UNEP

Strategic Approach to International Chemicals Management

The Chemicals in Products Programme

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IOMC

INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS

A cooperative agreement among FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, World Bank and OECD

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This publication was developed in the IOMC context. The contents do not necessarily reflect the views or stated policies of individual IOMC Participating Organizations.
The Inter-Organization Programme for the Sound Management of Chemicals (IOMC) was established in 1995 following recommendations made by the 1992 UN Conference on Environment and Development to strengthen cooperation and increase international coordination in the field of chemical safety. The Participating Organizations are FAO, ILO, UNDP, UNEP, UNIDO, UNITAR, WHO, World Bank and OECD. The purpose of the IOMC is to promote coordination of the policies and activities pursued by the Participating Organizations, jointly or separately, to achieve the sound management of chemicals in relation to human health and the environment

Chemicals in Products Programme[1]

Contents

[1] As welcomed at the fourth session of the International Conference on Chemicals Management (ICCM4) that took place 28 September to 2 October 2015. Adapted as per ICCM4 request from meeting document SAICM/ICCM.4/10.

I. Introduction

A. Concept

1. Knowledge in the use of chemicals, and control of that use, including of the chemicals which are contained in products, is fundamental to the protection of human health and the environment through the sound use and management of chemicals and to attainment of the 2020 goal of the Strategic Approach of avoiding significant adverse impacts from chemicals on human health and the environment.

2. The Chemicals in Products Programme is a voluntary initiative designed to assist all stakeholders throughout the product life cycle who are seeking effective procedures for the exchange of information on chemicals in products. Stakeholders include businesses, governments, intergovernmental agencies, recyclers, waste management actors, non-governmental organizations and consumer groups.

3. The goal of the Programme is that stakeholders have greater access to the information on chemicals in products that they need to enable them to make decisions and take appropriate action on chemical hazards, exposure, risks and management.

4. The aim of the present Programme document and its supporting guidance is to provide a common reference for all product sectors and stakeholders to scope, design and implement chemicals in products information systems. The implementation of chemicals in products information exchange systems that fulfil the objective set out in paragraph 15 (b) of the Strategic Approach[1] will help support the overall objective of the Strategic Approach to achieve the sound management of chemicals throughout their life cycle.[2]

5. Specifically, the present document:

(a) Explains the objectives of the Programme's information exchange system, which provide the foundation of the Programme;

(b) Describes the roles and suggested responsibilities of stakeholders in respect of the exchange of chemicals in products information throughout the product life cycle.

6. The means for implementing the Programme is outlined in the complementary supporting document, entitled "Guidance for stakeholders on exchanging chemicals in products information" (hereinafter "Programme guidance") (SAIC/ICCM.4/11, annex). The Programme guidance:

(a) Outlines the parameters that stakeholders can use in determining which chemicals they may wish to include in their chemicals in products information exchange;

(b) Describes the types of chemicals in products information that stakeholders would exchange and how to determine what information is relevant;

(c) Provides a common reference for stakeholders in diverse product sectors as they define and implement their information exchange.

1. The Programme is structured to be applicable to many product sectors. One fundamental purpose of the present document is to provide a common starting point for all stakeholders, which could be applied and adapted to specific product sectors. It will both promote the development of new information exchange systems and enhance the usefulness of those already in existence. With that understanding, readers should consider that the specification of details such as particular chemicals which are of concern and the identification of best practices for information exchange will arise through a review of the information needs and activities of the various sectors concerned.[3]

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[1] See annex I for the text of paragraph 15 (b).

[2] The Strategic Approach to International Chemicals Management has as its overall objective the achievement of the sound management of chemicals throughout their life cycle so that, by 2020, chemicals are produced and used in ways that minimize significant adverse impacts on human health and the environment. This aspiration, referred to as the "2020 goal", was adopted at the World Summit on Sustainable Development in 2002 as part of the Johannesburg Plan of Implementation.

[3] At the time of writing, a pilot of the chemicals in products programme in the textiles sector and involving supply chains in China is in its early stages (scheduled for the period 2014–2017). Lessons learned from this pilot will eventually inform other product sectors and Programme participants.

B. Benefits: impact and added value

2. Specific benefits have already been realized through information exchange on chemicals in products in a number of product sectors. Examples cited by several product sectors (the automotive, textiles and electronics sectors) are outlined in Box 1 below, along with potential advantages for other stakeholder groups.

Box 1

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 public-interest 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

Box 2

Potential outcomes of the Chemicals in Products Programme

- Improved visibility of chemicals in products information and collaboration among all stakeholders within and outside supply chains
- Increased access to data, leading to improved assessments of the actual risks of chemicals based on a more thorough understanding of their presence in products and of the need for risk management actions
- Recognition and encouragement of existing and emerging sectoral chemical information management and exchange systems
- Facilitation of integrated chemical information exchange systems, including by using common definitions and criteria for classifying health and environmental chemical hazards, for example of the Globally Harmonized System of Classification and Labelling of Chemicals
- Fostering intersectoral collaboration and transfer of knowledge, lessons learned and best practices, including through communities of practice
- Enhancing the safe recycling and reuse of materials and products
- Striking a responsible balance between the need for relevant chemical information exchange and the need to protect confidential business information
- Establishing a flexible and adaptive initiative which, first, engages the diverse Strategic Approach community and fosters progress towards, and attainment of, the key internationally recognized goals; and, second, meets the needs of specific industry and product sectors and chemical information users, with special attention to the needs and capacities of stakeholders in developing countries

II. Scope of the Programme

3. In resolution III/2 C, the International Conference on Chemicals Management called for the Programme to include chemicals in products information[4] broadly throughout product life cycles.

A. Product scope

4. For the purposes of the Programme, a product is defined as an object that during production is given a special shape, surface or design which determines its function to a greater degree than its chemical composition.

