

Performance Products

- HYDRA-POINT™ Karl Fischer Reagents
- BakerDRY™
- BAKER BIO-ANALYZED™

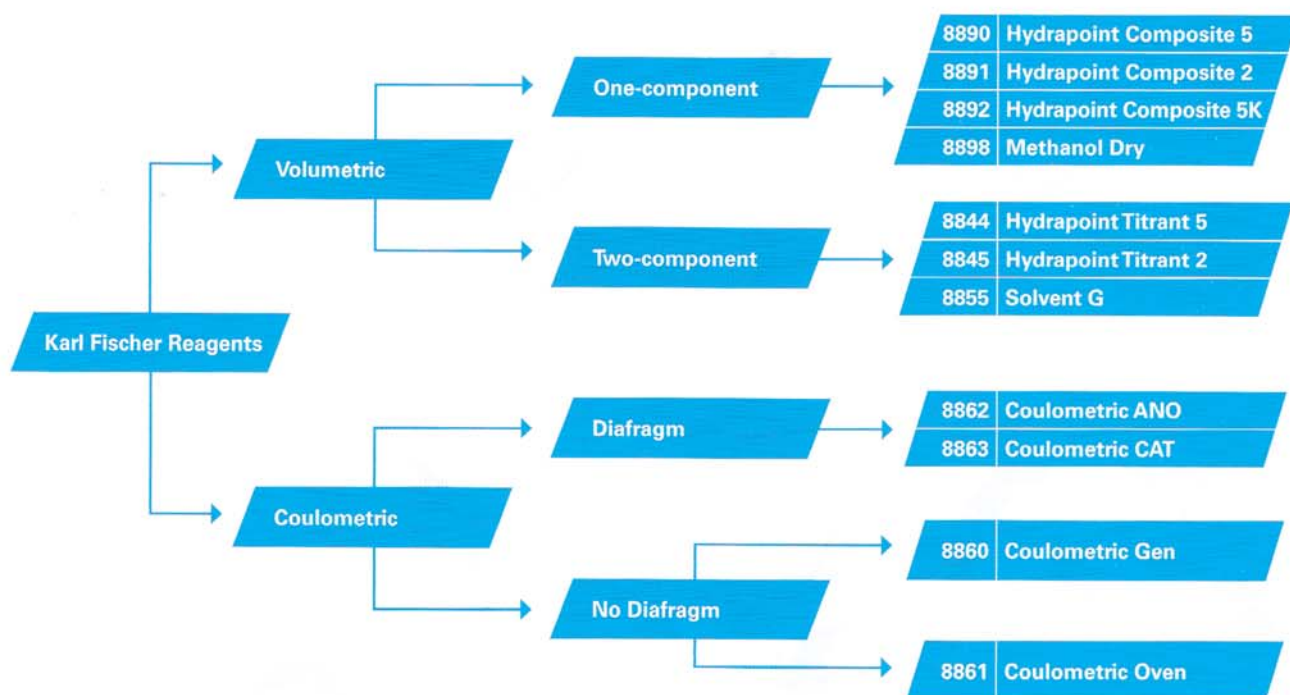
J.T.Baker HYDRA-POINT™ Karl Fischer Reagents - Fast and Accurate

Whether your needs are for volumetric or coulometric systems, HYDRA-POINT Karl Fischer reagents make water determination easy and trouble free. HYDRA-POINT reagents are specially formulated to give you consistent and reliable results for all types of samples.

Productivity - HYDRA-POINT reagents are formulated to reach endpoint quickly, accurately, and with reproducibility, allowing you to perform more titrations in less time.

Accuracy - Comparison studies to other brands prove HYDRA-POINT reagents have titers that are more stable with less drift. Stable titer and drift help save time and reduce reagent usage.

HYDRA-POINT titrants and solvents guarantee fast equilibration within the Karl Fischer reaction vessel, giving greater laboratory efficiency and speed of analysis.



HYDRA-POINT™ VOLUMETRIC KARL FISCHER REAGENTS

HYDRA-POINT Karl Fischer Reagents for volumetric titrations are available in one and two-component systems. One-component systems are for high volume sample use while the two-component systems offer greater speed and accuracy.

