Non-refillable canister solutions for ultimate portability

Making the difference

Air Products has been serving customers in the analytical, testing and calibration markets for decades. Through these close working relationships we have built a wealth of technical expertise, a thorough understanding of specific applications and broad market knowledge. This, together with our global supply capabilities and extensive product portfolio is why Air Products has become a trusted partner of choice for companies around the world—from those with one-off application needs, through to multinationals requiring multi-site supply agreements.

Air Products unrivalled experience and knowledge is backed-up by one of the most comprehensive product ranges from any gas supplier in the market today. It is able to supply the gas mixture itself, a full range of regulators, carry case options and even have the ability to offer customer-bespoke product labelling.

Our unique strengths

- A complete portfolio of non-refillable canisters, manufactured to the highest standards
- Specialised manufacturing plants in Europe and Middle East, ensuring fast deliveries to all locations
- Large distribution network capabilities, enabled by our European distribution hub
- Extensive equipment range—including regulators, flow valves and carry cases.

Customers who take advantage of Air Products canister range and its' supply capabilities operate in diverse markets including:

- Function testing and calibration of flammable and toxic gas detection equipment
- Oxygen depletion and alarm testing
- Refrigerant leak detection
- Breath alcohol monitoring
- Lung function and breath analysis
- Education: Universities, Research and Development
- Headspace Analysis in Modified Atmosphere Packaging (MAP)

> **"Our business relies on simple bump testing of gas detectors on board marine vessels. Complex high pressure cylinders and regulators would make the job too difficult but we find the Air Products non-refillable offerings very easy to use and the equipment is simple to operate."**
>
> — GMS Instruments, Rotterdam

Comprehensive canister range

Air Products' canister range allows users to achieve the ideal compromise between gas capacity and portability.

Aerosol

The aerosol type canister provides the ultimate in portability and ease of use. It is perfect where low volumes of gas are required, and it supports mixture shelf-life up to 5 years making it an ideal solution for low or infrequent usage.

34L canister

Our 34L is the smallest canister in the range featuring the universal C10 valve. This high specification aluminium canister, combined with advanced treatment processes, makes it suitable for all mixture components including H_2S, SO_2 and highly reactive components like Cl_2 and HCN. The C10 connection facilitates use with a wide range of gas control equipment for varied applications.

58L canister

The 58L is the second largest canister to feature the C10 valve. Its unique characteristics means that it supports highly stable 'quad' gas mixtures used extensively in the field of gas detection and industrial hygiene.

110L canister

Our 110L canister represents the ultimate in economy. A higher fill pressure means it contains twice as much gas as the 58L canister, yet has similar physical dimensions. This highly popular canister is designed to support both non-reactive and reactive mixture components including H_2S, SO_2 and NO_2. It is used extensively in a wide range of applications where high gas yield is needed without compromising portability and ease of use.

All Air Products' canisters are dual approved, meaning they can be used and offered for sale in virtually all regions around the world.

Canister specification

	Aerosol	34L	58L	110L
Water capacity	1.0L	0.9L	0.85L	1.6L
Pressure	10 Bar	34 Bar	69 Bar	69 Bar
Dimensions (height x diameter)	265mm x 73mm	283mm x 74mm	278mm x 75mm	358mm x 90mm
Empty weight	108g	474g	620g	1160g
Valve outlet	7/16" (28 NS/2 Male)	5/8" (18UNF C10)	5/8" (18UNF C10)	5/8" (18UNF C10)
Material	Aluminium alloy	Aluminium alloy	Aluminium alloy	Aluminium alloy
Regulatory compliance	75/324/EEC (US) DOT* 39	ISO 11118 π marked (US) DOT* 39	ISO 11118 π marked	ISO 11118 π marked
Gas type	Non-reactive mixtures	All mixture types	All mixture types	All mixture types

*US Department of Transport (DOT)

Stability and shelf life

Our gas mixture stability and the validity of our shelf life claims are absolutely critical in the markets we serve. Advanced canister preparation techniques, high integrity filling manifolds and the use of ultra high purity raw materials all contribute to the long term stability of our gas mixtures, resulting in mixture shelf lives up to 5 years.

We are world leaders in specialty gas mixture preparation. Over 50 years of research and development in this field tells us that mixture stability is achieved by a combination of factors including:

- Optimum canister and valve selection enhanced by proprietary preparation and passivation techniques
- The selection of ultra high purity raw materials
- Proprietary filling technology using ultra high integrity filling manifolds
- Comprehensive shelf life studies

This knowledge and experience is brought together to achieve the accurately certified and reliable calibration gas standards that customers demand.

All of our gas mixtures are issued with hard copy certificates of analysis which are also available on-line 24/7 via myAirProducts℠*.

* account registration required

Mixture shelf life

		Shelf life (months)	
Gas	Balance	Aerosol	34L/58L/110L
Non-reactives[1]	Air or Nitrogen	60	60
Ammonia (NH_3)	Air or Nitrogen	n/a	12
Chlorine (Cl_2)	Air or Nitrogen	n/a	12
Ethanol (C_2H_6O)	Air or Nitrogen	n/a	36
Ethylene Oxide (C_2H_4O)	Air or Nitrogen	n/a	6
Hydrogen Chloride (HCl)	Air or Nitrogen	n/a	12
Hydrogen Cyanide (HCN)	Air or Nitrogen	n/a	12
Hydrogen Sulphide (H_2S)	Nitrogen	n/a	24
Hydrogen Sulphide (H_2S)	Air and Multimix[2]	n/a	24
Nitric Oxide (NO)	Air or Nitrogen	n/a	12
Nitrogen Dioxide (NO_2)	Air or Nitrogen	n/a	6
Phosphine (PH_3)	Air or Nitrogen	n/a	12
Sulphur Dioxide (SO_2)	Air or Nitrogen	n/a	12

[1] Non-reactive gases include: Argon, Benzene, Butane, Iso-Butane, Iso-Butylene, Carbon Dioxide, Carbon Monoxide, Ethylene, Heptane, Hexane, Hydrogen, Methane, Nitrous Oxide, Oxygen, Pentane, Propane, Propylene, Refrigerants, Toluene

[2] Multimix is defined as any multi-component mixture including both H_2S and O_2 components

Regulators

To compliment our extensive range of non-refillable canisters we have a diverse portfolio of regulators suitable for almost any application and flow rate.

	Type	Description	Product number	Compatibility with canister type			
				Aerosol	34L	58L	110L
	Brass control valve	A brass control valve with a barbed outlet which accomodates a short length of polyurethane tubing. This economical unit allows the user to control the flow of gas by adjusting a knurled knob on top of the valve. An alternative version with a threaded outlet (dimension 5M) is also available.	199382: Barbed outlet 199385: Threaded outlet	●			
	Mini-flow valve	A plated brass control valve with a flow meter and a barbed outlet that accommodates a length of polyurethane tubing. This unit allows the user to control the flow of gas by adjusting a knurled knob on top of the valve. Units with a higher indicated flow range of 1.5–2.5 lpm are also available.	198485: 0.5–1.5 lpm 199384: 0.5–1.5 lpm	●	●	●	●
	S-flow valve	Offers more precise setting of adjustable flow rates than the Mini-flow valve. It features an integral flow adjustment valve and a clearly marked graduated flow meter for ease of use, and a pressure gauge indicating canister contents.	198252: 0–1 lpm 198253: 0–1 lpm	●	●	●	●
	Pump-flow valve	A plated brass valve for instruments fitted with pumps. Adjusting the control knob so the ball in the flow meter is airborne simulates normal operating conditions of the pump. An excess of gas vents to atmosphere, while the major part of the gas flow will satisfy the pumps requirements.	198487 198489	●	●	●	●
	Fixed-flow regulator (plated brass)	These units are preset to deliver gas at a fixed flow rate. Standard flow rates include 0.3, 0.5, 1.0, 1.5, 2.0, and 2.5 lpm. Other fixed flow rates are also available. Ideal for non-corrosive gases. The pressure gauge shows the canister contents and a short length of polyurethane tubing is supplied.	198840 : 0.3 lpm 186414 : 0.5 lpm 198842 : 1.0 lpm 198841 : 1.5 lpm 198322 : 2.0 lpm 198481 : 2.5 lpm		●	●	●
	Fixed-flow regulator (stainless steel)	These units are preset to deliver gas at a fixed flow rate. Stainless steel fixed flow regulators are recommended for use with highly corrosive gas mixtures like Cl_2 and HCl. The pressure gauge shows the canister contents. A short length of polyurethane tubing is supplied.	198483 : 0.3 lpm 197943 : 0.5 lpm 197941 : 1.0 lpm 197942 : 1.5 lpm		●	●	●
	Pressure regulator (two stage)	Suitable for when the precise control of the outlet pressure is required. The incorporated Exact® technology delivers two stage performance, within the footprint of a single stage unit. It is ideally suited to the 58L and 110L canisters. A stainless steel version of this regulator is also available for corrosive gas mixtures.	432820: 0–1.5 bar 422334: 0–4 bar			●	●

