

# **Summary of the Ecological and Human Health Assessment of Aromatic isocyanate polymer, alkoxy-alkylamine blocked, Pursuant to the *New Substances Notification Regulations (Chemicals and Polymers)* of the *Canadian Environmental Protection Act, 1999***

## **Substance Identity**

The notified substance is identified as aromatic isocyanate polymer, alkoxy-alkylamine blocked.

## **Notified Use and Quantities**

The notified substance is imported into Canada at quantities greater than 10,000 kg/year as a component in a polyurethane adhesive used in building construction.

## **Environmental Fate**

Based upon the physical and chemical properties, if released to the environment, the notified substance is expected to partition to, or end up in, the sediment or soil. The substance is not expected to degrade in the environment and is not considered to bioaccumulate.

## **Ecological Assessment**

Acceptable acute ecotoxicity data were available for fish, daphnia and bacteria. Overall, ecotoxicity to aquatic biota was found to be low. The potential releases from the notified activities of formulation, transportation, use and disposal were considered in the estimation of the potential environmental concentrations. The assessment considers an expansion of uses beyond that which have been notified. Based on the potential exposure from notified and other activities in Canada the notified substance is not expected to pose significant ecological risk.

## **Human Health Assessment**

No toxicological information was available on the notified substance. The available information on the main polymer component and a similar substance indicate a low potential for acute oral toxicity. The notified substance may have a potential to be irritating and sensitizing due to the presence of isocyanate groups in the polymer.

For the notified use, direct exposure of the general population to the notified substance is expected to be low. When dispensed, the material becomes a viscous insoluble mass within which the notified substance forms part of a stable polymer matrix and residues are not expected to be released. Due to its low vapour pressure, inhalation exposure is unlikely. Indirect exposure of the general population from environmental media such as drinking water is expected to be low. Therefore, for the notified use, no significant health risk is expected for the general population.

The notified substance has potential to be used in a wide variety of other consumer applications. Depending on the use, there is a potential for significant consumer exposure and, therefore, additional information will be necessary to evaluate potential health risks to the general population.

### **Regulatory Conclusions**

Based on available information, it is concluded that the substance is considered to be persistent and is not considered to be bioaccumulative according to the *Persistence and Bioaccumulation Regulations* (Canada Gazette, Part II, Vol. 134, No. 7 — March 29, 2000, SOR/2000-107, March 23, 2000).

Under the provisions for Substances and Activities New to Canada in Part 5 of the *Canadian Environmental Protection Act, 1999* (CEPA, 1999), and pursuant to section 83 of that Act, the Ministers of Environment Canada and Health Canada have assessed the available information on the notified substance and have determined that the substance is not anticipated to enter the environment in a quantity or concentration or under conditions that (a) have or may have an immediate or long-term harmful effect on the environment or its biological diversity; (b) constitute or may constitute a danger to the environment on which life depends; or (c) constitute or may constitute a danger in Canada to human life or health. Therefore, the notified substance is not considered to be "harmful to human health or environment" as defined in section 64 of CEPA, 1999.

It is anticipated that a significant new activity may result in the substance becoming "harmful to human health or environment". Therefore a Significant New Activity (SNAc) Notice (SNAc No. 16071) has been issued with respect to the substance, pursuant to section 85 of the CEPA, 1999 requiring re-notification for activities specified in the Notice. The SNAc Notice has been published in the Canada Gazette Part I, Vol. 144, No. 46, November 13, 2010.