5. The Programme focuses on manufactured products. Typical manufactured products to be covered by the Programme include goods such as textiles, furniture, construction materials, electronics, household items and other consumer goods. For the purposes of the Programme, packaging is considered to be a product itself, rather than an element of the product which it contains. The Programme does not cover those products that lie outside the stated scope of the Strategic Approach[5] nor products whose function is determined primarily by their chemical composition, such as cleaning agents or paint (before it is applied).

[4] Throughout the present document the use of the terms "information on chemicals in products", "chemicals in products information" and "information on chemical content" are used to refer to the range of information that can be used to describe either the chemicals that are not in a product or the chemicals that are in a product – in other words, to give information that restricted chemicals (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).

[5] As stipulated in paragraph 3 of the Overarching Policy Strategy, issues that lie outside the scope of the Strategic Approach include the health and environmental aspects of the safety of the chemicals and products regulated by a domestic food or pharmaceutical authority or arrangement. As it is considered a separate product, however, the packaging for these products (namely, food and pharmaceuticals) may fall within the scope of the Programme.

B. Chemical scope

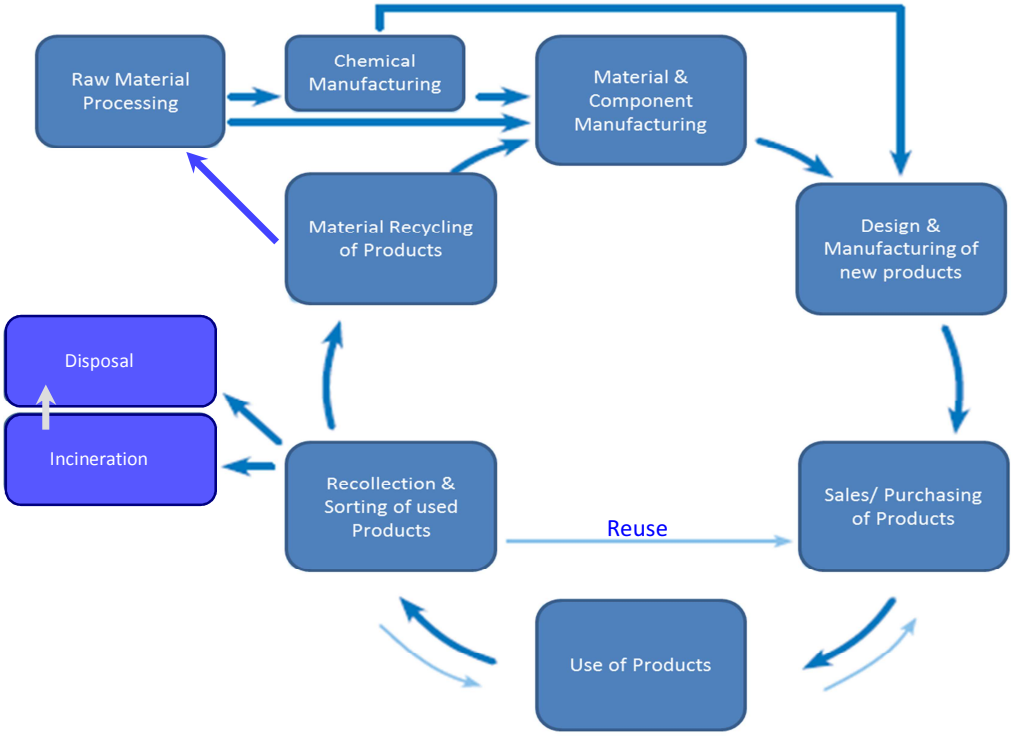
6. The Programme applies to chemicals in products in supply chains and throughout their life cycles, prioritizing chemicals which are persistent, bioaccumulative and toxic substances; very persistent and very bioaccumulative substances; chemicals that are carcinogens or mutagens or that adversely affect, among other factors, the reproductive, endocrine, immune or nervous systems; and other chemicals of concern.

7. Stakeholders are referred to section II of the Programme guidance, on selecting chemicals to be within the scope of chemicals in products information exchange.

C. Life-cycle scope

8. The programme is designed to facilitate information flow throughout the full life cycle of manufactured products. The figure below depicts a typical product life cycle (transport and storage are not shown but can occur between all life-cycle stages). Resolution III/2 C specifies that the programme shall target information on chemicals in products along the supply chain and throughout their life cycles. Securing information flow within the production portion of supply chains, including for recycled materials, is a precursor for enabling successful information exchange with stakeholders both inside and outside supply chains. Different types of information exchange systems on chemicals in products are designed to operate over different portions of the product life cycle, as illustrated in the figure below.

Generalized illustration of the product life cycle, showing product and materials flows



III. Programme information objectives

Box 3

Central principle of the Chemicals in Products Programme

All stakeholders, both within and outside the supply chain, should have access to relevant and reliable information to make informed decisions about chemicals in products.

9. The Programme has three core information objectives, which are aligned with this principle. Attainment of these objectives will ensure the availability and quality of chemicals in products information and enable stakeholders to manage hazards and risks and improve safety throughout the product life cycle. Programme participants are encouraged to undertake information exchange on chemicals in products that is aligned with these objectives.

Box 4

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

10. The first objective, "Within supply chains, to know and exchange information on chemicals in products, associated hazards and sound management practices", includes the sharing between chemical suppliers, component and material suppliers, product manufacturers, brands and retailers of relevant information about chemical presence, identity, hazard and management, while protecting legitimate confidential business information. Information on chemicals relating to the health and safety of humans and the environment should not be regarded as confidential. Also included under this objective is the exchange of information to facilitate the sound management of chemicals, including, where appropriate, exposure data.

11. The second objective, "To disclose information of relevance to stakeholders outside the supply chain", focuses on stakeholders such as consumers, end-of-life actors, Governments and non-governmental organizations and aims to meet identified needs for chemicals in products information which will enable chemicals management decisions and actions to be taken by stakeholders outside the supply chain, with special attention to the needs of vulnerable populations, developing countries and countries with economies in transition.

