



AMERICAN FIRE SAFETY COUNCIL

International Symposium on Flame Retardants and Fire Safety

Grand Hyatt San Francisco
345 Stockton Street,
San Francisco, California, USA 94108
Tel: (415) 398-1234 Fax: (415) 391-1780

DAY 1: SUNDAY, OCTOBER 7, 2007

5:00 PM – 6:00 PM **CONFERENCE CHECK-IN OPEN**
Grand Terrace
Mezzanine Level

5:00 PM – 6:30 PM **WELCOME RECEPTION**
Grand Terrace
Mezzanine Level

DAY 2: MONDAY, OCTOBER 8, 2007

8:00 AM – 3:00 PM **CONFERENCE CHECK-IN OPEN**
Outside "San Francisco" Room
Theatre Level

8:15 AM – 8:45 AM **CONTINENTAL BREAKFAST**
"San Francisco" Room

8:45 AM – 8:55 AM **WELCOME REMARKS**
Laura Ruiz, Chair
American Fire Safety Council

8:55 AM – 9:00 AM **INTRODUCTION TO "FIRE SAFETY" SESSION**
Susan Landry, Albemarle Corporation

9:00 AM – 9:30 AM **DR. JUERGEN TROITZSCH** (FIRE SAFETY)
Fire and Environment Protection Service (FEPS), Wiesbaden, Germany
"Monitoring New Trends in Fire Safety"

- The discussion of the new trends in fire safety as they relate to:
building, transportation (motor vehicles, ships, rail), electrical and
electronic equipment and upholstered furniture and mattresses.

9:30 AM – 10:00 AM **MS. AMY HAMEL** (FIRE SAFETY)
Center for Campus Fire Safety
"The Firewise Campus Initiative" for US Colleges & Universities

10:00 AM – 10:30 AM **MR. BRAD PABODY** (FIRE SAFETY)
*Fire Program Specialist, U.S. Fire Administration, National Fire Data
Center (NFDC)*
"The National Fire Incident Reporting System"



AFSC

- 10:30 AM – 10:45 AM COFFEE BREAK**
- 10:45 AM – 11:15 AM MR. JOHN McCORMACK** **(FIRE SAFETY)**
*Formerly with State of California Department of Consumer Affairs,
 Bureau of Home Furnishings*
 “An Overview of California Home Furnishings Fire Regulations”
- 11:15 AM – 11:45 AM MS. SUSAN D. LANDRY** **(FIRE SAFETY)**
Albemarle Corporation
 “Automobile Fire Safety”
- 11:45 AM – 1:00 PM NETWORKING LUNCH**
 Grand Terrace
 Mezzanine Level
- Sponsored by: Albemarle Corporation
- 1:00 PM – 1:30 PM DR. MARCELO M. HIRSCHLER** **(FIRE SAFETY)**
GBH International
 “Recent Activities in U.S. Codes“
- Detailed updates on activities related to the updating and changing of the major codes of interest to the flame retardant chemicals industry such as: International Code Council (ICC), National Fire Protection Association (NFPA), National Electrical Code (NEC), and Uniform Mechanical Code (UMC)
- 1:30 PM – 2:00 PM MR. GORDON DAMANT** **(FIRE SAFETY)**
Former Chief, California Bureau of Home Furnishings and Thermal Insulation
 “Use of CAL-117 and its Benefits”
- 2:00 PM – 2:45 PM FIRE SAFETY PANEL DISCUSSION** **(FIRE SAFETY)**
- 2:45 PM – 2:50 PM WRAP-UP OF FIRE SAFETY**
 Susan Landry, Albemarle Corporation
- 2:50 PM – 3:10 PM COFFEE BREAK**
- 3:10 PM – 3:15 PM INTRODUCTION TO “INNOVATIONS IN FR TECHNOLOGY” SESSION**
 David Sanders, Chemtura Corporation
- 3:15 PM – 3:45 PM MS. HU YAN** **(INNOVATIONS in FR)**
Hangzhou JLS Flame Retardants Chemical Co., LTD., China
 “Research and Application of Halogen-Free Flame Retarding Thermoplastic Polyurethane Elastomer”
- Focus on the study of creating a flame retardant halogen-free thermoplastic polyurethane elastomer (TPU) compound.
- 3:45 PM – 4:15 PM MR. MENG YE** **(INNOVATIONS in FR)**
Shandong Ocean Chemical Industry Scientific Research Institute, China
 “The Safety and Environmental Protection in the Production Procedure of Fire-Retardant Additive Containing Bromine”
- Introduction of the market development and direction of industrial development of a fire retardant additive in China.



