ICCA Guidance for Reporting Performance

Guidance document for associations using the ICCA Responsible Care Leadership Group's on-line tool to report key performance indicators, and Responsible Care Global Charter and Global Product Strategy (GPS) implementation status

November 2010

Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY

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i. Introduction

In 2008, the ICCA Responsible Care Leadership Group (RCLG) developed an electronic reporting system for its member associations' reporting of key performance indicators (KPI) as well as Responsible Care implementation details previously collected via the RCLG survey. RCLG members are expected to report annually on the requested parameters. The purpose of collecting this information is to:

- Provide a picture of actual EHS performance over time for Responsible Care companies on selected indicators
- Provide a means of measuring progress against goals set out in the Responsible Care Global Charter
- Provide a means for measuring progress against the goals set out in the ICCA Global Product Strategy (GPS).

ICCA believes the data on the GPS (see APPENDIX C) product stewardship commitments, which are largely implemented through Responsible Care, can be best collected through the existing RCLG reporting mechanism. Therefore, key GPS product stewardship parameters have been identified and added to the RCLG reporting tool, for reporting from 2009.

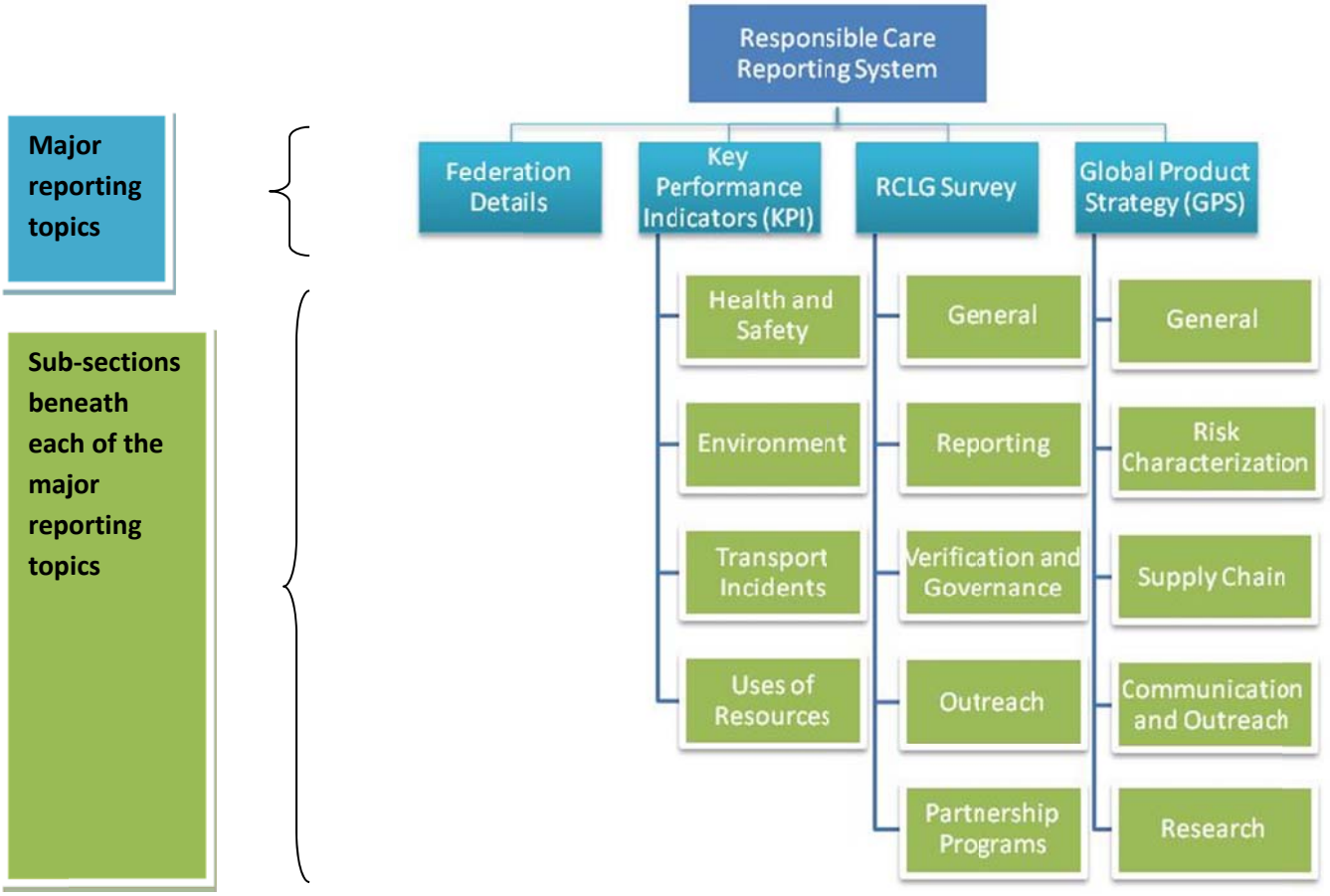
The RCLG KPI tool can be accessed at http://kpi.responsiblecare.eu. Every RCLG association representative has been issued with a username and password to access the site and enter data for his/her association. In addition, these representatives can view data for other RCLG associations. Your username is your email address. If you misplace your password, simply go to the website and choose the "forgot your password" option, enter your email address in the entry field and your password will be emailed to you.

The data and information provided through the reporting tool will be used for various purposes. First, it will be reviewed annually by the RCLG and Chemical Policy and Health Leadership Group to assess performance and identify areas for improvement. Second, it will be periodically presented to the ICCA Board of Directors and Steering Committee to assess progress against Global Charter and GPS goals. Finally, information may be presented in future reports, including the ICCA Review, Responsible Care Status Reports and reports to the UN on progress on the Strategic Approach for International Chemicals Management (SAICM). Because of the considerable visibility of the data, it is of utmost importance that associations report completely and accurately on an annual basis.

Note to users: The ICCA electronic data collection system is also used by Cefic to collect specific data from its members. There a several parameters included in this collection tool that apply to Cefic only and are marked as such throughout this guidance document as well as the electronic data collection tool. For these parameters, Cefic members should provide the data; for all other associations, the data are optional. In one instance - "Other Greenhouse Gases" – the parameter is an ICCA parameter not required for Cefic members. It is also noted as such in this guidance and the tool.

ii. Snapshot of Reporting Parameters

The on-line reporting tool is divided into several sections by topic: Federation Details, Key Performance Indicators (KPI), RCLG Survey, and Global Product Strategy (GPS). Each of these sections is also divided into subsections for ease of reporting. The user must take note of each of these tabs within the reporting tool, as well as the sub-tabs within each topic. The following chart shows the structure of the web-based tool.

