

**BURDICK &  
JACKSON™  
BIOSYN™**

# OLIGONUCLEOTIDE SYNTHESIS SOLUTIONS

Reagents, Solvents, & Packaging Solutions for DNA / RNA Synthesis

---

Europe

---



**Honeywell**

# DNA AND RNA SYNTHESIS REAGENTS AND SOLVENTS

Burdick & Jackson™ BioSyn™ solvents and reagents are specially processed and purified to exacting specifications, ensuring outstanding oligonucleotide synthesis yield and purity. Established pharmaceutical and biotech companies in Europe trust Honeywell to serve and support their therapeutic, diagnostic, and research applications.

The BioSyn™ portfolio encompasses a wide range of DNA and RNA synthesis solutions to support each phase of the oligonucleotide synthesis cycle. In addition to our core reagents and solvents, Honeywell can customize reagent blends as well as provide downstream solutions to achieve your synthesis targets. Our portfolio caters to the needs of innovators in pharmaceutical and biotech companies, contract development and manufacturing organizations (CDMOs), and research institutions. As demand for oligonucleotide therapeutics and

diagnostics expands, Honeywell is an ISO 9001 certified partner with manufacturing facilities on multiple continents, supporting growth from laboratory scale to production levels.

Built on a foundation of proven processes and supporting patents, our BioSyn Reagents and Solvents are manufactured with industry recognized high quality and batch-to-batch consistency. Pharmaceutical and biotech companies choose our solutions for their consistently low water content, stable shelf life, and customizability.

We offer flexible packaging options, ranging from glass to returnable containers, all with direct connections to popular synthesizers. All returnable containers are blanketed with inert gas to ensure reagents and solvents are protected from atmospheric contamination. Additionally, Honeywell's platform provides visibility to track your container throughout the return-to-refill cycle. Contact our technical support experts to discuss custom reagent formulations, specifications, and environmentally conscious packaging requirements.



## ENVIRONMENTALLY SUSTAINABLE PACKAGING OPTIONS

BioSyn reagents and solvents are available in glass bottles for laboratory-scale volume requirements. As you sustainably scale your processes, we offer a cost-savings calculator to help determine the point at which upgrading to returnable containers can benefit your organization, while achieving environmental health and safety objectives. Returnable stainless steel containers are available in 18 L to 1400 L, with connections customized to your workflow.

# OLIGONUCLEOTIDE SYNTHESIS

## 1. DEBLOCKING (DETRITYLATION)

### Deblocking Reagents

- 3% Trichloroacetic acid in Dichloromethane (v/v)
- 3% Dichloroacetic acid in Dichloromethane (v/v)
- 3% Dichloroacetic acid in Toluene (v/v)
- 10% Dichloroacetic acid in Toluene (v/v)

## 3. OXIDATION

### Oxidation Reagents

- 0.02M Iodine, 2% Water, 20% Pyridine, 78% THF (v/v/v/v)
- 0.05M Iodine, 10% Water, 90% Pyridine (v/v)
- 0.02M Iodine, 10% Water, 0.4% Pyridine, 89.6% THF (v/v)
- 0.02M Iodine, 10% Water, 20% Pyridine, 70% THF (v/v/v/v)
- 0.05M Iodine, 10% Water, 10% Pyridine, 80% Acetonitrile (v/v/v/v)

**Sulfurization reagents available upon request.**

## 2. ACTIVATION/ COUPLING

### Activation Reagents

#### BMT

- 0.30M 5-Benzylthio-1H-tetrazole, 0.5% NMI, 99.5% Acetonitrile<sup>1</sup>

#### ETT

- 0.25M 5-Ethylthio-1H-tetrazole in Acetonitrile
- 0.5M 5-Ethylthio-1H-tetrazole in Acetonitrile
- 0.6M 5-Ethylthio-1H-tetrazole in Acetonitrile

**Alternate Activation Reagents Available**  
**4,5-Dicyanoimidazole (DCI), 5-Benzylthio-1H-Tetrazole (BTT), etc.**

## 4. CAPPING

### Capping Reagents

- 10% Acetic Anhydride, 10% 2,6-Lutidine, 80% THF (v/v/v/v)
- 10% Acetic Anhydride, 10% Pyridine, 80% THF (v/v/v/v)
- 10% Acetic Anhydride, 90% THF (v/v)
- 20% Acetic Anhydride, 30% 2,6-Lutidine, 50% Acetonitrile (v/v/v/v)<sup>2</sup>
- 16% N-Methylimidazole, 84% THF (v/v)
- 10% N-Methylimidazole, 90% THF (v/v)
- 10% N-Methylimidazole, 10% Pyridine, 80% THF (v/v/v/v)
- 20% N-Methylimidazole, 80% Acetonitrile (v/v)

## EXPANDED BURDICK & JACKSON BIOSYN

### WASH SOLVENTS AND RELATED PRODUCTS

- Acetonitrile<sup>3</sup>
- Dichloromethane
- Pyridine
- Tetrahydrofuran
- Triethylamine
- Trifluoroacetic acid

### CUSTOM BLENDING CAPABILITIES

Honeywell offers custom blends for each step of the Oligonucleotide Synthesis process. Click here to contact us with questions and requests.

