**Uses:** broad spectrum fungicide; contaminated by hexachlorobenzene.

**Bans:** Denmark, Sweden

**Residues:** in cord blood, newborn’s blood; food, drinking water.

**Acute toxicity:** low acute toxicity, but corrosive in eyes. Signs include diarrhoea, lacrimation, laboured breathing, reduced muscle tone, irritation of skin and mucous membranes of eye and respiratory tract; asthma symptoms have been reported. Diabetic ketoacidosis has been reported following high occupational exposure. Associated with occupational poisoning in Tanzania.

**Chronic toxicity**

**Kidney damage.**

**Cancer:** US EPA probable human carcinogen based on rodent kidney and stomach tumours; HCB also a probable human carcinogen. Three-fold increased risk of multiple myeloma in one study of users; and increased risk of non-Hodgkin’s lymphoma in another.

**Genotoxicity:** DNA damage in leukocytes of exposed farmers; metabolite is mutagenic in mammalian cells.

**Endocrine disruption:** nonmonotonic effects on corticosterone in amphibia.

**Reproduction:**

maternal exposure in rats interfered with physical and maturational development landmarks of offspring, showing subtle effects on behavioural and physical development.

**Immune:** immunotoxic in trout and amphibia.

**Environmental effects:**

Aquatic: very highly toxic to aquatic organisms; also affects their reproduction; fish kills reported. Terrestrial: metabolite has reproductive effects on birds. Residues in honey bee hives (wax and pollen); toxic to bee larvae.

**Environmental fate:** may be persistent in aquatic environments, and soil. Found in surface and ground waters, air, rain, Arctic. Some concern about bioconcentration, especially in oysters.
References:


