



## Hanna Calibration Solutions, Buffers & Standards

Hanna's **buffer solutions** are made from established formulas and are standardized with a pH meter that is calibrated to the NIST primary standard buffer solutions. The 20 mL sachets offer the convenience of a premeasured, ready-to-use calibration solution while eliminating any possibility of cross contamination. The pH 4, 7, and 10 buffers also carry lot #, expiration date, and pH/°C chart on every bottle.

Hanna pH buffers are made of Potassium Di-Hydrogen Phosphate and Di-Sodium Hydrogen Phosphate and are standardized with a pH meter that is calibrated to NIST primary standard buffer solutions (NIST 186Ie & 186IIe and NIST 185g S.R.M.).

Hanna also manufactures preformulated Conductivity and TDS solutions for lab and field calibration in 20 mL sachets, as well as 500 mL, one liter, and one gallon size bottles. Each solution is prepared using high-grade Potassium Chloride standardized with a meter pre-calibrated with NIST 999 KCl and conforming to NIST 2201 Silver Nitrate solution.

Our solutions are also available in FDA-approved, opaque bottles which stop light from interfering with the solutions' carefully balanced value.



- Excellent quality
- Complete range of solutions and sizes
- Certificates of analysis available
- FDA approved bottles available
- Temperature reference chart on each solution



# Hanna Calibration Solutions, Buffers, & Standards

## pH 4.01 Buffer Solutions

Part No.	pH Value at 25°C	Size	Quantity per Package
HI 70004P	4.01	20 mL	25
HI 7004P/5	4.01	20 mL	500
HI 7004L	4.01	500 mL	1
HI 7004/1L	4.01	1 Liter	1
HI 7004/1G	4.01	1 US Gallon	1

## pH 7.01 Buffer Solutions

Part No.	pH Value at 25°C	Size	Quantity per Package
HI 70007P	7.01	20 mL	25
HI 7007P/5	7.01	20 mL	500
HI 7007L	7.01	500 mL	1
HI 7007/1L	7.01	1 Liter	1
HI 7007/1G	7.01	1 US Gallon	1

## pH 10.01 Buffer Solutions

Part No.	pH Value at 25°C	Size	Quantity per Package
HI 70010P	10.01	20 mL	25
HI 70010P/5	10.01	20 mL	500
HI 7010L	10.01	500 mL	1
HI 7010/1L	10.01	1 Liter	1
HI 7010/1G	10.01	1 US Gallon	1



Many sizes of  
Hanna solutions  
are available.



Certificates of  
analysis are available.

- Convenient, easy-to-use sachets

## Cleaning and Storage Solutions

Part No.	Description	Size	Quantity per Package
<b>Electrode Cleaning Solutions</b>			
HI 70000P	Deionized rinse solution	20 mL	25
HI 7061L	General purpose solution	460 mL	1
HI 7073L	Protein cleaning solution	460 mL	1
HI 7074L	Inorganic cleaning solution	460 mL	1
HI 7077L	Oil and fat cleaning solution	460 mL	1

## Storage and ORP Pretreatment Solutions

HI 7021L	ORP test solution 240 mV	500 mL	1
HI 7022L	ORP test solution 470 mV	500 mL	1
HI 70300L	Storage solution	460 mL	1
HI 7091L	Pretreatment reducing solution	460 mL	1
HI 7092L	Pretreatment oxidizing solution	460 mL	1

## Conductivity Standards

Part No.	Conductivity Value at 25°C	Size	Quantity per Package
HI 70030P	12880 $\mu\text{S/cm}$ ( $\mu\text{mho/cm}$ )	20 mL	25
HI 7030M	12880 $\mu\text{S/cm}$ ( $\mu\text{mho/cm}$ )	230 mL	1
HI 7030L	12880 $\mu\text{S/cm}$ ( $\mu\text{mho/cm}$ )	460 mL	1
HI 70031P	1413 $\mu\text{S/cm}$ ( $\mu\text{mho/cm}$ )	20 mL	25
HI 7031M	1413 $\mu\text{S/cm}$ ( $\mu\text{mho/cm}$ )	230 mL	1
HI 7031L	1413 $\mu\text{S/cm}$ ( $\mu\text{mho/cm}$ )	460 mL	1
HI 70033P	84 $\mu\text{S/cm}$ ( $\mu\text{mho/cm}$ )	20 mL	25
HI 7033L	84 $\mu\text{S/cm}$ ( $\mu\text{mho/cm}$ )	460 mL	1

## TDS Standards

Part No.	TDS Value at 25°C	Size	Quantity per Package
HI 70080P	800 ppm (mg/L)	20 mL	25
HI 70032P	1382 ppm (mg/L)	20 mL	25
HI 7032L	1382 ppm (mg/L)	460 mL	1
HI 70442P*	1500 ppm (mg/L)	20 mL	25
HI 70442L*	1500 ppm (mg/L)	460 mL	1
HI 70038P	6.44 ppt (g/L)	20 mL	25

\*4-4-2 solution with approx. 0.65 ppm= $1\mu\text{S/cm}$  conversion rate.

Authorized Distributor:

