

## **COLD FIRE® AND FOREST FIRES**

### **“Protecting our Environment for Future Generations”**

- Environmentally friendly
- Non-toxic and biodegradable
- Approved for vertical fires
- Dramatically reduces smoke and heat from fire
- Drastically reduces updraft and turbulence
- Minimizes or eliminates reignition
- Uses at least 30% to 50% less water
- Controls and extinguishes fires faster, saving millions of dollars in:
  - Air time for air support
  - Wages for ground crews
  - Relocation and living costs for victims
  - Valuable timber resources
  - Parkland and wildlife
  - Equipment and product costs
- Reduces or eliminates property damage claims (residential, farm, forestry, business)
- Reduces exposure to loss of life or serious injury
- Does not require special equipment
- Already in use in US, Mexico and Brazil

## COLD FIRE® COMPETITIVE EDGE

The advantages of using **Cold Fire®** over the competing products in the market today are extraordinary. Presently, the five most common firefighting products used today are:

- Water
- Halon
- Chemical Foam
- Dry Powder
- Carbon Dioxide

**WATER** is the most common product, as it is plentiful and available (in most areas) and involves relatively low cost. The problem, however, with water alone is that it is not very effective on oil, chemical, electrical and metal fires and large amounts of water need to be used, increasing the amount of water damage.

**HALONS** (a contraction of "Halogenated Hydrocarbons") are a group of extinguishing agents, stored under pressure in liquid form and released in such a way as to vaporize rapidly in the fire zone. They extinguish fire by interfering with the chemical reactions involved in the propagation of flame. Halons have limited use in deluge systems for electronics and computer centers and attacks the fire by removing the oxygen. Halons are not especially suitable for Class A fires, which are the most common type, involving materials organic in nature such as wood, paper and furniture. Halons are ozone depleting and have no significant cooling effect, therefore, there is possibility of re-ignition following discharge. The future manufacturer of Halon has been banned by the Environmental Protection Agency as of January 1, 1994 and their future use restricted.

**CHEMICAL FOAMS** are concentrates which are introduced into water in varying proportions and are derived from a combination of foaming agents and surfactants such as hydrolyzed proteins and fluoro-chemicals. They are utilized both professionally and commercially (through extinguishers and hose lines). The problem with most chemical foams is obvious; they are highly toxic. When foam is used to extinguish a fire there is significant chemical exposure to the firefighter. The area of the fire, once it is extinguished, also becomes difficult and costly to clean-up because the foam needs to be picked up and disposed of as hazardous waste. Foams also tend to decompose in fire, thereby increasing chances of re-ignition.

**DRY POWDER** extinguishers are the most common. Although not listed as toxic material, significant warnings concerning respiratory exposure exists to all users. Dry powder extinguishers are extremely messy and when discharged, fine particles are dispersed under pressure, resulting in all adjacent surfaces being

covered and penetration into the smallest of cracks and crevices. Using a dry powder extinguisher on a kitchen fire for example, results in exhaustive and diligent cleaning of the entire room, and possibly adjacent rooms. Re-ignition may also occur if the powdered surface is disturbed.

**CARBON DIOXIDE** is an inert gas which is stored in portable extinguishers (and certain fixed installations) is common in extinguishing fires involving flammable liquids and electrical equipment. Carbon Dioxide is environmentally safe; however, its use is not recommended for Class A fires, fires which are normally encountered in the home, and it has no substantial cooling effect on burning materials, again resulting in the possibility of re-ignition.

**The advantages of using Cold Fire® significantly outweigh those of the other products.**

**Cold Fire® is an effective extinguishing agent which is:**

- **ENVIRONMENTALLY SAFE**
- **BIODEGRADABLE**
- **NON-TOXIC**
- **NON-CORROSIVE**
- **HAS NO HAZARDOUS RISK EXPOSURE**
- **PREVENTS RE-IGNITION**
- **DOES NOT STAIN OR LEAVE ANY RESIDUE**
- **USER FRIENDLY AND REQUIRES NO SPECIFIC CLEANUP**