EXPERIS™
Ultra High Purity Gases

- Purity
- Accuracy
- Stability

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® 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.

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, from small 0.4 litre cylinders to packs of 18 large cylinders.

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Our unique BIP cylinders, using a patented method for removing impurities as the gas is withdrawn from the cylinder, offer the very highest purity levels for the most demanding laboratory applications.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 watercapacity in litres, details below

	Grade	Specifications (in ppm molar when not specified)							Purity	Cylinder size*								Certificate of conformity
										Cylinders					Banks			
Acetylene		PH_3	H_2S							30	40				12x50			C_2H_2
	Premier	10	10						2.6	✔	✔				✔			Batch
Air		H_2O	O_2	THC[1]	$CO+CO_2$	Ar	$NO_X/NH_3/SO_2/H_2S$			10	47				11x47			Air
	Zero (21% O_2 +/-1%)	3	-	0.2	1	-	-		4.8	✔	✔				✔			Batch
	Zero Plus (20.8% O_2 +/-0.2%)	0.5	-	0.05	0.1	0.01	ND[3]		6.0	✔	✔							Individual
Argon		H_2O	O_2	THC[1]	$CO+CO_2$	N_2				0.4	2	9	10	47	11x47	12x50		Ar
	Premier	2	2	0.1	-	4			5.2			✔	✔	✔	✔			Batch
	BIP®	0.02	0.01	0.1	0.1	1			5.7					✔		✔		Batch
	BIP® Plus	0.02	0.01	0.05	0.05	0.3			6.6					✔				Individual
	5.5	1	1	0.1	0.5	2			5.5		✔							Batch
	6.0	0.5	0.1	0.05	0.05	0.3			6.0	✔			✔					Individual
Nitrogen		H_2O	O_2	THC[1]	$CO+CO_2$	H_2	CFC[2]				2	9	10	47	11x47	12x50		N_2
	Premier	2	3	0.5	-	-	-		5.2		✔	✔		✔	✔			Batch
	BIP®	0.02	0.01	0.1	0.5	1	-		5.7					✔		✔		Batch
	BIP® ECD	0.02	0.01	0.1	0.5	1	0.001		5.7					✔				Batch
	BIP® Plus	0.02	0.01	0.05	0.05	0.05	-		6.8					✔				Individual
	5.5	1	2	0.1	0.5	1	-		5.5				✔					Batch
	6.0	0.5	0.4	0.05	0.05	0.05	-		6.0				✔					Individual
Carbon dioxide		H_2O	O_2	THC[1]	CO	N_2				0.4	2	9	10	47	11x47			CO_2
	Premier	7	10	5	2	25			4.5	✔		✔		✔	✔			Batch
	Premier Liquid	7	10	5	2	25			4.5			✔		✔				Batch
	UltraPure	2	0.5	0.1	0.5	2			5.5					✔				Individual
	UltraPure Liquid	2	0.5	0.1	0.5	2			5.5					✔				Individual
Helium		H_2O	O_2	THC[1]	$CO+CO_2$	N_2	H_2	CFC[2]		0.4	2	9	10	47	11x47	12x50	17x50	18x50	He
	Premier	2	1	0.5	-	5	-	-	5.2	✔			✔	✔	✔				Batch
	BIP®	0.02	0.01	0.1	0.5	1	-	-	5.7					✔		✔			Batch
	BIP® ECD	0.02	0.01	0.1	0.5	1	-	0.001	5.7					✔					Batch
	BIP® Plus	0.02	0.01	0.05	0.05	0.1	0.1	-	6.7					✔		✔			Individual
	5.5	1	0.5	0.1	0.5	1	-	-	5.5				✔		✔			✔	Batch
	6.0	0.5	0.1	0.1	0.1	0.1	-	-	6.0				✔				✔		Individual
Hydrogen		H_2O	O_2	THC[1]	$CO+CO_2$	N_2				0.4			10	47	11x47	17x50			H_2
	Premier	2	1	0.2	1	5			5.0					✔					Batch
	Premier Plus	2	1	0.1	0.5	5			5.2	✔			✔	✔	✔	✔			Batch
	UltraPure	1	0.5	0.1	0.5	2			5.5					✔					Batch
	UltraPure Plus	0.5	0.1	0.05	0.05	0.2			6.0				✔	✔	✔				Individual
Oxygen		H_2O	O_2	THC[1]	$CO+CO_2$	N_2	H_2	Ar		0.4			10	47	11x47				O_2
	Premier	5	-	1	1	40	1	-	4.5					✔					Batch
	UltraPure	1	-	0.5	0.5	5	0.5	-	5.2	✔			✔	✔	✔				Batch
	UltraPure Plus	0.5	-	0.1	0.1	1	0.1	0.1	5.8				✔	✔					Individual

Description of the cylinder sizes

Watercapacity	Air Products code	Description	Approximate contents[4]	Old code for reference only
0.4 L	X0.4S	Lecture bottle Steel	0.1 m^3	LB
2 L	X2S	Steel cylinder	0.4 m^3	B2
9 L	X9S/X9A	Steel cylinder	1 m^3	F/FA
10 L	X10S	Steel cylinder	2 m^3	PT10
30 L	X30S	Steel cylinder	5 m^3	MD30
40 L	X40S	Steel cylinder	7 m^3	Y41
47 L	X47S	Steel cylinder	10 m^3	K/L
11x47 L	11X47S	11 cyl. bank	110 m^3	PL11
12x50 L	12X50S	12 cyl. bank	120 m^3	PB50
17x50 L	17X50S	17 cyl. bank	170 m^3	P50W
18x50 L	18X50S	18 cyl. bank	180 m^3	VB50

Remarks :

- Other sizes, qualities and analyses available on request
- Usual filling pressure : 200 bar.g
- The above data can be subject to changes
- [1]. THC = as CH_4

[2]. CFC = halocarbons

[3]. ND = non detectable

[4]. Except for CO_2

For more information, please refer to "FAQ about chromatographic gases" or contact your Experis™ specialist !

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