

SPECIFICATIONS FOR CARBOB REGULAR GASOLINE

Product Code A1 (1) (2) (3)

<u>Specification Points</u>	<u>ASTM Method (2)</u>	<u>CARB 3</u>
Octane (R+M)/2	D-2699 D-2700	85.0 (84.0 cycle 3 2010)
Reid Vapor Pressure psi max.	Grabner-CA Equation D-323	5.99
Sulfur, ppmw	D-2622-94 D-5453-93	32
Benzene, Vol. % Max	D-5580-95	1.22
Aromatic HC, Vol. % Max	D-5580-00	38.7
Olefins, Vol. % Max	D-6550-00	11.1
Oxygen, Wt. %, Max	D-4815-99	0.009
Distillation, deg. F. T50, Max	D-86-99ae1	232
T90, Max		335
End Point, Max		437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Phosphorus, Max gm/gal	D-3231	0.005

- (1) In addition to above KMEP specifications, product must meet latest revision of ASTM D4814.
- (2) This CARBOB certified for 3.3-3.7 wt% oxygen range with 10 vol% ethanol.
- (3) This product does not comply with the standards for California gasoline without the addition of ethanol.

SPECIFICATIONS FOR CARBOB REGULAR GASOLINE

Product Code A2 (1) (2) (3) (4)

<u>Specification Points</u>	<u>ASTM Method (2)</u>	<u>CARB 3</u>
Octane (R+M)/2	D-2699 D-2700	85.0 (84.0 cycle 3 2010)
Reid Vapor Pressure psi max.	Grabner-CA Equation D-323	10.50
Sulfur, ppmw	D-2622-94 D-5453-93	32
Benzene, Vol. % Max	D-5580-95	1.22
Aromatic HC, Vol. % Max	D-5580-00	38.7
Olefins, Vol. % Max	D-6550-00	11.1
Oxygen, Wt. %, Max	D-4815-99	0.009
Distillation, deg. F. T50, Max	D-86-99ae1	237
T90, Max		335
End Point, Max		437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Phosphorus, Max gm/gal	D-3231	0.005

- (1) In addition to above KMEP specifications, product must meet latest revision of ASTM D4814.
- (2) This product requires the addition of 5.7 vol% ethanol for volumes tendered through all cycles of 2009.
- (3) This CARBOB certified for 3.3-3.7 wt% oxygen range with 10 vol% ethanol in 2010.
- (4) This product does not comply with the standards for California gasoline without the addition of ethanol.

SPECIFICATIONS FOR CARBOB REGULAR GASOLINE

Product Code A3 (1) (2) (3) (4)

<u>Specification Points</u>	<u>ASTM Method (2)</u>	<u>CARB 3</u>
Octane (R+M)/2	D-2699 D-2700	85.0 (84.0 cycle 3 2010)
Reid Vapor Pressure psi max.	Grabner-CA Equation D-323	12.50
Sulfur, ppmw	D-2622-94 D-5453-93	32
Benzene, Vol. % Max	D-5580-95	1.22
Aromatic HC, Vol. % Max	D-5580-00	38.7
Olefins, Vol. % Max	D-6550-00	11.1
Oxygen, Wt. %, Max	D-4815-99	0.009
Distillation, deg. F. T50, Max	D-86-99ae1	237
T90, Max		335
End Point, Max		437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Phosphorus, Max gm/gal	D-3231	0.005

- (1) In addition to above KMEP specifications, product must meet latest revision of ASTM D4814.
- (2) This product requires the addition of 5.7 vol% ethanol in Northern California in 2009. In Southern California, volumes tendered through and inclusive of cycles 44 - 48 require the addition of 5.7 vol% ethanol. An executed CARB protocol may temporarily suspend this obligation for blenders.
- (3) Effective cycle 1, 2010 and thereafter, this CARBOB certified for 3.3-3.7 wt% oxygen range with 10 vol% ethanol. An executed CARB protocol may temporarily suspend this obligation for blenders.
- (4) This product does not comply with the standards for California gasoline without the addition of ethanol.

