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Open-ended Working Group of the International Conference on Chemicals Management
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Emerging policy issues and others issues of concern:
report on progress on emerging policy issues: chemicals in products

Draft chemicals in products programme proposal

Note by the secretariat

- 1. The secretariat has the honour to circulate, for the information of participants, a report received from the United Nations Environment Programme outlining the draft chemicals in products programme proposal (see annex).
- 2. At its third session, the International Conference on Chemicals Management requested the United Nations Environment Programme to develop a chemicals in products programme proposal and to present it to the Conference at its fourth session, to be held in 2015. The chemicals in products programme is aimed at facilitating and guiding the provision and availability of, and access to, relevant information on chemicals in products among all stakeholder groups.
- 3. The proposed chemicals in products programme is a voluntary initiative aimed at businesses, organizations and other participants that are involved in the product life cycle and are seeking efficient procedures for providing and receiving information on chemicals in products.
- 4. The report describes the chemicals in products programme and its objectives and provides guidance for companies, organizations and stakeholders to exchange relevant information about chemicals in products throughout the product life cycle.
- 5. In addition to providing feedback to the Open-ended Working Group, Strategic Approach stakeholders are invited to provide additional input on the chemicals in products programme proposal in follow-up to the Open-ended Working Group meeting. Responses should be submitted by 16 January 2015 through the respective steering group member for the chemicals in products project. The list of steering group members is available on the chemicals in products web page of the United Nations Environment Programme (www.unep.org).
- 6. The report is reproduced as received by the secretariat, without formal editing.

Annex

Draft for Review

United Nations Environment Programme

The Chemicals in Products Programme

to Facilitate and Guide

Information Exchange on Chemicals in Products

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November 24, 2014

Chemicals in Products Programme

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1. Introduction to the Programme

The enormous range of functions and services provided by the countless manufactured products of modern life derive from the rich mix of natural and synthetic chemicals used in their composition and production. These chemicals determine the performance, quality, attractiveness and cost of products. Today, manufactured products are produced, used and disposed in countries throughout the world.

Most chemicals used to fabricate products are relatively safe when handled correctly. However, some products contain chemicals that can present significant risks to human health and/or the environment at various points in the products' life cycles. This life cycle of products includes chemicals synthesis and processing, product manufacturing (including packaging), transport and handling, use, discarding and eventual recycling and reuse, and final end-of-life treatment. To ensure the sound management of chemicals in products, information on the health and environmental hazards of these chemicals needs to be available to those who make decisions throughout the product life cycle. However, in recent years it has become increasingly evident that information on the chemicals in products is too often absent or insufficient.

As detailed in the UNEP report "The Business Case for Knowing Chemicals in Products and Supply Chains" businesses and the general public are increasingly aware that proper diligence is needed with respect to chemicals in products. This creates market opportunities for proactive businesses and potential liabilities for actors exercising insufficient oversight of this issue. The trend throughout the product life-cycle is towards increasing attention on this issue.

When product manufacturers, transporters, retailers, consumers/users, recyclers and waste managers have adequate information on hazardous chemicals in products they are better prepared to make informed choices, control exposures where necessary, and protect humans and the environment from harm. Because systems for production, distribution, use, and treatment of discarded products increasingly span the globe, it is important that an effective means of providing, accessing and exchanging chemical constituent information is available and, to the extent possible, internationally consistent. This is a global and emerging issue; 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; however, outstanding needs exist in many countries, particularly developing countries, where significant stakeholder awareness and capacity building still remain to be developed.

At the invitation of the governing body of the Strategic Approach to International Chemicals Management (SAICM), the United Nations Environment Programme (UNEP) is leading the development of a Chemicals in Products Programme to promote the exchange of chemicals in products (CiP) information and advance efforts to achieve the sound management of chemicals throughout the world.

This document provides guidance for companies, organizations and stakeholders to exchange relevant information about chemicals in products throughout the product life cycle. The main body of the document presents the general concepts of the CiP programme. Detailed guidance is provided in the Annexes. The programme presented here is intended to:

- Provide a voluntary programme that encourages and attracts a range of businesses, organizations and other participants that see value in exchanging information on chemicals in products within and outside of supply chains;
- Recognize and encourage the chemical information management systems that currently exist or are now emerging in various industry sectors;

- Present a method for integrating these chemical information exchange systems with the Globally Harmonized System for the Classification and Labelling of Hazardous Chemicals with special attention to the needs and capacities of developing countries;
- Provide a flexible and adaptive format that sets a baseline of key achievements that can be adjusted to meet the needs of specific industry sectors or chemical information users; and
- Establish a responsible balance between the need for relevant chemical information exchange both within and outside of supply chains and the need to protect confidential business information.

It is important to note that this document is structured to be applicable to many product sectors and so does not target any particular one. A fundamental purpose of this document is to provide a common starting point: it is envisioned to apply or adapt as needed this general guidance for specific product sectors. With that understanding, the reader should consider that elaboration of details such as the specific chemicals which are of concern and identifying best practises for information exchange will arise through a review of the information needs and activities of sectors.

The Chemicals in Products Programme

The Chemicals in Products Programme (CiP programme) is a voluntary initiative aimed at businesses, organizations and other participants involved in the product life cycle and that are seeking efficient procedures for providing and receiving information on chemicals in products.

At its third session the International Conference on Chemicals Management (ICCM), the governing body of the Strategic Approach to International Chemicals Management (SAICM), requested UNEP to develop a CiP programme proposal and to present it to ICCM at its fourth session in 2015. The CiP programme has the aim of "facilitating and guiding the provision and availability of, and access to, relevant information on the chemicals in products among all stakeholder groups".

This programme is intended to provide guidance on identifying chemicals of concern and creating the infrastructure, commitments and pathways whereby CiP information can be exchanged while respecting and protecting the needs for appropriate confidentiality. The CiP programme is designed to support the goal and objectives of SAICM and also seeks to complement efforts made and information available under the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), while avoiding duplications with GHS.

The CiP programme is presented in the current document and composed of two interrelated texts: "The Principles of Information Exchange for Chemicals contained in Products (the CiP programme Principles)" and the "CiP Programme Guidance."

The six CiP programme Principles underlie the CiP programme and assert its aspirational nature. They provide a succinct summary of high-level principles and voluntary commitments of stakeholders throughout the lifecycle who participate in the CiP programme. Stakeholders join the CiP programme by signing, adhering to or otherwise formally adopting these Principles.

The Principles are presented here and related descriptions and actions to demonstrate adherence to the Principles are described in Annex III. Specific guidance for companies and other stakeholders is provided in Annexes IV, V and VI.

CiP programme Principles

- 1. We believe we have a responsibility to facilitate the sound management of the chemicals contained in the products we make, sell, buy or dispose of 1.
- 2. We believe access to reliable and relevant chemicals content information is a fundamental requirement for our purchasing decisions, operations and business transactions, and we commit to gaining access to this information for our products.
- 3. We commit to engage in the exchange of reliable and relevant chemicals content information which stakeholders in supply chains and throughout the product life cycle² require to make sound chemicals management decisions³ for our products.
- 4. We will build or participate in information exchange mechanisms to achieve these principles and the SAICM CiP programme Objectives.
- 5. We will practice this chemicals information exchange in conformity with the principles of SAICM with regard to confidential business information.⁴
- 6. We will promote these principles within our business or stakeholder community.

The CiP programme is intended to be open, welcoming and inclusive of any business, industry sector, organization or other stakeholder participant who finds value in chemical in product information exchange. The programme specifies a framework of roles in the product life cycle. It also suggests, through guidance in its Annexes, organizational responsibilities and actions that lead to achieving the programme Objectives, while allowing for significant variability.. To participate in the CiP programme a business, organization or other participant would:

Agree to the Principles of the CiP programme and notify the CiP programme Secretariat (currently UNEP) of their adherence to the CiP programme;

Establish a system for exchanging information about chemicals in products or utilize or adapt an existing system that adheres to the three CiP programme Information Objectives;

File a report (preferably annually, but at least every three years) with the CiP programme Secretariat on actions and activities undertaken towards meeting the CiP programme information Objectives.

¹ "Disposal" as defined in the Basel Convention

² The CiP programme is designed to be used by stakeholders both within and outside of supply chains. Throughout this document "inside the supply chain" is considered to be a subset of the product life cycle and includes those involved in producing and selling a product, including chemical suppliers, brand name companies (brands)/original equipment manufacturers (OEMs), component and material suppliers and retailers. Those "outside the supply chain" include consumers and recyclers / waste handlers, as well as others who might not handle products directly but who nonetheless may have needs for CiP information, such as public authorities and NGOs.

³ Examples include decisions on: chemicals specification in product design or manufacture; purchasing decisions, both for individual consumers and otherwise e.g. public or corporate procurement;

⁴ Re: SAICM OPS para 15c in Annex I

The CiP programme presented here is not specific to a particular product sector. Rather, it is designed to be applicable to a wide range of industrial sectors and manufactured products. It is expected that as the programme is implemented, the Objectives and roles presented here may require further adaptation or specification (e.g. which chemicals or information exchange methods are most relevant) to be able to clearly inform on the needs of specific product sectors.

To help understand product sector issues that will arise when implementing the programme, the SAICM Overarching Policy Strategy (see Annex I) requested that UNEP pilot the CiP programme to "demonstrate the applicability of the guidance developed under the proposed CiP programme in one or more priority sectors⁵, subject to stakeholder participation and available resources"⁶.

2. Scope of the CiP Programme

The ICCM3 Resolution calls for the CiP programme to include chemicals in products broadly throughout their life cycles.

Chemical Scope

The CiP programme covers chemicals as they appear as constituents in products. A chemical can be a single element, a single compound or a mixture. It can be identified by a Chemical Abstract Service (CAS) number or another internationally recognized chemical identification system.