Two-component HYDRA-POINT Karl Fischer Reagents

With two-component reagents, the reactants are in two separate solutions. The burette is filled with HYDRA-POINT titrant and the reaction vessel contains HYDRA-POINT solvent. First, the HYDRA-POINT solvent is titrated to dryness with HYDRA-POINT titrant. Then the sample is added and the water content is analyzed by titration.

Product Name	Product Description	Product Number
HYDRA-POINT Titrant 5	Titrant component (5 mg H ₂ O per mL) for volumetric Karl Fischer titration (use with products 8840 or 8855)	8844
HYDRA-POINT Titrant 2	Titrant component (2 mg H ₂ O per mL) for volumetric Karl Fischer titration (use with products 8840 or 8855)	8845
HYDRA-POINT Solvent G	Pyridine-free solvent component for volumetric Karl Fischer titration (use with products 8844 and 8845)	8855

One-component HYDRA-POINT Karl Fischer Reagents

In one-component systems, all the reactants are present in the HYDRA-POINT composite reagent. The sample is put into a methanol solution in the titration vessel. Then the HYDRA-POINT composite is titrated into the titration vessel until the end point is reached.

Product Name	Product Description	Product Number
HYDRA-POINT Composite 5	Pyridine-free, one-component reagent (5 mg H ₂ O per mL) for volumetric Karl Fischer titration	8890
HYDRA-POINT Composite 2	Pyridine-free, one-component reagent (2 mg H ₂ O per mL) for volumetric Karl Fischer titration	8891
HYDRA-POINT Composite 5K	Pyridine-free, one-component reagent for volumetric Karl Fischer titration of ketones (use with product 8898)	8892
HYDRA-POINT Dry Methanol*	Dry methanol (water content max. 0.01%) for Karl Fischer titration	8898

*For additional anhydrous solvents with low water levels, see the BakerDRY anhydrous solvent line.

Additional HYDRA-POINT Reagents

Product Name	Product Description	Product Number
HYDRA-POINT Dry Methanol*	Dry methanol (water content max. 0.01%) for Karl Fischer titration	8898
HYDRA-POINT Buffer	For stabilizing the pH during Karl Fischer titration. The buffer capacity is 5 mmol acid per mL	8899

*For additional anhydrous solvents with low water levels, see the BakerDRY anhydrous solvent line.

HYDRA-POINT™ COULOMETRIC KARL FISCHER REAGENTS

Faster analysis, lower detection limit, increased accuracy, and a trouble-free determination. These are just some advantages of the J.T.Baker® HYDRA-POINT coulometric reagents. These reagents improve both determination and simplicity of analysis.

Coulometric Reagents

Product Name	Product Number
HYDRA-POINT Anode Solution	8862
HYDRA-POINT Cathode Solution	8863
HYDRA-POINT Oven	8861
HYDRA-POINT Gen	8860

Better detection limit - less background noise gives a better signal/noise ratio. A better signal/noise ratio gives a significant increase in detection limit. J.T.Baker® HYDRA-POINT coulometric reagents can measure as low as 1 ppm.

A lower amount of reduction products - HYDRA-POINT coulometric reagents contain a very low amount of reduction products. This means fewer side reactions, which result in a trouble-free determination.

More accurate results - lower background drift of HYDRA-POINT coulometric reagents.

Faster analysis - HYDRA-POINT coulometric reagents have high imidazole concentration, giving faster reaction kinetics.

ANHYDROUS SOLVENTS FOR ORGANIC SYNTHESIS OR OTHER APPLICATIONS

BakerDRY™ ANHYDROUS SOLVENTS

Product Name	Water Content	Product Number
Acetonitrile	10 ppm	9035
BIS (2-methoxyethyl) Ether (Diglyme)	50 ppm	9296
Dichloromethane	60 ppm	9295
Dimethylformamide	20 ppm	9213
Ether (contains no preservative)	10 ppm	9250
Heptane	20 ppm	9365
Hexanes	20 ppm	9277
Methanol	30 ppm	9097
Tetrahydrofuran (contains no preservative)	10 ppm	9446
Tetrahydrofuran (contains BHT)	10 ppm	9447
Toluene	10 ppm	9364

BakerDRY low water solvents eliminate the hazardous, costly and time-consuming purification operations needed to prepare solvents for synthesis applications. Specifically manufactured for use in water-sensitive synthesis, most Baker solvents contain no preservative, maintain less than 10 ppm peroxides and deliver low levels of water and dissolved oxygen, while meeting ACS specifications for reagent chemicals. There is no need for further purification - BakerDRY solvents arrive ready-to-use in your synthesis application. BakerDRY anhydrous solvents are application optimized and function tested for organic, organometallic, and oligonucleotide synthesis.