SPECIFICATIONS FOR CARBOB REGULAR GASOLINE

Product Code A4 (1) (2) (3) (4)

<u>Specification Points</u>	<u>ASTM Method (2)</u>	<u>CARB 3</u>
Octane (R+M)/2 D-2700	D-2699	85.0 (84.0 cycle 3 2010)
Reid Vapor Pressure psi max.	Grabner-CA Equation D-323	14.00
Sulfur, ppmw	D-2622-94 D-5453-93	32
Benzene, Vol. % Max	D-5580-95	1.22
Aromatic HC, Vol. % Max	D-5580-00	38.7
Olefins, Vol. % Max	D-6550-00	11.1
Oxygen, Wt. %, Max	D-4815-99	0.009
Distillation, deg. F. T50, Max	D-86-99ae1	237
T90, Max		335
End Point, Max		437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Phosphorus, Max gm/gal	D-3231	0.005

- (1) In addition to above KMEP specifications, product must meet latest revision of ASTM D4814.
- (2) This product requires the addition of 5.7 vol% ethanol for volumes tendered through and inclusive of cycle 48 of 2009. An executed CARB protocol may temporarily suspend this obligation for blenders.
- (3) Effective cycle 1, 2010, this CARBOB produced to meet 3.3-3.7 wt% oxygen with 10 vol% ethanol. An executed CARB protocol may temporarily suspend this obligation for blenders.
- (4) This product does not comply with the standards for California gasoline without the addition of ethanol.

SPECIFICATIONS FOR CARBOB PREMIUM GASOLINE

Product Code B1 (1) (2) (3) (4)

<u>Specification Points</u>	<u>ASTM Method (2)</u>	<u>CARB 3</u>
Octane (R+M)/2	D-2699 D-2700	89.5 (88.5 cycle 3 2010)
Reid Vapor Pressure psi max.	Grabner-CA Equation D-323	5.99
Sulfur, ppmw	D-2622-94 D-5453-93	32
Benzene, Vol. % Max	D-5580-95	1.22
Aromatic HC, Vol. % Max	D-5580-00	38.7
Olefins, Vol. % Max	D-6550-00	11.1
Oxygen, Wt. %, Max	D-4815-99	0.009
Distillation, deg. F. T50, Max	D-86-99ae1	232
T90, Max		335
End Point, Max		437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Phosphorus, Max gm/gal	D-3231	0.005

- (1) In addition to above KMEP specifications, product must meet latest revision of ASTM D4814.
- (2) This CARBOB produced to meet 3.3-3.7 wt% oxygen with 10 vol% ethanol.
- (3) This product does not comply with the standards for California gasoline without the addition of ethanol.

SPECIFICATIONS FOR CARBOB PREMIUM GASOLINE

Product Code B2 (1) (2) (3) (4)

<u>Specification Points</u>	<u>ASTM Method (2)</u>	<u>CARB 3</u>
Octane (R+M)/2	D-2699 D-2700	89.5 (88.5 cycle 3 2010)
Reid Vapor Pressure psi max.	Grabner-CA Equation D-323	10.50
Sulfur, ppmw	D-2622-94 D-5453-93	32
Benzene, Vol. % Max	D-5580-95	1.22
Aromatic HC, Vol. % Max	D-5580-00	38.7
Olefins, Vol. % Max	D-6550-00	11.1
Oxygen, Wt. %, Max	D-4815-99	0.009
Distillation, deg. F. T50, Max	D-86-99ae1	237
T90, Max		335
End Point, Max		437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Phosphorus, Max gm/gal	D-3231	0.005

- (1) In addition to above KMEP specifications, product must meet latest revision of ASTM D4814.
- (2) This product requires the addition of 5.7 vol% ethanol for volumes tendered through and inclusive of cycle 44 of 2009.
- (3) This CARBOB certified for 3.3-3.7 wt% oxygen range with 10 vol% ethanol in 2010.
- (4) This product does not comply with the standards for California gasoline without the addition of ethanol.

