



# RICCA Ready-to-Use Titrants & Standards

RICCA CHEMICAL COMPANY has the widest selection when it comes to laboratory titrants and standards, with a variety of packaging configurations and extensive custom capabilities. Our products are utilized in many market segments and laboratory applications including: Pharmaceutical, Environmental, Pulp and Paper, Food and Beverage, Oil & Gas, and Clinical Laboratories. Our rigorous quality system ensures that you receive a superior product and our sales team ensures you will receive competitive pricing. Partner with RICCA CHEMICAL COMPANY to provide your customers with the standards and service they have come to expect.







## The RICCA Advantage:

- Multiple manufacturing facilities
- Industry degreed staff from inside sales to technical support
- Detailed C of A's available online 24/7
- Products are assigned a unique lot number at manufacture
- Wide range of packaging options
- The tightest specifications available in the industry with low lot to lot variance
- The ability to create custom solutions for your laboratory application
- NIST Traceability

## Offering:

- Ion Selective Electrode standards, Ionic Strength Adjustors, and Electrode Maintenance Solutions
- Wide range of Conductivity Standard Concentrations
- AA and ICP Standards are available in various concentrations and matrices
- Turbidity Standards ranging from 0 to 4,000 NTU
- Color Standards for USP/EP, APHA, and ASTM methods
- Large range of standardized Acids and Bases for Acidity/Alkalinity testing with accompanying indicators
- Both Aqueous and Non-Aqueous Titrant formulations available
- Reagents for specific test methods and compendia available

## RICCA High Quality Standards

### **AA/ICP Standards**

VWR Cat. No.

**RCR2291200500N** Copper AA, 25 ppm in 5% HCl 500mL **RCR2293200500N** Copper AA, 50 ppm in 5% HCl 500mL **RCAFE1KH-100** Iron AA, 1000 ppm in HCl 100mL **RCAB1KW-500** Boron AA, 1000 ppm in  $H_2O$  500mL **RCANA1KW-500** Sodium AA, 1000 ppm in  $H_2O$  500mL **RCPAS10KN-500** Arsenic ICP 10K ppm in HNO $_3$  500mL **RCPPT1KH-100** Platinum ICP 1,000 ppm in HCl 100mL

## **Conductivity Standards**

VWR Cat. No.

RC5887-32 KCI Cond Standard, 100 ·S/cm 1L
RC5887-16 KCI Cond Standard, 100 ·S/cm 500mL
RC5888.01-32 KCI Cond Standard, 1000 ·S/cm 1L
RC5888.10-1 KCI Cond Standard, 10,000 ·S/cm 4L
RC2236-16 NaCI Cond Standard, 10 ·S/cm 500mL
RC223716 NaCI Cond Standard, 100 ·S/cm 500mL
RC224316 NaCI Cond Standard, 1000 ·S/cm 500mL
RC224616 NaCI Cond Standard, 10,000 ·S/cm 500mL
RC224516 NaCI Cond Standard, 5000 ·S/cm 500mL

# Ion Chromatography

VWR Cat. No.

RC3171-16 Fluoride Standard, 100 ppm F<sup>-</sup> 500mL
RC2543-4 Cyanide Standard, 1000 ppm CN<sup>-</sup>
RC545516 Nitrogen Standard, 1000 ppm N as NH<sub>3</sub>
RC8112-16 Sulfate Standard, 1000 ppm SO<sub>4</sub> 500mL
RC195016 Chloride Standard, 500 ppm Cl<sup>-</sup> 500mL
RC5307.1-4 Nitrate IC Standard, 100 ppm NO<sub>3</sub> 120mL
RC1174-4 Bromide IC Standard, 100 ppm Br<sup>-</sup> 120mL

#### **ORP Standards**

VWR Cat. No.

RC5464.5-16 ORP Standard, 200 mV 500mL
RC5464.5-4 ORP Standard, 200 mV 120mL
RC5464.6-16 ORP Standard, 600 mV 500mL
RC5464.6-4 ORP Standard, 600 mV 120mL
RC988032 ZoBell's Solution, ORP Standard 1L
RC988016 ZoBell's Solution, ORP Standard 500mL
RC9881-4 Zobell's Solution, Mod, 100 mV 120mL
RC9881-32 Zobell's Solution, Mod, 100 mV 1L
RC433016 Light's Solution, ORP Standard 500mL
RC433032 Light's Solution, ORP Standard 1L

#### Color Standards

VWR Cat. No.

