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Implementation towards the achievement of the 2020 goal of sound chemicals management: emerging policy issues and other issues of concern

# Guidance for stakeholders on exchanging chemicals in products information

### Note by the secretariat

- 1. The secretariat has the honour to circulate, for the information of participants, guidance for stakeholders on exchanging chemicals in products information (see annex).
- 2. The guidance complements the Chemicals in Products Programme (see SAICM/ICCM.4/10) and is addressed to those who are designing systems for chemicals in products information exchange or seeking to implement an existing information exchange system. The guidance has been created to align the actions of stakeholders with the Programme.

### **Proposed action**

3. The Conference may wish to consider the guidance.

| * SAI | CM/IC | CM.4/ | <sup>1</sup> 1. |
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### Annex

# Guidance for stakeholders on exchanging chemicals in products information

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### I. Introduction

- 1. Guidance for stakeholders on exchanging chemicals in products information has been created to support the Chemicals in Products Programme. It is intended to guide those who are designing a chemicals in products information system or those seeking to participate in an existing system. It is also aimed at guiding stakeholders who require assistance in exchanging information on their chemicals in products by describing the steps that are commonly taken in scoping, designing and building information exchange systems on chemicals in products.
- 2. The guidance document is a companion document to the Chemicals in Products Programme document. It is designed with the recognition that many stakeholders are building or already operating information exchange systems on chemicals in products, aligned with the Chemicals in Products Programme objectives.
- 3. This document provides guidance on the activities associated with:
- (a) Identifying the chemicals and chemicals information to be included in the information exchange system on chemicals in products;
- (b) Steps to be taken to exchange information both internally within the stakeholder's organization and with external stakeholders, with a view to achieving the Chemicals in Products Programme objectives.
- 4. The document includes descriptions of existing information exchange systems on chemicals in products and provides useful examples to stakeholders who are seeking to define key parameters that typically need to be considered at an early stage, i.e., before designing or choosing such a system.
- 5. It is important to reiterate the overall Chemicals in Products Programme objectives upon which this guidance document is designed (see box 1).

#### Box

### Information objectives of the Chemicals in Products Programme

- 1. Within supply chains, to know and exchange information on chemicals in products, associated hazards and sound management practices
- 2. To disclose information of relevance to stakeholders outside the supply chain to enable informed decision-making and actions about chemicals in products
- 3. To ensure that, through due diligence, information is accurate, current and accessible
- 6. To take action towards meeting the programme objectives, stakeholders must first determine which chemicals<sup>1</sup> and what associated information should be targeted for information exchange. These decisions depend on numerous factors, including the product sector, the objectives of the information exchange and the stakeholders who are generating and receiving the information. Making such decisions should, in general, involve two steps:
  - (a) Determining which chemicals are to be included in the information exchange;
  - (b) Facilitating communication within and outside the supply chain.

Section II describes those two steps and provides examples from current practices.

# II. Guidance on selecting chemicals to be included in the information exchange on chemicals in products

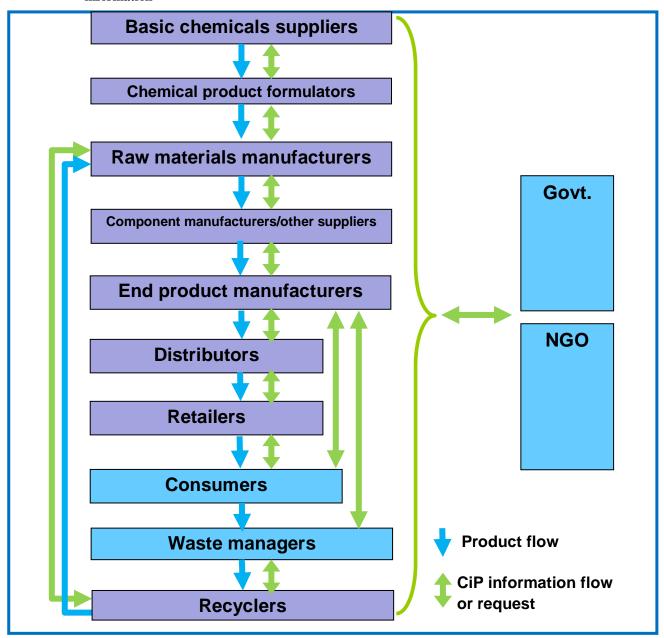
7. Stakeholders may select chemicals based on their potential for significant adverse impacts on human health or the environment, and current or projected regulations<sup>2</sup> in countries where a product is manufactured, sold, used or expected to be disposed of (or is otherwise of concern).

<sup>&</sup>lt;sup>1</sup>The chemicals can be identified by a chemical abstract service number or through a similar internationally recognized chemical identification system.

<sup>&</sup>lt;sup>2</sup>Throughout the Chemicals in Products Programme, chemicals referred to as "regulated" are those to which a prohibition, restriction, threshold limit, required authorization or similar limitation is applied through existing legislation.

8. One of the most fundamental parameters in any information exchange system on chemicals in products is the chemicals it covers. As described in the Chemicals in Products Programme document (see SAICM/ICCM.4/10), the rationale for choosing any particular set of chemicals depends on many factors. As an example, two brands in the same product sector but with significantly different end uses for their chemicals in products information may select widely different sets of chemicals. Those two hypothetical stakeholders can be aligned with the Chemicals in Products Programme objectives, provided they build or use systems for chemicals in products information exchange that deliver the information needed for their end uses (for sound chemicals management decisions and actions). This section provides guidance to all stakeholders in selecting their set of chemicals for information exchange. Figure I depicts the key stakeholders involved in information exchange within and outside the supply chain.

Figure I Simplified illustration of the product life cycle, showing major stakeholder groups, product and materials flows and major potential channels for providing and requesting chemicals in products information



### Legally restricted substances

- 9. The Chemicals in Products Programme recommends that stakeholders identify, at a minimum, regulated chemicals contained in the products in question. To identify regulated chemicals, a participant in the Chemicals in Products Programme would need to review chemical regulations to ensure the products and information on the chemicals included are compliant with applicable national legislation and regulation.
- 10. The approach of using regulations to determine which chemicals to include in a chemicals in products information system is common. The wide use of systems based on restricted substance lists is the result of companies and other stakeholders targeting chemicals based on applicable national laws.

### Selecting and listing beyond regulated chemicals

- 11. Stakeholders applying the "regulated chemical" criteria for selecting the chemicals in their information systems may also benefit from including those chemicals that are projected to be regulated or are otherwise of concern. This is a proactive approach, frequently taken by companies and other stakeholders in their information exchange activities on chemicals in products, and involves adding chemicals that are projected to be regulated to the chemicals already listed in their regulatory-based systems (e.g., in their restricted substances lists). This approach has clear advantages as companies and others may seek to avoid the use or inclusion of chemicals before they are legislatively restricted and to assess the impacts of potential or pending restrictions. This pre-emptive approach is used in the majority of systems based on restricted substances lists.
- 12. Stakeholders implementing chemicals in products information systems that include chemicals beyond those already regulated may provide transparent criteria for inclusion of chemicals on the list, establish a dialogue with relevant stakeholders to discuss chemicals on the list and articulate the opportunities, limitations and trade-offs of a list-based approach in relation to other chemical management strategies.

