

SHELL CHEMICALS

PRODUCT STEWARDSHIP INITIATIVES/COMMITMENTS

STATUS 2005

INITIATIVE/COMMITMENTS	PURPOSE	TIMELINE
<u>Responsible Care – Global Charter</u>	Harmonised approach on RC	?
<u>Global Product Strategy</u>	Strengthening approach on Product Stewardship	2006- 2020
<u>High Production Volume Chemicals</u>	Hazard Assessment of chemicals	2002 - 2010
<u>Childrens Health Program</u>	Risk Assessment of selected chemicals in children	2000 - 2007
<u>Extended US EPA HPV Programme</u>	Risk Assessment of selected chemicals in children	2005 - 2010
<u>Long Range Research Initiative</u>	Focused research to underpin science based decision making	1997 2002 - Programme Review 2005 - Programme Review
<u>EU Human and Environmental Risk Assessments (HERA)</u>	Risk Assessment of Detergent Ingredients	2000-2006
<u>Shanghai Benzene Study</u>	Human exposures to Benzene and Health outcomes (epidemiology)	2002 - 2008

Global Responsible Care Charter

The International Council of Chemical Associations, ICCA, has developed a proposed Global RC Charter that on the surface seeks to secure general agreement for further Responsible Care globally. This is the umbrella document that includes the Product Strategy and other initiatives described below. Next steps will be to secure CEO endorsement at the global business level (may not be possible in all cases).

Shell Chemicals Position:

Shell supports the concept of global support for Responsible Care. We have minor issues with proposed language from a governance perspective. It is not clear what specific gaps are to be addressed by this Charter or more importantly whether additional actions will be proposed to make operational any of these statements. Further work is needed to understand this and its relationship to the Global Product Strategy

Implications / Issues:

Support for the charter will more clearly underscore the importance of resolving how Chemical commitments of this nature will be made operational by the global Manufacturing organization, supported by SGSi, embraced by Shell Health Services and retain an identity within Downstream.

Charter Statement

I support the Responsible Care Global Charter which seeks companies to strengthen the Responsible Care worldwide working with national chemical associations. By implementing the Charter, my company will continue to improve its environmental, health and safety performance; advance sustainable development; champion and facilitate the appropriate extension of Responsible Care across the business value chain; and address stakeholder expectations in the continuing development of Responsible Care.

As part of these commitments, my company will work with customers and suppliers to manage its chemical products using a risk-based and life-cycle oriented approach supported by sound scientific information. These commitments include making relevant risk information publicly transparent and cooperating with governments and the public to promote the safe use of chemicals worldwide.

By implementing the Responsible Care Global Charter, my company is playing its part in improving the quality of life of the global community.

Global Product Strategy

This is work in progress and falls under the Responsible Care Charter. The Strategy has evolved from the Global Product Management Policy of 2001. There are three teams involved under ICCA in developing the Strategy with representatives from CEFIC, ACC, Japan's Chemical Association, JCIA, as well as other associations. The Strategy includes 9 initiatives each with associated timelines and measures. It is important to note that the Strategy is intended to align with initiatives already in existence and to enable flexibility in implementation. See presentation from September 2005 below.



Global Product
strategy_Rainer.



ICCA_Paper_on_
Global_Managemen

Shell Position

Current view based on available information is that we support this direction and do not believe there will be a significant incremental impact on Shell. Additional effort will have to put into tracking, monitoring and influencing the process.

It is believed that much of this represents work that Shell is already doing or has plans to do. We have a Product Stewardship management system, we have an SD KPI to conduct risk assessments, we already work with customers and 3rd party contractors on improving standards, we have developed Risk Characterisation Docs under an ACC initiative, we support the LRI program, and support regulatory convergence. The one area we are not as strategic in is with regard to external engagement. However, as this is a key theme in Shell's overall strategy, would think we would support this.

