

Certificate of Analysis

Hydrochloric Acid, 20% (v/v)

Lot Number: 1404K30

Product Number: 3574

Manufacture Date: APR 24, 2024

Expiration Date: APR 2027

| Name | CAS# | Grade |
|-------------------|-----------|-----------------|
| Water | 7732-18-5 | ACS/ASTM/USP/EP |
| Hydrochloric Acid | 7647-01-0 | ACS |

| Test | Specification | Result | NIST SRM# |
|--|--|---------------|-----------|
| Appearance | Colorless to slightly greenish-yellow liquid | Passed | |
| Assay (vs. Sodium Hydroxide/Phenolphthalein) | 19.92-20.08 % (v/v) | 20.02 % (v/v) | 84 |

| Specification | Reference |
|----------------------------------|-----------------|
| Hydrochloric Acid (1+4) | ASTM (D 4994 B) |
| Hydrochloric Acid Solution (1:4) | EPA (320.1) |
| Hydrochloric Acid (1+4) | ASTM (D 932) |
| Hydrochloric Acid (1+4) | ASTM (D 1126) |
| Hydrochloric Acid (1+4) | ASTM (D 1425) |

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) |
|-------------|---------------------|---------------------------------|
| 3574-1 | 4 L natural poly | 36 months |
| 3574-16 | 500 mL natural poly | 36 months |
| 3574-2.5 | 10 L Cubitainer® | 36 months |

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



Heidi J Green (04/24/2024)
 Operations Manager

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