SPECIFICATIONS FOR CARBOB PREMIUM GASOLINE

Product Code B3 (1) (2) (3) (4)

<u>Specification Points</u>	<u>ASTM Method (2)</u>	<u>CARB 3</u>
Octane (R+M)/2	D-2699 D-2700	89.5 (88.5 cycle 3 2010)
Reid Vapor Pressure psi max.	Grabner-CA Equation D-323	12.50
Sulfur, ppmw	D-2622-94 D-5453-93	32
Benzene, Vol. % Max	D-5580-95	1.22
Aromatic HC, Vol. % Max	D-5580-00	38.7
Olefins, Vol. % Max	D-6550-00	11.1
Oxygen, Wt. %, Max	D-4815-99	0.009
Distillation, deg. F. T50, Max	D-86-99a	237
T90, Max		335
End Point, Max		437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Phosphorus, Max gm/gal	D-3231	0.005

- (1) In addition to above KMEP specifications, product must meet latest revision of ASTM D4814.
- (2) This product requires the addition of 5.7 vol% ethanol in Northern California in 2009. In Southern California, volumes tendered through and inclusive of cycles 44 - 48 require the addition of 5.7 vol% ethanol. An executed CARB protocol may temporarily suspend this obligation for blenders.
- (3) Effective cycle 1, 2010 and thereafter, this CARBOB certified for 3.3-3.7 wt% oxygen range with 10 vol% ethanol. An executed CARB protocol may temporarily suspend this obligation for blenders.
- (4) This product does not comply with the standards for California gasoline without the addition of ethanol.

SPECIFICATIONS FOR CARBOB PREMIUM GASOLINE

Product Code B4 (1) (2) (3) (4)

<u>Specification Points</u>	<u>ASTM Method (2)</u>	<u>CARB 3</u>
Octane (R+M)/2	D-2699 D-2700	89.5 (88.5 cycle 3 2010)
Reid Vapor Pressure psi max.	Grabner-CA Equation D-323	14.00
Sulfur, ppmw	D-2622-94 D-5453-93	32
Benzene, Vol. % Max	D-5580-95	1.22
Aromatic HC, Vol. % Max	D-5580-00	38.7
Olefins, Vol. % Max	D-6550-00	11.1
Oxygen, Wt. %, Max	D-4815-99	0.009
Distillation, deg. F. T50, Max	D-86-99ae1	237
T90, Max		335
End Point, Max		437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Phosphorus, Max gm/gal	D-3231	0.005

- (1) In addition to above KMEP specifications, product must meet latest revision of ASTM D4814.
- (2) This product requires the addition of 5.7 vol% ethanol for volumes tendered through and inclusive of cycle 48 of 2009. An executed CARB protocol may temporarily suspend this obligation for blenders.
- (3) Effective cycle 1, 2010, this CARBOB produced to meet 3.3-3.7 wt% oxygen with 10 vol% ethanol. An executed CARB protocol may temporarily suspend this obligation for blenders.
- (4) This product does not comply with the standards for California gasoline without the addition of ethanol.

SPECIFICATIONS FOR UNLEADED SUB-OCTANE GASOLINE

Product Codes H6 thru H9 (1) (2) (3)

Product Codes 6H thru 9H (1) (2) (3)

Specification Points	<u>ASTM Method</u>	<u>Refinery Shipments</u>
Octane (R+M)/2	D-2699 D-2700	84.0
Reid Vapor Pressure psi max	D-4953, D-5191 Grabner EPA	(1)
Distillation, deg. F. End Point Max.	D-86	437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur, ppm max	D-4294, D-2622, D-5453	80*
Phosphorus Max. gm/gal.	D-3231	0.005

***NOTE: East Line registered Small Refiners may ship SRGAS with a sulfur content not to exceed their permissible cap per EPA regulations. SRGAS product codes will be the Numeric/Alpha reverse of their low sulfur counterparts. SRGAS may be delivered fungible with its low sulfur counterpart (i.e., H9 = 9H, etc.).**

- (1) RVP: H6/**6H** = 10.00, H7/**7H** = 11.5, H8/**8H** = 13.5, H9/**9H** = 9.0
- (2) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.
- (3) Maximum oxygen content is 0.05 weight %.