Risks: That final expectations are prescriptive enough to require some modification of what / how we do things. Implementation I thought also required 3rd party verification including mfg (impact would be operations outside of the US)

High Production Volume Chemicals

Background

Shell Chemicals committed to providing a base set of Hazard Data on our High Production Volume products. To meet this objective, Shell participates in two voluntary **testing programmes**. One programme is lead by the US EPA and the other by the International Council of Chemical Associations (ICCA). The ICCA programme is intended to contribute to ongoing HPV evaluations coordinated by the OECD as part of the Rio Summit on Sustainable Development. Shell's SD KPIs includes this HPV work. High Production Volume (HPV) chemicals are defined as those products manufactured at or above 1,000MT per annum under the ICCA initiative and those products manufactured at or above 1 Million pounds under the U.S. EPA initiative. These programmes require the submission of a standard base set of hazard data. This set of data is termed the **Screening Information Data Set (SIDS)**. It should be noted, there is no overlap between these programmes. There are over 1000 chemicals listed in the ICCA programme.

Current Status

Working via industry consortia, Shell met it's objective to have SIDS dossiers submitted by end 2004 on the 107 Shell products that were captured under the EPA or ICCA definitions of High Production Volume chemicals. While Shell is on target, there are other chemicals which are not progressing to meet the proposed deadline in Europe. Furthermore, the data is reviewed by sponsoring countries and these reviews are not progressing quickly.

Under the ICCA programme, the SIDS dossiers are presented by industry consortia to a sponsor country. This is in the form of a SIDS Initial Assessment Report (SIAR). Once accepted by the sponsor country, the Assessment Report is then reviewed by OECD representatives. The OECD conclude on whether the chemical presents a low priority for further work at this time or if more hazard information were necessary. Many of our ICCA HPVs have yet to have this government/OECD review completed. See summary of status below.

Part of the Shell strategy for pending EU legislation under REACH, has been for acceptance of this HPV work as part of the regulatory process to register chemicals. The REACH- IT platform under development and the current moves to make REACH more workable have accepted this HPV investment.

Parameters	Totals
Summary	
Total number of HPV chemicals in Shell's portfolio	107
Total number of chemicals addressed under OECD SIDS (pre ICCA/US HPV programme)	31
Total number of chemicals sponsored under ICCA	49
Total number of chemicals sponsored under US HPV programme	27
Chemicals covered by Extended HPV programme (additional to the 107)	4
Total number of chemicals covered by EU Risk Assessment	10
Total number of chemicals addressed at SIAM	53
Total number of chemicals with conclusion - Low Priority for further work	39
Total number of chemicals with conclusion - Candidate for further work	12
Total number of chemicals with unknown conclusion	2
Published SIAR Documents	12
Unpublished SIARs	26

We will continue to track the progress of the SIDS dossiers through this process and work to fill any data gaps or needs as these are identified. Please see Comprehensive tracking sheet.



HPV Tracking
Julian's Revision.

Shell Position: continue to work through ICCA to progress SIARs through for OECD acceptance

Extended US EPA HPV Programme

A list of 500+ "new" HPV chemicals was created from information made public by EPA in connection with the 2002 Inventory Update Rule. Under the Framework, during the remainder of 2005, companies are asked to consider which chemicals they will commit to sponsor, and to make those commitments public by the end of this year. Work on sponsored chemicals will then begin during the self selected start year (2006, 2007, 2008 or 2009), with all work being completed by 2010.

Shell Impact

There were only 4 substance of relevance to Shell on the extended HPV list. Three are captured by HODer and 1 substance by PDO/Corterra.

HODer Status:

Pentadecene, C16 & 17 branched alcohols are included in the extended HPV. Expectation is to commit (state a start date) by year end through the ACC Chemstar panels. Initial assessment is that each of these fit into existing categories.

PDO

Shell and DuPont are in the process of forming a Chemstar Panel to complete this assessment of PDO. There have been two conference calls so far - a draft charter is currently going through an ACC legal review and the next conference call is scheduled for mid-Oct. The draft plan is to complete the HPV data summaries next year.

Shell Position: Support

US Children's Health Initiative

In 2000, EPA announced the Voluntary Children's Chemical Evaluation Program (VCCEP) which is intended to provide data to enable the public to understand the potential health risks to children associated with certain chemical exposures. EPA asked companies which manufacture and/or import 23 chemicals which have been found in human tissues and the environment in various monitoring programs to volunteer to sponsor their evaluation in a pilot of the VCCEP. Thirty-five companies and ten consortia responded and volunteered to sponsor 20 chemicals. Shell volunteered to sponsor 9 of the substances.

