Toxics Use Reduction Institute

Existing Information Tools and Thoughts on the Way Forward

Rachel Massey
Monica Becker

TURI
Toxics Use Reduction Institute
University of Massachusetts Lowell
One University Avenue
Lowell, Massachusetts 01854-2866
978.934.3275 fax: 978.934.3050
www.turi.org

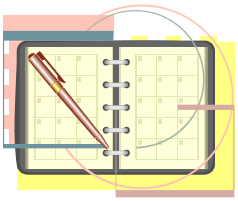
TURI

What Did We Learn Yesterday?

- Problem
- Potential benefits of increased information

Today

- Overview of Selected Existing Information Systems
- Questions for further discussion



Overview of Systems

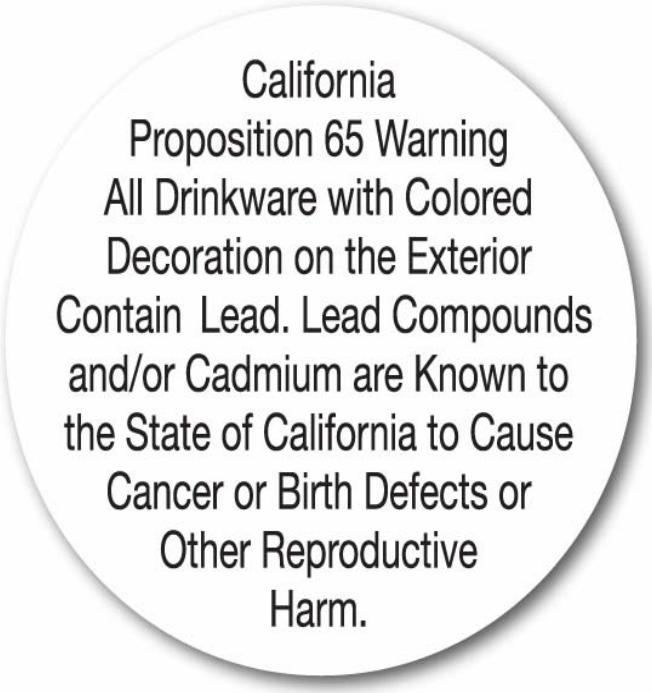
- Legal Requirements
- Voluntary Approaches

Legal Requirements

- California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)
- Maine and Washington Product Legislation
- Mercury Products Legislation
- Restriction on Hazardous Substances (EU and China)
- REACH

California Proposition 65

- California Safe Drinking Water & Toxic Enforcement Act
- Adopted in 1986
- Publishes annual list of chemicals: “known to the state of California to cause cancer or reproductive toxicity”
- Requires businesses to provide warning
  - Specifically the health effects unless exposure is less than the NOAEL
- Labeling
- Powerful impact on market



Maine and Washington Product Legislation

- Both states adopted toxics legislation in 2008
- Both focus on children's products
- Maine:
  - List of chemicals of high concern
  - Companies provide notification if used in children's product
- Washington:
  - Similar to Maine with phase out of some chemicals
- Interstate Chemicals Clearinghouse

Mercury Products Legislation

Current Products (product list description)

727 results matched your search criteria for the sector **Electrical Equipment, Appliance, and Component Manufacturing**

Click here to see a list of products from past filings.

Company	Product	Component	Mercury Content Range	
Able 2 Products Co., Inc.	trunk light kit	switch	Greater than 1000 mg	Details
Access Business Group LLC	eSpring water purifier	UV lamp	Greater than 0 up to 5 mg	Details
Access Business Group LLC	eSpring water purifier replacement filter cartridge	UV lamp	Greater than 0 up to 5 mg	Details

Toxics in Electronics

- EU and China have legislation restricting the use of toxics in electronics
- EU RoHS
  - Restricts 6 substances (Pb, Cd, Cr+6, Hg, PBDE, PBB)
  - Doesn't require labeling or registration
  - Relies on self-certification
- China RoHS
  - Restricts same 6 substances
  - Requires labeling (Phase 1)
  - Material self-declaration table on product instructions

REACH

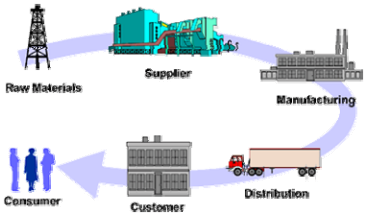
- Registration if article contains substance intended to be released
  - Submit info to EChA (centralized database)
- Notification requirements for articles containing SVHC
  - Notify EChA of presence of substance
  - Applies if >0.1% by weight
  - Waived if exposure during normal use not likely
  - Supplier must provide recipient with sufficient info to allow safe use (at least name of substance)

GHS

- Internationally standardized system for classification and labeling of chemical products
- Does not include articles
- GHS classifications could be useful for chemicals in articles

Voluntary Approaches

- Specific Industry Supply Chain Info Flow



- Restricted Substances Lists
- Consumer Information Organization
- Eco-Labeling Schemes