Regulators

To compliment our extensive range of non-refillable canisters we have a diverse portfolio of regulators, suitable for almost any application and flow rate.

	Type	Description	Product number	Compatibility with canister type			
				Aerosol	34L	58L	110L
	Trigger regulator	These units are preset to deliver gas at a flowrate of 0.5, 1.0 or 6.0 lpm or unrestricted. Pressing the trigger activates the regulator and dispenses gas. It can be locked in the "on" position to achieve continuous gas flow. The pressure gauge shows the contents. Features a 4mm OD straight connection.	198251: 1.0 lpm		●	●	●
	Push button regulator	This simple unit features a push button to give an aerosol style squirt of gas at 0.5 lpm from the large canisters. The pressure gauge shows the canister contents. A "breath alcohol" adaptor is supplied.	198326: 0.5 lpm		●	●	●
	Dial-a-Flow™ regulator (plated brass)	An easy to use, plated brass, lightweight regulator, giving enhanced functionality over the traditional fixed flow unit. It offers 9 pre-setflow rates in a single compact design. The pressure gauge shows shows the canister contents 0 – 3.0 lpm, and 0 – 5.0 lpm versions are available.	431834: 0–3.0 lpm 431835: 0–5.0 lpm		●	●	●
	Dial-a-Flow™ regulator (stainless steel)	An easy to use, lightweight regulator, giving enhanced functionality over the traditional fixed flow unit. It offers 9 pre-set flow rates in a single compact design. The pressure gauge shows the canister contents. Recommended for use with corrosive gases.	431836: 0–3.0 lpm 431837: 0–5.0 lpm		●	●	●
	Demand flow regulator (plated brass)	Designed for instruments fitted with a pump. The regulator flow matches that demanded by the instrument. It negates separate accessories such as T-pieces and sampling bags, and avoids wasted gas. The pressure gauge shows the canister contents.	198329: 0–5.0 lpm		●	●	●
	Demand flow regulator (stainless steel)	Designed for instruments fitted with a pump. The regulator flow matches that demanded by the instrument. It negates separate accessories such as T-pieces and sampling bags, and avoids wasted gas. The pressure gauge shows the canister contents. Recommended for use with corrosive gases.	402214: 0–5.0 lpm		●	●	●
	Septa-Flow regulator	The Septa-Flow regulator enables gas to be extracted from the canister using a syringe. The unit also features a contents pressure gauge.	401471		●	●	●
	Duo-Flow regulator	Thes Duo-Flow regulator features a push button to give an aerosol style squirt of gas, and an on/off control for continuous fixed flow rate delivery. The pressure gauge shows the canister contents. A "breath alcohol" adaptor is supplied.	198793: 0.5 lpm 198794: 1.0 lpm		●	●	●

For alternative flow rates or regulators please contact us.

Accessories

Air Products' carry cases are the ideal solution for the safe storage and transportation of your non-refillable canisters and regulators. They are versatile enough to hold any combination of aerosol, 34L, 58L, or 110L canister.

Hard plastic carry case

Product number: 198258

- Integrated carry handle
- Suitable for two canisters and a regulator

Soft shell carry case

Product number: 198257

- Adjustable shoulder strap
- Suitable for up to three 110L or 58L canisters

Carry case insert for 34L canisters

Product number: 458376

- Insert to secure three 34L canisters in soft shell carry case

Wall mounted canister holder

Product number: 199710

- Secure canister holder, ideal for wall mounting

Canister recycling tools

Low Torque, portable – Product number: 488695

Fixed position – Product Number: 198260

- These recycling tools enable Air Products non-refillable canisters and aerosols to be depressurised and safely recycled*

**Outside EU check local legislations*

Additional benefits – at no extra cost

Air Products is pleased to offer the following service at no additional charge:

- Bespoke, custom labelling service* – clear product labeling with your company name/logo to ensure your company brand is maximised.
- Convenient, hassle-free user delivery service – for companies re-selling our canisters we can deliver directly to the end user on your behalf – be it in your home or export market.

**Minimum annual quantities apply*

> **"We are involved in the installation, commissioning and maintenance of a wide range of gas detection equipment into many market sectors. The fact that the Air Products' range covers all of the flammable, toxic, quad-gas and corrosive gas requirements for this market is very important to us."**
>
> — Autochim, France

Non-refillable canisters
Standard product list

(Revision 13, July 2019)

All mixtures shown in the table below are available with no minimum order quantity.

Products highlighted in green are normally available ex-stock in the canister size indicated.

The information contained within this table is accurate at the time of going to print and is subject to ongoing revisions without notice.

