

## **The NICNAS IMAP Program**

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The Inventory Multi-tiered Assessment and Prioritisation (IMAP) framework was established by the Australian Government's National Industrial Chemicals Notification and Assessment Scheme (NICNAS) to accelerate the assessment of risks posed to human health and the environment by previously unassessed chemicals. The objectives of IMAP were the identification and rapid assessment of existing chemicals of concern, leading to enhancements in chemical safety information flow and chemicals management

IMAP comprises three tiers of assessment, with the assessment effort increasing with each tier. The initial two tiers combine assessment and prioritisation. Tier I utilises a matrix-based sorting step, which is focussed on identifying chemicals of sufficiently low regulatory concern as to not require further assessment or other use of resources. Tier II involves identification of relevant data, and preparation of a brief report to characterise the likely risks. The Tier II assessments also examine whether appropriate risk management measures already exist, and whether the available data are sufficient to justify relevant risk management measures. Tier III comprises assessment of any critical questions identified in the Tier II examination of the available data.

For the majority of chemicals, IMAP assessments were undertaken in the absence of any Australian use or volume data, which limited the extent to which quantitative assessment could be carried out. In addition, only approximately 10 % of Tier II assessments had data for all standard toxicological endpoints considered.

This presentation will focus on the human health aspects of IMAP, which also includes environmental assessment. The IMAP matrix used for human health at Tier I was developed to account for the lack of quantitative data, together with the need to consider a wide range of hazards. Unlike the Risk21 matrix, which uses effect levels and doses as its axes, the IMAP matrix used surrogates for these quantities, described as hazard bands and exposure bands.

At Tier II, the absence of access to detailed exposure information prevented the use of margin of safety approaches. However, risk management recommendations were able to be made based on qualitative risk assessment approaches for a significant number of chemicals.

The challenges of the use of non-standard data sources, including read-across, grouping and QSAR, in as part of the IMAP framework will be discussed. The extent to which non-quantitative risk assessment can be used to inform risk management will also be addressed in the presentation.