

Experis® Ultra High Purity Gases



Experis ultra high purity gases have been specifically designed for the analytical user. They contain the lowest levels of critical impurities available on the market. When combined with our patented BIP® purification technology you will enjoy product consistency, reliable analytical results and trouble free operation.

Air Products understands the critical importance of UHP gases and the impact of impurities on your results. Our range of Experis UHP gases will meet your most stringent requirements.

- ↘ **Purity**
- ↘ **Accuracy**
- ↘ **Stability**

Experis gases

Whatever your application, be it chemical analysis or process control, our Experis UHP range offers you the optimum gas solution. Acetylene, air, argon, carbon dioxide, helium, hydrogen, nitrogen, and oxygen are available with a range of purity levels. They can be supplied in a cylinder size to suit your specific requirements.

Certified purity

It is not just the ultra high purity of the gas that offers peace of mind, but also the certainty of knowing the maximum level of specific impurities contained in the gas. Understanding which impurities, and at what level, interfere with your specific analysis, enables us to provide you with a range of gases and grades which enable you to achieve the most accurate results. Our Experis specialists can assist you in selecting the optimum gas for your application. All Experis UHP gases come with certified maximum impurity levels and, of course, our quality assurance systems are ISO 9000 certified.

BIP cylinders

Our unique BIP cylinders, using a patented method for removing impurities as the gas is withdrawn from the cylinder, offer the very highest purity levels for the most demanding laboratory applications. Every BIP cylinder contains less than 10 ppb of oxygen and less than 20 ppb of water. BIP nitrogen, helium and argon are 300 times purer compared with the equivalent industrial product. BIP® technology gives you the ultimate zero gas; this means longer chromatographic column life, ultra low dew points and zero process contamination.

Gas equipment

The use of specially designed and engineered gas control equipment ensures that gas reaches the point of use not only at the required purity, but also at the required pressure and flow rate. At Air Products, we use our expertise in ultra high purity gases and their applications to offer you a comprehensive range of UHP gas control equipment, including regulators and manifolds. All equipment is designed to the highest standards and is extensively leak-tested. We also offer an extensive design, build and install service giving you complete peace of mind whatever your application.

Ultra high purity gases: standard specifications

Other sizes, purities or analyses available on request. Please contact Air Products

*Equivalent water capacity in litres

	Grade	Specifications (in ppm molar when not specified)						Purity	Cylinder size*					Certificate of Conformity	
		H ₂ O	PH ₃	H ₂ S					Cylinders		Packs				
Acetylene		H ₂ O	PH ₃	H ₂ S					40					C ₂ H ₂	
	Premier		10	10				99.6%	x						Batch
	Premier Plus	700	1	1				99.7%	x						Individual
Air		H ₂ O	O ₂	THC ¹	CO+CO ₂			50		16*50			Air		
	Zero (20.9% O ₂ +/-1%)	3	-	0.2	1		99.998%	x			S			Batch	
	Zero Plus (20.9% O ₂ +/-0.2%)	0.5	-	0.05	0.1		99.9999%	x						Individual	
Argon		H ₂ O	O ₂	THC ¹	CO+CO ₂	N ₂		10	50	12*50	16*50	15*50	Ar		
	Premier	2	1.5	0.1	-	4	99.9992%	x	x	S	M		Batch		
	5.5	1	1	0.1	0.5	2	99.9995%	x	x	S	M		Batch		
	BIP	0.02	0.01	0.1	0.1	1	99.9997%	x	x	S			Batch		
	6.0	0.5	0.1	0.05	0.05	0.3	99.9999%	x	x				Individual		
	BIP Plus	0.02	0.01	0.05	0.05	0.3	99.99996%	x	x				Individual		
Nitrogen		H ₂ O	O ₂	THC ¹	CO	H ₂	CFC ²	10	50	16*50	15*50	N ₂			
	Premier	2	3	0.5	-	-	-	99.9992%	x	x	S	M	Batch		
	5.5	1	2	0.1	0.5	1	-	99.9995%	x	x	S	M	Batch		
	BIP	0.02	0.01	0.1	0.5	1	-	99.9997%	x	x			Batch		
	BIP ECD	0.02	0.01	0.1	0.5	1	0.001	99.9997%	x	x			Batch		
	6.0	0.5	0.4	0.05	0.05	0.05	-	99.9999%	x	x			Individual		
BIP Plus	0.02	0.01	0.05	0.05	0.05	-	99.99998%	x	x			Individual			
Carbon Dioxide		H ₂ O	O ₂	THC ¹	CO	N ₂		47					CO ₂		
	Premier	7	10	5	2	25	99.995%	x						Batch	
	UltraPure	2	0.5	0.1	0.5	2	99.9995%	x						Individual	
Helium		H ₂ O	O ₂	THC ¹	CO+CO ₂	N ₂	H ₂	CFC ²	10	50	12*50	16*50	15*50	He	
	Premier	2	1	0.5	-	5	-	-	99.9992%	x	x	S	M	Batch	
	5.5	1	0.5	0.1	0.5	1	1	-	99.9995%	x	x	S	M	Batch	
	BIP	0.02	0.01	0.1	0.5	1	-	-	99.9997%	x	x	S		Batch	
	BIP ECD	0.02	0.01	0.1	0.5	1	-	0.001	99.9997%	x	x			Batch	
	6.0	0.5	0.1	0.1	0.1	0.1	-	-	99.9999%	x	x			Individual	
BIP Plus	0.02	0.01	0.05	0.05	0.1	0.1	-	99.99997%	x	x			Individual		
Hydrogen		H ₂ O	O ₂	THC ¹	CO+CO ₂	N ₂			10	47	50	16*50	15*50	H ₂	
	Premier	3	3	0.5	1	-		99.997%	x	x	x	S	M	Batch	
	Premier Plus	2	2	1	2	-		99.9992%	x	x	x	S	M	Batch	
	UltraPure	1	0.5	0.1	0.5	-		99.9995%	x	x	x	x	x	Batch	
Oxygen		H ₂ O	O ₂	THC ¹	CO+CO ₂	N ₂	H ₂	Ar	10	50				O ₂	
	Premier	3	0	1	1	10	1	-	99.995%	x			Batch		
	UltraPure	1	-	0.5	0.5	5	0.5	-	99.9992%	x			Batch		
	UltraPure Plus	0.5	-	0.1	0.1	0.4	0.1	-	99.9998%	x	x				Individual

