

Factsheet 4: IMAP – Leveraging International Information

A number of major initiatives are being undertaken worldwide to identify and assess existing chemicals of concern in a timely and comprehensive manner. To ensure efficiency and reduce duplication of effort, NICNAS has sought to maximise the use of information from these international initiatives.

NICNAS has integrated international information extensively into the IMAP Framework including the:

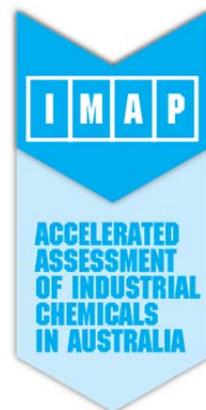
- Canadian Categorisation of the Domestic Substances List
- EU REACH and EU Classification and Labelling notifications
- European Commission Cosmetic Ingredient Database
- Scientific Opinions on Cosmetic Substances by European Commission committees
- United States such as US Environmental Protection Agency (EPA) Action Plans, US EPA's High Production Volume Program and Agency for Toxic Substances and Disease Registry (ATSDR)
- Japanese Chemicals Management Law
- New Zealand EPA
- Organisation for Economic Cooperation and Development (OECD) High Production Volume Program
- OECD eChemportal
- OECD QSAR Application Toolbox
- International Agency for Research on Cancer (IARC)
- National Toxicology Program - Report on Carcinogens (NTP ROC), and
- International Program on Chemical Safety (IPCS) publications.

Strategy to review all chemicals on an inventory

The strategies adopted by Canada, the USA and Europe for comprehensively reviewing the chemicals available in their country/region vary significantly and these strategies were considered for their applicability to Australia. On the basis of similarity of regulatory arrangements, resources required to undertake the program, impact on industry and appropriateness for the program objective, the Canadian scheme was selected as the approach on which to base the framework for reviewing chemicals on the national inventory¹. In developing the IMAP Framework NICNAS worked very closely with Canada thereby reducing duplication of effort and resources expended in developing the framework.

Key features of the IMAP Framework based on the Canadian model include the screening of chemicals against risk based criteria, using a tiered risk based model to align the assessment effort with the human health and environmental impacts of chemicals and the use of separate approaches for human health and environmental assessments. Lessons learned from Canada such as integrating assessment outcomes into the screening process have also been incorporated to optimise the IMAP Framework.

IMAP: Inventory Multi-tiered Assessment and Prioritisation



Tools to identify chemicals of concern

The Canadian approach was underpinned by a number of tools for screening chemicals on the inventory. Guidance on the application of these tools was obtained from Canada and NICNAS has further developed these tools for the purposes of the IMAP Framework.

The OECD has developed a QSAR Toolbox. The OECD QSAR Application Toolbox is a software application intended to be used by governments, chemical industry and other stakeholders in filling gaps in (eco)toxicity data for assessing the hazards of chemicals. Australia is among the first countries planning to use this tool to systematically assess and prioritise chemicals on its national inventory.

Criteria to identify chemicals of concern

Two expert working groups were established by NICNAS to develop scientific criteria for environmental and human health hazard endpoints respectively. The human health and environmental scientific criteria have been aligned with existing hazard classification frameworks already in use across industry and internationally.

Chemicals to be assessed in Stage One

The IMAP Framework is being implemented in a staged manner with around 3000 chemicals being assessed in Stage One. The list of chemicals to be assessed in Stage One includes chemicals derived from a number of the international sources listed on page one. The chemicals for assessment in Stage One, along with *Fact Sheet 2 – Implementation of IMAP Framework: Stage One*, are published on the NICNAS web site.

Scientific information about the human health and environmental impact of each chemical

NICNAS has developed an efficient search strategy to facilitate the use of international information about the human health and environmental impacts of chemicals. This includes utilisation of a commercial database Galleria Chemica and several publically available databases including eChemPortal. The assessment tier at which the information is used is dependent on the format of this information.

Another critical contribution from overseas sources is information on the usage of chemicals as NICNAS does not require industry to provide any chemical use information in the early prioritisation and assessment stages (Tiers I and II).

The relevance of international assessment outcomes for existing chemicals will be considered in the Australian context. This consideration together with the weight of evidence will form the basis of NICNAS recommendations to standard setting bodies, where risks need to be mitigated.

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¹ The Australian Inventory of Chemical Substances (AICS)