2016-022 CHEMTrust

CHEMTrust
Protecting humans and wildlife from harmful chemicals

Consultation Response

Consultation on updating the UK Furniture and Furnishings (Fire) (Safety) Regulations, September 2016

Response from CHEM Trust, November 2016

Introduction

CHEM Trust welcomes the opportunity to respond to this consultation, as the evidence shows that flame retardant chemicals have a long and problematic history. It is time that the UK moved into line with those countries and regions, notably California, who aim to both provide a good level of fire protection, and reduce the use of flame retardant chemicals.

CHEM Trust is a UK registered charity that works at European, UK and International levels to prevent man-made chemicals from causing long term damage to wildlife or humans, by ensuring that chemicals which cause such harm are substituted with safer alternatives. We particularly focus on endocrine disrupting chemicals (EDCs), and this has included work on a range of flame retardant chemicals, particularly the polybrominated diphenyl ethers (PDBEs).

CHEM Trust would like to thank Claudia Kuss-Tenzer of the Sustainability Network For Standardisation[1] for sharing her response to this consultation.

Our concerns

Why are flame retardants a problem?

This is not the place for a detailed analysis of the problems posed by flame retardants, and there is a great deal of information on the issue available on the Green Science Policy website[2].

However, the history of this group of chemicals is one of growing concerns, yet widespread use – particularly in the UK. This has led to a major problem of furniture in the UK being coated with chemicals which are, in many cases, now banned at EU level – and in some cases they are now classified as global POPs.

Despite the scientific evidence of the problems caused by many of these chemicals, their producers have continued to lobby for their continued use. In addition, the EU's chemicals regulatory systems are not yet managing to deal properly with this group of chemicals. Here are two examples:

- When registering the chemical Deca BDE under REACH the companies concerned claimed it had no hazardous properties, and so did not undertake an exposure

[1] http://www.sustainablestandards.org.uk
[2] http://greensciencepolicy.org/topics/flame-retardants/

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assessment. Meanwhile the European Chemicals Agency decided that it was a very persistent, very bioaccumulative (vPvB) substance and a persistent, bioaccumulative and toxic (PBT) substance in December 2012. As part of their recommendation to phase out most uses of Deca, the ECHA committees expressed their concern in December 2015 that the producing industry had still not updated its registration dossier to take into account the fact that Deca was identified as vPvB and PBT.[3]

- Although a number of Brominated Flame Retardants (BFRs) have had their use restricted in the EU, scientists are identifying further 'novel' or 'new' BFRs in dust in UK houses[4], in blood serum in Sweden[5] and in breast milk in Denmark (data presented at a conference, not yet published). This demonstrates that the EU regulatory system is not yet working effectively and rapidly enough to restrict the use of such chemicals

Lack of impetus for designing out flammability and toxicity

It is our analysis that the proposed regulations will effectively maintain the status quo, albeit within a revised testing regime, and do not create a strong enough impetus to change furniture design and construction to design out *both* flammability and toxicity.

The consultation document appears to place considerably less emphasis on the original policy objective of reducing the use of flame retardants, merely acknowledging that 'regulatory change has the potential to reduce the use of flame retardants in the production of furniture and bring associated benefits to industry and consumers' (p. 4).

We are also concerned that in attempting to address industry concerns over the 2014 proposals, the new proposals increase the complexity of the compliance regime, as exemplified by the decision tree under 'Summary route to compliance' (p. 21).

The Impact Assessment mentions a 'list of protective materials' which would provide a route to reducing the use of chemical flame retardants – however, this list does not appear to be included or discussed in the Consultation document.

Furthermore, the new requirement to test covers or interliners over combustion-modified foam (i.e. foam treated with chemical flame retardants) locks manufacturers into using flame retardants and runs counter to the idea of increasing flexibility for manufacturers to choose alternative and innovative materials and technologies to provide fire safety.

Ineffective FR labelling proposals

We welcome and support the proposal to require the indication of whether flame retardants have been used to comply with the Regulations and we agree with the statement made in the Impact Assessment that 'Better labelling will enable consumers to make informed choices'.

However, to make an informed choice, consumers need to be able to see this information at the point of purchase, similarly, for example, to the *visible* display label required to show the energy efficiency rating of energy-using products.

