Product Stewardship Guidelines

Product stewardship is an important pillar of Responsible Care®, which is the chemical industry’s key mechanism for managing the health, safety and environmental aspects of a chemical throughout its life cycle. Product stewardship is the practice of making health, safety and environmental protection an integral part of the life cycle of chemical products.

These Guidelines are provided to assist companies in designing and implementing product stewardship programs built on a management systems approach. The Guidelines are prepared as part of an ICCA global chemical industry voluntary initiative to advance the use of product stewardship throughout the global industry and the chemical value chain. This is one aspect of the industry’s effort to achieve the goal set forth by the World Summit on Sustainable Development, that by 2020 “…chemicals are used and produced in ways that lead to the minimization of significant adverse affects on human health and the environment.” The guidelines address only product stewardship and assume that companies have effective programs addressing worker health and safety, process safety, pollution prevention and other aspects that are also necessary to achieve the 2020 goal.

These guidelines describe the basic elements of a product stewardship program. It is understood that companies will initiate product stewardship programs at a level consistent with the skills and resources available to them. It is also recognized that each company will tailor and continually improve its program according to the circumstances of the markets into which they sell their products, their product mix, and other variables. As companies gain experience, they should move to higher levels of performance over time.
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THE GLOBAL PRODUCT STRATEGY
ICCA GLOBAL CHEMICALS MANAGEMENT POLICY
**How to use this document:**
These product stewardship guidelines consist of a core document describing the elements of a product stewardship program in a management system. Throughout that document there are highlighted links to more detailed information – examples, tools, etc. Click on those links to take you to that information. When you have finished reading the relevant additional information, click on “BACK” at the bottom of the text to return to the main text. There are also a number of useful links to Internet sites, particularly in Section III, that lead to additional resources to help implement a product stewardship program.
Section I: What is the Global Product Strategy?

BACKGROUND

In February 2006 in Dubai, the International Conference on Chemicals Management, meeting under the auspices of the United Nations, adopted the Strategic Approach to International Management (SAICM), a framework for global chemicals management. At that meeting, the chemical industry represented by the International Council of Chemical Associations (ICCA) introduced its innovative Global Product Strategy (GPS) to address public concerns regarding chemicals in commerce and to meet evolving country, regional and international chemical management policy pressures. The product stewardship activities under GPS and also the Responsible Care® Global Charter are industry’s global voluntary initiatives that will contribute to SAICM implementation. The GPS is also the program under which ICCA will establish and promote its Principles for Chemical Management Systems, sponsor “capacity building” initiatives and establish partnerships with intergovernmental organizations. GPS also provides a platform for ICCA advocacy and communication.

The centerpiece of GPS is the enhancement and expansion of product stewardship best practices within the industry and throughout the value chain. The effort unites several current stewardship initiatives under the auspices of the Responsible Care program, builds a foundation for continual improvement in product stewardship, fosters greater transparency to external stakeholders and marks a major drive to take product stewardship to a higher level within the industry.

The ultimate purpose of GPS is to increase public and stakeholder awareness of, and confidence in, the safe management of chemicals throughout their lifecycle by demonstrably increasing chemical industry performance and transparency.

Further Information On The Global Product Strategy And Its Connections To Other Global Programs

These product stewardship guidelines were developed to facilitate improvement in industry performance. They are based on common elements of existing ICCA member association programs and include principles to be applied to research and development, raw materials procurement, manufacturing, sales, distribution, handling, use, disposal and recycling of chemicals. The guidelines were also designed with enough flexibility to be implemented by small and medium-sized enterprises (SMEs). These guidelines are provided to ICCA member associations for use in the development of their own regional or country specific product stewardship programs, to be implemented by their member companies.

The voluntary regional and country programs based on these guidelines should be designed with enough flexibility to account for national and regional legal, societal, economic and cultural conditions. The eventual adoption of product stewardship programs by ICCA member associations and the implementation of product stewardship programs by ICCA member companies will demonstrate the global industry’s commitment to the safe management of chemicals.
WHAT IS PRODUCT STEWARDSHIP?

Product stewardship is the practice of making health, safety and environmental protection an integral part of the life cycle of chemicals, as described in these guidelines. It is an integral component of the global chemical industry’s Responsible Care initiative and includes evaluations of risks and the development of actions to protect human health and the environment commensurate with those risks.

Product stewardship is a shared responsibility between chemical producers, their suppliers and their customers. It requires the development of close, sustained dialogue and working relationships with suppliers, customers, and others in relevant value chains. These parties should share information up and down the value chain to ensure that chemicals are used and managed safely throughout their life-cycle. In doing so, they will also help companies and their partners meet the increasing demand for safe and environmentally-sustainable uses of chemicals.

BENEFITS OF PRODUCT STEWARDSHIP

Product stewardship provides the platform for companies to identify risks at an early stage and manage those risks along the value chain, thereby enabling adequate protection of human health and the environment. This can result in increased customer loyalty as well as expand the positive impact of product stewardship down the value chain.

Evaluation and avoidance of risk reduces the potential for harm and potential liabilities, making product stewardship a “value added” business proposition.

More Insights Into the Benefits of Product Stewardship
Section II: How to Implement Product Stewardship

GETTING STARTED

These guidelines provide a step-wise approach that can be used to design and implement a company product stewardship program. They can also be used to perform an analysis of existing company product stewardship practices, to define or address gaps and continually improve those practices.

More in-depth information on implementing product stewardship programs can be obtained from a variety of resources. See the websites listed in Section III.

THE FIRST STEP: LEADERSHIP, COMMITMENT AND POLICIES

Strong and effective leadership ensures that product stewardship objectives are set and prioritized and practices are implemented to meet performance targets. The link below provides examples of how company management can demonstrate their commitment to product stewardship.

Possible Ways To Demonstrate Management Commitment

Management is responsible for establishing clear policies to define the organisation’s direction and long-term objectives for product stewardship. These policies should reflect the organisation’s philosophy, culture and scope of operations. The link below describes various aspects of company policies that could support product stewardship.

Aspects of Product stewardship policies

The designation of one or more management representatives, often designated as “product stewards,” may also be an early step. These may be part-time people, especially in the case of SMEs. The intent to make product stewardship one of the core business activities should be communicated throughout the company.

Team work is crucial for effective product stewardship program. Dialogue with the wider business organization and value chain partners should be appropriately encouraged, since safe handling and environmental considerations need to be included in each step of the process, from procurement through research and development, manufacturing, sales and marketing, distribution, storage and disposal.

