

**RdH**  
Riedel-de Haën™

**BJz**  
Burdick  
& Jackson™

**Flk**  
Fluka™

**+ Hw = Pro<sup>2</sup>**  
Honeywell      Productivity<sup>2</sup>

## Discover the perfect formula

Honeywell Research Chemicals

**Honeywell**

HONEYWELL RESEARCH CHEMICALS PORTFOLIO

Riedel-de Haën™ Burdick & Jackson™ **Fluka™**



# Perfecting the supply of **Chemicals and Analytical Reagents**

At Honeywell, we know that working at the cutting edge is never simple. To be successful you need a range of dependable premium products, access to flexible solutions, and expert support. That's why we are committed to advancing our products' performance, custom capabilities, and support to meet your expectations.





### **Consistent, High-Quality Products**

With over 200 years of experience and innovation in high-quality solvents and analytical reagents, we can promise that every lot is reliably and consistently produced. The majority of our products are produced at our advanced manufacturing facilities in Seelze, Germany and Muskegon, Michigan, USA. This ensures we are able to maintain our quality standards as well as our ISO 9001 and ISO 14001 certifications.

### **Customization and Choice**

We provide a comprehensive, ever-expanding portfolio of solvents and analytical reagents, from industry-leading brands such as Riedel-de Haën™, Burdick & Jackson™, and Fluka™, suitable for use in a number of applications. With our new state-of-the-art distribution centers and extensive network of authorized distributor partners, we can now deliver our products to anywhere in the world.

We listen to you and quickly adapt our products and services to meet your needs. Whether you need custom solvent blends, specialized packaging solutions, or large-volume bulk deliveries, we can support you.

### **Support When You Need It**

We take product and customer support seriously, training our customer service staff to respond to your needs. Whether you want to place an order, track a delivery, or simply ask a question, our response will always be accurate and courteous.

Our Hydranal™ Centers of Excellence, based in our research and development laboratories, in Germany and the United States are home to some of the leading experts in the field. If you need support with Karl Fischer applications, there is no one better to help you.

### **Expect More**

We are always looking for new ways to exceed your expectations, whether that's by driving quality and consistency through our in-house manufacturing sites, offering more choice through our extended product range, or developing our custom solutions.



# Our Brands

The genesis of Honeywell Research Chemicals began more than 200 years ago in 1814, when German chemist Johann Daniel Riedel successfully manufactured a series of pharmaceutical products, building a foundation for the chemicals industry.

The world has changed considerably since then, but our commitment to continue innovation in inorganics, solvents, and other essential chemicals has not. As part of our efforts to provide an ever-growing and innovative portfolio, we are pleased to introduce to you a new range of premium solvents and analytical reagents commonly used in chemistry and analytical research laboratories.

## **Honeywell Riedel-de Haën**

High-purity solvents for dedicated applications including chromatography techniques such as LC-MS, UHPLC, headspace, and GC, as well as TraceSELECT™ solvents for trace and low-metal content analysis.

## **Honeywell Burdick & Jackson**

High-purity solvents including BioSyn™ for DNA, RNA and peptide synthesis, and anhydrous solvents for moisture-sensitive organic synthesis, organometallic chemistry, combinatorial chemistry, and other related applications.

## **Honeywell Fluka**

Inorganic chemicals and reagents suitable for a wide variety of analytical applications, this portfolio includes acids, bases, salts, pH buffers, and standards. It features leading brands like Hydranal for measuring water content and TraceSELECT inorganics designed for trace and ultra-trace analysis, requiring reagents of the highest purity, and trace metal content.

## **Honeywell**

Solvents and inorganics for general laboratory use.





