PureSynth®
Research Chemicals GmbH

PurTrace & PurTrace Ultra

Acids, Bases & Salts for Trace and Ultra-Trace Analysis

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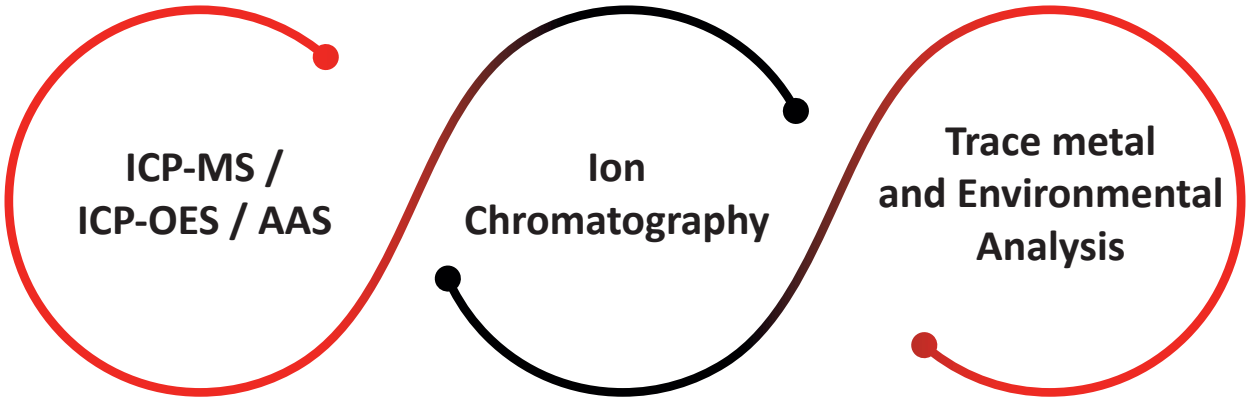
Why Purity Matters in Trace Analysis?

At ppb and ppt levels, even a nanogram of impurity can distort analytical results. Ordinary reagents introduce ghost peaks, background noise, and false positives.

PureSynth's PurTrace & PurTrace Ultra eliminate these interferences, delivering sharp baselines, reproducible peaks, and confidence in every data point of ultra-trace analysis. Our Quality Management System guarantees consistent quality and safety for all PurTrace & PurTrace Ultra products.

Applications:



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The Science of Absolute Purity

Our commitment to purity goes beyond specifications - it's built into every step of the PurTrace & PurTrace Ultra production process.

- **Sub-Boiling Distillation Excellence**
  Using advanced sub-boiling distillation technology, we achieve acids with the lowest possible blank values, ensuring unmatched performance in ultra-trace (ppb/ppt) analysis.

- **Specialized, Contamination-Proof Packaging**
  Custom-engineered bottles and sealing systems protect reagents from external contamination, guaranteeing that purity levels remain intact from production to your lab bench.

- **Designed for Ultra-Trace Confidence**
  Every acid, base, and salt in the PurTrace series is tailored for sample preparation and analysis in the ppb (µg/kg) range. Each batch undergoes stringent ICP-MS, IC or AAS verification for:

- **Metal Content:** Below detection limits
- **Ionic Impurities:** Tightly controlled and certified
- **Lot-to-Lot Consistency:** Guaranteed reproducibility

Our Product Portfolio

PurTrace

Product No.	Description	Cas No.	Packing
PSR43170	Acetone PurTrace for Trace Analysis, ≥99.9%	67-64-1	1L, 2.5L
PSR50388	Aluminium chloride PurTrace for trace analysis, ≥99.999%	7446-70-0	5G
PSR46588	Ammonium hydroxide solution 28% NH3 in H2O ,≥99.99% PurTrace metals basis	1336-21-6	100ML
PSR43259	L(+)-Ascorbic acid, PurTrace for Trace analysis, ≥99.9998%	50-81-7	100G
PSR44166	Citric acid monohydrate, PurTrace for Trace analysis, ≥99.9998%	5949-29-1	100G
PSR42849	Hydrochloric acid, PurTrace for Trace analysis, ≥30%	7647-01-0	500ML, 1L
PSR40528	Hydrochloric acid, PurTrace for Trace analysis, fuming, ≥37%	7647-01-0	500ML, 1L
PSR42697	Hydrofluoric acid PurTrace for Trace analysis, 47-51%	7664-39-3	500ML, 1L
PSR50402	Hydrofluoric acid PurTrace, for trace analysis, 47-51% (below 1 ppb impurities)	7664-39-3	1 L
PSR40142	Hydrogen peroxide solution, PurTrace for Trace Analysis, ≥30.0%	7722-84-1	500ML, 1L
PSR44364	Lithium perchlorate, PurTrace for Trace Aanlysis, ≥98.5%	7791-03-9	50G
PSR42850	Nitric acid PurTrace for Trace analysis, ≥69%	7697-37-2	500ML, 1L, 2.5L
PSR44687	Nitric acid PurTrace for Trace Analysis, 67-70%	7697-37-2	500ML, 1L, 2.5L
PSR40666	Perchloric acid PurTrace, for trace analysis, 65-71%	7601-90-3	100ML
PSR43319	2-Propanol PurTrace, for metal speciation analysis, ≥99.9% (GC)	67-63-0	1L, 2.5L
PSR48085	Silver nitrate PurTrace for trace analysis, ≥99.998% (metals basis)	7761-88-8	25G
PSR50485	Sodium acetate PurTrace for Trace Analysis, anhydrous, ≥99.999% (metal basis)	127-09-3	100G
PSR43596	Sodium carbonate, PurTrace for Trace Analysis, anhydrous, ≥99.999% (metal basis)	497-19-8	25G, 50G
PSR49734	Sodium phosphate dibasic anhydrous, PurTrace for Trace analysis, ≥99.999% (metals bas	7558-79-4	100G
PSR40034	Sulfuric acid, PurTrace for Trace Analysis, >93%	7664-93-9	500ML, 1L
PSR50404	Sulfuric acid, Trace grade, >93%	7664-93-9	1L
PSR41299	Water PurTrace for Trace Analysis	7732-18-5	1L, 2.5L