Guidance For New Product Stewards

MOVING TO A SYSTEMATIC APPROACH

A management system approach will aid the company in establishing and managing its product stewardship activities most efficiently. Experience with management systems across multiple business sectors demonstrates that this approach provides a systematic and consistent method for delivering higher levels of product stewardship performance. There is no single model for a product stewardship management system; however, adopting an existing proven system with fine-tuning to the specifics of the company can be both a productive and efficient way to maximise
success and save valuable time. A good starting point is the Deming Plan-Do-Check-Act model (see Figure 1), which comprises the following elements:

**Figure 1 The Management System Cycle**

![Management System Cycle Diagram](image)

**PLAN**

A product stewardship plan should be prepared that is commensurate to the size of the company, its business activities and the risks it manages. The company’s product stewardship policy should be translated into objectives, and these in turn into more detailed plans.

In general, planning has three basic elements:

A. identifying requirements;
B. developing a formal plan and;
C. organizing to implement the plan.

**A. Identify Requirements**

Initially, it is important to identify and understand the product stewardship program requirements:

1. **Understand significant product-related hazards and risks that need to be addressed**

   Central to any product stewardship program is the need for the company to characterize the risk of its chemicals to human health and the environment. Risk characterization is an iterative process that bridges the ‘Plan’ and ‘Do’ phases of a product stewardship management system. For example, a new use for a chemical may require ‘planning’ new exposure studies. The actual conduct of such studies may be addressed in the ‘do’ phase of the process.
A high level of capability is required in the planning and conduct of a risk characterization and the development of risk management recommendations. It typically requires knowledge of the chemical’s composition, an understanding of the hazards of each component of the chemical, an ability to estimate exposure to those components, and the expertise to characterize chemical risks.

Risk characterization should begin when a new chemical is created, in the early stages of research and development (R&D). As the chemical moves from R&D to commercialization, typically more hazard and exposure information is gathered and analyzed in a step-wise or “tiered” process. Risk management recommendations are developed commensurate with the risks identified. More information on the risk characterization process is provided in the link below.

*The Risk Characterization Process*

2. Understand legal or other requirements that apply to the management of the organisation’s chemicals
   An additional necessary step is to evaluate the relevant risk assessment or risk management requirements, including:
   • regulations or other legal obligations;
   • company standards;
   • customer requests;
   • industry or company voluntary commitments.

3. Understand other influences or issues that may affect the product stewardship requirements
   Finally, a number of other factors could influence company requirements, such as public pressure that should be identified.

*Other Influences And Issues Affecting Product Stewardship Requirements*

B. Develop a Plan
   Set targets by considering identified requirements and prepare plans to achieve them.

   Below are some important elements of a plan:

1. Setting product stewardship goals, targets and objectives
   To the extent possible, objectives and targets should be:
   • quantifiable with realistic timescales
   • agreed upon with those assigned responsibility to achieve them
   • documented and communicated to appropriate audiences

2. Performance criteria
   In the planning phase, consideration should be given to the type of information that will need to be collected to monitor performance or establish performance criteria.

*Examples Of Product Stewardship Practices And Possible Associated Internal Metrics*
3. Communication

On-going dialogue with relevant stakeholders is an important facet of Responsible Care. Good communication strategies can help demonstrate management commitment, deal with concerns and questions, raise awareness, provide information and improve motivation. Risk communication is a fundamental element of product stewardship.

Product stewardship communication and training procedures should be established for employees throughout the organisation who need to be aware of the importance of product stewardship requirements and their roles and responsibilities in meeting those requirements. A list of key internal and external audiences should be developed and the type of information applicable to each audience defined. For example, employees who handle chemicals need to be aware of risks and methods to avoid/reduce those risks.

Examples Of Possible Audiences And Communication Topics

4. Value Chain Communication

Communication of risk characterization and risk management information to those in the value chain who will design, buy, handle, sell, use, store and dispose of chemicals is a fundamental component of product stewardship. Product stewardship requires effective two-way communication between chemical producers and downstream customers to understand and take action to avoid risks. Such communications can also be responsive to the concerns of other external stakeholders, including regulators and the interested public. Feedback from downstream customers can provide critical information on chemical uses and potential routes of exposure.

Producers of chemicals have the responsibility to provide risk characterization and risk management information to their customers for the chemicals they produce. Their customers, in turn, have the responsibility to pass this information to their customers in the value chain. It is the responsibility of those downstream customers that formulate or transform the chemicals to assess the risk of their products and to determine adequate risk management practices in view of the actual chemical uses and circumstances as most intimately known to themselves. Each chemical producer should strive to obtain adequate knowledge about its customers’ products and uses in order to better evaluate potential exposure scenarios and improve risk management recommendations. If customers do not share information about their uses (for proprietary reasons) or do not share information on their downstream customer’s use (perhaps because they have no reasonable way to determine those uses) this lack of knowledge should be highlighted in the risk characterization and its impact on risk management measures noted.

C. Organize

The successful implementation of the product stewardship plan requires the commitment and active participation of everyone in the organization. Key aspects to consider when identifying the necessary resources to implement product stewardship include responsibilities, resources and skills, documentation and communication.

Help For SMEs
1. **Structure and Responsibility**

The roles, responsibilities, authority and inter-relationships of key employees to be involved in the implementation of product stewardship should be defined. This includes individuals that will:

- provide management leadership
- develop and lead the implementation of the product stewardship program
- define potential hazards, exposures and risks
- investigate and record product non-compliances and incidents
- recommend actions from non-compliances, monitor progress and verify implementation
- act in emergency situations

*Who Is Responsible For Product Stewardship In An Organization And Down The Value Chain?*

2. **Resources and skills**

The organization should identify and allocate the appropriate resources including personnel, financial resources, equipment and technologies for the management, operation and verification of specific product stewardship activities.

Companies may target training programs to include staff at all levels in the organization that will be involved in product stewardship activities.

*Important Areas Of Product Stewardship Training*

3. **Documentation**

Documentation is an important part of an organized product stewardship system. It provides the basis for training, consistent implementation, communication and continual improvement of the product stewardship program.

**DO**

A. **Risk Management**

Risk management measures are predominantly implemented at this stage and are intimately linked to, and flow from, the risk characterization process.

*See The Risk Characterization Process*

Once risk characterization (KK – WHILE WE CREATE A LINK TO RISK CHARACTERIZATION HERE AND EARLIER ON P.7, WE DO NOT BREAK OUT THIS SUBJECT PER SE) has been accomplished, appropriate risk management measures associated with the type and level of risk can be identified. Risk management should be commensurate with the characterized risks with the aim of controlling risks associated with the use of a given chemical.

Where there are existing risk management practices in place, they should be evaluated to determine whether or not they are likely to adequately protect human health and the environment. Additional risk management measures may need to be considered and implemented.

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Examples of Possible Risk Management Actions to Consider

B. Risk Communication

Making information available about chemical risks and risk management measures to suppliers, customers is an important element of product stewardship. Effective risk communication provides the necessary information for safe chemical handling and environmental protection. There are a variety of risk communication mechanisms available, such as Material Safety Data Sheets and product labels, training and education, etc.

