1490 Lammers Pike Batesville, IN 47006 http://www.riccachemical.com 1-888-GO-RICCA

customerservice@riccachemical.com

Certificate of Analysis

Sulfuric Acid, 20% (v/v), Reagent Grade

Lot Number: 4307L32 Product Number: 8165

Manufacture Date: JUL 26, 2023

Expiration Date: JUL 2026

| Name | CAS# | Grade |
|---------------|-----------|-----------------|
| Water | 7732-18-5 | ACS/ASTM/USP/EP |
| Sulfuric Acid | 7664-93-9 | Reagent |

| Test | Specification | Result | NIST SRM# |
|--|---------------------|---------------|-----------|
| Appearance | Colorless liquid | Passed | |
| Assay (vs. Sodium Hydroxide/Phenolphthalein) | 19.97-20.03 % (v/v) | 20.01 % (v/v) | 84 |

| Specification | Reference |
|------------------------------|---------------------|
| Sulfuric acid, 20% by volume | TAPPI (T 624 cm-85) |
| Sulfuric Acid (1:4) | EPA (330.3) |
| Sulfuric Acid Solution (1:4) | EPA (320.1) |
| Sulfuric Acid (1+4) | ASTM (D 128) |
| Sulfuric Acid (1:4) | EPA (330.1) |
| Sulfuric Acid Solution (1:4) | EPA (330.2) |
| Sulfuric Acid Solution (1:4) | EPA (345.1) |

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| 8165-1 | 4 L natural poly | 36 months |
| 8165-32 | 1 L natural poly | 36 months |

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

Paul Brandon (07/26/2023)

Production Manager

This document 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.

Version: 1.3 Lot Number: 4307L32 Product Number: 8165 Page 1 of 1