Products Scope

For the purpose of the CiP programme guidance a product is defined as an object which during production is given a special shape, surface or design which determines its function to a greater degree than its chemical composition. In considering products within the CiP programme it is important to note the difference between components and products. In assembling a complex product, a product may become a component of a larger product. For instance, a tire is a product, but once it is part of a bicycle, the bicycle is the product. In order to present complete chemical information about a final product, chemical information about its components must be known as well.

For the purposes of the CiP programme, packaging is considered to be a product itself, rather than an element of the product.

The CiP programme focuses on manufactured products. Once a CiP programme participant joins the CiP programme, it may choose to implement the CiP programme guidance for all of its products or only a select set of products, groups of products or product types. Thus a clothing manufacturer might include some clothing lines and not others or a computer manufacturer might include its laptops and not its desktop computers. The selection of products could be staged to permit a firm to start with a smaller set of products for which it follows the guidance, and expand over time to include additional products.

The CiP programme covers all manufactured products, although it specifically avoids duplication with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). As such, it does not apply to products that are chemical substances and mixtures, but applies to those products whose function is derived from their design, shape or surface more than from their chemical properties.

The CiP programme does not cover those chemicals / products (e.g. pharmaceuticals or food products) that are outside the stated scope of SAICM.

⁵ Previous work on the programme has involved case studies of four sectors identified as priority product sectors: building materials, electronics, textiles and toys.

⁶ A pilot project in the textiles sector in China is approved and scheduled for 2014-2016. Lessons learned from this pilot will eventually further inform this CiP programme Guidance.

Life Cycle Scope

The CiP programme is designed to facilitate information flow throughout the full life cycle of manufactured products. The diagram below depicts a typical product life cycle. The ICCM3 Resolution specifies that it target "information on chemicals in products along the supply chain and throughout their life cycles." Securing information flow within supply chains is often a precursor for enabling successful information exchange with stakeholders both inside and outside the product production supply chains.

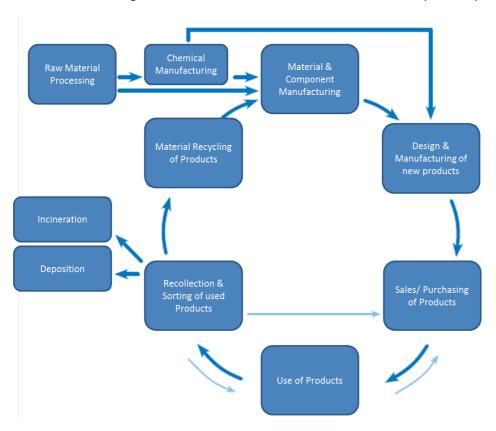


Figure 1: Generalized illustration of the product life cycle (note: transport and storage are not shown and can occur between all life-cycle stages)

3. CiP programme Information Objectives

Within the CiP programme all stakeholders (those along the supply chain and those outside it) should have relevant information to make informed decisions about chemicals in products. Exchange of reliable information is critical to protect human health and the environment. Fulfilling the Objectives below will improve the availability and quality of CiP information flowing through a supply chain and advance the capabilities of managing risks and improving safety throughout the product life cycle.

The CiP programme has established three core information objectives. To meet these objectives CiP programme participants would implement a CiP information exchange system that aligns with the objectives.

CiP programme Information Objectives

- 1. **KNOW AND EXCHANGE IN SUPPLY CHAINS information** on what chemicals are in your products, associated hazards and sound management practices.
- 2. **DISCLOSE** information to stakeholders **outside** the supply chain to assist in informed decision making about chemicals in products.
- 3. **ENSURE** that information is accurate, current, verifiable and accessible.

The first objective, KNOW AND EXCHANGE IN SUPPLY CHAINS information on what chemicals are in your products, associated hazards and sound management practices, focuses on ensuring effective transfer of information on chemicals within the supply chain. This includes sharing relevant information about chemical presence, identity and hazard and management between chemical suppliers, component and material suppliers, product manufacturers, brands and retailers, while protecting legitimate confidential business information (CBI).

The second objective, *DISCLOSE information to stakeholders outside the supply chain*, is focused on ensuring that stakeholders including consumers, end-of-life actors, governments, and NGOS have sufficient information to make informed decisions and undertake sound management practices. This may be achieved by documenting that chemicals of concern are not in products or by acknowledging when they are present, along with appropriate precautions and use instructions.

The third objective, **ENSURE that information is accurate, current, verifiable and accessible** is focused on making sure that the best available chemicals information is used and that systems are in place to assure that the information is valid. In some cases this is achieved by in-house procedures or testing while in other cases, third-party laboratories or audits can be used to ensure data quality.

The CiP programme recognizes that stakeholders both inside and outside supply chains have differing levels of need, ambition and capacity. It is therefore designed to encourage participants to create chemical information exchange systems that are appropriate to the requirements of their firm, organization and supply chains. Stakeholders join the CiP programme by agreeing to the CiP programme Principles and committing to meet the CiP programme Information Objectives. In publically adopting the Principles of the CiP programme and participating as a member in the CiP Programme, a company or organization would:

- Design a chemical exchange system or adapt, implement or participate in an existing chemical information management system that conforms to the three CiP programme Information Objectives.
- Delineate how its system addresses each of the three CiP programme Information Objectives.
- Report to UNEP its progress in chemical information exchange (see Section 12).

It's clear that stakeholders exchange CiP information with other stakeholders and that the possible pairings for these exchanges are many and varied (e.g. company to company, government, recycler, NGO or consumer; government to consumer; NGO to consumer or government). The information relevant for these stakeholder exchanges is likewise varied, and the CiP programme information objectives provide guidance for the focused dialogue which should take place as stakeholders define details of what their information needs are and how to best fulfil them. This is discussed further in Section 5: Types of Information to be Exchanged.

4. Chemicals included in the CiP Programme

In line with the general nature of the CiP programme, it does not provide a global list of chemicals covered by the programme. Rather, the CiP programme describes varying approaches for determining the range of chemicals that are to be included.

Chemicals that are regulated by governments in countries where a product is manufactured, sold, used or disposed and / or have potential for significant adverse impacts on human health or the environment. To identify regulated chemicals, a CiP programme participant needs to review the chemical regulations of the governments of those countries in which it operates. Many companies conduct such a review in the process of creating a Restricted Substances List. If regulations are the focus when determining which chemicals to target, then stakeholders might also consider including those chemicals which are projected to be regulated.

Extending from a set of regulated chemicals to include those with potential for significant negative impacts on human health or the environment, the criteria outlined in the SAICM Overarching Policy Strategy (OPS)⁷ may be used to determine additional chemicals of concern⁸. These include: persistent, bioaccumulative and toxic substances (PBTs); very persistent and very bioaccumulative substances; chemicals that are carcinogens or mutagens or that adversely affect, inter alia the reproductive, endocrine, immune or nervous systems; persistent organic pollutants (POPs), mercury and other chemicals of global concern. While many chemicals exhibiting these criteria are addressed by regulations in some countries, numerous unregulated chemicals also may exhibit the characteristics listed under SAICM.

Companies that participate in the CiP programme may use various authoritative chemical hazard lists to screen for health and environmental hazards. A partial list of such authoritative chemical hazard lists is included in Annex VII.

Chemicals that are evaluated using the GHS Criteria. CiP Programme participants may wish to use the GHS criteria for determining the range of chemicals to be included in their program. This can be accomplished by screening chemicals against the health and environmental endpoints identified in the Globally Harmonized System for Characterizing and Labelling Hazardous Chemicals (GHS) and identifying a hazard or toxicity category for each endpoint.

In so doing:

Stakeholders would determine which chemicals classified as hazardous under the GHS are inputs to their products' manufacturing processes or are included in their products;

If these chemicals are present in the manufactured article, then these chemicals are covered by the CiP programme. For example, an original equipment manufacturer (OEM) or brand (a product manufacturer recognized in the commercial market by its "brand" name or logo) would request that suppliers transmit the GHS safety data sheet down the supply chain for all chemicals remaining in the product or product component. Companies could use third parties to collect, store and process the information in these safety data sheets, as described in other sections of this Guidance.

This approach of linking GHS and the CiP programme will need to be carefully structured. For example, GHS defines the concentration at which a chemical would be labeled when included in a mixture. Further guidance would need to be developed in order to develop appropriate threshold concentrations or weight

⁷ SAICM Overarching Policy Strategy, Paragraph 14

⁸ "Chemicals of concern" were defined during the Scoping phase of the CiP 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".

percentages for hazardous chemicals in the products. Informed professional judgment must guide determination of what information to include in the subsequently manufactured products⁹. In choosing the approach for determining their target chemicals, firms and other stakeholders may choose to first use the GHS, SAICM OPS or regulated-chemical criteria to prioritize chemicals for information exchange, then expand over time to include other chemicals.

5. Types of Information to be Exchanged

Paragraph 15(c) of the SAICM Overarching Policy Strategy requires that the CiP chemical 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." The ICCM3 Resolution on Chemicals in Products targets for consideration "best practices and successful experiences" and to facilitate access to "relevant information".

Some current information exchange systems can be used to exchange information about what chemicals *are not* in products, while other chemical information exchange systems can be used to identify what chemicals *are* in products. The CiP programme recognizes the value of these two approaches, while underlining the inherent advantages that knowing what chemicals are present provides for informing chemicals management decisions.

For the purposes of the CiP Programme, "relevant information" is defined broadly as "the information that the recipient needs to make an informed chemicals-management decision". This includes OEM decisions about component selection; consumer decisions about product purchase, use and handling; end-of-product-life decisions about waste handling and recycling streams; and many other decisions that occur throughout the supply chain. For information to be relevant is must be useful (the recipient can use the information to inform actions) and it must be in a usable format (i.e. it is accessible, clear and understandable).