12. The third objective, "To ensure that, through due diligence, information is accurate, current and accessible", focuses on making sure that reliable and correct chemical information is used and that systems are in place to assure that the information is valid and up to date. In some cases this is achieved through in-house procedures or management systems; testing; third-party laboratories or audits; and production process input controls or other methods.[6] Chemicals in products information should be available, accessible, user-friendly, adequate and appropriate to the needs of all stakeholders.

13. The objective that information is accessible refers to the information transferred both within and outside supply chains under the first and second objectives: chemicals in products information should be of a nature and in a format that the recipient can understand and use.

14. The three objectives form the core of the Programme. They provide aspirational goals and may be used to guide the design of chemicals in products information systems and subsequent actions by stakeholders. Stakeholders that attain these objectives possess the information needed to manage the chemicals in products and to move forward towards the Strategic Approach goal. The objectives themselves were formulated in the light of reviews of numerous existing information systems and best practices for various product sectors.

15. The objectives are general in nature, so as to be applicable to diverse stakeholder groups and product sectors. Specific actions to attain the objectives require consideration of individual stakeholder needs, ambitions and capacities to provide, receive, process and act upon chemical information.

16. The following sections of the present Programme document, together with its supporting Programme guidance, are designed to assist stakeholders, both within and outside supply chains, to

[6] It is instructive here to consider the parallel to other aspects of quality assurance. Entities which sell a product, subcomponent, formulation, et cetera, are generally expected to control and ensure the quality of whatever it is that they sell, and the onus is upon those sellers to provide such assurances. It is common practice (and normal diligence) that purchasers check as they deem necessary the accuracy of the product quality data that they receive. It is reasonable to expect that quality assurance relating to chemicals in products information should proceed in a comparable fashion, although stakeholders are free to determine for themselves how best to ensure the accuracy of information.

define the specific actions and parameters for chemical information exchange systems that will enable them to meet the objectives and which are appropriate to the requirements of their firm, organization or supply chains.

IV. Participation in the Programme, expectations and guidance

A. Procedure and expectations

17. Stakeholders join the Programme by notifying UNEP of their commitment to take actions to meet the Programme's information objectives.

18. Any stakeholder that publicly declares its participation in the Programme acquires responsibilities under the Programme. Participating stakeholders are expected to take actions to meet the Programme's objectives and to make those actions publicly known (see sect.VIII).

19. For a company or other stakeholder participating in the Programme, meeting this responsibility would typically involve designing and implementing a new chemical information exchange system – or adapting, implementing or participating in an existing system – that enables them to more forward towards the Programme objectives. Stakeholders are free to choose how they exchange chemicals in products information through the stages of the product life cycle that are relevant to them.

20. Stakeholders may report on their actions and progress towards the objectives by whatever means that they deem appropriate (such as annual reports, corporate websites, etc.) and are encouraged to notify UNEP as to where this information may be found.

B. Guidance on meeting the objectives

21. The Programme includes supporting guidance to assist stakeholders in determining specific action that they may take towards meeting the objectives. Such guidance is neither prescriptive nor exhaustive, but is rather based on known best practices and draws on extensive experience in several product sectors.[7] It provides examples from existing systems and outlines the basic steps involved in designing, building, selecting and implementing a chemicals in products information system. Further elaboration and expansion of the guidance, and the development of specific tools (including for individual sectors), could take place with adequate resources and support from the Strategic Approach community.

22. Many stakeholders have already established or are participating in chemicals in products information systems with objectives similar to those of the Programme. These systems are often a component of a larger corporate social responsibility effort or sustainability initiative. Stakeholders which are already using a chemicals in products information exchange system could benchmark the activities of their systems as they relate to chemicals in products information and the Programme objectives; the Strategic Approach community welcomes all efforts which work towards fulfilment of the Programme objectives. Relating these existing systems to the Programme will enable stakeholders using them to avoid duplication of effort and to gain further recognition for their activities. The Programme invites stakeholders using existing systems to benchmark their systems in a clear and open manner.

23. Stakeholders that are not yet participating in similar information exchange activities could refer to existing initiatives and experience when building or choosing their future chemicals in products information systems. A general description of design considerations for chemicals in products systems, and the general steps and decisions which are taken as a chemicals in products information system is brought into operation, may be found in the Programme guidance. The guidance also includes a non-exhaustive list and brief descriptions of existing initiatives which have been identified through the chemicals in products project work. Many of these initiatives have associated lists of chemicals – frequently linked to individual product sectors – which identify the information to be exchanged under the initiative. These descriptions and lists are useful references for stakeholders seeking information on how to implement their own chemicals in products information activities.

[7] It is not required that stakeholders use the guidance; it was made to assist those stakeholders that find it useful. Achieving the objectives is the goal, and numerous existing initiatives could likely be reported as fully or partially fulfilling these.

V. Stakeholders

24. The Programme is intended to engage all the stakeholders in the product life cycle, which includes those involved in chemical production, component and product manufacture, distribution, retailing, use, and end-of-life management. Each of these actors needs specific types of chemical information and each has a role in generating, receiving and transferring chemical information.

25. To be consistent with the orientation of the objectives, it is useful to speak of stakeholders as being "within the supply chain" or "outside the supply chain". The supply chain is a subset of the product life cycle and includes those involved in producing and selling a product, including chemical suppliers, component and material suppliers, manufacturers, brand name companies (brands), original equipment manufacturers, retailers and product recyclers. Many private-sector stakeholders in the supply chain have been driving the design, construction and implementation of chemicals in products information systems in their sectors and have requested and supported efficient approaches to the issue.

26. Those outside the supply chain include stakeholders that are not directly involved in producing or selling a product, such as consumers, government agencies, non-governmental organizations, civil society organizations and waste managers.