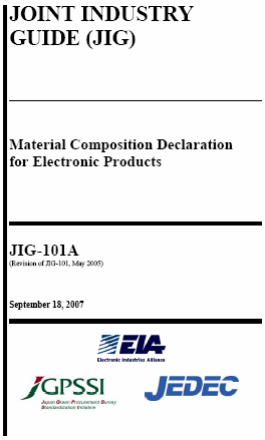
Industry-Specific Systems

Automotive Industry

- International Material Data System
- For manufacturers and suppliers
- Facilitates recycling and compliance with ELV directive
- 8,000 chemicals in database
- 111 on GADSL

Electronics Industry

- Joint Industry Guide
- Manufactures and suppliers
- B2B material declaration
- 24 materials regulated or “relevant to electronics”

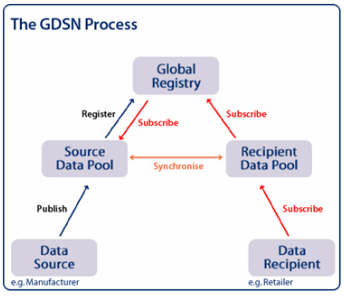


Construction Industry

- BASTA
- Manufacturers, suppliers, downstream users
- Reduce hazardous materials commonly used in construction
- Materials self declared to suppliers re health and environmental performance
- 13,000 records

Retailers

- Global Data Synchronization Network
- Retailers and suppliers
- Track info on chemical ingredients
- Chemical content, company restrictions, regulatory requirements, other



Other Voluntary Approaches

- Corporate Restricted and Preferred Substances Lists
- Consumer-Oriented Databases
- Voluntary Environmental Performance Labeling

Corporate RSLs

Restricted Substance	Legal &/ or Regulatory Basis	Restricted Applications	Background Limit Weight % (PPM)
Lead and lead compounds	RoHS Directive (2002/95/EC) for electronic components and California Proposition 65 for external plastics/cables.	All Applications (See Note A1)	In PVC and Plastics: 0.0300 (300 PPM) In all other materials: 0.1000 (1000 PPM)
Polybrominated diphenyl ethers (PBDEs)	RoHS Directive (2002/95/EC)	All Applications (See Note A1)	0.1000 (1000 PPM) Cumulative
Deca-brominated diphenyl-ethers (deca-BDE)	RoHS Directive (2002/95/EC)	All Applications (See Note A1)	0.1000 (1000 PPM) Cumulative
Asbestos and asbestos materials	76/769/EEC (+91/659/EEC)	All Applications	0.1000 (1000 PPM)
Azo-based dyes and colorants with carcinogenic amino compounds	76/769/EEC	All Applications	0.0030 (30 PPM)

Consumer-Oriented Databases

Table ES1: Ranking of Vehicles by Company (Windshield Film Concentrations)

	Total PBDE, µg/m²	Auto Company	Total Phthalates, µg/m²
	0.054	Volvo	3
	0.152	BMW	3
	0.178	VW	4
USA	0.193	General Motors	5
	0.280	Toyota USA	6
	0.301	Honda USA	6
	0.323	Mercedes	6
	0.351	Honda	7
	0.594	Subaru	7
	0.744	Chrysler	7

Voluntary Environmental Performance Labeling

1. Eco Labels
   - Life cycle considerations met
   - Blue Angel, Green Seal, Nordic Swan
2. Self-Declarations by Manufacturers
   - Often only relate to one criterion (e.g., energy efficiency)
3. Quantified Data for Preset Data Categories
   - Eco Leaf label in Japan

Existing Resources

- Patchwork of approaches
- Good starting point
- Limitations with various systems
- Not all stakeholders get information they need
- Not all toxics addressed

Where Do We Go From Here?

- Would it be beneficial to develop a global information system for toxics in articles?
- If the answer is “Yes” …

Target Audiences

- Different audiences have specific information needs
- Examples:
  - Consumer needs to know if safe for home
  - Waste manager needs to know if recyclable or incineration possible
  - Manufacturer needs to know if components contain banned or restricted substance
  - Governments need to know what articles may be associated with specific pollution concerns

What Chemicals?

- How big or small should system be?
  - High priority chemicals only; or
  - More comprehensive
- If High Priority Chemical focus, what criteria should be used to determine
  - Chemicals on existing restriction lists
  - Chemicals with identified health/environmental concerns
  - Chemicals measured in humans & wildlife

End Points to Consider

- Environmental
  - PBT
- Human Health
  - Carcinogenicity
  - Mutagenicity
  - Reproductive toxicity
  - Neurotoxicity
  - Endocrine disruption
- Other

What Articles?

- How big or small should system be?
  - High priority articles only; or
  - More comprehensive
- Criteria to consider:
  - Users (e.g., vulnerable populations)
  - Exposure potential
  - Presence of priority chemicals

What Information?

- Chemical contents
- Chemical properties
- Guidance on safe handling
- Certify absence of toxic chemicals
- Regulations/restrictions

What Format?

- Labels
  - Specific name, health effects, handling, etc
- Databases
  - Publicly searchable
  - Limited public accessibility
  - Hybrid
- Safety Data Sheets

Things to Consider

1. What are the needs of the various target audiences for the information system?
2. What chemicals should be included in the system?
3. What articles should be included in the system?
4. What information should be provided?
5. In what format should the information be provided?

The Way Forward

- Lack of information impedes protection from potential hazards
- There are many ways to gather and share information