### Selecting chemicals based on hazard characteristics

- 13. While many chemicals of concern<sup>3</sup> are addressed by regulation, the absence of regulations or conflicting regulations between countries create challenges for selecting chemicals for inclusion in a chemicals in products information system. Numerous chemicals may be restricted in some jurisdictions and either not regulated or regulated differently in others. It may be the case that legislation is not yet in place to effectively address issues regarding chemicals in products. In response to this challenge, stakeholders may use the Strategic Approach criteria<sup>4</sup> to identify the chemicals that they choose to include in their information exchange systems/activities. These Strategic Approach criteria, based on hazards and targeting risk reduction, provide an internationally accepted basis for the selection of chemicals under the Chemicals in Products Programme.
- 14. Similar to the approach of using the Strategic Approach criteria, participants in the Chemicals in Products Programme may wish to extend their selection of chemicals to include what is considered a hazardous substance, for example, as determined by the criteria of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). This can be accomplished by applying the health and environmental endpoints in the GHS and determining which chemicals classified as hazardous are present in their products.<sup>5</sup>
- 15. Information on chemicals and their properties is supplied under the GHS by chemical suppliers in a large number of jurisdictions. This is an increasing trend, with more and more countries implementing the GHS. This approach presents an opportunity to use chemical information from the GHS in the exchange of chemicals in products information. Opportunities for coordination between the GHS and the Chemicals in Products Programme should be further investigated.
- 16. In summary, there are numerous ways to select chemicals for information exchange based on their regulated status or hazardous characteristics. Stakeholders should refer to the examples and

<sup>&</sup>lt;sup>3</sup> "Chemicals of concern" were defined during the scoping phase of the chemicals in products project (2009) as chemicals which, due to their inherent hazardous properties, present a known or reasonably suspected risk to human health and/or the environment.

<sup>&</sup>lt;sup>4</sup> Strategic Approach Overarching Policy Strategy, para. 14.

<sup>&</sup>lt;sup>5</sup> Safety data sheets could be used in the supply chain for hazardous chemicals that remain in the product or product component. Companies may use third parties to collect, store and process the information in these safety data sheets.

information given in tables 1 and 5 below and consider the characteristics of the product and product sector in selecting their chemicals for inclusion.

### Information references for selecting chemicals

17. Companies and other stakeholders that apply the regulated chemicals or pre-emptive approaches described above when selecting chemicals may refer to the various chemical lists in table 2. The lists noted generally include chemicals based on a legislative restriction and/or a health or environmental hazard. These lists are not exhaustive and stakeholders should undertake an appropriate review to have an accurate and current list of the chemicals that are regulated (or projected to be) for the particular product or sector.

### Systems based on product content declarations

- 18. Many current systems for chemicals in products information exchange are used to exchange information about chemicals that are not in products. Other systems are used to provide information about chemicals that are in products. The Chemicals in Products Programme recognizes the value of both approaches and encourages stakeholders to adopt a system that best meets their requirements, goals and resource possibilities.
- 19. Within the supply chain, some companies use information exchange systems known as "full material disclosure," which, in the electronics sector, for example, means the collection of comprehensive chemical content data for a product.<sup>6</sup>
- 20. There are clear and inherent advantages that come from knowing which chemicals are present in products. Chemicals "intentionally added to the product" are typically included in such systems. There are also significant resources, which are often associated with implementing systems, for transmitting such a level of information. A recent publication by the United Nations Environment Programme highlights the cost/benefit of building and using such a system in the electronics sector.
- 21. Table 1 gives examples of systems that have been developed and applied in the product sectors represented by the Chemicals in Products Project Steering Group. Further examples are given in paragraphs 46 to 51 below.

Table 1
Information systems on chemicals in products: selected summaries

| Sector and system  | Mechanism/body for sector coordination   | Results   |
|--|--|---|
| Automotive Global Automotive Declarable Substances List and International Material Data System   | Coordination between:  (a) Sponsors Group (members company management), and (b) Steering Committee (member company experts)    | The International Material Data System has become a global standard used by almost all of the global automotive original equipment manufacturers. In this system, all compliance-relevant materials used for automobile manufacturing are collected, maintained, analysed and archived by following the confidential business information principles. Using the International Material Data System, it is possible to meet the obligations placed on automobile manufacturers, and thus on their suppliers, by national and international standards, laws and regulations |
| Electronics 1. International Electrotechnical Commission (IEC) Standard 62474 (Material Declaration for Products of and for the Electrotechnical Industry) | IEC Technical Committee<br>No. 111 (environmental<br>standardization for<br>electrical and electronic<br>products and systems) | IEC 62474 provides the basis for a harmonized information exchange system on chemicals in products for the sector, through requirements for reporting of substances and materials, standardizing protocols and facilitating transfer and processing of data   |
| Institute for Printed Circuits (IPC) Standard  | IPC Committee 2-18b<br>(Materials Declaration Task   | IPC-1752A is the materials declaration standard for companies in the supply chain to share information on materials in products. The standard is supported by an  |

<sup>&</sup>lt;sup>6</sup> See the International Material Data System website for information on full materials disclosure: http://imdsinfo.com/faqs.html.

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<sup>&</sup>lt;sup>7</sup> Intentionally added chemicals below a predetermined concentration usually do not need to be reported under existing systems, unless they are regulated chemicals or exhibit hazardous characteristics.

<sup>&</sup>lt;sup>8</sup> The report *The Business Case for Knowing Chemicals in Products and Supply Chains* addresses this topic in depth (see www.unep.org/chemicalsandwaste/UNEPsWork/ChemicalsinProductsproject/tabid/56141/Default.aspx).

| Sector and system         | Mechanism/body for sector coordination | Results  |
|---------------------------|--|--|
| 1752A (Materials          | Group)                                 | XML schema and a data model                                |
| Declaration Management)   |  |  |
| Textiles                  | Work streams within the                | Historically there has been collaboration among major      |
| The Chemicals             | Sustainable Apparel                    | brands on restricted substances lists (based on a pre-     |
| Management Framework      | Coalition, Outdoor Industry            | emptive approach) resulting in coordination of             |
| of the Outdoor Industry   | Association and Zero                   | approaches and training materials for supply chains        |
| Association, which is     | Discharge of Hazardous                 |  |
| integrated into the       | Substances Working Group               | Current efforts extend coordination to development of      |
| Sustainable Apparel       | manage the chemicals in                | sector harmonized: (a) tools for supplier facility audits; |
| Coalition Higg index; the | products information                   | (b) schemas to gather chemicals in products                |
| data schema and facility  | elements under these                   | information; and (c) levels of performance metrics for     |
| audit protocol developed  | initiatives and coordinate             | brands and supply chain actors                             |
| by the Zero Discharge of  | between themselves and                 |  |
| Hazardous Substances      | within the sector                      |  |
| Working Group             |  |  |

#### Box 2

### Potential advantages of the Chemicals in Products Programme

Potential advantages cited by manufacturers of the use of existing chemicals in products information systems:

