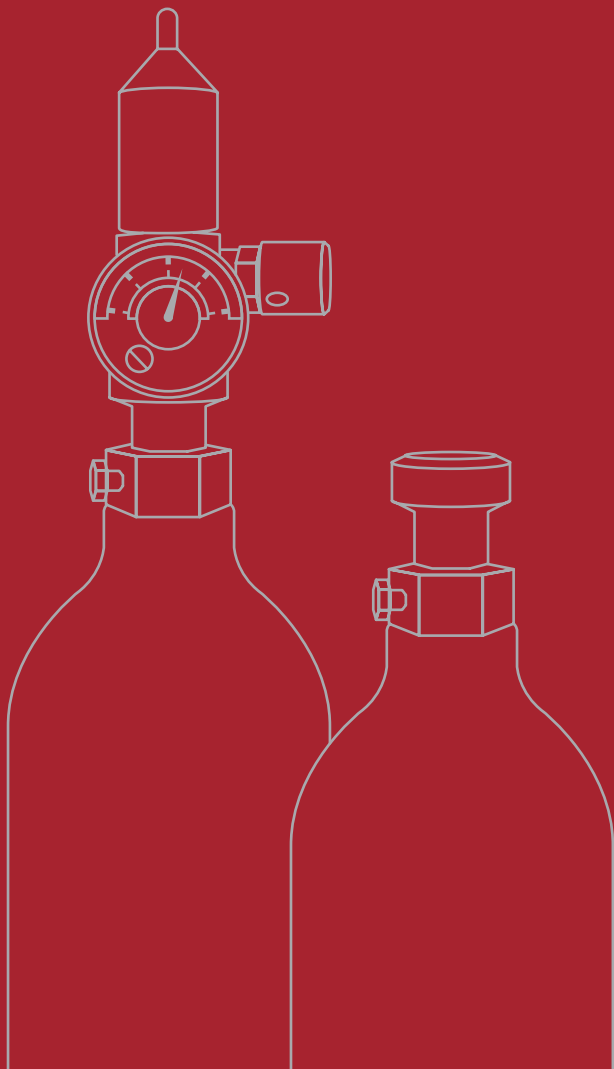


rigas | ONE™

Compact · High pressure · Refillable
Calibration Gases



RIGAS 리가스
Research Institute of Gas Analytical Science

Company Information

A Company specialized in Production, Analysis and Research of Standard Materials

(주)리가스의 모든 표준가스는 초정밀 고용량의 천칭을 사용한 중량법으로 제조되며 각종 성분량은 다양한 전용 가스분석기 등으로 정량, 확인하여 그 정확도를 보장합니다.

RIGAS Co., Ltd manufactures all standard gases in gravimetric method using high precision and high capacity scale. We guarantee the accuracy for the concentration of every component by quantifying and verifying with various gas analyzers.

A company manufacturing variety of Standard Materials

(주)리가스는 고객이 원하는 다양한 사양의 표준물질을 제공해드리고 있습니다.