27. The Programme objectives are oriented around two general, broad streams of information exchange among stakeholders: information exchange between actors within the supply chain; and information exchange between those in the supply chain and those outside. Other information provider-recipient combinations are currently practised or possible (for example., Government to consumer, non-governmental organization to consumer) and each of these has varying needs for relevant chemical information and different pathway characteristics that determine how chemical information might best flow (examples and suggestions of actions are described in the Programme guidance).

A. Within the supply chain

28. It is within the supply chain that a product is made and its chemical composition changes. Knowledge and tracking of the chemicals put into a product, and the exchange of information about the presence or absence of a chemical of concern, are of fundamental importance to possessing reliable chemicals in products information for the final product. Stakeholders within the supply chain have a clear and tangible need for exchanging chemical information, often linked to a role carrying legal responsibility. It is within the supply chain that the most comprehensive obligations, standards and protocols exist for the provision of safe handling information.

29. **Chemical suppliers.** Chemical suppliers include basic chemicals manufacturers, chemical processors (for example, those formulating specialized chemical products for specific applications and markets) and chemical importers and distributors. These stakeholders should have the best information on the hazards of the chemicals that they make and have a critical role and responsibility in making this information available. In many jurisdictions the chemical industry uses the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) for this, on a voluntary basis to ensure that international trade is secure and because of legal obligations. Ideally, companies try to assure safe handling and use of chemicals among their immediate customers by providing relevant information[8] and professional training and by participating in programmes such as the chemical industry's Responsible Care programme[9] and sector-specific programmes (see the Programme guidance for examples). They often lack the means to assure proper downstream management, however, or to gather feedback on how their products are used.

30. **Manufacturing chain: turning chemicals, materials and components into products.** In a global market, brands and original equipment manufacturers frequently depend on independent final product manufacturers, who themselves source from component and material suppliers. Complex and many-tiered supply chains for this manufacturing process are common, with suppliers often distributed around the world and located in developing countries. This multilevel structure of the supply chain makes identifying, tracking and verifying chemical ingredients complex and difficult.

31. The many actions performed by manufacturing chain actors at these multiple levels are diverse, yet some common roles may be identified. A primary role under the Programme is their active participation in the design and use of a system to receive, process (if needed) and pass chemicals in

[8] Providing such information is sometimes a legal responsibility.

[9] See http://responsiblecare.americanchemistry.com.

products information down the supply chain. Training and monitoring in these complex chains are also difficult and it is worth noting from past experience that successful chemicals in products information systems were invariably designed, built, implemented and supported with a long-term company view and commitment. This role is of fundamental importance, as achieving well conceived and ultimately effective chemical information exchange systems requires engagement of the manufacturers as system users.[10]

32. **Brands, original equipment manufacturers and retailers.** Brands and original equipment manufacturers play a number of critical roles in the exchange of chemicals in products information. A primary role is played by those which control the quality of the final product as it goes to market. There is often a legal responsibility associated with this role and thus a clear requirement for due diligence.

33. As the interface with the public for products (and with brands and original equipment manufacturers carrying their name) this group also has the role of transmitting chemicals in products information directly (for example, through safe handling instructions) or indirectly (for example, through safe product or sustainability messaging which incorporates chemicals in products information). Many brands, original equipment manufacturers and retailers are sensitive to customer concerns about the chemical constituents of their products and, in their role, are well positioned:

(a) To request and receive the necessary information from their supply chains[11] and to pass it on to their customers (and other stakeholders);

(b) To identify evolving market demands for chemicals in products information.[12]

34. In both these upstream- and downstream-oriented roles, well-designed communication is essential for the effective exchange of chemicals in products information. Systems to exchange (pass on) chemicals in products information with stakeholders outside the supply chain may be completely different from those used to exchange (or receive) information with (or from) suppliers. For example, the former may be a web-based or email-based system and the latter a custom business-to-business information technology application.

35. **Recyclers.** Chemicals in products information is a key component in achieving safe recycling and high quality recycled materials. Under current conditions, many recyclers need chemicals in products information, and are not themselves in a position to feed it into the manufacturing chain. Achieving effective and large-scale recycling is an important step on the road to greater resource efficiency and establishing sustainable materials use. As with numerous other overarching sustainability issues, access to chemicals in products information is an important contributory element. In view of this current status, the initial role of recyclers in the Programme is to identify their needs for chemicals in products information and to work with relevant stakeholders to gain access to the information. With access to sufficient information, recyclers could perform a role similar to that of the chemicals suppliers or those in the manufacturing chain described in paragraphs 38 to 40 above.[13]

[10] Many sectors have substantial programmes for specifying product chemical content and holding manufacturers responsible for monitoring their own upstream suppliers of chemicals and materials. Here a manufacturer's role is to use an appropriate system and contribute to its eventual improvement.

[11] While they frequently have difficulty acquiring such information from suppliers, large-scale brands and original equipment manufacturers may wield enough market power to pull chemical ingredient information through supply chains; this however is seldom true for smaller operations. Retailers, on the other hand, are in most cases further removed from the final product manufacturers than the brands and original equipment manufacturers, which adds a significant layer of difficulty in communicating chemicals in products information needs to the supply chain and, likewise, in receiving information. In addition, the wide range of product sectors offered by most retailers and the fact that they do not typically design products (and so do not have in-house knowledge of the products' chemicals issues) add to the complexities facing retailers when dealing with the issue of chemicals in products.

[12] A related and critical role here is in responding to these demands by initiating associated chemical management actions to mitigate hazards or risks or to improve the environmental performance of their products (for example through chemical substitutions).

[13] Chemicals in products information for recyclers could be useful, as well-characterized materials would be of higher economic value and could be suitable alternatives to virgin materials. In both cases, chemicals in products information could be used to reintroduce materials with full knowledge of the chemicals of concern that they contain.

B. Outside the supply chain

36. Stakeholders outside the supply chain need chemicals in products information in order to make informed decisions on how to use and dispose of the product. This information may relate to: the presence or absence of chemicals of concern, including at the point of purchase; the safe handling, use and disposal of products; product evaluation or performance assessment; or government regulations, standards and initiatives.