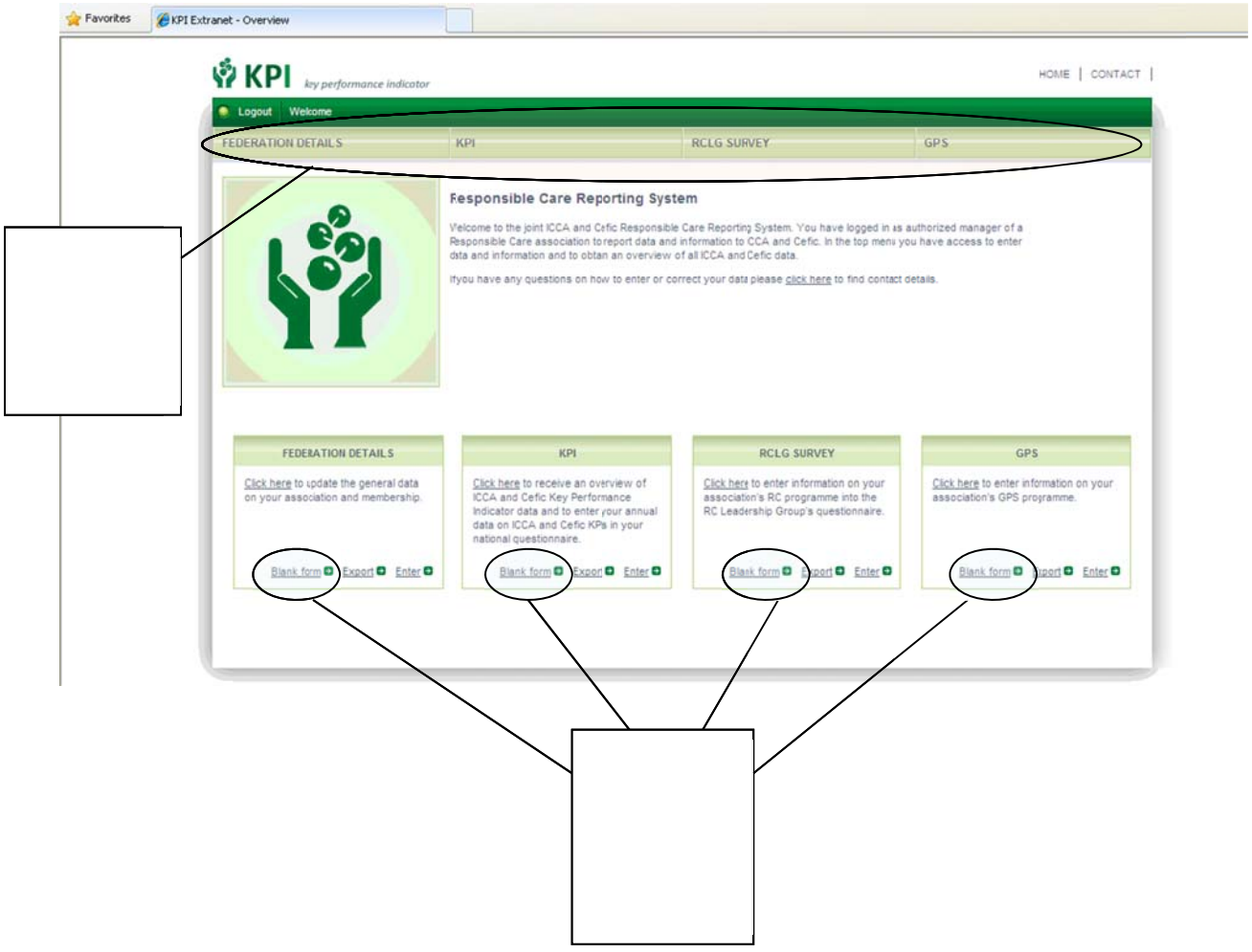


iii. Instructions for Reporting

After logging into the reporting website, users can navigate between the major reporting topics and related sub-sections. Please note that under the KPI Tab, the user will first land on a summary page that displays all reported data from all associations. The user may then enter the associated data by selecting the "Click here" button. **Data can then be entered directly on each reporting page, and must be saved by "validating" before exiting the page.** The green "validate" button appears at the lower center of each data entry page.

A flag appears beside each of the major topics along the top tool bars, as well as the subsections. A red flag indicates that no information has been reported for the given topic. A yellow flag indicates that some information has been entered, but the section is incomplete. A green flag indicates that all information has been provided and the given section is complete. The following are screen shots illustrating the functionality of the reporting site.

KPI Tool: view of Home Page



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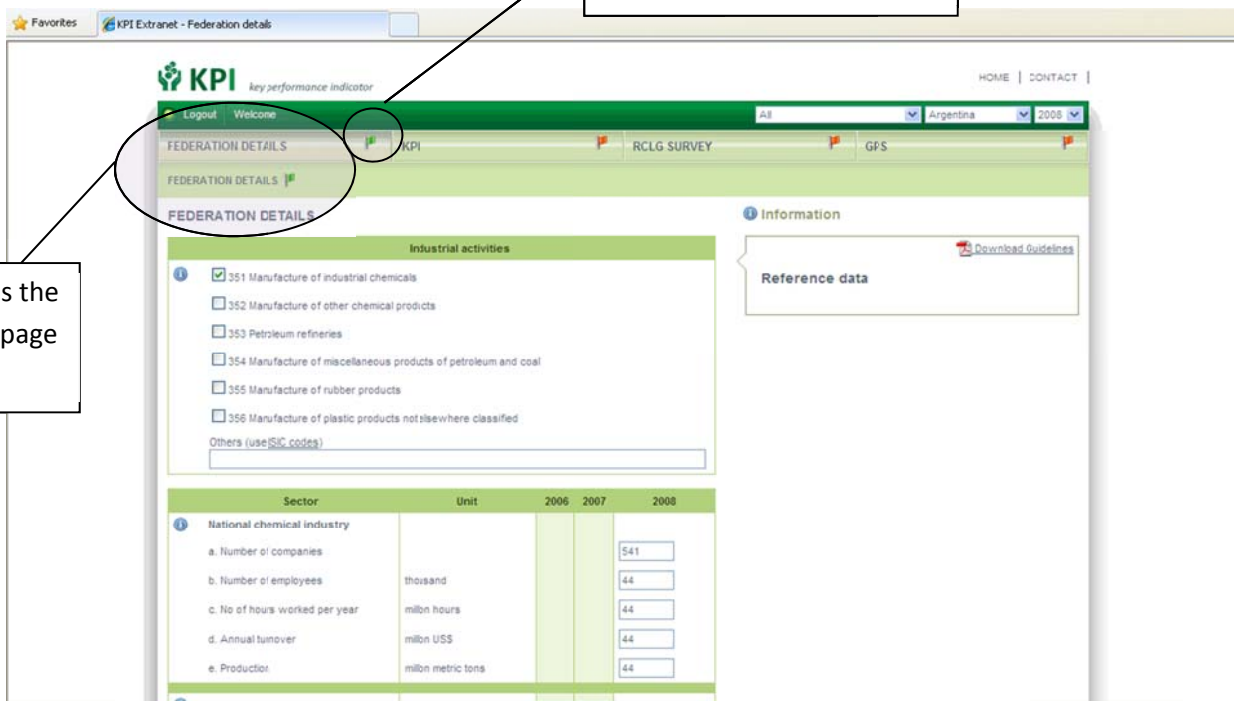
Federation Details: view of landing page



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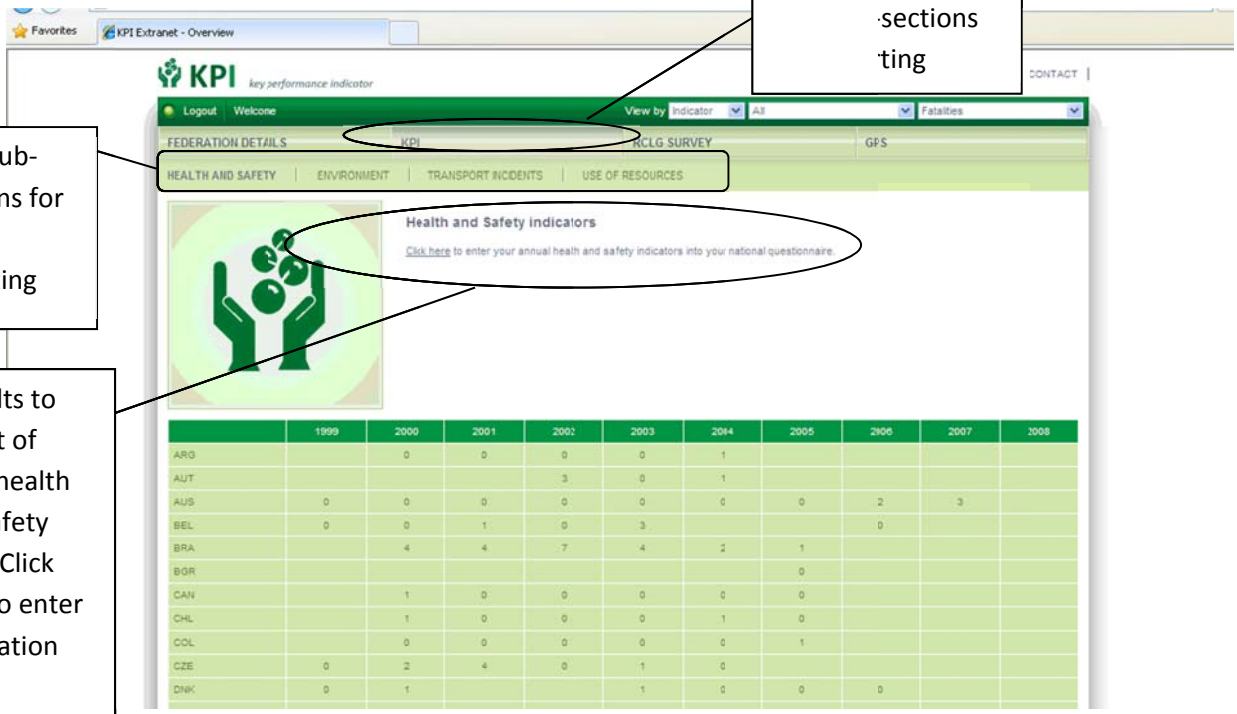