Defining what is "relevant" depends on specifying what the intent is for use of the information, which is itself dependant on the level of a stakeholder's ability to understand and their ambition to act on the CiP information. For a consumer, for example, "relevant information" is at a minimum the chemical information needed for a product user to make informed decisions and take action about the safe handling, use and disposal of a product. A more ambitious consumer might be one who would act on information linking the product's chemicals to a broad range of possible impacts on health or the environment: these consumers would have a need for information beyond the minimum. An analogous situation can be seen for organizations which represent the consumer or whose aim is to protect the environment and their corresponding needs for a range of information.

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 would require more information. Manufacturers similarly would need differing levels of information to meet corporate aims, as well as client requirements for chemicals oversight or control.

Generally, to meet the Know, Disclose and Ensure objectives one would include as a baseline information on the hazards and potential exposures for the chemicals in a product, as well as guidance for safe use and disposal. Illustrations of these cases can be seen in Annex IV, which gives short summaries of some of the major established systems.

⁹ The GHS has the concentration which triggers the labeling requirement set to a default value or depending on the sensitivity at the health / environment endpoint. The endpoint sensitivity to the chemical once incorporated into an article may change considerably, however in the absence of firm data to inform a different concentration threshold, the GHS concentration would be used.

Inside vs. Outside of Supply Chains

As the scoping of the particular chemicals information for exchange is complex, it may be useful to orient the view of the life cycle of a product's information exchange into the broad areas of inside and outside the supply chain².

The CiP programme proposes that within supply chains, at a minimum hazard-based information should be exchanged. It is within supply chains that products are made and the product chemistry can change: following the addition of new chemicals and tracking the presence of existing chemicals calls for such an approach. This is reflected in the Information Objective 1. Related to this, CiP information exchange in supply chains are usually built on existing business relationships, which allow for confidential information protection mechanisms.

Outside of supply chains there is great variation in what stakeholders will consider useful and usable information. The Information Objective 2 targets information exchange outside of supply chains, and Section 2 also refers to the need for dialogue in defining stakeholders' information needs and exchange mechanisms. There are many cases where hazard-based information would be appropriate, and others where a risk oriented communication is better suited.

Information for Products

Progressing from the text above to then determine what CiP information to exchange at the product level raises many questions: which life cycle stage is targeted? who are the stakeholders and what are their capacities and ambitions for chemicals management actions? what are the relevant chemicals and the relevant information?

Determining answers to these questions invariably requires decisions at the product level. Within this document Section 4 on Chemicals included and Section 6 on Stakeholder roles (inside and outside the supply chain) provide guidance to assist in these decisions.

Generally speaking the following CiP information would assist in ensuring the chemicals contained in products are managed properly:

- · Chemical description, including identity, function and how / where the chemical is used
- · Hazard summary (e.g. GHS hazard classifications) and
- Safe handling, use and storage requirements, recommendations and precautions (including transport, disposal, and regulatory information) as needed

As one determines what CiP information to exchange at the product level, different possible approaches for effective information exchange will emerge. For example it may not be useful or feasible to exchange information for specific models of some types of products. Rather, it may be more appropriate to group the information for a category of products with similar compositions. In these cases, information applicable to an entire product category can be exchanged¹⁰.

In some cases, rather than providing this information directly to a downstream customer, companies may provide this information to a third-party service provider that can review chemical content.

¹⁰ An illustration might be if a brand produces several types of a product and the products all contain the same chemical of concern, it may be sufficient to provide a single set of information that applies to all the product types.

Thresholds for Reporting

Companies that participate in the CiP programme may refer to authoritative chemical hazard lists to screen for health and environmental hazards (see Annex VII). These lists sometimes include reporting thresholds for specific chemicals, which may be useful in determining the applicability of a CiP information system to a particular circumstance.

An alternate method is to base the reporting thresholds upon the GHS. Here the default threshold for reporting is 0.1% (1,000ppm) for known or suspected carcinogens, mutagens, and reproductive toxicants and 1% (10,000ppm) for other substances. There may be evidence that a chemical or mixture is hazardous below the default threshold level. In these cases, the threshold reporting level should be reduced accordingly.¹¹

GHS Classifications

The GHS provides a standardized way to communicate about hazard attributes of chemicals¹². It defines categories for physical, health, and environmental hazards which correspond well to the chemicals targeted for risk reduction under SAICM^{7, 13}.

A company participating in the CiP programme may wish to use the criteria of the GHS as a means of identifying chemicals to include in a CiP information system. GHS is however not applicable to articles¹⁴, so at present the CiP programme does NOT recommend the use of GHS communication means (i.e. pictograms, signal words, hazard statements, and precautionary statements) for communicating in CiP information systems.

6. Stakeholders in the CiP Programme

The CiP 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 under the CiP programme, each has a role in generating, receiving and/or transferring chemicals information.

This section describes the stakeholders and their roles in CiP information exchange. Annexes V and VI suggests responsibilities for these stakeholders under the CiP programme.

¹¹ GHS provides cut-off values/concentration limits for health and environmental endpoints of 1% for acute toxicity, skin corrosion/irritation, serious eye damage/eye irritation, germ cell mutagenicity category 2, specific target organ toxicity, and hazards to the aquatic environment, and 0.1% for respiratory/skin sensitization, germ cell mutagenicity category 1, carcinogenicity, and reproductive toxicity. United Nations, *Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Fifth revised edition.* New York and Geneva: United Nations, 2013. Table 1.5.1, p. 36: Cut-off value/concentration limits for each health and environmental hazard class. , URL: http://www.unece.org/trans/danger/publi/ghs/ghs_rev05/05files_e.html

¹² As an example, under the GHS system a chemical that is known, presumed or suspected to cause cancer would display: a pictogram indicating human health effects; a signal word of "warning" or "danger" depending on the level of concern; a code consisting of letters and numbers indicating the type and level of concern; a, corresponding phrase expressing the hazard (for example, a chemical could be classified as "H350", corresponding to the statement "may cause cancer"); and a code indicating necessary precautions (for example, "P201" corresponding to the precaution to "obtain special instructions before use").

¹³ To note: GHS is a global standard which is adopted and applied nationally. The national GHS definitions and practices should be used to avoid confusion.

¹⁴ See GHS version 5, chapter 1.3.2.1.1, URL: http://www.unece.org/trans/danger/publi/ghs/ghs rev05/05files e.html

In describing roles it is useful to speak of stakeholders who are "within the supply chain" and "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, brand name companies (brands)/original equipment manufacturers (OEMs), component and material suppliers and retailers. Many of the private-sector stakeholders in the supply chain have been driving the design, construction and implementation of CiP information systems in their sectors and have requested and supported efficient approaches to the issue (which the CiP programme seeks to facilitate).

Those outside the supply chain include stakeholders who are not directly involved in producing/selling a product such as consumers, government agencies, non-government organizations (NGOs), civil society organizations, product recyclers and waste managers.

The CiP programme identifies four broad areas for information exchange among stakeholders:

- 1. Information exchange among chemical suppliers and users within the supply chain;
- 2. Information exchange between those in the supply chain and product customers and users (consumers) outside the supply chain;
- 3. Information exchange between those in the supply chain and who reuse products and those who manage products as wastes e.g. through recycling; and
- 4. Information exchange between those in the supply chain and other stakeholders such as governments, non-governmental organizations and civil society.

Each of these areas has different needs for relevant chemical information and different pathway characteristics that determine how chemical information might best flow. Within these areas there are also considerable variations on what information would flow along these pathways (examples and suggestions of corresponding actions are described in Annexes IV – VI).

Within the supply chain.

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, is of fundamental importance to possessing reliable CiP information for the final product. Stakeholders within the supply chain have a clear and tangible need, often linked to a legal responsibility, for exchanging CiP chemical information to assure the sound management of chemicals. Important to note: it is also within the supply chain that the most comprehensive obligations, standards and protocols exist for assuring the provision of safe handling information.

Chemical Suppliers. Chemical suppliers include basic chemicals manufacturers, chemical processors (e.g. formulating specialty chemical products for specific applications and markets) and chemical distributors. They are most likely to have the best information on the physical hazards and toxicity of the chemicals that they make, although they often have more limited information on where and how those chemicals are used or disposed. While chemical suppliers often generate data on the health and environmental effects of the chemicals and mixtures that they make, they are particularly sensitive to revealing the chemical identities and formulas out of concerns for loss of intellectual property and commercial advantage¹⁵.

Many chemical suppliers try to assure safe handling and use of chemicals among their immediate customers by providing relevant information and professional training, and by participating in programs such as the chemical industry's Responsible Care Program and sector specific programmes (see Annex IV for examples). However, they often lack the means to assure proper downstream management or to gather feedback on their products use.

¹⁵ In this regard the use of non-disclosure agreements as a widely respected and utilized tool enables disclosure of CBI necessary to assure appropriate handling and use.

Brands and OEMs. As the public face of products, Brands and OEMs rely on public image, advertising and brand identification to attract customers. They often contract with hundreds of suppliers to manufacture, assemble and package their products and they are ultimately responsible for endorsing – through their business transactions - the performance of those suppliers¹⁶. Many brands and OEMs are sensitive to customer concerns about the chemical constituents of their products and in their role are well positioned to receive this information from their supply chains and to pass it on to their customers (and other relevant stakeholders). While they frequently have difficulty acquiring such information from suppliers, large-scale brands and OEMs may wield enough market power to "pull" chemical ingredient information through supply chains; this is however seldom true for smaller operations.