RC223016 Color Standard, APHA, No. 500 500mL RC2230.5-16 Color Standard, APHA, No. 10 500mL RC249516 Cupric Sulfate CS/EP Blue 500mL RC3110-4 Ferric Chloride CS/EP Yellow 120mL RC2210-4 Cobaltous Chloride CS/EP Red 120mL RCR2883100120C EP Reference Solution Y 120mL

## TOC/BOD/DO Standards

**VWR Cat. No** 

RC184516 Carbon Standard, Inorganic, 1000 ppm C 500mL RC184716 Carbon Standard, Organic, 1000 ppm C 500mL RC2228-16 COD Standard, 300 ppm COD 500mL RC9420-16 Zero Oxygen Solution 500mL RC586816 Pot Acid Phthalate, 1000 ppm COD 500mL

## ISE Standards and Reagents

VWR Cat. No.

RC86701 TISAB II, for Fluoride ISE 4L
RC592016 Potassium Chloride, 4 M w/AgCl 500mL
RC412816 Ionic Strength Adjustor, Ammonia 500mL
RC413032 Ionic Strength Adjustor, Sodium ISE 1L
RC2232.5-16 pH/Cond Standard, pH 4.01, 4.49 mS 500mL
RC749616 Sodium Nitrate 5M 500mL
RC3173-16 Fluoride Standard, 1000 ppm F<sup>-</sup> 500mL
RC1955-4 Chloride Standard, 1000 ppm Cl<sup>-</sup> 120mL

## Turbidity & TCLP Standards

VWR Cat. No.

RC8825-16 Turbidity Standard, 1000 NTU 500mL RC8830-16 Turbidity Standard, 4000 NTU 500mL RC8830-32 Turbidity Standard, 4000 NTU 1L RC83771 TCLP Extraction Fluid 4L RC83781 TCLP Extraction Fluid 4L RCRTCLPHG-100 TCLP Mercury 20 ppm 100mL RCRTCLP-500 TCLP Standard 500mL

## TDS Standards VWR Cat. No.

RC8661-32 Synthetic Fresh Water, Very Soft 1L RC8661-1 Synthetic Fresh Water, Very Soft 4L RC8662-32 Synthetic Fresh Water, Soft 1L RC8663-32 Synthetic Fresh Water, Med Hard 1L RC8664-1 Synthetic Fresh Water, Hard 4L

## **Precision Titrants**

### Standardized Acids

VWR Cat. No.

RC36005 Hydrochloric Acid, 0.1 N 20L

RC36505 Hydrochloric Acid, 0.5 N 20L

RC35971 Hydrochloric Acid, 0.05 N 4L

RC370032 Hydrochloric Acid, 1 N 1L

RC82001 Sulfuric Acid, 0.02 N 4L

RC82701 Sulfuric Acid, 0.25 N 4L

**RC82501** Sulfuric Acid, 0.1 N 4L

RC82601 Sulfuric Acid, 0.2 N 4L

RC830032 Sulfuric Acid, 1 N 1L

#### Standardized Bases

VWR Cat. No.

RC73505 Sodium Hydroxide, 0.1 N 20L

**RC73745** Sodium Hydroxide, 0.3125 N 20L

RC740032 Sodium Hydroxide, 0.5 N 1L

RC745032 Sodium Hydroxide, 1 N 1L

RC62005 Potassium Hydroxide, 0.1 N 20L

RC623032 Potassium Hydroxide, 0.5 N 1L

RC62501 Potassium Hydroxide, 1.0 N 4L

### **EDTA**

VWR Cat. No.

RC2692-16 EDTA Titrant, 0.001 M 500mL

RC2697-16 EDTA Titrant, 0.005 M 500mL

**RC27001** EDTA Titrant, 0.01 M 4L

RC2702-32 EDTA Titrant, 0.02 M 1L

RC2703-1 EDTA Titrant, 0.025 M 4L

RC270532 EDTA Titrant, 0.05 M 1L

**RC27101** EDTA Titrant. 0.0575 M 4L

**RC273032** EDTA Titrant, 0.1 M 1L

### Non Aqueous

VWR Cat. No.

