Canadian Government to Ban or Restrict Toxic Chemicals

Media Edge, Perks Publication Inc. 2006

ABSTRACT

On Friday December 8th 2006, Prime Minister Stephen Harper announced a "substantial investment in public funds" to clean up dangerous chemicals in the environment. The list of chemicals includes some already proven harmful to animals and suspected to be potentially harmful to human health. Every two or three months, a list of suspect chemicals will be released in groups of 15 to 30. Industry and stakeholders will be required, within six months, to provide information the government about the chemicals. If the government is not satisfied by the response, industry will be required to take action which in some cases may mean industry would be required to provide alternative materials.

In conjunction with the announcement, the government also launched a Chemical Substance website which details how the assessments will work and provides links to fact sheets on chemical impact to human health, and government resources and processes for managing chemical assessments. The website also includes a list of chemicals not banned but regulated and of "interest to Canadians" because of the risks associated with them. Two of these chemicals, 2- Butoxyethanol and 2-Methoxyethanol, are of significant interest to the cleaning and disinfection industry as they are commonly used as solvents in both cleaners and disinfectants.

BAKGROUND

2-Butoxyethanol (CAS# 111-76-2) is commonly known as ethylene glycol monobutyl ether but also has a number of other synonyms such as Butoxyethanol, Butyl cellosolve, Butyl Oxitol, Ethylene glycol monon-butyl ether, Monobutyl ethylene glycol ether and n-Butoxyethanol. It is a primary ingredient of various white board cleaners, latex paints and cosmetics along with some industrial applications such as dry-cleaning solutions, firefighting foam, leather protectors, oil spill dispersants and photographic strip solutions. Most importantly to the cleaning industry, 2-Butoxyethanol is also the main ingredient of many home commercial and industrial cleaning products and solvents. In fact, is a common solvent used in Quaternary Ammonium Compound – Alcohol disinfectant formulations. 2-Butoxyethanol is readily absorbed following inhalation, oral or dermal exposure. This chemical has moderate acute toxicity and is irritating to the eyes and skin. A risk assessment concluded that chronic exposure could alter blood in ways associated with hemolytic anemia. 2-Methoxyethanol (CAS# 109-86-4) is also known as Ethylene glycol monomethyl either, Methyl Cellosolve and Glycol monomethyl ether. It is used for a number of things including as a solvent in varnishes, dyes and resins, de-icing airplanes but the primary application currently listed is in a cleaning solvent for white boards. 2- Methoxyethanol has been found to have toxic effects such as malformation in the developing fetus, and adverse effects on male reproduction, blood and the immune and nervous systems. A Priority Substance Assessment Report released in August 2002 concluded that based on the high health hazard potential, 2-methoxyethanol may be entering the environment in a quantity or concentration that constitutes or may constitute a danger in Canada to human life or health. Therefore, the chemical is considered to be "toxic"

under Section 64 of the Canadian Environmental Protection Act, 1999 (CEPA 1999).

THE RELEVANCE OF THESE BANS OR RESTRICTIONS TO AHP®

Virox Technologies Inc. believes in the need for safe and sustainable cleaning and disinfectant products. Accelerated Hydrogen Peroxide® (AHP®) solutions are formulated by a synergy between Hydrogen Peroxide, Surface Acting Agents (surfactants/detergents), wetting agents (a substance that reduces the surface tension of a liquid, causing the liquid to spread across or penetrate more easily the surface of a solid) and chelating agents (a substance that helps to reduce metal content and/or hardness of water). The ingredients are all listed on the EPA and Health Canada Inerts lists or the FDA Generally Regarded as Safe List (GRAS). Additionally, where possible the chemicals used to manufacture AHP solutions have CFR 21 (Code of Federal Regulations) clearance as direct or indirect food additives. The due diligence in choosing chemicals that have undergone stringent toxicity testing and have been proven to be safe and sustainable alternative to legacy chemicals will ensure that the chemicals used in the AHP formulations will not show up on the Canadian Toxic Substance list as a banned chemical or found on the Chemical Substances website as a regulated chemical of "interest to Canadians". This due diligence is also in part why AHP has an unsurpassed health and safety profile.

CONCLUSION

This document will be an excellent tool to have in your arsenal of support for the use of Accelerated Hydrogen Peroxide. Significant research went into the selection of chemicals used to create AHP. Based on this research and subsequent testing that was conducted on the final product we feel that when compared to other products on the market the Virox Technologies Inc. AHP products are some of the safest to be found. With the introduction of Canada's stronger stance on chemicals, facilities that are currently using quats, phenols, ortho-phthaladehyde or glutaraldehydes will be reviewing the chemicals they use and looking for safer and sustainable alternatives. The proven health and safety profile of AHP solutions will make these products a perfect alternative.

REFERENCES

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