



MIREX

ENVIRONMENTAL HEALTH – CONTAMINANTS FACT SHEETS

WHAT DO WE KNOW ABOUT MIREX?

Mirex is a persistent organic pollutant (POP). It is made by humans and does not occur naturally in the environment.

Mirex was used as a flame retardant in plastics, rubber, paint, paper and electrical goods. It was also used as an insecticide but was never registered for use as an insecticide in Canada. It is now banned in Canada. However, mirex can travel long distances in the air from other regions of the world and land in Canada.

POPs (such as mirex) can build up in animal tissues over time through a process called bioaccumulation (*see Contaminants Overview fact sheet –*

<http://www.hss.gov.nt.ca>). This means that older animals tend to have higher levels of POPs than younger animals. POPs tend to be found at higher levels in animals that eat other animals and in smaller amounts in animals that eat plants. This is due to a process called biomagnification (*see Contaminants Overview fact sheet –* <http://www.hss.gov.nt.ca>). Marine mammals tend to have the highest levels of POPs.

POPs do not dissolve very well in water. When POPs enter water, they will stick to sediments instead. This means that water contains very low levels of POPs and we do not need to be concerned about POPs in the water.

HOW DOES MIREX AFFECT HUMAN HEALTH?

If a person is exposed to POPs, many factors will determine whether any harmful health effects will occur and what the type and severity of those health effects will be. These factors include the dose (how much), the duration (how long), the route or pathway by which you are exposed (breathing, eating, drinking, or skin contact), the other chemicals to which you are exposed, and your individual characteristics such as age, gender, nutritional status, family traits, life-style, and state of health.

The main source of exposure to mirex for humans is by eating foods that are contaminated. Mirex can build up in the fatty tissue of animals and humans, but over time it is excreted.

There is limited human data on the health effects of mirex. Animal studies indicate it may cause problems with the liver and reproduction at high levels.

ARE TRADITIONAL FOODS SAFE TO EAT?

Traditional foods provide many essential nutrients that can lower the risk of chronic diseases. Marine mammals tend to have the highest levels of POPs, particularly in the fatty tissues. However, most people do not need to

be concerned about contaminated-related effects from traditional food consumption. Generally, the benefits of eating traditional foods outweigh the risks from contaminant exposure.