

Flame Retardants Are an Important Tool to Help Reduce Fire Risk



FIRE SAFETY STANDARDS HELP REDUCE FIRES

Fire safety standards have been developed to ensure public safety. These standards are developed through established third-party organizations and are based on decades of experience, careful analysis, extensive testing, and an inclusive public standard development processes.

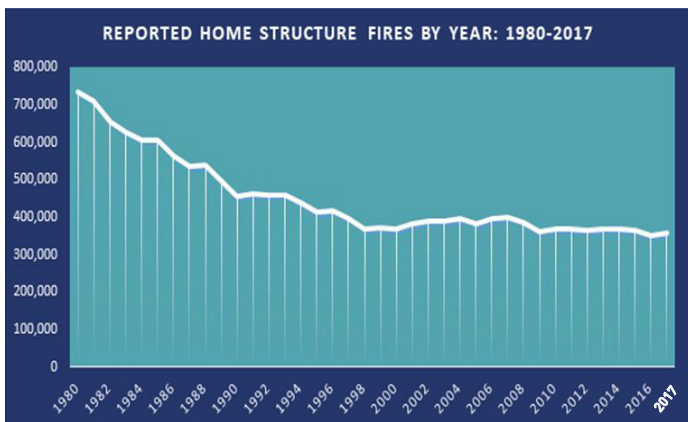
Flame retardants are an important tool in the overall “tool box” of fire safety measures that help reduce fire risk and meet fire safety standards. Since the introduction of strong fire safety standards in the 1970s, fewer fires have occurred in the United States.



THE CHANGING NATURE OF FIRE RISK

Despite the improvements in fire safety over the past several decades, fire still represents a real danger across the country.

The changing nature of consumer products has increased the risk of fire. Our homes and offices contain more synthetic materials than they did 30 years ago, many of which can ignite and burn more quickly. The proliferation of electronics and electrical equipment can also magnify the number of potential ignition sources.



Source: National Fire Protection Association (NFPA)

2018 Overview of the U.S. Fire Experience

1,318,500 Fires Responded to by Fire Departments
24 Seconds Frequency Firefighters Responded to Fires
499,000 Structure Fires
73% Structure Fires that Occurred in Homes
3,655 Civilian Fire Deaths
74% Civilian Fire Deaths in Homes
\$25 Billion Property Damage from Fires

Source: NFPA



WHAT ARE FLAME RETARDANTS?

Flame retardants are derived from naturally-sourced elements and are incorporated into materials such as plastics, textiles, foams, timber, and paints. Flame retardants can be found in either liquid or solid form. They can be incorporated into a material via a chemical reaction (reactive) or added into and bound within a plastic matrix (additive).



FLAME RETARDANTS HELP SLOW AND PREVENT FIRES, PROTECT PROPERTY, AND SAVE LIVES

Flame retardants can't stop all fires, but they can regularly delay ignition, slow the combustion process, or even make a material self-extinguishing. Flame retardants not only reduce the risk of a fire starting, but also the risk of the fire spreading, leaving more time for people to escape and more time for emergency personnel to respond.



NO "UNIVERSAL" FLAME RETARDANTS

Product manufacturers include specific flame retardants in their products based on the product's attributes, properties, usage, and potential ignition threats.

The term "flame retardant" refers to a function, not a distinct family of chemicals. Many different chemistries, with different properties and molecular structures, act as flame retardants, and these chemicals are often combined for effectiveness.

A variety of flame retardants are necessary because materials that need to be made fire-resistant are very different, as are the end-use performance requirements of the final product.