C. Public Concern Evaluation

In addition to risk management measures, if there is public concern about particular chemicals, a communication strategy may need to be developed or modified to address perceived risk. In some cases, public concern can be a significant driver, and a company may wish to expand its risk communication for certain chemicals beyond the scientific assessments of exposure and hazard that are typically used to characterize risk. The approaches to considering public concern will vary according to the customs, laws and practices in a region.

D. Making Relevant Product Stewardship Information Available to the Public

Increased transparency regarding chemicals and other relevant product stewardship information helps build credibility for the company’s product stewardship program. It further helps build trust for the entire chemical industry by clearly demonstrating to all that the industry is knowledgeable about its chemicals and their related risks and implements appropriate risk management measures.

With this in mind, an essential element of the Global Product Strategy is that companies will make relevant product stewardship information available to the public. Below is a link to examples of how to make product stewardship information available to the public.

Examples Of Strategies For Making Product Stewardship Information Available To The Public

CHECK

A. Internal Monitoring

Monitoring should provide evidence that the management system requirements are being met, and provide the basis for defining any action needed to improve product stewardship performance. Of central importance is assessing the degree to which the company and business policies, objectives and product stewardship performance targets are being supported by effective product stewardship systems and programs.

Chemical risk characterization and related product stewardship communication and risk management efforts are important starting points for determining what activities are a priority to cover in a product stewardship monitoring program.

Considerations When Developing An Internal Monitoring Program
B. Auditing

Conducting audits is another method for identifying areas for improvement in the product stewardship management system.

*Parameters Of Audits*

Individuals conducting the audit should be experienced in product stewardship practices and systems. If they are considered “independent” from the area being audited, that can improve the rigor of the audit outcomes.

Audit results should be communicated in such a way that the parties responsible can take appropriate corrective action. Providing audit results and reports of subsequent actions taken to company management can improve audit effectiveness.

**ACT**

Periodically, the product stewardship system should be reviewed with company management to obtain support for ongoing implementation measures. It is also advisable to regularly review the management system to identify opportunities for continual improvement.

*Point To Consider Relating To Management Review*

**CONTINUAL IMPROVEMENT**

Once the product stewardship program has been designed and implemented, it should be reviewed and enhanced at regular intervals to ensure continual improvement and higher levels of performance over time. The management system process described on page 6 begins again with PLAN.
Section III: Further Sources of Information

CONTACTS FOR FURTHER INFORMATION AT ICCA AND RELEVANT NATIONAL CHEMICAL INDUSTRY ASSOCIATIONS

Contact information, including links, for all of the associations that are members of ICCA can be found at http://www.icca-chem.org/section01.htm.

Contact information, including links, for all of the Responsible Care Associations can be found at: http://www.responsiblecare.org/.

LINKS TO SITES WITH INFORMATION ABOUT INDIVIDUAL CHEMICALS

Intergovernmental Governmental Organizations and National Governments:

Organization for Economic Cooperation and Development (OECD):

**EChem Portal:** http://webnet3.oecd.org/echemportal/
This web site offers:
- free public access to information on properties of chemicals
- physical chemical properties, environmental fate and behavior, ecotoxicity, toxicity
- simultaneous search of multiple databases

Databases currently participating in eChem Portal:
- Information on Biodegradation and Bioconcentration of the Existing Chemical Substances in the Chemical Risk information platform (CHRIP)
- European chemical substances information system (ESIS)
- High Production Volume Information System (HPVIS)
- Chemical Safety Information from Intergovernmental Organisations - INCHEM (IPCS)
- Organisation for Economic Cooperation and Development (OECD) High Production Volume (HPV) Database
- Screening Information Data Sets (SIDS) export files for High Production Volume (HPV) Chemicals in International Uniform Chemical Identification Database (IUCLID) format as maintained by the OECD
- OECD Initial Assessment Reports for HPV Chemicals including Screening Information Data Sets (SIDS) as maintained by United Nations Environment Programme (UNEP) Chemicals

**OECD Integrated HPV Database:** http://cs3-hq.oecd.org/scripts/hpv/ tracks all High Production Volume (HPV) chemicals through the process of investigation in the OECD programme on the Investigation of Existing Chemicals. It allows member countries and industry to select chemicals for sponsorship and shows the stage of investigation of any particular chemical at any given time. Finally, once agreed upon in the OECD, it shows the results of assessments as well as the actual reports and background information behind them.

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International Programme on Chemical Safety (IPCS)

INCHENM [http://www.inchem.org/] provides a searchable collection of internationally peer-reviewed documents about chemicals.

Europe

ESIS (European chemical Substances Information System): [http://eeb.jrc.it/esis/] is an information technology system which provides information on chemicals, related to:
- EINECS (European Inventory of Existing Commercial Chemical Substances)
- ELINCS (European List of Notified Chemical Substances)
- NLP (No-Longer Polymers)
- HPVCs (High Production Volume Chemicals) and LPVCs (Low Production Volume Chemicals), including EU Producers/Importers lists
- C&L (Classification and Labelling), Risk and Safety Phrases, Danger etc.
- IUCLID Chemical Data Sheets, IUCLID Export Files, OECD-IUCLID Export Files
- EUSES Export Files, Priority Lists, Risk Assessment process and tracking system in relation to Council Regulation (EEC) 793/93 also known as Existing Substances Regulation(ESR)

US Environmental Protection Agency (EPA)

TSCAT [http://www.surrres/cp/eSc/tscats_info.htm] is the Toxic Substances Control Act Test Submission database contains information on unpublished technical reports submitted by industry.


Government of Canada


Canadian Centre for Occupational Health and Safety: [http://www.ccohs.ca/]

Japan

CHRIP by NITE (National Institute of Technology and Evaluation) (Only Japanese available): [http://www.safe.nite.go.jp/japan/db.html] CHRIP has 3 Data Bases and Links:
- Integrated Chemical Substance Searching System (Hazard Data, Regulation, Risk Characterization etc.)
• PRTR Substances Data Base
• Existing Chemicals Safety Data


Non-Government Sites:

• The HERA Project Human and Environmental Risk Assessment of household cleaning products: http://www.heraproject.com/RiskAssessment.cfm
  Methodology and index of specific chemicals with full risk assessments and executive summary

• European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC): http://www.ecetoc.org/Content/Default.asp

• (M)SDS Data Base by Japan Chemical Industry Association (JCIA): http://61.204.48.89/jciadb/index.html: JCIA Chemical Product Database (Japanese)

LINKS TO SITES THAT PROVIDE TOOLS TO ASSIST IN PREPARING RISK CHARACTERIZATIONS

• OECD Chemicals Hazard / Risk Assessment
  http://www.oecd.org/about/0,2337,en_2649_34373_1_1_1_1_37465,00.html:
  Hazard/risk assessment is the second step after testing of chemicals for the management of risks to human health and the environment. It means evaluating the test results and other information, and drawing conclusions about hazards and risks which become the basis for risk management decisions. OECD contributes to this practice by developing and harmonizing assessment methods and this link offers detailed information.

