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**TECHNICAL
RELEASE**

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“COLD FIRE” FOR FIRE SUPPRESSION

Fire: fire suppression

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www.forestresources.org/MEMBERS/serpub/07-R-7.html

INTRODUCTION: Cold Fire is a unique product, developed in Germany, consisting of a mixture of extracts from several plant species, along with minerals and salts adsorbed naturally from soils. It contains no synthetic chemicals, nor any phosphate or bromine derivatives, nor polymers common to many retardant and extinguishing agents.

When blended with water, Cold Fire takes on special characteristics to enhance the overall efficiency of controlling Class A, Class B, and Class D fires, making it an effective, safe and environmentally friendly agent.¹

GENERAL FEATURES: To understand how Cold Fire works, one must first understand the basic structure of fire. In order for a fire to be created, three components are necessary: fuel, oxygen, and heat. These three components form what is called a fire triangle. Most agents extinguish fires by breaking down one leg of the fire triangle. Cold Fire has six times the penetrating capability of water and furthermore has an extraordinary capability to absorb heat. These two features allow Cold Fire to penetrate a fire faster and attack two legs of the fire triangle by absorbing the heat and rapidly taking the fuel source below its flash point. By enhancing the penetration capability of water, it extinguishes fire more quickly, using less water. Cold Fire furthermore encapsulates the fuel source and its vapors and simultaneously begins to break down the molecular structure of the hydrocarbon fuel source, preventing re-ignition.

Cold Fire is non-toxic, non-corrosive, and environmentally safe.

The US Forest Service added Cold Fire to the QPL (Qualified Products List) for use in fighting wildfires on federal land in April 2005 after extensive testing at the Missoula Technology Development Center (MTDC) as well as back-up testing at the San Dimas facility in California.

As determined through the MTDC tests, Cold Fire can be stored indefinitely and passes the freeze/thaw cycle without detriment to the product performance. (Many products must be stored in protective environments to prevent a freeze situation or excessive heat/or moisture exposure.)

APPLICATION: Cold Fire may have several uses in forestry situations.

- Onboard fire suppression systems.
- As an extinguishing agent for various types of wildfires: grass/scrub, brush, heavy timber, and other types.
- Suppression of sawdust and slash fires.

¹ See *An Informational Report*, by Dr Addison Bain, Ph.D. For more information, or to receive the full report, please contact Tom Millerwise at: peatman01@yahoo.com.

- Protection of structures from wildfires.
- Protection of firefighters.
- Additional protection in controlling controlled burning.
- Suppression of tire fires.
- Suppression of vehicle fires.
- Suppression of auto fuel fires.
- Protecting fuel storage tanks close to fire (by keeping them cool).
- Cooling down equipment.

COSTS: When comparing products evaluated in terms of how much product is needed to control a fire, Cold Fire has proven to be the better economical solution in many cases. For more information on price and availability, please contact the author.

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FRA STAFF COMMENT: The potential advantages of this fire suppressant were demonstrated at a seminar I attended earlier this year. If you think your company or local fire department could benefit, I highly suggest giving this product some attention. Further information, including video demonstrations, is available at www.coldfireforestry.com and www.firefreeze.com.

Reviewed by:
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