

Crop protection products

A crop protection product is a preparation containing one or more active substances that must combat harmful organisms chemically or biologically. These organisms include plants, insects, bacteria, or viruses.

Agriculture and horticulture

A distinction is made between crop protection products used in agriculture and horticulture and biocides used outside agriculture. Crop protection products are classified based on the type of organism they control, such as insecticides against insects, fungicides against fungi, herbicides against weeds, nematicides against nematodes, acaricides against mites, rodenticides against rodents, molluscicides against snails and bactericides to control bacterial plant diseases. Biocides include disinfectants, antifouling paints for boats, insecticides, and wood preservatives.

Pesticides in the environment

Pesticides are consciously and unconsciously released into the environment. Wind, rain and leaching from the soil into the ground and surface water then cause the spread of this pollution. Because these compounds are often poorly degradable, they can accumulate in the food chain. They are found worldwide in all matrices and in organisms at all levels within the food chain. High concentrations are measured especially in organisms at

the top of the food chain, due to biological stacking. The working of crop protection products can also damage the ecological environment and human health. This is because the active ingredient is not specific enough in most cases. Therefore, in addition to effect the organism to be controlled, they often have harmful effects on other organisms.

Legislation

The European Directive 91/414/EG prescribes the registration of crop protection products. Before a product is authorized in an EU member state, the active substance must be placed on Annex 1 of the directive. In addition, a member state must assess and register the specific uses. In the Netherlands, the Crop Protection Products and Biocides Act (Wgb) implements the directive, focusing on safety and health of humans and animals and the effect on the environment. A restriction on the use of pesticides also applies to drinking water catchment areas, as described in the Drinking Water Act. However, this act unfortunately cannot protect all drinking water sources from these contaminants. In

particular, drinking water companies that use surface water as a source, such as from the Rijn or the Maas, often suffer from elevated levels of pesticides in the raw water. As a result, these contaminants can also end up in drinking water. Cooperation at European level is, therefore, a great importance for the safety of drinking water.

Eurofins' offerings

Eurofins has a broad analysis portfolio with over 450 components, which can be used to determine the most common pesticides in water and soil. By applying modern analysis techniques (such as liquid chromatography with tandem mass spectrometric detection LC-MS/MS and gas chromatography with tandem mass spectrometric detection GC-MS / GC-MS/MS), compounds can be measured with very low reporting limits. The early detection of new compounds in various matrices and the development of sensitive analytical methods ensure the analytical range is constantly up-to-date. Because Eurofins extensively validates the analysis methods, clients are assured of reliable analysis results. Many of these analyses are also accredited by the Council of Accreditation (RvA).

Different crop protection products

Crop protection products can be classified according to their chemical composition. Among others, the following types of crop protection pesticides can be analyzed by Eurofins:

- Anilides
- Carbamates
- Carboxamide
- Chlorobenzenespesticides
- Phenoxypesticides
- Phenylurea pesticides
- Organochlorine pesticides
- Organophosphoruspesticides
- Organostrogenpesticides
- Pyrethroids
- Triazines
- Quaternary ammonium pesticides

About Eurofins Environment Testing

Eurofins Environment Testing Netherlands is part of Eurofins Scientific and your partner for environmental testing. Our goal is to help you achieve your objectives. With efficient and qualitative analysis techniques we support your business processes. Our customer service is at your disposal with specialized knowledge and extensive experience. You can make use of our own packaging and logistics service. Our reliable couriers take care of sample transfer on site and transport the samples to the relevant laboratory the same day.

Eurofins Environment Testing Netherlands is committed to protecting the environment. With our products and services, we support the responsible use and minimization of substances harmful to humans and the planet. Examples include hormones, pesticides, dioxins and heavy metals. By reducing the usage of water, raw materials and energy, we contribute to sustainability. Our laboratories have developed special programs to minimize environmental risks, such as a safe use of chemicals and waste disposal.

More information

Samples can be collected at the desired location or at a depot. Eurofins' logistic services can be reached at 0800-0991180 or logistiek@etbnl.eurofins.com.

For additional information regarding analyses, reporting, rates, delivery times, service and more, please contact the designated contact person or the customer service during office hours.)