Mixture	Cat.	Aerosol	34L	58L	110L	Days	Cert. tol.	Prod. tol.	Stability (months)
Acetylene (C_2H_2)									
0.5 % Acetylene // Air	1	312090	314468	319359	313131	7	±2 %	±5 %	60
Any concentration of Acetylene // Air between 0.1 % - 0.92 %	1	✓	✓	✓	✓	7	±2 %	±5 %	60
Ammonia (NH_3)									
25 ppm Ammonia // Air	2	✗	312977	313104	312695	15	±5 %	±10 %	12
25 ppm Ammonia // Nitrogen	2	✗	312666	313646	314456	15	±5 %	±10 %	12
50 ppm Ammonia // Air	2	✗	312212	312647	312192	15	±5 %	±10 %	12
50 ppm Ammonia // Nitrogen	2	✗	313153	312229	312680	15	±5 %	±10 %	12
100 ppm Ammonia // Air	2	✗	314410	313819	312196	15	±2 %	±10 %	12
100 ppm Ammonia // Nitrogen	2	✗	319222	314284	317208	15	±2 %	±10 %	12
500 ppm Ammonia // Air	2	✗	314233	312906	312239	15	±2 %	±5 %	12
500 ppm Ammonia // Nitrogen	2	✗	333317	318922	313509	15	±2 %	±5 %	12
1000 ppm Ammonia // Air	2	✗	312728	312190	312230	15	±2 %	±5 %	12
1000 ppm Ammonia // Nitrogen	2	✗	319139	314328	318350	15	±2 %	±5 %	12
0.5 % Ammonia // Air	2	✗	313699	315718	312902	15	±2 %	±5 %	12
0.5 % Ammonia // Nitrogen	2	✗	333380	333461	313999	15	±2 %	±5 %	12
1 % Ammonia // Air	2	✗	319135	312668	313034	15	±2 %	±5 %	12
1 % Ammonia // Nitrogen	2	✗	333528	333527	333330	15	±2 %	±5 %	12
5 % Ammonia // Air	2	✗	312669	316690	314452	15	±2 %	±5 %	12
Any concentration of Ammonia // Air or Nitrogen between 5 ppm - 1000 ppm	2	✗	✗	✓	✗	15			12
Argon (Ar)									
100 % Argon "Premier" (5.0)	1	✗	424418	446579	410533	7	N/A	N/A	60
Benzene (C_6H_6)									
5 ppm Benzene // Air	1	333530	312079	326596	314241	7	±10 %	±20 %	60
Butane (C_4H_{10})									
0.4 % Butane // Air	1	312143	323518	333531	333321	7	±2 %	±5 %	60
0.6 % Butane // Air	1	312884	323519	314056	315134	7	±2 %	±5 %	60
0.7 % Butane // Air	1	318890	313695	321223	312708	7	±2 %	±5 %	60
0.75 % Butane // Air	1	318640	312136	313423	312135	7	±2 %	±5 %	60
0.9 % Butane // Air	1	314138	312907	325619	312142	7	±2 %	±5 %	60
8 % Butane // Nitrogen (pressure restricted - 100 psig)	1	312140	313501	334293	✗	7	±2 %	±5 %	60
8 % Butane / 13.8 % CO_2 // Nitrogen (pressure restricted - 100 psig)	1	312638	312637	326074	317521	7	±2 %	±5 %	60
Any concentration of Butane // Air between 0.1 % - 0.9 %	1	✓	✓	✓	✓	7	±2 %	±5 %	60
Iso-Butane (I-C_4H_{10})									
0.75 % Iso-Butane // Air	1	312125	315394	315395	312126	7	±2 %	±5 %	60
0.9 % Iso-Butane // Air	1	312194	312226	315872	312203	7	±2 %	±5 %	60
7.5 % Iso-Butane // Nitrogen	1	333729	333730	333728	✗	7	±2 %	±5 %	60
8 % Iso-Butane // Nitrogen	1	312115	333731	358106	314977	7	±2 %	±5 %	60
10 % Iso-Butane // Nitrogen	1	312225	312224	325900	333946	7	±2 %	±5 %	60
Iso-Butylene (I-C_4H_8)									
8 ppm Iso-Butylene // Air	1	333592	333327	327463	315869	7	±10 %	±20 %	60
10 ppm Iso-Butylene // Air	1	364953	313120	326206	312948	7	±10 %	±20 %	60
100 ppm Iso-Butylene // Air	1	312093	312074	312052	312045	7	±2 %	±10 %	60
1000 ppm Iso-Butylene // Air	1	333593	321402	333334	312938	7	±2 %	±5 %	60
Carbon Dioxide (CO_2)									
500 ppm Carbon Dioxide // Nitrogen	1	313496	324680	333944	316934	7	±2 %	±5 %	60
500 ppm Carbon Dioxide // Air	1	333326	312063	315979	321012	7	±2 %	±5 %	60
1000 ppm Carbon Dioxide // Air	1	315867	313102	315977	319155	7	±2 %	±5 %	60
5000 ppm Carbon Dioxide // Air	1	312965	317406	315339	312953	7	±2 %	±5 %	60
5000 ppm Carbon Dioxide // Nitrogen	1	315640	318352	318228	314051	7	±2 %	±5 %	60
1 % Carbon Dioxide // Air	1	314134	313775	316932	312696	7	±2 %	±5 %	60
1 % Carbon Dioxide // Nitrogen	1	317609	313108	319137	312034	7	±2 %	±5 %	60

Mixture	Cat.	Aerosol	34L	58L	110L	Days	Cert. tol.	Prod. tol.	Stability (months)
1 % Carbon Dioxide // Nitrogen	1	317609	313108	319137	312034	7	±2 %	±5 %	60
1.5 % Carbon Dioxide // Air	1	312879	332698	322166	313535	7	±2 %	±5 %	60
2 % Carbon Dioxide // Air	1	315505	312718	320575	312036	7	±2 %	±5 %	60
2 % Carbon Dioxide // Nitrogen	1	313123	321322	315780	312701	7	±2 %	±5 %	60
3 % Carbon Dioxide // Nitrogen	1	315905	325416	317407	314387	7	±2 %	±5 %	60
3 % Carbon Dioxide // Air	1	315537	314453	314400	312035	7	±2 %	±5 %	60
5 % Carbon Dioxide // Air	1	312098	312661	314680	312017	7	±2 %	±5 %	60
5 % Carbon Dioxide // Nitrogen	1	312084	314675	313774	312031	7	±2 %	±5 %	60
10 % Carbon Dioxide // Air	1	313831	314888	313154	312699	7	±2 %	±5 %	60
10 % Carbon Dioxide // Nitrogen	1	319666	333315	333314	314398	7	±2 %	±5 %	60
18 % Carbon Dioxide // **Argon**	1	✓	✓	✓	323432	7	±2 %	±5 %	60
20 % Carbon Dioxide // Air	1	333533	318405	326445	316926	7	±2 %	±5 %	60
30 % Carbon Dioxide // **Argon**	1	✓	✓	✓	323433	7	±2 %	±5 %	60
40 % Carbon Dioxide // **Methane**	1	313127	313116	312202	327613	7	±2 %	±5 %	60
50 % Carbon Dioxide // Nitrogen	1	315978	312966	312056	344391	7	±2 %	±5 %	60
50 % Carbon Dioxide // **Methane**	1	314386	312904	324374	314508	7	±2 %	±5 %	60
60 % Carbon Dioxide // Nitrogen	1	✓	✓	✓	329129	7	±2 %	±5 %	60
80 % Carbon Dioxide // Nitrogen	1	✓	✓	✓	315975	7	±2 %	±5 %	60
100 % Carbon Dioxide (3.0)	1	403194	440595	434355	197136	7	N/A	N/A	60
Any concentration of Carbon Dioxide // Air or Nitrogen between 0.1 % - 40 %	1	✓	✓	✓	✓	7	±2 %	±5 %	60
Carbon Monoxide (CO)									
20 ppm Carbon Monoxide // Air	1	312100	313106	312723	312027	7	±10 %	±20 %	60
20 ppm Carbon Monoxide // Nitrogen	1	323517	312060	329554	327485	7	±10 %	±20 %	60
50 ppm Carbon Monoxide // Air	1	312085	312896	313459	312039	7	±5 %	±10 %	60
60 ppm Carbon Monoxide // Air	1	312082	333325	318755	319223	7	±2 %	±10 %	60
100 ppm Carbon Monoxide // Air	1	312110	312061	312724	312024	7	±2 %	±10 %	60
100 ppm Carbon Monoxide // Nitrogen	1	313907	314405	315775	312043	7	±2 %	±10 %	60
150 ppm Carbon Monoxide // Air	1	312107	315980	332331	312040	7	±2 %	±5 %	60
200 ppm Carbon Monoxide // Air	1	312111	312067	320709	312033	7	±2 %	±5 %	60
200 ppm Carbon Monoxide // Nitrogen	1	323885	314413	333319	312028	7	±2 %	±5 %	60
250 ppm Carbon Monoxide // Air	1	315502	313669	321378	312041	7	±2 %	±5 %	60
300 ppm Carbon Monoxide // Air	1	312086	312076	312057	312023	7	±2 %	±5 %	60
500 ppm Carbon Monoxide // Air	1	318888	313670	314383	317671	7	±2 %	±5 %	60
500 ppm Carbon Monoxide // Nitrogen	1	317030	319461	315777	312964	7	±2 %	±5 %	60
1000 ppm Carbon Monoxide // Air	1	312127	313953	314385	312128	7	±2 %	±5 %	60
1000 ppm Carbon Monoxide // Nitrogen	1	327464	328753	317967	321856	7	±2 %	±5 %	60
2000 ppm Carbon Monoxide // Nitrogen	1	323516	313099	314890	312700	7	±2 %	±5 %	60
1 % Carbon Monoxide // Air	1	320906	316687	333945	314402	7	±2 %	±5 %	60
5 % Carbon Monoxide // Air	1	326514	333972	333973	316785	7	±2 %	±5 %	60
5 % Carbon Monoxide // Nitrogen	1	318797	333970	333971	314090	7	±2 %	±5 %	60
Any concentration of Carbon Monoxide // Air or Nitrogen between 5 ppm - 3 %	1	✓	✓	✓	✓	7	±2 %	±5 %	60
Chlorine (Cl_2)									
5 ppm Chlorine // Nitrogen	4	✗	312883	312639	312937	12	±10 %	±20 %	12
10 ppm Chlorine // Nitrogen	4	✗	313589	312644	312641	12	±10 %	±20 %	12
20 ppm Chlorine // Nitrogen	4	✗	313588	314683	314539	12	±10 %	±20 %	12
50 ppm Chlorine // Nitrogen	4	✗	313754	313590	322722	12	±5 %	±10 %	12
Ethane (C_2H_6)									
100 % Ethane (2.5)	1	✗	432792	428942	✗	7	N/A	N/A	60
Ethanol (C_2H_6O)									
130 ppm Ethanol // Nitrogen	1	✗	328505	334051	324975	7	±2 %	±5 %	36
192 ppm Ethanol // Nitrogen	1	✗	312219	334053	323561	7	±2 %	±5 %	36
260 ppm Ethanol // Nitrogen	1	✗	322969	334050	369077	7	±2 %	±5 %	36
Ethylene (C_2H_4)									
1000 ppm Ethylene // Air	1	333974	325235	325624	312681	7	±2 %	±5 %	60
1 % Ethylene // Air	1	315903	314682	315076	313820	7	±2 %	±5 %	60
1 % Ethylene // Nitrogen	1	312757	313539	326928	327317	7	±2 %	±5 %	60
1.35 % Ethylene // Air	1	320936	313701	318834	312018	7	±2 %	±5 %	60
100 % Ethylene (2.5) (pressure restricted 400 psig)	1	426628	432793	410012	✗	7	N/A	N/A	60
Any concentration of Ethylene // Air between 0.1 % - 1.35 %	1	✓	✓	✓	✓	7	±2 %	±5 %	60
Ethylene Oxide (ETO) (C_2H_4O)									
10 ppm Ethylene Oxide // Nitrogen	1	✗	317560	313827	313019	15	±10 %	±20 %	6
10 ppm Ethylene Oxide // Air	1	✗	319367	319319	319515	15	±2 %	±10 %	6
100 ppm Ethylene Oxide // Air	1	✗	316726	314893	314679	15	±2 %	±10 %	6
Helium (He)									
100 % Helium "Premier" (5.0)	1	✗	197145	446789	197141	7	N/A	N/A	60

