



- Manufactured in compliance with HCT's ISO 9001 Quality System - Accredited by FM Global.
- Non-toxic and Non-skin Sensitizing
- Nonhazardous - Contains no ingredients reportable under Superfund Amendments and Reauthorization Act (SARA) or Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).
- 100% fully Biodegradable
- EPA NCP Product Schedule Listed*

F-500 Encapsulator Agent is well-suited for near-surface and deep-seated fires that occur in landfills due to its versatility. No other single fire suppression agent is capable of handling Class A, B (polar and nonpolar) and D fires.

F-500 EA extinguishes a fire in three ways. It cools the fuel and surrounding surfaces, encapsulates carbons and hydrocarbons and interrupts the free radical chain reaction. Any one of those three elements can extinguish a fire. The F-500 EA molecules change the way water cools a fire from steam conversion to thermal conveyance. Instead of evaporating, like plain water, heat is absorbed into the modified F-500 EA droplets. The F-500 EA solution is capable of reducing the temperature 10-20 times greater than plain water alone.

F-500 EA reduces the surface tension of the water, allowing the solution to penetrate into the pores of Class A materials. Reducing the surface tension also allows the solution to penetrate deep, below the surface of the landfill. Finally, it allows the agent to cover a broader area than water alone. F-500 EA also has superb burn back resistance characteristics. Once the F-500 EA is applied, the area will not support combustion. Firefighters can move on to the next area.

The reduced amount of water required will result in much

less runoff and less need to bring in additional vehicles carrying water. For a large landfill fire, this could mean the difference between success and failure.

Finally, from an environmental standpoint, interrupting the free radical chain reaction quickly eliminates the heavy, black smoke and greatly reduces toxins and odors.

Landfills and Water

Water simply doesn't penetrate deep into landfills and ends up becoming runoff. Depending on the heat produced by a landfill fire, much of the cooling potential of water evaporates before it reaches the surface of the landfill. Water is also ineffective against materials commonly found in landfills, such as plastics, Class B fuels, Class D metals or tires.

Landfills and Foam

Foam is the last agent you would want to use on a landfill. To extinguish a fire, foam must create a perfect blanket and smother the fire. The problem is, foam sits on the surface and doesn't penetrate into the landfill at all. The thick blanket of foam traps in the heat. There is plenty of oxygen in the landfill underneath the foam blanket to sustain combustion. Even creating a blanket is difficult since a landfill is a three-dimensional fire, and NFPA 11 states, foam is not suitable for three-dimensional fires.

* F-500 EA is on the U.S. Environmental Protection Agency's NCP Product Schedule. The listing does NOT mean that EPA approves, recommends, licenses, certifies, or authorizes the use of F-500 EA on an oil discharge. This listing means only that data have been submitted to EPA as required by subpart J of the National Contingency Plan, 40 CFR Section 300.915.

