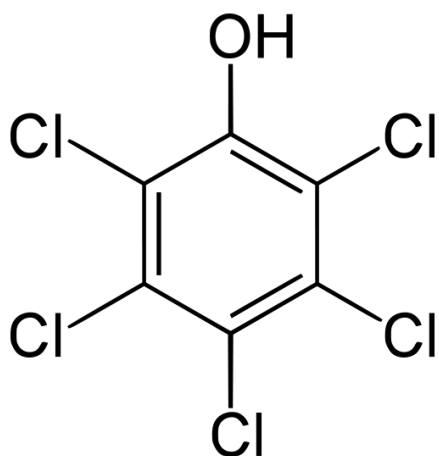


Pentachlorophenol (PCP)



Chemical Structure of Pentachlorophenol. Source Wikipedia

What is Pentachlorophenol?

Pentachlorophenol or PCP is a manmade chemical first manufactured in the 1940's, which is not found naturally in the environment. The chemical structure of PCP is shown in the picture above. The majority of PCP used was as a sodium salt of pentachlorophenol (NaPCP), making it easier to dissolve in water.

What was PCP used for?

Worldwide PCP was used as a heavy duty pesticide. It was a successful wood preservative for fungal and insect damage. Other applications were as a pesticide for crops, leathers and textiles. In New Zealand PCP was used as a wood preservative and an anti-sapstain treatment from the 1950's until it was banned in the late 1980's.

Sapstaining fungi readily attack and discolour freshly sawn logs and timber of pine trees (see picture). PCP or NaPCP was used as an antisapstain chemical to stop this sapstaining fungal attack. It was used in timber and sawmills throughout New Zealand. The treatment was applied to sawn timber, logs, post and poles as a spray or dip bath.

PCP and dioxin

During the manufacturing process of PCP, dioxins were created in the reaction vessel. Dioxins within commercial grade PCP that have had the greatest effect on health and the environment. More information on Dioxin can be found in the Fact Sheet on this molecule.

PCP and Health

Sawmill workers were exposed to PCP via inhalation and skin contact while working with the chemical or where they were in contact with treated wood products. Short term contact to large amounts of PCP can cause harm to kidneys, blood, lungs, nervous system, liver, immune system and gastrointestinal tract. For more information on the health effects of exposure to PCP please refer to the Ministry of Health website. www.health.govt.nz/search/results/Pentachlorophenol.

PCP in the Environment

PCP has been released into the environment during its manufacture, storage, transport and during its industrial use as a wood treatment.

Spillage of chemical or drips from freshly dipped timber or logs resulted in contamination of the ground beneath the sorting tables at mills and sawmills.

In Whakatane, there are 35 identified sites that received waste materials from the Whakatane sawmill from the 1940s to 1980's and this waste material may contain PCP contaminated material.



Image of a pine log face with extensive sapstain