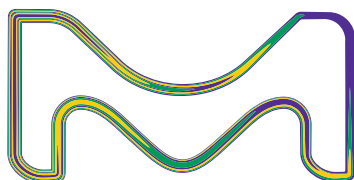


# Ultrapur and Suprapur® High Purity

Acids and Bases



The life science business of Merck operates as MilliporeSigma in the U.S. and Canada.

**Supelco®**  
 Analytical Products

# High purity acids and bases

Suprapur® acids and bases | Ultrapur acids

Digestion with acids is often used during sample preparation. The reagents for sample preparation have an important impact on the outcome of the measurement. In modern instrumental trace analysis, any impurity can disturb the measurement so acids with low impurities should be used to minimize the interference on the instrument signal. High purity Suprapur® acids and bases and Ultrapur acids offer the most suitable purity of wet digestion materials with low impurities during the entire minimum shelf life.

## Advantages

- Choose your purity grade for instrumental trace analysis
- Suprapur® acids filled in borosilicate glass or extra pure HDPE material
- Ultrapur acids filled in PFA bottles
- Certificate of Analysis gives an extensive impurity profile

# quality grades for your individual needs

Visit

[SigmaAldrich.com/traceanalysis](https://www.sigmaaldrich.com/traceanalysis)



## Different grades to meet your needs

Whenever you are using an acid, you have to consider your application, your target and of course your budget. For wet digestion, take a look at our high purity Suprapur® acids and bases and Ultrapur acids designed especially for instrumental trace analysis. Each application is different and therefore we offer a wide range of acids in different grades and many different packaging sizes and materials so you can choose the one you need.

### Suprapur® acids and bases

- High purity acids, bases & water
- Use for highly sophisticated instrumental trace analysis, e.g. AAS and ICP-OES
- Specified parameters in ppb range

### Ultrapur acids

- High purity acids, hydrogen peroxide & water
- Use for highly sophisticated instrumental ultra-trace analysis, e.g. ICP-MS
- Specified parameters in ppt range

# Reagents for wet digestion

The more sensitive the instrumental detection becomes, the more important it is to use highly pure reagents. We provide a whole range of high purity reagents that meet the demands of modern instrumental analysis. During the sample preparation, it is important to know the blank values of the reagents. On the certificate you find the specification and actual batch values of the parameters you need.

## Suprapur® acids and bases are suitable for trace analysis in the ng/g (ppb) range.

Suprapur® acids are filled in borosilicate or extra pure PE bottles. The material minimizes any elemental impurity of the acid, so the specification of the unopened bottle is kept during the minimum shelf life. The bottles are cleaned and pre-conditioned before filling and quality control is done after filling. This gives you the assurance that the certified batch values are those values of the filled acid. Suprapur® reagents are packed in a stable outer-box.

Suprapur® hydrogen peroxide is packed in a black bottle to protect it against light. The bottle is made of extra pure PE material to avoid any contamination. To make it more safe for you, hydrogen peroxide bottles are closed with the SafetyCap.

The SafetyCap with the PTFE membrane releases the pressure, but avoids any contamination.

## Ultrapur acids are preferred for ultra-trace analysis in the pg/g (ppt) range.

Ultrapur acids are produced by sub-boiling distillation. The slowly distilled reagents subsequently have the lowest possible trace-impurities. Ultrapur acids are exclusively filled in pre-conditioned PFA (fluoropolymer) bottles. This material meets the highest demands of all users for ultra-trace instrumental analysis, e.g. ICP-MS. Products are packed in a stable outer-box.



