

# Certificate of Analysis

**Water, HPLC Grade**  
**ACS Reagent Grade, Suitable for Liquid Chromatography**

**Lot Number:** 2401H17

**Product Number:** 9153

**Date Packaged:** JAN 19, 2024

**Expiration Date:** JUL 2025

This product is manufactured by a continuous process that has been validated to produce high purity Water meeting, as a minimum, the specifications below. The analysis results are from the most recent scheduled monitoring.

## Contains

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

| Test   | Specification   | Result        |
|--|-----------------|---------------|
| Chloride (Cl)                                  | max 0.4 ppm     | 0.00017 ppm   |
| Conductivity at 25°C                           | max 0.056 µS/cm | 0.055 µS/cm   |
| Heavy Metals (as Pb)                           | max 0.01 ppm    | < 0.01 ppm    |
| LC Suitability (Absorbance)                    | To Pass Test    | Passed        |
| LC Suitability (Gradient Elution Test)         | To Pass Test    | Passed        |
| Nitrate (NO <sub>3</sub> )                     | max 0.4 ppm     | < 0.00002 ppm |
| Organic Carbon (TOC)                           | max 50 ppb      | 27 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 0.01 ppm    | < 0.0005 ppm  |
| Sulfate (SO <sub>4</sub> )                     | max 1.0 ppm     | < 0.00005 ppm |

| Specification  | Reference |
|--|-----------|
| Water, Reagent, Suitable for Ultraviolet Spectrophotometry and Liquid Chromatography | ACS (N/A) |

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) |
|-------------|---------------------|---------------------------------|
| 9153-32     | 1 L amber glass     | 18 months                       |

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



Jose Pena (01/19/2024)

Operations Manager

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

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