



THE USE OF HPV DATA IN GREEN PURCHASING



Incorporate Hazard/Risk Criteria in Green Procurement

- Contract specifications
- Voluntary standards
- EMS
- Supply chain management



Contract Specifications

- **Concentration or emission limits, e.g. formaldehyde emission limits from furniture**
- **Prohibited hazard characteristics, e.g. no carcinogens, LC50/LD50 must be above x, etc.**
- **Low toxicity substitutes**



VOLUNTARY STANDARDS

- Voluntary consensus standards developed through ANSI or ISO processes
- Encouraged by NTTAA and OMB Circular A-119
- Reference in procurement policy, specifications
- Drive market
- Example: EPEAT standard (IEEE 1680) for personal computers and monitors



ENVIRONMENTAL MANAGEMENT SYSTEMS

- Use chemical hazard/risk data in determining “significant environmental aspects”
- Set objectives and targets that address chemical hazards and risks
- Develop environmental management programs and operational controls related to purchase and use of chemical products



SUPPLY CHAIN MANAGEMENT

- Identify chemicals of concern throughout supply chain
- Target key product/service areas for improvement
- Identify safer substitutes



DATA AND ANALYTICAL NEEDS

- Product formulation data – chemical identity and concentration
- Hazard data/conclusions
 - Endpoints of concern
 - Quantitative estimates, e.g. NOAEL, RfC, MRL
- Exposure measures and models
- Screening-level risk conclusions – HQ, MOE for typical scenarios



HAZARD DATA/CONCLUSIONS

- HPV Information System
- EPA IRIS – RfD, RfC, cancer WOE and potency
- ATSDR Toxicological Profiles - Minimal Risk Levels
- California Acute and Chronic Reference Exposure Levels
- P2 Framework/Sustainable Futures



FORMULATION DATA

- NIH/NLM Household Products Database
- EPA Source Ranking Database
- MSDS/Label information
- EPA EPP Database (chemicals addressed in standards and specifications)
- Federal Green Construction Guide for Specifiers (chemicals addressed in specifications)
- DfE Formulator Program
- CleanGredients™



EXPOSURE DATA AND MODELS

- E-FAST: consumer exposure models
 - dermal and inhalation exposures from products
- Emission data and standards
 - CA building material emissions
 - GREENGUARD indoor air standards
- TSCA Inventory Update Rule
 - Use information at the product category level



RESOURCES

- EPA IRIS RfCs, RfDs, cancer potency and WOE
www.epa.gov/iris
- ATSDR Tox Profiles, Minimal Risk Levels
www.atsdr.cdc.gov/toxpro2.html
- California acute and chronic Reference Exposure Levels
www.oehha.ca.gov/air/chronic_rels/
www.oehha.ca.gov/air/acute_rels/
- NLM Household Products Database
<http://householdproducts.nlm.nih.gov>
- EPA Source Ranking Database
www.epa.gov/oppt/exposure/pubs/srd.htm
- EPA EPP Database
<http://yosemite1.epa.gov/oppt/eppstand2.nsf>



RESOURCES, cont.

- Federal Green Construction Guide

www.wbdg.org/design/greenspec.php

- DfE Formulator Program

www.epa.gov/dfe/pubs/projects/formulat/index.htm

- CleanGredients Database

www.cleangredients.org

- E-FAST Consumer Exposure Models

www.epa.gov/oppt/exposure/pubs/efast.htm

- California Building Material Emissions Study

www.ciwmb.ca.gov/Publications/default.asp?pubid=1027

- GREENGUARD product emission standards

www.greenguard.org

- TSCA Inventory Update Rule

www.epa.gov/opptintr/iur/



QUESTIONS?

- Green Purchasing Approaches

Jim Darr

202-564-8841

darr.james@epa.gov

- Exposure Data and Models

Christina Cinalli

202-564-8542

cinalli.christina@epa.gov