pinfa

Newsletter for non-halogen fire safety solutions

February 2011 - N°7



Innovation

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New staff, new challenges for pinfa

Philippe Salemis is the new Sector Group Manager for pinfa (Phosphorus Inorganic and Nitrogen Flame Retardants) at Cefic (the European Chemical Council). He is also appointed manager of EFRA, the European Flame Retardant Association. Mr Salemis is Greek-born, and has lived and worked in France, Italy, Spain, the Netherlands, the UK and Belgium. Trained in chemistry and biochemistry, he has 20 years of industry experience in R&D, production, marketing and management, in particular in resins and adhesives, enriched by 5 years experience in Cefic managing various sector groups and REACH. "*pinfa has a strong positive message, with chemicals which can help prevent fires and save lives, whilst respecting environmental objectives. pinfa will continue to develop initiatives with other actors to promote this contribution to better products and a safer world".*

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World fire statistics: cost of fire continues to rise

The cost of fire (direct losses) continued to rise in nearly all of the 15 countries for which yearly data are available across the world from 2005 to 2007 (most recent available data), according to the annual "World Fire Statistics" bulletin. Only the UK and Singapore showed reductions in fire costs. Direct cost of fire is estimated at 0.05 – 0.26% of GDP, for different countries, plus indirect losses of 0.002 – 0.095 % of GDP. Fire deaths, on the other hand, have fallen in most countries. The Bulletin editorial underlines the need to now bring forest fires into the cost accounting for fire risk, the importance of placing fire within national risk management strategies, and the role of fire as one area of "vulnerability" of today's societies.

"World Fire Statistics", Annual Bulletin of the World Fire Statistics Centre (Geneva Association – International Association for the Study of Insurance Economics)www.genevaassociation.org

French national TV shows fire dangers of furniture

A news report on French national television France2 (13th December 2010) emphasises the fire dangers of upholstered furniture. The programme is based on the consumer association UFC Choisir study (see pinfa News n°4) showing that 12/13 sofas tested ignited in contact with a small flame. France2 shows a simple office chair becoming a ball of flame within 30 seconds in a test carried out by the fire services, who state that the toxic smoke released endangers fire fighters and kills people every year in France. The TV indicates that furniture is required to be fire safe in the UK, and if sold to public organisations in France, but that furniture manufacturers have blocked proposed decrees requiring safety for furniture sold to the public in France, for reasons of cost. The solution, the report states, is fire-safety treated fabrics. pinfa members provide PIN (phosphorus, nitrogen and inorganic) flame retardants which can be used to achieve this.

France2 National News, 20h00, 13th December 2010 www.france2.fr

UFC Que Choisir, n°485 October 2010 "Inflammabilité des canapés, 13 testés, 12 recalés" www.quechoisir.org

Mount Carmel forest fire, Israel

The forest fire on Mount Carmel, South of Haifa, Israel, which started on 2nd December 2010, was the most deadly in the country's history, killing 44 people, including several police personnel involved in safety operations. The fire raged for four days. 17 000 people were evacuated and around 10 000 hectares of forest burnt. 41 of the victims died when a bus transporting prison cadets was caught in the fire. Many countries sent assistance to Israel including Azerbaijan, Egypt, Jordan, Russia, Turkey, the USA and a number of EU States.

Sources: divers media including http://www.ynetnews.com/articles/0,7340,L-3994847,00.html

Reducing the fire risk of accumulated paint

In an article in Fire Protection International, David Spicer of Crown Paints explains how flame retardant coatings buy valuable time to evacuate buildings if fire breaks out. The accumulation of layers of conventional paints can cause building materials to lose their resistance properties, and allow fire to spread dangerously. In one case, a 50 m corridor in a UK hospital (Moston, Cheshire, 1972) was full of flames three minutes after a fire started in a ward area. Subsequent investigation showed that an accumulated build-up of 18 layers of paint on the walls meant that the underlying plasterboard was no longer Class 0 fire protection rated, but had deteriorated to Class 4. Appropriate fire safety basecoats mean that existing paints can be covered (provided that physical adhesion is adequate) with an appropriate flame retardant system, then repainted with whatever finish is required. Crown Paints' Timonox Intumescent Basecoat coating is halogen-free, and other PIN (phosphorus, nitrogen, inorganic) fire safety solutions are available from pinfa members and other suppliers.

