

Connections for Advancing Food Safety and Testing



ThermoFisher
S C I E N T I F I C

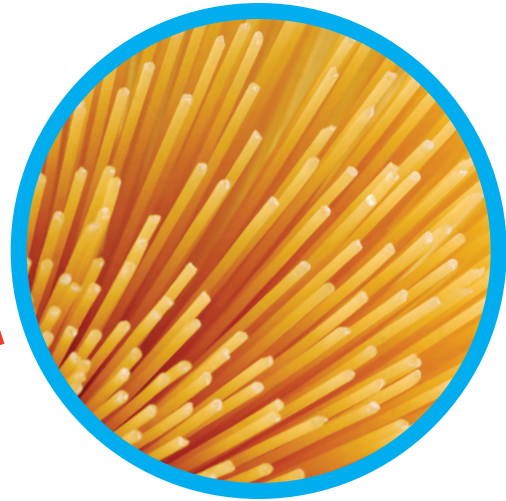
The world leader in serving science

At Every Link

in the Food Chain

Thermo Fisher Scientific is at the forefront of food safety and testing, combining methods-based consulting with innovative products that analyze, inspect, and verify ingredients and finished goods, from the point of origin to the point of consumption.

Whether you're ensuring regulatory compliance, investigating economic adulteration or enhancing nutrition, our solutions **strengthen the entire food chain** so you can deliver the uncompromised food products that consumers worldwide expect and deserve.



There is no single discovery – no magic bullet – to address our unique set of modern regulatory challenges. But one thing is clear: if we are to solve the most pressing public health problems we face today, we need new approaches, new collaborations, and new ways to take advantage of 21st century technologies.

*Advancing Regulatory Science for Public Health,
US FDA report 10/2010*

For Every Step

of the Workflow

With our comprehensive range of **leading technologies**, you can rely upon a single source, not only to complete your analysis, but also to **improve your workflow**.



Sampling

Sample collection products sold by Thermo Fisher Scientific
Thermo Scientific portable analyzers
Remel and Oxoid branded culture media solutions

Sample Preparation

Thermo Scientific instruments and consumables, sold alongside Fisher Scientific products for unparalleled choice and convenience

Solvents

Fisher Scientific high-purity solvents for analytical instruments



Instrument Analysis

Superior Thermo Scientific analytical instruments, consumables and reagents

Microbiological Analysis

Trusted Remel and Oxoid solutions for detection of microbial pathogens

Data Analysis and Lab Information Management

Thermo Scientific analysis software and laboratory information management systems (LIMS) integrate data seamlessly for traceability and data management



Process and Production Monitoring

Thermo Scientific products perform process measurements and finished-goods inspection for HACCP compliance, quality control, and brand protection

