

PCB (polychlorinated biphenyls)

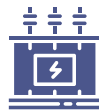


They are a class of man-made chlorinated organic chemicals that can occur in dielectric oil-cooled electrical equipment. PCBs pose a risk to health and the environment and have therefore been listed by the Stockholm Convention as Persistent Organic Pollutants (POPs).

Where to find them?

PCBs can be found in electrical equipment such as:

- Transformers
- Capacitors
- Fluorescent lighting ballasts



PCB characteristics

- Persistent
- Bioaccumulative
- Can travel long distances
- Toxic to humans and wildlife

Its use in the electricity sector

They have been used as refrigerants, because:

- They are not flammable
- They are chemically stable
- They have a high boiling point
- They have excellent insulating properties



Stockholm Convention

It is an international agreement that regulates the treatment of toxic substances. It aims to protect human health and the environment from Persistent Organic Pollutants (POPs).

Parties that have ratified the Stockholm Convention aim to eliminate the use of PCBs by 2025 and to achieve environmentally sound management of their wastes by 2028.

How do they contaminate humans?

Through:

- Ingestion (e.g. animal fats or contaminated water)
- Absorption through the skin
- Inhalation



Health consequences:

- PCBs are carcinogenic
- They can suppress the immune system, which may increase the risk of developing diseases

PCBs in the environment

They can be found at:

- Air
- Sediments
- Soil
- Water
- Biota