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Thermo Scientific acids for trace elemental analysis by ICP-OES

With metal impurities in the low ppb range, Thermo Scientific™ ICP-OES–grade acids are suitable for digestion of samples prior to trace elemental analysis by inductively coupled plasma optical emission spectrometry (ICP-OES). We offer the most-used acids for sample digestion, and in the purity needed for your analysis.

- Low metal impurities fall within instruments' limits of detection
- Up to 36 metals specified and tested in the low-ppb range
- Products also meet ACS testing specifications
- Offered in 500 mL and 2.5 L sizes to optimize reagent consumption with sample throughput
- Packaged in polycoated glass bottles with color-coded caps specific to the acid for added safety and quick visual recognition

Hydrochloric acid | Nitric acid | Sulfuric acid

Application example

ICP-OES is a fast, multielement analysis technique capable of determining up to 72 elements in a very wide range of samples, including environmental, metallurgical, petrochemical, and food samples.

With detection limit requirements from ppm to ppb levels, the Thermo Scientific™ iCAP™ 7000 Series ICP-OES system is the laboratory workhorse for multielement analysis, providing stable, efficient, and low-cost elemental analysis for all facilities. It is your simplified route to compliance in environmental, pharmaceutical, and food safety fields, and a robust solution for exploratory or QA/QC industrial applications. High-performance ICP-OES deserves excellent reagents. Our combined strengths in reagents and instrumentation enable us to offer superior quality to help you achieve optimum performance with the best results.

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Product specifications*

Metal	Hydrochloric acid	Nitric acid	Sulfuric acid
	Cat. No. T00308	Cat. No. T00309	Cat. No. T00311
	Assay: 37.0–38.0%	Assay: 69.0–70.0%	Assay: 95.0–98.0%
	Maximum impurities in ppb (ng/g)		
Aluminum (Al)	10	30	30
Arsenic (As)	10		4
Barium (Ba)	10	1	10
Boron (B)	10	4	10
Cadmium (Cd)	10	1	2
Calcium (Ca)	10	50	50
Chromium (Cr)	10	10	6
Cobalt (Co)		1	0.5
Copper (Cu)	10	1	1
Gallium (Ga)		20	10
Germanium (Ge)		4	10
Gold (Au)		4	10
Iron (Fe)	10		50
Lead (Pb)	10	0.5	0.5
Lithium (Li)	10		10
Magnesium (Mg)	10	7	7
Manganese (Mn)	10	1	1

Metal	Hydrochloric acid	Nitric acid	Sulfuric acid
	Cat. No. T00308	Cat. No. T00309	Cat. No. T00311
	Assay: 37.0–38.0%	Assay: 69.0–70.0%	Assay: 95.0–98.0%
	Maximum impurities in ppb (ng/g)		
Mercury (Hg)	1	0.5	5
Molybdenum (Mo)		5	10
Nickel (Ni)	10	1	2
Niobium (Nb)		1	10
Potassium (K)	10	5	500
Selenium (Se)			50
Silicon (Si)		20	100
Silver (Ag)		1	1
Sodium (Na)	10	200	500
Strontium (Sr)		1	5
Tantalum (Ta)		2	10
Thallium (Tl)		5	20
Tin (Sn)	10	5	5
Titanium (Ti)	10		10
Vanadium (V)	10	1	10
Zinc (Zn)	10	5	5
Zirconium (Zr)		1	10

* Not all metal impurities or specifications are listed in this table.

Ordering information

Product	Quantity	Package	Cat. No.
Hydrochloric acid, ICP-OES, for trace elemental analysis	500 mL	Polycoated glass bottle	T003080500
	2.5 L	Polycoated glass bottle	T003082500
Nitric acid, ICP-OES, for trace elemental analysis	500 mL	Polycoated glass bottle	T003090500
	2.5 L	Polycoated glass bottle	T003092500
Sulfuric acid, ICP-OES, for trace elemental analysis	500 mL	Polycoated glass bottle	T003110500
	2.5 L	Polycoated glass bottle	T003112500

For more information or to place an order, go to **fishersci.com**

In the United States:
For customer service, call 1-800-766-7000
To fax an order, use 1-800-926-1166
To order online: fishersci.com

In Canada:
For customer service, call 1-800-234-7437
To fax an order, use 1-800-463-2996
To order online: fishersci.ca

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