



Dioxin, Furan & PCB Analysis

SOCOTEC's specialist chemistry team is highly experienced in the analysis of Dioxins, Furans and PCBs.

Dioxin, Furan and Dioxin-like PCBs are a group of dangerous chemicals known as persistent organic pollutants (POPs). They are of concern due to their highly toxic potential which can cause reproductive and development problems, damage the immune system, interfere with hormones and also cause cancer.

Dioxins and Furans have never been commercially manufactured and are mainly by-products of industrial processes such as smelting, chlorine bleaching of paper pulp, pesticide manufacture and incineration processes. They can also result from natural processes such as volcanic eruptions and forest fires. PCBs predominately originate from the man-made Aroclor® blends, previously used in applications such as dielectric and capacitor fluids.

Dioxins, Furans and PCBs are found in the environment throughout the world and they accumulate in the food chain due to the chemical stability and long half-life, mainly in the fatty tissues of animals.

Prevention or reduction of human exposure is best done via source-directed measures such as strict control and monitoring of industrial processes.

SOCOTEC has extensive knowledge of the analysis of Dioxins, Furans and PCBs and we have established a dedicated laboratory to offer our clients the best possible service.

OUR SERVICES INCLUDE:

- International Toxicity Equivalent (ITEQ) and individual congener determinations of Polychlorinated dibenzo-p-dioxins (PCDDs) and Polychlorinated dibenzofurans (PCDFs)
- World Health Organisation listing of 12 Polychlorinated biphenyl (PCB) congeners (WHO 12)

High Resolution Gas Chromatography (HRGC), coupled with High Resolution Mass Spectrometry (HRMS) employing $^{13}\text{C}_{12}$ isotope dilution quantification is used to provide the high sensitivity and selectivity required for this complex analysis. SOCOTEC's highly trained staff employ the market leading Waters® Micromass® AutoSpec Ultima™ system.

SOCOTEC offers ISO 17025 accreditation* to BS EN 1948 for stationary source emissions and supply recovery spiked XAD-2 resin traps for sample collection.

SOCOTEC analyses a wide range of matrices including:

- Stack gas
- Ambient air
- Soil
- Sediment
- Ash
- Dust
- Surface and waste water
- Swabs
- Filters

MORE ABOUT OUR SERVICES

For more information or to discuss your requirements, please call us on 0845 603 2112 or email salesuk@socotec.com

* A listing of SOCOTEC's UKAS accredited activities can be found in our schedule of accreditation – Testing Laboratory 1015 – at socotec.co.uk