# High purity acids and bases

## Suprapur® acids and bases

Designation	Content	Packaging	Cat. No.
Acetic acid 100% Suprapur®	250 mL	Glass bottle	1000660250
	1 L	Glass bottle	1000661000
Ammonia solution 25% Suprapur®	250 mL	PE bottle	1054280250
	500 mL	PE bottle	1054280500
	1 L	PE bottle	1054281000
	2.5 L	PE bottle	1054282500
Boric acid Suprapur®	50 g	PE bottle	1007650050
	500 g	PE bottle	1007650500
Formic acid 98–100% Suprapur®	250 mL	Glass bottle	1116700250
	1 L	Glass bottle	1116701000
Hydrobromic acid 47% Suprapur®	250 mL	Glass bottle	1003060250
	1 L	Glass bottle	1003061000
Hydrochloric acid 30% Suprapur®	250 mL	PE bottle	1003180250
	500 mL	PE bottle	1003180500
	1 L	PE bottle	1003181000
	2.5 L	PE bottle	1003182500
Hydrochloric acid 36% Suprapur®	1 L	PE bottle	1151861000
Hydrofluoric acid 40% Suprapur®	250 mL	HDPE dosage bottle <sup>1</sup>	1003350250
	500 mL	HDPE dosage bottle <sup>1</sup>	1003350500
	1 L	PE bottle	1003351000
	2.5 L	PE bottle	1003352500
Hydrogen peroxide 30% Suprapur®	250 mL	PE bottle with SafetyCap <sup>2</sup>	1072980250
	500 mL	PE bottle with SafetyCap <sup>2</sup>	1072980500
	1 L	PE bottle with SafetyCap <sup>2</sup>	1072981000
Nitric acid 65% Suprapur®	250 mL	Glass bottle	1004410250
	1 L	Glass bottle	1004411000
Nitric acid 69% Suprapur®	1 L	Glass bottle	1151871000

<sup>1</sup>: See product details on page 6

<sup>2</sup>: See product details on page 7

Designation	Content	Packaging	Cat. No.
Oxalic acid dihydrate Suprapur®	100 g	PE bottle	1004890100
Perchloric acid 70% Suprapur®	250 mL	Glass bottle	1005170250
	1 L	Glass bottle	1005171000
Ortho-Phosphoric acid 85% Suprapur®	250 mL	PE bottle	1005520250
	500 mL	PE bottle	1005520500
	1 L	PE bottle	1005521000
	2.5 L	PE bottle	1005522500
Sodium hydroxide solution 30% Suprapur®	250 mL	PE bottle	1055890250
	1 L	PE bottle	1055891000
	2.5 L	PE bottle	1055892500
Sulphuric acid 96% Suprapur®	250 mL	Glass bottle	1007140250
	1 L	Glass bottle	1007141000
Water Suprapur®	5 L	PE bottle	1004735000

## Ultrapur acids

Designation	Content	Packaging	Cat. No.
Hydrochloric acid 30% Ultrapur	250 mL	PFA bottle	1015140250
	500 mL	PFA bottle	1015140500
	1 L	PFA bottle	1015141000
Hydrogen peroxide 31% Ultrapur	1 L	PFA bottle	1060971000
Nitric acid 60% Ultrapur	250 mL	PFA bottle	1015180250
	500 mL	PFA bottle	1015180500
	1 L	PFA bottle	1015181000
Sulphuric acid 96% Ultrapur	250 mL	PFA bottle	1015160250
Water Ultrapur	500 mL	PE bottle	1012620500
	1 L	PE bottle	1012621000

To order

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# SafetyCap

## Leakproof against liquids—allows excess pressure to be released

Hydrogen peroxide is capable of generating excess pressure through chemical reactions and is therefore supplied in bottles with a special screw cap. This cap has a valve that allows the gas formed to be released, hence preventing the build-up of pressure. For safety purposes, these bottles are additionally packaged in a PE bag.

## SafetyCap—the intelligent closure

In order to completely avoid contamination, we supply all such reagents fitted with the SafetyCap. This innovative cap allows absolutely no reagent to leak—even if the bottle is tipped. The PTFE membrane sintered onto the inside of the cap allows gas to be released but is absolutely leakproof against liquids. This has been proven in numerous warehouse and stress tests at our package testing facility at all temperatures and in all positions.



### SafetyCap

- Allows gas to be released and the internal pressure to be decreased
- Allows no liquid to escape, thus protecting the environment from contamination

**Cat. No.:**  
1072980250, 1072980500 and 1072981000

# High purity acids and bases

# Supelco® analytical products

Accurate.

Precise.

Consistent.

Our comprehensive portfolio, developed by analytical chemists for analytical chemists, covers a broad range of analytical solutions, and every product is meticulously quality-controlled to maintain the integrity of your testing protocols.



# Supelco®

Analytical Products

Merck KGaA  
Frankfurter Strasse 250  
64293 Darmstadt, Germany

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Safety-related Information: **[SigmaAldrich.com/safetycenter](https://www.sigmaaldrich.com/safetycenter)**

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