Mixture	Cat.	Aerosol	34L	58L	110L	Days	Cert. tol.	Prod. tol.	Stability (months)
Heptane (C_7H_{16})									
0.2 % Heptane // Air	1	312206	325856	325994	✗	7	±2 %	±5 %	60
0.44 % Heptane // Air	1	325236	334146	334147	✗	7	±2 %	±5 %	60
0.45 % Heptane // Air	1	312176	316009	327292	✗	7	±2 %	±5 %	60
0.55 % Heptane // Air	1	312177	318099	318611	✗	7	±2 %	±5 %	60
Hexane (C_6H_{14})									
1000 ppm Hexane // Air (pressure restricted 600 psig)	1	334143	334144	334145	315405	7	±2 %	±5 %	60
1200 ppm Hexane // Air (pressure restricted 450 psig)	1	316856	312942	365969	326072	7	±2 %	±5 %	60
0.5 % Hexane // Air (pressure restricted 100 psig)	1	312149	312729	313830	312150	7	±2 %	±5 %	60
Any concentration of Hexane // Air between 0.1 % - 0.5 %	1	✓	✓	✓	✓	7	±2 %	±5 %	60
Hydrogen (H_2)									
100 ppm Hydrogen // Air	1	314503	314054	325697	313430	7	±2 %	±10 %	60
100 ppm Hydrogen // Nitrogen	1	315976	314289	313697	312044	7	±2 %	±10 %	60
200 ppm Hydrogen // Air	1	312108	315065	314329	314406	7	±2 %	±5 %	60
500 ppm Hydrogen // Air	1	324116	319462	314091	314894	7	±2 %	±5 %	60
0.1 % Hydrogen // Air	1	313151	313536	314612	312153	7	±2 %	±5 %	60
0.2 % Hydrogen // Air	1	313422	317532	328197	321889	7	±2 %	±5 %	60
0.4 % Hydrogen // Air	1	316857	312068	325944	318351	7	±2 %	±5 %	60
0.5 % Hydrogen // Air	1	327462	317559	322347	314804	7	±2 %	±5 %	60
0.8 % Hydrogen // Air	1	312145	331661	314133	319789	7	±2 %	±5 %	60
1 % Hydrogen // Air	1	312146	312730	315541	313803	7	±2 %	±5 %	60
1 % Hydrogen // Nitrogen	1	323363	323333	334389	319760	7	±2 %	±5 %	60
1.2 % Hydrogen // Air	1	334390	334391	334392	319765	7	±2 %	±5 %	60
1.6 % Hydrogen // Air	1	312151	312731	313657	317783	7	±2 %	±5 %	60
2 % Hydrogen // Air	1	312097	312071	316519	312025	7	±2 %	±5 %	60
10 % Hydrogen // Nitrogen	1	320101	315900	320102	315901	7	±2 %	±5 %	60
100 % Hydrogen "Premier Plus" (5.0)	1	199543	197147	401822	197137	7	N/A	N/A	60
Hydrogen Chloride (HCl)									
5 ppm Hydrogen Chloride // Nitrogen	4	✗	444658	199392	446912	12	±10 %	±20 %	12
10 ppm Hydrogen Chloride // Nitrogen	4	✗	199388	197129	199403	12	±10 %	±20 %	12
20 ppm Hydrogen Chloride // Nitrogen	4	✗	199270	403192	403196	12	±10 %	±20 %	12
25 ppm Hydrogen Chloride // Nitrogen	4	✗	199689	197130	414188	12	±5 %	±10 %	12
50 ppm Hydrogen Chloride // Nitrogen	4	✗	446913	401825	432942	12	±5 %	±10 %	12
Hydrogen Cyanide (HCN)									
5 ppm Hydrogen Cyanide // Nitrogen	4	✗	446858	400563	422420	12	±5 %	±10 %	12
10 ppm Hydrogen Cyanide // Nitrogen	4	✗	197143	197131	197132	12	±5 %	±10 %	12
20 ppm Hydrogen Cyanide // Nitrogen	4	✗	446859	430724	408066	12	±5 %	±10 %	12
25 ppm Hydrogen Cyanide // Nitrogen	4	✗	199602	418489	199792	12	±5 %	±10 %	12
Hydrogen Sulphide (H_2S)									
5 ppm Hydrogen Sulphide // Air	2	✗	322744	319831	355531	15	±10 %	±20 %	24
5 ppm Hydrogen Sulphide // Nitrogen	2	✗	319361	327444	317531	15	±10 %	±20 %	24
10 ppm Hydrogen Sulphide // Air	2	✗	313949	312152	355532	15	±10 %	±20 %	24
10 ppm Hydrogen Sulphide // Nitrogen	2	✗	314285	312147	312144	15	±10 %	±20 %	24
15 ppm Hydrogen Sulphide // Nitrogen	2	✗	313429	320574	313895	15	±10 %	±20 %	24
20 ppm Hydrogen Sulphide // Air	2	✗	313698	312160	355533	15	±10 %	±20 %	24
20 ppm Hydrogen Sulphide // Nitrogen	2	✗	322259	313461	312158	15	±10 %	±20 %	24
25 ppm Hydrogen Sulphide // Air	2	✗	312698	312175	355534	15	±5 %	±10 %	24
25 ppm Hydrogen Sulphide // Nitrogen	2	✗	312168	312169	312172	15	±5 %	±10 %	24
40 ppm Hydrogen Sulphide // Air	2	✗	320743	312181	355535	15	±5 %	±10 %	24
40 ppm Hydrogen Sulphide // Nitrogen	2	✗	314395	314330	315680	15	±5 %	±10 %	24
50 ppm Hydrogen Sulphide // Air	2	✗	312719	312187	317123	15	±5 %	±10 %	24
50 ppm Hydrogen Sulphide // Nitrogen	2	✗	312969	312185	312184	15	±5 %	±10 %	24
100 ppm Hydrogen Sulphide // Air	2	✗	313109	312900	355536	15	±2 %	±5 %	24
100 ppm Hydrogen Sulphide // Nitrogen	2	✗	315162	318231	312141	15	±2 %	±10 %	24
150 ppm Hydrogen Sulphide // Air	2	✗	334420	320687	355537	15	±2 %	±5 %	24
250 ppm Hydrogen Sulphide // Air	2	✗	314234	334421	355538	15	±2 %	±5 %	24
250 ppm Hydrogen Sulphide // Nitrogen	2	✗	320383	314800	316786	15	±2 %	±5 %	24
500 ppm Hydrogen Sulphide // Nitrogen	2	✗	313946	314506	314384	15	±2 %	±5 %	24
1000 ppm Hydrogen Sulphide // Nitrogen	2	✗	320382	333336	318027	15	±2 %	±5 %	24
1400 ppm Hydrogen Sulphide // Nitrogen	2	✗	334423	314598	317778	15	±2 %	±5 %	24
1 % Hydrogen Sulphide // Nitrogen	2	✗	320461	334419	312703	15	±2 %	±5 %	24
Krypton (Kr)									
100% Krypton (4.0) (pressure restricted 780 psig)	POA	✗	✗	✗	497702	7	N/A	N/A	60
Methane (CH_4)									
100 ppm Methane // Air	1	313700	314059	312949	322144	7	±2 %	±10 %	60
1000 ppm Methane // Air	1	320907	315645	326530	314092	7	±2 %	±5 %	60
0.44 % Methane // Air	1	312101	315771	326679	314184	7	±2 %	±5 %	60

