



# ALDRIN & DIELDRIN

## ENVIRONMENTAL HEALTH – CONTAMINANTS FACT SHEETS

### WHAT DO WE KNOW ABOUT ALDRIN AND DIELDRIN?

Aldrin and dieldrin are two closely related persistent organic pollutants (POPs). They are made by humans and do not occur naturally in the environment. Aldrin and dieldrin were mainly used as insecticides. They were applied to treat crops for protection against pests. They were also used to exterminate termites. Aldrin and dieldrin have been banned in many parts of the world for several decades, including Canada. Levels of both aldrin and dieldrin have decreased over the years since they are no longer produced or used. POPs levels become higher in animals as we move up the food chain. This process is called biomagnification. Aquatic

food chains are usually longer than land food chains, which is why marine mammals tend to have the highest levels of POPs. POPs levels also tend to be higher in older animals due to a process called bioaccumulation (*see Contaminants Overview fact sheet – <http://www.hss.gov.nt.ca>*).

Aldrin is usually converted quickly into dieldrin once it is absorbed by an animal.

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 DO ALDRIN AND DIELDRIN 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.

A person can be exposed to aldrin and dieldrin by eating contaminated foods, by inhaling contaminated air or by contact with skin/tissue (for example, if someone were handling contaminated soil). Aldrin and dieldrin build up mostly in the fatty tissues of the body, but they are also excreted over time.

Aldrin and dieldrin are toxic to humans at very high levels. They can cause problems with the central nervous system (the brain and spinal cord) and the liver. Studies suggest that exposure to aldrin and dieldrin at low levels over a long period of time is not a human health hazard.

### 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.