4:15 PM – 4:20 PM **WRAP UP OF THE DAY'S SESSION**
David Sanders, Chemtura Corporation

5:00 PM – 6:30 PM **NETWORKING RECEPTION**
Grand Terrace
Mezzanine Level

Sponsored by: Chemtura Corporation

DINNER **(Attendees on own)**

DAY 3: TUESDAY, OCTOBER 9, 2007

8:00 AM – 3:00 PM **CONFERENCE CHECK-IN OPEN**
Outside "San Francisco" Room
Theatre Level

8:00 AM – 8:30 AM **CONTINENTAL BREAKFAST**
"San Francisco" Room

8:30 AM – 9:00 AM **DR. WEI PING** (INNOVATIONS in FR)
School of Chemistry and Chemical Engineering, Shanghai Jiao Tong University, China
"A Novel Silicon-Containing Flame Retardant and its Application in the PC/ABS"

9:00 AM – 9:30 AM **PROF. ZHOU WEIPING** (INNOVATIONS in FR)
Department of Chemical Engineering, Huizhou University, China
"A Research on Surface Modification of Aluminum Hydroxide with Rare-Earth Coupling Agent"

- Study on the wet surface modification of aluminum hydroxide, an ultra-fine inorganic fire retardant powder, with rare-earth coupling agent and compounding modifier. Research further explores the optimal modification conditions of aluminum hydroxide such as percentage of content, concentration of material slurry and rate and time of mixing.

9:30 AM – 10:00 AM **MR. DOUG LUTHER** (INNOVATIONS in FR)
Albemarle Europe SPRL
"Update on Recyclability of Brominated Polystyrene – The Sustainable FR for Electronic Applications"

- Updated data will be provided that will highlight the features of new brominated polystyrene (BrPS) flame retardants and the benefits they provide to members of the electronics value chain (OEMs, connector manufacturers, molders, resin manufacturers, etc.)
- A comparison of the new BrPS flame retardants versus competitive technologies will be presented so that end users can select the most effective flame retardants for their applications.

10:00 AM – 10:30 AM **DR. JINHWAN KIM** (INNOVATIONS in FR)
Department of Polymer Science and Engineering, SungKyunKwan University, Korea
"Synthesis and Characteristics of Various Novel Organo-phosphorus Flame Retardants"



- A discussion on the synthesis of a series of novel bicyclic phosphonates, bicyclic phosphates, alkyl or aryl spiro-bisphosphates, and alkyl or aryl spiro-bisphosphates in an attempt to obtain UL-94 V0 rating of ABS by adding a flame retardant alone. The result was flame retardancy that is strongly dependent on the P content of flame retardant and its solubility is strongly dependent on the nature of pendant group adjacent to P element.

10:30 AM – 10:50 AM COFFEE BREAK

10:50 AM – 11:20 AM DR. SERGEI LEVCHIK (INNOVATIONS in FR)
Supresta (part of ICL)
 “New Phosphorus-based Flame Retardants for Electronic Equipment”

11:20 AM – 11:50 AM DR. STEPHEN FALLOON (INNOVATIONS in FR)
Chemtura Corporation
 “Development of Sustainable Bromine Based Flame Retardants for Flexible Polyurethane Foam”

- A discussion on the recent development of environmentally friendly bromine based flame retardants for flexible polyurethane foam.

11:50 AM – 1:30 PM LUNCH (Attendees on own)

1:30 PM – 2:00 PM DR. JEFFREY GILMAN (INNOVATIONS in FR)
Research Chemist, Materials and Products Group, Fire Research Division, National Institute of Standards and Technology (NIST)
 “Nanocomposites Base Flame Retardants Research at NIST”

- NIST has been focusing on studying the mechanism of nanocomposite flame retardants in thermoplastics and applying it to crosslinked systems such as polyureas and polyurethane foams. This presentation will review some of these results, present the current mechanistic understanding of the flame retardant system and some of the new characterization tools such as confocal microscopy and TEM image analysis and rheology.

