



# Information systems targeting chemicals in products

Beatrice Kogg & Åke Thidell,  
Scoping Meeting for the Study of Stakeholder Needs for Information on Chemicals in Products  
Geneva, December 17, 2009



## Agenda

- Brief information about our study
- Stakeholders' need for information regarding  
Chemicals in Products (CiP)
- Information systems targeting chemicals in  
products
  - Overview and examples
- Final remarks



## Briefly about our study



## Study outcomes

- Study to be finalised by end of January 2010
- Report will cover:
  - Descriptions of identified CiP information systems
  - Overview of stakeholder needs for CiP information
  - Discussion regarding gaps and discrepancies identified between stakeholder needs and existing systems



## Working definitions of key terms

- Products:
  - Since definitions of a product/article varies, we decided in the end to included all product groups listed in the SAICM Focal Points survey questionnaire + cosmetics and personal care products (based on survey responses)
- Chemicals of concern
  - Those chemicals which due to their inherent hazardous properties, present a known or reasonably suspected risk to human health and/or the environment



## Working definitions of key terms

- CiP Information system:
  - Any type of systematic information transfer that is formalised and recurring
    - that provides information regarding chemicals of concern in products, or
    - That provides information regarding health and/or environmental performance of a product based (at least in part) on chemical content
    - that provides information regarding all chemicals in products, together with a tool, or guidelines, for interpretation of whether these chemicals are cause for concern



## Stakeholders' need for CiP information



## Need for more and better information regarding Chemicals in Products is recognized:

- Across industrial sectors
  - E.g. toys, furniture, vehicles, textiles and apparel, electrical and electronic equipment, etc.
- Throughout the product chain
  - component manufacturers, OEMs, retailers, consumers and end-of-life companies
- By governments, NGOs and other stakeholders to the firm such as insurers and investors



## CiP information is necessary to ensure:

- Occupational health and safety
  - In production, and in end-of-life management
- Product safety
  - In use
- Environmental protection
  - Throughout the product life cycle: production, use and end-of-life



## Supply chain actors: drivers & corresponding information needs

Actor	Drivers behind CiP information need	Type of information needed
Basic material suppliers	Legal compliance, demands for information from customers and other stakeholders, objectives related to environmental management & OHS	Content and concentration of chemicals (of concern) in inputs, SDS
Component supplier	Legal compliance, demands for information from customers and other stakeholders, objectives related to environmental management & OHS	Content and concentration of chemicals (of concern) in input materials, SDS, risk of hazardous emissions from components



## Supply chain actors: drivers & corresponding information needs

Actor	Drivers behind CiP information need	Type of information needed
OEM	Legal compliance, <b>ensure product safety in use phase</b> , demands for information from customers and other stakeholders, objectives related to process and <b>product focused</b> environmental management, & OHS, <b>extended producer responsibility</b>	Content and concentration of chemicals (of concern) in input components, & materials, SDS or alternative sources of information regarding the hazardous properties of included chemicals of concern, risk of hazardous emissions during storage, handling & use
Sales organisation (Retailer, OEM, trader)	Legal compliance, ensure product safety in use phase, demands for information from customers and other stakeholders, <b>objectives related to environmental/health profile of product/product range</b> , & OHS, extended producer responsibility	Content and concentration of chemicals (of concern) in iproducts, SDS or alternative sources of information regarding the hazardous properties of included chemicals of concern, risk of hazardous emissions during storage, handling & use



## Supply chain actors: drivers & corresponding information needs

Actor	Drivers behind CiP information need	Type of information needed
Customers/ user	Desire to buy safe products that contribute to personal health, desire to reduce personal environmental impact	Health and environmental properties of chemicals in the product, guidance regarding better choices from a health and/or environmental perspective, instructions for safe use and correct waste disposal
EoL actors	Legal compliance, objectives related to OHS, demand for information from authorities and other stakeholders, desire to ensure correct and efficient recycling, treatment or disposal, desire to optimise operations	Content and location of chemicals of concern, anticipated volumes of different waste categories