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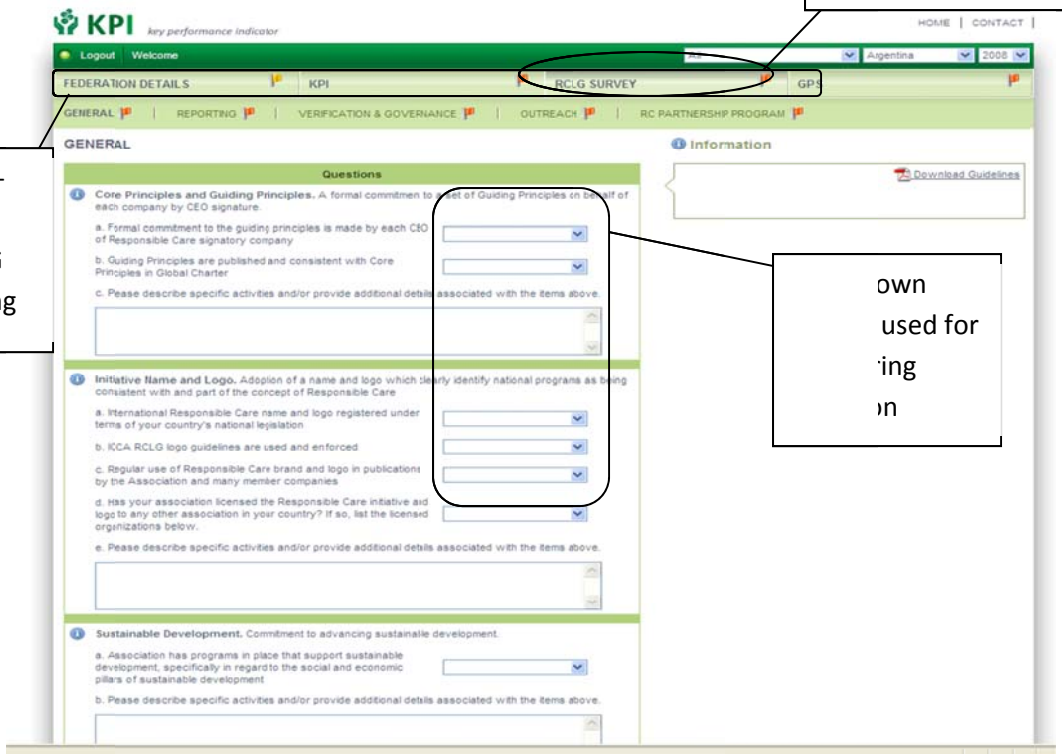
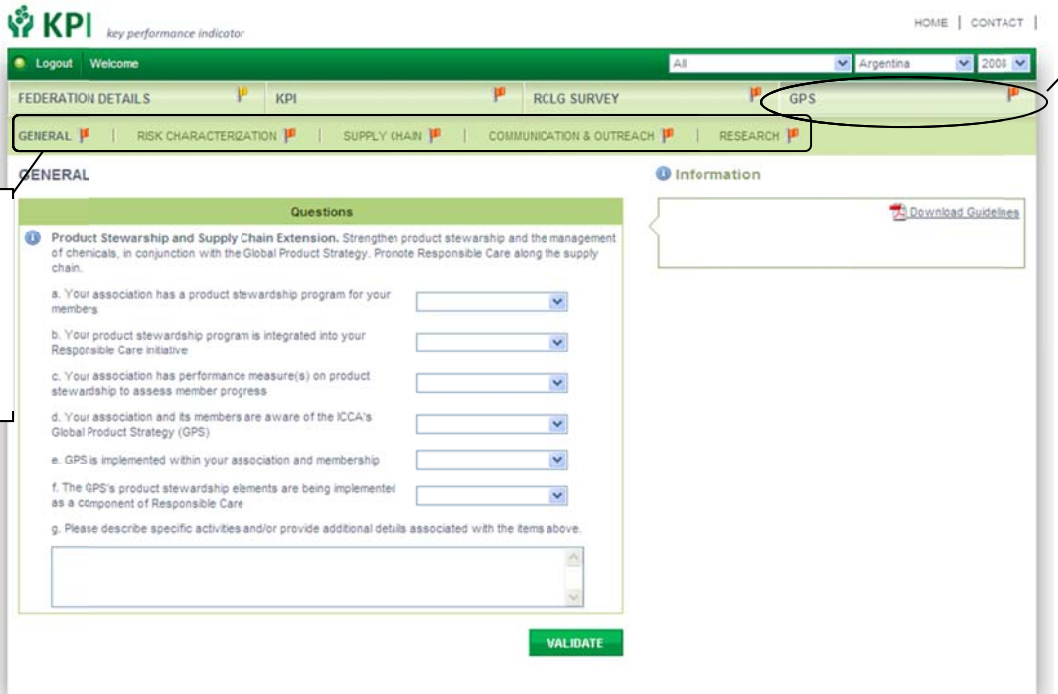


GPS: view of landing page



I. Federation Details

A. Industrial Activities

This section requires information about the industry sectors covered in the association's membership. Please indicate all industrial activities represented by the members of the association, according to the appropriate ICIS Codes.

For items B through D below, the association is asked to report on the total number of companies, number of employees, annual turnover and production at national level; association membership level; and for Responsible Care signatory companies for associations where it is not a condition of membership.

B. National Chemical Industry

This section requires information about the national chemical industry in your country. This information should include data from companies that do not belong to your association as well as member companies.

C. Association Membership

This section requires information about the association membership only. This information should include data collected from all companies belonging to your association.

D. Responsible Care Companies

This section requires data from the companies in your association that participate in Responsible Care.

II. Key Performance Indicators (KPI)

For this section of on-line reporting, the user must identify the source of the data provided in order to help ICCA explain and interpret the results at international level. Please choose one of the following:

- National chemical industry
- Association Membership
- Responsible Care Companies
- Other (please specify using the comment section)

A. Health and Safety

1. Number of Fatalities for Employees

This parameter requires information regarding the total number of fatalities for member company employees. Provide the total number of fatalities and the total number of employees in survey. These figures are not ratios; they are raw numbers.

2. Lost Time Injury Rate for Employees

⇨ **UNITS: Expressed as the number of lost time incidents per million working hours.**

This parameter requires information regarding the lost time injury rate for employees. A lost time injury is a bodily injury that renders the person physically or mentally unable to work or complete the shift, determined by medical personnel, and resulting in at least one day off work. **NOTE: There are significant differences across countries as to what constitutes lost time injuries.** Some countries may apply the 3-day rule, or other unique lost time reporting rules at national level. It is understood that this will cause some differences among the data reported. Therefore, please be sure to indicate which basis you use to report data on the form in the "Comments/Explanation" section. See APPENDIX B for the Lost time Injury Rate Formula.

3. Number of Fatalities for Contractors- Cefic-only parameter

This parameter requires information regarding the total number of fatalities for contractors. Provide the total number of fatalities and the total number of contractors in survey. These figures are not ratios; they are raw numbers.

4. Lost Time Injury Rate for Contractors- Cefic-only parameter

⇨ **UNITS: Expressed as the number of lost time incidents per million working hours.**

The same definitions for lost time injuries apply to contractors as to employees, as above.

This parameter requires information regarding the lost time injury rate for contractors. A lost time injury is a bodily injury that renders the person physically or mentally unable to work or complete the shift, determined by medical personnel, and resulting in at least one day off work. "Working hours of contractors" refers to the total number of hours that contractors spent on-site at member companies' sites. Because companies may not have direct access to the number of working hours of its contractors, this can be estimated based on the total number of contractors, multiplied by a typical workday and

number of days on-site in a year. While many countries do not require under regulation the tracking of safety data for contractors, the Responsible Care ethic suggests responsibility for employees as well as contract workers. NOTE: There are significant differences across countries as to what constitutes lost time injuries. Some countries may apply the 3-day rule, or other unique lost time reporting rules at national level. It is understood that this will cause some differences among the data reported. Therefore, please be sure to indicate which basis you use to report data on the form in the "Comments/Explanation" section. See APPENDIX B for the Lost time Injury Formula.

B. Environment

1. Hazardous Waste for Disposal – Cefic-only parameter

⇨ **UNITS: Expressed as Tonnes of waste per year**

Hazardous waste is generally defined by the national association, according to national laws and regulations. In the event that no national standards exist, a United Nations abstract definition can be found in the Glossary. There is no distinction between onsite and offsite disposal. In the case that significant amounts of soil, for example, are sent for remediation during a one-time event, this should be noted separately.

2. Non-Hazardous Waste for Disposal – Cefic-only parameter

⇨ **UNITS: Expressed as Tonnes of waste per year**

Non-hazardous waste is generally defined by the national association, according to national laws and regulations. In the event that no national standards exist, a United Nations abstract definition can be found in the Glossary. There is no distinction between onsite and offsite disposal. In the case that significant amounts of soil, for example, are sent for remediation during a one-time event, this should be noted separately.

3. Sulphur Dioxide

⇨ **UNITS: Expressed as Tonnes of SO2 per year**

Sulphur Dioxide emissions are airborne releases of sulphur and its compounds formed, for example, during combustion or production processes. The parameter includes SO2 and SO3.

4. Nitrogen Oxides

⇨ **UNITS: Expressed as Tonnes of NO2 per year**

Nitrogen Oxides are airborne releases of compounds of nitrogen and oxygen formed, for example, from combustion processes and chemical processes involving nitrogen containing compounds. Both N0 and N02 are combined in this measure and should be reported as a single number.

5. Volatile Organic Compounds – Cefic-only parameter

⇨ **UNITS: Expressed as Tonnes of VOC per year**

Volatile Organic Compounds are described as those organic chemical compounds that under normal conditions have a high enough vapor pressure to significantly vaporize and enter the atmosphere. This description allows for many interpretations, and where available, national definitions of VOCs should

apply. There may be differences in the definition of VOCs from one country to another. Therefore, please specify in the "Comments/Explanation" section the basis used for reporting VOCs.