- Major cost savings in the supply chain: The sector-wide approach leads to a broad harmonization of individual customer (and supplier) requirements for chemicals in products information. This helps avoid a patchwork of systems and results in an efficient and cost-effective transfer of information in the sector
- Legislators and non-governmental organizations become aware of the sector's chemicals in
  products information systems and management processes and recognize that they are providing
  useful information exchange: This greatly assists manufacturers with respect to inspections or
  compliance audits and also helps ensure that the sector or system users are not key targets for publicinterest activist campaigns
- When a chemical or substance is subject to a legislative restriction somewhere in the world, the sector has the possibility to take the necessary countermeasures in time: These could include:
  - > Impact assessments: checking the related impact on the industry
  - Assessments of alternatives: allowing sufficient time for substitutions results in cost savings
  - Lobbying: ensuring reliable and high quality input into stakeholder consultations, which in turn is appreciated both by:
    - Legislators: The sector can provide more accurate information to legislators, who can then better decide on the most appropriate risk management measures; and
    - Chemical industry: The sector can provide more accurate information to the industry (their suppliers), who can then better defend their substances during their own lobbying actions
- A high degree of system knowledge is achieved in the supply chain, which boosts supplier
  compliance: Suppliers understand their obligations under the system, and also that they will get an
  immediate response from their customers if they produce non-compliant products
- Creates opportunities for innovation and green chemistry
- In cases of individual customer requests, manufacturers are able to provide reliable answers

Potential advantages to other stakeholders of the use of chemicals in products information systems:

- Product designers are better informed of chemical content issues and specify materials which avoid chemicals of concern
- Waste management activities can be guided with chemicals in products information, facilitating the
  proper segregation of wastes at the product's end of life, and the recycling of appropriate materials
  (potentially with a higher value)
- Increased access by Governments to chemicals in products information leads to improved opportunities for public procurement which considers product chemical content and to new opportunities for intergovernmental collaboration through the sharing of information and experience
- Non-governmental organizations have increased access to chemicals in products information, which is of great value in promoting the safe use and sound management of chemicals
- Consumers can be better informed of chemicals issues related to the products that they purchase and use, and better prepared to take chemicals management decisions and actions

22. Box 2 recalls the significant benefits that have been, or could be, realized by numerous industry and product sectors and stakeholder groups through the use of chemicals in products information systems.

### Facilitating communication on chemicals in products within and outside the supply chain

23. After selecting the chemicals for information exchange, stakeholders need tools to exchange information on the selected chemicals. The aim of the Chemicals in Products Programme information objectives is that reliable and relevant information on chemicals in products is available throughout the life cycle of products for stakeholder decisions and actions.

### Objective 1. Within supply chains, to know and exchange information on chemicals in products, associated hazards and sound management practices

- 24. The information exchange would be for selected chemicals (for example, regulated chemicals) that are present above a reporting threshold. The information should also include identification of the hazards and safe handling instructions, if required. This information should be supplied in the appropriate language for the recipients.
- 25. Exchange of chemicals in products information in supply chains is usually built on existing business relationships, which allows for mechanisms to protect confidential information. For examples of relevant tools to achieve objective 1, see table 1 above.
- 26. Recyclers are outside the business-to-business information exchange because their connection to the data is interrupted by consumers. Therefore, recyclers and manufacturers using recycled material will need to work with relevant stakeholders to access sufficient information.

## Objective 2. To disclose information of relevance to stakeholders outside the supply chain to enable informed decision-making and actions about chemicals in products

- 27. The Chemicals in Products Programme calls for the information exchange needed to enable a chemicals management decision and action by a stakeholder outside the supply chain. This may be achieved by documenting that selected chemicals of concern are not in a product or by acknowledging when they are present, along with appropriate precautions and use instructions. There are cases in which hazardous chemical content information is appropriate, and others in which a risk-oriented communication is better suited. The information should, at a minimum, enable the recipient to decide and act so as to minimize the risk of significant adverse effects to health or the environment.
- 28. Outside supply chains, the range of possible decisions and actions by (and within) stakeholder groups is highly varied, and so would be the corresponding enabling information. Within the Chemicals in Products Programme it is recommended that those requesting chemicals in products information and those providing chemicals in products information engage in a constructive dialogue on information needs. The aim of such a dialogue would be to make available useful information for a product purchase or other chemicals management decision or action. As with objective 1, this information should be clear and easy to understand for the recipients.
- 29. In the event of disagreement, the information provider can take the final decision regarding what information is relevant to include, unless otherwise required by law. In such cases, information providers should be open and transparent in the rationale for their decision.
- 30. It is important to note that the information to be communicated to Governments, non-governmental organizations and consumers may vary. Different communication tools may be appropriate for the various needs of stakeholders.<sup>10</sup>

### **Determining "relevant information"**

- 31. Relevant information will vary for stakeholders within and outside the supply chain. The Chemicals in Products Programme suggests a focused dialogue for stakeholders to define their information needs and how to best meet those needs.
- 32. Paragraph 15 (b) (i) of the Strategic Approach Overarching Policy Strategy states that chemicals in products information be "appropriate to the needs of all stakeholders", where "appropriate types of information include their effects on human health and the environment, their intrinsic properties, their potential uses, their protective measures and regulation." In resolution III/2 C on Chemicals in Products,

<sup>&</sup>lt;sup>9</sup> See also SAICM/ICCM.4/10, annex, part II, sect. VI.

<sup>&</sup>lt;sup>10</sup> For example https://fortress.wa.gov/ecy/cspareporting.

adopted at the third session of the International Conference on Chemicals Management, the Conference targeted the facilitation of access to relevant information and to take into consideration best practices and successful experiences.

- 33. For the purposes of the Chemicals in Products Programme, "relevant information" is defined broadly as the information that the recipient needs to take an informed purchase or chemicals-management decision or action. For information to be relevant it must be pertinent (the recipient can use the information to inform actions) and it must be in a usable format (i.e., it must be accessible, clear and understandable). Defining what is "relevant" also involves specifying the intent for use of the information, which itself depends on the level of the recipients' ambition to act upon the chemicals in products information.
- 34. General examples include brand or manufacturer decisions about component selection, consumer decisions, product purchase, use and handling and end-of-product-life decisions about waste handling and recycling.
- 35. For a consumer, "relevant information" is, at a minimum, the chemical information needed for a product user to make informed decisions and take action about the purchase and safe handling, use and disposal of a product. Other consumers might require information linking the chemicals in a product to a broad range of possible impacts on health or the environment; these consumers would have a need for information beyond the minimum.
- 36. For a brand or retailer, the minimum relevant information will be that needed to ensure adequate control of the chemicals in the products, in accordance with legal responsibilities. Companies with more advanced corporate goals will require more information.
- 37. Manufacturers and suppliers similarly may target differing levels of information to meet corporate aims, as well as client requirements for chemical oversight or control.
- 38. To design and put into operation a chemicals in products information system, the broad definition of "relevant information" must be refined. This requires characterizing the range of the recipients' ambitions (e.g., to purchase a product or to manage a chemical risk or hazard) and related actions. In this regard, dialogue between the stakeholders who are exchanging the information would be very useful and is highly recommended (as mentioned in objective 2).