Mixture	Cat.	Aerosol	34L	58L	110L	Days	Cert. tol.	Prod. tol.	Stability (months)
0.5 % Methane // Air	1	317292	321262	327015	312026	7	±2 %	±5 %	60
0.88 % Methane // Air	1	312081	321200	322803	312659	7	±2 %	±5 %	60
1 % Methane // Air	1	317995	312675	315075	312019	7	±2 %	±5 %	60
1 % Methane // Nitrogen	1	331392	320964	334454	312020	7	±2 %	±5 %	60
1.25 % Methane // Air	1	315644	314050	326676	312022	7	±2 %	±5 %	60
1.5 % Methane // Air	1	312104	327094	327093	316691	7	±2 %	±5 %	60
1.8 % Methane // Air	1	312099	314397	312054	313956	7	±2 %	±5 %	60
2 % Methane // Air	1	312882	312062	314048	312029	7	±2 %	±5 %	60
2.2 % Methane // Air	1	312102	312065	313498	312049	7	±2 %	±5 %	60
2.5 % Methane // Air	1	312083	312075	312059	312030	7	±2 %	±5 %	60
2.5 % Methane // Nitrogen	1	321505	314382	321506	312013	7	±2 %	±5 %	60
3 % Methane // Nitrogen	1	334455	333128	329431	312032	7	±2 %	±5 %	60
5 % Methane // Nitrogen	1	325063	321201	324982	317167	7	±2 %	±5 %	60
8 % Methane // Nitrogen	1	312080	329100	334456	321546	7	±2 %	±5 %	60
10 % Methane // Nitrogen	1	315647	315947	325938	312037	7	±2 %	±5 %	60
20 % Methane // Nitrogen	1	333310	317780	334457	312704	7	±2 %	±5 %	60
50 % Methane // Nitrogen	1	312635	312748	319829	312634	7	±2 %	±5 %	60
50 % Methane // Carbon Dioxide (pressure restricted 650 psig)	1	314386	312904	324374	314508	7	±2 %	±5 %	60
60 % Methane // Carbon Dioxide (pressure restricted 800 psig)	1	313127	313116	312202	327613	7	±2 %	±5 %	60
100 % Methane (2.5)	1	197134	199605	199381	197139	7	N/A	N/A	60
Any concentration of Methane // Air between 5 ppm - 2.5 %	1	✓	✓	✓	✓	7			60
Nitric Oxide (NO)									
10 ppm Nitric Oxide // Nitrogen	2	✗	313107	312970	313948	15	±10 %	±20 %	12
25 ppm Nitric Oxide // Nitrogen	2	✗	312972	312240	312971	15	±5 %	±10 %	12
50 ppm Nitric Oxide // Nitrogen	2	✗	312973	314265	312665	15	±5 %	±10 %	12
100 ppm Nitric Oxide // Nitrogen	2	✗	312963	313531	312956	15	±2 %	±10 %	12
500 ppm Nitric Oxide // Nitrogen	2	✗	317184	316019	322146	15	±2 %	±10 %	12
1000 ppm Nitric Oxide // Nitrogen	2	✗	316789	312962	312961	15	±2 %	±5 %	12
4000 ppm Nitric Oxide // Nitrogen	2	✗	334458	334459	315672	15	±2 %	±5 %	12
Nitrogen (N_2)									
100 % Nitrogen "Technical" (5.0)	1	197133	197146	197135	197140	7	N/A	N/A	60
Nitrogen Dioxide (NO_2)									
5 ppm Nitrogen Dioxide // Air	3	✗	312646	313462	314891	15	±10 %	±20 %	6
5 ppm Nitrogen Dioxide // Nitrogen	3	✗	312943	332788	316933	15	±10 %	±20 %	6
10 ppm Nitrogen Dioxide // Air	3	✗	312215	312214	312674	15	±10 %	±20 %	6
10 ppm Nitrogen Dioxide // Nitrogen	3	✗	319915	313821	315677	15	±10 %	±20 %	6
20 ppm Nitrogen Dioxide // Air	3	✗	312905	312946	315074	15	±10 %	±20 %	6
25 ppm Nitrogen Dioxide // Air	3	✗	313118	316531	313101	15	±5 %	±10 %	6
100 ppm Nitrogen Dioxide // Air	3	✗	313167	314205	316021	15	±5 %	±10 %	6
100 ppm Nitrogen Dioxide // Nitrogen	3	✗	334460	313532	318947	15	±2 %	±10 %	6
500 ppm Nitrogen Dioxide // Nitrogen	3	✗	327567	334461	315671	15	±2 %	±5 %	6
1000 ppm Nitrogen Dioxide // Air	3	✗	316017	333316	333313	15	±2 %	±5 %	6
Nitrous Oxide (N_2O)									
100 ppm Nitrous Oxide // Nitrogen	1	313121	312213	326391	315540	7	±2 %	±10 %	60
200 ppm Nitrous Oxide // Nitrogen	1	322362	313958	328950	333466	7	±2 %	±5 %	60
1 % Nitrous Oxide // Nitrogen	1	322116	313959	314684	319159	7	±2 %	±5 %	60
Oxygen (O_2)									
100 ppm Oxygen // Nitrogen	1	✗	334462	316494	313175	7	±2 %	±10 %	60
0.4 % Oxygen // Nitrogen	1	312672	324148	326012	312014	7	±2 %	±5 %	60
1 % Oxygen // Nitrogen	1	314610	313506	316497	313892	7	±2 %	±5 %	60
2 % Oxygen // Nitrogen	1	316919	315532	334294	312050	7	±2 %	±5 %	60
4 % Oxygen // Nitrogen	1	316561	318610	314409	312670	7	±2 %	±5 %	60
5 % Oxygen // Nitrogen	1	312109	312069	316493	312038	7	±2 %	±5 %	60
8 % Oxygen // Nitrogen	1	317128	317188	316724	312051	7	±2 %	±5 %	60
10 % Oxygen // Nitrogen	1	315401	319360	314629	313534	7	±2 %	±5 %	60
15 % Oxygen // Nitrogen	1	312087	312720	318226	312727	7	±2 %	±5 %	60
18 % Oxygen // Nitrogen	1	312881	314722	314286	313651	7	±2 %	±5 %	60
18.5 % Oxygen // Nitrogen	1	312106	314718	334569	312042	7	±2 %	±5 %	60
20.9 % Oxygen // Nitrogen	1	312095	312070	312058	312016	7	±2 %	±5 %	60
23.5 % Oxygen // Nitrogen	1	317608	323558	326810	327416	7	±2 %	±5 %	60
Any concentration of Oxygen // Nitrogen between 0.1 % - 21 %	1	✗	✓	✓	✓	7	±2 %	±5 %	60
Pentane (C_5H_{12})									
0.7 % Pentane // Air	1	312157	313156	312156	312155	7	±2 %	±5 %	60
Any concentration of Pentane in Air between 0.1 % - 0.7 %	1	✓	✓	✓	✓	7	±2 %	±5 %	60

