

**CERTIFICATE OF ANALYSIS**

|                                 |                                      |
|---------------------------------|--------------------------------------|
| <b>Product Name</b>             | SULFURIC ACID                        |
| <b>Grade</b>                    | Meets ACS Grade Monograph            |
| <b>Catalog #</b>                | 290000ACS                            |
| <b>Lot #</b>                    | C20D27CAS0000SAG                     |
| <b>Date of Manufacture:</b>     | 03/19/20                             |
| <b>Recommended Retest Date:</b> | Three Years from Date of Manufacture |

| TEST   | SPECIFICATION                           | RESULT     |
|--|---|------------|
| Appearance   | Free from suspended or insoluble matter | Pass       |
| Assay (H <sub>2</sub> SO <sub>4</sub> )                | 95.0 - 98.0%                            | 96.4%      |
| Color, APHA  | 10 max.                                 | < 10       |
| Residue after Ignition                                 | 5 ppm max.                              | < 5 ppm    |
| Chloride (Cl)  | 0.2 ppm max.                            | < 0.2 ppm  |
| Nitrate (NO <sub>3</sub> )                             | 0.5 ppm max.                            | < 0.5 ppm  |
| Ammonium (NH <sub>4</sub> )                            | 2 ppm max.                              | < 2 ppm    |
| Substances Reducing Permanganate (as SO <sub>2</sub> ) | 2 ppm max.                              | < 2 ppm    |
| Arsenic (As)   | 0.01 ppm max.                           | < 0.01 ppm |
| Heavy Metals (as Pb)                                   | 1 ppm max.                              | < 1 ppm    |
| Iron (Fe)  | 0.2 ppm max.                            | < 0.2 ppm  |
| Mercury (Hg)   | 5 ppb max.                              | < 5 ppb    |

**Certification and Compliance Statements**

This lot of Sulfuric Acid complies with all of the current requirements listed in the American Chemical Society monograph. Certain test data have been supplied by third parties.

This product is not derived, nor does it come in contact with, any materials derived from bovine or other animal sources.

This product is for further commercial manufacturing, laboratory or research use, and may be used as an excipient or a process solvent for pharmaceutical purposes. It is not intended for use as an active ingredient in drug manufacturing nor as a medical device or disinfectant. Appropriate/legal use of this product is the responsibility of the user.

Approved by: D. Simoncelli, Quality Control Chemist

Date of Approval: 06/22/20