Application Optimized

- Purified to remove impurities such as water, peroxides, dissolved oxygen, and residue to the lowest levels in the industry
- Many are manufactured without preservatives which would interfere with the application
- Special packaging allows multiple uses while minimizing the introduction of contaminants

Function Tested

- QC tested to confirm high assay and low water, peroxide, and residue after evaporation levels

Most solvents are available in the CYCLE-TAINER™ solvent delivery system.

PRODUCTS FOR DNA/RNA AND PEPTIDE SYNTHESIS

For synthesis of biomolecules, there is no better choice than J.T.Baker BIO-ANALYZED solvents. Specifically engineered, manufactured, and tested to maximize coupling efficiencies and deliver the highest yields in this critical application.

Application Optimized

- Dried to produce the lowest water levels in the industry
- Packaged in closed systems and blanketed with inert gas to maintain the quality and low water content right up to point-of-use
- Purified and distilled to control amine, acid, base, and residue after evaporation levels, which typically limit yields and coupling efficiencies

Function Tested

- Extensive testing for important contaminants ensures optimum performance and consistency
- Additional testing for impurities, such as peroxides, is performed on specific solvents when their presence in elevated levels impact synthesis yields

Products for Biotechnology applications – BAKER BIO-ANALYZED REAGENTS

Product Name	Specification	Product Number
Acetonitrile	Water ≤ 30 ppm	8144
Acetonitrile, Low Water	Water ≤ 10 ppm	9018; 8134
Acetonitrile, Ultra Low Water	Water ≤ 5 ppm	9019
Dichloromethane	Water ≤ 30 ppm; Acidity ≤ 0.0001 meq/g	9316
Dichloromethane	Water ≤ 100 ppm; Acidity ≤ 0.0003 meq/g	9348
Dimethylformamide (DMF)	Amines ≤ 5 ppm, Water ≤ 400ppm	9344
Dimethyl Sulfoxide (DMSO)	Water ≤ 250 ppm	9234
Ethyl acetate	Water ≤ 300 ppm	9276
Methanol	Water ≤ 50 ppm	9098; 9091
1-Methyl-2-pyrrolidone (NMP)	Amines ≤ 0.01%, Water ≤ 200 ppm	9261; 9345
Pyridine, Low Water	Water ≤ 100 ppm	9393
Tetrahydrofuran, Low Water, (contains no preservative)	Water ≤ 50 ppm, Peroxide ≤ 10 ppm	9439
Triethylamine	Water ≤ 0.10%	9111

Products for DNA/RNA Synthesis – BAKER ANALYZED REAGENTS

Product Name	Specification	Product Number
ACTIVATOR ETT	Water ≤ 50 ppm; Molarity (5-Ethylthio-1-H-Tetrazole) 0.28-0.32	9478
ACTIVATOR DCI	Water ≤ 30 ppm; Molarity (Dicyanoimidazole) 0.24-0.26	9479
CAPPING A	Pyridine 9.0-11.0% (v/v); Acetic anhydride 9.0-11.0% (v/v);	9497
CAPPING A	Acetic anhydride 8.2-10.0% (v/v);	9510
CAPPING B	1-Methylimidazole 15.2-16.8% (v/v);	9485
CAPPING B	1-Methylimidazole 9.5-10.5% (v/v); Pyridine 9.5-10.5% (v/v);	9512
DEBLOCK TCA-DCM	Water ≤ 150 ppm	9448
DEBLOCK TCA-DCE	Water ≤ 100 ppm	9449
DEBLOCK-TCA	Water ≤ 150 ppm	9451
DEBLOCK-DCA	Water ≤ 150 ppm	9518
OXIDIZING	Pyridine 18.5-21.0% (v/v);	9488
OXIDIZING	Iodine 3.87-4.73 g/L; Iodine 0.015-0.019 mol/L	9519

Most solvents are available in the CYCLE-TAINER solvent delivery system.

For additional anhydrous solvents with low water levels, see the BakerDRY anhydrous solvent line.