6. Carbon Dioxide

⟹ **UNITS: Expressed as Millions of Tonnes of CO2 per year**

The chemical industry's major contribution to CO2 emissions is the combustion of fuels, both directly and indirectly associated with the usage of electricity. Therefore, these emissions are calculated on the basis of energy consumption. Process-related CO2 emissions are not accounted for in this measure.

Direct CO2 emissions: Direct emissions of CO2 are those compounds, in CO2-equivalents emitted directly from a site as a result of fuel combustion for the production of electricity and steam. Direct CO2 emissions are calculated as tonnes of CO2-equivalent by multiplying the amount of solid, liquid and gaseous fuels used for energy production, by corresponding CO2-emission factors. If a company produces energy, through a cogeneration process or otherwise, and subsequently sells the electricity or steam back to another user, these emissions can be subtracted for purposes of direct emissions reporting.

Indirect CO2 emissions: Indirect C02 emissions are those emissions indirectly created by the purchase of energy from another source. Indirect emissions of CO2 are calculated as tonnes of CO2-equivalent by the multiplication of the amount of net purchased electricity by the average factor of CO2 emissions per kwh produced. Each country has a different mix of sources to generate electricity and a different average of associated CO2 emissions.

The Total C02 emissions are the combined Direct and Indirect C02 emissions.

7. Other Greenhouse Gas (GHG) Emissions – Cefic-optional parameter

⟹ **UNITS: Expressed as Tonnes CO2 equivalent per year**

Other Greenhouse Gases are those gases listed in the Kyoto Protocol and include Methane (CH4), Nitrous oxide (N2O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and Sulphur hexafluoride (SF6). These gases should be reported both in total tonnes emitted, and in C02 equivalents. The CO2 equivalent is calculated by multiplying the tonnes released per year by the Global Warming Potential (GWP) of the gas relative to C02, as published by the Intergovernmental Panel on Climate Change (IPCC). The GWP factors as provided by the IPCC in its third Assessment Report are included in APPENDIX B of this document. This parameter is optional for Cefic members.

8. Chemical Oxygen Demand

⟹ **UNITS: Expressed as Tonnes of oxygen per year**

Chemical Oxygen Demand is the amount of oxygen required for the chemical oxidation of compounds in water, as determined using a strong oxidant. This measure quantifies total aquatic COD releases. For operations where wastewater is treated at a shared third party, and therefore individual waste stream data cannot be obtained, the efficiency factors of the wastewater unit should be taken into consideration.

9. Phosphorus Compounds- Cefic-only parameter

⟹ **UNITS: Expressed as Tonnes of phosphorus per year**

Phosphorus Compounds are those aquatic releases of phosphorus compounds, as it pertains to eutrophication in water bodies, i.e., lakes, slow moving streams or estuaries. This measure quantifies the total aquatic phosphorus releases.

10. Nitrogen Compounds – Cefic-only parameter

⟹ **UNITS: Expressed as Tonnes of nitrogen per year**

Nitrogen Compounds are those aquatic releases of nitrogen compounds, as it pertains to eutrophication in water bodies, i.e., lakes, slow moving streams or estuaries. This measure quantifies the total aquatic nitrogen releases.

C. Transport Incidents

⟹ **UNITS: Expressed as number of transport incidents**

Internal reporting of transport incidents is already common practice in most chemical companies and offers individual companies a solid basis for carrying out risk assessments and taking remedial actions. Common industry reporting criteria are necessary to demonstrate performance improvements to our stakeholders. Reporting requirements and definitions for distribution incidents vary significantly depending on national regulation and legislation.

Recognizing that there are many ways to define transport incidents, associations should use a nationally recognized definition if one exists. For example, in the US, these incidents meet the reporting threshold requiring a Department of Transportation 5800 report. In the EU, a distribution incident involving Dangerous Goods must meet the reporting criteria in ADR. In the event that a national definition does not exist, please see the thresholds below. A reportable incident has occurred if at least one of the following has occurred during the shipment of chemical products:

- death or injury leading to intensive medical treatment, a stay in hospital of at least 1 day, or to more than 3 days' absence from work, irrespective of whether or not the chemical product contributed to the death and/or injury;
- loss of product: any release of product of more than 50 kg/L of dangerous goods or more than 1000kg/L of non-dangerous goods;
- material or environmental damage: any damage of more than 50,000 Euro (including environmental cleanup) resulting from a transport incident, irrespective of whether or not the chemical product contributed to the damage.
- involvement of authorities: direct involvement of authorities and/or emergency services in the incident, evacuation of people, closure of public traffic routes for at least 3 hours.

Where possible, users should report distribution incidents for modes of transport: Rail and Road, as well as Total incidents. Tonnes transported shall also be provided for each mode, if possible, as well as total tonnes transported. Please note the Rail and Road incidents are required to Cefic members only and are optional for all other ICCA members. In addition, there may be other exclusions and definitions at the

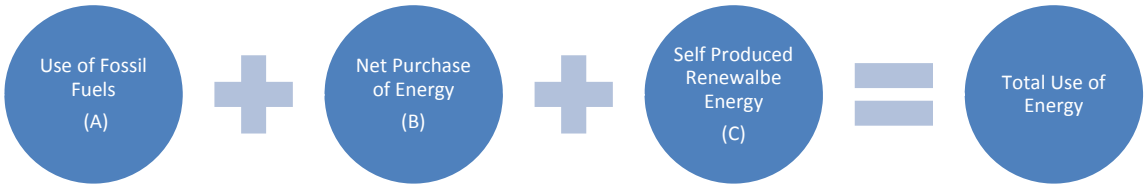
national/regional level. Any significant exclusions or differences from the definitions above should be noted in the "Comments/Explanation" section.

D. Use of Resources

1. Use of Energy

⟹ **UNITS: Expressed as** Tonnes of Fuel Oil Equivalent (TOE)

Total energy usage is the sum of the consumption of fossil fuels, purchase of energy and self-produced energy.



Each of the three components above (A, B and C) should also be considered separately. In the case of the use of fossil fuels (A), only consumption as energy should be included. **Use of fuels as feedstock should not be included.** In addition, energy sold back to the grid can be subtracted from the part A total. If one of these elements is not included in your calculation, please specify in the ""Comments/Explanation" section.

The net purchase of energy (B) also includes purchase of electricity and steam. Sales of either steam or electricity can be subtracted to obtain the net purchase amount.

The definition of self production of energy defined as C above refers to non-fossil sources because other forms of self production - thermal and thermo (electric) energy from fossil fuels - are already accounted for with component A.

All energy consumption is expressed as tonnes of fuel oil equivalent. Companies can use general conversion factors for purchased electricity or if specific fuel mixes are known, more specific factors can be used.

2. Specific Energy Consumption – Cefic-only parameter

⟹ **UNITS: Expressed as Tonnes of Fuel Oil Equivalent / Tonne of Production**

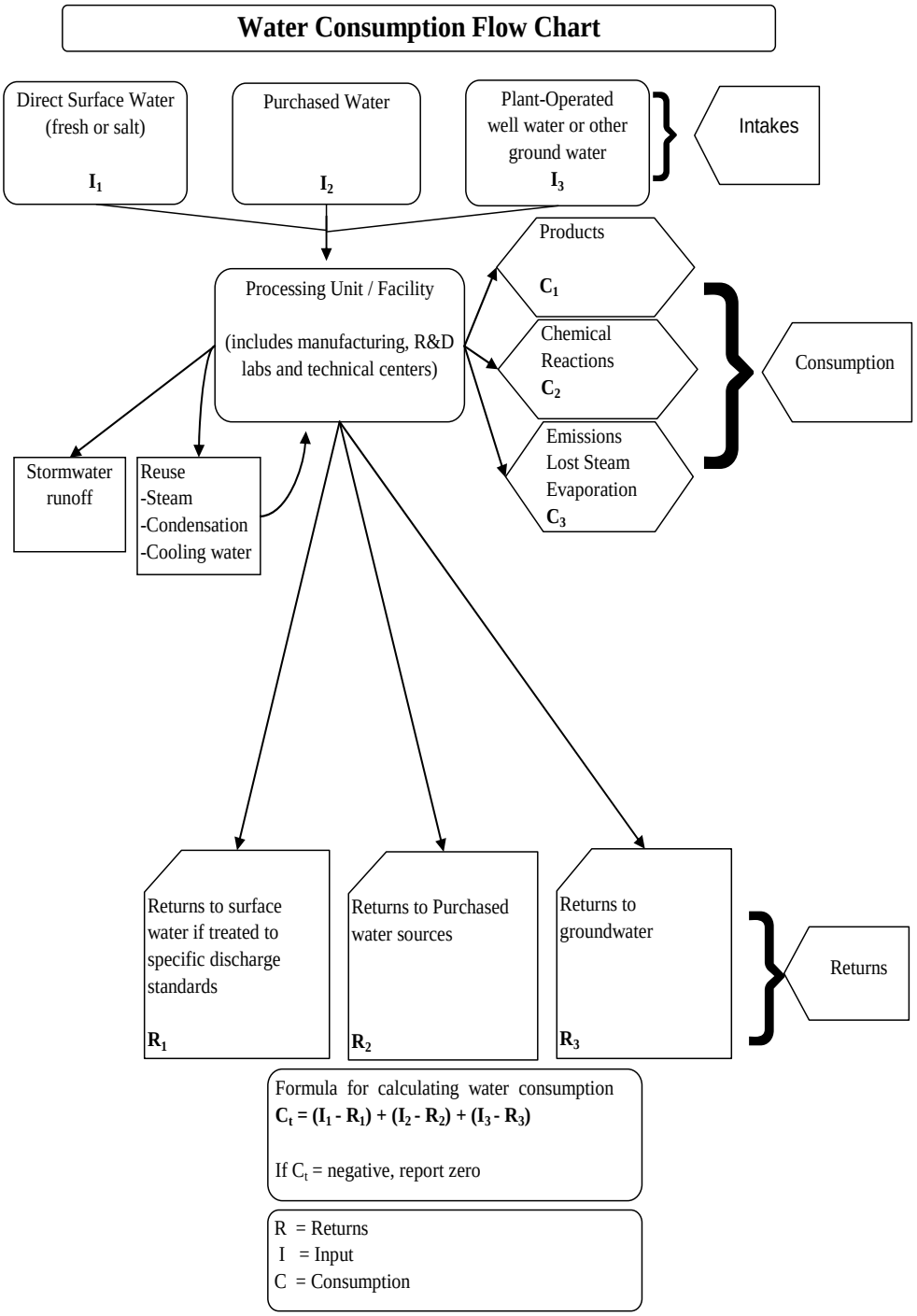
Specific energy consumption is the energy consumption per unit of output. The ratio, i.e. the index of fuel & power consumption divided by the production index, gives the specific energy consumption. A decrease in specific energy consumption means an improvement in energy efficiency.

$$\text{Specific Energy Consumption} = \left\{ \frac{\text{Total Energy Usage}}{\text{Volume of Chemicals Production}} \right\}$$

3. Water Consumption

⇨ **UNITS: expressed as Millions of Cubic Meters consumed per year**

Associations are asked to supply overall usage as well as usage from specific sources, including Public Supply Water, Ground Water, Surface Water, Total Continental Water (A+B+C), Sea Water, and Other. Consumption is total amount of water pumped, piped, or otherwise brought onsite for use in manufacturing chemicals and related activities, that is not returned to its original source. Cefic members should enter their data in the "total continental water" field.



III. Responsible Care Leadership Group (RCLG) Survey

The RCLG Survey section of the reporting tool provides a status report of the member association's implementation of the Responsible Care Global Charter. The Responsible Care initiative is a process of continuous improvement, and allows for associations to be at varying stages of implementation of the Global Charter. Initially associations are unlikely to have made any progress on one or more indicators, but it is critical that associations demonstrate progress over time. Therefore, in this section, as well as the GPS section, most of the parameters have the following response options:

- **No Progress to Date**
  - This response indicates that the association has made no progress on the particular element to date. This response also indicates that there is no future plan in place to make progress within the next 12 months.
- **Developing Plan**
  - This response indicates that the association is actively developing, and in the initial stages of implementing, a plan for this element. Progress has begun but full implementation is not yet reached.
- **Fully Implemented**
  - This response indicates that the association has fully implemented the particular element. All systems and processes are fully operational.
- **Updating Implementation**
  - This response indicates that the association has been at "fully implemented" status in the past for the particular element, and is now looking to improve its programs and processes, in the spirit of continuous improvement.

A. General

1. Core Principles and Guiding Principles

The association should respond regarding its status in developing Guiding Principles consistent with the core principles in the Global Charter. It should also indicate whether the CEO of each participating Responsible Care company signs onto the national Responsible Care Guiding Principles.

2. Initiative Name and Logo

This section requests information specific to the use, registration and protection of the Responsible Care logo. Please indicate clearly in the remark section if the association has licensed the use of the Responsible Care logo to any companies or organizations outside its membership (e.g. a distributor organization).

3. Sustainable Development

Please indicate if your association is implementing social and economic programs or aspects as part of the national Responsible Care program. Specify such programs in the remarks section.

B. Reporting

1. Implementation Programs and Tools

Please indicate which disciplines are covered under your national Responsible Care initiative. With reference to the product stewardship discipline, associations should respond as to whether their association is actively implementing (through Responsible Care, GPS, or otherwise) programs, practices and initiatives that focus specifically on improving the management of chemical products through the supply chain.

2. Mutual Assistance and Capacity Building

Appropriately respond to the questions regarding the types of mutual assistance opportunities existing in the association through Responsible Care, and specify whether your association is the provider or the recipient.

3. Performance Tracking and Reporting

This section requests information on the development and reporting of performance measures under Responsible Care. In section A, please indicate if performance indicators have been chosen for the given subject. Sections B, C, and D request information on the extent to which these performance data are shared internally and externally. Finally, there are two questions regarding the monitoring and mutual assistance opportunities within the national association to help low performers and recognize high performers. With reference to whether an association has developed a performance indicator for product stewardship, example of such measures could include the publishing of product safety data sheets, the education and outreach to suppliers and customers, and the characterization of risks of chemical products.

C. Verification and Governance

1. External Verification

A fundamental component of the Global Charter is a commitment to go beyond self-assessment and move toward external verification processes. This section asks for information about how the association verifies the Responsible Care performance of its members. The options are as follows:

- Self-assessment: companies rate themselves against a set checklist of Responsible Care requirements
- Peer review processes: peer companies validate the performance of other Responsible Care companies
- External verification: A government body, the association itself or other second party verifies the performance of Responsible Care companies
- Third-party certification: third-party auditors provide independent assessment of Responsible Care companies' conformance with requirements.

2. Governance Processes

This section requests information on how the association governs its Responsible Care program. Please indicate whether all companies are obligated to participate in Responsible Care as a condition of membership in the national association. Also, describe whether the association has a process to remove companies if they fail to execute their Responsible Care obligations. Also, provide statistics regarding the number of national Responsible Care Global Charter signatories and the number of multi-nationals that do not participate in your Responsible Care program.

D. Outreach

1. Stakeholder Outreach and Communication

Please respond here regarding the status of your association's outreach activities and communications with stakeholders.

E. Responsible Care Partnership Program and Emergency Preparedness Programs

There are four questions to this section that require an explanatory response. All the questions pertain to your association's work with partnership programs and emergency response capabilities.

A Responsible Care Partner is a company that provides services through the chemical supply chain, but does not manufacture chemicals as a primary business. Some examples of Responsible Care Partners are: transportation companies, service providers, distributors, third party logistics providers, etc. Please describe here if your association has such programs with other organizations, and whether programs exist within the association to extend the Responsible Care ethic up and down the supply chain.

Describe, if applicable, your association's involvement in emergency response program(s), as part of Responsible Care and/or regulatory programs.

Please list any agreements that your organization has in place – with government, stakeholder organizations, or other groups – around Responsible Care.

IV. Global Product Strategy (GPS)

Reporting on GPS (see Appendix C) implementation under the RCLG reporting tool begins in earnest in 2009. The purpose of collecting this information will help inform the ICCA's Responsible Care and Chemical Policy & Health Leadership Groups about progress and indicate what future actions may be necessary. Obtaining accurate responses is critical as the industry reports its GPS and Global Charter implementation progress to the UN as part of the SAICM process. This reporting is scheduled to officially begin in 2010. Because most of these parameters are new and likely to be unfamiliar to RCLG associations, considerably more guidance and definitions are provided in this guidance document to help associations reporting on GPS progress. Associations should note that work that is being done under regulatory programs (e.g. REACH) should be fully leveraged in the responses to these questions.

A. General

1. Your association and its members are aware of the ICCA's Global Product Strategy (GPS).

Please indicate 'yes' only if the appropriate staff within your association are fully aware of the GPS, and information has been actively communicated to the association's membership regarding the GPS and expectations for companies.

2. GPS is fully implemented within your association and membership.

Please indicate 'yes' only if all of the relevant GPS elements are being implemented both by the association and member companies. This means that members are implementing practices consistent with the ICCA product stewardship guidelines, risk characterizations for its members' products are completed, and product safety information is being shared by member companies with customers, suppliers, and the public.

B. Risk Characterization

1. Organization has adopted the ICCA Product Stewardship Guidelines as part of its national product stewardship program.

A positive response indicates that the association has reviewed the ICCA Product Stewardship Guidelines, and incorporated the principles and/or elements of the Guidelines into the product stewardship program being implemented by its members. A positive response *does not* necessarily indicate that all companies are implementing the guidelines; it *does* indicate that the association has adopted the components of the Guidelines into its active product stewardship programs. This could potentially occur before implementation by the association's members.

2. Organization's member companies implement product stewardship according to the ICCA Product Stewardship Guidelines.

A positive response indicates that through some form of verification process, the association is assured that its members are implementing their programs in a manner consistent with the ICCA Product Stewardship Guidelines. This can include a management systems approach to implementing product

stewardship programs, completing product risk characterizations, defining acceptable and unacceptable use conditions, documenting and communicating risks, working with customers and suppliers along the supply chain to ensure safe use, handling and disposal of chemical products, etc. Consult the ICCA Product Stewardship Guidelines for more information.

