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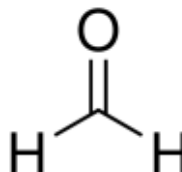
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## Certificate of Analysis

Product Name:

Formaldehyde solution – ACS reagent, 37 wt. % in H<sub>2</sub>O, contains 10–15% Methanol as stabilizer (to prevent polymerization)

Product Number: 252549  
 Batch Number: MKCJ1972  
 Brand: SIAL  
 MDL Number: MFCD00003274  
 Formula: CH<sub>2</sub>O  
 Formula Weight: 30.03 g/mol  
 Quality Release Date: 01 FEB 2019  
 Recommended Retest Date: JAN 2021



| Test  | Specification             | Result    |
|---|---------------------------|-----------|
| Appearance (Color)                          | Colorless                 | Colorless |
| Appearance (Form)                           | Liquid                    | Liquid    |
| Infrared Spectrum                           | Conforms to Structure     | Conforms  |
| Titration by H <sub>2</sub> SO <sub>4</sub> | 36.5 - 38.0 %             | 36.9 %    |
| Residue on ignition (Ash)                   | ≤ 0.005 %                 | 0.002 %   |
| Color Test                                  | ≤ 10 APHA                 | 0 APHA    |
| Chloride (Cl)                               | ≤ 5 ppm                   | < 5 ppm   |
| Iron (Fe)                                   | ≤ 5 ppm                   | < 1 ppm   |
| Heavy Metals                                | ≤ 5 ppm                   | < 1 ppm   |
| by ICP-OES                                  |                           |           |
| Sulfate (SO <sub>4</sub> )                  | ≤ 0.002%                  | ≤ 0.002%  |
| Titrateable Acid (meq/g)                    | ≤ 0.006                   | < 0.006   |
| Note  | Confirmed                 | Conforms  |
| Stabilized with 10% to 15% Methanol         |                           |           |
| Meets ACS Requirements                      | Current ACS Specification | Conforms  |
| Recommended Retest Period                   | -----                     | -----     |
| 2 Years                                     |                           |           |

Michael Grady, Manager  
 Quality Control  
 Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.