

FLAME RETARDANT CHEMICALS

Consensus Statement

When burned, all materials emit harmful byproducts of combustion and fire retardant chemicals (FRs) are no exception. But unlike most materials, FRs used in plastics found throughout the home, workplace and transportation slow ignition and rate of fire growth, and as a result increase an occupant's available escape time in the event of a fire, thereby saving lives and property. The use of FRs clearly saves lives and property, but with some, there may be unintended consequences. Some FR products persist in the environment and accumulate in living organisms; Toxicological testing that indicates that some of these chemicals may cause long term health problems. It is important to know whether the life saving benefits of these chemicals outweigh potential risks to health. This should not be an automatic assumption. We have looked at the potential risks of FRs and come to the following conclusions.

If unable to quickly exit their property, an unprotected civilian will die quickly in a fire. Death can be from intense heat or from the exposure to quickly generated toxic combustion byproducts, including large amounts of carbon monoxide, oxides of nitrogen, hydrogen chloride, phosgene, and other highly toxic gases. In the interest of their own health and safety, civilians' only priority should be to escape the premises and notify their fire department as quickly as possible. To their credit, FRs can slow the spread of flames, allowing for more time to escape.

Fire fighters must wear SCBA and other protective clothing to assist in preventing heat and chemical exposures while fighting a fire. However, fire fighters are often exposed to highly toxic combustion byproducts after the fire is out and fire fighters search for further extension of the fire and to determine the cause of the incident. Therefore, in the interest of their own health and safety, fire fighters must wear effective respiratory protection and protective clothing during overhaul, clean-up, and investigations.

But this statement should not be interpreted as an exoneration of all FRs. The number and variety of these chemicals is too great to assume that all of them are acceptable and we know that important questions remain for some of these products. The fact that a consumer product uses an FR does not automatically make it unsafe and the fact that a product has an FR says nothing about whether it is safe for humans and the environment. Chemicals that are used to make products fire and flame retardant, whether halogenated products or other substances, must be evaluated and judged individually as to their safety to human and environmental health.

Accordingly, the producers of all FRs have a moral and legal obligation to know and reveal the health effects of their products, and to constantly seek to mitigate human and environmental risks. The life saving benefits of FRs is unquestionably essential to fire protection.

We applaud those FR companies that are developing environmentally safer fire retardant chemicals for use in consumer products, including plastics