3. Members have identified high priority chemicals.

A key component of the Global Product Strategy is the prioritization of chemicals by member companies, according to some logical process developed by the company, resulting in a subset of high priority chemicals. The prioritization process is flexible, but should be documented and transparent. Some considerations for prioritization include volumes produced, hazard, toxicity, applications and exposure scenarios. The ICCA Product Stewardship Guidelines provide considerations for conducting the prioritization process. A positive response to this parameter indicates that association members have gone through such a prioritization process, resulting in a list of high priority substances, at the company level.

4. Members have completed risk characterizations for high priority chemicals.

Once chemicals have been prioritized, the GPS requires companies should then proceed with conducting risk characterizations for those high priority chemicals. More information on this topic can be found in the ICCA Product Stewardship Guidelines. A positive response to this indicator suggests that the majority of the companies are proceeding with risk characterizations for their high priority chemicals.

C. Supply Chain

1. Members cooperate with downstream users to facilitate the flow of hazard and safe handling information, and to evaluate and mitigate risks.

This indicator tracks whether members of the association are actively working with their downstream users (customers, distributors, transporters, etc.) to communicate information about their chemical products to mitigate risks. A key aim of the GPS is to strengthen product stewardship throughout the supply chain, which can only occur when companies are actively sharing and collaborating on product safety information with their business partners. A positive response to this indicator implies that communication along the supply chain is incorporated into the association's product stewardship program and implemented by member companies.

2. Members verify that appropriate risk management programs are in place and operating at downstream users.

This measure requires that member companies employ processes to qualify and assess the product stewardship and risk management capabilities of their customers, with regard to safe management of their chemical products. A positive response to this metric indicates that the association requires its members to assess and verify the product stewardship performance of customers. Companies are responsible for determining the appropriateness of their suppliers' risk management programs. These programs will be commensurate with risk and can be tailored according to a product's use, exposure, hazard, quantity and application.

D. Communication and Outreach

1. Organization has established a basic framework for key partnerships on product stewardship.

Associations, as part of their responsibility to promote product stewardship throughout the supply chain, should seek opportunities to partner with external stakeholders. A positive response to this measure would indicate that the association has a framework under which such partnerships could be established and is actively seeking opportunities. One example would be where an association has established a means for including downstream sectors (pharmaceutical, paints and coatings) or logistics service providers in Responsible Care or otherwise partnering with them to promote product stewardship as envisioned under the Global Product Strategy.

2. Members make processes for prioritizing chemicals publicly available.

In an effort toward transparency of product stewardship processes, companies are encouraged to share their processes for prioritizing their products. A positive response to this metric indicates that member companies are actively communicating their prioritization processes and making such information publicly available. Public availability includes web postings, availability of information through an email request, telephone hotline, or other such method by which an interested member of the public can readily obtain information about a chemical substance from its producing company.

3. Members make completed risk characterization (product safety) summaries for high priority chemicals available to the public.

This measure tracks the public availability of companies' product safety summaries for high priority chemicals. A positive response to this indicator suggests that the association is facilitating and/or tracking the public availability of members' product safety information.

4. Organization facilitates public access to chemical information.

This measure seeks the active involvement of the national association in making chemical information publicly available. This can be through government partnerships, OECD's high production volume program, development of chemical specific databases, etc. A positive response to this metric indicates that the association is making a tangible and positive contribution to improve public accessibility to chemical specific information.

5. Organization has advocated with its national government regarding adoption of the Globally Harmonized System (GHS) of Classification and Labeling.

An association can respond positively if it is actively working with government to implement GHS at the national level, regardless of the outcome.

6. Progress in implementing GPS has been communicated with key stakeholders.

This measure is largely the responsibility of ICCA at international level. However, associations can make positive contributions in this regard by communicating at national level with key stakeholders on efforts to implement the GPS. A positive response to this indicator suggests reporting on GPS implementation progress at national levels occurring.

E. Research

1. Organization implements research projects and programs addressing chemical risk assessment and management. The association should indicate whether it supports financially, or directly participates in research projects and programs that further knowledge, expertise and ability to conduct chemical risk assessment and management.

2. Organization collaborates with inter-governmental organizations (IGOs) in science and research events to improve approaches to chemical risk assessment.

The association should indicate the extent to which it collaborates with inter-governmental organizations in events that lead to improved approaches and techniques for conducting chemical risk assessment.

3. Please describe specific activities and/or provide additional details associated with the items above.

APPENDIX A. Glossary

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.

Contractor
Any person who is not an employee but is providing services to the establishment on its premises (owned property - owned, directly managed or full time chartered transport - property leased or accessed through rights secured by the establishment).

Distributor
Any natural or legal person established in a country, including a retailer, who only stores and places on the market a substance, on its own or in a preparation, for third parties.

Downstream User
Any natural or legal person established in a country, other than the manufacturer or the importer, who uses a substance, either on its own or in preparation, in the course of his industrial or professional activities (a distributor or consumer is not a downstream user).

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

Fatality
An instantaneous work-related event or exposure, leading to death within one year.

Global Product Strategy (GPS)
The GPS was adopted by the ICCA Board of Directors in 2005 and launched at the February 2006 UN International Conference on Chemicals Management (ICCM-1). It describes the voluntary actions that the chemical industry will take to improve chemicals management and help to achieve the World Summit on Sustainable Development goal that by 2020, chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment. The GPS can be found in Appendix C and also through the link provided here.

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.

Hazardous waste
Waste that owing to its toxic, infectious, radioactive or flammable properties poses an actual or potential hazard to the health of humans, other living organisms, or the environment. Hazardous waste here refers to categories of waste to be controlled according to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Article 1 and Annex I). If data are not available according to the Basel Convention, amounts can be given according to national definitions or UN definitions available at http://unstats.un.org.

High Priority Chemicals
The GPS requires that companies prioritize their chemical products, and identify those that are considered high priority for the purposes of closing data gaps, characterizing risks and developing risk management practices. Companies have flexibility in the processes they use to prioritize their chemical products. Such processes are described in the ICCA Product Stewardship Guidelines.

ICCA Product Stewardship Guidelines
The ICCA Product Stewardship Guidelines were developed by ICCA to assist companies and associations in understanding how to implement product stewardship, using a management systems approach, as well as implement the requirements of the Global Product Strategy. The Guidelines can be found here.

Lost Time Injury
An instantaneous bodily defect so that the individual is physically or mentally unable - as determined by a competent medical person - to work on a scheduled day or shift, resulting in at least one day off the job. (The same definition applies to employees and contractors). The Lost Time Frequency Rate is expressed as the number of lost time incidents per million worker hours. Some countries may report data based on the 3-day rule. ICCA generally converts these to 1-day data by using the transposition table, which is recognized to give only an approximate result.

Prioritization Process
The GPS requires that companies prioritize their chemical products, and identify those that are considered high priority for the purposes of closing data gaps, characterizing risks and developing risk management practices. Companies have flexibility in the processes they use to prioritize their chemical products. Such processes are described in the ICCA Product Stewardship Guidelines.

Product Stewardship
Product stewardship is the practice of making health, safety and environmental protection an integral part of the life cycle of chemical products.

Risk

The probability that an adverse affect (e.g., skin irritation or cancer) will result from a given substance. The risk posed by a substance depends both on the intrinsic properties of the substance (hazard) and on the exposure.

Risk Analysis

1) Risk assessment
   1. Hazard identification
   2. Hazard characterization
   3. Exposure Assessment
   4. Risk characterization
2) Risk management
   1. Risk evaluation
   2. Emission and exposure control
   3. Risk monitoring
3) Risk communication

Risk Assessment

A process intended to calculate or estimate the risk to a given target organism, system or (sub) population, including the identification of attendant uncertainties, following exposure to a particular agent, taking into account the inherent characteristics of the agent of concern as well as the specific target system. The Risk Assessment process includes four steps: hazard identification, hazard characterization, exposure assessment, and risk characterization.

Risk Characterization

Risk characterization consists of the estimation of the incidence and severity of the adverse effects likely to occur in a human population or environmental compartment due to actual or predicted exposure to a substance. It may include “risk estimation” i.e. the quantification of that likelihood.

Risk Management

Risk control strategy by means of substitution, prevention or reduction of emission and exposure, training, hazard communication etc. thereby reducing the risk to human health or the environment. Risk management comprises three elements: risk evaluation; emission and exposure control; risk monitoring.

Supply Chain/Value Chain

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

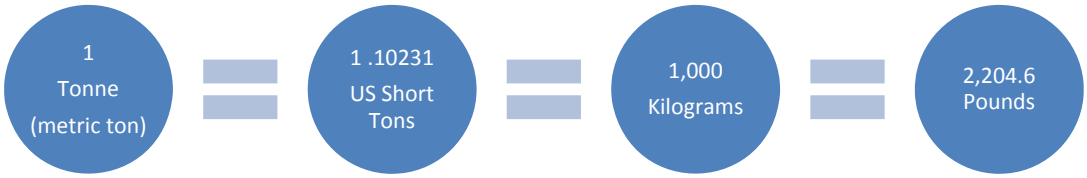
Transport Incident

Any significant incident that occurs during the transport of chemical products.