PurTrace Ultra

Product No.	Description	Cas No.	Packing
PSR49163	Hydrochloric acid PurTrace Ultra for trace analysis, 32-35%	7647-01-0	500ML, 1L
PSR49576	Hydrochloric acid PurTrace Ultra for trace analysis, 32-35%, (Sulphate free)	7647-01-0	1L
PSR50244	Hydrofluoric Acid PurTrace Ultrapure for ultra trace analysis, 47.0-51.0%	7664-39-3	1L
PSR50283	Hydrogen Peroxide PurTrace Ultrapure for ultra trace analysis, 30.0-32.0%	7722-84-1	1L
PSR39474	Nitric Acid PurTrace Ultrapure for trace analysis, 67-69%	7697-37-2	250ML, 500ML, 1L
PSR50213	Nitric Acid PurTrace Ultrapure for Ultratrace analysis, 67-69%	7697-37-2	1L
PSR50438	N, N Dimethyl Formamide (low metals) PurTrace ultra for Trace analysis ≥99.9%	68-12-2	1L
PSR50549	Perchloric acid PurTrace Ultra for ultratrace analysis, 67-72%	7601-90-3	500ML
PSR46411	Potassium Bromide FT-IR grade, PurTrace Ultra, 99% Trace Metal Basis	7758-02-3	100G
PSR50254	Sulphuric acid PurTrace Ultrapure for Ultra Trace analysis, 93.0-98.0%	7664-93-9	1L

Every metal counted & controlled

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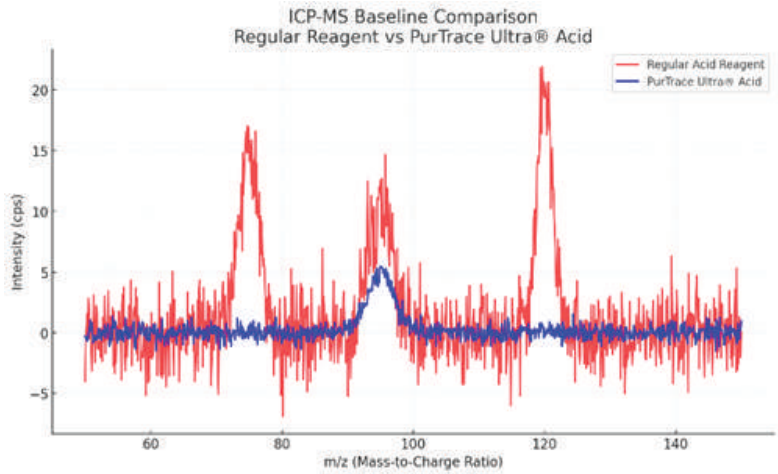
Can You Risk Encountering These Issues?

- Trace analysis fails because of contaminants you can’t see.
- Background noise in ICP-MS or ICP-OES often comes from the reagent, not the sample.
- False Positives & Background Noise
- Contaminants deposit on cones, torches, and columns, shortening equipment life and increasing maintenance costs.
- One drop of impure acid can add 50+ extra peaks in ICP-MS.

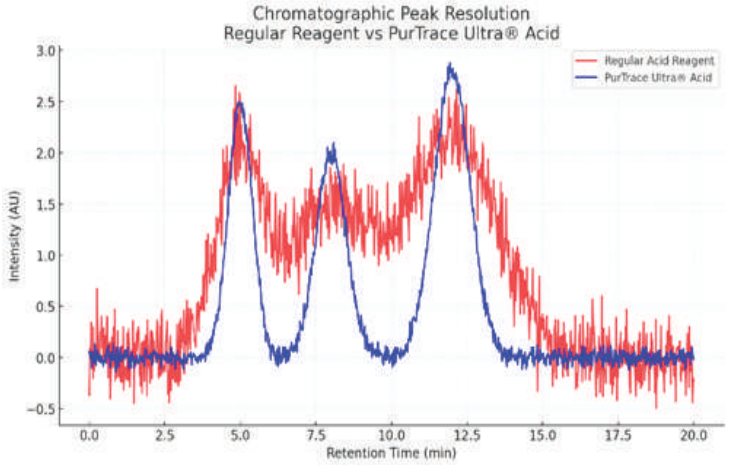
The answer is clear — absolutely not!

That's why laboratories worldwide trust PurTrace & PurTrace Ultra - reagents with proven performance in trace and ultra-trace analysis, ensuring clarity, reproducibility, and reliability at every level of detection.

Proven Performance



Red (Regular Acid) → noisy baseline with multiple impurity peaks.
Blue (PurTrace Ultra) → clean baseline; only one small residual signal.



Red (Regular Acid) → broader, overlapping peaks with noisy baseline.
Blue (PurTrace Ultra) → sharp, well-resolved peaks on a clean baseline.

When precision matters, the difference is clear. PurTrace Ultra delivers cleaner baselines and sharper peaks, ensuring accuracy at the lowest detection limits.

Every metal counted & controlled

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Why Choose Our Range?

- Purity, stability, and consistency for critical trace analysis
- ppt-level precision
- Certified lot-to-lot consistency
- Comprehensive COA with impurity profile
- Trusted worldwide by pharma, research, and labs

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To learn more about Puresynth's Research Chemicals GmbH Portfolio, visit www.pure-synth.com

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