37. The Programme objectives aim to ensure communication of information on the presence of hazardous chemicals, potential exposure and risks. The communication of hazardous chemical presence and risk information outside the supply chain in most cases originates from actors within the supply chain. Of fundamental importance is the formulation of the information. To be clear and effective, the communication methods must be well designed and in a usable format.

38. **Consumers.** Individual consumers are the major stakeholder group at the end of most supply chains. An increasing percentage of these consumers have the knowledge and interest to make informed choices about chemicals in products. By demanding information, consumers influence commercial markets as brands and retailers compete for their attention and purchases. Consumer access to chemicals in products information gives market advantages to stakeholders within the supply chain.

39. Corporate purchasers constitute another category of consumers – a group with significant purchasing power and often the capacity to specify detailed requirements on chemicals in products and supporting information for their purchases.

40. The role of consumers in the Programme is to seek the requisite chemicals in products information to satisfy their particular set of priorities and ambitions. Linked to this role is the notion that consumers will act in the light of the information (i.e., their purchasing decisions and use and consumption patterns will be affected by the information available).

41. Relevant chemicals in products information tailored to purchasing decisions can help both individual and corporate consumers to make informed choices. The largest and most targeted source for this information is brands and retailers, and may encompass both direct chemicals in products information and the seller's messages on sustainability, environmental impact, safety and other aspects where the chemicals content is a part of the communication. There is a role for the seller inside the supply chain (described in section A above) to communicate to the consumer and a corresponding role of the consumer – frequently assumed by non-governmental organizations representing a consumer interest – to give feedback to the seller on the priorities and needs for chemicals in products (and related) information.

42. While consumers are the end users of products, they are also the initiators of waste management after a product‘s useful life. Accordingly, consumers have another role in waste management, which is again shaped by their knowledge – and available information on – product chemical content and end-of-life management options.

43. **Waste managers.** The absence of relevant chemical content information exchange contributes to the legacy of improperly treated wastes and illegal trade in wastes. The decision to treat a material or product at end of life, by recycling or disposal, may depend on knowing its chemical content. Having such information on chemical content may lead to treatment choices – in particular the choice between reuse, recycling and incineration (or other disposal). There is a large and growing need for improved waste management which requires chemical information exchange systems tailored to the needs and capacities of the waste management sector, including the informal sector, and of government officials. The role of waste managers in the Programme is initially to identify their chemicals in products information needs and to work with holders of information to achieve access. Products that are reused and materials that are recycled back into the supply chain are described in that section.

44. **Governments.** Where chemicals in products issues are concerned, Governments formulate and enforce statutes to regulate chemicals for environmental and public health objectives and also to engage in non-regulatory initiatives to achieve these goals. Implicit in these activities is the requirement to respond to citizens' needs and to be sensitive to their demands for public health and safe households, workplaces and products. Governments require access to a broad range of chemicals in products information to be able to assess hazards and potential risks that should be managed, to ensure compliance and exercise oversight, and also to be fully responsive and effective. Governments

also have a key role to play in communicating with the communities which eventually provide and use information. Within the Programme Governments have numerous roles related to their activities:

(a) To conduct inter-ministerial coordination and collaboration: Governments' roles in fostering and overseeing national development and markets and in administering national health programmes offer many opportunities to use chemicals in products information (i.e., chemicals in products information has a role in mainstreaming of chemicals into overall national policy);

(b) To encourage and support initiatives related to chemicals in products and to communicate risk management measures (regulatory and non-regulatory) related to chemicals in products for stakeholders and the public;

(c) Together with stakeholders, to specify the chemicals in products information required to inform risk assessment and management;

(d) To engage in intergovernmental coordination and collaboration: this role is especially relevant to the Programme as it forms part of the Strategic Approach and provides a forum to address global supply chains. Internationally, Governments vary significantly in their priorities and capacity to acquire and use chemicals in products information, and collaboration in information-sharing and capacity-building is an important Programme role. Likewise, government coordination on the requirements and specifications for chemicals in products information at the regional or global level will be conducive to more efficient stakeholder dialogue and government response;[14]

(e) Outside of the policymaker roles, Governments have a significant role as consumers. They may have procurement budgets which are large enough to drive market change, through the purchasing of preferred or safer products, or by linking purchases to provision of relevant chemicals in products information.

45. **Non-governmental and civil society organizations, including trade unions, media and worker organizations.**[15] Non-governmental organizations can have important roles in advancing the exchange of chemicals in products information, in particular in identifying human health and environmental threats and informing the public about them. Non-governmental organizations can play a fundamental role both in educating and in representing the public in discussions relating to chemicals of concern and their impacts, including advocating measures to reduce those impacts. Non-governmental organizations also have an important role to play in promoting the integrity and relevance of the chemicals in products information with which they work.

46. In this context, certain non-governmental organizations are already playing a significant role in creating, piloting, populating and maintaining chemicals in products information systems.

VI. Confidential business information and information security

47. Maintaining the confidentiality of proprietary information is generally accepted as a central factor in securing a long-term return from investments and in rewarding innovation. As such, it is a key component in stimulating what may be termed "green chemistry" and other improvements, with a view to ensuring better protection of human health and the environment. At the same time, concerns are aroused by the potential misuse of confidentiality claims that can undermine relevant information exchange. The present section describes the agreed precedents and general approach to handling confidential business information in the Programme. As with other elements of the Programme, the fine-tuning and detailed specification of exchanging and protecting confidential business information will need to be effected at the sector level.

48. The Programme recognizes the importance of protecting proprietary and confidential business information and emphasizes the need for participants to provide for effective information security. The Strategic Approach text recognizes the issue of disclosure and protection of confidential business information: guidance for the Programme is based on paragraph 15 (c) of the Overarching Policy

[14] Successes in formulating policy mechanisms on chemicals in products information have been achieved both by individual Governments and through regional responses, such as the European Union regulation on the registration, evaluation, authorization and restriction of chemicals, known as REACH, and its product sector regulations. The regional approach has the advantage of facilitating a single market response from the affected private sector.