Tonne

A tonne is a Metric Ton equivalent to 1000 Kg and equivalent to 1.10231 US Short tons weighing 2,204.6 pounds.

1 Tonne = 1,000 kilograms = 2,204.6 pounds = 1.10231 US Short Tons



Volume Transported

Tonnes of chemical product shipped via air, rail, road, sea, inland waterway or pipeline between the site of a supplier company and that of the final customer. Includes the transport and off-site loading/unloading at ports, airports, warehouses, etc. and excludes the transport and loading/unloading activities at the premises of the supplier chemical company and the final customer.

APPENDIX B. Conversion Factors and Formulas

Carbon Dioxide emissions factors

Fuel	Carbon Emission Factor[1] (kg C/GJ)	Carbon Dioxide Emission Factor[1] (kg CO_2/GJ)	Carbon Dioxide Emission Factor[1] (tonne CO2/toe)	Carbon Dioxide Emission Factor[2] (lb CO_2/MMBTU)
Crude Oil	20.0	73.4	3.1	160.60
Gasoline	18.9	69.4	2.9	151.77
Kerosene	19.6	71.9	3.0	157.39
Jet Fuel	19.5	71.6	3.0	156.59
Motor Gasoline	20.2	74.1	3.1	162.21
Residual Fuel Oil	21.1	77.4	3.2	169.43
Naphtha	20.0	73.4	3.1	160.60
Bitumen	22.0	80.7	3.4	176.66
Lubricants	20.0	73.4	3.1	160.60
Refinery Feedstocks	20.0	73.4	3.1	160.60
Other Oil	20.0	73.4	3.1	160.60
Steam Coal	25.8	94.7	4.0	207.17
Coking Coal	25.8	94.7	4.0	207.17
Petroleum Coke	27.5	100.9	4.2	220.83
Lignite	26.1	95.8	4.0	209.58
Sub-bituminous Coal	27.6	101.3	4.2	221.63
Peat	28.9	106.1	4.4	232.07
BKB & Patent Fuel	25.8	94.7	4.0	207.17
Coke	29.5	108.3	4.5	236.89
Natural Gas (dry)	15.3	56.2	2.4	122.86
Natural Gas Liquids	15.2	55.8	2.3	122.06
LPG	17.2	63.1	2.6	138.12

1 - Source: Greenhouse Gas Inventory Workbook Volume 2; IPCC/OECD Joint programme; see conversion example below.

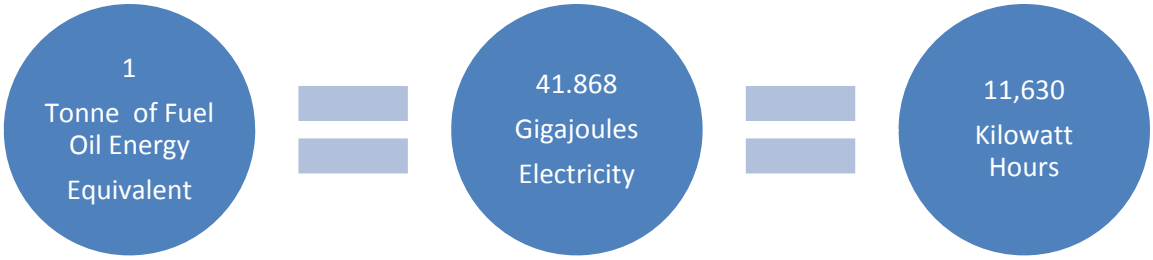
2 – Source: Source: Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2006, April 15, 2008; referenced from Intergovernmental Panel on Climate Change (IPCC), Second Assessment Report (SAR).

Examples for Calculating CO2 emissions

	Carbon emission Factor (Kg C/GJ)	Molecular Weight Ratio of CO_2/C (44/12=3.67)	CO_2 emission Factor (kg CO2/ GJ)	CO_2 Emission Factor (tonne CO2/toe)
Steam Coal	25.80	3.67	94.69	3.961
Crude Oil	20.00	3.67	73.33	3.070
Natural Gas	15.30	3.67	56.15	2.349

Note: 1 toe = 41.868GJ

Electricity to Tonnes of Fuel Oil Equivalents



Calculating CO_2 equivalents of other greenhouses gases using the Global Warming Potential (GWP) Factor

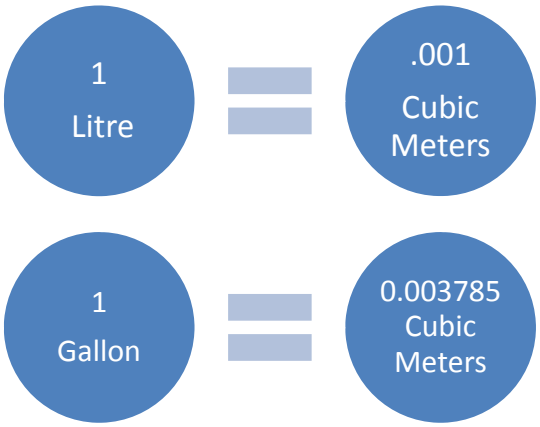
Source: Technical Summary of the IPCC WG1 AR4 Report, pg. 33, http://ipcc-wg1.ucar.edu/wg1/wg1-report.html

GHG	GWP (based on the effects of greenhouse gases over a 100-year time horizon)
CO_2	1
CH_4	25
N_2O	298
HFCs	From 124 to 14,800 - depending on the HFC
PFCs	From 7,390 to 12,200 - depending on the PFC
SF_6	22,800

Lost Time Injury Rate Formula

$$\text{LTI Rate} = \left\{ \frac{\text{Total Number of Lost Time Cases} \times 1{,}000{,}000}{\text{Total Number of Worker Exposure Hours}} \right\}$$

Water Consumption - Conversions to Cubic Meters



APPENDIX C. ICCA Global Product Strategy

GENERAL STRATEGY TO ENHANCE GLOBAL PRODUCT STEWARDSHIP

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.

General Strategy

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.
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.
3.	Define a tiered process and suggested schedule for completing risk characterizations and risk management recommendations for chemicals in commerce. The process should: • Include elements of continuous improvement • Address cooperation with governments, customers and other stakeholders as appropriate. • Suggest periodic reassessments in light of new or additional information or emerging health and environmental concerns and new applications. • Take appropriate risk management action based on findings from reassessment of chemical risks. •
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: • Foster the provision of product safety information to commercial partners • Enable the value chain to access and apply risk information in a transparent manner in its own operations and for its own products • Create and continually improve collaboration along the value chain to effectively manage the safe use of chemicals.

5.	Develop partnerships with Inter-Governmental Organizations and other interested stakeholders. (e.g. UNEP, WHO, OECD)
6.	Develop a process to make relevant product stewardship information available to the public while protecting proprietary business information.
7.	Constructively participate in scientific inquiry to address new and emerging health and environmental concerns to improve product stewardship efforts and focus EHS related research activities to improve risk assessment of chemicals.
8.	Develop a process to communicate all relevant steps of GPS and its results internally and externally.
9.	Develop global advocacy principles and elements, in consideration of existing national rules and regulations, to guide national and intergovernmental programs and initiatives for sound chemicals management.

APPENDIX D. Blank Reporting Forms

The following blank reporting forms provide a tool to collect the required inputs for the associated reporting sections of the reporting tool. They are also posted on the reporting site under on the home page in the blocks associated with each of the four reporting sections.

Federation

Country
Year
Edited by
Update date

Industrial activities

351 Manufacture of industrial chemicals	Y / N
352 Manufacture of other chemical products	Y / N
353 Petroleum refineries	Y / N
354 Manufacture of miscellaneous products of petroleum and coal	Y / N
355 Manufacture of rubber products	Y / N
356 Manufacture of plastic products not elsewhere classified	Y / N
Others (use isic codes)	

National chemical industry

a. Number of companies

b. Number of employees

c. No of hours worked per year

d. Annual turnover

e. Production

Assoc membership

a. Number of companies

b. Number of employees

c. No of hours worked per year

d. Annual turnover

e. Production

Federation

Country
Year
Edited by
Update date

Responsible Care companies

a. Number of companies

b. Number of employees

c. No of hours worked per year

d. Annual turnover

e. Production

Comments / explanations

KPI

Country
Year
Edited by
Update date

Health and safety at work

a. Number of fatalities for Employees (based on 1 day data)

Number of Employees in survey

b. Lost Time Injuries Rate for Employees

Number of Employees in survey

c. Number of fatalities for Contractors (based on 1 day data)

Number of Contractors in survey

d. Lost Time Injuries Rate for Contractors

Number of Contractors in survey

Comments / Explanations

Environment

a.Hazardous wastes for disposal

b. Non-hazardous wastes for disposal

c. Sulphur Dioxide

d. Nitrogen Oxides

e. Volatile Organic Compounds

f. Direct CO2 emissions

g. Indirect CO2 emissions

h. Total CO2 emissions (f+g)

i. Nitrous Oxide

j. Nitrous Oxide in CO2 Equivs

k. Hydrofluorocarbons

l. Hydrofluorocarbons in CO2 Equivs

m. Total other GHG in CO2 Equivs

n. Chemical Oxygen Demand

o. Phosphorus Compounds

p. Nitrogen Compounds

Comments / Explanations

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KPI

Country
Year
Edited by
Update date

Transport incidents

a. Road

Total number of incidents

Total volume transported

b. Rail

Total number of incidents

Total volume transported

c. Total

Total number of incidents

Total volume transported

Comments / Explanations

Use of resources

a. Use of energy (A+B+C)

b. Specific energy consumption

c. Public supply water

d. Ground water

e. Surface water (river, lake, ...)

f. Total continental water (a+b+c)

g. Sea water

h. Others

i. Total (c+d+e+g+h)

Comments / Explanations

RCLG survey

Country
Year
Edited by
Update date

Core Principles and Guiding Principles. A formal commitment to a set of Guiding Principles on behalf of each company by CEO signature.

a. Formal commitment to the guiding principles is made by each CEO of Responsible Care signatory company

b. Guiding Principles are published and consistent with Core Principles in Global Charter

c. Please describe specific activities and/or provide additional details associated with the items above.

