

**Experien Health Sciences, Inc.**

**Industrial Hygiene Applications For  
HPVIS Data**

John D. Mikan, CIH

President, Experien Health Sciences Inc.

**Characterizing Chemicals In Commerce:**

**Using Data on HPV Chemicals**

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## Overview / Outline

- Some Necessary Background / Context
- Data / information useful to the IH
- The Value of HPV Data to the IH
- Uses of HPV Data
  - Including a real-world example
- A Look Ahead to EU REACH Regulation

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## Background / Context

### ■ Who is Experien Health Sciences?

A consultancy of ex-industry industrial hygienists and regulatory toxicologists, with offices in the U.S. and U.K., providing occupational and environmental health and product safety services to the chemical industry.

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## Background / Context

### ■ Industrial Hygiene – Past & Present

In the beginning, IH's reviewed hazard information & then used professional judgment.



Then came exposure limits and air sampling methods, which focused attention on a limited # of substances.



Lately, we've returned to our roots to qualitatively assess a much broader range of substances.

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## Data / information useful to the IH

- Physiochemical properties
- Mammalian toxicity data
  - Acute and chronic toxicity
  - Genetic toxicity data
  - Reproductive / developmental toxicity
  - Carcinogenicity
  - NOELS & LOELS

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## The Value of HPV Data to the IH

- Provides data/info not readily available
  - Including what not to be concerned about
- Assesses the reliability of the data
  - Provides an expert's interpretation
  - Allows for a determination of data gaps
  - Represents 360° perspective

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## A Real-World Example

- Assignment: Assess chemical exposures associated with performance asphalt production.
- HPV Substances Identified: Tall Oil, Tall Oil Fatty Acids, and Fatty Nitrogen Derived Amines added to hot asphalt.
- Problem: Little or no “public” hazard data other than MSDS, no exposure limits, and no air sampling methods.
- How HPV Data Helped: Enabled the IH to determine, with a reasonable level of confidence, that the degree of hazard, exposure, and risk to workers would be low; thereby ruling out the need for substantially more-costly “quantitative” assessment.

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## Other "IH" Uses for HPV Data

- Setting Priorities For:
  - Exposure limit development
  - Air sampling method development
  - Respirator and glove performance studies



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## **A Look Ahead To EU-REACH**

The benefits of the HPV program to the practice of industrial hygiene will be magnified 1,000-fold by the EU's REACH regulation. If the harshest critics of REACH had responsibility for assessing and explaining risks to real workers, in real workplaces, I'm confident they would more-fully appreciate its value.

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**Thank You!**