SPECIFICATIONS FOR UNLEADED PREMIUM GASOLINE

Product Codes L1 thru L4 (1) (2) (3)

Specification Points	ASTM Method	Refinery Shipments
Octane (R+M)/2	D-2699 D-2700	92.0
Reid Vapor Pressure psi max	D-4953, D-5191 Grabner EPA	(1)
Distillation, deg. F. End Point Max.	D-86	437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur, ppm max	D-4294, D-2622, D-5453	80
Phosphorus Max. gm/gal.	D-3231	0.005

- (1) L1 = 9.00 RVP, L2 = 11.50, L3 = 13.50, L4 = 15.00
- (2) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.
- (3) Maximum oxygen content is 0.05 weight %.

SPECIFICATIONS FOR UNLEADED PREMIUM GASOLINE
(Suboctane)
Product Codes L6 and L7 thru L9(1) (2) (3)

Specification Points	ASTM <u>Method</u>	<u>Refinery Shipments</u>
Octane (R+M)/2	D-2699 D-2700	90.0
Reid Vapor Pressure psi max	D-4953, D-5191 Grabner EPA	(1)
Distillation, deg. F. End Point Max.	D-86	437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur, ppm max	D-4294, D-2622, D-5453	80
Phosphorus Max. gm/gal.	D-3231	0.005

- (1) L6 = 9.00 RVP, L7 = 11.50, L8 = 13.50, L9 = 15.00
- (2) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.
- (3) Maximum oxygen content is 0.05 weight %.

SPECIFICATIONS FOR UNLEADED SUB-OCTANE GASOLINE

Product Codes M5 Thru M9 (1) (2) (3)

Specification Points	ASTM Method	Refinery Shipments
Octane (R+M)/2	D-2699 D-2700	84.0
Reid Vapor Pressure psi max	D-4953, D-5191 Grabner EPA	(1)
Distillation, deg. F. End Point Max.	D-86	437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur, ppm max	D-4294, D-2622, D-5453	80
Phosphorus Max. gm/gal.	D-3231	0.005

- (1) RVP: M5 = 9.00, M6 = 10.00, M7 = 11.50, M8 = 13.50, M9 = 15.00
- (2) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.
- (3) Maximum oxygen content is 0.05 weight % .

SPECIFICATONS FOR NEVADA CBG SUBOCTANE

Product Code ME (1)

Specification Points	ASTM Method	Refinery Shipments
Octane (R+M)/2	D-2699 D-2700	84.0
Reid Vapor Pressure, psi max	D-4953, D-5191 Grabner EPA	8.00
Distillation, deg F. End Point Max	D-86	437
Workmanship		Clear and Bright
Lead, Max. gm/gal	D-3237	0.030
Oxygen, wt% Max	D-4815	0.05
Sulfur, ppm max	D-2622-94 D-5453-93	80
Aromatic HC, Vol% Max	D-5580-95 D-1319	30
Phosphorus Max gm/gal	D3231	.005

(1) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814

SPECIFICATIONS FOR UNLEADED REGULAR GASOLINE

Product Codes N2 thru N4, N7 thru N9
and NB, NC, ND (1) (2) (3)

Specification Points	ASTM Method	Refinery Shipments
Octane (R+M)/2	D-2699 D-2700	87.0
Reid Vapor Pressure psi max	D-4953, D-5191 Grabner EPA	(1)
Distillation, deg. F. End Point Max.	D-86	437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur, ppm max	D-2622, D-5453	80
Phosphorus Max. gm/gal.	D-3231	0.005

- (1) RVP: N2 = 7.80, N3 = 8.00, N4 = 9.00, N7 = 10.50
N8 = 12.50, N9 = 14.00, NB = 11.50, NC = 13.50, ND = 15.00
- (2) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.
- (3) Maximum oxygen content is 0.05 weight %.

