

## BSEF Position Paper Essential Use of Flame Retardants

### Introduction and General Remarks

REACH Restriction and Authorisation are the two main regulatory processes for addressing the “most harmful chemicals”. As the Essential Use concept is proposed to be linked to the management of such chemicals, inclusion of the Essential Use Concept needs to complement the existing Restriction and Authorisation. As such, we believe the Essential Use Concept should be limited to SVHC substances.

REACH covers (almost) all chemicals. Therefore, the criteria for essential use need to be flexible enough to take into account the wide range of important uses of chemicals under REACH. There are chemicals with hazardous properties that are used safely and that have a very high benefit for society. However, according to the definition of essential uses in the Montreal Protocol these uses would not be considered as essential.

We advocate for an essential use concept that takes into account both the following aspects:

- the **safe use of a chemical**: if the chemical can be used safely it should not be banned (in REACH terms: the risk needs to be adequately controlled/ there must not be an unacceptable risk).
- the **social benefit of a use**: if the use has a demonstrably high benefit for society, it should not withhold the substance from going through appropriate risk management measures.

We advocate for an essential use assessment that is

- Based on sound science and an **assessment of the risk**, not only hazard.
- **transparent, predictable and proportionate** to the identified risk. Industry requires a level of certainty in order to make investment decisions.
- done on a **case-by-case analysis** of individual uses in the final products, without excluding entire industry sectors.

The European Commission will “define criteria for essential uses ...”. It is of utmost importance that this definition of the criteria for the essential use concept is balanced and clear.

### The Importance of Flame Retardants in appliances and homes

It is a well-known fact that we are surrounded by highly flammable synthetic materials (such as plastics used to manufacture electrical and electronic appliances, textile fabrics, thermal insulation, upholstered furniture in homes and cars) in our daily lives. Nevertheless, we rarely come across a serious fire in our homes (apartments and houses), offices or transport systems.

One of the reasons for these benchmark levels of fire safety is that stringent fire safety standards are in force for products where fire safety is a valid concern like those in high heat areas, in close proximity to electricity or that represent a high fuel load. Though the standards are often performance based - no specific requirements are delineated for materials of construction - in practice flame retardant chemicals are often then the means by which flammability is reduced. Flame retardants (FRs) are embedded in small amounts to neutralize fire.

Without fire safety standards and the corresponding use of FRs the risk for fire will greatly increase. FRs are therefore essential to society, preventing numerous deaths, injuries, and minimizing property damage.



### FRs support Chemical Strategy for Sustainability

Fire is an ever-present danger, and we can ill afford to live with its associated human and environmental losses – fire itself is inherently unsustainable.

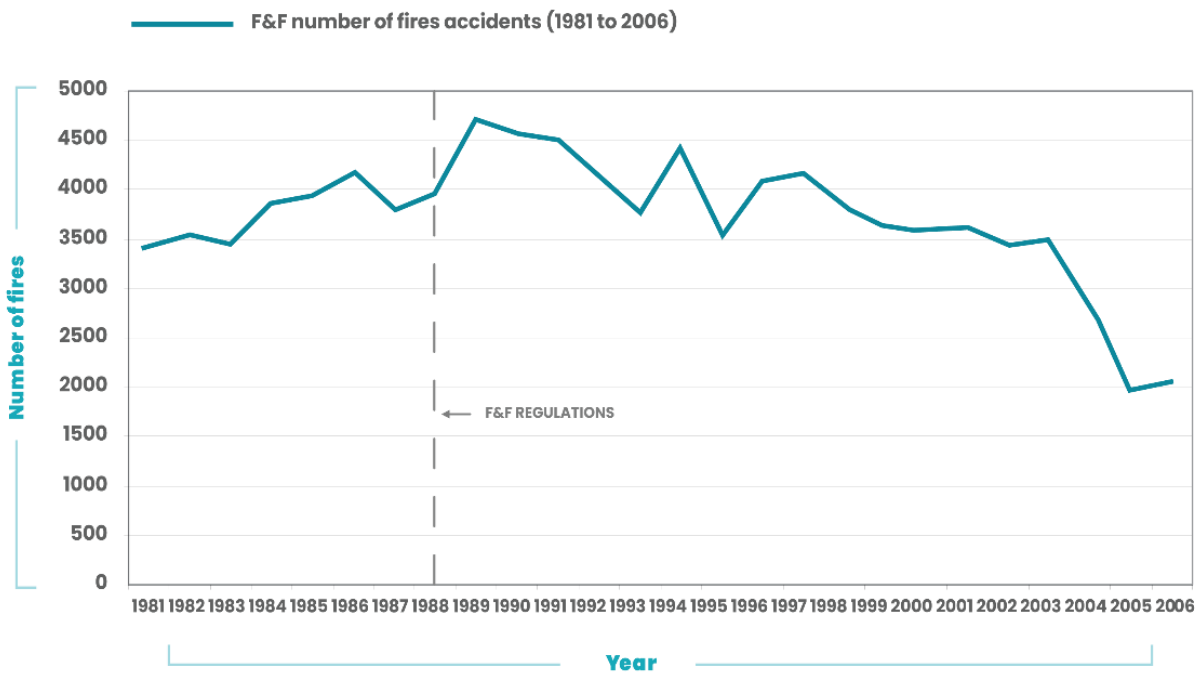
BSEF member companies are continuing to innovate with sustainability at the forefront.

