

Emissions Monitoring for Dry Cleaners

The principal solvents used in the dry cleaning industry are tetrachloroethylene, most commonly known as perchloroethylene (perc or PCE) and hydrocarbon (petroleum-based) solvents. These solvents can pose serious environmental and occupational health and safety hazards if leaks and exposure levels are not properly controlled. For example, the potential health hazards from inhaling perchloroethylene vapours above the exposure limits include headache, drowsiness, loss of coordination, nausea and other more serious side effects.

In the United Kingdom, the use of solvents in dry cleaning operations is regulated under the EU Solvent Emissions Directive (SED)—Process Guidance Note 6/46(04) and the Control of Substances Hazardous to Health (COSHH) Regulations. COSHH requires employers to “measure the concentration of hazardous substances in the air breathed in by workers where: there could be serious risks to health if control measures failed or deteriorated; exposure limits might be exceeded; or control measures might not be working properly.” The Health and Safety Executive (HSE) recommends controlling employees’ exposure to solvent vapour with a monitoring system which automatically sounds an alarm if it detects levels in excess of the Long Term Exposure Limit (LTEL). The LTEL for perchloroethylene has been set at 50 ppm or 345 mg/m³ TWA (HSE series EH40).

Aeroqual Monitors

Aeroqual monitors accurately detect primary and secondary sources of solvent exposure to dry cleaning workers including solvent spills; emissions during machine operation; fugitive leaks from piping and tanks; off-gassing from clothing; and vapors from spotting agents. Our monitors are used to assist dry cleaners to comply with regulatory standards set by DEFRA, HSE and the Scottish EPA.

Aeroqual monitors offer dry cleaners affordable peace of mind that their facilities are safe workplace environments for employees in addition to complying with the legal requirements. Our range includes fixed and portable monitors that offer quantitative data, audible alarms, control outputs for ventilation systems and PC data logging. All our products meet CE and FCC standards.



SM70 Monitor & Controller



Series 200 Portable Monitor



Series 500 Monitor & Datalogger

The Aeroqual Advantage

Aeroqual uses proprietary *Gas Sensitive Semi-Conductor* (GSS) sensor technology because it offers similar performance to more expensive infra-red (IR) and photo-ionization detectors (PID) and higher reliability, quicker response and longer life than traditional heated metal oxide sensors (HMOS).

Aeroqual has extensive experience in developing monitoring solutions for a wide variety of gases and solvents including perchloroethylene and hydrocarbon solvents. A major benefit of Aeroqual’s gas monitors is the ability to offer continuous air monitoring and portable leak detection in a single unit. Our monitors provide end users with the following key advantages:

- Peace of mind that your dry cleaning facilities are safe workplace environments
- Compliance with SED (PG Note 6/46(04) and COSHH Regulations
- Continuous ambient monitoring and fugitive leak detection
- Quantitative data results, alarms and optional control outputs
- Good value for money and low cost of total ownership
- Simple operation and easy maintenance

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