### Thresholds for reporting

- 39. Companies that participate in the Chemicals in Products Programme are encouraged to refer to chemical hazard lists to screen for regulated chemicals and/or health and environmental hazards (see table 2). These lists sometimes include reporting thresholds for specific chemicals, which may be useful to determine if particular chemicals would be within the scope of the chemicals in products information system being used.
- 40. Different sectors and stakeholders have defined relevant reporting thresholds for chemicals in products. For example:
- (a) The auto sector has the Global Automotive Declarable Substances List, which sets threshold limits of 0.1 per cent (or lower in certain cases) (see www.mdsystem.com/index.jsp);
- (b) The Cradle-to-Cradle Products Innovation Institute sets the reporting threshold at 100 ppm for chemicals contained in products (see www.c2ccertified.org);
- (c) The Health Product Declaration sets the reporting threshold at 100 ppm and 1,000 ppm. (see hpdcollaborative.org);
- (d) The directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) sets a limit of 100 ppm or 1,000 ppm in homogenous materials for covered chemicals in electrical and electronic equipment (see http://ec.europa.eu/environment/waste/rohs\_eee/index\_en.htm).

## Table 2 **Partial listing of chemical hazard lists**

| Hazard class                      | List  | Sponsoring agency  |
|-----------------------------------|---|--|
| Acute toxicity                    | Extremely Hazardous Substances (Emergency Planning and  | United States Environmental Protection   |
| Asthma                            | Community Right-to-Know Act Section 304) Association of Occupational and Environmental Clinics                  | Agency Association of Occupational and   |
| Asuma                             |   | Environmental Clinics  |
| Endocrine disruption              | EU Strategy for Endocrine Disruptors: Priority List   | European Commission  |
| Cancer                            | Monographs on the Evaluation of Carcinogenic Risks to Humans  | International Agency for Research on Cancer  |
|                                   | Integrated Risk Information System (IRIS)   | United States Environmental Protection<br>Agency   |
|                                   | 13th Report on Carcinogens  | National Toxicology Program of the United States Department of Health and Human Services |
|                                   | Chemicals Known to Cause Cancer or Reproductive Toxicity:   | State of California Environmental  |
| Reproductive and developmental    | Proposition 65 Expert Panel Reports on Reproductive and Developmental Toxicity                                  | Protection Agency<br>United States National Toxicology<br>Programme                      |
| toxicity                          | Chemicals Known to Cause Cancer or Reproductive Toxicity –  | United States State of California  |
| Dansistant                        | Proposition 65<br>National Waste Minimization Program Priority List of  | Environmental Protection Agency  |
| Persistent, bioaccumulative and   | Persistent, Bioaccumulative and Toxic Chemicals   | United States Environmental Protection<br>Agency   |
| toxic                             | European Chemical Substances Information System— List of Persistent, Bioaccumulative and Toxic Chemicals        | European Commission  |
|                                   | US State of Washington Persistent Bioaccumulative Toxins  | United States, State of Washington   |
| Persistent organic                | (Chapter 173-333)<br>Stockholm Convention on Persistent Organic Pollutants                                      | United Nations Environment   |
| pollutants<br>Ozone depletion     | Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer  | Programme<br>European Commission   |
|                                   | Ozone-depleting substances – Class 1 and Class 2<br>Global warming potentials of ozone-depleting substances and | United States Environmental Protection<br>Agency   |
| Priority substance lists based on | substitutes EU REACH annex XIV (authorization list) EU candidate list   | European Commission, European<br>Chemicals Agency  |
| various endpoints                 | EU REACH annex XVII (restrictions list)   | Chemicals Agency   |
|                                   | EU REACH public activities coordination tool and associated risk management option analysis                     |  |
|                                   | Chemicals of Concern Action Plans   | United States Environmental Protection<br>Agency   |
|                                   | European Commission classification and labelling inventory:   | European Commission  |
| Other information sources         | carcinogenic, mutagenic or toxic for reproduction<br>Global Portal to Information on Chemical Substances        | Organization for Economic<br>Cooperation and Development                                 |
|                                   | Hazardous Substances Information System   | Safe Work Australia  |
|                                   | Chemical Sampling Information   | United States Department of Labour,<br>Occupational Safety and Health<br>Administration  |
|                                   | European Commission Directive 67-548-EEC – substances with EU risk and safety phrases                           | European Commission  |
|                                   | Canadian Environmental Protection Act (Schedule 1: List of Toxic Substances)                                    | Health Canada and Environment Canada   |

| Hazard class | List   | Sponsoring agency   |
|--------------|--|---|
|              | Chemicals under the US Toxic Substances Control Act Work Plan  | United States Environmental Protection<br>Agency  |
|              | Minamata Convention on Mercury   | United Nations Environment Programme  |
|              | Chemical Substances Control Law (Class I Specified Chemical Substances and Class II Specified Chemical Substances) | Ministry of Health, Labour and<br>Welfare, Ministry of Economy, Trade<br>and Industry and Ministry of<br>Environment, Japan |

### III. Guidance for programme participants in the supply chain

- 41. Stakeholders in the supply chain will need to take certain basic steps to be able to meet the Chemicals in Products Programme objectives. After selecting chemicals for information exchange and the relevant information to be exchanged, the next step is to communicate within a supply chain, typically through existing business relationships, the need to establish information flow of the chemicals in products. This involves engaging with supply chain partners to describe clearly:
  - (a) Rationale behind the request (why the information is needed);
  - (b) Whether the request for information is a priority, and why it is important;
- (c) Which chemical information is foreseen or expected to be included in the exchange (chemicals in scope and information on those chemicals);
- (d) Use of the information, including which chemical management decisions and actions may be taken based on the information;
- (e) Advantages that will or could be gained through such information exchange (business, reputational, etc.);
- (f) How the information will be transmitted (through an existing system or service or new system yet to be established, etc.);
- (g) Details regarding the protection of the parties' interests (e.g., confidential business information);
  - (h) Economic facets (how the information exchange will be financed).
- 42. The above elements will involve considerable dialogue between and among supply-chain partners as they determine the details relevant to their circumstances. The information objectives of the Chemicals in Products Programme (know, disclose and ensure) provide a reference that can be useful in guiding such dialogue.
- 43. The present section of the guidance document describes common activities, which those in a supply chain might apply, in meeting the three information objectives of the Chemicals in Products Programme.