SPECIFICATIONS FOR UNLEADED PREMIUM GASOLINE

Product Codes R2 thru R4, R7 thru R9
and RB, RC, RD (1) (2) (3)

Specification Points	ASTM Method	Refinery Shipments
Octane (R+M)/2	D-2699 D-2700	91.0
Reid Vapor Pressure psi max.	D-4953, D-5191 Grabner (EPA)	(1)
Distillation, deg. F. End Point Max.	D-86	437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur, ppm Max	D-2622, D-5453	80
Phosphorus Max. gm/gal.	D-3231	0.005

(1) RVP: R2 = 7.80, R3 = 8.00, R4 = 9.00, R7 = 10.50, R8 = 12.50
R9 = 14.00, RB = 11.50, RC = 13.50, RD = 15.00

(2) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.

(3) Maximum oxygen content is 0.05 weight %.

SPECIFICATONS FOR NEVADA CBG PREMIUM

Product Code RE (1)

Specification Points	ASTM Method	Refinery Shipments
Octane (R+M)/2	D-2699 D-2700	88.5
Reid Vapor Pressure, psi max	D-4953, D-5191 Grabner EPA	8.00
Distillation, deg F. End Point Max	D-86	437
Workmanship		Clear and Bright
Lead, Max. gm/gal	D-3237	0.030
Oxygen, wt% Max	D-4815	0.05
Sulfur, ppm Max	D-2622-94 D-5453-93	80
Aromatic HC, Vol% Max	D-5580-95 D-1319	30
Phosphorus Max gm/gal	D3231	.005

(1) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.

SPECIFICATIONS FOR UNLEADED REGULAR GASOLINE

Product Codes W6 thru W9 (1) (2) (3)

Product Codes 6W thru 9W (1) (2) (3)

Specification Points	ASTM Method	Refinery Shipments
Octane (R+M)/2	D-2699 D-2700	87.0
Reid Vapor Pressure psi max	D-4953, D-5191 Grabner EPA	(1)
Distillation, deg. F. End Point Max.	D-86	437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur, ppm max	D-2622, D-5453	80*
Phosphorus Max. gm/gal.	D-3231	0.005

***NOTE: East Line registered Small Refiners may ship SRGAS with a sulfur content not to exceed their permissible cap per EPA regulations. SRGAS product codes will be the Numeric/Alpha reverse of their low sulfur counterparts. SRGAS may be delivered fungibly with its low sulfur counterpart (i.e., W9 = 9W, etc.).**

- (1) RVP: W6/**6W** = 10.00, W7 /**7W** = 11.50, W8/**8W** = 13.50, W9/**9W** = 9.00
- (2) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.
- (3) Maximum oxygen content is 0.05 wt.%.

SPECIFICATIONS FOR UNLEADED REGULAR GRADE
ARIZONA CLEANER BURNING GASOLINE (CBG)

Product Code X2 (1) (2)

Specification Points	ASTM <u>Method</u>	<u>Refinery Shipments</u>
Octane (R+M)/2	D-2699 D-2700	87.0
Reid Vapor Pressure	D-4953, D-5191	
psi max	Grabner ASTM	7.00
psi min		6.40
Distillation, deg. F.	D-86	
E200		70-30%
E300		100-70%
End Point Max.		437
Aromatics, vol% (max)	D-5580	50%
Olefins, vol% (max)	D-1319	25%
Oxygen, wt%-Max	D-4815	0.05
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur ppm, Max.	D-2622-94; D-5453-93	80

(1) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.

