

## CERTIFICATE OF ANALYSIS

Product : Hydrochloric Acid ANALPURE® *ULTRA*  
 Code : UAc0031  
 Batch number : 4220110  
 Expiry date : 24. 12. 2023 (dd.mm.yyyy)  
 Assay : 34 %

Trace impurities (ppt):

Analyte	Maximum concentration	Actual value	Analyte	Maximum concentration	Actual value
Aluminium	20	< 2	Neodymium	1	< 0.01
Antimony	20	< 0.1	Nickel	20	< 10
Arsenic	50	< 1	Niobium	1	< 0.01
Barium	10	< 0.1	Palladium	Information only	< 0.1
Beryllium	10	< 0.01	Platinum	Information only	< 1
Bismuth	10	< 0.1	Potassium	10	< 1
Boron	100	< 10	Praseodymium	1	< 0.01
Cadmium	10	< 0.01	Rhenium	10	< 0.01
Calcium	10	< 10	Rhodium	10	< 0.01
Cerium	10	< 0.01	Rubidium	10	< 0.01
Cesium	10	< 0.01	Ruthenium	10	< 0.01
Chromium	10	< 1	Samarium	1	< 0.01
Cobalt	10	< 0.5	Scandium	10	< 0.05
Copper	10	< 5	Selenium	Information only	< 20
Dysprosium	1	< 0.01	Silver	10	< 0.05
Erbium	1	< 0.01	Sodium	10	< 1
Europium	1	< 0.01	Strontium	10	< 0.02
Gadolinium	1	< 0.01	Tantalum	Information only	< 0.01
Gallium	10	< 1	Tellurium	1	< 0.1
Gold	50	< 5	Terbium	1	< 0.01
Hafnium	10	< 0.01	Thallium	10	< 0.01
Holmium	1	< 0.01	Thorium	1	< 0.01
Indium	1	< 0.05	Thulium	1	< 0.01
Iron	10	< 5	Tin	20	< 0.5
Lanthanum	1	< 0.01	Titanium	10	< 0.5
Lead	10	< 0.05	Tungsten	10	< 0.1
Lithium	10	< 0.05	Uranium	1	< 0.01
Lutetium	10	< 0.01	Vanadium	10	< 0.1
Magnesium	10	< 5	Ytterbium	1	< 0.01
Manganese	10	< 0.05	Yttrium	1	< 0.01
Mercury	50	< 20	Zinc	10	< 0.5
Molybdenum	10	< 1	Zirconium	10	< 0.01

Store at room temperature, maximum range 15°C to 25°C. Avoid exposure to sunlight or ultraviolet sources.



Release date: 27<sup>th</sup> December 2020

Person-in-Charge: **Vladimir Patera**