Mixture	Cat.	Aerosol	34L	58L	110L	Days	Cert. tol.	Prod. tol.	Stability (months)
Phosphine (PH_3)									
0.5 ppm Phosphine // Nitrogen	4	✗	199405	199390	411491	12	±10 %	±20 %	12
5 ppm Phosphine // Nitrogen	4	✗	406787	414925	400561	12	±10 %	±20 %	12
10 ppm Phosphine // Nitrogen	4	✗	199603	403193	446914	12	±10 %	±20 %	12
Propane (C_3H_8)									
0.1 % Propane // Air	1	315542	317558	313954	315713	7	±2 %	±5 %	60
0.5 % Propane // Air	1	315899	312066	317181	314681	7	±2 %	±5 %	60
0.68 % Propane // Air	1	312105	312941	312055	322344	7	±2 %	±5 %	60
0.85 % Propane // Air	1	312103	312064	314401	312046	7	±2 %	±5 %	60
0.9 % Propane // Air	1	333465	319465	328113	321886	7	±2 %	±5 %	60
1 % Propane // Air	1	312092	312077	312053	312047	7	±2 %	±5 %	60
1.1 % Propane // Air	1	312088	312072	314885	312048	7	±2 %	±5 %	60
50 % Propane // Nitrogen	1	329434	315536	326644	324629	7	±2 %	±5 %	60
100 % Propane (2.5)	1	444441	430304	443722	✗	7	N/A	N/A	60
Any concentration of Propane // Air between 5 ppm - 1.1 %	1	✓	✓	✓	✓	7			60
Propylene (C_3H_6)									
1 % Propylene // Air	1	332903	315077	317602	315398	7	±2 %	±5 %	60
Refrigerant R12									
1000 ppm Refrigerant R12 // Air	1	352250	352251	352252	347302	7	±2 %	±5 %	60
Refrigerant R123									
1000 ppm Refrigerant R123 // Air	1	339978	334588	339350	339349	7	±2 %	±5 %	60
Refrigerant R1234YF									
1000 ppm Refrigerant R1234YF // Air	1	339982	339421	335745	339420	7	±2 %	±5 %	60
Refrigerant R1234ZE									
1000 ppm Refrigerant R1234ZE // Air	1	352697	352698	352699	350503	7	±2 %	±5 %	60
Refrigerant R125									
1000 ppm Refrigerant R125 // Air	1	352253	335522	352254	344026	7	±2 %	±5 %	60
Refrigerant R134A									
500 ppm Refrigerant R134A // Air	1	312227	314463	320938	313424	7	±2 %	±5 %	60
1000 ppm Refrigerant R134A // Air	1	312122	312124	313495	312123	7	±2 %	±5 %	60
2000 ppm Refrigerant R134A // Air	1	312205	320337	316529	321377	7	±2 %	±5 %	60
Refrigerant R14									
1000 ppm Refrigerant R14 // Air	1	335106	335148	335104	335105	7	±2 %	±5 %	60
Refrigerant R143A									
1000 ppm Refrigerant R143A // Air	1	333534	328703	314848	329371	7	±2 %	±5 %	60
Refrigerant R22									
100 ppm Refrigerant R22 // Air	1	334622	332789	334623	327974	7	±2 %	±10 %	60
1000 ppm Refrigerant R22 // Air	1	314978	314548	321969	315130	7	±2 %	±5 %	60
2000 ppm Refrigerant R22 // Air	1	316854	334624	334626	334625	7	±2 %	±5 %	60
Refrigerant R227EA									
1000 ppm Refrigerant R227EA // Air	1	352255	352256	352257	350478	7	±2 %	±5 %	60
Refrigerant R23									
1000 ppm Refrigerant R23 // Air	1	334695	334693	334696	334676	7	±2 %	±5 %	60
Refrigerant R32									
1000 ppm Refrigerant R32 // Air	1	352258	352259	352260	350623	7	±2 %	±5 %	60
Refrigerant R404A									
500 ppm Refrigerant R404A // Air	1	319274	334694	327991	327768	7	±2 %	±5 %	60
1000 ppm Refrigerant R404A // Air	1	319275	320625	322665	320098	7	±2 %	±5 %	60
2000 ppm Refrigerant R404A // Air	1	333377	334714	334715	325414	7	±2 %	±5 %	60
Refrigerant R407A									
1000 ppm Refrigerant R407A // Air	1	339983	339554	339552	339551	7	±2 %	±5 %	60
Refrigerant R407C									
1000 ppm Refrigerant R407C // Air	1	321489	328225	322664	319479	7	±2 %	±5 %	60
Refrigerant R407F									
1000 ppm Refrigerant R407F // Air	1	352249	352261	352262	350370	7	±2 %	±5 %	60
Refrigerant R410A									
1000 ppm Refrigerant R410A // Air	1	328756	322115	328951	319174	7	±2 %	±5 %	60
3000 ppm Refrigerant R410A // Air	1	329440	334716	334717	333324	7	±2 %	±5 %	60
Refrigerant R422A									
1000 ppm Refrigerant R422A // Air	1	352263	352264	352265	350453	7	±2 %	±5 %	60
Refrigerant R422D									
1000 ppm Refrigerant R422D // Air	1	339984	339681	339659	339658	7	±2 %	±5 %	60
Refrigerant R448A									
1000 ppm Refrigerant R448A // Air	1	352266	352267	352268	350454	7	±2 %	±5 %	60