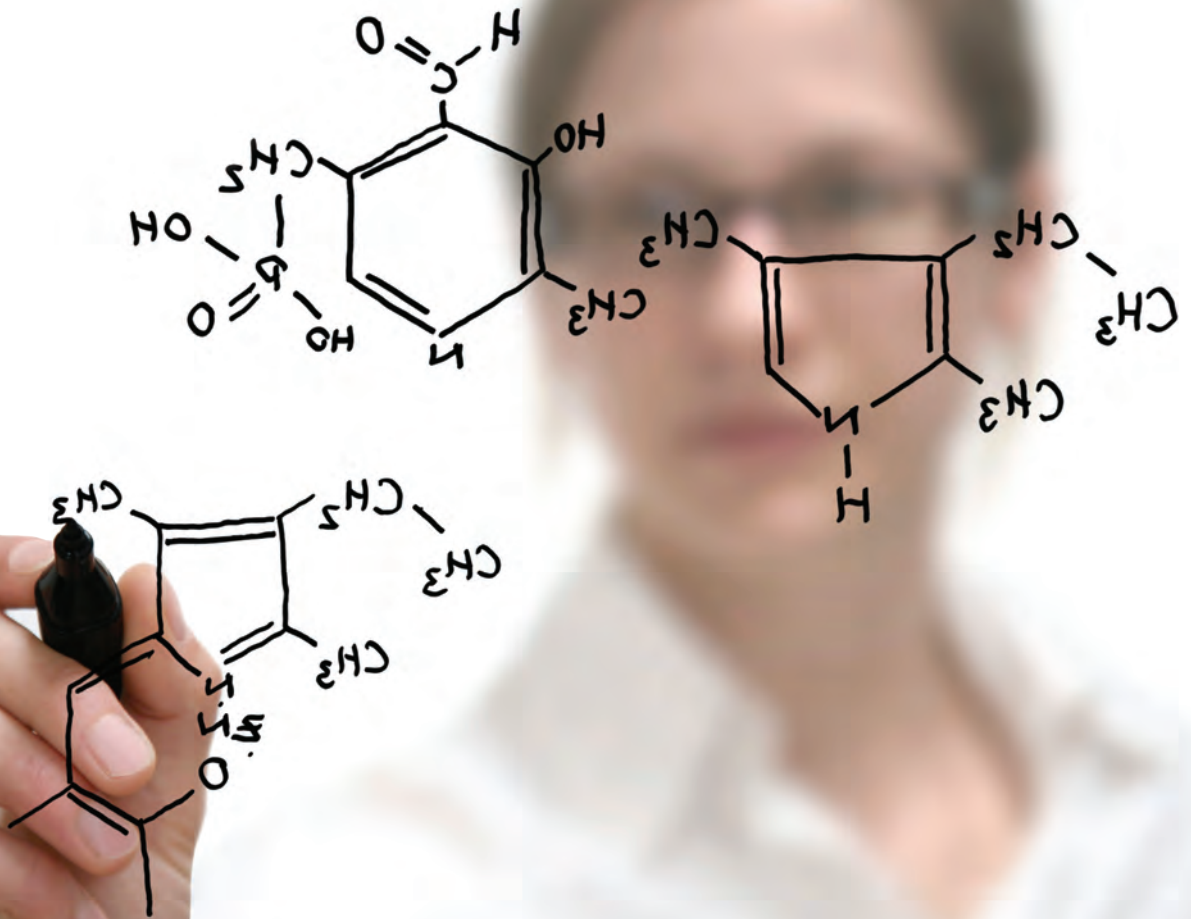


Our Tools Give

Power to Professionals

Whether you need highly sensitive instruments for discovery or **efficient solutions** for routine analysis, we understand your goal is **protecting public health**, while we also recognize that you have **unique requirements**.

Advancing Food Safety and Testing



Processors and Producers

Our solutions ensure regulatory compliance, product quality, and brand protection

Regulators and Governments

We provide tools for establishing standards and monitoring adherence

Contract Testing Laboratories

We can help you achieve efficiencies and increased throughput for better business results

Research and Academia

Our technological innovations and new approaches enable discovery

To Address

Complex Challenges and Urgent Needs

The challenges and needs may vary, but the demand for superior results in less time is constant. We are leaders in Mass Spectrometry, Chromatography, Elemental Analysis, Molecular Spectroscopy, Information Systems, Portable Analysis, and Quality Testing technologies. Here's a look at just a few of the ways our **innovative solutions** can help you deliver confident results.

EFFICIENCY



Thermo Scientific Dionex Accelerated Solvent Extraction system reduces time, solvent consumption, labor and costs associated with manual sample preparations. The **ASE 350** is ideal for automating sample prep and increasing throughput

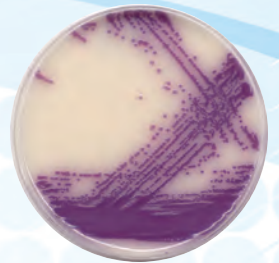
REGULATORY COMPLIANCE



State-of-the-art **Thermo Scientific Q Exactive** high-resolution, accurate mass benchtop LC-MS system with Orbitrap technology performs fast targeted and non-targeted screening with an unparalleled level of quantitation at low ppb levels



Thermo Scientific RadEye handheld devices provide fast and reliable detection of radioactivity in food and beverages



The Salmonella Rapid Culture Method
Brilliance chromogenic culture media from Oxoid and Remel aid faster isolation and easy, accurate identification of food pathogens



