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Burdick
& Jackson™

Flk
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Honeywell Research Chemicals

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HONEYWELL RESEARCH CHEMICALS PORTFOLIO
Riedel-de Haën™ Burdick & Jackson™ Fluka™


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CHROMATOGRAPHY
AND ALLIED CHEMICALS

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The perfect choice in **Chemicals and Analytical Reagents**

As an authorized distributor partner for Honeywell Research Chemicals we can offer a choice of premium chemicals and analytical reagents to suit every need. By buying Honeywell products through us you will benefit from our excellent customer service and fast delivery, as well as Honeywell's commitment to product quality.

Quality assured

Honeywell has more than 200 years of experience and innovation in high-quality solvents and reagents. The company's fine chemicals businesses Riedel-de Haën™ and Burdick & Jackson™ are renowned for their technological expertise, precision processing and innovative application support.

Honeywell has recently added Fluka™, Hydranal™, Chromasolv™, and TraceSELECT™ to its portfolio, offering you even more choice.

All of the Honeywell Research Chemicals products will now be manufactured at their quality-assured sites in Germany and the United States. This ensures that every lot is produced to the same exacting standards.

Customization and Choice

Honeywell Research Chemicals has an extensive portfolio, featuring a wide range of solvents, laboratory essentials, and reagents for analytical applications, oligo and peptide synthesis, and Karl Fischer titration.

Our special relationship with Honeywell means we may be able to provide you with custom returnable container solutions, custom blends, and a variety of green solutions.

Support When You Need It

If you need customer service or product support, please contact us directly using the details on the back page.

If you require technical support for Karl Fischer applications, contact Honeywell's Hydranal Center of Excellence at:
hydranal@honeywell.com



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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 Honeywell's commitment to continue innovation in inorganics, solvents, and other essential chemicals has not. Today the portfolio features the following industry leading brands:

Honeywell Riedel-de Haën™

High-purity solvents for dedicated applications including chromatography techniques such as LC-MS, UHPLC, Headspace, and GC; TraceSELECT Solvents for trace and low-metal content analysis; 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 Burdick & Jackson™

High-purity solvents featuring BioSyn™ for DNA, RNA and peptide synthesis.

Honeywell

Solvents and inorganics for general laboratory use.



Services

The growth of the Honeywell Research Chemicals business is matched by significant expansion in their manufacturing sites, technical services, global distribution centers, specialist solutions, and customer services.

Custom Solutions

Special Packaging

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.

Custom Blends

Honeywell produce customized LabReady™ Blends using proprietary, closed-loop blending technology. Using a pre-prepared blend helps you to:

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

Bulk Orders and Custom Packaging

Since Honeywell Research Chemicals produce most of the materials, they can supply tailored quantities from specialist laboratory solutions to bulk production quantities to meet your particular needs. This allows you to reduce your costs and waste. It also means you can acquire specific or high-volume quantities as required.

Global Centers of Excellence

Hydranal Centers of Excellence:

Seelze and St. Louis

Honeywell has two Centers of Excellence 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, Honeywell's expert chemists and analytical scientists will be able to help.

The centers are also responsible for developing application notes, new methods, and the next range of safer, greener, and more effective Hydranal KF titration reagents.

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

If you have any questions on KF titration or Hydranal products, please contact Honeywell at: hydranal@honeywell.com



Honeywell Sites

Advanced Manufacturing Capabilities

Honeywell Research Chemicals produces the majority of its products in its advanced manufacturing facilities in Seelze and Muskegon. Both sites are specialized in the production of consistent, high-purity products that meet the high standards customers demand.



Overview	<ul style="list-style-type: none"> The site covers more than 485,000 m² Operates at the highest standards – TS 16949, ISO 9001, ISO 14001, OSHA 18001, and ISO 50001 accredited 	Overview	<ul style="list-style-type: none"> The site covers over 34,000 m² ISO 9001 certified
Capabilities and personnel	<ul style="list-style-type: none"> Over 600 employees, with many in specialist R&D positions High-purity hydrogen fluoride production Organic and inorganic bulk production of fine chemicals for the pharmaceutical and agricultural industries Wastewater treatment A fully-equipped, in-house analytical department 	Capabilities and personnel	<ul style="list-style-type: none"> A fully equipped, in-house analytical department ABI and AKTA 100 oligo synthesizers Eight on-site chemists/technologists Five technical support chemists
Strengths	<ul style="list-style-type: none"> Distillation units from lab scale (2 L) up to 6000 L Fully automatic filling line under laminar flow box to ensure quality All high-purity grades filtered at the point of filling High-quality packaging technology Exceptional lot-to-lot consistency 	Strengths	<ul style="list-style-type: none"> Fast-cycle custom products Fleet assembly methodology Six Sigma and lean manufacturing Integrated operations, health, safety & environment, supply chain, technology, procurement, and commercial teams Excellent safety and environmental record Excellent lot-to-lot consistency

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.

Volumetric Solutions

More than 800 premium products ranging from buffer solutions (pH 2.5–10) to complexometric and volumetric solutions in glass and plastic bottles.

HPCE Buffers

A complete range of ready-to-use buffers for high performance capillary electrophoresis.

HPLC Additives/Buffers

This range of additives and buffers have very low levels of inorganic and organic impurities. These products are all application tested for consistent quality.

HPLC Additives/Buffers

This range has very low levels of inorganic and organic impurities. They are all application tested for consistent quality.

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. Honeywell's 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. Honeywell 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.

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 high-quality inorganic salts to meet a variety of applications. Honeywell 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.

Oligo and Peptide Synthesis

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

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.

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.

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. Honeywell 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. Chromasolv and TraceSELECT solvents are key product lines of this section.

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.



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HONEYWELL RESEARCH CHEMICALS PORTFOLIO

Riedel-de Haën™ Burdick & Jackson™ Fluka™

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