# The USA & Canadian models for controlling chemicals in products and articles

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For the Diàlogos Setoriais Europeia — Brasil 30 November — 2 December 2015



# The USA model for controlling chemicals in products and articles

- The USA legislation on hazardous chemicals in products
- Institutional arrangements for enforcement
- Policies for reducing hazardous chemicals in products
- Conclusions



## USA Legislation on Hazardous Chemicals in Products

- 1. Toxic Substances Control Act (TSCA)
- 2. Consumer Product Safety Act (CPSA)
- 3. Federal Hazardous Substances Act (FHSA)
- 4. Federal Insecticide, Fungicide & Rodenticide Ace (FIFRA)
- 5. Federal Food, Drug, and Cosmetics Act (FDCA)



## Toxic Substances Control Act (TSCA)

- Main law regulating chemicals on USA market today
- Administered by US Environmental Protection Agency
- Distinguishes between 'existing' and 'new' chemicals
- 'Existing' chemicals assumed to be safe for use (unless evidence emerged to the contrary) and allowed to remain in commerce
- 62,000 'existing' chemicals on USEPA inventory; most have never been adequately tested for hazardous properties



## Toxic Substances Control Act (TSCA) (2)

- 'New' substances defined as any substance not on the TSCA Inventory
- Before manufacturing (or importing) new chemicals for commercial purposes, manufacturers must submit premanufacturing notification ("PMN") to the US EPA
- Submission of a PMN does not require toxicity testing or provision of safety information
- US EPA must rely on its own resources to determine whether the new chemical "may present an unreasonable risk"



## Toxic Substances Control Act (TSCA) (3)

- If unreasonable risks are found, in theory TSCA gives USEPA a wide range of possibilities to control chemicals, such as:
  - prohibiting or limiting the manufacturing, processing, or distribution in commerce of a substance or mixture;
  - prohibiting or limiting a particular use ...;
  - requiring a substance or mixture or any article containing it to be labelled by clear and adequate warnings and instructions;
  - requiring recordkeeping or monitoring or tests that are "reasonable and necessary";
  - prohibiting or otherwise regulating any manner or method of disposal of such substance or mixture; etc.



## Toxic Substances Control Act (TSCA) (4)

- However, in practice, almost impossible for USEPA to meet the burden of proof required to impose controls of any kind
  - In 1989 the US EPA tried to use TSCA to ban the manufacturing, importing, and processing of nearly all asbestos-containing products in the USA
  - In 1991 the US courts overturned the ban
- No additional controls over chemicals adopted since then



## Toxic Substances Control Act (TSCA) (5)

- USEPA still trying to implement its chemical management program
- Release in 2010 of a series of "chemical action plans" proposing steps to take to address concerns raised by particular chemicals, including:
  - bisphenol A (BPA)
  - hexabromocyclododecase (HBCD)
  - long chain perfluorinated chemicals (PFCs)
  - nonylphenol (NP) and nonylphenol ethoxylates (NPEs)
  - eight phthalates
  - PBDEs
  - short chain chlorinated paraffins (SCCPs)
- No regulatory measures taken so far, but some voluntary measures are progressing, e.g., phase-out of long chain perfluorinated chemicals



## Toxic Substances Control Act (TSCA)

- TSCA acknowledged to be out of date and ineffective by almost all stakeholders
- In the vacuum left by TSCA, a large number of states, including California and Massachusetts, have adopted more stringent state-level legislation
- A draft bill currently in the US Congress is seen as having the best chance in many years of updating TSCA



## 1972 Consumer Product Safety Act

- Establishes the US Consumer Product Safety Commission
- Authorises the CSPC to:
  - develop safety standards and pursue recalls for products presenting unreasonable or substantial risks of injury or death to consumers
  - ban a product if no feasible alternative
- Gives the CPSC jurisdiction over more than 15,000 different products, except for products expressly within another federal agency's jurisdiction, e.g., food, drugs, cosmetics, medical devices, tobacco products, motor vehicles, and pesticides.



## 2008 Consumer Product Safety Improvement Act

- Sets new requirements, particularly for products intended for use by children 12 years of age or younger
- Limits levels of several substances, including lead, in children's products
- Producers must carry out tests and have documentation to prove compliance



### Federal Hazardous Substances Act

- Part of the Consumer Product Safety Act regime
- Only covers products that during purchase, storage, or use might be brought into or around a place where people live
- Labelling of hazardous household products required to
  - warn consumers about the potential hazards that those products present
  - tell them how to protect themselves and their children from those hazards



## Federal Hazardous Substances Act (2)

- Labelling required if a product
  - classified as toxic, corrosive, flammable or combustible, an irritant, or a strong sensitizer, or will generate pressure through decomposition, heat, or other means; and
  - has the potential to cause substantial personal injury or substantial illness during any reasonably foreseeable handling or use, including ingestion by children.
- Authorises the CPSC to ban products if so dangerous that labelling will not provide sufficient consumer protection