Brands and OEMs also can have a critical role in initiating actions to mitigate hazards or risks associated with their products (for example through chemical substitutions). Effective communication of CiP information is essential for such improvements to be successfully carried through and usually implicates not just the Brands and OEMs but a number of life cycle phases.

Component Manufacturers and Contract Suppliers. In a global market, brands and OEMs usually depend highly on tiers of component and material suppliers, many of whom are distributed around the world and located in developing countries. First-tier suppliers contract second-tier suppliers who in turn may contract out to small, independent operators who are difficult to identify, train and monitor. This multi-level structure of a supply chain makes identifying, tracking and ensuring chemical ingredients complex and difficult. It is worth noting from past experience that successful CiP information systems invariably were designed, built, implemented and supported with a long-term company view and commitment.

Brands and OEMs in many sectors have substantial programs for specifying chemical content specification and holding suppliers responsible for material selection and chemical identification, and it is often up to each supplier to monitor their own upstream suppliers. Sound management of chemicals requires that all firms in the component and material supply chains document, track and assure the identity and characteristics of the chemical ingredients that they add to a component or material. This requires well-constructed chemical information exchange systems.

Retailers. Because retailers face customers and the public directly, they are best positioned to transfer chemical information to these actors outside the supply chain. They can play an important role in educating customers and representing customer interests in negotiating with their suppliers for chemical ingredient or information disclosure; however, they are less likely to have the technical means to identify or to test products for chemicals of concern. Retailers are also coming under increased pressure from stakeholders outside the supply chain to provide CiP information. Large-scale retailers may be able to use their market power to require brands and OEMs to supply product chemical information, but this is not true for smaller retailers or many in developing countries. Retailers are in general one step further down the supply chain (relative to brands and OEMs) and this brings with it the added difficulty of obtaining reliable CiP information through that extra step. 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 addressing the CiP issue.

¹⁶ The reader is reminded that the field of supplier "performance" is vast, encompassing many facets of corporate social responsibility outside of CiP information. CiP information is frequently requested as part of a larger set of information from suppliers, including on resources use (e.g., energy and water use statistics, recycling content), fair wage and labour practices, workplace safety, and other sustainability metrics. Individual companies often stress these facets to differing degrees, in line with their corporate objectives.

Outside the supply chain.

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

The CiP programme Objectives target communication on chemicals, and particularly as this relates to the presence of hazardous chemicals. Stakeholders outside supply chains assume risk arising from the presence of hazardous chemicals, and so must be involved in knowing and ultimately deciding and acting on the risks involved. Stakeholders outside the supply chain thus need to know if hazardous chemicals are present and the risks these pose.

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; useful information in a usable format.

Consumers. Consumers are the major stakeholder group at the end of the supply chain. An increasing percentage of consumers have the knowledge and interest to make informed choices about chemicals in products and are a marketing opportunity. By demanding sufficient information be available to them, these consumers influence commercial markets as brands and retailers compete for their attention and purchases.

Another category of consumers are corporate purchasers, which are a group with significant purchasing power and often the capacity to specify detailed CiP requirements and supporting information for their purchases.

Relevant CiP information tailored to purchasing decisions can help consumers make informed choices. The largest and most targeted source for this information is from brands and retailers, and may encompass both direct CiP information as well as the seller's messages on sustainability, environmental impact, safety and other aspects where the chemicals content is often a part of the communication. There is a role for the seller inside the supply chain (described above) to communicate to the consumer in his role outside.

Government agencies, popular media and non-government organizations can also play an important role in raising awareness, educating consumers and encouraging informed choices. These efforts may be sufficient to drive markets even when the behaviours of individual consumers have limited impacts. CiP information that is accessible to consumers is key to facilitating informed decisions.

While consumers are the "end users" of products, they are also the initiators of waste management pathways. Their concerns and knowledge about environmental protection may help to shape waste management practices. Consumers have a role then in both their purchasing decisions and their practices after a product's useful life.

Recyclers. Recycling is an important step on the road to greater resource efficiency. Recycled materials need to be of high quality in order to make them attractive alternatives to virgin materials. Phasing out the use of harmful substances facilitates the reuse of materials through recycling. When recycled materials are used, uncontrolled exposure of harmful substances that could be a risk for human health and the environment needs to be prevented.

Recyclers are not often considered part of the chemical supply chain, but should be, as they do return materials / chemicals back into supply chains. CiP information for recyclers could be useful, as for well-characterized materials they can often obtain better pricing. Success here

depends on sufficient tracking and documentation of chemicals in the recycler's supply of postuse products, so that materials can be re-introduced into markets without concern for hazardous contaminants and impurities.

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 in fact depend on knowing its chemical content as this may lead to treatment choices – in particular the choice between recovery and disposal. There is a large and growing need for improved waste management and this requires chemicals information exchange systems tailored to the needs and capacities of the waste management sector (including the informal sector) and of government officials.

Government Agencies. On CiP issues, government agencies formulate and enforce statutes to regulate chemicals for environmental and public health objectives and may also engage in non-regulatory initiatives to achieve these goals. They respond to citizen needs and are sensitive to citizen demands for safe air, water and land, food, work places and consumer products. They often maintain significant environmental and public health protection programs that require chemical information disclosure.

Governments' roles and needs for CiP information are significant; as regulators of chemicals and their use in products governments require access to a broad range of information about chemicals in products to be able to assess potential risks, ensure compliance and be fully effective.

Governments vary significantly in their capacity to acquire and use CiP information. Given the emerging nature of this policy issue, it is not surprising that governments in developing countries seldom have sufficient budgets or personnel to formulate encompassing policy and to collect and monitor CiP information relative to product trade, use and disposal. The role of laboratories and testing facilities in supporting firms in meeting the objective to Ensure the quality of CiP information is an important one. In this respect developing country governments could benefit significantly from activities aimed at infrastructure and human capacity building. Developed country governments are in many cases well advanced in their chemical testing capacities, but many still lack the knowledge needed to define and respond to chemicals of concern found in products. Successes by governments in formulating policy mechanisms on CiP information come from individual states but also regional responses (e.g. EU's REACH and product sector regulations), with the regional approach having the advantage of allowing a single market response from the affected private sector.

Outside of the policymaker role, there is another significant role for governments; as consumers. Government agencies may have product procurement budgets which are large enough to drive market change, through directing purchasers to prefer safer products and linking purchases to provision of relevant CiP information.

Non-governmental and civil society organizations (including trade unions and worker organizations)¹⁷. Non-governmental organizations have important roles in advancing CiP chemical information exchange, particularly in identifying human health and environmental threats and informing the public about them. These private and public interest organizations can both educate and represent the public in identifying chemicals of concern. Importantly, non-government organizations have a role for assessing and assuring the integrity and relevance of CiP information which they work with.

¹⁷ Non-governmental organizations which represent principally the interests of actors inside the supply chains (for example business associations) are considered to align with roles inside the supply chain.

NGOs can also pressure governments to regulate chemicals of concern and press for supply chain stakeholders to replace such chemicals in products.

A significant role some NGOs are already fulfilling is in creating, piloting, populating and maintaining CiP information management systems.

7. Confidential Business Information and Information Security

The CiP programme recognizes the importance of appropriate protection of proprietary and confidential business information and providing for effective information security. Maintaining confidentiality of proprietary information is central to securing long term reward for investments and rewarding innovation. As such, it is the key to stimulating "green chemistry" and other improvements to better protect human health and the environment. At the same time, many are concerned that CBI claims could be used to mask potential hazards and risks associated with specific chemistries or products.

SAICM text recognizes the issue of disclosure and protection of Confidential Business Information (CBI): guidance for the CiP programme is based on the SAICM Overarching Policy Strategy paragraph 15(c), which specifically addresses CBI in the context of CiP 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."

Under the CiP programme, therefore, information needed to protect human health and the environment from hazardous chemicals in products shall not be considered confidential. Companies are therefore expected to abide by national regulations and international protocols with respect to CBI claims. Regardless of the specifics details in these however, information relating to existence of specific health and environmental hazards associated with use of specific chemicals in specific products shall not be considered confidential, even if the precise identity of the chemical is protected.

While it is expected that CiP program participants will respect CBI-protected material, the program also maintains an expectation of due diligence and responsibility of participating companies or organizations to protect their sensitive information. Companies may achieve this through systems including third party disclosure, NDAs (non-disclosure agreements), need-based information disclosure or tiered-based approaches that permit disclosure depending on the security infrastructure of the receiving party. Despite the considerable obligations mentioned earlier which exist and require sharing of CBI, such information is routinely and securely exchanged using these systems and safeguards¹⁸. A company can give clarity on its approach to CBI through a published company policy. In developing such policies, a company should adopt best practices that are consistent with the SAICM principles and consider whether:

- measures are needed to protect the confidentiality of the chemical information;
- the chemical identity is required to be disclosed by any government law or regulation;
- the disclosure of the chemical information is likely to cause substantial harm to the competitive position of the company; and
- the chemical information could reasonably be discoverable through literature searches, reverse engineering, or other means.

Where a company does establish such confidential business information policies, the CiP programme encourages that such policies be referenced in the participant's reports.

¹⁸ A successful illustration is seen in the automotive industry's IMDS, which has over the past 15 years shared over 50 million data sheets and involved many tiers of suppliers.

For information transfer within the supply chain there are protocols with wide application in the form of non-disclosure agreements. These are grounded in international contract relations and are routinely relied upon to guarantee the availability and protection of information necessary to properly handle and utilize chemicals. These may also have application in certain instances in transfer of information outside the supply chain (if one chooses to utilize a 3rd party verifier, for example ¹⁹). 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, CiP programme participants should be willing to enter into constructive dialogues about what information is relevant for disclosure, obligations of information recipients for maintaining security of information disclosed, procedures and conditions for use and any eventual further disclosure of the CBI (or information directly derived from it), confidential business information protection policies, etc. This is particularly the case where a company or organization chooses to transfer information to a third party for assessment, certification or other process.