Crown Paints Timonex Flame Retardant Coatings: http://www.crowntrade.co.uk/Specifiers/TimonoxFlame

Tor Coatings « How safe are the painted surfaces in your buildings »: http://www.tor-coatings.com/_assets/library/339.pdf

International Fire Protection (IFP) Magazine, n°44, November 2010, pages 65 – 68, David Spicer, Crown Paints« Buying valuable time ». Article available in the online magazine at: www.ifpmag.com

28 die in Bangladesh clothing factory fire

28 workers were killed and over 100 injured in a fire at the 12-storey "That's It Sportswear" textile factory in Ashulia, in the suburbs of the Bangladesh capital Dhaka on 13th December 2010. The factory employed 10 000 workers, but most were fortunately out at lunch when the fire broke out. Some reports claim that a number of the factory exits were locked, preventing workers escaping. According to human rights organisations, the factory, owned by Bangladesh's fifth largest clothing manufacturer, produces garments for major retailers including as GAP, Wrangler, JC Penney, Abercombie & Fitch, Target, Osh Kosh B'Gosh, H&M, Walmart ... In response, GAP and Philips-Van Heusen have already agreed to change their sourcing practices. This is not the first major fire in Bangladesh clothing factories, where flammable cloth and garments can ignite easily and burn ferociously. 21 died in a fire at the Garib and Garib Newaj garment factory, Gazipur on 25th February 2010.

Human rights organisation position:
http://humanrights.change.org/blog/view/workers_burned_alive_making_cloths_for_the_gap

Financial Times FT.com media coverage: http://www.ft.com/cms/s/0/f2c8afa0-07d3-11e0-8138-00144feabdc0.html#axzz1BNTHQl1z

Industry transition to green electronics

A first television presented as completely free of brominated flame retardants and PVC has been launched by Philips. The Philips 42" Econova LED TV is marketed as "*PVC and brominated flame retardant free - halogen and PVC free design*", as well as offering low electricity consumption, use of 60% recycled aluminium, design for dismantling and recycling. The TV has won the EISA (European Imaging and Sound Association) Green TV Awards 2010-2011. Philips in Europe indicates that the its flat screen TV housings and its consumer products mains adapters are all brominated flame retardant free, and that the company is continuing to work towards using no brominated flame retardants in any of the company's products. Greenpeace indicate that Acer, HCL, Hewlett Packard and Wipro have also recently launched lines of brominated flame retardant free and PVC free computers and printers. PIN (Phosphorus Inorganic and Nitrogen) flame retardants, often combined with design changes and different materials choices, can enable fire safety objectives to be achieved in electronics equipment,

Philips policy on voluntary phase-out of brominated flame retardants:
http://www.philips.com/about/sustainability/environmentalresponsibility/chemicalmanagement.page

Philips ECONOVA TV specifications: http://www.philips.fr/c/televiseurs/econova-televiseur-numerique-philips-107-cm-full-hd-1080p-42pfl6805h_12/prd/?t=specifications

Greenpeace "Greener Electronics" report update: http://www.greenpeace.org/international/en/news/features/Greener-electronics-guide-updated

See also pinfa News n°3:
ChemSec report May 2010 "Electronics Without Brominated Flame Retardants and PVC – a Market Overview"
http://www.chemsec.org/news/539-chemsec-report-lists-500-products-free-from-brominated-flame-retardants-and-pvc

Report: "The Fight to Know? Substances Of Very High Concern & The Citizens' Right To Know Under Reach", October 2010 : http://www.eeb.org/EEB/?LinkServID=8BBC1DF8-C9C7-8B93-CA5F42033F11A3AD