**RC6257-32** Potassium Hydroxide, O.1N in Isopropanol 1*L* **RC62601** Potassium Hydroxide, O.1 N in Methanol 4*L* 

RC626132 Potassium Hydroxide, 0.5 N in Methanol 1L

**RC6265-32** Potassium Hydroxide, 0.5 N in SDA 1L

RC38001 Hydrochloric Acid, 0.1 N in Isopropanol 4L

RC3802-1 Hydrochloric Acid, 0.2 N in Isopropanol 4L

RC380532 Hydrochloric Acid, 0.5 N in Isopropanol 1L

#### **lodine**

VWR Cat. No.

**RC3971-1** lodine, 0.01 N 4L

RC397332 lodine, 0.02 N 1L

RC397532 lodine, 0.025 N 1L

**RC39901** lodine, 0.0473 N 4L

RC400032 lodine, 0.1 N 1L

## Oxidation/Reduction

VWR Cat. No.

**RC5750-32** Phenylarsine Oxide, 0.00564 N 1L

RC789032 Sodium Thiosulfate, 0.01 N 1L

RC790032 Sodium Thiosulfate, 0.025 N 1L

RC79305 Sodium Thiosulfate, 0.0394 N 20L

RC79505 Sodium Thiosulfate, O.1 N 20L

RC7970-5 Sodium Thiosulfate, 1 N 20L

RC1900-5 Ceric Sulfate, 0.1 N 20L

RC637032 Potassium Permanganate, 0.01 N 1L

RC6390-1 Potassium Permanganate, 0.05 N 4L

RC640032 Potassium Permanganate, 0.1 N 1L

**RC1166-1** Bromate-Bromide, 0.025 N 4L

RC11701 Bromate-Bromide. 0.1 N 4L

RC315032 Ferrous Ammonium Sulfate, 0.25 N 1L

#### Others

VWR Cat. No.

RC62751 Potassium Iodate, 0.1 N 4L

RC62801 Pot lodate-lodide, 0.0125 N 4L

**RC6285-1** Pot lodate-lodide, 0.1 N 4L

RC65801 Potassium Thiocyanate, 0.1 N 4L

RC65821 Potassium Thiocyanate, 0.2 N 4L

**RC470532** Mercuric Nitrate, 0.0141 N 1L

RC474032 Mercuric Nitrate, 0.141 N 1L

RC64132 Ammonium Hydroxide, 0.5 N 1L

RC69532 Ammonium Thiocyanate, 0.1 N 1L

RICCA provides free samples on most products, so you can try before you buy.

# **Specification Tolerance Comparisons**

ITEM

Silver Nitrate, 1 mL = 1 mg Cl

Sodium Hydroxide, 0.100 Normal

Sodium Thiosulfate, 0.100 Normal

Silver Nitrate, 0.100 Normal

Sulfuric Acid, 0.100 Normal

Sulfuric Acid, 1.00 Normal

Calcium Standard, 1,000 ppm	5	10
EDTA, 1 mL = 1 mg CaCO3	0.001	0.05
Hydrochloric Acid, 0.100 Normal	0.0001	0.0005
Hydrochloric Acid, 1.00 Normal	0.001	0.005
lodine, 0.100 Normal	0.0002	0.0005
Nitric Acid, 0.100 Normal	0.0001	0.0005
Potassium Hydroxide, 0.100 N.	0.0001	0.0005
Potassium Permanganate, 0.100 N.	0.0001	0.0005

**RICCA** 

0.00001

0.0001

0.0001

0.0001

0.0001

0.001



COMPETITORS

0.005

0.0005

0.0005

0.0005

0.0005

0.005

makes no claims or warranties concerning sustainable/green products. Any claims concerning sustainable/green products are the sole claims of the manufacturer and not those of VWR International, LLC. All prices are in US dollars unless otherwise noted. Offers valid in US, void where prohibited by law or company policy, while supplies last. | VWR, the VWR logo and variations on the foregoing are registered (®) or unregistered trademarks and service marks, of VWR International, LLC and its related companies. All other marks referenced are registered by their respective owner(s). | Visit vwr.com to view our privacy policy, trademark owners and additional disclaimers. ©2017 VWR International, LLC. All rights reserved.

0317 Lit. No. 18001W