Thermo Scientific TSQ Quantum XLS triple quadrupole GC-MS, coupled with simplified sample preparation, analyzes hundreds of compounds quickly for rapid return on investment



Using revolutionary magnetic particle separation technology, the **Thermo Scientific KingFisher Flex** provides flexible, fast and easy sample preparation with excellent reproducibility and quality



Proven, reliable performance with totally flexible plate handling from the high-speed **Thermo Scientific Orbitor RS Microplate**. Industrial-sized performance from a benchtop robot



Thermo Scientific Delta V Isotope Ratio Mass Spectrometer performs isotope fingerprinting to determine geographic origin, confirm authenticity and detect adulteration

TRACEABILITY



Thermo Scientific LIMS provide superior traceability and audit trail capability for the entire workflow, including corrective actions

AUTHENTICITY



Thermo Scientific Orbitrap Elite – Unlock the “omics” in food with the world’s fastest, most sensitive High Resolution Accurate Mass spectrometer – for metabolomics, proteomics, and genomics



Rapid on-site material verification with the handheld **Thermo Scientific microPHAZIR** analyzer powered by Near-Infrared technology



Trace elemental analysis in complex matrices is routine with the **Thermo Scientific iCAP 6000 Series ICP** optical emission spectrometers, offering high performance in a small footprint



Thermo Scientific ToxInsight CHPS platform uses fluorescence imaging to measure endocrine activity from contaminants in food ingredients and packaging. The platform is supported by reagent cartridges, so this non-targeted endocrine activity screen is easy to use at a high throughput



Wavelength dispersive X-ray fluorescence using the **Thermo Scientific ARL OPTIM'X** offers a rapid and simple method for simultaneous analysis of macroelements and trace elements in milk-based products

NUTRITION

The flexible and innovative **Thermo Scientific Dionex ICS 5000** plays an important role in the analysis of food and beverage samples. Available in both the Capillary or Analytical formats, it is ideal for the analysis of food-safety-related contaminants such as bromate, biogenic amines, melamine, sulfate/sulfite, and nitrate/nitrite



QUALITY TESTING

BRAND PROTECTION

Precise, at-line verification and incoming ingredient inspection by **Thermo Scientific Near-Infrared, FT-IR and Raman spectrometers** ensures the safety and quality of your products

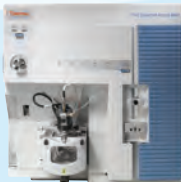


The **Thermo Scientific E Scan** uses guided microwave spectrometry to perform immediate, in-line product content analysis, accurate to a fraction of a percent, providing raw material savings and enhancing process control



Thermo Scientific Gallery and **Gallery Plus** photometric analyzers, with convenient loading capacity of up to 45 samples and 30 reagents simultaneously, are excellent platforms to automate colorimetric, enzymatic and electrochemical testing

Thermo Scientific Viscometers and Rheometers analyze and measure viscosity, elasticity, processability and temperature-related mechanical changes of food (liquids, solids) and cover needs in R&D as well as quality control



Thermo Scientific TSO Quantum Access MAX LC-MS/MS with Tracefinder software includes a wide range of preconfigured methods to simplify targeted screening and quantitation of contaminants in food



Thermo Scientific X-Ray Systems perform physical contaminant and quality-control inspection, from basic pass or fail control to glass-in-glass detection, which protects your products and your brand

The Benefits

of Connections

Connections between **people, methods, and technologies** are fueling the advancement of food safety and testing. Our customers benefit most from these connections by collaborating with us for applications support, as well as relying on us for a complete line of value-added services.



- Method Development
- Instrument Service and Calibration to optimize your performance
- Laboratory Planning, Extended Services and Support, and Asset Management through Unity Lab Services
- Training and Certification
- Product Inspection Services to recover quarantined finished goods



- Leasing Options to improve your cash flow

The Thermo Fisher Scientific Food Safety Response Center monitors information sources for instances of food contamination and is designed to address chemical contamination events with rapid analytical method development.

For the latest information about Thermo Fisher Scientific products and solutions, please visit www.thermofisher.com/foodsafety or www.thermoscientific.com/foodsafety.