Mixture	Cat.	Aerosol	34L	58L	110L	Days	Cert. tol.	Prod. tol.	Stability (months)
Refrigerant R449A									
1000 ppm Refrigerant R449A // Air	1	352269	352270	352271	350569	7	±2 %	±5 %	60
Refrigerant R500									
1000 ppm Refrigerant R500 // Air	1	352784	352785	352786	352831	7	±2 %	±5 %	60
Refrigerant R507									
1000 ppm Refrigerant R507 // Air	1	334718	327168	334719	333333	7	±2 %	±5 %	60
2000 ppm Refrigerant R507 // Air	1	334720	332766	334721	328824	7	±2 %	±5 %	60
Silane (SiH_4)									
5 ppm Silane // Nitrogen	4	✗	199393	199394	406788	12	±10 %	±20 %	12
10 ppm Silane // Nitrogen	4	✗	403197	409398	414446	12	±10 %	±20 %	12
15 ppm Silane // Nitrogen	4	✗	421142	199389	417922	12	±10 %	±20 %	12
Sulphur Dioxide (SO_2)									
10 ppm Sulphur Dioxide // Nitrogen	2	✗	312721	312243	312241	15	±10 %	±20 %	24
20 ppm Sulphur Dioxide // Nitrogen	2	✗	313174	314058	315275	15	±10 %	±20 %	24
100 ppm Sulphur Dioxide // Nitrogen	2	✗	334745	313533	313944	15	±2 %	±10 %	24
2000 ppm Sulphur Dioxide // Nitrogen	2	✗	334746	334747	315501	15	±2 %	±5 %	24
Any concentration of Sulphur Dioxide // Air between 5 ppm - 100 ppm	2	✗	✓	✓	✓	15			24
Any concentration of Sulphur Dioxide // Nitrogen between 5 ppm - 2000 ppm	2	✗	✓	✓	✓	15			24
Sulphur Hexafluoride (SF_6)									
500 ppm Sulphur Hexafluoride // Air	1	334748	318277	334749	326148	7	±2 %	±5 %	60
1000 ppm Sulphur Hexafluoride // Air	1	321076	314185	334863	320099	7	±2 %	±5 %	60
1 % Sulphur Hexafluoride // Air	1	322970	334864	334865	333924	7	±2 %	±5 %	60
100 % Sulphur Hexafluoride (4.0)	1	440596	446790	404333	✗	7	N/A	N/A	60
Toluene (C_7H_8)									
100 ppm Toluene // Air (pressure restricted 750 psig)	1	333320	333332	333331	313113	7	±2 %	±10 %	60
200 ppm Toluene // Air (pressure restricted 400 psig)	1	319154	327123	334866	314240	7	±2 %	±5 %	60
Vinyl Chloride (VCM) (C_2H_3Cl)									
10 ppm Vinyl Chloride // Nitrogen	3	✗	313649	326073	325696	15	±10 %	±20 %	60
2-gas mixes									
1 % Propane / 18 % Oxygen // Nitrogen	1	334867	333339	334892	319010	7	±2 %	±5 %	60
8 % Butane / 13.8 % Carbon Dioxide // Nitrogen (pressure restricted 100 psig)	1	312638	312637	326074	317521	7	±2 %	±5 %	60
1 % Methane / 3 % Carbon Dioxide // Nitrogen	1	334944	323882	334893	334894	7	±2 %	±5 %	60
1.5 % Methane / 15 % Oxygen // Nitrogen	1	334945	313157	334895	312159	7	±2 %	±5 %	60
1.62 % Methane / 18 % Oxygen // Nitrogen	1	334946	320628	334897	334896	7	±2%	±5%	60
0.9 % Butane / 18 % Oxygen // Nitrogen	1	334947	334948	334949	322614	7	±2%	±5%	60
0.7 % Pentane / 15 % Oxygen // Nitrogen	1	335026	327082	365970	333575	7	±2%	±5%	60
0.7 % Pentane / 18 % Oxygen // Nitrogen	1	335027	335031	329096	322616	7	±2%	±5%	60
25 % Nitrogen / 35 % Carbon Dioxide // Methane	1	335028	335029	335030	315941	7	±2%	±5%	60
2.2 % Methane / 18 % Oxygen // Nitrogen	1	335107	317603	319583	322615	7	±2%	±5%	60
2.5 % Methane / 18 % Oxygen // Nitrogen	1	335108	317598	317601	321835	7	±2%	±5%	60
5 % Methane / 10 % Carbon Dioxide // Nitrogen	1	335109	335110	313128	333323	7	±2%	±5%	60
0.5 % Oxygen / 30 % Carbon Dioxide // Nitrogen	1	312671	333311	333312	332611	7	±2%	±5%	60
3-gas mixes									
2 % Carbon Dioxide / 2.5 % Methane / 15 % Oxygen // Nitrogen	2	319138	321547	312182	312183	7	±2%	±5%	60
50 ppm Carbon Monoxide / 4 % Methane / 5 % Carbon Dioxide // Nitrogen	2	335111	335112	335113	312189	7	±2%	±5%	60
5 % Carbon Dioxide / 5 % Methane / 6 % Oxygen // Nitrogen	2	313023	333335	312945	312740	7	±2%	±5%	60
50 ppm Carbon Monoxide / 2.2 % Methane / 18 % Oxygen // Nitrogen	2	335203	335320	335321	320051	7	±2%	±5%	60
50 ppm Carbon Monoxide / 2.5 % Methane / 12 % Oxygen // Nitrogen	2	335204	317405	316069	314802	7	±2%	±5%	60
50 ppm Carbon Monoxide / 2.5 % Methane / 18 % Oxygen // Nitrogen	2	335205	335322	335323	314095	7	±2%	±5%	60
100 ppm Carbon Monoxide / 2.2 % Methane / 15 % Oxygen // Nitrogen	2	335206	312207	318227	318677	7	±2%	±5%	60
100 ppm Carbon Monoxide / 2.5 % Methane / 19 % Oxygen // Nitrogen	2	317595	312078	320908	312741	7	±2%	±5%	60
100 ppm Carbon Monoxide / 2.5 % Methane / 18 % Oxygen // Nitrogen	2	335207	317605	317604	330312	7	±2%	±5%	60
100 ppm Carbon Monoxide / 2.2 % Methane / 18 % Oxygen // Nitrogen	2	335208	317607	317606	324949	7	±2%	±5%	60
25 ppm Hydrogen Sulphide / 2.5 % Methane / 18.5 % Oxygen // Nitrogen	3	✗	312682	313502	355539	15	Dif.	Dif.	24
50 ppm Hydrogen Sulphide / 2.5 % Methane / 17 % Oxygen // Nitrogen	3	✗	313648	335324	355540	15	Dif.	Dif.	24
15 ppm Hydrogen Sulphide / 0.75 % Methane / 18 % Oxygen // Nitrogen	3	✗	335325	318676	355541	15	Dif.	Dif.	24
4-gas mixes									
60 ppm Carbon Monoxide / 1.5 % Carbon Dioxide / 2.5 % Methane / 18 % Oxygen // Nitrogen	2	335434	335435	335436	315544	7	±2%	±5%	60
100 ppm Carbon Monoxide / 2 % Carbon Dioxide / 2.2 % Methane / 15 % Oxygen // Nitrogen	2	335437	312178	312180	312179	7	±2%	±5%	60
100 ppm Carbon Monoxide / 2 % Carbon Dioxide / 0.75 % Propane / 15 % Oxygen // Nitrogen	2	335438	335439	319788	317616	7	±2%	±5%	60
100 ppm Hydrogen / 100 ppm Methane / 5 % Carbon Dioxide / 16 % Oxygen // Nitrogen	2	312235	335440	333337	329270	7	±2%	±5%	60
4-gas (Quad) mixes									
10 ppm H_2S / 50 ppm CO / 2.2 % CH_4 / 18 % O_2 // N_2	3	✗	332283	312706	355543	15	Dif.	Dif.	24
10 ppm H_2S / 50 ppm CO / 2.5 % CH_4 / 18 % O_2 // N_2	3	✗	315593	312650	355544	15	Dif.	Dif.	24
10 ppm H_2S / 50 ppm CO / 2.5 % CH_4 / 20.9 % O_2 // N_2	3	✗	332286	312200	355545	15	Dif.	Dif.	24
15 ppm H_2S / 50 ppm CO / 2.5 % CH_4 / 18 % O_2 // N_2	3	✗	334923	313129	355546	15	Dif.	Dif.	24