Fire safety of solar panels on roofs

Tests carried out by UL (Underwriters Laboratories) and Solar ABCs show that roof mounted solar photo-voltaic panels can in some cases reduce the fire resistance of roof coverings, despite the non-flammability of the panel itself. This appears to be the result of a “channelling effect” in the space between the panel and the roof, holding hot gases and flames close to the roofing material. Flammability Class A or C panels mounted on the different Class A rated roofing materials tested (asphalt impregnated fibreglass, cedar wood shake shingle, isocyanurate foam in an ethylene propylene membrane) all resulted in Class C flame spread, that is > approx 2.5 m. The report concludes that this effect depends partly on the distance between the PV panel base and the roof edge.

Flammability Testing of Standard Roofing Products in the Presence of Stand-off Mounted PV Modules, UL Laboratories & Solar ABCs www.solarabcs.org/flammability/

Fire safety in timber buildings – Technical Guide

A first European guide on the fire safe use of wood in buildings has been published by SP Sweden, following the EU research project “FireInTimber” (Fire Resistance of Innovative Timber Structures), part of the WoodWisdom-Net research programme. The Guide covers scientific knowledge, application of European codes and standards, examples and principles for fire safe and performance based design. It will provide potential input to the next revision of the fire part of Eurocode 5.

WoodWisdom-Net http://www.woodwisdom.net/

SP Sweden report 2010:19 “Fire safety in timber buildings - Technical guideline for Europe” (price 500 SEK): http://www-v2.sp.se/publ/user/default.aspx?lang=eng&RapportId=11001#11001

FireInTimber research project: http://www.woodwisdom.net/mm_files/do_849/fireintimber_newsletter_nov_2008.pdf

London Assembly calls for tighter building fire safety

The elected local government council of London (London Assembly) has issued a report calling for better fire safety in high rise and in timber-framed buildings. The Assembly’s chair, Nicky Gavron, stated: “*There is a crisis of confidence about the safety of tall and timber-framed buildings and the government and construction industry must act now to tighten regulations and reduce fire risk. As we construct at higher densities and with more environmentally friendly materials we will see more tall and timber-framed buildings. It is therefore vital to current and future residents that we get fire safety absolutely right*.” Key report recommendations

indicate that timber buildings are safe once completed, if not inappropriately modified, but should not be occupied until finished, and calls for full fire risk assessments of all high-rise buildings, including informing residents about what to do in case of fire.

London Assembly: http://www.london.gov.uk/media/press_releases_london_assembly/assembly-issues-wake-call-over-fire-risks-tall-and-timber-frame

Report "Fire Safety in London - Fire risks in London's tall and timber framed buildings", December 2010: http://www.london.gov.uk/who-runs-london/the-london-assembly/publications/housing-planning/fire-safety-in-london

New labelling rules for EU construction products

The European Union has agreed new rules on labelling of building products, updating the Construction Products Directive (89/106/CEE) introducing the requirement to clearly indicate where hazardous substances are present. The "Declaration of Performance" already obligatory for construction products, will be "*accompanied by information on the content of hazardous substances in the construction product*". The EU Commission will also prepare a report assessing the "*specific needs for information on hazardous substances in construction products ... with a view to completing the range of substances covered*". The text agreed between Council and the EU Parliament Internal Market Committee is expected to be voted by the Plenary EU Parliament and Council with application from July 2013.

EU Parliament press release: http://www.europarl.europa.eu/en/pressroom/content/20110110IPR11481/html/Constructionproducts-new-rules-on-labelling-of-hazardous-substances

EU Construction Products Directive revision page: http://ec.europa.eu/enterprise/sectors/construction/documents/legislation/cpd/index_en.htm

US Green Buildings Council looks at flame retardants

The US Green Buildings Council has announced a project to investigate updating the LEED (Leadership in Energy and Environmental Design) certification criteria to exclude phthalates and halogenated flame retardants (including but not limited to HBCD, Penta-, Octa-, and Deca- BDEs, TBBPA, TCPP, TCEP and Dechlorane Plus). The objective is to pilot test LEED building projects which "*reduce the quantity of indoor contaminants that are harmful to the comfort and well-being of installers and occupiers*" by specifying interior building materials and products which do not contain these chemicals.