# ${\bf Table~3} \\ {\bf Suggested~activities~for~supply~chain~stakeholders~to~meet~Chemicals~in~Products~Programme~objectives}$

| objectives  |  |   |
|---|--|---|
| Chemicals in Products Programme objectives  | Suggested activities   | Comments  |
| Within supply chains, to know<br>and exchange information on<br>chemicals in products, associated<br>hazards and sound management<br>practices. | <ul> <li>Establish a point of contact</li> <li>Determine the desired list of chemicals to<br/>be covered by the chemicals in products<br/>information exchange system</li> </ul>   | High security of chemicals in products system data is a prerequisite for quality data transfer and facilitates broad supply chain engagement.   |
| practices.  | <ul> <li>Communicate with supply chain partners to define the system parameters and chemicals in products information details</li> <li>Research systems and services available within the sector</li> <li>Conduct training for supply chain</li> </ul>   | Accurate chemical information early in<br>the supply chain is fundamental to the<br>quality of data exchange and the overall<br>success of the chemicals in products<br>information exchange.   |
|   | <ul> <li>partners and internal personnel</li> <li>Create or use a system/service to exchange information within the supply chain</li> </ul>  | Engagement of key internal departments (e.g., purchasing, research and development, production facilities, quality and upper management) is critical to successful implementation of the system for chemicals in products information exchange.   |
| To disclose information of relevance to stakeholders outside the supply chain to enable informed decision-making about chemicals in products.   | <ul> <li>Establish a point of contact</li> <li>Provide a corporate statement on the objectives of the chemicals in products information exchange, including objectives for outside the supply chain</li> <li>Communicate with partners outside the supply chain to define the means and details for the chemicals in products information exchange</li> <li>Disclose information needed for stakeholders outside the supply chain to take sound chemicals management decisions and actions</li> </ul>  | When determining the information to be exchanged outside the supply chain and how, it should be taken into account that the potential uses for chemicals in products information varies widely, as do stakeholders' desires and capacities to access and act upon the information.  Particular attention should be given to the language and terms used in such disclosures, especially in circumstances in which a technical background may be absent or limited and language barriers may inhibit effective communication.  The date that the disclosed information was produced would also be useful to provide. |
| To ensure that, through due diligence, information is accurate, current and accessible.   | <ul> <li>Review (e.g., annually) the listed chemicals and update as needed</li> <li>Establish a means to ensure the quality and accuracy of information exchanged (e.g., quality management system and independent certified laboratory verification)</li> <li>Require suppliers to provide independent (e.g., third-party) verification, as needed</li> <li>Review (e.g., annually) with providers and recipients of chemicals in products information for feedback on whether the received or provided information is sufficient and adjust as needed</li> </ul> |   |

#### IV. Guidance for programme participants outside the supply chain

Consumers, waste management actors, Governments and non-governmental organizations (including trade unions, workers' organizations, and media) can also participate in the Chemicals in Products Programme. Section V of the Chemicals in Products Programme document describes the roles of stakeholders outside the supply chain. The present section of the guidance document suggests actions these stakeholders could be take to achieve the Chemicals in Products Programme objectives.

Suggested activities for stakeholders outside supply chains to achieve the Chemicals in Products **Programme objectives** 

### Governments

The varying government roles of regulator, customer, provider of public information and initiator and/or supporter of nonregulatory initiatives present a wide range of opportunities and responsibilities with respect to information on chemicals in products.

### Suggested activities

Provide chemicals in products information, such as restricted substances lists, to help stakeholders to meet and anticipate regulatory requirements and non-regulatory actions.

Collect chemicals in products information to be used for regulatory improvement and other purposes.

Use public procurement to promote improved exchange of chemicals in products information, sound chemicals management and green chemistry, consistent with relevant legal obligations, such as the World Trade Organization Technical Barriers to Trade principles

Promote voluntary initiatives and collaboration

Raise awareness of the challenges and opportunities around chemicals in products information, considering the great diversity among consumers and other stakeholders

Encourage participation in chemicals in products information exchange programmes and provide incentives for participation

Establish basic legal structures for sound chemicals management, including securing the right of consumers to access information relevant to health, safety and environmental protection

### Comments

Many initiatives using chemicals in products information that exist today were developed in response to regulation. An extensive discussion on the importance of regulations in driving this issue forward is set out in other chemicals in products project documents.<sup>a</sup>

As purchasers, Governments have power to influence markets and drive change, often to a significant degree. Public procurement strategies can send strong signals and stimulate innovation and change in the private sector

Government roles of policymaker, regulator and purchaser allow Governments to convene relevant stakeholders and to construct and operate voluntary initiatives that will achieve policy aims

As a major provider of information, Governments can support all of the above activities, both through targeted communications to particular stakeholders and through information to the general public

#### Waste management actors

The steps involved in a product's end-of-life management may be highly complex. Waste managers need information for safe handling, relevant to the treatment method, which may

Monitor information on chemicals and waste streams of concern, including information provided by upstream actors, such as on the location of materials and chemicals in products and identification methods

In some sectors, brands and original equipment manufacturers are taking action towards ensuring that their products are properly managed at end of life. At the same time, some waste management actors have developed their own certification and auditing systems to ensure

<sup>&</sup>lt;sup>a</sup> See, for example, the chemicals in products project synthesis report, available at www.unep.org/chemicalsandwaste/UNEPsWork/ChemicalsinProductsproject/tabid/56141/Default.aspx.

| Stakeholder group   | Suggested activities  | Comments   |
|---|---|--|
| include listing the hazardous chemicals in a product and their location, and describing how to prevent exposure. They may also need information on product composition so that materials can be properly sorted and processed, including information on the base material and additives | Exchange information with producers about how their information is being used and areas for improvement, including technical means used in waste management operations, language issues and marking, tagging, listing or labelling options  Provide chemicals in products | that materials are properly managed. Given the need for information about products and for manufacturers to obtain information when recycling, it is crucial that there be communication between producers and waste managers  |
| Waste management actors play<br>an important role as they<br>interface with consumers and<br>others generating waste  | information to manufacturers incorporating recycled materials back into products, such as through safety data sheets  |  |
| Waste management actors are often also recyclers  | Provide information to producers about problems with product designs or manufacturing and suggest improvements  |  |
| Corporate or professional buyers and specifiers   | Corporate or professional buyers and specifiers should consider the Chemicals in Products Programme objectives in their procurement decisions and take appropriate action   | As consumers of products, corporations may have significant purchasing power and ability to affect markets. They can drive change by applying a corporate strategy to their purchases of the business materials, consumables and infrastructure necessary to run their businesses <sup>b</sup> |
|   | Corporations in the Chemicals in<br>Products Programme could describe<br>(e.g., through reporting) how these<br>decisions and actions lead to achieving<br>the Chemicals in Products Programme<br>information objectives  | Corporate social responsibility policy and commitments can (and often do) align with the Chemicals in Products Programme objectives  |
| Non-governmental organizations  |   |  |
| Non-governmental organizations representing the public interest. Suggested actions for non-governmental organizations   | Identify needs for chemicals in products information and chemicals management decisions and actions to which such information could contribute  | May include conducting research and generating data on chemicals in products   |
| representing private sector interests are covered under supply chain activities.  | Establish working relationships with and<br>between the businesses and organizations<br>that can provide the needed chemicals in<br>products information  | When appropriate, establish agreements on conditions under which the information is to be used and/or disclosed  |
|   | Conduct research and collaborate to<br>provide input to determine the most<br>appropriate format and means (systems)<br>for the exchange of chemicals in products<br>information  |  |
|   | Raise awareness on the challenges and opportunities involving chemicals in products, considering the diversity among consumers and other stakeholders   |  |
|   | Publish chemicals in products information (e.g., through publications or websites) based on data provided or from research  |  |
| Individual consumers  |   |  |
| Consumers make up a very heterogeneous stakeholder group. This gives rise to a  | Activities for consumers could include investigating product labelling and available chemicals in products  |  |