The proposals for a permanent label as set out do not provide an effective way for consumers to easily obtain this information at the point of purchase and therefore cannot be said to bring the consumer benefit claimed in the Impact Assessment.

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[3] *RAC and SEAC Opinion on an Annex XV dossier proposing restriction on Bis(pentabromophenyl) ether (DecaBDE)*, 2015 http://echa.europa.eu/documents/10162/b5ac0c91-e110-4afb-a68d-08a923b53275

[4] Al-Omran, L. S., & Harrad, S. (2016). *Distribution pattern of legacy and "novel" brominated flame retardants in different particle size fractions of indoor dust in Birmingham, United Kingdom.* Chemosphere, 157, 124-131.

[5] *Analysis of new brominated flame retardants in human serum and background air*, Swedish EPA, October 2016, http://naturvardsverket.diva-portal.org/smash/record.jsf?pid=diva2:999732

The label should also state the chemical substances used as flame retardants. The inclusion of this information has two benefits:

- it allows consumers to avoid products containing substances which may be under investigation by public authorities due to public and environmental health concerns at the time of purchase; and
- should a fire retardant substance be banned, this information will enable the appropriate handling of products at the end of their useful life.

From our own investigations, currently even retailers are ignorant of what chemicals are in the products they sell and are unable to ascertain this information upon consumer request.

What is the need for a 'more severe' match test?

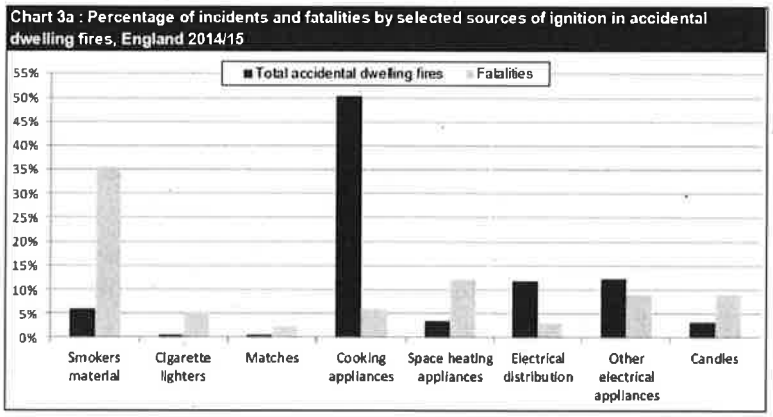
The impact assessment states that 'most fabrics which pass the match test will automatically pass the cigarette test because the match test is more severe'.

It also states that 'we do not have comparative data which allows us to assess whether UK regulations actually lead to safer furniture than the rest of the EU', where only a cigarette (smoulder) test is required.

Furthermore, there is a lack of conclusive evidence whether the use of flame retardants is responsible for the reduction of fire deaths and to what extent other factors such as the more widespread use of smoke alarms and the reduction in smoking have contributed to the fall in fatalities.

There is, however, overwhelming evidence on the effectiveness of smoke alarms in preventing fire deaths: in 2013-14 there were 322 fire-related deaths in the UK; the lowest recorded in the last fifty years. Dwellings with no smoke alarm accounted for 38% of deaths in home fires, and nearly one fifth of deaths occurred where a smoke alarm was fitted but did not work[6].

Smokers' materials (e.g. cigarettes, cigars or pipe tobacco) continue to cause by far the largest share of deaths in accidental dwelling fires. In 2013-14, smokers' materials caused 80 deaths (37%). By contrast, deaths due to ignition by an open flame stood at 22 fatalities in 2013-14 (breaking down as follows: 5 deaths due to ignition by matches, 6 due to cigarette lighters and 11 due to candles)[7]. The picture for 2014/15 was similar (see chart).



This suggests that requiring a 'more severe' match test is a disproportionate response to the level of risk resulting from open flame ignition sources.