Initiative Name and Logo. Adoption of a name and logo which clearly identify national programs as being consistent with and part of the concept of Responsible Care

a. International responsible care name and logo registered under terms of your country's national legislation

b. ICCA RCLG logo guidelines are used and enforced

c. Regular use of Responsible Care brand and logo in publications by the Association and many member companies

d. Has your association licensed the Responsible Care initiative and logo to any other association in your country? If so, list the licensed organizations below.

e. Please describe specific activities and/or provide additional details associated with the items above.

Sustainable Development. Commitment to advancing sustainable development.

a. Association has programs in place that support sustainable development, specifically in regard to the social and economic pillars of sustainable development

b. Please describe specific activities and/or provide additional details associated with the items above.

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OUR COMMITMENT TO SUSTAINABILITY

RCLG survey

Country
Year
Edited by
Update date

Implementation Programs and Tools. A series of systems, codes, guidance and checklists to assist companies to implement the commitment.

a. Your association's Responsible Care initiative includes the following disciplines:

Community Awareness
Emergency response
Employee health and safety
Process safety
Protection of the environment
Resource efficiency and waste reduction
Safe Warehousing and Distribution
Transportation (if not included in warehousing and distribution)
Product stewardship
Physical security of facilities and systems

b. What is the primary form of responsible care implementation practices in your country?

c. Please describe specific activities and/or provide additional details associated with the items above.

Mutual Assistance and Capacity Building. Forums in which companies and Associations can share views and exchange experiences on implementation of the commitment to Responsible Care

a. Association holds periodic meeting for senior executives as well as middle managers to discuss responsible care issues

b. Association holds periodic meetings for company coordinators to assist each other in pairs or other smaller group settings; eg cells, networks

c. Association publishes Responsible Care newsletters or equivalent

d. Association providing (and/or seeking) assistance, support or sponsorship to (or from) other country Associations (specify below)

e. Please describe specific activities and/or provide additional details associated with the items above.

RCLG survey

Country
Year
Edited by
Update date

Performance Tracking and Reporting. The progressive development of indicators against which improvements in performance can be measured.

a. Performance indicators in the following disciplines selected and agreed upon by association

Worker Health and Safety
Product Stewardship
Emissions to Environment
Distribution/Transportation
Energy
Greenhouse Gases
Water Consumption
SOX/NOX

b. Performance indicators in the following disciplines reported publicly in aggregate

Worker Health and Safety
Product Stewardship
Emissions to Environment
Distribution/Transportation
Energy
Greenhouse Gases
Water Consumption
SOX/NOX

c. Performance indicators in the following disciplines reported publicly by individual company

Worker Health and Safety
Product Stewardship
Emissions to Environment
Distribution/Transportation
Energy
Greenhouse Gases
Water Consumption
SOX/NOX

d. Performance Indicators discussed with interested parties

Worker Health and Safety
Product Stewardship
Emissions to Environment
Distribution/Transportation
Energy
Greenhouse Gases
Water Consumption
SOX/NOX

e. Performance indicators monitored for both high and low performers

f. Mechanisms are in place to recognise high performers and assist less advanced companies (for example, awards programs and peer assistance programs)

e. Please describe specific activities and/or provide additional details associated with the items above.

RCLG survey

Country
Year
Edited by
Update date

External Verification. Systematic procedures to verify the implementation of measurable elements of Responsible Care by member companies.

a. What is the primary form of your Association's Responsible Care verification process?

b. Results of verification process made public?

c. If independent verification of performance is not carried out, is your association planning to implement this

e. Please describe specific activities and/or provide additional details associated with the items above.

Governance Processes. Consideration of how best to encourage all Association member companies to commit to and participate in Responsible Care.

a. Responsible Care is a condition of Association membership

b. Process in place to assist companies not meeting Responsible Care obligations. Process results in removal from initiative if progress not achieved after due process.

c. Number of Association members that have signed the Responsible Care Global Charter

d. Number of Association members eligible to sign the Responsible Care Global Charter (Number of multi-national companies with HQ in your country)

e. Number of major multi-national companies in your country that do not implement Responsible Care

e. Please describe specific activities and/or provide additional details associated with the items above.

Stakeholder Outreach and Communication. An ongoing process of communicating on health, safety and environmental matters with interested parties inside and outside the industry.

a. Mechanisms/tools established for the National Association to obtain input on issues/concerns from interested external parties: National Advisory Panels etc

b. Local communication/liaison processes in place such as CAPs, Open Door Days, Open House etc.

c. Internal/External feedback, such as surveys of Responsible Care awareness or feedback processes, conducted and made public

d. Please describe specific activities and/or provide additional details associated with the items above.

RCLG survey

Country
Year
Edited by
Update date

Please provide information on any planned or existing Responsible Care Partnership Program. If a program exists, please provide a list of your Association's Responsible Care Partners and reference to the Partnership documents (Partnership Agreements for instance).

Does your association cooperate with supply chain partners and other industry associations representing sectors using chemicals, to extend Responsible Care and product stewardship up and down the supply chain?

If, yes, please specify how this cooperation is occuring

Is there an Emergency Response System in your country? If yes, please give details.

a. Is the Emergency Response program a legal requirement?

b. Is the Emergency Response program voluntary, e.g. under Responsible Care?

What voluntary agreements do you have in your country and with whom, in regard to your Responsible Care program?

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GPS

Country
Year
Edited by
Update date

Product Stewardship and Supply Chain Extension. Strengthen product stewardship and the management of chemicals, in conjunction with the Global Product Strategy. Promote Responsible Care along the supply chain

a. Your association and its members are aware of the ICCA's Global Product Strategy (GPS)

b. GPS is fully implemented within your association and membership

c. The GPS's product stewardship elements are being implemented as a component of Responsible Care

d. Please describe specific activities and/or provide additional details associated with the items above.

Product Stewardship and Supply Chain Extension. Strengthen product stewardship and the management of chemicals, in conjunction with the Global Product Strategy. Promote Responsible Care along the supply chain

a. Organization has adopted the ICCA Product Stewardship Guidelines into its national product stewardship program

b. Organization's member companies implement product stewardship according to the ICCA Product Stewardship Guidelines

c. Members of organization have identified high priority chemicals

d. Members of organization have completed risk characterizations for high priority chemicals

e. The ICCA Product Stewardship Guidelines have been communicated to organization's members

Product Stewardship and Supply Chain Extension. Strengthen product stewardship and the management of chemicals, in conjunction with the Global Product Strategy. Promote Responsible Care along the supply chain

a. Members of organization cooperate with supply chain partners and down-stream users (DSU) to facilite the flow of hazard and safe handling information, and to evaluate and mitigate risks.

b. Members of organization verify that appropriate risk management programs are in place and operating at Down-stream Users (DSU)

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OUR COMMITMENT TO SUSTAINABILITY

GPS

Country
Year
Edited by
Update date

Product Stewardship and Supply Chain Extension. Strengthen product stewardship and the management of chemicals, in conjunction with the Global Product Strategy. Promote Responsible Care along the supply chain

a. Organization has established basic framework for key partnership(s) on product stewardship

b. Organization's members make their processes for prioritizating chemicals publicly available

c. Organization's members make completed risk characterization (product safety) summaries for high priority chemicals available to public

d. Organization provides access to chemical information to inform the public

e. Organization has advocated with national government regarding adoption of Globally Harmonized System (GHS) for Classification and Labeling

f. Progress in implementing GPS has been communicated to key stakeholders

Product Stewardship and Supply Chain Extension. Strengthen product stewardship and the management of chemicals, in conjunction with the Global Product Strategy. Promote Responsible Care along the supply chain

a. Organization implements research projects and programs addressing chemical risk assessment and management

b. Organization collaborates with IGOs in science and research events to improve approaches to chemical risk assessment

c. Please describe specific activities and/or provide additional details associated with the items above.