# Our Portfolio

**Honeywell**  
Riedel-de Haën™

## SOLVENTS

High-purity solvents for dedicated applications

**Honeywell**  
Burdick & Jackson™

## SOLVENTS

High-purity solvents for multipurpose and dedicated applications

**Honeywell**  
**Fluka™**

## ANALYTICAL REAGENTS

Karl Fischer titration, standards, acids, bases, salts, and pH buffers

**Honeywell**

## PERFORMANCE GRADE

Solvents and inorganics for general laboratory use

### Product lines

**Chromasolv™** – Chromatography techniques including LC-MS, UHPLC, headspace, and GC

**Spectroscopy Solvents** – IR and UV-Vis applications

**ACS and Pharmacopeia Grade** – Industrial and pharmaceutical analytical applications

**TraceSELECT™ Solvents** – Trace and low-metal content analysis

**B&J BRAND™** – Multipurpose solvents for demanding analytical applications

**B&J GC2™** – Capillary gas chromatography applications requiring trace analysis at or below the part-per-billion level

**BioSyn™** – DNA, RNA and peptide synthesis

**Anhydrous** – Moisture-sensitive organic synthesis, organometallic chemistry, combinatorial chemistry, and related applications

**B&J Purified Plus™** – Specialty organic synthesis, prep-LC, and other industrial and pharmaceutical applications requiring higher levels of lot-to-lot consistency

### Analytical Inorganics

**Standard Solutions** – Buffers and concentrated solutions

**Hydranal™** – Karl Fischer titration for measuring water content

**TraceSELECT™ Inorganics** – Trace and low-metal content analysis

**Solvents** – ACS specific use (HPLC), ACS general use, solvents for histology, and reagent-grade solvents for chemical synthesis and other industrial applications

**Inorganics** – Chemical synthesis and inorganic chemistry including essential acids and bases, salts, metals and elements, and reagents for chemical reactions

### Services and technology

**Chromasolv Blends** for standard catalog and customer-specific blends using proprietary, closed-loop blending technology

**Honeywell LabReady™ Blends** for standard catalog and customer-specific blends using proprietary, closed-loop blending technology

**Special Packaging Technology** for guaranteed, free-flowing powder in hygroscopic inorganics

**Dedicated Packaging for Volumetric Solutions**

**Supply in Larger Quantity**  
**Scalable to Production Requirements**

# Our Services

The growth of our brands and product range is matched by significant expansion of our manufacturing sites, technical services, customer services, global distribution centers, and authorized distributor partners.

These new facilities, services, and partnerships enable us to support you in more ways than ever, offering you: **custom solutions, customer service support, global centers of excellence, advanced manufacturing, global supply chain, and distribution partners.**

## Custom Solutions

### Special Packaging and Returnable Containers

Honeywell solvents and inorganics are available in traditional packaging as well as a variety of specialized or custom packs, suitable for lab scale through to production applications. Our returnable container program is a green solution that helps improve lab safety and increase storage space. The program can also be tailored to your current laboratory processes.

### Custom Blends

Need a bespoke solvent blend? We also produce customized LabReady™ blends using our own proprietary, closed-loop blending technology. Our pre-prepared blends help you:

- save time
- reduce waste
- improve consistency
- enhance safety

### Bulk Orders

We have the technology, capacity, and processes to scale up and meet your needs for larger quantities of a specific product. Since Honeywell produce most of the materials, we can help reduce your costs and waste, as well as improving your production processes by supplying specific or high-volume quantities as required.







## Customer Service Support

Honeywell takes great pride in its customer and product support. Our recently expanded Global Customer Care teams are trained to be responsive and helpful. Each of our multilingual advisors can help you place an order online, track the status of a delivery, and provide you with a quick and courteous answer to your inquiry.

## Global Centers of Excellence

### Hydranal Centers of Excellence: Seelze and St. Louis

Our two Centers of Excellence are dedicated to helping you with common and specialist product technical questions, including support with Karl Fischer (KF) titration queries. Whether it's a packaging enquiry, a technical specification request, a specific question about quality, or advice on a custom formulation, our expert chemists and analytical scientists will respond with a phone call or via email within 72 hours.

The Centers are also responsible for developing application notes, new methodologies, and safer, greener, and more effective Hydranal KF titration reagents.

Backed by decades of hands-on experience, our experts are able to provide step-by-step support to ensure your titrations are successful. The team run regular seminars and workshops in partnership with leading equipment manufacturers. This provides opportunities to meet and learn from other researchers in your field.