Green Science Policy Institute position: http://greensciencepolicy.org/newsletter-what-your-couch-new-leed-credit-avoiding-toxics-inside-buildings

US Green Buildings Council (USGBC) Pilot Credit 11 "Chemical Avoidance in Building Materials" : http://www.usgbc.org/ShowFile.aspx?DocumentID=8149

Abbreviations

ATO:	Antimony trioxide.
BEHTBP:	bis(2-ethylhexyl)tetrabromophthalate,
BFR:	Brominated Flame Retardants include
BTBPE:	(1,2-bis(2,4,6-tribromophenoxy)ethane
BTBPE:	Bis(2,4,6,-tribromophenoxy)ethane
CFR:	Chlorinated Flame Retardants
DBDPE:	decabromodiphenylethane
Deca-BDE:	Decabromodiphenyl ether
HBB:	Hexabromobenzene
HBCD:	Hexabromocyclododecane
PBB:	Polybrominated biphenyls
PBDE:	Polybromo diphenyl ethers
PVC :	Polyvinyl chloride
TBB:	2-ethylhexyl-2,3,4,5-tetrabromobenzoate
TBBPA:	Tetrabromobisphenol
TBP:	2,4,6-tribromophenol
TCEP:	Tris(2-chloroethyl)phosphate
TDCP :	Tris[2-chloro-1-(chloromethyl)ethyl]phosphate
TDCPP:	1,3-dichloroisopropyl phosphate
SCPP:	Short-chain chlorinated paraffins

Agenda 2011

Events with active pinfa participation are marked: ▶

15 Mar.	Amsterdam, The Netherlands	ENFIRO workshop (EU 7th Framework Programme) From Hazard to Product Evaluation: How can we make chemical substitution work? A case study of flame retardants substitution pim.leonards@ivm.vu.nl
15-17 Mar.	▶Köln, Germany	Cables (AMI): http://www2.amiplastics.com/Events/Event.aspx?code=C376&sec=1366
12- 14 April	Mexico City	NFPA Mexico Fire Expo http://www.rocexhibitions.com/mfe2010/index.html
22-24 March	Sydney, Australia	Fire Safety Engineering Australia International Symposium on Fire Protection http://www.sfs.au.com/
1-5 May	▶Boston, USA	Society of Plastics Engineers ANTEC conference, www.spe.org
5-7 May	New Delhi, India	Fire Engineering India www.fireengineering-india.com
16-19 May	Birmingham, UK	International FIREX http://www.info4fire.com/internationalfirex/
22-25 May	Stamford, New York, USA	22nd Annual Recent Advances in Flame Retardancy of Polymeric Materials, short course and conference http://www.bccresearch.com/conferences.php
25-27 May	Paris, France	Eurofire – 5th European Conference Fire Safety Engineering, trends and practical applications www.eurofireconference.com
9 June	Edinburgh, Scotland	Science of Suppression http://www.eng.ed.ac.uk/FIRESEAT/
12-15 June	Boston, Massachusetts	NFPA Conference and Exhibition http://www.nfpa.org/categorylistconf.asp?categoryID=1600
16 June	Anaheim, California	Uncertainty in Fire Standards and What to do About It (ASTM) http://www.astm.org/SYMPOSIA/filtrexx40.cgi?+-P+EVENT_ID+1711+/usr6/htdocs/astm.org/SYMPOSIA/callforpapers.frm
16-17 June	▶Denver, Colorado	Fire Retardants in Plastics http://www2.amiplastics.com/Events/Event.aspx?code=C400&sec=1617
19-24 June	University of Maryland, Washington DC	10th International Symposium on Fire Safety Science http://www.iafss.org/html/Maryland/marylandhome.htm
19-21 Sept	New Delhi, India	Fire India 2011 www.fire-india.com