American Chemistry Council Ethylbenzene Panel

Presentation to HEAC, CA Dept. Industrial Relations

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Key Issues: PEL recommendation

- Mouse lung is most appropriate target
  - mode of action evidence rules out mouse liver and rat kidney as relevant to human
- Weight-of-evidence supports lack of ethylbenzene genotoxicity
  - PEL should not use linear risk approach
- Ethylbenzene position supported by consensus EPA VCCEP analysis

Value of Mode of Action Research

- Provides critical information to improve science-based extrapolation of animal toxicity and tumor findings to potential human health risks

- **Provides information to evaluate whether tumor responses in rat kidney, mouse liver and lung are unlikely to present a significant risk to human health at known environmental and occupational exposures**

Conclusion

A *weight-of-evidence* analysis of the toxicology, genotoxicity, and mode of action information for ethylbenzene indicates the recommended **HEAC PEL should be based on a non-linear assessment of the mouse lung tumor response**