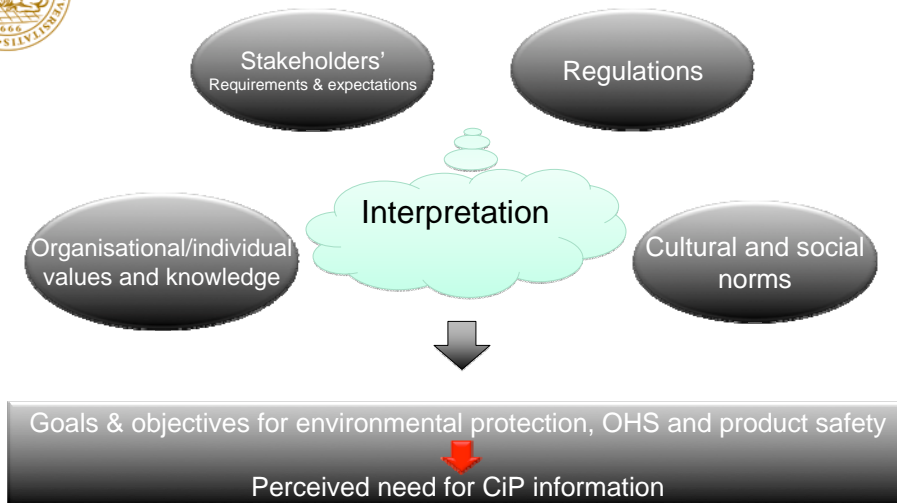


## Other stakeholders with demand for CiP information

- Policy makers
- Enforcing agencies
- Special interest groups
  - Environmental NGOs
  - Consumer NGOs
- Labelling/certification schemes



## CiP information needs will vary at the individual level





## Information systems targeting chemicals in products



## Identified CiP systems, so far...

- Cover practically all product groups identified in the survey
- Great variation in system design and provided information
- Provides information between many different type of actors
- Systems identified in all parts of the world
  - But more from Europe and North America





## CiP initiatives & Product groups

- Childrens products including toys
  - Ecolabels,
  - Rapid Alers System for non-food consumer products (RAPEX),
  - Company and sector Restricted Substances List (RSL) initiatives,
  - HealthyStuff.org
  - GoodGuide.com
  - Toy Safety Certification Program (TSCP)



## CiP initiatives & Product groups

- Clothing & Apparel
  - Company and sector Restricted Substances List (RSL) initiatives
  - Sector Restricted Substances List (RSL) initiatives
    - Americal Apparel and Footwear Association (AAFA) RSL,
    - Apparel and Footwear International RSL Management (AFIRM)
  - Öko-tex
  - Eco-labels
  - Rapid alert system for non-food consumer products (RAPEX)
  - HealthyStuff.org



## CiP initiatives & Product groups

- Computers, cellular phones & electronic goods + Electrical goods and household appliances
  - Rapid alert system for non-food consumer goods (RAPEX)
  - Institute for Printed Circuits (IPC), IPC 1752 a standardized material declaration form and electronic data exchange formats for the industry
  - Joint Industry Guide (JIG) Material Declaration Standard for Electronics Industry
  - International Electrotechnical Commission (IEC): IEC PAS 61906 Procedure for the declaration of materials in products of the electrotechnical and electronic industry
  - Electronic Product Environmental Assessment Tool (EPEAT)
  - BOMCheck Substances Declarations Web Database
  - Company Restricted Substances List (RSL) programs



## CiP initiatives & Product groups

- Batteries
  - Legal requirements for information provided on the product: EC Battery Directive
- Construction materials
  - BASTA (enough!), Building Material Declarations, ECO-labels, Environmental Product Declarations (EPD)
- Furniture and bedding
  - Company Restricted Substances List (RSL) programs
- Food Containers and food packaging
  - Company Restricted Substances List (RSL) programs,



## CiP initiatives & Product groups

- Motorized vehicles
  - International Material Data System (IMDS),
  - Global Automotive Declarable Substance List (GADSL)
  - Company Restricted Substances List (RSL) programs
- Paper and printed materials
  - Eco-labels



## CiP initiatives & Product groups

- Non-food packaging
  - Eco-labels, company Restricted Substances List (RSL) programs,
- Cosmetics and Personal Care Products
  - Skin Deep Cosmetics Safety Database: [cosmeticsdatabase.com](http://cosmeticsdatabase.com)
  - GoodGuide.com
  - HealthyStuff.org
  - Legal requirements regarding declaration of content on the packaging of the product



## Categorising CiP systems

- By type of organisation initiating system
  - Government:
  - Industry
    - Individual company initiatives:
    - Sector initiatives:
  - NGO's
- Nature of system
  - Mandatory
  - Voluntary
- Availability of data
  - Publically accessible
  - Proprietary
- Chemical scope
  - Narrow focus on chemicals of particular priority
  - Broad focus



## Categorising CiP systems

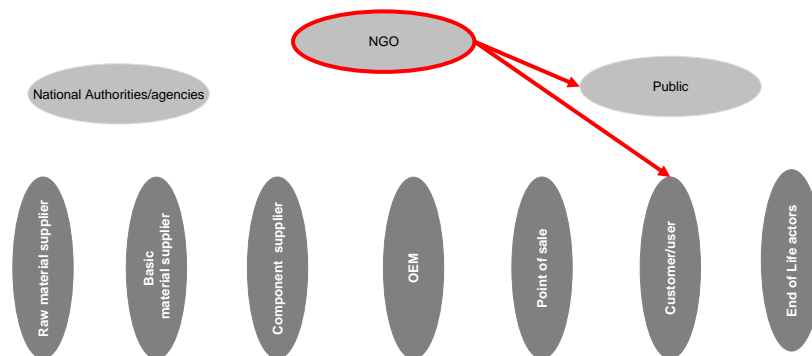
- Nature of use of information:
  - Proactive – provision of information to ensure that chemicals of concern does not end up in the product
  - Reactive – provision of information to warn buyers to avoid products containing chemicals of concern
- Involved senders and receivers of information
  - Along the product chain
    - Supply chain
    - from producer to consumer:
    - From producer to end-of-life:
  - From actors in the product chain to actors outside the product chain
  - From actors outside the product chain