Mixture	Cat.	Aerosol	34L	58L	110L	Days	Cert. tol.	Prod. tol.	Stability (months)
15 ppm H_2S / 100 ppm CO / 2.2 % CH_4 / 18 % O_2 // N_2	3	✗	329195	329194	356109	15	Dif.	Dif.	24
15 ppm H_2S / 100 ppm CO / 2.5 % CH_4 / 18 % O_2 // N_2	3	✗	314000	312121	355547	15	Dif.	Dif.	24
15 ppm H_2S / 100 ppm CO / 2 % CO_2 / 15 % O_2 // N_2	3	✗	312216	314009	355548	15	Dif.	Dif.	24
15 ppm H_2S / 250 ppm CO / 2.5 % CH_4 / 18 % O_2 // N_2	3	✗	318503	312952	355572	15	Dif.	Dif.	24
15 ppm H_2S / 2 % CO_2 / 2.5 % CH_4 / 15 % O_2 // N_2	3	✗	313428	313177	355573	15	Dif.	Dif.	24
20 ppm H_2S / 60 ppm CO / 1.45 % CH_4 / 15 % O_2 // N_2	3	✗	316016	312242	355490	15	Dif.	Dif.	24
25 ppm H_2S / 50 ppm CO / 1.62 % CH_4 / 18 % O_2 // N_2	3	✗	320048	320176	355491	15	Dif.	Dif.	24
25 ppm H_2S / 50 ppm CO / 2.2 % CH_4 / 12 % O_2 // N_2	3	✗	328729	329582	355574	15	Dif.	Dif.	24
25 ppm H_2S / 50 ppm CO / 2.2 % CH_4 / 18 % O_2 // N_2	3	✗	335513	312199	355575	15	Dif.	Dif.	24
25 ppm H_2S / 50 ppm CO / 2.5 % CH_4 / 18 % O_2 // N_2	3	✗	314538	312138	355576	15	Dif.	Dif.	24
25 ppm H_2S / 50 ppm CO / 2.5 % CH_4 / 19 % O_2 // N_2	3	✗	329994	333297	355492	15	Dif.	Dif.	24
25 ppm H_2S / 50 ppm CO / 2.5 % CH_4 / 20.9 % O_2 // N_2	3	✗	332330	317408	355577	15	Dif.	Dif.	24
25 ppm H_2S / 50 ppm CO / 2.5 % CH_4 / 12.0 % O_2 // N_2	3	✗	312137	312663	355578	15	Dif.	Dif.	24
25 ppm H_2S / 50 ppm CO / 0.9 % Iso-Butane / 12 % O_2 // N_2	3	✗	313160	312651	355579	15	Dif.	Dif.	24
25 ppm H_2S / 65 ppm CO / 1.5 % CH_4 / 18.5 % O_2 // N_2	3	✗	335514	315531	355580	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 1.25 % CH_4 / 18 % O_2 // N_2	3	✗	317672	319480	355493	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 2.2 % CH_4 / 18 % O_2 // N_2	3	✗	312118	312117	355581	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 2.2 % CH_4 / 20.9 % O_2 // N_2	3	✗	319435	316092	355582	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 2.5 % CH_4 / 18 % O_2 // N_2	3	✗	312198	312201	355583	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 2.5 % CH_4 / 18.5 % O_2 // N_2	3	✗	313159	312191	355584	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 2.5 % CH_4 / 19 % O_2 // N_2	3	✗	312940	315870	355494	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 2.5 % CH_4 / 20.9 % O_2 // N_2	3	✗	312705	312244	355585	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 0.85 % Propane / 18 % O_2 // N_2	3	✗	319878	319877	355586	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 0.35 % Pentane / 18 % O_2 // N_2	3	✗	326282	314131	355587	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 0.7 % Pentane / 18 % O_2 // N_2	3	✗	320464	319221	355473	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 1.1 % Propane / 18 % O_2 // N_2	3	✗	319433	312210	355474	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 1.1 % Propane / 19 % O_2 // N_2	3	✗	333318	312208	355475	15	Dif.	Dif.	24
25 ppm H_2S / 200 ppm CO / 2.5 % CH_4 / 17 % O_2 // N_2	3	✗	335515	321818	355477	15	Dif.	Dif.	24
25 ppm H_2S / 200 ppm CO / 0.7 % Pentane / 18 % O_2 // N_2	3	✗	335521	320550	355478	15	Dif.	Dif.	24
40 ppm H_2S / 100 ppm CO / 2.2 % CH_4 / 15 % O_2 // N_2	3	✗	312119	314889	355720	15	Dif.	Dif.	24
40 ppm H_2S / 100 ppm CO / 2.5 % CH_4 / 15 % O_2 // N_2	3	✗	312131	314467	355479	15	Dif.	Dif.	24
40 ppm H_2S / 2 % CO_2 / 2.5 % CH_4 / 15 % O_2 // N_2	3	✗	312133	312134	338312	15	Dif.	Dif.	24
50 ppm H_2S / 200 ppm CO / 2.2 % CH_4 / 17 % O_2 // N_2	3	✗	312686	312673	355480	15	Dif.	Dif.	24
50 ppm H_2S / 200 ppm CO / 2.5 % CH_4 / 17 % O_2 // N_2	3	✗	320465	314115	355481	15	Dif.	Dif.	24
50 ppm H_2S / 500 ppm CO / 2.5 % CH_4 / 18 % O_2 // N_2	3	✗	327042	312939	355482	15	Dif.	Dif.	24
5-gas (Quint) mixes									
15 ppm H_2S / 50 ppm CO / 2 % CO_2 / 2.5 % CH_4 / 18 % O_2 // N_2	4	✗	335517	326040	355483	15	Dif.	Dif.	24
15 ppm H_2S / 100 ppm CO / 1 % CO_2 / 2.5 % CH_4 / 18 % O_2 // N_2	4	✗	312880	317524	355484	15	Dif.	Dif.	24
15 ppm H_2S / 100 ppm CO / 2 % CO_2 / 2.5 % CH_4 / 15 % O_2 // N_2	4	✗	315250	312652	355485	15	Dif.	Dif.	24
15 ppm H_2S / 100 ppm CO / 2 % CO_2 / 0.75 % Butane / 15 % O_2 // N_2	4	✗	335518	335519	355486	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 5000 ppm CO_2 / 2.2 % CH_4 / 18 % O_2 // N_2	4	✗	319453	318857	355721	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 5000 ppm CO_2 / 2.5 % CH_4 / 18 % O_2 // N_2	4	✗	319460	319459	355487	15	Dif.	Dif.	24
25 ppm H_2S / 100 ppm CO / 2 % CO_2 / 2.5 % CH_4 / 20.9 % O_2 // N_2	4	✗	335520	327770	355488	15	Dif.	Dif.	24
40 ppm H_2S / 100 ppm CO / 2 % CO_2 / 2.2 % CH_4 / 15 % O_2 // N_2	4	✗	319876	334631	355489	15	Dif.	Dif.	24
Complex Mixtures									
10 ppm Benzene 10 ppm Ethyl-Benzene 10 ppm Toluene 10 ppm M-Xylene 10 ppm O-Xylene 10 ppm P-Xylene Balance Nitrogen	2	314039	335914	333328	333379	7	±10%	±20%	60
100 ppm Hydrogen 500 ppm Carbon Dioxide 500 ppm Carbon Monoxide 500 ppm Ethane 500 ppm Ethylene 500 ppm Acetylene 500 ppm Methane Balance Air	2	312640	335916	335944	335945	7	±10%	±20%	60
100 ppm Methane 100 ppm Ethane 100 ppm Propane 100 ppm Butane 100 ppm Pentane 100 ppm Hexane Balance Nitrogen	2	315649	335915	335943	331739	7	±2%	±10%	60

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