If you have any questions on KF titration or our Hydranal products, please contact us at: **[hydranal@honeywell.com](mailto:hydranal@honeywell.com)**

# Our Sites

## Advanced Manufacturing Capabilities

We produce the vast majority of our own products in our advanced manufacturing facilities in Seelze and Muskegon. Both sites are specialized to produce consistent, high-purity products that meet the standards you demand.



<b>Overview</b>	<ul style="list-style-type: none"><li>• The site covers more than 485,000 m<sup>2</sup></li><li>• Operates at the highest standards – TS 16949, ISO 9001, ISO 14001, OSHA 18001, and ISO 50001 accredited</li></ul>
<b>Capabilities and personnel</b>	<ul style="list-style-type: none"><li>• Over 600 employees, with many in specialist R&amp;D positions</li><li>• High-purity hydrogen fluoride production</li><li>• Organic and inorganic bulk production of fine chemicals for the pharmaceutical and agricultural industries</li><li>• Wastewater treatment</li><li>• A fully-equipped, in-house analytical department</li></ul>
<b>Strengths</b>	<ul style="list-style-type: none"><li>• Distillation units from lab scale (2 L) up to 6000 L</li><li>• Fully automatic filling line under laminar flow box to ensure quality</li><li>• All high-purity grades filtered at the point of filling</li><li>• High-quality packaging technology</li><li>• Exceptional lot-to-lot consistency</li></ul>





Muskegon,  
Michigan,  
USA

Overview	<ul style="list-style-type: none"> <li>• The site covers over 34,000 m<sup>2</sup></li> <li>• ISO 9001 certified</li> </ul>
Capabilities and personnel	<ul style="list-style-type: none"> <li>• A fully equipped, in-house analytical department</li> <li>• ABI and AKTA 100 oligo synthesizers</li> <li>• Eight on-site chemists/technologists</li> <li>• Five technical support chemists</li> </ul>
Strengths	<ul style="list-style-type: none"> <li>• Fast-cycle custom products</li> <li>• Fleet assembly methodology</li> <li>• Six Sigma and lean manufacturing</li> <li>• Integrated operations, health, safety &amp; environment, supply chain, technology, procurement, and commercial teams</li> <li>• Excellent safety and environmental record</li> <li>• Excellent lot-to-lot consistency</li> </ul>

## Global Distribution and Authorized Distributors

Whether you order through one of our 260+ authorized distributor partners or directly from us, we can ensure that you receive the right product and pack size, at the right location, at the right time.

Each of our authorized distributors has been selected for their excellent customer orientation, order fulfillment, and distribution capabilities. You can find a list of our current distributors at:

**lab-honeywell.com**

We also have seven high-quality Honeywell Research Chemicals distribution centers located in five continents, which means we can serve you directly, and on time, with the products you need.

# Our Products

The new Honeywell Riedel-de Haën, Burdick & Jackson, Fluka, and Performance portfolios contain a host of products, suitable for a number of different applications. These are grouped into the following five categories:

- **Analytical applications** • **Karl Fischer titration** • **Laboratory essentials**
- **Oligo and peptide synthesis** • **Solvents**

## Analytical Applications

*A broad range of high-quality adsorbents, buffers, volumetric solutions, reagents, standards, and consumables suitable for use in a wide variety of analytical applications.*

### Adsorbents

A selection of adsorbent materials with diameters between 4 and 400 mesh in the form of spherical pellets, rods, and moldings with high thermal stability and a high surface capacity for adsorption.

### Buffers/Volumetric Solutions

More than 800 premium products ranging from buffer solutions (pH 2.5–10) to reagents and additives for complex metric and volumetric titration in glass and plastic bottles.

### Consumables

Products for sample preparation offering high-grade materials for solid phase extraction (SPE), sample extraction, and cleanup products such as QuEChERS (Quick, Easy, Cheap, Effective, Rugged and Safe).

### Reagents

For different and diverse analytical applications, including indicators for different titration methods, reagents for gravimetric analysis, derivatization reagents, and eluents for HPLC, LC-MS, and UHPLC. Our extensive purification and quality controls ensure products meet the highest specifications possible.