SPECIFICATIONS FOR UNLEADED REGULAR GRADE
ARIZONA CLEANER BURNING GASOLINE (CBG)

Product Code X3 (1)

Specification Points	<u>ASTM Method</u>	<u>Refinery Shipments</u>
Octane (R+M)/2	D-2699 D-2700	87.0
Reid Vapor Pressure psi max	D-4953, D-5191 Grabner ASTM	8.00
Distillation, deg. F. E200 E300 End Point Max.	D-86	70-30% 100-70% 437
Aromatics, vol% (max)	D-5580	50%
Olefins, vol% (max)	D-1319	25%
Oxygen, wt% -Max	D-4815	0.05
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur, ppm Max.	D-2622-94; D-5453-93	80

(1) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.

SPECIFICATIONS FOR UNLEADED REGULAR GRADE

ARIZONA CLEANER BURNING GASOLINE

AZRBOB

Product Code X5 (1)(2)

Specification Points	ASTM Method	Refinery Shipments
Octane (R+M)/2	D-2699 D-2700	87.0
Reid Vapor Pressure psi max.	D-4953, D-5191 Grabner ASTM	8.00
Distillation, deg. F.	D-86	
T50 (max)		237
T90 (max)		335
End Point (max)		437
Aromatics, vol% (max)	D-5580	33.1
Olefins, vol% (max)	D-1319	11.1
Oxygen, wt% (max)	D-4815	.05
Sulfur, ppmw.	D-2622-94; D-5453-93	89
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030

- (1) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.
- (2) For shipment in Spring transition only.
- (3) AZRBOB does not comply with the standards for Arizona CBG without the addition of oxygenate.
- (4) This AZRBOB is intended for blending with 10 vol% ethanol and may not be combined with AZRBOBs requiring oxygenate blending with any other type or amount of oxygenate.

SPECIFICATIONS FOR UNLEADED REGULAR SUBGRADE

ARIZONA CLEANER BURNING GASOLINE
(AZRBOB)

Product Code X6 (1) (2) (3)

Specification Points	ASTM <u>Method</u>	<u>Refinery Shipments</u>
Octane (R+M)/2	D-2699 D-2700	84.0
Reid Vapor Pressure psi max	D-4953, D-5191 Grabner ASTM	8.00
Distillation, deg. F.	D-86	
T50 (max)		237
T90 (max)		335
End Point (max).		437
Aromatics, vol% (max)	D-5580	33.1
Olefins, vol% (max)	D-1319	11.1
Oxygen, wt% (max)	D-4815	0.05
Sulfur ppmw (max).	D-2622-94; D-5453-93	89
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030

- (1) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.
- (2) AZRBOB does not comply with the standards for Arizona CBG without the addition of oxygenate.
- (3) This AZRBOB is intended for blending with 10 vol% ethanol and may not be combined with AZRBOBs requiring oxygenate blending with any other type or amount of oxygenate.

SPECIFICATIONS FOR UNLEADED PREMIUM GASOLINE

Product Codes Y6 Thru Y9 (1) (2) (3)

Product Codes 6Y thru 9Y (1) (2) (3)

Specification Points	ASTM Method	Refinery Shipments
Octane (R+M)/2	D-2699 D-2700	91.0
Reid Vapor Pressure psi max.	D-4953, D-5191 Grabner (EPA)	(1)
Distillation, deg. F. End Point Max.	D-86	437
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur, ppm max	D-2622, D-5453	80
Phosphorus Max. gm/gal.	D-3231	0.005

NOTE: East Line registered Small Refiners may ship SRGAS with a sulfur content not to exceed their permissible cap per EPA regulations. SRGAS product codes will be the Numeric/Alpha reverse of their low sulfur counterparts. SRGAS may be delivered fungibly with its low sulfur counterpart (i.e., Y9 = 9Y, etc.).

(1) RVP : Y6/**6Y** = 10.00, Y7/**7Y** = 11.50, Y8/**8Y** = 13.50, Y9/**9Y** = 9.00

(1) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.