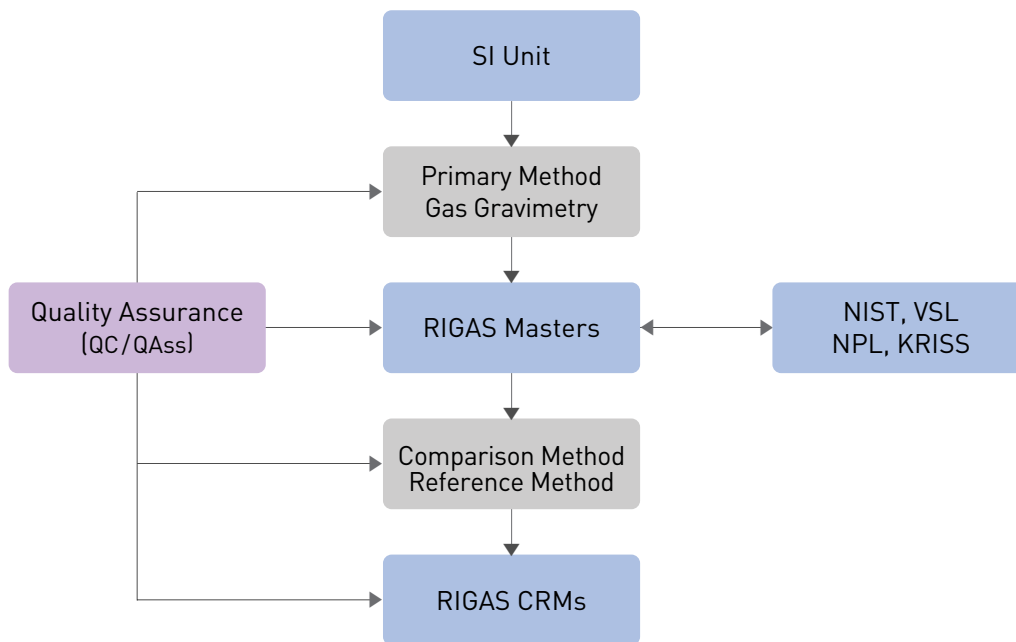
RIGAS Co., Ltd provides standard gases in various specifications that customers need.

- Atmospheric Environmental Calibration Standards
- Petrochemical and Natural Gas Standards
- Odor Standards
- Toxic Gas Mixtures
- Automobile Exhaust Gas Standards
- Laser Gas Mixtures
- Volatile Organic Compound Standards (VOCs)
- Other Gas Mixtures



Traceability

Our analytical operations are traceable through a calibration standard produced to either a recognized international standard such as NIST, VSL, NPL, KRISS or a gravimetrically manufactured Primary Reference Standard traceable to KRISS standard masses.



Approvals

- 약 66만 여종의 고압가스 표준물질 제조허가 보유
- 환경측정용 표준가스 검정을 위한 공인검사기관으로 지정
- KS Q ISO 9001-2015 인증 및 KS Q ISO/IEC 17025:2006 인정
- 다수의 지적재산권 보유
- Acquired about 660,000 kinds of standard substance manufacturing licenses
- Appointed as a government-authorized standard gas testing and certification agency by Korea National Institute of Environmental Research
- KS Q ISO 9001-2015 certification and KS Q ISO/IEC 17025:2006 accreditation
- Multiple Intellectual Property Holding

rigas | ONE™

rigas | ONE™은 (주)리가스에서 개발한 소형사이즈의 고압 표준가스 상품입니다. 언제 어디서나 간편하게 사용할 수 있도록 제작되었으며 잔압이 소진된 용기에 재충전하여 공급이 가능합니다. 검지기 교정 등 필요한 다양한 성분 및 농도를 제공해 드리며 소형용기의 표준가스가 필요한 사용자 분들께 추천해드립니다.

rigas | ONE™ developed by RIGAS Co., Ltd is a compact high pressure standard gas. It is made to be easy to use anywhere at anytime and can be refilled if all gas is used. RIGAS provides customers with the various components and concentrations needed for the calibration and so on. **rigas | ONE™** is recommended for customers who need a small size cylinder.

Information

Cylinder				
	Size	1 L (D 8.5cm, H 28.5 cm)	Weight	0.84 kg
	Material	Aluminum	T.P	12.4 MPa
Valve				
	Body	Ni plated Brass	O-ring	Viton
	Connection	5/8-18 UNF thread	T.P	12.4MPa

※ If you have any inquiry on regulator and accessory, ask for consultation and we will provide further information.

레귤레이터 및 기타 액세서리는 문의해 주시기 바랍니다.