Governments deserve particular mention on the CBI issue, as they should (and often do) have the capacity and the requirement to protect confidential business information. There are good references to established CBI provision and protection mechanisms in existing policy:

- In the European Union's Classification, Labeling and Packaging of Substances and Mixtures (CLP) Regulation, which aligns the EU system of chemical classification and labeling with GHS, there is a provision for chemicals to be identified by category rather than by unique chemical identifier under certain limited conditions²⁰. This applies only to the chemicals with the lowest hazard profiles. Chemicals with higher hazard profiles must be identified specifically.
- The US Toxics Release Inventory (TRI) Program requests justifying information to support CBI claims²¹.

8. Information Exchange in Developing Countries

The CiP programme encourages special attention to the needs and capacities of stakeholders in developing countries and countries with economies in transition (DC/CEIT). Given that many brands and OEMs have long supply chains with multiple suppliers in developing countries and that many products are now commercially marketed in developing countries, it is important to note the challenges that these conditions present²².

Many developing countries and countries in economic transition lack the capacity to manage chemicals and hazardous wastes soundly. A full range of government institutions may not yet be established, important legal instruments may not have been adopted and/or enforced, and financial resources may be insufficient. Multiple languages, limited or no education of workers and consumers, and insufficient media resources mean that chemical information exchange needs to be carefully planned.

Within supply chains, suppliers and their employees need information that is immediately available at the point of product use or disposal. Harmonized labels should be considered that are developed in understandable formats, using national language and symbols that are easily recognized. Governments

¹⁹ In doubt, legal counsel should be sought to ensure that sharing of such information outside of normal business-to-business contractual arrangements does not compromise the legitimacy of the CBI claim under any applicable national regulations. In no case should program participants share identified CBI information provided by another company, without express consent.

²⁰ Ref: article 24 in EU regulation 1272/2008/EC

 $^{^{21}~}See~URL:~http://www.epa.gov/tri/reporting_materials/forms/tradesecret/ts-form_ry2012.pdf$

²² This situation is not limited to CiP 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.

and others outside the supply chain can use the Internet and chemical information databases, but these need to be readily accessible and in national languages. Informing the public can be done through posters, media messages and publically accessible fact sheets. Most developing countries are adopting the GHS. The consistency of GHS terms, criteria and thresholds can be valuable in these countries.

Providing relevant and reliable CiP information is important to those in DC/CEIT, and should include general awareness raising throughout the life cycle and training and expert assistance for understanding chemical hazards, exposures and risks. Some leading brands and OEMs have initiated such collaborations within their supply chains, with leading examples in the textile and footwear sector. Numerous other globally-integrated industrial sectors have or are developing standards, management systems and/or codes of conduct specifically to enable participants in their supply chains to meet the expectations of dependability and responsibility emerging in demands of the global marketplace.

The overall circumstances in DC/CEIT are challenging: legislative and market drivers are perhaps present but not as influential as in developed country markets; a lower general awareness among stakeholders throughout the life-cycle of the issues, choices and potential actions surrounding CiP information; and the fact that many CiP information communication mechanisms are not yet in place. Given this, an avenue for improving information exchange in DC/CEIT could be to simply look at what exists elsewhere (in other countries, jurisdictions and markets) and what incremental steps would be needed to bring this information to stakeholders in these countries and markets.

9. Collaborating with other Firms and Stakeholders

The companies that emerge as leaders in creating and using reliable CiP information exchange systems often do not work alone. Rather, these leaders engage in collaborative processes that bring them into contact with government agencies, other companies, industry associations, consumer organizations, and others. The following are **basic activities** related to collaboration:

- **Communicate publicly.** Communicate publically about the company's system for chemical information exchange. This may include providing information to other companies or to the public; participating in consultations with government agencies; soliciting input from civil society, waste handlers and recyclers; or other related activities.
- **Establish a point of contact.** Identify an internal point of contact with responsibility to collaborate with other companies and stakeholders to create and operate reliable chemical information exchange systems. For example, some companies have staff members whose time is dedicated to working with partner companies and other organizations to create information systems that can be used by multiple companies.
- Collaborate with industry sector. Work within the firm's sector (through trade associations or with other companies, particularly SMEs) to advance use of (or to help develop) voluntary standards for business-to-business communication on chemical hazards and for public disclosure specific to the industry/sector. Examples of efforts of this kind include the automotive industry's collaborative work to create the International Material Data System (IMDS); the electronics industry's work to create the Joint Industry Guide for Material Composition Declaration for Electronics Products (JIG); and the construction industry's work to create the BASTA database.
- **Report on progress.** Regularly report on company activities and progress towards attaining the CiP programme goals (see Section 12).

Additional activities. Many companies also undertake the following activities:

- **Share information.** Share knowledge and best practices for chemical information exchange with other companies.
- **Support implementation.** Work with governments and other companies to support implementation of chemical information exchange systems.
- Work with outside stakeholders. Collaborate with stakeholders outside the supply chain to determine ways the company's CiP information system could support their sound chemicals management actions. For example, in the US, the Business-NGO Working Group (Biz-NGO) brings together companies and non-governmental organizations to "promote the creation and adoption of safer chemicals and sustainable materials." In Europe, the NGO ChemSec brings together multinational companies for dialogue on progressive chemicals management.
- **Encourage improvements.** Publicly encourage improvements in chemical information exchange systems.
 - For example: a senior scientist at Staples, a large retailer of office supply products, speaks
 publicly about the importance of improving transparency and communication up and
 down the supply chain.
- **Share knowledge.** Establish a regular process with other companies to share information and knowledge about sustainable chemistry, business management systems, continuous improvement, and best practices for public reporting of chemicals in products information.
 - o **For example:** Companies in the apparel and footwear sector are working together through the AFIRM group to enhance chemicals management and improve chemical information transfer through the supply chain.
- Support progress. Support the development of cutting-edge systems and other innovations to enhance business-to-business communication and public disclosure specific to the industry. For example: Nike has provided funding for the development of the Bluesign® system.

10. Reporting

A participant in the CiP programme must submit a report to the Secretariat of the CiP programme – preferably annually but at a minimum every three years - that describes how it is meeting the information Objectives of the CiP Programme. Particular note could be made of activities in developing countries, if applicable. These reports would be made public and could include the following elements²³:

- 1. A description of activities the organization has taken during the reporting period to meet the CiP programme Information Objectives. This should include the scope of the activities (i.e. for which products the activity descriptions are relevant) and links to supporting documentation. Reference could be made to activities carried out through an existing industry initiative, programme or system handling CiP information, with descriptions of how the existing system's objectives equate to the CiP programme Objectives.
- 2. How Objective 1 is being met *Know and exchange in supply chains information on what chemicals are in your products and the associated hazards and sound management practices.* Firms within the supply chain should describe how chemical information is transferred within its supply chain. This may include a description of:
 - a. How the relevant chemicals of concern lists were developed and how they are updated.
 - b. Training that is provided to suppliers.
 - c. How data sharing in supply chains is ensured (i.e. through contract requirements, in procurement procedures, other arrangements).

²³ A summary is given here, see Annex III for details.

- d. What systems are in place to exchange and evaluate chemicals data. e.Additional information as appropriate.
- 3. How Objective 2 is being met *Disclose information to stakeholders outside the supply chain to assist in informed decision making about chemicals in products.* Firms within the supply chain should describe how chemical information is transferred to stakeholders outside the supply chain. This may include:
 - a. Corporate statement of disclosure policy.
 - b. The organization's relevant chemicals of concern lists, as appropriate
 - c. Supporting documentation, such as descriptions of the corporate process or of how the disclosure activities evolved with external stakeholders
 - d. System and activities descriptions relative to the exchange.
 - e.Additional information as appropriate
- 4. How Objective 3 is being met *Ensure that information is accurate, current, verified and accessible*. Firms within the supply chain should describe how they meet this objective, with additional information as appropriate (e.g. certifications).
- 5. CiP programme participants may also describe activities taken to use CiP information to advance the sound management of chemicals. These activities will in many cases be significant and, though outside the CiP programme scope of promoting information exchange, they are very much in scope with supporting achievement of the SAICM goal.

Annex I: SAICM Text

The following text is Paragraph 15 of the SAICM Overarching Policy Strategy, sections 15 (a) to (c) provide the foundation of the Chemicals in Products programme.

- 15. 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 (IOMC) such as the Mutual Acceptance of Data system of the Organisation for Economic Co-operation and Development (OECD) and the International Programme on Chemical Safety (IPCS) database on chemical safety information from intergovernmental organizations (INCHEM), in order to promote best practices in chemicals management, harmonization and burdensharing;
- 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: ICCM3 Resolution III/2 (C)

On the Emerging Policy Issue of 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,²⁴ 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;

²⁴ Building materials, electronics, textiles and toys.

- 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

Annex III CiP Programme Principles of Information Exchange—Presented and Explained

Principles of Information Exchange for Chemicals Contained in Products

This Appendix presents the underlying principles of the Chemicals in Products (CiP) programme, a voluntary and aspirational initiative of the international chemicals community through the Strategic Approach to Sound Chemicals Management (SAICM).

These principles were formulated to inform stakeholders succinctly on the orientation of the CiP programme, and to provide a reference as they demonstrate their commitment to the sound management of the chemicals contained in products. They were designed to be applicable throughout the life cycle of products- in fabrication, transport, sale and use, recycling and final disposal – and as well open to other stakeholder groups. The principles are designed to support attainment of the specific SAICM objectives on access to information on chemicals contained in products. Those actions are described in the CiP programme Guidance which accompanies these Principles within the overall CiP programme.

