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ITEM NO.	COMMODITY NO. SUPPLIER PART NO.	SUPPLIER NO.	UNIT	DESCRIPTION	UNIT PRICE
				GROUP I - PURE GASES	
1	6830-478-2021-2	387308	CI	HYDROGEN 99.995% PURE GAS CHROMATOGRAPHIC CARRIER GRADE, NOT MORE THAN 1 PPM WATER. CYLINDER FITTING IS CGA-580. 191 CU. FT. STEEL CYLINDER.	28.0800
2	6830-478-3077-1	387308	CI	HELIUM 99.9999% CHROMATOGRAPHIC PURE GAS CHROMATOGRAPHIC CARRIER GRADE. LESS THAN 20 PPB WATER. CYLINDER FITTING IS CGA-580. 220 CU. FT. STEEL CYLINDER.	119.6000
3	6830-000-0032-2	387308	CI	PROPANE (C3H8) 99.5% PURE INSTRUMENT GRADE (CGA 510) 220 CU. FT. STEEL CYLINDER.	108.1600
4	1096-000-0718-8	387308	CI	OXYGEN (AS DESCRIBED) 99.98% PURE. CYLINDER FITTING IS CGA-540. 249 CU. FT. STEEL CYLINDER.	62.4000
5	1096-000-0718-8	387308	CI	OXYGEN (AS DESCRIBED) RESEARCH GRADE OXYGEN. 99.999% ULTRA PURE. CYLINDER FITTING IS CGA-540. LESS THAN 0.1 PPM NOx. LESS THAN 1 PPM WATER. 220 CU. FT. STEEL CYLINDER.	120.6400

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ITEM NO.	COMMODITY NO. SUPPLIER PART NO.	SUPPLIER NO.	UNIT	DESCRIPTION	UNIT PRICE
6	6830-478-3077-1	387308	CI	HELIUM 99.9999% CHROMATOGRAPHIC PURE 99.9999% PURITY. LESS THAN 20 PPB WATER CYLINDER FITTING IS CGA-580. 300 CU. FT. STEEL CYLINDER WITH BUILT IN PURIFIER. (NOTE: PURITY MAY BE MET BY USING INTEGRATED PURIFIER)	137.2800
7	6830-478-3030-8	387308	CI	ARGON 99.999% PURE FOR THIS ITEM ONLY, 50 CI IS TO BE 50 PACKS OF 6 ULTRA HIGH PURITY (UHP GRADE), 99.999% PURITY UNIT: 6 CYLINDERS 248 CU. FT. STEEL CYLINDER, SUPPLIED AS A 6-PACK (6 CYLINDERS PER 6-PACK) LESS THAN 1.0 PPM OXYGEN LESS THAN 1.0 PPM WATER LESS THAN .5 PPM HYDROCARBONS LESS THAN 1.0 PPM CO + CO2 LESS THAN 5.0 PPM NITROGEN CYLINDER FITTING IS CGA-580	192.4000

ITEM NO.	COMMODITY NO. SUPPLIER PART NO.	SUPPLIER NO.	UNIT	DESCRIPTION	UNIT PRICE
				GROUP II - BLENDED GAS	
				ALL BLENDED GASES ARE TO BE ANALYZED AGAINST AN EXISTING GRAVIMETRIC MIXTURE PRIOR TO CERTIFICATION.	
8	6830-000-0035-8	387308	CI	HYDROGEN IN HELIUM 40%-60% HYDROGEN IN HELIUM, 40/60 MIXTURE. PREPARATION TOLERANCE IS TO BE PLUS OR MINUS 5% OF THE COMPONENT HYDROGEN, I.E., THE ACCEPTABLE HYDROGEN CONCENTRATION RANGE IS 38 TO 42 PERCENT. 99.995% PURITY OF BOTH GASES. LESS THAN 0.5 PPM HYDROCARBONS. CYLINDER FITTING IS CGA-350. 250 CU. FT. STEEL CYLINDER.	71.7600
9	6830-000-0035-8	387308	CI	HYDROGEN IN HELIUM 40%-60% HYDROGEN IN HELIUM, 40/60 MIXTURE. PREPARATION TOLERANCE IS TO BE PLUS OR MINUS 2.5% OF THE COMPONENT HYDROGEN, I.E., THE ACCEPTABLE HYDROGEN CONCENTRATION RANGE IS 39 TO 41 PERCENT. 99.995% PURITY OF BOTH GASES. LESS THAN 0.05 PPM HYDROCARBONS. CYLINDER FITTING IS CGA-350. 250 CU. FT. STEEL CYLINDER.	71.7600

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ITEM NO.	COMMODITY NO. SUPPLIER PART NO.	SUPPLIER NO.	UNIT	DESCRIPTION	UNIT PRICE
				GROUP III - LIQUID GASES	
10	6830-478-2007-8	387308	LI	NITROGEN LIQUID (BY THE LITER) 160 LITER DEWAR WITH HIGH PRESSURE PORTS (REFERENCE MFG. #PGS LN2)	0.3100
11	6830-478-2007-8	387308	LI	NITROGEN LIQUID (BY THE LITER) 160 LITER DEWAR 35 PSI RELIEF VALVE (REFERENCE MFG. #VL-160)	0.3100
12	6830-478-3080-1	387308	CI	ARGON LIQUID FOR THIS ITEM ONLY, 24 CI IS TO BE 24 DEWARS. INDUSTRIAL GRADE, 99.998% PURITY. SUPPLIED IN 160 LITER DEWAR. 230 PSI PRESSURE RELIEF VALVE.	192.4000
				GROUP IV - ZERO GASES	
13	6830-478-2046-7	387308	CI	AIR ZERO CYLINDER FITTING IS CGA-590, 220 CU. FT. STEEL CYLINDER. ZERO AIR MUST MEET THE FOLLOWING CRITERIA: LESS THAN 0.1 PPM TOTAL HYDROCARBONS LESS THAN 0.1 PPM METHANE (CH4) LESS THAN 0.1 PPM CARBON MONOXIDE (CO) LESS THAN 0.1 PPM CARBON DIOXIDE (CO2) LESS THAN 0.1 PPM (NOX) 20.0% - 22.0% OXYGEN LESS THAN 1 PPM H2O	29.1200

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ITEM NO.	COMMODITY NO. SUPPLIER PART NO.	SUPPLIER NO.	UNIT	DESCRIPTION	UNIT PRICE
14	6830-478-3078-3	387308	CI	NITROGEN 99.999% ULTRA PURE (BY THE CYLINDER) CYLINDER FITTING IS CGA-580 224 CU. FT. STEEL CYLINDER NITROGEN ULTRA PURE MUST MEET THE FOLLOWING CRITERIA: LESS THAN 2.0 PPM OXGEN LESS THAN 0.05 PPM TOTAL HYDROCARBONS LESS THAN 0.05 PPM METHANE (CH4) LESS THAN 0.1 PPM CARBON MONOXIDE (CO) LESS THAN 0.3 PPM CARBON DIOXIDE (CO2) LESS THAN 0.1 PPM (NOX) LESS THAN 2.0 PPM WATER (H2O)	20.8000
				<u>GROUP V - PRIMARY GAS STANDARDS</u>	
15	6830-000-0044-9	387308	CI	PROPANE (AS DESCRIBED) PROPANE (C3H8) IN AIR PROPANE IN AIR 0.5 - 6000 PPM CYLINDER FITTING IS CGA-590 140 CU. FT. TREATED / INTERNALLY STERILIZED ALUMINUM CYLINDER	140.4000

ITEM NO.	COMMODITY NO. SUPPLIER PART NO.	SUPPLIER NO.	UNIT	DESCRIPTION	UNIT PRICE
				ESTIMATED CONCENTRATION USAGE BREAKDOWN (FOR INFORMATION ONLY) 0.5 - 5 PPM (15) 5 - 10 PPM (15) 10 - 100 PPM (20) 100 - 1000 PPM (70) 1000 + (20) TOTAL 140 MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A)	
16	6830-000-0019-0	387308	CI	METHANE (AS DESCRIBED) CARBON MONOXIDE (CO) IN NITROGEN (N2) METHANE IN AIR 1.0 - 6000 PPM CYLINDER FITTING IS CGA-590 140 CU. FT TREATED / INTERNALLY STERILIZED ALUMINUM CYLINDERS ESTIMATED CONCENTRATION USAGE BREAKDOWN (FOR INFORMATION ONLY) 0.5 - 4.9 PPM (16) 5 - 50 PPM (110) 51 - 500 PPM (34) 500 - 1000 PPM (50) TOTAL 210 MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A)	140.4000