## Federal Hazardous Substances Act (3)

- Examples of products banned under the FHSA:
  - Extremely flammable water repellents for use on masonry walls and floors inside homes
  - Carbon tetrachloride
  - Liquid drain cleaners that contain 10% or more by weight of sodium or potassium hydroxide
  - Products containing soluble cyanide salts
  - General-use garments containing asbestos
- Special labeling requirements for ethylene glycol, diethylene glycol, benzene, toluene, xylene, petroleum distillates, turpentine, methyl alcohol, devices, & art materials presenting risk of chronic toxicity



## FIFRA (for pesticide-treated articles)

- Federal Insecticide, Fungicide & Rodenticide Act (FIFRA)
  regulates the distribution, sale and use of pesticides in the USA
- Applicants for registration must show that using the pesticide according to specifications 'will not generally cause unreasonable adverse effects on the environment'
- Articles treated with pesticides which are hazardous substances by reason of bearing or containing such a pesticide are covered by the Federal Hazardous Substances Act, not by FIFRA



### Cosmetics

- Defined as "articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body...for cleansing, beautifying, promoting attractiveness, or altering the appearance".
- Regulated under the 1938 Federal Food, Drug, and Cosmetic Act (FDCA)
- FDCA prohibits the marketing of adulterated or misbranded cosmetics in interstate commerce
- Cosmetics manufacturers must ensure product safety prior to marketing (but no prior testing required)
- Labelling of ingredients mandatory



### Institutional arrangements for enforcemet

- Competence for control of hazardous substances in products rests at federal level with
  - US Environmental Protection Agency (TSCA, FIFRA)
  - US Consumer Product Safety Commission
  - US Food & Drug Administration (cosmetics)
- Most states have also enacted laws regulating hazardous chemicals
- Market place surveillance shared by federal and state governments



## Policies for reducing hazardous chemicals in products

- The US EPA's Safer Chemicals, Products and Practices Program
  - A searchable website aimed at providing US consumers with information on safer cleaning and other products
  - Purchase categories include buildings construction and maintenance, carpets, cleaning, electronics, insulation, paints and coatings, paper, wood products
  - Federal government purchasers required to buy EPA Safer
    Choice labelled products
- US EPA also supports the green procurement effort with the Environmentally Preferable Purchasing Program (EPP)



### Federal Green Purchasing Requirements

- Two tools from the US General Services Administration (GSA)
  - 'Green Procurement Compilation' -- a database of federal green purchasing requirements by product and service category (<a href="https://sftool.gov/greenprocurement">https://sftool.gov/greenprocurement</a>)
  - 2. Guides to assist vendors in selling green products and services to the federal government, including on
    - —Energy Efficient Products
    - —Recycled Content Products
    - —Water Efficient Products
    - —Biobased and BioPreferred Products
    - Non-Ozone Depleting Substances



### Evaluation of the USA model

### Advantages:

 The Consumer Product Safety Act and the Federal Hazardous Products Act provide the Consumer Product Safety Commission with considerable authority to restrict and even ban products that pose unreasonable risks of injury to the public

### Disadvantages....

- US EPA lacks legal tools for taking action to mitigate the health and environmental effects of hazardous chemicals
- Huge data gap because TSCA does not require producers to test for the hazards of the chemicals they market and use



## The Canadian model for controlling chemicals in products and articles

- Canada's legislation on hazardous chemicals in products
- Institutional arrangements for enforcement
- Policies for reducing hazardous chemicals in products
- Conclusions



## Canada's Legislation on Hazardous Chemicals in Products

- 1. Canadian Environmental Protection Act, 1999
  - Canada's Chemical Management Plan
- 2. Canada Consumer Product Safety Act (CCPSA)
- 3. 1985 Hazardous Products Act
- 4. Regulations under the CCPSA
- 5. Pest Control Products Act



## Canadian Environmental Protection Act, 1999

- Major section on management of chemical substances jointly administered by Environment Canada & Health Canada
- Differentiates between 'existing' and 'new' substances
  - 23,000 'existing' substances on 1986 Domestic Substances List
  - 2,000 more added after assessment as 'new' substances
- Set deadline of September 2006 for 'categorisation' (sorting) of the Domestic Substances List
- Criteria for prioritisation:
  - Inherently toxic and either persistent or bioaccumulative, or
  - Greatest potential for exposure of Canadians



## CEPA 1999 (2)

- Substances determined to be 'toxic' are added to CEPA 1999's List of Toxic Substances
  - 132 substances currently on list
- Triggers process of considering whether preventive or control actions needed for <u>any</u> part of life cycle
- Substances which are toxic, persistent, bioaccumulative and anthropogenic may be proposed for 'virtual elimination'
  - 2 substances on the Virtual Elimination List HCBD & PFOS



## CEPA 1999 (3)

- Mandatory information gathering powers under CEPA 1999
  - To determine if a substance is toxic, the Minister in charge of Environment Canada or Health Canada may require <u>any person</u> engaged in <u>any activity</u> involving the substance to <u>notify</u> the Ministry and to <u>provide any information</u> and samples to which the person may have access



## Chemical Management Plan (CMP)

- CEPA 1999 process of 'categorising' the 23,000 existing substances → 200+ substances of highest priority
- Road map for assessing & managing these 200+ substances
- Mandatory information gathering under way for individual substances & groupings of substances
  - Certain organic flame retardants grouping
  - Phthalate substance grouping
  - Boron-containing substances, etc.



