

## CERTIFICATE OF ANALYSIS

Product : HYDROCHLORIC ACID ANALPURE®  
 Code : SAc0032  
 Batch number : 2061  
 Expiry date : 18. 01. 2026 (dd/mm/yyyy)

Colour	: < 7	APHA
Bromide (Br)	: < 10	ppm
Free chlorine (Cl <sub>2</sub> )	: < 0.5	ppm
Total Sulphur (S)	: < 0.3	ppm
Total Phosphorus (P)	: < 0.01	ppm
Ammonium (NH <sub>4</sub> <sup>+</sup> )	: < 0.5	ppm
Assay	: <b>30</b>	%

Trace impurities (ppb):

Analyte	Maximum concentration	Actual value	Analyte	Maximum concentration	Actual value
Aluminium	1	< 0.5	Neodymium	0.1	< 0.1
Antimony	0.5	< 0.1	Nickel	0.5	< 0.1
Arsenic	0.5	< 0.1	Niobium	0.1	< 0.1
Barium	0.1	< 0.1	Palladium	Information only	< 0.5
Beryllium	0.1	< 0.1	Platinum	Information only	< 0.5
Bismuth	0.1	< 0.1	Potassium	1	< 0.5
Boron	1	< 0.5	Praseodymium	0.1	< 0.1
Cadmium	0.1	< 0.1	Rhenium	0.1	< 0.1
Calcium	1	< 0.5	Rhodium	0.1	< 0.1
Cerium	0.1	< 0.1	Rubidium	0.1	< 0.1
Cesium	0.1	< 0.1	Ruthenium	0.1	< 0.1
Chromium	0.5	< 0.1	Samarium	0.1	< 0.1
Cobalt	0.1	< 0.1	Scandium	0.1	< 0.1
Copper	0.5	< 0.1	Selenium	1	< 0.1
Dysprosium	0.1	< 0.1	Silver	1	< 0.1
Erbium	0.1	< 0.1	Sodium	1	< 0.5
Europium	0.1	< 0.1	Strontium	0.1	< 0.1
Gadolinium	0.1	< 0.1	Tantalum	Information only	< 1
Gallium	0.1	< 0.1	Tellurium	0.1	< 0.1
Germanium	1	< 1	Terbium	0.1	< 0.1
Gold	0.5	< 0.2	Thallium	0.1	< 0.1
Hafnium	0.1	< 0.1	Thorium	0.1	< 0.1
Holmium	0.1	< 0.1	Thulium	0.1	< 0.1
Indium	0.1	< 0.1	Tin	0.5	< 0.1
Iron	1	< 0.5	Titanium	0.5	< 0.5
Lanthanum	0.1	< 0.1	Tungsten	0.1	< 0.1
Lead	0.1	< 0.1	Uranium	0.1	< 0.1
Lithium	0.1	< 0.1	Vanadium	0.5	< 0.1
Lutetium	0.1	< 0.1	Ytterbium	0.1	< 0.1
Magnesium	0.5	< 0.5	Yttrium	0.1	< 0.1
Manganese	0.1	< 0.1	Zinc	1	< 0.5
Mercury	0.1	< 0.02	Zirconium	0.1	< 0.1
Molybdenum	0.1	< 0.1			

Store at room temperature, avoid exposure to sunlight or ultraviolet light sources.



Release date: **18<sup>th</sup> June 2023**

Person-in-Charge:

**Vladimir Patera**