- Insulation foam is a major contribution to lower energy consumption, **flame retardants are used to reduce fire risk originating from combustible insulation materials**, and as such contribute to reduction of CO2 emissions.
- For the transition from combustion to electrical mobility sophisticated batteries are needed, which increases the fire risk in cars, and to safeguard this transition, **flame retardants are crucial to secure fire safety in and around the car**.
- **BFR plastics represent nowadays a well-controlled stream**, which is easily sorted out during conventional and industrial recycling processes

Therefore, this end use of flame retardants takes on global significance in our quest for sustainable applications.

### Case Study – Value of Flame Retardant Regulations

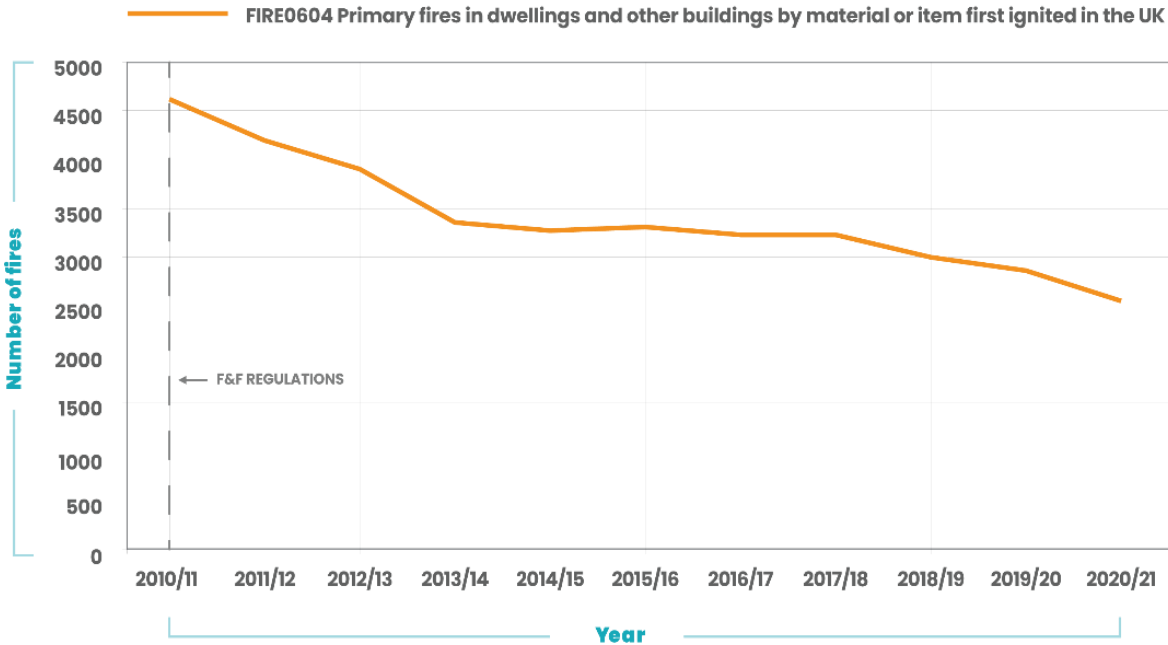
UK Government research has shown that the **UK Furniture Regulations** have saved thousands of lives since their inception in 1988. FRs are used to meet the fire standards set by these Furniture Regulations.



*Furniture & Furnishings (F&F) fire fatalities with material first ignited – 1981 to 2006 showing the effect of the UK furniture regulation (introduced in 1988). Source: [A statistical report to investigate the effectiveness of the Furniture and Furnishings \(Fire\) \(Safety\) Regulations 1988](#), commissioned by Consumer and Competition Policy Directorate, BIS*



Further revision and strengthening of the UK legislation in 2010 has led to a continued downward trend in fires.



Source: [FIRE0604 Primary fires in dwellings and other buildings by material or item first ignited in the UK](#)

### Fire fatality rates comparison

United Kingdom / Ireland, regions which have strong Furniture Fire standards, including open flame test, compared with the United States (California) and the rest of the European Union, both of which in general have poor standards, smoulder test only.

The table below shows the success of good standards in the UK and Ireland have led to half the amount of casualties per capita in comparison to that of the US & EU (minus UK & Ireland).

Country/Region	Deaths due to fire in the home (previous 3 years' data, ave.)	Population (millions)	Fire deaths per million head of population
USA	3,343 (NFPA)	327	10.2
EU 28, minus UK and Ireland	4,600 (est.)	442	10.4
England & Wales	286 (DCLG)	59	4.8
Ireland	27 (DHP&LG)	5	5.4



**Further information:**

For further information, please contact Patrick Fox, Head of Public Affairs & Advocacy ([pfox@bsef.org](mailto:pfox@bsef.org))

**About BSEF**

BSEF – the International Bromine Council, is the global representative body for bromine producers and producers of bromine technologies. Originally founded in 1997, BSEF works to foster knowledge on the societal benefits of bromine and its applications. The members of BSEF are Albemarle Corporation, ICL Industrial Products, Lanxess and Tosoh.

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