PENTACHLOROPHENOL

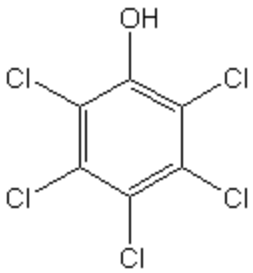
Overview

Pentachlorophenol (PCP) is a chemical used in the past as a herbicide, defoliant, mossicide, and as a disinfectant. Since 1987 the U.S. restricted some of its non-preservative use and is no longer registered for residential use. It is now applied commercially in the treatment of utility poles, fences, shingles, walkways, building components, piers, docks and porches, and flooring and laminated beams. It is also used for agricultural purposes such as wood protection treatment to buildings or products, and fencerows or hedgerows. (#EPA)

Just the facts

Physical Information
Name: Pentachlorophenol
Use: Treatment of utility poles, fences, shingles, walkways, building components, piers, docks and porches, and flooring and laminated beams.
Source: synthetic chemistry
Recommended daily intake: none
Toxicity/symptoms: high fever, liver effects, damage to the immune system, reproductive effects, and developmental effects
Regulatory facts: EPA drinking water limit = 1 ppb; OSHA = 0.5 mg/m^3 8-hr TWA
Environmental:

Chemical Structure



Structure retrieved from Universita' Degli Studi Di Brescia. School of Medicine. Course Materials.Accessed July 29, 2007

Chemical Description

Pentachlorophenol is a synthetic chemical that exists as a colorless to white crystalline solid with a Benzene-like odor (#CDC). Impure pentachlorophenol, which is usually found at hazardous waste sites, is dark gray to brown and exists as dust, beads, or flakes (#ATSDR).

Uses

Pentachlorophenol is applied commercially in the treatment of utility poles, fences, shingles, walkways, building components, piers, docks and porches, and flooring and laminated beams. It is also used in agricultural purposes such as wood protection treatment to buildings or products, and fence rows or hedgerows. (#EPA)

Health Effects

Exposure to high levels of pentachlorophenol can cause increases in body temperature, liver effects, damage to the immune system, reproductive effects, and developmental effects. Similar effects were seen in infants exposed to accidentally contaminated diapers and bedding. However, it is not clear whether children and adults differ in their susceptibility to pentacholorophenol.

According to the EPA, pentachlorophenol is a probable human carcinogen (#ATSDR).

Regulation

- EPA limit for drinking water: 1 part of pentachlorophenol per billion parts of water (1 ppb).
- OSHA: 0.5 milligrams of pentachlorophenol per cubic meter of workplace air (0.5 mg/m^3) for 8 hour shifts and 40 hour work weeks

Source : http://www.toxipedia.org/display/toxipedia/Pentachlorophenol