

# REFINERY OFF GAS STANDARDS

## DESCRIPTION

### SETTING THE STANDARD

Red Ball TGS manufactures a variety of different refinery off gas standards.

All standards are NIST traceable and analyzed prior to shipment, and we offer some of the fastest lead times in the industry. These products are offered in a variety of different cylinder sizes from low pressure cylinders to high pressure cylinders.



ROG-A (Refinery Off Gas)		ROG-B (Refinery Off Gas)		ROG-C (Refinery Off Gas)		ROG-D (Sour Refinery Off Gas)	
COMPONENT	CONCENTRATION	COMPONENT	CONCENTRATION	COMPONENT	CONCENTRATION	COMPONENT	CONCENTRATION
Hydrogen	12.50%	Hydrogen	12.50%	Argon	0.50%	Hydrogen Sulfide	0.50%
Argon	1.00%	Argon	1.00%	Nitrogen	4.00%	Hydrogen	12.50%
Carbon Monoxide	1.00%	Carbon Monoxide	1.00%	Carbon Monoxide	1.00%	Argon	1.00%
Carbon Dioxide	3.00%	Carbon Dioxide	3.00%	Carbon Dioxide	3.00%	Carbon Monoxide	1.00%
Methane	5.00%	Methane	5.00%	Methane	8.50%	Carbon Dioxide	3.00%
Ethane	4.00%	Ethane	4.00%	Ethane	6.00%	Methane	5.00%
Ethylene	2.00%	Ethylene	2.00%	Ethylene	2.00%	Ethane	4.00%
Acetylene	1.00%	Acetylene	1.00%	Propane	7.00%	Ethylene	2.00%
Propane	6.00%	Propane	6.00%	Propylene	3.00%	Acetylene	1.00%
Propylene	3.00%	Propylene	3.00%	Propadiene	0.85%	Propane	6.00%
Propadiene	1.00%	Propadiene	1.00%	Isobutane	6.00%	Propylene	3.00%
Isobutane	5.00%	Cyclopropane	0.04%	n-Butane	4.00%	Propadiene	1.00%
n-Butane	4.00%	Isobutane	5.00%	Isobutylene	2.00%	Isobutane	5.00%
Isobutylene	1.00%	n-Butane	4.00%	1,3-Butadiene	3.00%	n-Butane	4.00%
1,3-Butadiene	3.00%	Isobutylene	1.00%	cis-2-Butene	2.00%	Isobutylene	1.00%
cis-2-Butene	2.00%	1,3-Butadiene	3.00%	trans-2-Butene	2.00%	1,3-Butadiene	3.00%
trans-2-Butene	3.00%	cis-2-Butene	2.00%	1-Butene	2.00%	cis-2-Butene	2.00%
1-Butene	2.00%	trans-2-Butene	3.00%	Isopentane	1.00%	trans-2-Butene	3.00%
2-Methyl-2-Butene	0.20%	1-Butene	2.00%	n-Pentane	1.00%	1-Butene	2.00%
Isopentane	1.00%	2-Methyl-2-Butene	0.20%	n-Hexane	0.50%	2-Methyl-2-Butene	0.20%
n-Pentane	1.00%	Isopentane	1.00%	Hydrogen	40.65%	Isopentane	1.00%
cis-2-Pentene	0.18%	n-Pentane	1.00%			n-Pentene	1.00%
trans-2-Pentene	0.42%	cis-2-Pentene	0.18%			cis-2-Pentene	0.18%
1-Pentene	0.40%	trans-2-Pentene	0.42%			Trans-2-Pentene	0.42%
Hexanes + (C10 Extended)	0.10%	1-Pentene	0.40%			1-Pentene	0.40%
Nitrogen	37.20%	n-Hexane	0.10%			Hexanes +	0.10%
		Nitrogen	37.16%			Nitrogen	36.70%