



AGENDA
TECHNICAL PROGRAM
Omni La Mansion del Rio
San Antonio, TX
November 3, 2016

1:45 PM

2012 – 2015 Update: Survey of the Incidence of Occupational Asthma Among FPF Slabstock Plants -- Presented by: Jim McIntyre, McIntyre & Lemon, PLLC

Abstract: The combined results from foam production worker surveys covering 1988 – 2015 indicate that the incidence of self-reported occupational asthma is very low, representing less than 2% of the surveyed worker population from plant production areas. The incidence of medically confirmed cases of occupational asthma was even lower among the participating manufacturing sites representing more than 90% of U.S. FPF production volume. The very low number of self-reported or medically diagnosed cases of occupational asthma suggests that existing workplace technologies continue to provide effective ways to mitigate possible exposure to isocyanates in the workplace.

2:15 PM

Variable Pressure Foaming Using the Vertifoam Process – Presented by: Bill Blackwell, Opus Technical Ltd

Abstract: The purpose of this paper is to show how two well-proven foaming systems (VPF and Vertifoam) have been combined to make a brand new foaming process with advantages that are greater than the sum of its two halves. This paper explains the technical and commercial advantages of each process and shows how a range of new foam products with unique physical properties and price advantages can be produced which allow the foamer to expand into new markets with significant increases in profitability. It will show how the VPF-V process is affordable and compatible with all sizes of foaming companies and it will demonstrate how polyurethane foams can be engineered to meet new demands.

2:45 PM

New Flame Retardants Developments for the Flexible Foam Market – Presented by: Munjal Patel, ICL-IP America, Inc.

Abstract: Flame retardants (FR's) play an important role in public fire safety. In automotive polyurethane (PU) foams, the use of flame retardants has been effective in preventing ignition and reducing the number of vehicular fires. There are initiatives including Proposition 65 in California, GADSL (Global Automotive Declarable Substance List) and legislative bills that require the development of new products to replace the traditionally used tris(dichloropropyl) phosphate (TDCP). The interest in sustainable new product offerings has become a priority for consumers and producers of flame retardant products. ICL-IP America, Inc. (ICL-IP) has developed reactive and/or halogen-free flame retardant products to meet the ongoing challenges of today's market where superior fire test performance and product sustainability are required. The focus of this paper will be on the introduction of a new reactive FR for use in flexible polyurethane foam. Flammability, scorch, fogging (FOG) and volatile organic compound (VOC) performance data are presented for the new product, illustrating its advantages over the commercially available product offering TDCP in automotive flexible foam applications. This paper documents a series of evaluations using laboratory bench scale tests to show improvements in the combustion and emission properties with this new product offering.

BREAK

3:30 PM

Detection of Isocyanates in the Workplace Using IMS Instruments – Presented by: Frank Thibodeau, Bruker Detection

Abstract: The military in various countries around the world has used Ion Mobility Spectrometry (IMS) based detectors to protect personnel, platforms, facilities and even regions from the effects of chemical attacks for more than 40 years. IMS is a scientific technique of measuring ions across a uniform electric field. It is based on the principle that when different charged molecules (ions) are accelerated through an electric field (with a "drift flow" of gas slightly opposing them), they will travel at different speeds and reach a detector at different times. The advantages of IMS instruments are that they are designed in relatively small packages, fairly inexpensive, rugged, extremely fast and extremely sensitive. Disadvantages are that resolution and selectivity is limited resulting in smaller libraries and potential for false positives. However, in the industrial setting where chemical environments are known, disadvantages are easily compensated for certain hazardous compounds. Bruker's success in optimizing and developing best in class IMS can assist industry in protecting workers and communities while improving productivity and the bottom line.

4:00 PM

Ester Flexible Foam Performance Comparisons Between EG Azelate (C₉) and DEG Adipate (C₆) Polyols – Presented by: Michael Brooks, Emery Oleochemicals

Abstract: EMEROX® Polyols are made from dibasic acids that are produced from Emery Oleochemicals' proprietary ozonolysis technology. These polyester polyols possess a high level of renewable content while providing all the structural design freedom of petrochemical-based polyols. A broad range of functionalities and molecular weights are available including highly-branched to linear structures with high-to-moderate reactivity (primary and/or secondary hydroxyl groups). Emery Oleochemicals has developed EMEROX® 14060, an EG azelate C₉ ester polyol for flexible foam and C.A.S.E. applications. This paper compares polyol structures and physical parameters as well as ester flexible foam performance properties for EMEROX® 14060 and a traditional DEG adipate C₆ polyol in typical 2 pcf formulations. Overall, EMEROX® 14060 meets and exceeds (enhanced hydrophobicity, reduced hydrolytic degradation, and increased hydrocarbon resistance) the performance properties obtained from traditional DEG adipate polyester polyols for many applications and should be considered as a superior alternative.

4:30 PM

Recent JFLEX Technology Developments – Presented by: Jim Shoup, Hennecke, Inc.

Abstract:

This presentation details recent JFLEX technology developments that allow efficient smaller-scale production of a wider range of flexible polyurethane foams including high resilience, viscoelastic, high-load and low density foam varieties. Physical properties for a range of possible value-added products will be shared. The paper also explains and demonstrates new machine innovations to improve vertical cell orientation and to help produce consistent smaller-volume products with excellent cell structure.

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Antitrust notice: It is the policy of the Polyurethane Foam Association to comply in all respects with federal and state antitrust laws. This meeting will follow a formal, pre-approved agenda. Accordingly, discussion of any matters relating to competition or relating to practices that may restrain trade with third parties is not permitted. These prohibited subjects include prices, discounts, allocating territories or customers, boycotts or any other statements that may be construed as being anti-competitive.