## Karl Fischer Titration

*Honeywell offers the world-leading Hydranal product line. You can now enjoy a wide range of pyridine-free Karl Fischer reagents for both volumetric and coulometric titrations for nearly all types of samples, completed by a broad range of standards.*

### Coulometry

Coulometric reagents based on different solvent compositions serve to support the broad variety of samples analyzed. Furthermore, some working techniques are supported by special reagents, i.e. the use of a Karl Fischer oven by Hydranal-Coulomat AG-Oven or the use of a cell without diaphragm by Hydranal-Coulomat AD.

### Volumetry

The latest formulation of Hydranal-Composite reagents improves stability and eliminates the formation of crystals which can interfere with the titrator's performance.

Hydranal-Methanol Rapid containing accelerators, less toxic ethanol-based media (E-type), and methanol-free media for ketones and aldehydes (K-types) have also been developed, as well as the more commonly used dry methanol.

### Water Standards

Hydranal-Water Standards are designed for calibration, validation, and inspection of analytical instruments and reagents. With the double accreditation (ISO/IEC 17025 and ISO Guide 34), Hydranal introduced the very first commercially available CRM (Certified Reference Material) Water Standards for Karl Fischer titration.



## Laboratory Essentials

*A highly diverse range of basic products for your laboratory, including various acids and bases, buffers, metals and elements, organics, reagents, and salts.*

### Acids/Bases

A host of premium acids and bases designed for use in a wide variety of applications. Our acids and bases range from standard grades below ACS to ultra-pure grades under the TraceSELECT product line.

### Metals/Elements

An extensive selection of inorganic laboratory fine chemicals including precious metal chemical compounds and other chemical metal salts.

### Organics

A broad selection of natural and organic products.

### pH Buffers

Buffers manufactured using deionized water with extremely low conductivity to ensure supreme accuracy and stability.

### Reagents

Quality, stockroom, and basic research products with the widest selection of purity grades.

### Salts

A comprehensive range of manufactured, high-quality inorganic salts to meet a variety of applications. Our salts range from standard grades below ACS to ultra-pure grades under the TraceSELECT product line. In addition, we offer free-flowing salts for hygroscopic inorganics.

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## Oligo and Peptide Synthesis

*Solvents and reagents used in the synthesis of biological molecules, oligonucleotides, peptides, and organics. Our products have very low levels of impurities, moisture content, and particulates, ensuring the highest yield of the desired finished product.*

### BioSyn Reagents

Reagents for use in oligonucleotide and peptide synthesis. These reagents are processed, purified, and manufactured to exacting specifications to ensure highest synthesis efficiency. The portfolio includes a variety of reagent dispenser options so that the synthesizers can be directly connected to larger-volume containers to allow the instruments to run continuously over longer periods of time.

### BioSyn Solvents

Solvents used for synthesis of new molecules, oligonucleotides, and peptides. Impurities are analyzed and characterized to enhance the purification process and eliminate them, resulting in high-purity, low-water-content solvents.

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## Solvents

*The most comprehensive range of solvents from the most common grades for use in technical applications to the highest grades for use in UHPLC or LC-MS applications. Our solvents are available in various pack sizes and types including stainless steel returnable drums.*

### Anhydrous Solvents

Specifically manufactured for moisture-sensitive applications including organic synthesis and organometallic, oligonucleotide, and combinatorial chemistry. Water content ranges from less than 10 ppm to less than 50 ppm, with low residue eliminating the need for extra purification and drying steps.

### High-Purity Applications

A selection of high-purity solvents for liquid and gas chromatography, spectrophotometry, and pesticide residue analysis with low trace impurities, water content, and particulate levels as well as unmatched lot-to-lot consistency.

### Honeywell LabReady Blends

Highly customizable blends of high-purity solvents, reagents, and buffers that can be produced to exact specifications, eliminating the need for manual blending and reducing the handling of chemicals for safer work environments.

### Performance-Grade Solvents

All solvents meeting the latest ACS standards, solvents for histology, and reagent-grade solvents for chemical synthesis and other industrial applications.

### Pharmacopeia Solvents

Solvents designed to meet various pharmacopeia requirements.

Discover more about Honeywell Research Chemicals,  
visit: [lab-honeywell.com](http://lab-honeywell.com)



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