## Examples of information systems targeting chemicals in products

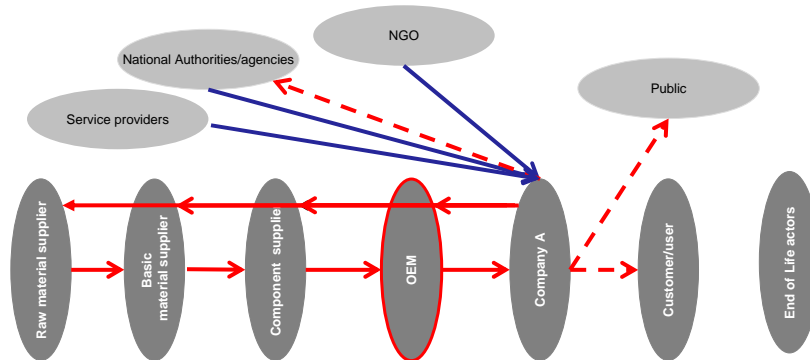


## HealtyStuff.org on-line database

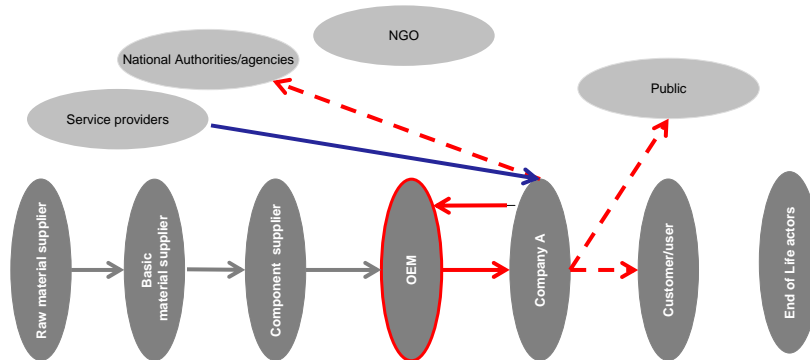




# Company A RSL



# Company B RSL





## Building blocks of a CiP system

- Template for/definition of information to be provided
  - Designated process and assigned responsibility for updates
- Method/criteria for interpretation of data
  - Designated process and assigned responsibility for updates
- Defined method for production of information
  - Based on information from previous tiers in the supply chain,
  - Laboratory testing
  - Scanning



## Building blocks of a CiP system

- Defined method for verification of information
  - Testing procedures, sampling procedures, required proofs etc.
- Platform for providing the information
  - Database (designated resources and responsibilities for maintaining this)
  - Product
  - Packaging
  - Documentation
- !! Organisation & resources for support and training



## Final remarks



## Some challenges to address

- The need for information to follow the product through the chain:
  - How to get CiP information through to the use phase and to the end-of-life phase?
- The need to translate complex information:
  - How to best assist different actors in the chain to translate information regarding the chemical content of a product to knowing what is OK, what to avoid, and what is better?
- The need to ensure that also small actors with limited resources can address demands for CiP information
  - Business protection perspective
  - Environmental protection perspective
- If we can not do all at once – defining the right priorities





## Positive vs. negative lists

- New knowledge will make the list (of chemicals of concern) longer
- Administrative implications:
  - Over time systems focusing on content of chemicals of concern, will need for continuous updates of templates and of the product specific information fed in to the system
  - Positive lists may be a way of decoupling formats for data provision, from the interpretation regarding whether or not a chemical is of concern
- Environmental and health & safety implications:
  - Declarations of content according to restriction lists will only reflect knowledge available at the time of production
  - Products can have a very long lifespan, health and environmental impacts may occur throughout use phase and in the end-of-life phase



## Beyond information access

- The policy challenge goes beyond developing and harmonizing CiP systems
- Policy also needs to find methods to
  - Motivate actors to produce and to solicit CiP information
  - Enable actors to produce and verify correct and reliable CiP information
    - Can new technology development that enables scanning for chemical content play a significant role?
  - Enable actors to interpret CiP information so as to enable them to make informed choices that promotes environmental protection, product safety and OHS



Thank you!

[beatrice.kogg@iiiee.lu.se](mailto:beatrice.kogg@iiiee.lu.se)

[www.iiiee.lu.se](http://www.iiiee.lu.se)