

Flame retardants

Chemical roundtable

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Key points

- Flame retardant use in the UK is some of the highest in the world
- Many are problematic at all stages of the life-cycle:
 - In normal use there is continual exposure via air, dust, ingestion, dermal absorption, food. Small children particularly vulnerable.
 - Occupational: fire-fighters and workers involved in production, assembly, building, disposal and recycling
 - During fires – evidence that FRs exacerbate yields of smoke and cyanide during fires
 - End of life: disposal, recycling and the circular economy are hindered

Hundreds of flame retardant studies documenting:

- Developmental, neurotoxic, endocrine, metabolic and other effects
- Population wide exposures (homes, offices, public buildings, vehicles)
- Widespread environmental contamination from the poles to the equator
- Replacement of PBDEs with other BFRs and organophosphate FRs
- At least 5 new studies of FRs every week

Question

Do chemical flame retardants ensure *safe* fire safety or are there better options avoiding the problems identified above?

To answer this requires considering the topic from 5 major themes which we shall now do