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Canada Declares Chemicals Used in Cosmetics to Be Toxics

OTTAWA, Ontario, Canada, January 30, 2009 (ENS) - The Canadian government today declared two chemicals used in lipstick and other personal care products to be toxic to the environment, although officials said they are not used in large enough quantities to be of concern for human health. Two other chemicals used in cosmetics were found to be harmful to human health.

Canada's declaration is the first environmental or health-based determination concerning these chemicals issued by any country.

The two personal care chemicals of concern for the environment are the siloxanes D4 and D5. Used as emollients to soften the skin, siloxanes are found in most personal care products on the market in Canada and the United States.

The siloxanes are also used in textiles, paints and coatings, antiperspirants, sealants, lubricants, plastics, non-medical ingredients in pharmaceuticals, silicone polymers, food additives, surface treatments for wounds, and medical devices.

While not believed to be harmful to health, because these chemicals enter the environment in large quantities, persist in the environment, bioaccumulate up the food chain and may harm fish and aquatic organisms, Canada is proposing to set concentration limits for them.

This will minimize the amount of D4 and D5 in personal care products that is released to municipal wastewater streams when they are washed off. The government also proposes to regulate the amounts of D4 and D5 that are released to the environment manufacturing process wastewater.

Lipstick (Photo by Aprille Clark)

Two other substances used in cosmetics were found to be of concern for human health - isoprene and epichlorohydrin - both considered to be human carcinogens.

They will be added to the Cosmetic Ingredient Hotlist to prevent their future use in cosmetics. For isoprene, Health Canada is proposing that manufacturers use best-available technology to control releases.

Environment Minister Jim Prentice and Health Minister Leona Aglukkaq announced the findings of toxicity today as they released final conclusions and initial risk management approaches for Batch 2 substances in Canada's Chemicals Management Plan

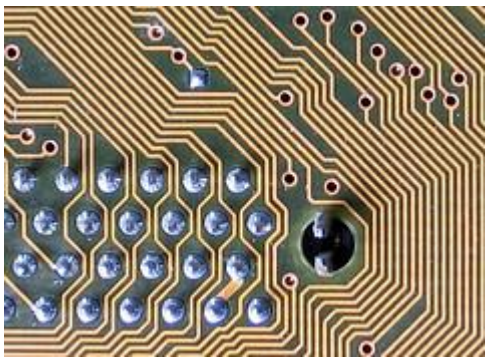
"The government of Canada is doing its part to protect Canada's environment from the harmful effects of chemical substances," said Prentice. "This work means that harmful substances will be stopped from entering the environment and becoming a problem for future generations."

"The Chemicals Management Plan is an important part of our actions to protect Canadians' health," said Aglukkaq. "These substances have been carefully reviewed by our scientists and we have proposed several actions that will better protect the health of families and our environment."

Of the 16 substances assessed, three were found to be of concern for the environment - the two siloxanes D4 and D5 - and a fuel additive known as TTBP (2,4,6-tri-tert-butylphenol).

TTBP persists in the environment and builds up in wildlife. The government will add this substance to the Virtual Elimination List to ensure that releases to the environment will be reduced below levels that can be measured.

Three other substances were found to be of concern to human health - thiourea, Pigment Yellow 34, Pigment Red 104.



Thiourea is used to etch printed circuit boards. **(Photo by Quapan)**

Thiourea was found to be a "genotoxic carcinogen," a chemical capable of producing cancer by directly altering the genetic material of cells. This chemical poses a "probability of harm to human health at any level of exposure," the government said.

Thiourea is used in metal finishing solutions and in etch treatments used for printed circuit boards, in copper refining and in rubber production. It is used at pulp and paper mills in the manufacture of paper and paperboard food packaging and as a cleaner and scale remover in food plants.

In addition, thiourea may be used as a rust inhibitor, in silver polish, tarnish removers and metal cleaners, in the textile industry, as a photographic fixing agent, and in pharmaceutical synthesis. Thiourea may be used in insecticides and agrochemicals, and is a mold inhibitor.

The publication of this final assessment moves thiourea into risk management mode, and the ministers said plans will be developed to control its release to the environment and impact on human health.

Pigment Yellow 34 and Pigment Red 104 were both found to be carcinogens that are toxic to human reproduction and development. They contain the persistent chemicals chromium and lead.

These pigments are used when high visibility is needed such as in traffic paint striping for highways and airports, and safety identification paints on buses, ambulances and fire trucks. Industrial paints using lead chromate pigments include automotive finishes, industrial and agricultural equipment, industrial baking enamels and air-dried finishes.

Paint used for striping roads contains Pigment Yellow 34. **(Photo courtesy Washington DOT)**

Most human exposure to these pigments is expected to be from soils, but it is considered "negligible via drinking water, ambient air or consumer products," the government said.

Although Canadians' exposure to the five substances of concern to human health is very low, the government is proposing regulations for all except isoprene to prevent them from being used in the future without undergoing a new series of assessments.

In the United States, environmentalists called on the federal government to undertake similar evaluations.

"Today's move by Canada is not only important for the health of its citizens, it helps underscore the need for real reforms within the EPA's failed programs to regulate toxins in the U.S.," said Jane Houlihan, vice

president for research with the Environmental Working Group based in Washington, DC.

"Congress and President [Barack] Obama need to overhaul broken toxics laws," she said, "and establish a policy that forces the chemical companies to first prove their products are safe before being used."