<sup>&</sup>lt;sup>b</sup> Corporate purchases (related to running a business) are described here rather than corporate contracts, which relate to the provision by the business (products or services).

| Stakeholder group   | Suggested activities  | Comments |
|---|---|----------|
| multitude of potential uses and<br>needs, levels of knowledge, and<br>corresponding sets of | information, as well as following safety instructions, including for waste disposal.  |          |
| information needed.   | Consumers could provide feedback to the providers of information (e.g., whether it is clear and adequate, or how it could be improved). |          |
|   | Another action is to ask questions on the proper handling, use or disposal with respect to the chemicals contained in the product.      |          |

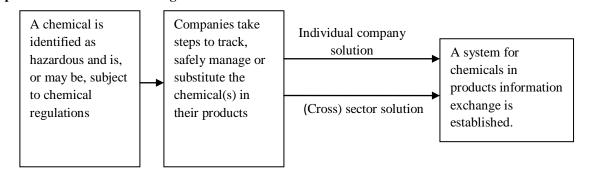
# V. Overview of systems for chemicals in products information exchange

45. The present section gives an introduction to numerous systems which exist to carry out chemicals in products information exchange, related initiatives and the lessons learned from these activities. The information contained herein is not exhaustive, and periodic additions and updates on lessons learned and (especially) to the list of existing systems will be needed to maintain a current list. In this respect, the guidance document represents an opportunity for the Strategic Approach community to keep abreast of, connect with and add value to this important, yet complex, policy issue.

### Systems for chemicals in products information exchange and related initiatives

46. Most systems for chemicals in products information exchange were developed in response to regulatory drivers, as illustrated in figure II below.

Figure II
Illustration of the process of regulation driving the development of a system for chemicals in products information exchange



- 47. The types of exchange systems in use and some of their general characteristics are described in paragraphs 48 to 52 below.
- 48. Information disclosure within supply chains: the majority of methods reviewed under the Chemicals in Products Project and in use in supply chains include a restricted substances list. The restricted substances list is established on the basis of the needs and objectives of the stakeholders (e.g., information for meeting or anticipating regulatory compliance). These systems typically include requirements for exchange of reliable chemicals in products information that are similar to the Chemicals in Products Programme (see objective 3, to ensure that, through due diligence, information is accurate, current and accessible). The most common method found for information exchange through the entire supply chain is electronic means, either directly between stakeholders or via a third-party service provider.
- 49. Information disclosure to stakeholders outside the supply chain: information made available to stakeholders outside the supply chain is most often derived from information generated and exchanged inside the supply chain. Examples include chemicals in products information targeted to stakeholders, such as retailers via product labelling or packaging via markings on the product (e.g., precautions or end-of-life instructions), or through in-store displays as part of brand marketing.

- 50. Related to both of the above, electronic systems in use *within* supply chains can feed information targeted to stakeholders *outside* the supply chain as well. Examples include when product traceability data or third-party certifications (i.e., the business-to-business verifications related to product labels) are made available on a public website.
- 51. Communication between stakeholders wholly outside of supply chains includes public awareness campaigns in places such as public transit systems, government buildings, billboards, television and other electronic media. Information on chemical hazards, warning labels and safe handling are other examples of general public awareness-raising. More targeted awareness campaigns on product-specific issues of chemicals in products are frequently carried out via websites, email notifications, print media and billboards.
- 52. Chemicals in products information combined with other information: chemicals in products information can be combined with other information as a part of a broader sustainability communication. Thus, energy or water use, recycled materials content, working conditions and labour rights and other issues are sometimes included with information on chemicals in products and contribute to a message related to corporate social responsibility. This avenue of communication represents an excellent opportunity for the Strategic Approach community to 'connect' the chemicals in products issue into mainstream sustainability discussions.

### Lessons learned from existing information exchange systems

53. Stakeholders currently employing many of these systems would already be achieving certain information objectives of the Chemicals in Products Programme. As a general presentation of lessons learned from systems for chemicals in products information exchange analysed through the Chemicals in Products Project (2009–2015), an indicative listing is given in table 5 of the advantages and disadvantages of various systems based on the scope of the chemicals they target (regulated chemicals only, regulated chemicals plus those foreseen to be regulated, etc.).

Table 5
Comparison of chemicals in products information systems

Method of selecting chemicals for information exchange on chemicals in products

Advantages

#### Disadvantages

Restricted substances list based on product chemicals content restricted by legislation

Restricted substances list

content restricted by

restricted, and/or other

chemicals of concern

based on product chemicals

legislation, projected to be

- Selection of chemicals in scope is straightforward
- Product sector associations can provide a list for their member companies, greatly reducing individual company research efforts needed to determine the scope of a chemicals in products information system
- Allows for a clear target legally compliant products – for both individual companies and service providers (e.g., third-party certifiers).
- The goal of ensuring a product is legally compliant is simpler, making this approach easier from a business management and due diligence perspective
- Chemicals are selected for information exchange before they are subject to chemical regulations, which facilitates:
  - smoother material substitutions and design changes in a planned manner;
  - regulatory reporting requirements (e.g., for demonstrating compliance) as soon as they come into force
- Brands and maufacturers are following potential legislative developments and can provide input to the legislative process in a timely manner
- Product sectorassociations can provide a list for their member companies, greatly reducing individual company research efforts needed to determine the scope of the chemicals in products information system

- Every time a new chemical is added to the list the entire supply chain must adjust – on a short time scale – to include the related chemicals in products information in the system
- When a chemical becomes restricted, there is an immediate need to investigate for presence and potentially urgent materials substitutions or product design changes are required
- Regular review of jurisdictions is needed, which is time consuming
- More chemicals must be included in the information exchange and the measures to ensure compliance, leading to higher costs to run the chemicals in products information system
- In addition to a regular review of jurisdictions and the costs associated with this, companies must also dedicate resources to follow the developments and (possibly) participate in the debates on chemicals under consideration for restriction

| Method of selecting chemicals<br>for information exchange on<br>chemicals in products | Advantages   | Disadvantages  |
|---|--|--|
| Full material declaration (within the supply chain)                                   | <ul> <li>Allows for a clear target – legally compliant products – for both individual companies and service providers (e.g., third-party certifiers)</li> <li>Provides a comprehensive overview of materials and chemicals in a product</li> </ul> | <ul> <li>Likely to be the most expensive type<br/>of system to set up initially</li> </ul> |
|   | <ul> <li>Allows for immediate verification of<br/>compliance when new chemicals are restricted</li> </ul>  | Difficult to gain supply chain<br>acceptance due to confidential                           |
|   | <ul> <li>Allows material substitutions and design<br/>changes in a planned manner when new<br/>chemical restrictions are anticipated</li> </ul>  | business information issues  |
|   | <ul> <li>Minimizes incremental costs when new<br/>chemicals come into regulatory scope</li> </ul>  |  |
|   | <ul> <li>Enables moves to green chemistry better than other system designs</li> </ul>  |  |
|   | • Leads to less pressure from regulatory oversight bodies and non-governmental organizations   |  |

54. A detailed comparison of existing chemicals in products systems and the Chemicals in Products Programme objectives could be undertaken on a system-by-system basis. Such a read-across analysis would allow for recognition within the Strategic Approach community. Annex I presents brief descriptions of systems used in various sectors and identified during the course of the Chemicals in Products Project.<sup>13</sup>

<sup>&</sup>lt;sup>13</sup>Mention of particular examples does not imply blanket endorsement of their suitability or quality: users may wish to consider whether a particular example is structured in a way that meets their needs.