• ORATS (Online EUropean Risk Assessment Tracking System):
  http://ecb.jrc.it/esis/index.php?PGM=ora: provides information on the progress of implementation of Council Regulation (EEC) 793/93 also known as Existing Substances Regulation (ESR), introducing a comprehensive framework for the evaluation and control of "existing" chemical substances.
Glossary

Within the context of the GPS guidelines, these terms have the following meanings:

Chemical
A chemical element and its compounds in the natural state or obtained by any manufacturing process, including any additive necessary to preserve its stability and any impurity deriving from the process.

Chemical Product
An item derived from chemistry, or a service that provides a chemical function, and is offered for sale.

Exposure
Concentration or amount of a particular agent that reaches a target organism, system or (sub) population in a specific frequency for a defined duration.

Hazard Assessment
A process designed to determine the possible adverse effects of an agent or situation to which an organism, system or (sub) population could be exposed. Hazard Assessment includes hazard identification and hazard characterization. The process focuses on the hazard in contrast to risk assessment where exposure assessment is a distinct, additional step.

Risk
The probability of an adverse effect in an organism, system or (sub) population caused under specified circumstances by exposure to an agent.

Risk Characterization
The qualitative and, wherever possible, quantitative determination, including attendant uncertainties, of the probability of occurrence of known and potential adverse effects of an agent in a given organism, system or (sub)population, under defined exposure conditions. Risk Characterization is the fourth step in the Risk Assessment process.

Risk Management
Risk management comprises three elements: risk evaluation; emission and exposure control; risk monitoring. It informs the decision-making process involving considerations of political, social, economic, and technical factors with relevant risk assessment information relating to a hazard, allowing officials to develop, analyze, and compare regulatory and non-regulatory options and to select and implement an appropriate regulatory response to that hazard.

Value Chain
All parties involved in the chemical supply chain including: raw materials suppliers, distributors, importers, formulators, manufacturers and end users of chemicals.

Note: Many of these definitions are derived from a document prepared through the Environment Directorate of the Organization for Economic Cooperation and Development, Descriptions Of Selected Key Generic Terms Used In Chemical Hazard/Risk Assessment, which contains other useful definitions and can be retrieved...
Appendix – Links To Detailed Information On Implementation

FURTHER INFORMATION ON THE GLOBAL PRODUCT STRATEGY AND ITS CONNECTIONS TO OTHER GLOBAL PROGRAMS

In October 2005, the International Council of Chemical Associations (ICCA) ICCA Steering Committee and Board approved the Global Product Strategy (GPS). In February 2006, the ICCA publicly announced the launch of both the Responsible Care® Global Charter and the GPS. The Global Charter and GPS mark a major effort to drive product stewardship to a higher level within the industry and with downstream customers. The product stewardship activities under GPS and the Responsible Care Global Charter are the chemical industry’s primary contributions to the implementation of the Strategic Approach to International Chemicals Management (SAICM).

GPS includes:

- guidelines for product stewardship, including ways to make relevant product stewardship information more transparent
- a tiered process for completing risk characterization and recommending risk management actions for chemicals in commerce
- improved product stewardship co-operation with industry groups and companies that are customers and suppliers to the chemical industry
- tracking of industry performance and reporting to the public
- exploration of potential partnerships with intergovernmental organizations and other stakeholders to enhance global product stewardship
- outreach and dialogue with customers, the public and stakeholders
- participation in scientific inquiry to address health, environmental and risk concerns.
- constructive industry engagement in the public policy process

See: Global Product Strategy adopted by ICCA, and see more information on the ICCA website.

ADDITIONAL INSIGHTS INTO THE BENEFITS OF PRODUCT STEWARDSHIP

- Strengthens industry-wide voluntary initiatives
- Supports voluntary value chain initiatives on chemicals management in different industry sectors (e.g., electronics, coatings, personal care, household, etc.)
- Facilitates compliance with industry initiatives and practices (e.g., Responsible Care, product stewardship codes and other guidance)
• Helps meet expectations of external stakeholders (e.g., corporate social responsibility and sustainable development commitments)
• Improves business management efficiency (e.g., better targeting of worthwhile market opportunities)
• Reduces the likelihood of unnecessary capital and other expenditure (e.g., when it becomes clear that risks outweigh further investment in chemical development)
• May lead to reductions in insurance premiums through the ability to demonstrate that chemical-related risks are being adequately controlled
• Improves public confidence in chemicals
• Protects product brands
• Protects and enhances the value of investor shareholdings
• Supports compliance with chemical regulations

POSSIBLE WAYS TO DEMONSTRATE MANAGEMENT COMMITMENT

• Have personal performance goals of company senior management include specific accountability for product stewardship
• Forge the link between product stewardship and the business strategy and identify the risks and cost of not implementing a product stewardship programme
• Communicate with external stakeholders on product stewardship matters
• Communicate with employees on product stewardship matters
• Chair or participate in meetings where product stewardship is specifically discussed
• Become trained in product stewardship principles and processes
• Allocate adequate resources to ensure the effectiveness of product stewardship programmes
• Support decisions which may limit sales when the risks to human health or the environment are deemed to be unacceptable
• Acknowledge achievements in product stewardship
• Develop clear values and expectations

ASPECTS OF PRODUCT STEWARDSHIP POLICIES

The following are possible considerations when developing a product stewardship policy:
• aspirations and measures to assure protection of human health and the environment (e.g., risk characterization and management, working with value chain partners)
• compliance with regulations, industry and company expectations (e.g., Responsible Care)
• provision of a framework for objectives, targets, implementation, checking and continuous improvement
• employee engagement (e.g., training, roles and responsibilities)
• value chain partner engagement (e.g., communication, mutual product stewardship expectations)
• communication of progress in product stewardship performance to employees, other stakeholders and the public

It is important that policies are set by management, appropriate to the scale, size and nature of the business’ activities and goals, readily understandable and periodically reviewed.

GUIDANCE FOR NEW PRODUCT STEWARDS

• Recognize the need for buy-in and engagement of management for success.
• Develop effective interpersonal skills
• Become trained in product stewardship principles and practices
• Discuss product stewardship issues regularly with key colleagues – offer assistance and obtain their buy-in
• Seek information from your trade associations and other sources
• If practicable, establish a product stewardship issues steering team, ensuring that there is a balance of business managers and health, safety & environment professionals
• Determine key priorities – in discussion with key colleagues – and set straightforward objectives and plans
• Seek to structure and institutionalize product stewardship processes, but don’t let the development of over-complex systems become a dominant feature of the program.