CiP programme Principles

- 1. We believe we have a responsibility to facilitate the sound management of the chemicals contained in the products we make, sell, buy or dispose of.
- 2. We believe access to reliable and relevant chemicals content information is a fundamental requirement for our purchasing decisions, operations and business transactions, and we commit to gaining access to this information for our products.
- 3. We commit to engage in the exchange of reliable and relevant chemicals content information which stakeholders in supply chains and throughout the life cycle require to make sound chemicals management decisions for our products.
- 4. We will build or participate in information exchange mechanisms to achieve these principles and the SAICM CiP programme Objectives.
- 5. We will practice this chemicals information exchange in conformity with the principles and goal of SAICM with regard to confidential business information4.
- 6. We will promote these principles within our business or stakeholder community.

1. How were the Principles developed?

<forthcoming>

2. Are the Principles legally binding?

No. The Principles are a voluntary and aspirational. They are not intended or designed to be legally binding and/or to create legally enforceable representations and/or commitments towards any signatory's stakeholders or any third party. Consequently, the Principles are not intended to serve as a basis for legal or regulatory sanctions or any form of claim to be brought forward by the United Nations, the signatories, any other stakeholder or any third party.

However, as the SAICM objective is to ensure that information is available, CiP programme participants commit to exercise due diligence in ensuring that they have made all reasonable efforts possible to meet the CiP programme requirements. Furthermore, actions taken by a signatory to implement the Principles are subject to applicable laws, rules and regulations and duties owed to shareholders and policyholders.

3. What are the benefits of becoming a participant?

Benefits of adopting the Principles include:

Publicly demonstrating your organisation's commitment to sound chemicals management.

Public visibility of your organization's accountability in managing CiP information and in supporting the global SAICM objectives on CiP information.

A guiding role: participants have access to and the opportunity to support and improve UNEP and UN system expertise and resources on CiP information issues, policymaking and science

Access to the global chemicals-policy community, including UN events to dialogue with governments and other stakeholders on CiP information issues and related actions on sound management of chemicals.

Access to and the opportunity to participate in targeted projects and to support and improve research, networks, events and capacity building services spanning CiP information issues.

4. How can we become a participant and what does this entail?

To become a participant in the CiP programme, your organisation must provide a letter and complete the CiP programme participant application form available on the UNEP website.

The letter should be signed by your organisation's Chief Executive Officer, Chair of the Board or equivalent positions. It must contain statements confirming your organisation's approval of the Principles and its agreement to the following:

Commitment to implement those CiP Principles that are reasonably possible to apply.

Participation in the reporting process

5. What happens if we adopt the Principles but find it difficult to comply?

A participant decides which actions it deems appropriate to implement the Principles and achieve the CiP programme Information Objectives. . The possible actions towards fulfilling the Principles are detailed in the CiP programme Guidance and include examples or suitable actions. A participant may choose to consider other actions, taking into account its business model, circumstances across geographies and other factors.

There may be reputational risks associated with adopting the Principles and then failing to take any action at all, but implementing the Principles is generally a work in progress, rather than a prescriptive checklist with which to comply.

[The Board of the CiP information (the 'Board') (see item 7 below) reserves the right, as the sole sanction envisaged by the CiP information and the Principles, to delist your organisation if it does not fulfil any of the participant requirements mentioned in item 4 above and explained in items 6 below.]

If your organisation does not make reasonable efforts to implement the Principles, the Board will notify and discuss the matter with your organisation. Thereafter, if your organisation still does not make such an effort, your organisation can be delisted. Your organisation can voluntarily withdraw as a participant by providing a letter from an appropriate authorised officer, stating its reasons.

6. Why is disclosing implementation progress important?

Transparency is an integral form of accountability to the public, particularly in a voluntary and aspirational initiative. Public disclosure of progress is important to the credibility of an organisation that has publicly adopted the Principles, which are meant to be implemented. This, in turn, can be important to the overall credibility of the Principles and the overaching CiP programme. Public disclosure will enable the public to better understand how signatories are managing CiP information issues in their business as part of their implementation of the Principles. Transparency is also a motivator for continuous improvement.

Your organisation may choose to answer the following recommended guide questions to explain how Principles 2-6 are being implemented:

What are your aspirations and targets for this Principle?

How do you plan to achieve them?

What key actions have you taken to date to achieve them (i.e. demonstrate progress)?

Your organisation may also choose to align or cross-reference its disclosure with current reporting (e.g. corporate annual report, sustainability report, relevant disclosure or reporting frameworks).

Your organisation is free to decide the content of its disclosure. Regardless of the content, your organisation is required to:

Disclose (preferably annually, but at least every three years) its progress in implementing the Principles and achieving the CiP Information Objectives. Your organisation is free to decide when its disclosure is completed each year.

Make its disclosures public and allow them to be publicly available on the UNEP website.

7. Who governs the CiP programme?

The CiP programme is mandated by and set within the SAICM process. The CiP programme will be governed [by a Board comprised of representatives from the SAICM regions and SAICM Executive Board observers] [and other stakeholder groups] as may be determined by the ICCM.

Annex IV. How Information Can Be Exchanged

The CiP programme recognizes there are numerous methods of chemical information transfer. These methods include: information stored in a centralized or distributed location (e.g. a Web site or a database); information communicated via a label on a product or packaging; information communicated via a document that accompanies the product from production through end of life; and targeted public awareness campaigns.

Businesses, non-governmental organizations, and governments have developed a variety of chemicals management and chemicals information exchange systems. Previous research conducted for the UNEP Chemical Branch describes information systems used in various product sectors, including the types of information they exchange, how information is transmitted, and the actors involved who exchange this information. These systems typically include requirements for reliable CiP information exchange that are similar or identical to the requirements under the CiP programme (see Annexes V and VI).

Stakeholders currently employing many of these systems would already be achieving certain Information Objectives of the CiP programme. A detailed comparison of existing efforts and the CiP programme requirements need to be undertaken on a sector by sector basis. Such a read-across analysis would allow for recognition within the SAICM community of those leading systems and the stakeholders using them. As part of the CiP programme pilot in the textiles sector, a preliminary version of such a list has been developed (and is continued in the table below).

Below is a short recap of some of the major types of systems.

Web site linked to a database. Some companies post some or all of the chemical ingredients, as well as quality control / certification data, for their products on sections of their corporate Web sites. Several private firms provide a service in which suppliers provide chemical ingredient information to a third-party. The third party analyses the chemical ingredient data to determine compliance with health, safety and environmental regulations and ensures that confidential business information is not shared. Third party providers often publish the chemicals covered by their services, and some of these firms also evaluate the chemical hazards of the ingredients.

Governments have also created databases that provide information about chemical hazards. Examples in the US include: the State of Washington, which requires that companies selling children's products provide certain chemical information about these products for a database that can be searched by product type or by chemical, and the Interstate Mercury Education and Reduction Clearinghouse (IMERC), which maintains a database that receives and organizes information submitted in several US states on products containing intentionally added mercury. Nationally in the US the EPA's Design for Environment (DfE) Program provides certification for a wide variety of cleaning products. Other examples include the database of chemical information maintained by the European Chemicals Agency under REACH and RAPEX, the EU rapid alert system 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 posing a serious risk to the health and safety of consumers. Products are cited frequently on RAPEX for chemical content violations. The European Commission weekly publishes notifications of cited products.

A number of civil society organizations have also created databases that organize and present information on chemicals in products. Two examples in the building materials sector are: the Pharos system (created by the Healthy Building Network) provides an easily accessible database which makes it possible for building material specifiers to select building materials using a variety of health and safety criteria; and BASTA, a Swedish on-line system giving free and open access to a product database of construction products that meet a strict chemical composition criteria. Other web based tools providing chemicals composition data and managed by civil society organizations include the GoodGuide and Healthy Stuff (both of which target consumer products).

Product or packaging label. Companies or organizations participating in the CiP programme may use product labels to transfer and disclose chemical information. Some corporations have created product disclosure labels that provide detailed information on the chemicals found in products.

Some governments require that labels display information such as: the specific chemicals contained in a product; health effects of these chemicals; safe handling instructions; or disposal instructions. For example, California's Safe Drinking Water and Toxic Enforcement Act of 1986 (commonly referred to as Proposition 65) requires hazard labelling of products that contain chemicals that cause cancer or reproductive toxicants.

Accompanying information documents (escort data). Material Safety Data Sheets (MSDSs) are conventionally used for formulated chemical products. Under the GHS, chemical products are accompanied by a safety data sheet (SDS). As GHS is an established and globally recognized system, stakeholders can use the GHS as a model for the transfer of relevant information about manufactured products not otherwise covered by GHS. Other systems for transferring data with a product include bar codes and radio-frequency identification (RFID) tagging. These systems are well established in the manufacturing world and present good potential for CiP information transfer.

Public awareness campaigns. Public awareness campaigns in places such as public transit systems, government buildings, billboards, and on TV or other electronic media are effective ways to transmit general information about chemical hazards and safe handling. Awareness of warning labels and appropriate responses is an example of applying general public awareness. More targeted awareness campaigns on, for example, product specific CiP issues can be on billboards, electronic media, in-store displays and as part of brand marketing or image building.

The CIP Programme encourages the selection of one or several of these methods as needed by companies and organizations to meet their individual needs.

Information transfer within the supply chain. Most supply chain actors transfer information through an electronic system. The design is that suppliers submit their information to a database through a secure web-based interface. This can be managed by the supplier, OEM, Brand or a third party.