Current Status:

Of the 9 that were sponsored, EPA has signed off on 2 indicating no further work required, 3 have undergone peer review and are awaiting review by EPA, 1 will undergo Peer review this year, and 3 will undergo peer review in 2006. See summary table below:



Children's
Health Status.xls

Shell Position: Active support of our established commitment

Long Range Research Initiative (LRI)

Under the Long-range Research Initiative (LRI), the European Chemical Industry Council (Cefic), the American Chemistry Council (ACC) and the Japan Chemical Industry Association (JCIA) have committed to support research of direct relevance to the chemical industry and society.

International coordination is achieved through the ICCA. The objective is to focus on areas with high practical impact, leveraging current work where possible to promote the use of sound science in decision making. ICCA's priority theme is Biomonitoring. The global LRI is providing approximately \$25 million a year to sponsor and communicate research.

The LRI research priorities include improving methods to evaluate and interpret the impacts of chemicals, identifying factors that influence susceptibility, especially for children, evaluating the pathways of chemical movement from their sources to people or ecosystems, and improving approaches to address issues arising from the EU Chemicals Policy, REACH.

The priorities for research are set by member companies with transparent processes being in place to ensure the highest scientific quality and integrity are delivered within defined timelines..

Cefic LRI holds annual workshops to reviews its programmes. LRI sponsors stakeholder workshops to share knowledge and opinions on key scientific and regulatory themes. The ACC and Cefic issue management processes for key topics of children's health, biomonitoring and animal use (in EU) are run in conjunction with the LRI programme to provide industry's advocacy platforms, communication material as well as encouraging sound decision making.

Shell Position: Continue to provide active support

EU Human and Environmental Risk Assessments (HERA)

A voluntary industry programme established to carry out Human and Environmental Risk Assessments on ingredients of household cleaning products. Established in 1999 as a European partnership between the makers of household cleaning products (A.I.S.E) and the chemical industry (Cefic) who supplies the raw materials.

The objectives of HERA are to provide a common risk assessment framework for the household cleaning products industry, and to develop and make publicly available risk assessment reports in a standard and practical format. HERA approaches risk from a specific viewpoint: it focuses on risks to consumers and the environment resulting solely from the use of these chemicals in household cleaning products when used by the consumer. It is also proposed that HERA should also contribute to the refinement of a risk-based approach for chemicals legislation in Europe, and possibly other regions of the world.

The HODer PBU and the Chemical's Toxicologists contributed extensively to the development of the Human Health and Environmental Risk assessment methodologies. They also led the development of the Alcohol Sulphate and Alcohol Ethoxysulphate risk assessments – both products are of strategic interest to HODer. The Alcohol Ethoxylates Human Health risk

assessment has been finalised; and the Environmental Risk Assessment may not be final until 2006. There is no regulatory commitment for this work it has been done proactively. Assessment has been finalised and the Environmental Risk Assessment may not be finalised until 2006. There is no regulatory commitment for this work; it has been done proactively. Shell works closely with its major customers, Unilever and P&G within HERA.

Shell Position: Active support for limited products

Shanghai Benzene Study

Shell Chemical is participating in a multi-stakeholder health study in Shanghai, China, which aims to better define the hazards and health risks from exposure to benzene. The project participants include a wide range of stakeholders including the Fudan University Medical Center, University of Colorado Health Sciences Center; Applied Health Sciences, Chinese public health agencies, Shanghai hospitals as well as several peer energy and chemical companies. This study, which is part of our commitment to product stewardship, will help clarify previous assumptions regarding benzene health risks and will also help address some recent questions about benzene hazards and exposure. Further, this information will provide the industry with information, which we can use to determine what, if any, improvements are needed in existing protocols. The study will examine past and current exposures in Shanghai-area manufacturing facilities (none are Shell facilities and the benzene not a Shell product). A state-of-the-art clinical and molecular laboratory was built on the Fudan Medical University campus to support the research project and the Shanghai medical community. Chinese technicians have been trained to operate the lab. This facility will remain at Fudan once the project is completed

Number of years for study: 7 years

Total and Shell Costs per year of study : Total - \$5,000,000 , Total study budget: \$26,000,000

Shell Position: Active support of research