(2) Maximum oxygen content is 0.05 wt.%.

SPECIFICATIONS FOR UNLEADED PREMIUM GRADE
ARIZONA CLEANER BURNING GASOLINE (CBG)

Product Codes Z2 (1)

Specification Points	<u>ASTM Method</u>	<u>Refinery Shipments</u>
Octane (R+M)/2	D-2699 D-2700	91.0
Reid Vapor Pressure psi max psi min	D-4953, D-5191 Grabner ASTM	7.00 6.4
Distillation, deg. F. E200 E300 End Point Max.	D-86	70-30% 100-70% 437
Aromatics, vol% (max)	D-5580	50%
Olefins, vol% (max)	D-1319	25%
Oxygen, wt%, Max	D-4815	0.05
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur, ppm Max.	D-2622-94; D-5453-93	80

(1) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.

SPECIFICATIONS FOR UNLEADED PREMIUM GRADE
ARIZONA CLEANER BURNING GASOLINE (CBG)

Product Codes Z3 (1) (2)

Specification Points	<u>ASTM Method</u>	<u>Refinery Shipments</u>
Octane (R+M)/2	D-2699 D-2700	91.0
Reid Vapor Pressure psi max	D-4953, D-5191 Grabner ASTM	8.00
Distillation, deg. F. E200 E300 End Point Max.	D-86	70-30% 100-70% 437
Aromatics, vol% (max)	D-5580	50%
Olefins, vol% (max)	D-1319	25%
Oxygen, wt%, Max	D-4815	0.05
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030
Sulfur, ppm Max.	D-2622-94; D-5453-93	80

(1) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.

SPECIFICATIONS FOR UNLEADED PREMIUM
ARIZONA CLEANER BURNING GASOLINE (CBG)
AZRBOB
Product Code Z5 (1) (2) (3) (4)

Specification Points	<u>ASTM Method</u>	<u>Refinery Shipments</u>
Octane (R+M)/2	D-2699 D-2700	91.0
Reid Vapor Pressure psi max.	D-4953, D-5191 Grabner ASTM	8.00
Distillation, deg. F. T50 (max) T90 End Point (max)	D-86	237 335 437
Aromatics, vol% (max)	D-5580	33.1
Olefins, vol% (max)	D-1319	11.1
Oxygen, wt% (max)	D-4815	0.05
Sulfur, ppmw (max)	D-2622-94; D-5453-93	89
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030

- (1) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.
- (2) For shipment in Spring and Fall transitions only.
- (3) AZRBOB does not comply with the standards for Arizona CBG without the addition of oxygenate.
- (4) This AZRBOB is intended for blending with 10 vol% ethanol and may not be combined with AZRBOBs requiring oxygenate blending with any other type or amount of oxygenate.

SPECIFICATIONS FOR UNLEADED PREMIUM
ARIZONA CLEANER BURNING GASOLINE
(AZRBOB)

Product Code Z6 (1) (2) (3)

Specification Points	<u>ASTM Method</u>	<u>Refinery Shipments</u>
Octane (R+M)/2	D-2699 D-2700	88.5
Reid Vapor Pressure psi max	D-4953, D-5191 Grabner ASTM	8.00
Distillation, deg. F.	D-86	
T50 (max)		237
T90 (max)		335
End Point (max).		437
Aromatics, vol% (max)	D-5580	33.1
Olefins, vol% (max)	D-1319	11.1
Oxygen, wt% (max)	D-4815	0.05
Sulfur ppm (max).	D-2622-94; D-5453-93	89
Workmanship		Clear and Bright
Lead, Max. gm/gal.	D-3237	0.030

- (1) In addition to the above KMEP specifications, product must meet latest revision of ASTM D-4814.
- (2) AZRBOB does not comply with the standards for Arizona CBG without the addition of oxygenate.
- (3) This AZRBOB is intended for blending with 10 vol% ethanol and may not be combined with AZRBOBs requiring oxygenate blending with any other type or amount of oxygenate.