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ITEM NO.	COMMODITY NO. SUPPLIER PART NO.	SUPPLIER NO.	UNIT	DESCRIPTION	UNIT PRICE
17	6830-478-2049-2	387308	CI	CARBON MONOXIDE IN ZERO NITROGEN 5-999 PPM 140 CU. FT. ALUMINUM CYLINDER. CYLINDER FITTING IS CGA-350. MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A).	140.4000
18	6830-478-2052-2	387308	CI	CARBON MONOXIDE IN ZERO NITROGEN 1000-5000 PPM 140 CU. FT. IN ALUMINUM CYLINDER. CYLINDER FITTING IS CGA-350. MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A).	140.4000
19	6830-478-2053-4	387308	CI	CARBON MONOXIDE IN ZERO NITROGEN .5-10% 140 CU. FT. IN ALUMINUM CYLINDER. CYLINDER FITTING IS CGA-350. MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A).	140.4000
20	6830-478-2050-9	387308	CI	CARBON DIOXIDE IN ZERO NITROGEN .10-30% CARBON DIOXIDE (CO2) IN NITROGEN (N2). CYLINDER FITTING IS CGA-580. 140 CU. FT. ALUMINUM CYLINDER. MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A).	140.4000
21	6830-000-0010-3	387308	CI	HELIUM (AS DESCRIBED) HELIUM WITH 0.5 - 5% METHANE. CYLINDER FITTING IS CGA-350.	140.4000

ITEM NO.	COMMODITY NO. SUPPLIER PART NO.	SUPPLIER NO.	UNIT	DESCRIPTION	UNIT PRICE
				140 CU. FT. ALUMINUM CYLINDER. HELIUM PURITY 99.9995%. METHANE PURITY 99.97%. GRAVIMETRIC BLEND TO 1% CERTIFICATION. NOT MORE THAN 1 PPM H2O. MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A).	
22	6830-000-0010-3	387308	CI	HELIUM (AS DESCRIBED) HELIUM WITH 0.5 - 10.0% OXYGEN. CGA - 580 (PER CGA, THE OXYGEN LIMITS IN INERT GAS OF LESS THAN OR EQUAL TO 5% SPECIFIES CGA - 580 FITTINGS. OXYGEN PURITY 99.994% OR BETTER. HELIUM PURITY 99.9995% OR BETTER. GRAVIMETRIC BLEND TO 1% CERTIFICATION. 140 CU. FT. ALUMINUM CYLINDER LESS THAN 1 PPM H2O. MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A).	140.4000
23	6830-000-0010-3	387308	CI	HELIUM (AS DESCRIBED) HELIUM WITH 5% CARBON DIOXIDE. HELIUM PURITY 99.9995%. LESS THAN 1 PPM WATER. GRAVIMETRIC BLEND TO 1.0% CERTIFICATION. CYLINDER FITTING IS CGA - 580. 150 CU. FT. ALUMINUM CYLINDER. MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A).	140.4000

ITEM NO.	COMMODITY NO. SUPPLIER PART NO.	SUPPLIER NO.	UNIT	DESCRIPTION	UNIT PRICE
24	6830-478-2075-3	387308	CI	NITRIC OXIDE (AS DESCRIBED) NITRIC OXIDE (NO) IN NITROGEN (N2). NITRIC OXIDE 0.5 - 5000 PPM. LESS THAN 1 PPM WATER. CYLINDER FITTING IS CGA-660. 140 CU. FT. TREATED / INTERNALLY STERILIZED ALUMINUM CYLINDER. ESTIMATED CONCENTRATION USAGE BREAKDOWN (FOR INFORMATION ONLY). 0.5 - 9.9 PPM (6) 10 - 30 PPM (15) 30 - 99 PPM (166) 100 - 999 PPM (60) 1000 - 5000 PPM (80) TOTAL 327 MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A).	140.4000
25	6830-478-2055-8	387308	CI	NITRIC OXIDE IN ZERO NITROGEN 1000-5000 PPM 140 CU. FT. ALUMINUM CYLINDER. MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A).	140.4000
26	6830-478-3081-3	387308	CI	OXYGEN 21% NITROGEN 79% 140 CU. FT. ALUMINUM CYLINDER. LESS THAN 1 PPM WATER. MUST BE COMPLIANT TO THE ATTACHED GRAVIMETRIC ANALYSIS REQUIREMENTS (ATTACHMENT A).	140.4000

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ITEM NO.	COMMODITY NO. SUPPLIER PART NO.	SUPPLIER NO.	UNIT	DESCRIPTION	UNIT PRICE
27	6830-909-0001-8	387308	VA	CHMICL-DGS/PROCUREMENT USE ONLY	VARIABLE