THE RISK CHARACTERIZATION PROCESS

Setting Priorities for Preparing Product Risk Characterizations
Below are factors to consider when categorizing chemicals as “high priority” for completing risk characterizations (and subsequently developing associated risk management recommendations). They should be applied in light of the circumstances of each individual company and region. This approach also provides companies flexibility so that they can make expert judgments about the appropriate criteria required for their product lines, based on the screening of relevant available hazard information as well as information on potential exposure and risk associated with the chemical and its use by the respective company and value chain. Companies can set their priorities from a comprehensive point of view, taking these factors and other business considerations into account.

Primary Considerations For Categorizing Chemicals As “High Priority“
• Chemicals with testing and/or risk evaluation work already completed or underway in response to current or impending regulatory scrutiny (e.g., Canadian DSL, EU Regulation of existing chemical substances, EU REACH)
• Categories of chemicals of particular concern under national or regional regulatory programs, such as those listed as known carcinogens, mutagens, or substances that are toxic to reproduction
• Chemicals listed as candidates under the Stockholm Convention (Persistent Organic Pollutants) or the Rotterdam Convention (Prior Informed Consent)
• Chemicals restricted by other national or regional regulations or international conventions

**Other Relevant Factors That May Be Considered Include, But Are Not Limited To:**

• Whether the chemical could be classified as Persistent, Bioaccumulative and Toxic (PBT)

• Whether and to what extent the chemical has potential for (significant) human exposure, especially when children and other sensitive subpopulations could be impacted. For example, such chemicals might include those:
  - used in products used by children
  - used in consumer products, medical devices, drugs or cosmetics, particularly where such products are not regulated under a separate legal regime

• Whether and to what extent the chemical has a potential for significant environmental exposure when these chemicals are not regulated under a specific regime

• Whether the chemical presents a significant acute hazard (e.g., highly flammable, corrosive, reactive, etc.)

• Whether the chemical is a high production volume chemical (1,000 tonnes production per year)

• Whether and to what extent the chemical is a focus of broader or increasing societal concern

• Whether there are attributes of the value chain for a particular chemical that could raise significant concern (e.g., customers are very numerous or generally lack sophistication and competency in managing chemicals, or they do not have adequate product stewardship practices in place)

• Whether a company wants to make a chemical “high priority” for business or other purposes (e.g., a new product or an existing product in a new application)
Gathering Product Information:
The first step is to gather available, relevant hazard and potential exposure information. This information is used to characterize risks that may occur during handling, transport and use. The range of information sources can vary widely, including e.g., supplier (Material) Safety Data Sheets and labels, predefined regulatory criteria, and published reports.

Relevant, available information on usage, hazard and exposure should be gathered to help understand the key health and environmental effects of the chemicals produced, distributed, used,
recycled or disposed. This includes hazard and possible exposure information adequate to conduct a product risk characterization. Such information may include:

- major components and/or impurities
- physical and chemical characteristics
- potential human health hazards
- potential environmental hazards
- uses, functions and applications of products
- production volume ranges
- general descriptions of potential exposure pathways
- potential misuses, as reasonably foreseeable, or as known from customers, consumers or authorities

Sources of such information may include, although are not limited to:

- (Material) Safety Data Sheets and labels for raw materials used to manufacture the product
- dialogue with suppliers of raw materials
- governmental regulatory/sources e.g. OECD/SIDS dossiers, ORATS (Online European Risk Assessment Tracking System)
- databases e.g. IRIS, ESIS (European Chemical Substance Information System)
- reference books

**Chemical Definition—Identification of Chemical/Application**

In the initial step, a company identifies its chemicals and their uses/applications in commerce. Risk characterization results and risk management implementation may differ for the same chemical depending on its specific use/application. This provides a more flexible risk management approach in which actions to prevent or control risks should be tailored to an application rather than arbitrarily prescribed for a chemical in all applications.

**Establish Knowledgebase**

In the development of the knowledge base, existing relevant available information on the chemical and its applications should be gathered. Items to consider may include:

- lifecycle
- product characterization (including physicochemical properties)
- hazard and exposure information
- current risk management/management measures
- regulatory restrictions
- public concern
- identification of screening/priority-setting criteria (the criteria against which the outcomes of the risk characterization work will be measured. There may be cases in which regulatory mandated criteria exist for certain endpoints)

**Conduct Risk Characterization**

**Hazard Evaluation**

Hazard is an intrinsic property of a chemical and can be assessed independent of its use or application. Hazard evaluation addresses the kinds of adverse health and environmental effects that have been observed, the level of certainty, the severity, the significance of the effect, and the quantitative relationship between exposure and effects (often expressed as “dose-response” curve).
Information may be derived from laboratory testing of physico-chemical, toxicological or ecotoxicological properties, from data on similar chemicals, QSAR (Structure Activity Relationships), studies, literature, experience, etc.

**Exposure Evaluation**
Consider potential exposures to humans and the environment from the production, distribution, use, and disposal or recycling of a chemical.

Exposure is a determinant of chemical-induced human and ecological effects and is a key component of the risk characterization. Exposure evaluation considers the magnitude, frequency, duration, and route of potential or actual human and environmental exposures. It also considers the nature, size and constitution of the potentially exposed population. Important factors in characterizing exposure include conditions of packaging, transportation, storage, use, reuse, and disposal.

Information may be derived from known exposure categories or scenarios, workplace measurements, air and water sampling, etc.

**Is information sufficient to complete a risk characterization?**
This preliminary risk characterization should provide an understanding of the nature, magnitude and probability of a potential adverse health or environmental effect. It should also include uncertainties associated with the exposure and hazard evaluations. Additional risk characterization information may be obtained by comparing the chemical to a similar one.

Results of the preliminary risk characterization should be weighed against the organization’s identified screening and/or priority criteria to determine if additional risk characterization is needed. If so, resources should be directed first at those products or applications that had the highest risks identified through the preliminary characterization process.

**Decision point**
If there is sufficient information to complete a risk characterization, proceed to the Risk Management step under ‘DO’.

