

**ANALYSIS CERTIFICATE**

**CODE: 141058**

**BATCH: 0000518056**

**PRODUCT: Sulfuric Acid 95-98% (USP-NF, BP, Ph. Eur.) pure, pharma grade**

**ISSUE DATE: 22/09/2014**

**RETEST DATE: 09/2020**

| SPECIFICATIONS                                              | GUARANTEE VALUE | ACTUAL VALUE |
|-------------------------------------------------------------|-----------------|--------------|
| Assay (Acidim.)                                             | 95,0-98,0 %     | 96,2 %       |
| Identity according to Pharmacopoeias:                       | Passes test     | Passes test  |
| MAXIMUM LIMIT OF IMPURITIES                                 |                 |              |
| Appearance of solution                                      | Passes test     | Passes test  |
| Reducing substances to KMnO <sub>4</sub>                    | Passes test     | Passes test  |
| Residue on ignition                                         | 0,002 %         | 0,00015 %    |
| Chloride (Cl)                                               | 0,001%          | <0,001%      |
| Ammonium (NH <sub>4</sub> )                                 | 0,001%          | <0,001%      |
| Residual solvents (Ph.Eur/USP)                              | Passes test     | Passes test  |
| Nitrate                                                     | Passes test     | Passes test  |
| Heavy metals (as Pb)                                        | 0,0005%         | <0,0005%     |
| Residual metals ICP: (according to EMEA/CHMP/SWP/4446/2000) |                 |              |
| Class 1A (Pt, Pd)                                           | 10 ppm          | <10 ppm      |
| Class 1B (Ir, Rh, Ru, Os)                                   | 10 ppm          | <10 ppm      |
| Class 1C (Mo, Ni, Cr, V)                                    | 25 ppm          | <25 ppm      |
| Class 2 (Cu, Mn)                                            | 250 ppm         | <250 ppm     |
| Class 3 (Fe, Zn)                                            | 1.300 ppm       | <1.300 ppm   |
| As                                                          | 0,0001 %        | <0,0001 %    |
| Fe                                                          | 0,0025 %        | <0,0025 %    |

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