Global Pressures on Chemical Users

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Outline

- Reflections on substitution
- Global pressures on chemical users
- Priority substances lists
- Conclusions
The Substitution Dilemma

How to react to priority chemicals, without jumping from the frying pan into the fire?
Global Pressure: Suppliers

- Try to defend existing substances, uses?
- Supply chain interruption?
- Increasing SVHC costs?
- Possible competitor or source of safer solutions?
Global Pressure: Customers

- Professional users
- Household consumers
- Duty to inform (art. 33)
- Notification for SVHCs in articles (art. 7)
Customers (cont.): Retail

WAL*MART  World’s largest retailer
US$375 billion sales
7,250 stores

“Provide to our customers affordable and effective products where all chemical ingredients are preferred for Mother, Child and the Environment”
Global Pressures: Investors

- Shareholder resolutions on chemicals (2006-08):
  2: Chemical makers
  10: Product makers
  16: Retailers
  28: Total

- Competitive advantage: who wins, who loses?
Investors (cont.): Innovest Report

- Assess financial risks, opportunities for SVHCs
- Comparative rating of 73 global chemical companies
- Information for analysts, institutional investors

Global Pressures: Policy?

- Most policy pressures national/EU, not global
  - Canadian environmental protection act
  - Kid-safe products act (Maine)
  - Green chemistry legislation? (California)
  - Kid-safe chemicals act? (US proposal)

- Result: a patchwork of different approaches, all searching for priority chemicals
RoHS Directive

Lead
Mercury
Cadmium
Hexavalent chromium (Cr6+)
Polybrominated biphenyls (PBB)
Polybrominated diphenyl ether (PBDE)
Stockholm POPs Convention

The “Dirty Dozen”

- Atrazine
- BDE
- Chlordecone
- DDDane
- Hexabromobiphenyl (HBB)
- Perfluorooctane sulfonate (PFOS)
- Hexachlorobenzene (HCB)
- Hexachlorocyclohexane (α-, β- HCH)
- Polychlorinated biphenyls (PCBs)
- Polychlorinated dibenzo-p-dioxins (PCDDs)
- Polychlorinated dibenzofurans (PCDFs)
- Hexachlorobenzene (HCBDD)
- Hexachlorobenzene (HCBDD)

12+
OSPAR List

[1,1'-bianthracene]-9,9',10,10'-tetrone, 4,4'-diamino-
[1,1'-biphenyl]-2,2'-dil, 5,5'-dichloro
[1,1'-biphenyl]-4,4'-diamine, 3,3'-dichloro-
[1,1'-biphenyl]-4,4'-diamine, N,N'-bis(2,4-dinitrophenyl)-3,3'-dimethoxy-
[1,1'-biphenyl]-4-ol, 3,5-bis(1,1-dimethylethyl)-
1,1'-biphenyl, 2,2',3,3',4,4',5,5',6,6'-decabromo-
1,1'-biphenyl, 2,2',3,3',4,4',5,5',6,6'-decachloro-
1,1'-biphenyl, 2,2',4,4',6,6'-hexachloro-
1,1'-biphenyl, 2,2',4,4'-tetrachloro-
1,1'-biphenyl, 2,4,4'-trichloro-
1,1'-biphenyl, 4-bromo-2-fluoro-
1,1'-biphenyl, chlorinated
1,1'-biphenyl, hexabromo-
1,1'-biphenyl, nonachloro-
1,2,3-trichlorobenzene
1,2,4-trichlorobenzene
1,2-benzenedicarboxylic acid, bis(2-ethylhexyl) ester
1,2-benzenedicarboxylic acid, bis(2-methylpropyl) ester
1,2-benzenedicarboxylic acid, butyl phenylmethyl ester
1,2-benzenedicarboxylic acid, dibutyl ester
1,2-benzenedicarboxylic acid, disoocctyl ester
1,2-benzenedicarboxylic acid, dioctyl ester
1,2-Ethanedisulfonic acid, compd. with 2-chloro-10-[3-(4-methyl-1-piperazinyl)propyl]-10H-phenothiazine (1:1)
1,3,4-metheno-1H-cyclobuta[c][d]pentane, 1,1a,2,2,3,3a,4,5,5a,5b,6-dodecachloro-octahydro-
1,3,4-metheno-2H-cyclobuta(cd)pentale-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachloro-octahydro-
1,3,5-triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2,3-dibromopropyl)-
1,3,5-triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(3-isocyanatomethylphenyl)
Priority Lists for better or worse?

- The value of priority lists: focusing attention
- The danger of priority: red but no green?
Looking for direction
Needed: REACH Candidate List

- Prompt listing of chemicals that meet REACH criteria
- Market signal for safer alternatives
- Robust implementation of disclosure, authorisation requirements

- An input to a global list of SVHCs
Conclusions

• Pressures are global, so are solutions
• Priority lists can focus attention, align conflicting demands
• Info urgently needed on alternative chemicals, other solutions
• Knowledge essential to markets for green chemistry, products
• Substitute the worst, but not blindly