

Summary of Risk Assessment Conducted Pursuant to subsection 83(1) of the *Canadian Environmental Protection Act, 1999*

New Substances Notification No.17923: 2-Propenoic acid, telomer with alkanediol mono-2-propenoate and sodium phosphinate (1:1) ammonium salt

Regulatory Decisions

Under the provisions for Substances and Activities New to Canada in Part 5 of the *Canadian Environmental Protection Act, 1999* (CEPA), and pursuant to section 83 of that Act, the Minister of the Environment and the Minister of Health have assessed information in respect of the substance, and have determined that it is not anticipated to enter the environment in a quantity or concentration or under conditions that have or may have an immediate or long term harmful effect on the environment or its biological diversity, constitute or may constitute a danger to the environment on which life depends, or constitute or may constitute a danger in Canada to human life or health.

Substance Identity

2-Propenoic acid, telomer with alkanediol mono-2-propenoate and sodium phosphinate (1:1) ammonium salt (Confidential Accession No. 18850-4) is a polymer that can be classified as an acrylic copolymer - phosphate ester terminated. The substance does not meet the Reduced Regulatory Requirements criteria according to the New Substances Notification Regulations because it contains phosphorus above 0.2% by weight.

Notified and Potential Activities

The substance is proposed to be manufactured in and/or imported into Canada in quantities greater than 10 000 kg/yr for use as a dispersing agent. Other potential uses are also expected to be industrial in nature.

Environmental Fate and Behaviour

Based on its physical and chemical properties, if released to the environment, the substance will tend to partition to water. The substance is expected to be persistent in water based on the high molecular weight of the polymer affecting hydrolysis. The substance is not expected to bioaccumulate based on high water extractability (100%) and low octanol-water partition coefficient ($\log K_{ow} < 0$).

Ecological Assessment

Based on the available hazard information, the substance has low to moderate acute toxicity to algae (median effective concentration > 10 mg/L). A predicted no-effect concentration was not calculated for this substance, given its low potential for ecological hazard based on the minimal response observed in the key study.

No expected significant environmental releases are expected from the notified use as the substance is expected to be contained within a stable matrix subsequent to its end use, and given the low potential hazard associated with the substance, calculation of a predicted environmental concentration was not required.

Based on the moderate to low potential for ecological hazard and negligible releases from the notified use of the substance, the substance is unlikely to cause ecological harm in Canada.

Human Health Assessment

Based on the available hazard information, the substance has a moderate potential for acute toxicity by the oral route of exposure (median lethal dose 300-2000 mg/kg-bw).

When used as a dispersing agent, direct exposure of the general population is expected to be mainly by contact with the skin, however, upon application and curing the substance is expected to be contained within a stable matrix and potential for direct exposure is expected to be very low. Indirect exposure of the general population from environmental media such as drinking water is also expected to be very low.

Based on the low potential for exposure, the substance is not likely to pose a significant health risk to the general population, and is therefore unlikely to be harmful to human health.

Assessment Conclusion

When used as notified, the substance is not suspected to be harmful to human health or the environment according to the criteria under section 64 of CEPA.

A conclusion under CEPA, on this substance, is not relevant to, nor does it preclude an assessment against the hazard criteria for Workplace Hazardous Materials Information System that are specified in the *Controlled Products Regulations* or the *Hazardous Products Regulations* for products intended for workplace use.