POPs Chemicals

Pentachlorophenol and its salts and esters (PCP)

CAS No. 87-86-5; 131-52-2; 27735-64-4; 3772-94-9; 1825-21-4

Full Name: Pentachlorophenol; sodium pentachlorophenate; sodium pentachlorophenate monohydrate; pentachlorophenyl laurate; pentachloroanisole

Trade Names include: PCP; Na-PCP; PCP-L

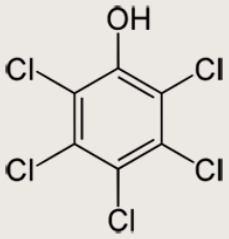
Uses: PCP has been used as herbicide, insecticide, fungicide, algaecide, disinfectant and as an ingredient in antifouling paint. Some applications were in agricultural seeds, leather, wood preservation, cooling tower water, rope and paper mill system. Chlorinated contaminants including hexachlorobenzene, pentachlorobenzene, and dioxins and furans are produced during the manufacturing process. In addition, dioxins and furans formed during the manufacturing process can be released during the use and disposal of PCP-treated wood.

Its use has been significantly declined due to the high toxicity of PCP and its slow biodegradation.

Stockholm Convention: Pentachlorophenol and its salts and esters are listed in Annex A to the Stockholm Convention with specific exemptions for production and use of pentachlorophenol for utility poles and cross-arms (decision SC-7/13).

Hazards and risks to human health and the environment: *People may be exposed to PCP in occupational settings through the inhalation of contaminated workplace air and dermal contact or with wood products treated with PCP. Short-term exposure to large amounts of PCP can cause harmful effects on the liver, kidneys, blood, lungs, nervous system, immune system, and gastrointestinal tract. Elevated temperature, profuse sweating, uncoordinated movement, muscle twitching, and coma are additional side effects. Contact with PCP can irritate the skin, eyes, and mouth. Long-term exposure to low levels such as those that occur in the workplace can cause damage to the liver, kidneys, blood, and nervous system. Finally, exposure to PCP is also associated with carcinogenic, renal, and neurological effects.*

Pentachlorophenol



Reference

1. Information on pentachlorophenol and pentachloroanisole. Persistent Organic Pollutants Review Committee 2011; UNEP/POPS/POPRC.7/19/Annex III
2. Risk profile on pentachlorophenol and its salts and esters. Persistent Organic Pollutants Review Committee 2013; UNEP/POPS/POPRC.9/13/Add.3
3. Risk management evaluation for pentachlorophenol and its salts and esters. Persistent Organic Pollutants Review Committee 2014; UNEP/POPS/POPRC.10/10/Add.1

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