Given that 50% of the 11 deaths caused by open flames are likely also related to smoking (i.e. the use of cigarette lighters and matches), fire safety interventions addressed

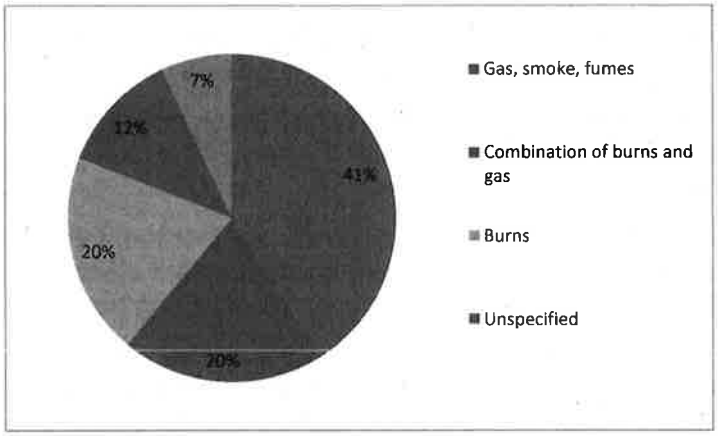
[6] UK Fire Statistics 2013/14, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/399299/Fire_Statistics_Great_Britain_2013-14.pdf
[7] ibid

specifically at smokers would be the most effective way of preventing fatalities, rather than exposing the entire population and the environment to potentially harmful chemicals.

Flame retardants and fume toxicity

BEIS' Impact Assessment states that 'in the USA, a majority of residential fire deaths result from inhalation of toxic gases, and soot and smoke can obscure escape.'

While not mentioned in the Impact Assessment, UK fire statistics show that this is also the case in the UK: 41% of fire-related deaths in Great Britain were caused by the victim being overcome by gas, smoke or toxic fumes – by far the largest cause of deaths in house fires. In addition, 20% of deaths are caused by a combination of burns and being overcome by gas or fumes[8] (see full breakdown in chart below).



The presence of flame retardants has been shown to increase the toxicity of fumes released in house fires, thereby reducing the capacity to escape a fire as a result of being overpowered by harmful fumes and gases.[9]

Reducing the use of flame retardant chemicals should therefore be a priority not only from a long-term consumer and environmental health perspective, but also because it has the potential to significantly reduce the number of fatalities caused by toxic gases in accidental house fires.

Summary

Over the past two years since the initial consultation in 2014, little progress has been made in implementing an improved test regime that provides adequate public health and safety assurance.

The current proposals add complexity, while providing little impetus for change in the design of furniture to reduce both flammability and toxicity.

On the contrary, the requirement for a 'more severe' match test and the use of CM-foam in the test set-up continued to lock manufacturers into the use of flame retardants as the simplest route to compliance.

The proposed permanent label to indicate whether the product contains flame retardants does not adequately provide consumers with information *at the point of purc*hase and therefore does not enable them to make informed choices.

[8] ibid

[9] *Halogenated Flame Retardants: Do the Fire Safety Benefits Justify the Risks?,* Reviews on Environmental Health Volume 25, No 4, 2010, Susan D. Shaw, Arlene Blum, Roland Weber, Kurunthachalam Kannan, David Rich, Donald Lucas, Catherine P. Koshland, Dina Dobraca, Sarah Hanson and Linda S. Birnbaum; *Assessment of the fire toxicity of building insulation Material,* Energy and Buildings, 43 (2-3), 2011, pp. 498-506, Anna A Stec and T Richard Hull

Our proposals

Cigarette test instead of match test

We favour a substantial simplification of the regulations. Furthermore, we would like to see changes to the accompanying test regime that remove the need for the use of flame retardants and create genuine impetus for designing out both flammability and toxicity.

We therefore propose the removal of the requirement for a match (open flame) test and the introduction of a cigarette (smoulder) test modelled on the Californian standard, Technical Bulletin 117-2013.

We believe this test maintains high levels of fire safety by addressing the largest cause of death in furniture fires, ignition by smokers' materials.

Furthermore, using a smoulder test instead of a match test not only has the potential to reduce the number of fire deaths resulting from the inhalation of toxic gases and fumes, but also prevents the unnecessary exposure of the entire UK population to proven and potentially harmful chemicals.

Visible display label

We would like to see the introduction of a requirement for a *visible display* label to provide consumers with point-of-purchase information on the presence and type of flame retardants contained in the product, similar to the EU energy label.

The requirement for a visible label to displaying the energy-rating of energy-using/related products at the point of purchase has been highly effective in driving measurable market transformation with regards to reducing the energy consumption of appliances.

We believe a visible label displayed at the point of purchase would have a similar market transformation effect in the UK furniture industry by empowering consumers to make genuinely informed purchasing decisions.