2:00 PM – 2:05 PM WRAP-UP OF INNOVATIONS IN FR TECHNOLOGY
 David Sanders, Chemtura Corporation

2:05 PM – 2:10 PM INTRODUCTION TO “REGULATORY & ENVIRONMENTAL INITIATIVES” SESSION
 Mark Buczek, Supresta (*part of ICL*)

2:10 PM – 2:55 PM DR. SANDER KROON (REG & ENV INITIATIVES)
Supresta (part of ICL)
 “A European Update – Flame Retardants, REACH and More”

- A discussion on how the flame retardant manufacturers are preparing for REACH, lessons from the past that can be applied to life under REACH, the involvement of polymer processors.
- Other European regulations such as RoHS and WEEE.
- Ecolabeling
- An overview of PEFRC activities to date, its members, and its projects.

2:55 PM – 3:15 PM COFFEE BREAK



- 3:15 PM – 3:45 PM** **MR. SHIGERU MATSUMI** **(REG & ENV INITIATIVES)**
Executive Director, Flame Retardant Chemicals Association of Japan (FRCJ)
 “Introduction of FRCJ and the Japanese Perspective of Environmentally Friendly (Green) Flame Retardants”
 - A Japanese perspective of environmentally friendly flame retardants in each category: brominated, phosphorus and antimony trioxide.
- 3:45 PM – 3:55 PM** **WRAP UP OF THE DAY’S SESSION WITH OVERVIEW OF DINNER AND KEYNOTE SPEAKER**
 Mark Buczek, Supresta (*part of ICL*)
- 6:00 PM – 8:00 PM** **DINNER** **(KEYNOTE)**
 Keynote Speaker: Dr. Patrick Moore
 “The Importance of Fire Safety, the Value of Flame Retardants and How It Fits into the Larger Sustainability Plan”
 Bay View Room
 36th Floor
- Sponsored by: Supresta (*part of ICL*)

DAY 4: WEDNESDAY, OCTOBER 10, 2007

- 8:00 AM – 8:30 AM** **CONTINENTAL BREAKFAST**
 “San Francisco” Room
 Theatre Level
- 8:30 AM – 9:00 AM** **MR. CLIVE DAVIES** **(REG & ENV INITIATIVES)**
Office of Pollution Prevention and Toxics, Design for the Environment (DfE) Branch, U.S. Environmental Protection Agency
 “Flame Retardants in Printed Circuit Board Partnership”
 - The U.S. EPA is currently convening a voluntary partnership to investigate flame retardants in printed circuit boards. The partnership incorporates life-cycle thinking into the project as it explores the potential hazards associated with flame retardants and potential exposures throughout the life cycle of flame retardants as used in FR-4 printed circuit boards.
- 9:00 AM – 9:30 AM** **MR. TIM SHESTEK** **(REG & ENV INITIATIVES)**
American Chemistry Council
 - An update on California’s legislative and regulatory activities.
- 9:30 AM – 10:00 AM** **MS. EPHI BANAYNAL** **(REG & ENV INITIATIVES)**
Palm, Inc.
 “Environmental Stewardship: Successes and Challenges in the Electronics Industry”
- 10:00 AM – 10:20 AM** **COFFEE BREAK**
- 10:20 AM – 10:30 AM** **OVERVIEW OF VECAP** **(REG & ENV INITIATIVES)**
 Susan Landry, Albemarle Corporation
- 10:30 AM – 11:00 AM** **MR. JOHN D. FRIDDLE** **(REG & ENV INITIATIVES)**
Eagle Performance Products



Voluntary Emissions Control Action Programme (VECAP) from a User's Perspective.

- 11:00 AM – 11:30 AM DR. DAVID SANDERS** (REG & ENV INITIATIVES)
Bromine Science Environmental Forum (BSEF)
"Regulatory Update on Brominated Flame Retardants"
- 11:30 AM – 11:35 AM WRAP-UP OF REGULATORY AND ENVIRONMENTAL INITIATIVES**
Mark Buczek, Supresta (*part of ICL*)
- 11:35 AM – 11:45 AM CLOSING REMARKS**
Laura Ruiz
AFSC Chair

