

# Certificate of Analysis

**Water, ACS Reagent Grade, ASTM Type I, ASTM Type II  
 Packaged in plastic containers**

**Lot Number:** 1205C71

**Product Number:** 9150

**Date Packaged:** MAY 11, 2022

**Expiration Date:** NOV 2023

This product is manufactured by a continuous process that has been validated to produce high purity Water meeting, as a minimum, the specifications below at the time of packaging. This water also meets ASTM Type III and Type IV specifications. The analysis results are from the most recent scheduled monitoring.

This product is not certified to meet USP and EP Purified Water specifications. The RICCA CHEMICAL COMPANY catalog number for USP / EP Purified Water is 9190.

## Contains

H<sub>2</sub>O CAS No. 7732-18-5 MW 18.02

| Test   | Specification    | Result        |
|--|------------------|---------------|
| Appearance                                     | Colorless liquid | Passed        |
| Chloride (Cl)                                  | max 1 ppb        | 0.04 ppb      |
| Conductivity at 25°C                           | max 0.056        | 0.056 µS/cm   |
| Heavy Metals (as Pb)                           | max 0.01 ppm     | < 0.01 ppm    |
| Nitrate (NO <sub>3</sub> )                     | max 0.4 ppm      | 0.00002 ppm   |
| Organic Carbon (TOC)                           | max 50 ppb       | 12 ppb        |
| Oxidizable Substances (Permanganate Retention) | To Pass Test     | Passed        |
| Phosphate (PO <sub>4</sub> )                   | max 1.0 ppm      | < 0.00002 ppm |
| Silicate (as SiO <sub>2</sub> )                | max 3 ppb        | < 1 ppb       |
| Sodium (Na)                                    | max 1 ppb        | < 0.01 ppb    |
| Sulfate (SO <sub>4</sub> )                     | max 1.0 ppm      | < 0.00005 ppm |

| Specification           | Reference     |
|-------------------------|---------------|
| Reagent Water           | ACS (N/A)     |
| Reagent Water, Type I   | ASTM (D 1193) |
| Reagent Water, Type II  | ASTM (D 1193) |
| Reagent Water, Type III | ASTM (D 1193) |
| Reagent Water, Type IV  | ASTM (D 1193) |

This water is specially purified by conventional water softening, prefiltration, activated carbon organic adsorption, reverse osmosis, mixed bed triple deionization, ultraviolet light irradiation, and 0.2 micron membrane filtration. Consult RICCA CHEMICAL COMPANY Technical Reference Document TRD02 (for lot numbers starting with 1) or TRD03 (for lot numbers starting with 2) for details of the water purification process.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 9150-5      | 20 L Cubitainer®    | 18 months                       |

**Recommended Storage:** 15°C - 30°C (59°F - 86°F)

A handwritten signature in black ink, appearing to read 'Jason Thomas', is displayed on a light gray rectangular background.

Jason Thomas (05/11/2022)

Operations Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.