If there is insufficient information to complete a risk characterization, additional, relevant, hazard or exposure information may be needed. Keep repeating this step until you are satisfied that you can undertake a meaningful product risk characterization.
Other Influences And Issues Affecting Product Stewardship Requirements

- Organization policies
- Clear understanding (mapping) of the different value chains through which the organisation’s chemicals pass
- Organisation’s processes for procuring raw materials and marketing and selling its chemicals
- Relevant technical standards
- Results of audits
- Constructive opinions and views of stakeholders which may include, but not be limited to, employee feedback, correspondence from the public or non-governmental environment organisations (NGOs), investors comments, requirements from customers, insurance audit reports and surveys and questionnaires

Examples of Product Stewardship Practices And Possible Associated Internal Metrics

A. Management – setting policies and objectives and planning

**Practices**

- Written corporate policies that discuss the commitment of management to achieving the objectives of Responsible Care, including product stewardship, and the communication of those policies throughout the company
- Written corporate policies that address core values including a commitment to Responsible Care and product stewardship, and communication of those values in and outside the company
- A written set of objectives to be accomplished by the company under Responsible Care and product stewardship, as well as a plan to achieve those objectives
- An organizational infrastructure to achieve the objectives of product stewardship, i.e., employees that have product stewardship performance as part of their job responsibilities
- Involvement of high level management in the review and tracking of company performance toward implementation of Responsible Care and product stewardship

**Possible Internal Metrics or Milestones**

- Written corporate policies addressing a commitment to Responsible Care and product stewardship are in place.
- Written objectives and plans for product stewardship implementation
- Company resources dedicated to implementing Responsible Care and product stewardship are in place.
- A mechanism to track company performance toward implementing Responsible Care and product stewardship are in place.
B. Gathering product information

**Practices**
- Gathering adequate hazard and possible exposure information to conduct a product risk characterization. Such information may include, though is not limited to, the chemical’s:
  - major components and impurities
  - physical and chemical characteristics
  - potential human health hazards
  - potential environmental hazards
  - uses, functions and applications in products
  - production volume ranges
  - general description of potential exposure pathways
  - reasonably foreseeable unintended uses (including misuses)

Sources of such information may include, though are not limited to:
- (Material) Safety Data Sheets and labels for raw materials used to manufacture the chemical
- dialogue with suppliers of raw materials
- governmental regulatory or other sources (e.g., OECD/SIDS dossiers, ORATS [Online European Risk Assessment Tracking System])
- databases such as IRIS, ESIS (European Chemical Substance Information System)
- reference books

**Possible Internal Metrics or Milestones**
- A written process for gathering information on chemical hazards and uses
- Employees or contract resources technically capable of understanding hazard and potential exposure information are in place.

C. Conducting risk assessment – risk characterization and/or risk profile

**Practices**
- Establishment of processes to evaluate the adequacy of available chemical identity, hazard and potential exposure information and identification of gaps in this information
- Establishment and implementation of chemical testing plans to fill gaps in information as appropriate
- Estimation of chemical risks for intended and reasonably foreseeable unintended uses

**Possible Internal Metrics or Milestones**
- A written process for characterizing chemical risks is in place.
- Employees or contract resources technically capable of conducting chemical risk characterizations are in place.
D. Applying appropriate risk management

**Practices**
- Definition and implementation of risk management actions that are adequate to protect human health and the environment and that are commensurate with chemical risks. Such actions may include, but are not limited to:
  - limiting certain uses or markets
  - qualifying and training customers
  - changing the chemical’s physical form to reduce exposure potential
  - identifying potential alternatives
  - implementing engineering controls, such as covering containers, using closed piping, install local exhaust ventilation
  - utilizing specific personal protective equipment
  - cutting off sales or suppliers if risk management measures not appropriately followed

The list above is not exhaustive, nor will it apply to all chemicals or situations. Companies may need to rely on professional judgment to determine actions appropriate for their circumstances.
- Compilation of risk characterization and risk management actions into an easily understandable format that can be communicated to employees, downstream customers and other interested parties.

**Possible Internal Metrics or Milestones**
- Risk characterizations with appropriate risk management actions are completed for priority chemicals as judged according to specific criteria.

E. Public communication – transparency

**Practices**
- Identification of and communication with key audiences and stakeholders regarding company policies, core values and commitment to Responsible Care and product stewardship. Such audiences and stakeholders include, though are not limited to:
  - employees and their representatives
  - Commercial partners and customers
  - Legislators and regulators
  - Local communities
  - Non-governmental organizations
- Access of key audiences and stakeholders to relevant product stewardship information.

**Possible Internal Metrics or Milestones**
- Appropriate risk characterization summaries with appropriate risk management actions are publicly available
- Employee education on chemical risks and safe handling processes
- Downstream customer education on chemical risks and safe handling processes such as is in place, e.g., through organized training and workshops
F. Monitoring-Evaluation-Improvement

Practice
- Once chemical risk characterization and risk management practices are in place, a management system approach is implemented to ensure continual improvement.

Possible Internal Metrics or Milestones
- Defined product stewardship management system approaches are in place.

Examples of Possible Audiences And Communication Topics

A. Stakeholders
- Value chain partners
- Industry associations
- Regulators
- Non-governmental organizations
- Politicians
- Media
- Labor unions
- Investors
- General public

B. Communication topics
- Making policies and other information publicly available
- Advising on chemical hazard, exposure or risk profiles, including changes based on new scientific evidence
- Providing educational workshops and training materials relevant to the organization’s business for suppliers, customers, distributors and others
- Responding to questions regarding a company’s chemicals or products

C. Protecting corporate interests and confidential information
Companies should allow for public access to appropriate and meaningful information, while protecting legitimate corporate interests in technical or commercial information. Although the exact mechanisms of public access may differ, the system should provide sufficient information to demonstrate that the risks of chemicals have been considered and appropriate action taken. The public should have access to understandable appropriate information that puts hazard information into context with exposure information.
Help For SME’s

The product stewardship program of a small/medium-sized enterprise (SME) needs to be commensurate with the size of the company. Relevant trade associations may be able to help by providing generic guidance and tools. Overall start-up costs will be dependent on the complexity of the SMEs product range and value chains, but will taper off as programs become established.

Who Is Responsible For Product Stewardship In An Organization And Down the Value Chain?

- Purchasing and product sourcing
- Research & Development
- Manufacturing
- Marketing and sales
- Packaging, storage and loading.
- Transportation and delivery
- Customer service
- Distributors
- Contractors
- Re-use, recycling and product disposal
- Others

Some companies may appoint product stewards with specific responsibility for the product stewardship system. These product stewards(s) are sometimes part-time employees or contractors, especially in the case of SMEs.

Implementation of product stewardship should not be dependent on product stewards alone. Rather, it is a team effort that requires close co-operation between many parts of an organization as well as value chain partners.

Important Areas For Product Stewardship Training

Product stewardship training within the organization, and possibly for external parties, could include:

- legal, company and other requirements
- chemical handling, use, recycling and disposal
- understanding and communication of chemical safety information including (Material) Safety Data Sheets, labels, risk assessment summaries, user safe-handling & environment impact guidance
- responsibilities in procurement, marketing and sales, distribution, transportation etc
Product stewardship training needs to be integrated as far as possible into systematic job training.

