### PERSISTENT ORGANIC POLLUTANTS

- Aldrin \*
- Chlorodane \*
- DDT \*
- Dieldrin \*
- Heptachlor \*
- Hexachlorobenzene \*+
- Endrin \*
- Mirex \*
- Toxaphene \*
- Polychlorinated biphenyls (PCBs) ‡
- Polychlorinated dibenzo-p-dioxins (PCDD) +
- Polychlorinated dibenzofurans (PCDF) +
- Alpha hexachlorocyclohexane \*+
- Beta hexachlorocyclohexane \*+
- Chlordecone \*
- Hexabromobiphenyl ‡
- Hexabromocyclododecane ‡
- Hexabromodiphenyl ether and Heptabromodiphenyl ether ‡
- Hexachlorobutadiene ‡
- Lindane \*
- Pentachlorobenzene \*+‡
- Pentachlorophenol and its salts and esters \*
- Pentafluorooctane sulfonic acid, its salts and Perfluorooctane sulfonyl fluoride ‡
- Polychlorinated naphthalenes \$+
- Technical endosulfan and its related isomers \*
- Tetrabromodiphenyl ether and pentabromodiphenyl ether ‡
- \* Pesticides
- + By-product
- **‡** Industrial chemicals



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### Persistent Organic Pollutants

# WHAT ARE PERSISTENT ORGANIC POLLUTANTS?

Persistent organic pollutants, POPs for short, are a class of chemicals that are hazardous to human health and the environment. They have the following properties:

- **They are highly toxic.** POPs are harmful to human and animal health. Some of the negative health effects include learning disorders, diabetes and cancer.
- **They are very persistent.** POPs do not break down easily and can stay in the environment and continue to cause harm for many years before they decompose.
- They are highly mobile. POPs can be transported long distances by air, water, and some migratory species, e.g. fish, birds and turtles. They can therefore cause damage in places far from where they were originally released.
- They build up in fatty tissue. POPs can be passed from one organism to another through the food chain and can reach high concentrations in the fatty tissue of fish, birds and mammals, including human beings.

# WHAT IS THE STOCKHOLM CONVENTION?

The Stockholm Convention seeks to protect human health and the environment from POPs. The Convention requires participating countries to reduce and, where possible, eliminate the production, use and release of POPs. Countries signed on to the Convention must carry out activities:

- To reduce or eliminate releases of POPs from intentional production and use.
- To reduce or eliminate the release of unintentionally produced POPs.
- To reduce or eliminate releases of POPs from stockpiles and wastes.
- To raise awareness about POPs and the Stockholm Convention.

At the beginning of 2016, Parties to the Convention identified twenty six (26) substances and classes of substances whose production and use need to be regulated. These substances can be divided into three groups:

- pesticides such as DDT and endosulfan;
- industrial chemicals e.g. polychlorinated biphenyls (PCBs); and
- unintentionally produced as a by-product of incomplete combustion e.g. dioxins and furans or from processes that manufacture some pesticides and other chlorinated substances e.g. hexachlorobenzene.

# HOW DO POPS ENTER THE ENVIRONMENT?

POPs can enter the environment as a result of:

The use of POPs pesticides in agriculture (e.g. spraying of crops) or vector control (control of mosquitoes);

- Improper storage and disposal of POPs chemicals;
- Emissions from industrial processes;
- Improper handling and disposal of waste fluids from mechanical and electrical equipment such as transformers and capacitors; and
- Burning household garbage and other waste especially plastics, paints and insecticide cans.

#### WHAT CAN WE DO TO AVOID EXPOSURE TO POPS AND OTHER DANGEROUS CHEMICALS?

- Do not burn garbage, especially materials that contain plastics, chemicals, or wood that has been painted or treated with chemicals.
- Where possible use cleaner fuels, like natural gas or kerosene, rather than diesel, charcoal or wood.
- Dispose of waste oil appropriately.
- Do not use banned pesticides.
- Follow the safety precautions found on the labels on all chemicals, including pesticides and household chemicals such as cleaners.

### WHERE CAN I GET MORE INFORMATION ABOUT POPS?

Information on POPs and the Stockholm Convention is available on the internet at:

- Stockholm Convention website: www.pops.int
- International POPs Elimination Network: www.ipen.org
- Further information may be obtained from the Environmental Protection Department.