Existing successful applications of this approach have come about when a significant portion of a sectors' brands have collaborated to design, launch and promote the system through the sector's suppliers. Examples include the International Material Data System (IMDS) for the auto industry, the Electronic Product Environmental Assessment Tool (EPEAT) for the electronics industry and Joint Article Management Promotion-consortium (JAMP-IT), a distributed database for information exchange through upstream to downstream of value chain across all the industrial sectors. An example of a third party service is BOMCheck, a system which allows both suppliers and original equipment manufacturers (OEMs) to track chemical information. BOMCheck includes a tool for both suppliers and OEMs to track all chemicals subject to regulation, and a single web database system to ensure consistency.

Information disclosure to stakeholders outside the supply chain. Information made available to stakeholders outside the supply chain can be derived from information generated and exchanged inside the supply chain. When determining what information to exchange and how, to consider is that the potential uses for CiP information outside the supply chain vary widely, as do stakeholders' desires and capacities to access, comprehend and act upon the information.

To meet the Disclose objective the originators or holders of CiP information, that is, Brands, OEMs, retailers and others in the supply chain, can provide information to consumers, civil society, government, waste handlers and others through a variety of means. CiP programme participants will engage in dialogue with other stakeholders to establish what CiP information should and can be exchanged to enable achievement of sound chemicals management goals.

Information can be disclosed electronically on a Web site, through labelling on the product or packaging or via a separate product chemical declaration. Particular attention should be given to the language and terms used in such disclosures, especially in circumstances where a technical background may be absent or limited and where language barriers may inhibit effective communication.

The table below provides examples of existing systems and indicates for which of the three CiP programme Information Objectives they are relevant. In many cases, a stakeholder that successfully uses one of these systems might already be in conformance with elements of the CiP Programme. The table provides general indications of the relevance of these systems, but does not indicate the extent to which the listed systems meet CiP programme Objectives, nor how they meet them. A more complete cross referencing between these existing systems and the CiP programme requires detailed comparison. It is hoped that the owners or operators of these and similar systems would participate in the CiP programme and benchmark their system against the CiP programme objectives.

System	Sector	Characteristics	1.Know	2.Discloe	3.Ensure
3E GPA™	Any sector	Third party system	х		х
GreenWERCS™	Any sector	Third party system	х		х
SciVera Lens™	Any sector	Third party system	х		х
BizNGO Guide to Safer Chemicals	Any sector	General guidance for implementing a chemicals management system	х	х	х
International Material Data System (IMDS)	Automotive	Data repository and communication system for use by automobile manufacturers and throughout their supply chains.	х	х	x
BASTA	Building materials	Third party assessment of building products for hazardous substances. Includes database and common format.	х	х	х
Health Products Declaration (HPD)	Building materials	Detailed guidance for information disclosure	х	х	х
Pharos	Building materials	Help commercial buyers evaluate product content and other relevant data against health & environmental benchmarks	х	х	х
CleanGredients	Cleaning products	Information on physical and chemical properties of ingredients to encourage safer formulations	х		х
Joint Article Management Promotion-consortium (JAMP)	Any sector	Data format, Tools, Management Guidelines and IT system for disclosure/transfer of information on chemicals and chemicals in products through the supply chain across all sectors. List builds on selected regulations and industrial list.	х		х
Bomcheck	Electronics/medical devices	Electronic system designed for use by OEMs & suppliers. List builds on the Joint Industry	х		х

		Guide. (JIG).								
IPC 1752 Standard and Joint Industry Guide (JIG)	Electronics	Guide to information that suppliers me disclose to OEMs. Includes database a common template.			x					
International Electrotechnical Commission (IEC) Standard 62474	Electrical and Electronic products	International Standard that suppliers m disclose to customers. Includes substa list database regularly updated and common template.(http://std.iec.ch/iec62474	nce x	х	х					
Textile sector initiatives										
Outdoor Industry Association (OIA) Chemicals Management Framework	Apparel & Footwear/outdoor industry	Detailed guidance for chemical management for the apparel & footwear/outdoor industry	x	х	х					
Higg Index of the Sustainable Apparel Coalition, Chemicals Management Module (CMM)	Textiles	The Index is a sector-wide tool developed for rating performance over a broad range of sustainability issues. The CMM targets CiP information and chemicals management specifically.	x	х	x					
Bluesign	Textiles	Certification and labelling to ensure that specific chemicals have not entered the supply chain.	х	х	Х					
Oeko-Tex Standard 100 and SteP	Textiles	Independent certifications and labelling of final product and of company operations.	х	х	Х					
Apparel and Footwear International RSL Management Group (AFIRM)	Textiles	AFIRM produced an RSL toolkit and provides regular training on how to build CiP information systems for textiles and to gather and transmit reliable data on restricted substances.	x	х	x					
Global Organic Textiles Standard (GOTS)	Textiles	World's leading processing standard for textiles made from organic fibres. Includes supply chain CiP information and chemicals management.	х	x	х					
American Apparel and Footwear Association's (AAFA) Voluntary Product Environmental Profile (VPEP)	Textiles	VPEP is a subscription based service that allows supply-chain operators and their customers to exchange data on chemical makeup of products and their environmental properties.	х	х						

GreenWERCS, 3E GPA and SciVera. These are private firms providing confidential chemical information tracking and assessment services. When firms contract for such services from third party vendors they could potentially meet the requirements for the Know objective. Where that information is periodically updated, these services may also serve to fulfil the Ensure requirements.

BizNGO Guide to Safer Chemicals. The BizNGO Guide broadly covers a company's chemical management responsibilities and aligns well with the CiP Programme. The progression of activities described under the four levels in the BizNGO guide on Know and Disclose could potentially meet the requirements for the objectives of the CiP Programme

OIA Chemicals Management System. The OIA Chemicals Management (CM) Framework has been developed for the footwear and apparel/outdoor industry. Its chemical information requirements are quite similar to the CiP programme framework. The CM Framework modules CM1.0, CM2.0, and CM3.0 could potentially meet the information requirements of the Know and Ensure objectives.

International Material Data System (IMDS). The IMDS is a product, component and materials tracking system developed by the automotive sector. The requirement to identify and update information on "basic substances" and their regulatory issues could potentially meet the information requirements of the Know and Ensure requirements of the CiP Programme.

Note: the IMDS contains a provision for information suppliers to report a certain percentage of the material or component content as not specified. This allows to address CBI issues, as long as the unnamed chemicals are not on an IMDS-specific list of substances identified as hazardous (and thus not permitted to go undeclared).

BASTA. BASTA provides building material suppliers with a means of documenting and disclosing chemical information on their products. Registering products through BASTA could potentially meet the information requirements of the Know, Disclose and Ensure objectives of the CiP Programme.

Health Product Declaration. The HPD is a chemical information generation and disclosure standard. The requirements could potentially meet the Know and Disclose information requirements, while the HPD requirement to update and validate chemical information would meet the requirements for the Ensure objective.

CleanGredients. CleanGredients provides a Web-based database for cleaning product formulators and suppliers to transfer chemical information on their products. Suppliers that submit information to the CleanGredients database could meet the information requirements of the CiP Programme's Know objective.

BOMCheck. BOMCheck is designed to assist electronics component suppliers and brands comply with European Union directives and regulations. Firms completing and updating the Full Material Declaration and Regulatory Compliance Declaration could potentially meet the information requirements of the Know and Ensure objectives. Version 3.2 of the Restricted and Declarable Substance List provides a sector-wide RSL.

IPC 1752. IPC 1752 is a standard for materials declaration in the electronics industry. The Joint Industry Guide (JIG) provides reporting guidance to suppliers. Component suppliers that report according to the JIG could potentially meet the information requirements of the Know objective.

Bluesign. The bluesign standard uses "input stream management" to ensure that substances identified as hazardous do not enter the entire textile production chain. For a textile to use the bluesign label, all manufacturing processes and chemicals involved in its creation must meet the standard. The bluesign standard could potentially meet requirements of the Know, Disclose, and Ensure objectives.

Oeko-Tex Standard 100²⁵ **and SteP**. 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 STeP (Sustainable Textile Production) verification system audits and evaluates all relevant environmental aspects of a company's operations. Oeko-Tex Standard 100 could meet requirements of the Know, Disclose, and Ensure objectives. STeP certifications could meet requirements of the Ensure objective.

Global Organic Textile Standard. The Global Organic Textile Standard provides a means for tracking and verifying information on textiles made from organic fibres, and includes both chemicals management and supply chain CiP information. Companies using the GOTS certification are likely to meet the Know, Disclose, and Ensure objectives.

JAMP (Joint Article Management Promotion-consortium). JAMP designed the most simple and harmonized model of chemicals information exchange system through upstream to downstream of value chain across all the industrial sectors. JAMP is offering a management guideline, data table by xml, declarable substance list and global portal IT system for the information exchange. JAMP declarable substance list is set up by hazardous or highly concerned substances list from selected regulations and industrial list, such as GADSL and JIG.

IEC 62474:2012²⁶.

This internationally agreed standard specifies the procedure, content, and form relating to material declarations for products of companies operating in and supplying the electrotechnical industry. Process chemicals and emissions during product use are not in the scope of this International Standard. It provides data to downstream manufacturers that:

- allows them to assess products against substance restriction compliance requirements;
- they can use in their environmentally conscious design process and across all product life cycle phases.

²⁵ A full list of ecolabels is not appropriate here. The reader is referred to http://www.ecolabelindex.com/ecolabels/ for an extensive ecolabel listing, including descriptions and access links.