Examples Of Possible Risk Management Actions To Consider

Risk management can range from providing hazard and safe handling information via (Material) Safety Data Sheets and labels, to requiring customers to demonstrate the ability to safely receive, store and use the chemical prior to sale. If the customer fails to demonstrate the ability to safely handle the chemical, the supplier should take steps to help the customer improve its practices. Below are some additional risk management options, though many other risk management actions are possible:

A. Chemicals
   1. Manufacturing specifications
   2. Product hazard classification
   3. (Material) Safety Data Sheets
   4. Classification and packaging labels

B. R&D
   1. Sourcing of alternative raw materials
   2. Changes to product physical form to reduce exposure potential

C. Purchasing
   1. Supplier materials contracts
   2. Switching suppliers

D. Manufacturing
   1. Legislation and operating permits
   2. Engineering controls
   3. Personal protective equipment
   4. Maintenance schedules

E. Contractors
   1. Toll-manufacturing contracts
   2. Audits

F. Marketing
   1. Voluntary restrictions on applications and uses

G. Sales
   1. Customer assistance
   2. Assessment of customer’s safe handling of chemicals.
   3. Provision of advice, possibly equipment
   4. Halt sales
H. Distributors
   1. Product stewardship agreements
   2. Distributor training
   3. Audits

I. Recycling and disposal
   1. Feasibility of recycling or reusing used and unused product or packaging
   2. Labels, safety data sheets and other relevant guidance contain adequate disposal information
   3. Expertise available to advise on product & packaging disposal

Examples of Strategies For Making Product Stewardship Information Available To The Public

There are many possible ways this can be accomplished, including:
   • provide the contact information for a responsible person within the company who would be available to answer questions about the company’s chemicals
   • place a summary of the risk characterization on the company website in a format such as a “product profile”.
   • provide product risk management information on the company website such as (Material) Safety Data Sheets, and guidance on safe-handling and disposal
   • work jointly with others to produce information on a group of chemicals and their uses.

Considerations When Developing An Internal Monitoring Program
   • Compare results to defined performance criteria
   • Describe actions completed or planned to be taken as appropriate
   • Define responsibility for monitoring and reporting
   • Establish monitoring frequency
   • Identify trends through data analysis
   • Provide inputs to management review
   • Communicate results key internal and external audiences
   • Seek and utilize customer feedback

Parameters Of Audits
The frequency and scope of the audits will depend on:
   • importance of the activity concerned, based on consideration of risk, business, societal, or health or environment impact, etc.
   • historical performance and results of previous audits
• compliance with relevant practices and commitments or standards (e.g., organization auditing policy, customer requirements, ISO quality systems)

Points To Consider Relating To Management Review

The Management Review could comprise at least some of the following elements, though this will depend on company policy.

A. Discussion topics
   1. Policies, objectives and targets
   2. Resource allocation
   3. Program priorities
   4. Communications
   5. Organisation changes
   6. Research and development projects
   7. Procurement, marketing and selling strategies
   8. Status of action items from monitoring and auditing programs

B. Documentation
   1. Reasons for the review
   2. Decisions taken and criteria used
   3. Action plans, including completion dates and reporting requirements
   4. Progress against previous action plans

C. Communication
   The output of reviews should be communicated to all those who have made an input or are affected by outputs from the review. This includes those who:
   1. Are responsible for action or monitoring performance
   2. Need to ensure conformance is achieved
   3. Lead other review or line meetings
THE GLOBAL PRODUCT STRATEGY

Overview
The Global Product Strategy is designed to improve the global chemical industry’s product stewardship performance by recommending measures to be taken by the International Council of Chemical Associations (ICCA) and its members, in cooperation with activities of other companies and associations along the chemical value chain. The recommended measures provide implementation flexibility and recognize distinctive national, legal, historical, cultural and other requirements.

The strategy is based on the objectives of the Global Chemicals Management Policy approved by the ICCA in 2001 and has the prime objective to accelerate the implementation of that policy. (Policy Attached.) Concrete measures adopted through the strategy are an important part of the global chemical industry’s implementation of Responsible Care® and support other major strategic initiatives, including the Long-Range Research Initiative, the High Production Volume chemical testing program, and regional communications activities.

The strategy recommends a broad range of actions including: voluntary industry actions; cooperative efforts with industry groups and companies that are customers and suppliers to the chemical industry; a potential role for partnerships with Intergovernmental Organizations and other stakeholders, e.g. Non-Governmental Organizations; a common global position on principles of regulation for the sound management of chemicals; and communications programs.

The implementation of the general approach requires a framework of global product stewardship guidelines and is supported by a management system that is compatible with existing programs. That systems approach is a framework to enable companies to enact the management of product stewardship within their own management systems.
<table>
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<tr>
<th>General Strategy</th>
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<tr>
<td>1. Based on existing Product Stewardship Codes, develop global guidelines for Product Stewardship programs in all sectors of industry producing and handling chemicals. The guidelines shall implement the ICCA Global Chemicals Management Policy, so that activities by ICCA member associations can be demonstrated to support the global industry’s commitment to appropriate management of chemical products. The guidelines are to be designed with enough flexibility to account for national and regional legal societal, economic and cultural conditions. The guidelines are intended to aid and guide those in the chemical chain of commerce having less expertise or resources at their disposal.</td>
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<td>2. Based on existing systems, develop a management system approach to advise companies on implementation of the Product Stewardship guidelines to ensure continuous improvement of product stewardship.</td>
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<td>3. Define a tiered process and suggested schedule for completing risk characterizations and risk management recommendations for chemicals in commerce. The process should:</td>
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<td>• Include elements of continuous improvement</td>
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<td>• Address cooperation with governments, customers and other stakeholders as appropriate.</td>
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<td>• Suggest periodic reassessments in light of new or additional information or emerging health and environmental concerns and new applications.</td>
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<td>• Take appropriate risk management action based on findings from reassessment of chemical risks.</td>
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<td>4. Identify and prioritize industry sectors with which associations and their members can jointly develop a process to facilitate the flow of hazard and safe handling information, evaluate and mitigate risks, and address product challenges throughout the chemicals value chain. The process should:</td>
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<td>• Foster the provision of product safety information to commercial partners</td>
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<td>• Enable the value chain to access and apply risk information in a transparent manner in its own operations and for its own products</td>
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<td>• Create and continually improve collaboration along the value chain to effectively manage the safe use of chemicals.</td>
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<td>5. Develop partnerships with Inter-Governmental Organizations and other interested stakeholders. (e.g. UNEP, WHO, OECD)</td>
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ICCA GLOBAL CHEMICALS MANAGEMENT POLICY

Preamble
The chemical industry provides benefits to society through innovation, its products and continuous improvement in their management. The chemical industry has taken a proactive role in the safe management of chemicals by building on company Product Stewardship programs and the industry’s Responsible Care, High Production Volume (HPV) Chemicals and Long Range Research initiatives.

The chemical industry recognizes the need for a sufficient knowledge base to assess health, safety and environmental effects of chemicals and to assist users and governments in managing their risks. The provision of this knowledge base and continuous improvement in the safe use of chemicals globally requires joint and coordinated activities between producers, distributors, users, governments and other stakeholders, based on shared responsibilities at each relevant stage of the chain of commerce.

