charles river

SAFETY ASSESSMENT

Residue Studies

Study Types

- Soil dissipation/accumulation
- Operator exposure
- Crop/animal residues
- Bioequivalence
- Storage stability in sample matrix
- Feed analysis
- Aquatic toxicology

Charles River's Residue Chemistry group performs expert analysis of compounds and delivers compliant, timely data for the efficient development and successful registration of agrochemicals, biocides and animal health products.

Our Residue Chemistry group interfaces seamlessly with metabolite profiling and identification efforts, and provides in-house analytical services for our Field Trials, Environmental Sciences and Animal Health Product Development groups. This integration supports a full understanding of regulatory endpoints and allows us to efficiently and effectively meet our clients' needs.

Using samples from studies conducted at Charles River or samples provided by our clients, we can develop assays from first principles or evaluate and modify a supplied method using a full suite of analytical techniques and instrumentation. We conduct subsequent validation, sample analyses and stability testing in compliance with Good Laboratory Practice (GLP) to meet the relevant international regulatory guidelines. We can also perform independent laboratory validations to meet both the EU and EPA regulations.

Assays are developed to provide the sensitivity, high procedural recoveries, freedom from matrix effects, robustness and specificity required to meet the most demanding analytical requirements. The assays are routinely applied to the full range of matrices, such as crops, soils, edible tissues, plasma and aquatic media. Our Residue Chemistry group has the breadth and depth of experience required to analyze classes of compounds traditionally considered difficult.

We prepare samples and perform analyses using state-of-the-art instruments and technology to obtain the highest quality data. Supplementing our range of HPLC, UPLC, GC and GS-MS analyzers, our available instrumentation also includes a Thermo Scientific Q Exactive™ Plus Hybrid Quadrupole-Orbitrap™ Mass Spectrometer, a Shimadzu LCMS-IT-TOF (hybrid ion trap/time-of-flight instrument) and an ICP-OES Spectrometer (Optima™ 8000).

EVERY STEP OF THE WAY