

CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by INTERTEK SAI Global
Certificate Number. QMS42099

| | |
|---------------------------|-------------------------------|
| Catalogue Number | 12462 |
| Lot Number | 2192769 |
| Description | Hydrochloric acid |
| CAS Number | 7647-01-0 |
| Quality Test/Release Date | 20/Aug/2021 |
| Expiry Phrase | Use within 5 years of opening |
| Country of Origin | Germany |

| Result Name | Units | Specifications | Test Value |
|---------------------|-------|------------------|------------------|
| Assay | % | >= 35 and <= 39 | 36.98 |
| Chemical form | | Mobile liquid | Mobile liquid |
| Colour | APHA | <= 10 | <10 |
| Free chlorine (ppm) | ppm | <= 10 | <1 |
| Iron (Fe) | ppm | <= 5 | <0.1 |
| Lead (Pb) | ppm | <= 2 | <0.005 |
| Sulfate (SO4) (ppm) | ppm | <= 100 | <5 |
| Visual colour | | Clear colourless | Clear colourless |

A. Ganatra

Ashok Ganatra
Supervisor, QC

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research use or further manufacturing. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.