### Annex I

### Examples of existing chemicals in products information systems and related initiatives

The table below provides examples of existing systems and general indications of the type of system and the main product sectors using the system. Cross referencing between the existing systems and the Chemicals in Products Programme objectives requires detailed comparison. Owners or operators of these and similar systems are encouraged to participate in the Programme and benchmark their system against the Programme objectives.

| System                             | Sector           | Description/characteristics   |
|------------------------------------|------------------|---|
| 3E GPA™                            | Multiple sectors | The 3E Green Product Analyser (GPA) enables users to identify products containing air and/or water pollutants, extremely hazardous substances or ozone depleting chemicals and thereby implement stringent approval processes prior to purchase, or raise the option of banning them altogether from future use and procurement   |
|                                    |                  | msds.3ecompany.com/files/3E_GPA_final.pdf   |
| GreenWERCS <sup>TM</sup>           | Multiple sectors | GreenWERCS is an ingredient-based visual ranking system, designed to allow supply chains to identify the impact of product formulations on human health and the environment   |
|                                    |                  | www.thewercs.com/retail/greenwercs.html   |
| iPoint                             | Multiple sectors | iPoint's suite of software automates communication throughout the supply chain while ensuring data is able to meet customers' and reporting needs. It supports clients in staying ahead of regulations and requirements such as REACH, RoHS, WEEE, ELV, Conflict Minerals and other trending global developments in the arena of environmental and social product compliance and sustainability |
|                                    |                  | www.ipoint-systems.com/integrated-solutions   |
| SciVera Lens <sup>TM</sup>         | Multiple sectors | SciVera Lens <sup>TM</sup> enables companies to be proactive on a number of business trends and validate the safety of their products by gaining access to valuable chemical ingredient toxicological hazard and risk assessment processes  |
|                                    |                  | www.scivera.com   |
| Hewlett-Packard                    | Multiple sectors | Compliance Data Exchange enables companies to collect, maintain and analyse material data across all levels of their supply chain. It provides support and solutions for many regulations, including RoHS, REACH, ELV, the Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships and regulations relating to conflict minerals, packaging and batteries                |
|                                    |                  | Compliance data exchange services support companies in complying with regulations and requirements of customers in multiple regions and industries.   |
|                                    |                  | www.cdxsystem.com   |
| Cradle to Cradle                   | Multiple sectors | The Cradle to Cradle Certified Product Standard guides designers and manufacturers through a continual improvement process that looks at a product through five quality categories: material health, material reutilization, renewable energy and carbon management, water stewardship and social fairness. A product receives an achievement level in each cwww.c2ccertified.org               |
| BizNGO Guide to Safer<br>Chemicals | Any sector       | The BizNGO Guide broadly covers a company's chemical management responsibilities and aligns well with the Chemicals in Products Programme. The progression of activities described under the four levels in the BizNGO guide on "know" and "disclose" align with the objectives of the Chemicals in Products Programme  |
|                                    |                  | www.bizngo.org  |
| International Material Data        | Automotive       | Data repository and communication system for use by automobile manufacturers and throughout their supply chains. The International Material Data System has become a global standard used by almost all of the global automotive original equipment manufacturers.  |

| System   | Sector             | Description/characteristics  |
|--|--------------------|--|
| System   |                    | Compliance-relevant materials used in automobiles are collected, maintained, analysed and archived In the International Material Data System by following the confidential business information principles. Using the International Material Data System, it is possible to meet the obligations placed on automobile manufacturers, and thus on their suppliers, by national and international standards, laws and regulations  |
|  |                    | <i>Note</i> : the International Material Data System contains a provision for information suppliers to report a certain percentage of the material or component content as not specified. This allows confidential business information issues to be addressed, as long as the unnamed chemicals are not on the Global Automotive Declarable Substance List, and thus not permitted to go undeclared.  |
|  |                    | www.mdsystem.com/index.jsp   |
| BASTA  | Building materials | Third-party assessment of building products for hazardous substances. Includes database and common format  |
|  |                    | www.bastaonline.se/?lang=en  |
| Health Product Declaration                                       | Building materials | A Health Product Declaration is a report of the materials or ingredients content of a building product and the associated health effects. Defining the content of this report is the Health Product Declaration Open Standard  |
|  |                    | hpdcollaborative.org   |
| Pharos   | Building materials | Pharos helps commercial buyers evaluate product content and other relevant data against health and environment benchmarks  |
|  |                    | www.pharosproject.net  |
| CleanGredients   | Cleaning products  | CleanGredients provides a web-based database for cleaning product formulators and suppliers to transfer chemical information on their products. It also provides information on physical and chemical properties of ingredients to encourage safer formulations  |
|  |                    | www.cleangredients.org   |
| Design for Environment   | Cleaning products  | The Design for Environment Partnership Programme of the United States Environmental Protection Agency helps consumers, businesses and institutional buyers to identify products that perform well and are cost-effective, but are safer for human health and the environment. The programme promotes sustainability by working with small businesses and consumers to identify risks involved with chemicals used in products or manufacturing processes   |
|  |                    | www2.epa.gov/saferchoice   |
| Rapid Alert System for<br>dangerous non-food<br>products (RAPEX) | Consumer products  | RAPEX is established as the rapid alert system of the European Union that facilitates the rapid exchange of information between Member States and the Commission on measures taken to prevent or restrict the marketing or use of products (with the exception of food, pharmaceutical and medical devices) that pose a serious risk to the health and safety of consumers. Chemical alerts make up a significant portion of the alerts communicated over RAPEX. Weekly alert bulletins are publicly available   |
|  |                    | ec.europa.eu/consumers/safety/rapex/index_en.htm   |
| Chemical Management<br>Database                                  | Toys               | Toy product manufacturers and their component and material suppliers must comply with regulations and legislation that have a global impact, such as REACH and the Toy Safety Directive of the European Union and the Children's Safe Products Act Reporting Rule of Washington State (United States). Since 2011, the Hong Kong Toys Council has been working with other entities to develop a standard system for toy chemical safety compliance management to be used by the toy industry, with the vision of "one industry one system" www.cmd-system.com/wordpress/?page_id=281 |

