

Cutting-edge analytical support in emerging areas of environmental concern.

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What is Perchlorate ?

Perchlorate is an oxidizing agent widely used in industrial and military operations. Sources of perchlorate in the environment are known to include manufacturers and users of rocket fuel, missiles, explosives, flares, fireworks, air bag inflators, nuclear reactors and a variety of other industrial processes.

Perchlorate is a chemical that comes in four main forms: potassium perchlorate, ammonium perchlorate, magnesium perchlorate and sodium perchlorate. Perchlorate can be either naturally occurring or manmade.

Perchlorate is highly soluble and travels in groundwater almost as fast as the water itself.

Perchlorate is a known endocrine system disruptor that affects thyroid activity and is on the USEPA's "Contaminant Candidate List". The USEPA has produced regulations and limits in relation to Perchlorate in groundwater.

The United States Food and Drug Administration (FDA) has also stated that, at certain doses, perchlorate can interfere with iodine uptake into the thyroid gland, disrupting its functions, and has been investigating levels of perchlorate found in food supplies.

Perchlorate Analysis.

Leeder Consulting have been at the forefront of commercial development and technological capabilities for perchlorate analysis with the development of LC/MS/MS methods which can achieve the very low detection limits required by regulators and toxicologists.

Leeder Consulting have extensive experience with a range of complex matrices, including soils, waters and foods.

The analysis is performed by liquid chromatography and electrospray mass spectrometry. This technique utilizes MS/MS detection, mass spectral separation followed by ion fragmentation and mass separation.

This is the most sensitive and selective detection capability for Perchlorate available in the environmental testing industry today.

Quality Assurance and Quality Control are primary considerations when undertaking specialist analytical work. Leeder Consulting's Management Systems are **AS/NZS ISO 9001 Certified**, the laboratory is **NATA Accredited** and is a **Registered Quarantine Laboratory**.

Leeder Consulting offer a range of specialised high-tech, non-routine and on-site services. Access to leading edge technology and expertise in Australia and overseas guarantees results when and where you require. To discuss your requirements or for more information call us now.



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