[15] Non-governmental organizations which principally represent the interests of actors inside the supply chains (for example business associations) are considered to be aligned with roles inside the supply chain.

Strategy, which specifically addresses confidential business information in the context of chemicals in products information:

> To ensure that, in making information available in accordance with paragraph 15 (b), confidential commercial and industrial information and knowledge are protected in accordance with national laws or regulations or, in the absence of such laws or and regulations, are protected in accordance with international provisions. In the context of this paragraph, information on chemicals relating to the health and safety of humans and the environment should not be regarded as confidential.

49. Under the Programme, therefore, information needed to protect human health and the environment should not be regarded as confidential, even when the precise identity of the chemical is protected.

50. While it is expected that Programme participants will respect material protected as confidential business information, the Programme also maintains an expectation of due diligence and responsibility on the part of participating companies and other stakeholders to protect sensitive information. Companies may achieve this through established and proven means (as described below). A company can also ensure transparency about its approach to confidential business information through a published company policy. In developing such policies, a company should adopt best practices that are consistent with the Overarching Policy Strategy.

51. For information transfer within the supply chain there are protocols with wide application in the form of non-disclosure agreements. These are frequently grounded in established business relations and are routinely relied upon to guarantee the availability and protection of information necessary for the proper use and control of chemicals. In certain instances these may also have application to the transfer of information outside the supply chain, if, for example, it is decided to employ the services of a third-party verifier.[16] A final and noteworthy point to illustrate supply chains is that major established chemicals in products information systems exist where confidential business information is routinely and securely handled.[17]

52. **Information exchange between stakeholders inside and outside the supply chain.** For information disclosure from supply chain participants to Governments, non-governmental organizations, end-of-life recyclers and waste managers, Programme participants should be willing to be transparent and disclose information on confidential business information, particularly as it relates to health, safety and the environment.

53. As noted above, Governments fulfil unique roles vis-à-vis chemicals in product information, and through these frequently assume a corresponding responsibility to protect confidential business information. In recognition of these unique roles, the Programme specifically encourages the secure, proactive, voluntary sharing of relevant information with Governments which could facilitate progress towards sound chemicals management. Through regulation many Governments have the capacity to define and protect confidential business information. They have also issued methods to be applied in determining what may be considered confidential business information.

54. Notable among the established mechanisms for the definition, provision and protection of confidential business information in existing policy is the European Union's Classification, Labelling and Packaging of Substances and Mixtures Regulation, which aligns the European Union system of chemical classification and labelling with GHS, includes a provision for chemicals to be identified by category rather than by unique chemical identifier under certain limited conditions.[18] This applies only to the chemicals with the lowest hazard profiles. Chemicals with higher hazard profiles must be identified specifically;

55. The United States Toxics Release Inventory programme requests justifying information to support confidential business information claims.[19]

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[16] When in doubt, legal advice should be sought to ensure that the dissemination of such information outside normal business-to-business contractual arrangements does not compromise the legitimacy of the confidential business information claim under any applicable national regulations. In no case should Programme participants impart identified confidential business information provided by another company, without express consent.

[17] A successful illustration may be seen in the automotive industry's International Material Data System, under which over the past 15 years more than 50 million data sheets have been issued, involving many tiers of suppliers.

[18] See article 24 in European Union regulation 1272/2008/EC.

[19] See http://www.epa.gov/tri/reporting_materials/forms/tradesecret/ts-form_ry2012.pdf.

VII. Information exchange in developing countries

56. The Programme draws special attention to the needs and capacities of stakeholders in developing countries and countries with economies in transition. The circumstances in these countries are challenging: legislative and market requirements may exist, but are inadequately enforced and thus not fully effective. Guidance is therefore required to meet such special needs in respect of the following:

(a) Raising awareness among stakeholders throughout the life cycle of chemicals in products;

(b) Improving information communication mechanisms for information exchange in developing countries and countries with economies in transition.

57. In these countries, the general awareness among stakeholders of chemicals in products issues and of effective related actions throughout the life cycles of products is generally much lower and, in many cases, chemicals in products information exchange systems, both within and outside supply chains, including for the recycling and waste management industry, may not yet be in place. Stakeholders in developing countries and countries with economies in transition are encouraged to draw on the useful examples of existing systems and best practices in other countries, jurisdictions and markets described in the guidance document for attainment of the Programme objectives.

58. This situation is not limited to chemicals in products issues. Sound chemical management frameworks, such as Responsible Care, also need to be in place.

59. Given this, an avenue for improving information exchange in developing countries and countries with economies in transition could be to draw from the experiences gained from developing and operating systems in other countries, jurisdictions and markets, and identify incremental steps to bring this knowledge and know-how to stakeholders in developing countries and countries with economies in transition.

60. Given that many brands and original equipment manufacturers have long supply chains with many suppliers based in developing countries and countries with economies in transition, it is important to note the challenges posed by these conditions for the exchange of chemicals in products information.[20] Opportunities are also available, however, for brands and original equipment manufacturers to spread good practices and know-how through their supply chains, for example by conducting training of suppliers, for the benefit of companies in developing countries and countries with economies in transition. Numerous globally integrated sectors already have or are developing standards, management systems and codes of conduct, specifically to enable supply chain actors to meet the emerging expectations of dependability and responsibility of the global marketplace.

61. The Programme also encourages stakeholders to make the widest possible use of their chemicals in products information, particularly in developing countries which manufacture and import many manufactured products. Given the emerging nature of this policy issue, governments in developing countries often lack sufficient budgets or trained personnel to formulate encompassing policy and to collect and monitor chemicals in products information relative to product trade, use and disposal. Many developing countries and countries with economies in transition lack the capacity to manage chemicals and hazardous wastes in an environmentally sound manner. A full range of needed government institutions may not yet be established, important legal instruments may not have been adopted or enforced, and financial resources may be insufficient.