### Example: Grouping of certain organic flame retardants

- Criteria for selection of grouping:
  - High volume or multiple sources of exposure from inherently toxic, persistent substances
  - Exposure of consumers & children to products treated with FRs
  - Potential for risk management efficiencies, e.g., informed substitution
- Notice applied to any person who imported >100 kg of a listed substance whether
  - Alone, in a mixture or in a product, or
  - In a manufactured item (i) intended for children under six years old; (ii) cookware or serving utensil; (iii) clothing, footwear or sleeping bag; (iv) bedding intended for residence; (v) furniture intended for residence; (vii) carpet, vinyl or laminate flooring, or foam underlay; (viii) electronic equipment for residence



## Canada Consumer Product Safety Act

- Brings Canada's system into line with the USA & EU
- Administered by Health Canada
- Prohibits
  - the manufacture, importation, sale or advertising of consumer products that could pose an unreasonable danger to the health or safety of Canadians
  - false, misleading or deceptive packaging, labelling or advertising of a consumer product in respect of its safety
- 'consumer product' defined broadly; applies to children's toys, household products, etc., unless product regulated under another Canadian law



## Canada Consumer Product Safety Act (2)

- Suppliers of consumer products are responsible for
  - ensuring the product is in compliance with the CCPSA
  - notifying Health Canada of any safety 'incidents' relating to the product, or any product defects which could reasonably expected to result in harmful health effects
  - Keeping certain records in order to enable products to be traced back to their source
- Measures that Health Canada can take:
  - Product recalls
  - Stop to the manufacture, import, sale, advertising, etc. of the product
  - Any other measure necessary to remedy the non-compliance



### 1985 Hazardous Products Act

- Controls the sale and importation of hazardous products intended for use, handling or storage in a work place
- "hazardous product" defined as meaning "any product, mixture, material or substance that is classified in accordance with the regulations ...
- Part dealing with consumer products now incorporated into the CCSPA
- Remaining part establishes material safety data sheet and supplier labelling requirements



## Regulations under the Canadian Consumer Product Safety Act

- CCPSA took over existing prohibitions and regulations related to consumer products previously under 1985 HPA
- A long list of specific regulations relevant for controlling chemicals in products, such as:
  - Asbestos Products Regulations
  - Children's Sleepwear Regulations
  - Hazardous Products (Infant Feeding Bottle Nipples) Regulations
  - Hazards Products (Tents) Regulations
  - Phthalates Regulations
  - Surface Coating Materials Regulations



### 2001 Consumer Chemicals and Containers Regulations

- Sets requirements for classification by hazard
- Products classified for hazards must be packaged & labelled accordingly
- Containers must pass prescribed leakage test & be child-resistant throughout useful life of product

### **2011 Toys Regulations**

- Prohibits use of toxic substances in toys if
  - could be source of exposure
  - excessively corrosive, irritant or strong sensitizers & could come into contact with skin
- Prohibits toys with surface coating materials containing lead, antimony, arsenic, cadmium, selenium, barium or mercury in excess of limits, etc.



### 2002 Pest Control Products Act

- Administered by Health Canada's Pest Management Regulatory Agency
- Pesticides must be approved before being imported into, manufactured, sold or used in Canada
- All pest control products must be re-evaluated on 15-year cycle
- Registrants must report any incidents of potential adverse effects



### Institutional arrangements for enforcement

- Competence for regulation of chemical substances shared at federal level between
  - Environment Canada
  - Health Canada
- The provinces and territories may also set in place regulations relevant for control of chemical substances



## Policies for reducing hazardous chemicals in products

- 2006 Policy on Green Procurement
  - Aims to use the government's significant annual purchasing volumes to have a positive impact in expanding the market for environmentally sound goods and services
  - Applies to all federal government procurement activities (goods, services and construction) across all stages of the procurement process, from planning and acquisition through use, maintenance and disposal



## Policies for reducing hazardous chemicals in products

- Extended Producer Responsibility
  - 2009 Canada-wide Action Plan for Extended Producer Responsibility (issued by the 14 environment ministers from federal, provincial and territorial governments)
  - Inventory of Extended Producer Responsibility and Product
    Stewardship Programs available on Environment Canada website



### Evaluation of Canada's model

#### Advantages:

- CEPA 1999's commendable ambition to address head-on the problem of the so-called "existing substances"
- Mandatory information gathering means burden of data collection now shared with industry
- Significant number of regulations enacted under the Consumer
  Product Safety Act = a workable system for imposing controls
  over hazardous substances in consumer products

### Disadvantages:

- Environment Canada and Health Canada still have main burden of substance assessment
- Progress is slow: 1999 CEPA  $\rightarrow$  2015



# The USA & Canadian models for controlling chemicals in products and articles

Thank you!

Questions?