### CLEAVAGE AND DEPROTECTION REAGENTS

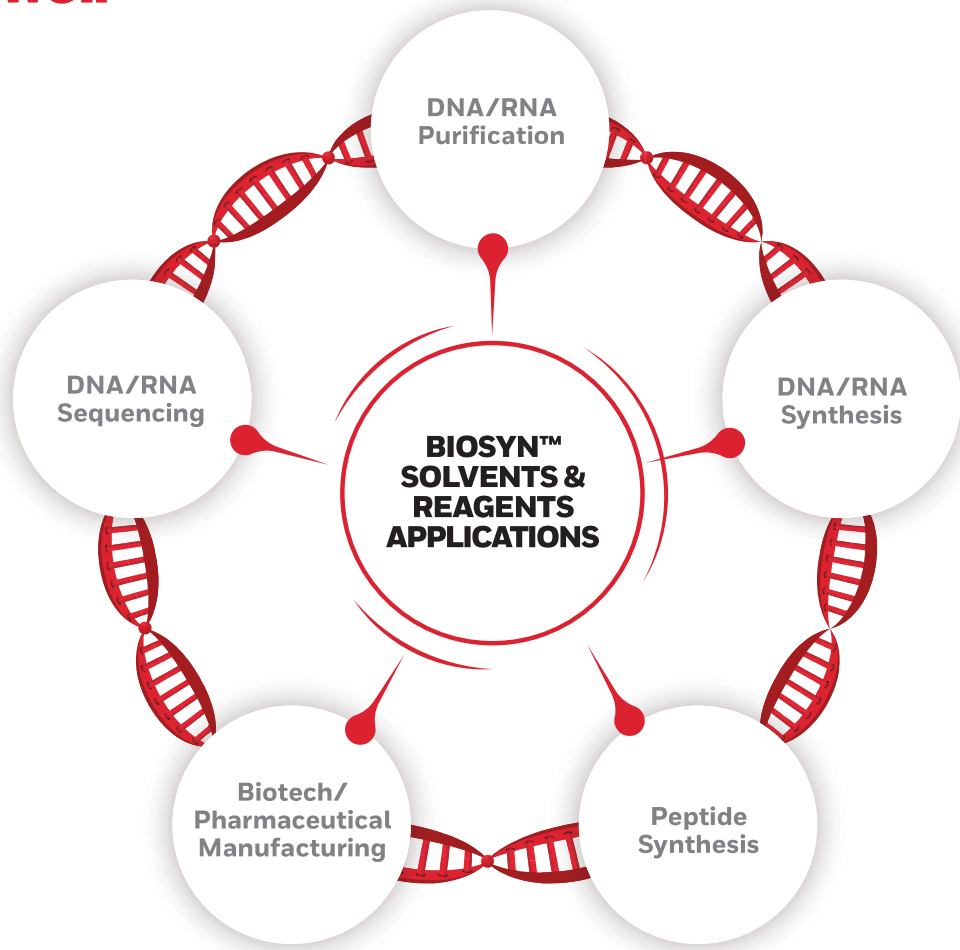
Concentrated ammonium hydroxide solutions are available for cleaving Oligonucleotides from the solid support.

### BUFFER SOLUTIONS

Custom buffer solutions tailored to customer requirements are available upon request.

### ENVIRONMENTALLY FRIENDLY PACKAGING SOLUTIONS

All of these solutions are available in a wide range of safe packaging solutions with direct connections to popular synthesizers.



<sup>1</sup> US Patent 7,339,052

<sup>2</sup> GE Healthcare product designation for this formulation: Capping B

<sup>3</sup> Ideal for use as diluent and washing reagent

**Have a unique formulation?  
Contact us at  
<https://lab.honeywell.com/en/contact-us>**

**For more information**

To learn more about  
Honeywell Research Chemicals, visit  
[www.lab.honeywell.com](http://www.lab.honeywell.com)

**Honeywell Specialty  
Chemicals Seelze GmbH**

Wunstorfer Strasse 40  
D-30926 Seelze, Germany  
Contact us at [RCC@Honeywell.com](mailto:RCC@Honeywell.com)

All statements and information provided herein are believed to be accurate and reliable, but are presented without guarantee, warranty or responsibility of any kind, express or implied. Statements or suggestions concerning possible use of our products are made without representation or warranty that any such use is free of patent infringement, and are not recommendations to infringe any patent. The user should not assume that all safety measures are indicated herein, or that other measures may not be required. User assumes all liability for use of the information and results obtained.



Burdick & Jackson™ and BioSyn™ are registered trademarks of Honeywell International Inc.

BR0-22-56-EN | 441DS | 04/24  
© 2024 Honeywell International Inc.

**THE  
FUTURE  
IS  
WHAT  
WE  
MAKE IT**

**Honeywell**