Questions and Answers: Australian Government Report on DINP

In September 2012, the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) of the Australian Government Department of Health and Ageing finalized the Priority Existing Chemical Assessment Report (PEC No. 35) on diisononyl phthalate (DINP). NICNAS performed a comprehensive review of the available scientific literature, including the report to the U.S. Consumer Product Safety Commission (CPSC) by the Chronic Hazard Advisory Panel (CHAP) on DINP in 2001 and the most recent publicly available U.S. assessment, the 2010 CPSC staff toxicity report on DINP. NICNAS joins regulatory bodies in the United States and Europe that have found that current uses of DINP in consumer products are not expected to pose a risk to human health.

Q: What were the findings of the Australian Government assessment of DINP?

A: The September 2012 report from the Australian Government Department of Health and Ageing found that current exposures to DINP do not indicate a health concern for children, even at the highest exposure levels considered. Specifically, the report concludes:

> *"Current risk estimates do not indicate a health concern from exposure of children to DINP in toys and child-care articles even at the highest (reasonable worst-case) exposure scenario considered."*

Q: What did the NICNAS assessment say about prolonged or repeated exposure of phthalates?

A: The Australian Government assessment echoes previous reviews on the safety of DINP and looks at the effects of the combined exposure to a range of products containing it and other phthalates. The study concludes that:

> *"The risks from cumulative exposure of children to DINP in toys and child-care articles with or without DEHP at maximum 1 percent together with co-exposure to DEP in cosmetics at maximum 0.5 percent in body lotions have been considered and found to be acceptable based on current public health risk management measures."*

Q: What is DINP's general purpose and applications? What are the industries where DINP is commonly used?

A: DINP is used to soften or "plasticize" polyvinyl chloride (PVC or vinyl). DINP is a general purpose plasticizer used in many vinyl products to help make them flexible and durable. While DINP's primary function is as a softener, it is also used in sealants, paints and lubricants.

The benefits of DINP in vinyl are evident in products manufactured by the automobile, building and construction, cable and wire and flooring industries. Vinyl plasticized with DINP is also frequently used to cover buildings and sports arenas because of its durability, water resistance and high thermal insulation properties. Flexible PVC is a material of choice for electrical insulation for protecting wires that run through homes and offices.

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Q: Why was the NICNAS assessment conducted? Did NICNAS specifically assess the safety of children's toys and child-care articles?

A: In 1999, concern over potential health effects led phthalates to be included on the NICNAS Candidate List of chemicals selected for an assessment; DINP was one of nine phthalates identified to be assessed. While no restrictions on the manufacture, import or use of DINP exist in Australia, the purpose and scope of the assessment was to determine the health risks to adults and children from the use of DINP in consumer products, such as cosmetics, toys and child-care articles, particularly from repeated or prolonged exposure. The assessment concluded that:

> *"No additional recommendations to the existing controls in place for the public health risk management for the use of DINP in toys and child-care articles are required based on the findings of this assessment."*

Q: What does this assessment mean for the public, and for manufacturers and importers wishing to use DINP in the future?

A: Because NICNAS concluded that current risk estimates do not indicate a health concern from exposure of children to DINP in toys and child-care articles, Australian manufacturers and importers can continue to produce and ship consumer and industrial products containing DINP.

This new data finds that DINP exposure levels, even at the highest exposure scenario considered, are not likely to cause negative health effects and since *"publication of the final report revokes the declaration of the chemical as a priority existing chemical ... manufacturers and importers wishing to introduce the chemical in the future need not apply for assessment."*

Q: What does the assessment mean for regulations in Australia or in other countries, including the United States?

A: DINP has been thoroughly studied and reviewed by a number of government scientific agencies and regulatory bodies in the United States and Europe, all of which have found that current uses of DINP in consumer products are not expected to pose a risk to human health. A review of phthalates and phthalate alternatives is currently under way at the CPSC. The CPSC's review should consider all relevant assessments of DINP, including the NICNAS Report, the report to the CPSC by the CHAP on DINP in 2001 and the 2010 CPSC staff toxicity report on DINP.

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