| System  | Sector                                | Description/characteristics  |
|---|---------------------------------------|--|
| Joint Article Management<br>Promotion-consortium                                      | Any sector                            | The Promotion-consortium offers a data format (XML schema), tools, management guidelines and global portal IT system for disclosure/transfer of information on chemicals and chemicals in products through the supply chain across all sectors. The Promotion-consortium declarable substance list is based on hazardous or highly concerned substances lists from selected regulations and industrial lists             |
|   |                                       | www.jamp-info.com/english/dl   |
| BOMcheck  | Electronics and medical devices       | Electronic system designed for use by original equipment manufacturers and suppliers. BOMCheck is designed to help electronics component suppliers and brands to comply with regulations (e.g., EU REACH). It builds on the Joint Industry Guide and IPC 1752 standard   |
|   |                                       | www.bomcheck.net   |
| IPC 1752 Standard and<br>Joint Industry Guide   | Electronics                           | IPC-1752A is the materials declaration standard for companies in the supply chain to share information on materials in products. The standard is supported by an XML schema and a data model.  |
| ·   |                                       | www.ipc.org/ContentPage.aspx?pageid=Materials-Declaration  |
| International Electrotechnical Commission Database Standard 62474 <sup>a</sup>        | Electrical and electronic products    | The electrical and electronics industry and its supply chain use material declarations to track and declare specific information about the material composition of its products. To harmonize requirements across the supply chain and improve economic efficiencies, IEC 62474 provides an international standard for the exchange of material composition data and establishes requirements for material declarations. |
|   |                                       | This international standard benefits the electrotechnical industry by establishing requirements for reporting on substances and materials, standardizing protocols and facilitating transfer and processing of data.   |
|   |                                       | It provides data to downstream manufacturers that allow them to assess products against substance restriction compliance requirements. They can also use the data in their environmentally conscious design process and across all product life cycle phases   |
|   |                                       | std.iec.ch/iec62474/iec62474.nsf/welcome?openpage  |
| Electronic Product<br>Environmental Assessment<br>Tool (EPEAT®)                       | Electronic products                   | EPEAT® is an easy-to-use resource for purchasers, manufacturers, resellers and others to identify environmentally preferable electronic devices  |
|   |                                       | www.epeat.net  |
| GoodGuide   | Consumer products                     | GoodGuide is a comprehensive resource for information about the health, environmental and social performance of consumer products and companies. Chemicals content is a significant part of the information made available on this publicly accessible web resource  |
|   |                                       | www.goodguide.com  |
| Outdoor Industry<br>Association Chemicals<br>Management Framework                     | Apparel and footwear/outdoor industry | The Outdoor Industry Association Chemicals Management Framework describes chemical management actions, including chemical information requirements. The Chemicals Management Framework modules CM1.0, CM2.0, and CM3.0 align with the Chemicals in Products Programme information objectives 1 and 3 (to know and to ensure)   |
|   | •                                     | www.outdoorindustry.org  |
| Higg Index of the<br>Sustainable Apparel<br>Coalition, Chemicals<br>Management Module | Textiles                              | The Higg Index is a sector-wide tool developed for rating performance over a broad range of sustainability issues. The Chemicals Management Module is based on the Outdoor Industry Association Chemicals Management Framework described above. The Higg Index targets chemicals in products information and contains metrics designed to measure performance in information exchange and chemicals management           |
|   |                                       | www.apparelcoalition.org   |
|   |                                       |  |

| System   | Sector   | Description/characteristics  |
|--|----------|--|
| bluesign   | Textiles | Certification and labelling service provider: the bluesign system uses "input stream management" to ensure that substances identified as hazardous do not enter the textile production chain. For a textile to use the bluesign label, all manufacturing processes and chemicals involved in its creation must meet the standard.  |
|  |          | www.bluesign.com/index.php?id=115  |
| Oeko-Tex Standard 100 and SteP   | Textiles | Oeko-Tex Standard 100 certification and consumer labelling are used for textiles that have been independently shown not to contain identified harmful substances. The related Sustainable Textile Production (STeP) verification system audits and evaluates all relevant environmental aspects of a company's operations.   |
| see also ecolabels <sup>b</sup>  |          | www.oeko-tex.com/oekotex100_public/content5.asp  |
| Apparel and Footwear<br>International Restricted<br>Substances List<br>Management Group<br>(AFIRM) | Textiles | AFIRM coordinates the efforts of several major brands regarding restricted substances lists. A restricted substances list toolkit has been produced through AFIRM and the group provides regular training to suppliers on how to implement chemicals in products information systems and to gather and transmit reliable data on restricted substances.  www.afirm-group.com                                   |
| Global Organic Textiles<br>Standard  | Textiles | The Global Organic Textile Standard is the world's leading processing standard for textiles made from organic fibres. It provides a means for tracking and verifying information on textiles made from organic fibres and includes both chemicals management and information on supply chain chemicals in products.  |
|  |          | www.global-standard.org  |
| American Apparel and<br>Footwear Association<br>Voluntary Product<br>Environmental Profile         | Textiles | The American Apparel and Footwear Association makes publically available bi-annual updates to its restricted substances list (based globally on existing legislative restrictions for the sector).   |
|  |          | www.wewear.org   |
|  |          | The Voluntary Product Environmental Profile is a standardized supplier disclosure form containing vital information on the chemical makeup of products and their environmental properties relative to global standards and regulations. The profiles are used for product development, compliance and sustainability initiatives by major companies in the chemical, textile, apparel and footwear industries. |
|  |          | www.vpepxchange.com  |

<sup>&</sup>lt;sup>a</sup> Project launched by the Ministry of Economy, Trade and Industry of Japan in May 2013. Its purpose is to review current standardization activities and create new schemes for more efficient information to be conveyed throughout the supply chain, covering cross-industrial activities. IEC 62474 is an essential component of the scheme. The scheme should be coordinated with BOMcheck, IPC-1752 and others in the globally connected supply chain.

<sup>&</sup>lt;sup>b</sup> A full list of ecolabels, including descriptions and access links, is available at www.ecolabelindex.com/ecolabels.

### Annex II

### Abbreviations and definitions

### **Abbreviations**

EC: European Commission

ELV: European Union Directive on end-of life vehicles

EU: European Union

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IEC - International Electrotechnical Commission

IPC: Institute for Printed Circuits

ppm: parts per million

REACH: European Union Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals

RoHS: European Union Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment

SME: Small and medium-sized enterprise

WEEE: European Union Directive on waste electrical and electronic equipment

XML: extensible markup language

### **Definitions**

Chemical of concern: a chemical which, due to its inherent hazardous properties, presents a known or reasonably suspected risk to human health and/or the environment

Chemicals in products information or information on chemicals in products or information on chemical content: the range of information that may be used to describe either the chemicals that are not in a product or to describe the chemicals that are in a product – in other words to give information that restricted chemicals (i.e., which should not be present in a product above a certain threshold) are not in a product, or that they are present (if this is the case), or to give information on which chemicals are in a product (that is, what the product is made of, and encompassing information on both hazardous and non-hazardous chemicals)

Full materials disclosure or full materials declaration: the practice of providing information on the chemicals or substances which are present in a product (note that systems practising full materials disclosure typically allow for some substances to remain undeclared, based on criteria and at concentration levels which vary from system to system)

Guidance: the Chemicals in Products Programme "Guidance for Stakeholders on Exchanging Chemicals in Products Information"

Regulated chemicals: refers to those chemicals where a prohibition, restriction, threshold limit, required authorization or similar limitation is applied through existing legislation