62. Being major importers of manufactured products, stakeholders in developing countries and countries with economies in transition have repeatedly voiced their need for chemicals in products information. The multiplicity of languages, limited education of workers and consumers, and insufficient media resources all point to the need for well planned and general awareness-raising throughout the product life cycle and for training and expert assistance to promote an understanding of chemical hazards, exposure, risks, management measures and associated information needs. Governments and others outside the supply chain, including the global recycling and waste management industry, can use the Internet and chemical information databases, but these need to be readily accessible, provide opportunities for feedback and two-way communication and be available in

[20] This situation is not limited to chemicals in products issues. The Global Chemicals Outlook notes both the increase in production and use of chemicals in developing countries: both chemicals production and product manufacturing has increased in these countries.

national languages. Public awareness, based on chemicals in products information generated by participants in supply chains, may be raised through posters, media messages, publicly accessible fact sheets, and other relevant channels.

63. Within supply chains in developing countries and countries with economies in transition, suppliers and their employees need information that is immediately available at the point of product use or disposal. Consideration should be given to the use of harmonized labels that are developed in understandable formats, using national languages and symbols that are easily recognized. In line with this thinking, most developing countries are adopting GHS. The consistency of GHS terms, criteria and thresholds may be valuable in these countries. In addition, Governments in developing countries and countries with economies in transition can play other important roles to encourage and facilitate the exchange and management of chemicals in products information, such as by providing lists of substances classified as hazardous under GHS, and by strengthening their regulatory frameworks based on experiences from other countries.

VIII. Tracking progress

64. A participant in the Programme should make information publically available – preferably on an annual basis – that describes the actions taken and progress achieved towards meeting the objectives of the Programme. Stakeholders may choose any appropriate means to report on their actions (annual reports, corporate websites, etc.) and are encouraged to avoid duplication of reporting efforts. Stakeholders are encouraged to notify UNEP as to where this information may be found. Particular note could be made of activities in developing countries, if applicable.

65. UNEP would – as directed by the International Conference on Chemicals Management – review the reported activities and progress made by programme participants and provide an analysis of the effectiveness of the Programme and put forward suggestions for improvements as needed.

66. Programme participants may also describe activities which use chemicals in products information to advance the sound management of chemicals. These uses may be significant and, although they lie outside the Programme's scope of promoting information exchange, they underline the important role played by chemicals in products information in enabling to attain the Strategic Approach goal.

Annex I

Provisions of the Strategic Approach underpinning the Programme

Paragraph 15 (a) to (c) of the Overarching Policy Strategy provides the foundation of the Chemicals in Products Programme. The text of paragraph 15 reads as follows:

> The objectives of the Strategic Approach with regard to knowledge and information are:
>
> (a) To ensure that knowledge and information on chemicals and chemicals management are sufficient to enable chemicals to be adequately assessed and managed safely throughout their life cycle;
>
> (b) To ensure, for all stakeholders:
>
> (i) That information on chemicals throughout their life cycle, including, where appropriate, chemicals in products, is available, accessible, user friendly, adequate and appropriate to the needs of all stakeholders. Appropriate types of information include their effects on human health and the environment, their intrinsic properties, their potential uses, their protective measures and regulation;
>
> (ii) That such information is disseminated in appropriate languages by making full use of, among other things, the media, hazard communication mechanisms such as the Globally Harmonized System

of Classification and Labelling of Chemicals and relevant provisions of international agreements;

(c) To ensure that, in making information available in accordance with paragraph 15 (b), confidential commercial and industrial information and knowledge are protected in accordance with national laws or regulations or, in the absence of such laws or/and regulations, are protected in accordance with international provisions. In the context of this paragraph, information on chemicals relating to the health and safety of humans and the environment should not be regarded as confidential;

(d) To make objective scientific information available for appropriate integration into risk assessments and associated decision-making relating to chemicals policy, including in relation to assessment of chemical hazards and risks to human health, especially vulnerable sub-populations such as children, and to the environment, particularly vulnerable ecosystems;

(e) To ensure that science-based standards, risk assessment and management procedures and the results of hazard and risk assessments are available to all actors;

(f) To make objective scientific methods and information available to assess the effects of chemicals on people and the environment, particularly through the development and use of indicators;

(g) To accelerate the pace of scientific research on identifying and assessing the effects of chemicals on human beings and the environment, including emerging issues, and to ensure that research and development are undertaken in relation to chemical control technologies, development of safer chemicals and cleaner technologies and non-chemical alternatives and technologies;

(h) To promote implementation of the common definitions and criteria contained in the Globally Harmonized System of Classification and Labelling of Chemicals;

(i) To make widely available, for consideration and implementation, the range of existing risk reduction and other tools from various participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals such as the Mutual Acceptance of Data system of the Organization for Economic Cooperation and Development and the International Programme on Chemical Safety database on chemical safety information from intergovernmental organizations, in order to promote best practices in chemicals management, harmonization and burden-sharing;

(j) To develop knowledge and information on the estimated current and projected financial and other impacts on sustainable development associated with the unsound management of chemicals of concern on a global basis.