Spec Gas Cylinder - Fill Volume				Estimated Volume (Sm ³) @15							
Water Capacity	Air Products Code	Description	Filling Pressure	C ₂ H ₂	Air	Ar	N ₂	CO ₂	He	H ₂	O ₂
10L	X10A	Alu Cylinder	150Bar			1.6	1.5		1.4	1.4	1.6
40L	X40S	Acetylene Cylinder		6.0							
47L	X47S	Steel Cylinder	150Bar			7.4	6.8	30kg		6.5	
50L	X50S	Steel Cylinder	192Bar							8.6	
50L	X50S	Steel Cylinder	200Bar		9.7	10.4	9.4		9.0		10.7
12x50L	12x50S	12 ST Cylinders Pack	200Bar				124.8		108		
15x50L	15x50S	15 ST Cylinders Pack	192Bar							129.0	
15x50L	15x50S	15 ST Cylinders Pack	200Bar				156.0	141.0	135.0		
16x47L	16x47S	16 ST Cylinders Pack	150Bar							104.0	
16x50L	16x50S	16 ST Cylinders Pack	192Bar							137.6	
16x50L	16x50S	16 ST Cylinders Pack	200Bar		155.2	166.4	150.4		144.0		

Remarks:

- The above data are subjected to changes
- ¹ THC = CH₄
- ² CFC = halocarbon

X - Available in both Singapore & Malaysia

S - Singapore only

M - Malaysia only

For more information, please email to MYSGMKT@airproducts.com or call us as follows:

Singapore

Air Products Singapore Industrial Gases Pte Ltd
2 International Business Park
#03-20 The Strategy
Singapore 609930
Tel: +65-6494 2240 (General enquiries)
+65-6494 2173/+65-6494 2296 (Sales enquiries)
Fax: +65-6334 1005
Email: mysgmkt@airproducts.com

Malaysia

Air Products Malaysia Sdn Bhd
Lot 54, Jalan Sungai Besar 26/7
Seksyen 26 (HICOM Sector B)
40000 Shah Alam
Selangor, Malaysia
Tel: +603-2742 8118 (General enquiries)
+603-5101 8785/+603-5101 8624 (Sales enquiries)
Fax: +603-5191 1832
Email: mymktg@airproducts.com

Indonesia

PT Air Products Indonesia
Kawasan Industri Cikarang
Blok F1-3 Cikarang, Bekasi
Jawa Barat 17530 – Indonesia
Tel: +62 21-2863 8600 (General enquiries)
+62 21-2863 8638/+62 21-2863 8602 (Sales enquiries)
Fax: +62 21-8984 0059
Email: apcsid@airproducts.com



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airproducts.com