Special features

- 실린더 및 밸브는 DOT-39 및 KGS (한국가스안전공사 Korea Gas Safety Corporation) 인증을 받은 제품으로 품질과 안전이 보증된 제품입니다.
- 모든 제품은 중량법으로 제조됩니다.
- 모든 제품은 분석 후 성적서와 함께 고객에게 제공됩니다.
- 모든 제품은 국제적인 국가표준기관에 의해 소급성을 유지하고 있습니다.
- 고객이 원하는 압력으로 제공해드리며 최대 10 MPa까지 충전하여 보급 가능합니다.
- The quality and safety of cylinders and valves are guaranteed as certified products of DOT-39 and KGS(Korea Gas Safety Corporation).
- All products are manufactured by gravimetric method.
- All products are provided to customers with certificate of analysis.
- All products are traceable through international standard institution.
- We will supply customers with the pressure you want and it can be refilled up to 10 MPa.

Gas specifications

Pure gas

Components	Concentration (cmol/mol)	Shelf life(month)
N2	99.999 / 99.9999	36
O2	99.999 / 99.999+(by Electrolysis)	36
Air	Air / zero-Air / UHP-Air	36

Non-reactive gas

Components	Concentration (cmol/mol)	Balance	Uncertainty(%)	Blending tolerance(%)	Shelf life (month)
H2	2.00	Air	2	2	36
O2	2.00	N2	2	2	36
O2	4.00	N2	2	2	36
O2	10.00	N2	2	2	36
O2	20.9	N2	2	2,	36
iso-C4H8	0.01	Air	2	3	24
Benzene	0.0500	Air	2	2	24
BTEX mix	0.0005 ~ 0.0010	N2	3 ~ 5	5	12

Automobile Exhaust Gas

Components	Concentration (cmol/mol)	Balance	Uncertainty(%)	Blending tolerance(%)	Shelf life (month)
CH4	2.50	Air	2	2	36
iso-C4H10	0.900	Air	2	2	24
CO2	14	N2	2	2	24
C3H8	0.2				
CO	1				
O2	1				

※ If you have any inquiry on products and mixing besides the above components and concentration, ask for consultation and we will provide further information.

E-mail : master@rigas.co.kr [Domestic-Korea], sales@rigas.co.kr [Overseas]

Gas specifications

Reactive gas (single component)

Components	Concentration (cmol/mol)	Balance	Uncertainty(%)	Blending tolerance(%)	Shelf life (month)
NO	0.0010	N2	3	10	24
SO2	0.0010	N2	3	10	24
CO	0.0010	N2	3	10	24
H2S	0.0025	N2/Air	3	10	24
H2S	0.0040	N2/Air	3	10	24
H2S	0.0050	N2/Air	2	10	24
NH3	0.0025	N2	3	10	18
NH3	0.0050	N2	3	10	18
NH3	0.0100	N2	2	5	18
HCl	0.0010	N2	3	15	12
HCN	0.0010	N2	5	15	18
Cl2	0.0005	N2	5	15	9
Cl2	0.0010	N2	5	15	9
C2H5OH	0.1~0.2	Air	2	5	36
PH3	0.00006	N2	10	20	18
NO2	0.0050	N2	2	10	7
SiH4	0.0010	N2	5	15	12
C2H4O	0.0300	N2	3	10	12

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Gas specifications

Reactive gas (multi components)

Components	Concentration (cmol/mol)	Balance	Uncertainty(%)	Blending tolerance(%)	Shelf life (month)
H2S CO CH4 O2	0.0010 ~ 0.0050 0.0050 ~ 0.05 1.45 ~ 2.5 15 ~ 19	N2	2 2 2 2	10 3 2 2	12
H2S CO CH4 O2 SO2	0.0020 0.0060 1.45 15 0.0010	N2	3 2 2 2 3	10 10 5 5 15	12
H2S CO CO2 C5H12 O2	0.0015 0.005 2 2.5 18	N2	5 2 2 2 2	15 10 3 3 5	12
H2S CO C5H12 O2	0.0025 0.01 0.35 19	N2	3 2 3 2	10 5 10 5	12
CO CH4 O2	0.0060 2.5 15	N2	2 2 2	10 5 5	24
CH3SH H2S	0.0010 0.0010	N2	5 5	15 15	12
DMS DMDS	0.0010 0.0010	N2	5 5	15 15	12

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