Annex II

International Conference on Chemicals Management resolution III/2, section C

Chemicals in products

Recalling its resolution II/4 C, in which it decided to implement a project with the overall objective of promoting the implementation of paragraph 15 (b) of the Overarching Policy Strategy of the Strategic Approach that would, among other things, include the development of specific recommendations for further international cooperative action for consideration by the Conference at its third session,

Acknowledging with appreciation the progress made in implementing the specific tasks set out in resolution II/4 C, including the survey on priority product sectors and types of information needed, the study on existing information systems and stakeholder needs, the sector case studies, the synthesis report and the results and conclusions of the meetings held since the second session of the Conference,

Acknowledging the existing information system initiatives and standards with a view to learning from them and sharing best practices,

Having considered the results of the project activities, and especially the suggested elements for further international cooperative action as identified by the international workshop on the chemicals in products project held in March 2011,

1. *Agrees* to continue the multi-stakeholder project established under resolution II/4 C (hereinafter "CiP") to undertake cooperative actions to address the need to improve the availability of and access to relevant information on chemicals in products in the supply chain and throughout their life cycles to facilitate the efforts of all stakeholders to contribute to the overall objective of the Strategic Approach that by 2020 chemicals are used and produced in ways that minimize significant adverse effects on human health and the environment, taking into account in particular paragraphs 15 (a)–(c) of the Overarching Policy Strategy of the Strategic Approach;

2. *Decides* that under the CiP a proposal will be developed for a voluntary international programme for information on chemicals in products along the supply chain and throughout their life cycles (hereinafter the "CiP programme") with the aim of facilitating and guiding the provision and availability of, and access to, relevant information on chemicals in products among all stakeholder groups by building on CiP activities, results and recommendations to date, taking into account the elements identified during the March 2011 workshop on the CiP;

3. *Agrees* that in the development of the proposal for an international CiP programme the following tasks shall be undertaken:

(a) Identification of the roles and suggestions for responsibilities of the major stakeholder groups while providing for flexible and differentiated approaches to meeting the needs of individual sectors and individual stakeholder groups throughout product life cycles, with special attention paid to the needs of vulnerable populations, developing countries and countries with economies in transition;

(b) Development of guidance on what information could be transferred and how information access and exchange could take place to meet the needs of various stakeholder groups throughout product life cycles; considering best practices and successful experiences and taking into account paragraph 15 (c) of the Overarching Policy Strategy of the Strategic Approach;

(c) Implementation of pilot projects to demonstrate the applicability of the guidance developed under the proposed CiP programme in one or more priority sectors,[21] subject to stakeholder participation and available resources;

(d) Implementation of activities aimed at raising consumer awareness and gaining broader support from business, industry and other stakeholders;

4. *Recognizes* the importance of the involvement of chemicals management experts from various sectors, including sectors relating to the various phases of the life cycles of products, in the development the CiP programme, and in particular recommends the inclusion of chemicals management experts representing final product manufacturers and the waste sector in the current steering group established under resolution II/4 C;

5. *Requests* that the CiP programme take into account the Globally Harmonized System of the Classification and Labelling of Chemicals and avoid duplication of efforts with that system;

6. *Invites* the United Nations Environment Programme to prepare relevant documents and to facilitate a multi-stakeholder workshop to consider the outcomes of paragraph 3;

7. *Encourages* the private sector, Governments, intergovernmental organizations and non-governmental organizations to participate actively in the development of the proposal for the CiP programme, including associated pilot demonstration projects, and urges all stakeholders to provide adequate human, financial and in-kind resources on a voluntary basis;

8. *Invites* the United Nations Environment Programme to continue to lead the CiP in an open, transparent and inclusive manner, and to submit the proposal for a voluntary international programme for information on chemicals in products to the International Conference on Chemicals Management for consideration at its fourth session;

[21] Building materials, electronics, textiles and toys.

Annex III

Background to the Programme

1. The Programme is an outcome of the third session of the International Conference on Chemicals Management, convened in September 2012. During that session and, in particular, by its resolution III/2, UNEP was requested to develop a chemicals in products programme proposal and to present it to the Conference at its fourth session in 2015.[22] At its third session, the International Conference on Chemicals Management identified as the aim of the chemicals in products programme facilitating and guiding the provision and availability of, and access to, relevant information on the chemicals in products among all stakeholder groups. During the period between the second and third sessions of the Conference (2009–2012), an analysis was undertaken of the chemicals in products information issue as a global emerging policy issue, and this led to the call at the third session for development of a chemicals in products programme.[23]

2. Most chemicals used to fabricate products are relatively safe when handled correctly. Some products, however, contain chemicals that can present significant risks to human health or the environment at various points in the products' life cycles. Product manufacturers, transporters, retailers, consumers and users, recyclers and waste managers clearly require adequate information on hazardous chemicals in products to make informed choices, control exposure where necessary, and protect human health and the environment.

3. In recent years it has become increasingly evident that information on the chemicals in products is too often absent or insufficient to allow proper management. Because systems for the production, distribution, use and treatment of discarded products are increasingly cross-border in extent, it is important that an effective means of providing, retrieving and exchanging chemical constituent information is available and, to the extent possible, internationally consistent.

4. Businesses and the general public are increasingly aware that proper diligence is needed in respect of chemicals in products[24] and, in addition, that the capacity to manage chemicals in products safely, and to use chemical information effectively, is evolving. In some economies and product sectors significant progress has been made; outstanding needs exist in many countries, however, in particular developing countries, where significant stakeholder awareness and capacity largely still remain to be realized.

Annex IV

Abbreviations, terms and definitions

Abbreviations

CiP Chemicals in products

GHS Globally Harmonized System of Classification and Labelling of Chemicals

UNEP United Nations Environment Programme

Terms and definitions

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

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

[22] See section C of resolution III/2, reproduced in annex II.

[23] See the website of the chemicals in products project for details and documents issued prior to the third session of the International Conference on Chemicals Management (www.unep.org/chemicalsandwaste/UNEPsWork/ChemicalsinProductsproject/tabid/56141/Default.aspx).

[24] This creates market opportunities for proactive businesses and potential liabilities for actors exercising insufficient oversight of this issue. See the recent United Nations Environment Programme report on the business case for knowing chemicals in products and supply chains, available at www.unep.org/chemicalsandwaste/UNEPsWork/ChemicalsinProductsproject/tabid/56141/Default.aspx.

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).

Programme guidance: the Chemicals in Products Programme "Guidance for stakeholders on exchanging chemicals in products information".