²⁶ New project composed by the member of JAMP, VT 62474 (JPNC, former JGPSSI), JCIA (Japan Chemical Industry Association), SME, etc. has been launched under the Working Group held by Japan's METI (the Ministry of Economy, Trade and Industry) in May 2013. The purpose is to review current standardization activities and create new scheme for more efficient information convey across entire supply chain covering cross-industrial activities. IEC 62474 should be essential as basis of the scheme. The scheme should be cooperated with BOMcheck, IPC-1752 and others in the globally-connected supply chain.

Annex V. Guidance for Programme Participants in the Supply Chain

Section 6 of the CiP programme Guidance laid out the roles of CiP programme stakeholders within the supply chain. This Annex describes the basic responsibilities and suggests addition actions that could be taken by those seeking higher levels of achievement.

Companies or organizations that participate in the CiP programme are joining a group of leading institutions that are proactive in tracking the chemicals in their products, sharing key information throughout their supply chains and disclosing needed information to stakeholders outside the supply chain. While the CIP Programme requires participating companies to describe how they are meeting the programme's Know, Disclose and Ensure Information Objectives, the programme provides broad flexibility in how each company meets these objectives. This section of the guidance describes examples and common practices that participating companies might use in meeting these objectives.

The guidance below is organized by each of the three CiP programme Information Objectives and includes incremental levels of achievement that companies can attain through a process of continuous improvement. This structure recognizes and accommodates the real-world circumstances of varying degrees of corporate capacity, ambition and progress in meeting the Objectives. For each objective, a "Basic activities" level is designed to facilitate reliable information exchange for regulated chemicals, with subsequent levels addressing more advanced goals.

CiP programme participants within the supply chain would be expected to achieve, for the three Objectives, the Basic activities level described below.

Objective 1: KNOW

KNOW what chemicals are in your products and understand the associated hazards and sound management practices.

This initial objective focuses on a company's efforts to gather and manage information about the chemicals in its products. It includes activities related to awareness and management of chemicals information within a company, as well as to obtaining information from suppliers upstream in the supply chain and providing information to downstream users within the supply chain. It focuses on exchanging information within supply chains (Guidance for sharing information outside the supply chain is provided in Objective 2).

Basic activities. Basic elements of this approach may include the following:

- Chemicals of Concern List. Create a Chemicals of Concern list (CoCL), or use an existing list, which includes chemicals that are regulated by the governments in countries where products are manufactured, sold or disposed of.
 - Many companies already have a Restricted Substances List (RSL). In this case, the RSL and the Chemicals of Concern list may be identical.
 - o Some firms may choose to use GHS criteria to develop their list of chemicals of concern.
 - **Supplier contracts.** Companies stipulate in contracts that suppliers must report if chemicals on the CoCL are present in any product, component or homogeneous material above thresholds of concern. Suppliers should provide this information to customers downstream.
 - **CiP information System.** Create and operate a system to exchange chemicals information with supply-chain suppliers and customers or use an existing system or third-party service.

- Safe handling, use and disposal documents. Prepare the communication materials needed to
 inform the various targeted stakeholders, both inside and outside the supply chain, on the safe
 management of the chemicals. These materials would accompany the information Disclosed on
 presence of chemicals.
- **Training.** Provide education and training to suppliers and internal personnel (e.g., designers, developers, sourcing teams, etc.) about the need for information on chemicals of concern in products and help suppliers to produce information by providing tools and needed training for collecting and evaluating these data.
- Internal point of contact. Identify an internal point of contact to manage the Chemicals of Concern List and other chemical information functions, and communicate this name to suppliers and customers.

Additional activities. Companies can enhance their performance by completing the following activities:

- Expanded Chemicals of Concern list. Create an Expanded Chemicals of Concern list (ExCoCL). This list would include chemicals prioritized under the SAICM overarching policy strategy, including "persistent, bioaccumulative and toxic substances (PBTs): very persistent and very bioaccumulative substances; chemicals that are carcinogens or mutagens or that adversely affect, inter alia the reproductive, endocrine, immune or nervous systems: persistent organic pollutants (POPs), mercury and other chemicals of global concern." While many chemicals exhibiting these criteria are addressed by regulations in some countries, numerous unregulated chemicals also may exhibit the characteristics listed under SAICM. To develop this list, a firm may consult authoritative government lists and review current scientific information from government, academia, NGOs, and suppliers to identify chemicals of concern beyond those that are regulated. Another approach is to review toxicity information determined through the GHS classification process and create an expanded list by identifying the chemicals that meet criteria for concern.
 - Impurities. Identify the pathways by which impurities and unintentional chemicals that are of public health or environmental concern, and specifically those on the ExCoCL, could enter into final products.
 - **Supplier request.** Receive from suppliers (or third parties) an inventory of the chemicals that could be present in their products. This inventory could include all intentionally added chemicals in any product, component or homogeneous material.²⁷
 - **Inform downstream users.** Inform downstream users of chemicals on the ExCoCL present in products above thresholds of concern.

Higher levels of achievement. Companies can arrive at a higher level of achievement through the following activities:

Acceptable chemicals lists. Develop and share in the supply chain a list of acceptable chemicals to
be used in products. This may be accomplished by specifying chemicals or materials that could be
present in the final product. This method can be used to both avoid problematic chemistry and to
drive the implementation of improved (i.e. less impacting) product chemistry. A related method for
controlling product chemical content could be to specify chemicals that may or may not be used in
the production processes.

²⁷ Intentionally-added *non-hazardous* chemicals are to be reported if present at a level of 1% or greater in the product or a component or homogeneous material.

- **Inventory of ingredients.** Receive information from, or provide information to, respectively, suppliers and customers on all intentionally added chemicals in the final product. This can be accomplished directly or via a third party.
- **Training.** Provide education and training to internal personnel (e.g., designers, developers, sourcing teams, etc.) on the use of CiP information for assessing and selecting suppliers. Also educate and train internal personnel and suppliers on methods for selection of preferred production chemicals. For suppliers, this includes providing training for personnel on safer chemistry.

Objective 2: DISCLOSE

DISCLOSE information to stakeholders **outside** the supply chain to assist in informed decision-making about chemicals in products.

Basic activities. Companies may undertake the following activities:

- **Corporate statement.** Issue a corporate statement making a clear commitment to disclosing information on chemicals in products.
- Chemicals of Concern List. Disclose publically via company Web site or other means the organization's Chemicals of Concern List.
- **Disclosure of Chemicals of Concern in products.** Inform governments²⁸, downstream users and final consumers if chemicals on the CoCL are present in any product, component or homogeneous material above thresholds of concern, whether or not disclosure is required by regulation. Disclosure should be accompanied by appropriate safe use, handling and disposal recommendations.
- **Point of contact.** Identify a point of contact for inquiries about substances on the Chemicals of Concern List that may be found in the company's products.
- Disclosure of waste handling information. Provide sufficient information to enable end-of-life (EOL)
 actors (waste managers, recyclers and others) to practice sound chemicals management, including
 information about chemicals of concern in products or components that may be recycled or
 refurbished.

Additional activities. Companies can further augment their performance through the following additional activities:

- Expanded Chemicals of Concern List. Disclose publically an Expanded Chemicals of Concern List (ExCoCL).
- **Disclosure of Expanded Chemicals of Concern in products.** Inform governments²⁸ and downstream users if chemicals of concern on ExCoCL are present in any product, component or homogeneous material above thresholds of concern, whether or not disclosure is required by regulation²⁹.

²⁸ Information voluntarily provided to governments may be different than that destined for public disclosure. This recognizes that governments can put in place sufficient CBI protection measures to allow a higher level of disclosure.

²⁹ This information may be communicated through the company Web site, through direct communications to individual purchasers, through labelling of products and packaging, or by other means. An effective practice is to provide information through multiple means, including both labelling and the company website or equivalent. In this way, information is available to customers at the point of purchase, and is also available to government agencies, consumer groups, or other actors wishing to conduct a broader analysis of chemicals in specific products.

• Transparency of process and evidence. Make public the policy, process and evidence used to determine regulated chemicals and expanded list of chemicals of concern. Develop and disclose the process ensuring accurate, verified and accessible information.

Higher levels of achievement. Top performing companies could also undertake the following activities:

- **Disclosure of all chemicals in final product.** Disclose all intentionally added chemicals in products. This could be through a web portal or at the point of sale. On-product labels/lists, scannable labels, tagging for traceability and other means are possible.
 - Some companies may have CBI claims and choose to provide only the hazard classification information (the health and environmental endpoints) without listing the chemical name and CAS number. Third party verification of hazard classification is particularly important in this
 - Operators who recycle materials back into production would be considered as part of the supply chain and benefit from receiving this information.

Objective 3: ENSURE

Ensure that information is current, accurate, verifiable and accessible.

Basic activities. The basic elements of this approach may include the following:

- Chemicals of Concern List. Update Chemicals of Concern List and associated training, at minimum, on an annual basis and more often if dictated by changes in global regulations or company requirements.
- Laboratory verification. Verify that suppliers are meeting contractual agreements by requiring periodic testing of products. Laboratory testing can be conducted by independent, third party and certified (e.g. to ISO 17025 standard) laboratories. At a basic level of performance, these test results are provided directly to the Brand / Retailer or to an agreed-upon third party responsible for managing chemical data (see "KNOW" section, above).
- Accessible information. Ensure that hazard and risk information can be understood by a lay person, including through conforming to applicable standards. Account for cultural and linguistic circumstances when communicating hazard information.

Additional activities. Companies can improve their performance through the following additional activities:

Expanded Chemicals of Concern List. Apply the Basic activities above to the organization's ExCoCL.

Higher levels of achievement. The top performers could also undertake the following activities:

• **Laboratory verification.** Conduct spot checks for compliance, including regular and random testing of products, to verify that suppliers are providing a complete inventory of all intentionally added chemicals that are present in the product at a level of 1% or greater.

The components described here are summarized in the following table.