A high level of cooperation between producers and governments has already been achieved in global chemicals issues, notably the Rotterdam Convention on Prior Informed Consent, the Stockholm Convention on Persistent Organic Pollutants, and the International Council of Chemical Association’s (ICCA) HPV Chemical Initiative.

To enhance safe handling of chemicals and further cooperation and coordination, this proposed policy suggests fundamental elements of an approach that would evolve from the current systems for chemicals management. The aim is to foster greater consistency and transparency around the globe in chemical management decisions both within industry and among governments; and to better enable those decisions to effectively respond to potential risks associated with chemicals.

Considering the differences in national or regional societal, economic and political conditions the ICCA recognizes the need for flexibility in advancing this strategic approach at the country and regional levels, particularly in prioritising issues of concern, and in relationships between industry and government in implementing the strategy. Thus, the proposed policy represents a global approach, but leaves considerable flexibility to address regional, cultural and societal differences, including the relative role of governments in chemicals management.

Vision
Public confidence in the safe management and use of chemicals will be enhanced by a global system of industry and government decision-making that is risk-based, consistently applied, practical, timely and transparent, and takes account of stakeholder needs, thus realizing the benefits of chemistry to society.

Policy
The industry continues and promotes industry initiatives and cooperative programmes like LRI, ICCA HPV Initiative, and the Responsible Care program, and wishes to build
on the lessons learned, particularly through cooperation between industry and national, regional and international government programmes.

The industry supports the development and implementation at the country or regional levels of chemical management systems that rely on effective cooperation between producers, distributors and users of chemicals and governments, with global consistency in basic concept and fundamental approach.

These systems should apply a stepwise, practical and timely decision process that is based on sound scientific data and takes into account appropriate levels of hazard, use and exposure information in a risk characterization model as well as feasibility of implementation. They should consider societal benefits, address necessary actions in a consistent manner, should not inhibit legitimate trade and commerce, and should support innovation.

These systems should provide for the generation of priority-setting, risk characterization and management information regarding the safe uses of chemicals. They should be founded upon a science and risk-based management approach and, for prioritised chemicals, provide any necessary additional information generated according to a tiered information development and assessment framework. Appropriate and meaningful information should be placed in the public domain, taking due account of the need to safeguard the commercial interests of companies.

For chemical uses determined to have relevant level of risk concern, these systems should rely on a step-wise approach for efficient risk characterization and management. The systems should promote cooperative efforts among producers, distributors and users of chemicals, and governments; and also provide for sharing information among the chain of commerce, governments and other stakeholders, while protecting legitimate corporate interests in technical or commercial information.

The policy should be the basis for a consistent global approach, to be implemented regionally and/or nationally in ways that support innovation, avoid duplication, and maximize the sharing of knowledge. Implementation of systems in specific regions and countries should consider the differences in national or regional regulatory approaches, societal, economic and political conditions; but should recognize the shared obligation of producers, distributors, users and governments in the safe management of chemicals. Further, implementation should minimize the imposition of potential barriers to trade and should be consistent with the rules of international trade.

These national and regional systems should each yield consistent and predictable risk management decisions that protect against health and environmental risks while ensuring continued societal benefit from the safe uses of chemicals, and promote public confidence in the system. Implementation of this approach should help the industry promote the contribution of the chemical industry to society, and the benefits of chemical products.

**Objectives**

The main objectives of the chemical industry’s global policy on chemicals management are:

1. To provide benefits to society through the safe use of chemicals.
2. To promote a process by which the chemical industry continues to manage its products responsibly, and can demonstrate to stakeholders that it is doing so.
3. To promote innovation, and continuous improvement of chemicals management.
4. To provide the information and data (a knowledge base) for assessing health, safety and environmental effects of chemicals and their intended uses, sufficient to:
   - prioritise chemicals that should be focused on first in a consistent manner.
   - promote and contribute to the understanding of health, safety and environmental related scientific issues on chemicals.
   - promote further minimization in the use of animals in testing.
5. Take risk-based and cost-effective chemicals management measures to prevent human health and environmental effects, consistent with the precautionary approach as set forth in Principle 15 of the Rio Declaration on Environment and Development.
6. Take risk reduction measures, including where appropriate limitations on use, or even phase-outs of specific uses of chemicals where unacceptable risks are not otherwise manageable, in a manner that is proportional to the risks and mindful of the benefits of a particular chemical in the context of its use.
7. Within each country or regional system, to ensure that the information and a risk-based management process are consistently applied, including to those chemicals or non-chemical alternatives that are being considered in the context of risk management options.
8. To contribute to and strengthen activities to improve the safe use of chemicals globally, in particular by working with governments and intergovernmental organizations on implementation of a risk-based decision process.
9. To strengthen and maintain the chemical industry’s economic performance and competitiveness.

**Recommended Elements**

Chemical producers, distributors, users and governments have a shared obligation in the safe management of chemicals. The ICCA global chemicals management policy contemplates that an appropriate balance of the respective responsibilities will be determined subject to national or regional circumstances. Regardless of where that balance is struck, however, certain elements should be expressly provided for. Beyond the general elements outlined above, these include:

- Apply systematically the information on use, exposure and hazard to understand the basic health and environmental effects of the chemicals produced, distributed or used.
- Continue to develop and improve screening criteria and risk characterization tools, and apply them appropriately in priority setting processes.
- Prioritize existing chemicals based on use and exposure patterns in the context of a chemical’s hazards, and in particular to identify priorities for risk characterization and management.
- Characterize the risks of chemicals wherever necessary along the chain of commerce, and communicate relevant information so that all parties...
producing, distributing or using the chemicals can contribute appropriately to such assessments and apply them to manage risks and foster the safe handling and use of chemicals.

- With involvement of industry, government and other committed stakeholders, establish policies regarding acceptable levels of risk, and develop and validate new, alternative methodologies for evaluating hazard and exposure, characterizing risk, and evaluating emerging scientific issues.

- Reassess chemical risks in light of new or additional information, including new testing technologies and emerging health or environmental concerns that represent a consensus among experts as requiring additional action, new uses and new forms of exposure.

- Provide information along the chain of commerce to assist in characterizing risk, and provide a process for developing necessary additional information that is not currently available.

- Support public access to appropriate and meaningful information, while protecting legitimate corporate interests in technical or commercial information. Although the exact mechanisms of public access may differ, the system should provide sufficient information to demonstrate that the risks of chemicals have been considered and relevant action taken. The public should have access to information that puts hazard information into context with exposure information.

- Promote mutual acceptance of screening and risk characterization information and data among governments in order to avoid unreasonable duplication of effort.

- Minimize the use of animals in testing by assuring maximum use of existing information and assisting in developing and validating new, alternative test methodologies.