



## CLASS K FIRE EXTINGUISHERS

### LOSS CONTROL BULLETIN

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In the past, most deep fryers used in commercial kitchens were designed for use with animal fat-based oils and greases. Over the years, the use of animal fats for frying foods has given way to the use of vegetable oils, which lower the fat and cholesterol content of food. However, vegetable oils burn at higher temperatures than animal fats, creating hotter fires that are more difficult to extinguish. Combined with the use of higher-efficiency cooking appliances that are well insulated and slow cooling, the result is a more severe fire hazard.

Dry chemical fire extinguishers are not sufficient to put out kitchen fires involving vegetable-based cooking oils, which carry a high risk of re-flash fires. These extinguishers should be removed from the cooking area. Class K fire extinguishers are more effective in extinguishing cooking fires. They use wet chemical agents with a greater firefighting and cooling effect for this type of hazard.

The applicable National Fire Protection Association (NFPA) standard is NFPA 10 - Standard for Portable Fire Extinguishers. NFPA revised this standard in 1998, specifying that "Fire extinguishers provided for the protection of cooking appliances that use combustible cooking media (vegetable or animal oils and fats) shall be listed and labeled for Class K fires."

### BETTER CONTROL FOR COOKING FIRES

Class K fire extinguishers offer improved fire control for cooking fires by:

- Minimizing the splash hazard.
- Forming a soapy foam on the surface of the hot cooking oil, holding in the vapors and steam, and smothering the fire. (A process known as saponification.)
- Cooling the appliance and the hot cooking oils.
- Offering improved visibility during firefighting.
- Providing easier clean-up than with dry chemical agents.

Many years ago, a fire extinguisher was considered the first line of defense against a cooking fire. This is no longer the case. NFPA 10 states that "A placard shall be conspicuously placed near the extinguisher, stating that the fire protection system shall be activated prior to using the fire extinguisher."

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This means that Class K fire extinguishers are intended to be used after the fixed extinguishing system has operated and the energy to the cooking appliances is turned off. Employees should understand that if the fixed extinguishing system hasn't operated, they must first manually activate it and then use the Class K fire extinguisher as a secondary means of defense.

The fire extinguisher must be readily available and located along normal paths of travel. The extinguisher shall not be obstructed or blocked from view. The maximum travel distance from the cooking appliances to the extinguisher shall not exceed 30 feet.

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