

## Attachment A2

### Tables of Organic Gas Emission Profiles

**Organic Gas Speciation (Weight Percent)**

CNUM	CHEMNAME	Liquid Gasoline			
		MTBE	Non-Oxy	EtOH 2%	EtOH3.5%
1	methyl alcohol	0.010	0.000	0.010	0.010
2	ethyl alcohol	0.000	0.000	5.750	10.100
3	n-propyl alcohol	0.020	0.000	0.020	0.020
4	cis-2-butene	0.010	0.010	0.010	0.010
	isobutane	0.170	0.140	0.160	0.150
	n-butane	1.010	0.810	0.800	0.760
	trans-2-butene	0.010	0.010	0.010	0.010
	1-butene	0.010	0.010	0.010	0.010
5	cis-2-pentene	0.220	0.170	0.130	0.130
	cyclopentane	0.140	0.180	0.090	0.080
	cyclopentene	0.070	0.060	0.040	0.040
	isopentane	9.800	12.820	6.260	5.970
	isoprene	0.010	0.010	0.010	0.010
	methyl t-butyl ether (MTBE)	11.550	0.000	0.000	0.000
	n-pentane	1.810	2.370	1.160	1.100
	trans-1,3-pentadiene	0.030	0.020	0.020	0.020
	trans-2-pentene	0.400	0.320	0.240	0.230
	1-pentene	0.120	0.100	0.070	0.070
	1,3-cyclopentadiene	0.010	0.010	0.010	0.010
	2-methyl-1-butene	0.230	0.180	0.140	0.130
	2-methyl-2-butene	0.610	0.490	0.370	0.350
	2,2-dimethylpropane	0.010	0.010	0.010	0.010
	3-methyl-1-butene	0.020	0.020	0.010	0.010
6	benzene	1.000	1.000	1.000	1.000
	cis-2-hexene	0.090	0.070	0.050	0.050
	cis-3-hexene	0.030	0.020	0.020	0.020
	cyclohexane	0.220	0.290	0.140	0.130
	cyclohexene	0.030	0.020	0.020	0.020
	methylcyclopentane	1.540	2.010	0.980	0.940
	n-hexane	1.190	1.560	0.760	0.720

	trans-2-hexene	0.170	0.140	0.100	0.100
CNUM	CHEMNAME	Liquid Gasoline			
		MTBE	Non-Oxy	EtOH 2%	EtOH3.5%
	trans-3-hexene	0.090	0.070	0.050	0.050
6	1-hexene	0.060	0.050	0.040	0.030
	1-methylcyclopentene	0.170	0.140	0.100	0.100
	2-methyl-1-pentene	0.110	0.090	0.070	0.060
	2-methyl-2-pentene	0.190	0.150	0.110	0.110
	2-methylpentane	4.170	5.450	2.660	2.540
	2,2-dimethylbutane	0.240	0.310	0.150	0.150
	2,3-dimethyl-1-butene	0.010	0.010	0.010	0.010
	2,3-dimethylbutane	1.310	1.710	0.840	0.800
	3-methyl-cis-2-pentene	0.040	0.030	0.020	0.020
	3-methyl-1-pentene	0.020	0.020	0.010	0.010
	3-methylcyclopentene	0.110	0.090	0.070	0.060
	3-methylpentane	2.330	3.050	1.490	1.420
	4-methyl-trans-2-pentene	0.070	0.060	0.040	0.040
	4-methyl-1-pentene	0.030	0.020	0.020	0.020
7	cis-2-heptene	0.060	0.050	0.040	0.030
	dimethylcyclopentane	0.060	0.090	0.110	0.100
	ethylcyclopentane	0.210	0.330	0.370	0.350
	methylcyclohexane	0.750	1.190	1.320	1.260
	n-heptane	1.640	1.310	1.560	1.490
	toluene	6.690	3.950	5.100	4.870
	trans-2-heptene	0.060	0.050	0.040	0.030
	trans-3-heptene	0.130	0.100	0.080	0.070
	1-c-2-dimethylcyclopentane	0.170	0.270	0.300	0.290
	1-c-3-dimethylcyclopentane	0.490	0.780	0.860	0.820
	1-t-2-dimethylcyclopentane	0.360	0.570	0.630	0.600
	1-t-3-dimethylcyclopentane	0.450	0.710	0.790	0.760
	2-methyl-trans-3-hexene	0.030	0.020	0.020	0.020
	2-methylhexane	2.610	4.140	4.600	4.390
	2,2-dimethylpentane	0.010	0.020	0.020	0.020
	2,2,3-trimethylbutane	0.040	0.060	0.070	0.040
	2,3-dimethylpentane	2.780	4.410	4.900	4.680

	<b>2,4-dimethyl-1-pentene</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>
<b>7</b>	<b>2,4-dimethylpentane</b>	<b>1.720</b>	<b>2.730</b>	<b>3.030</b>	<b>2.890</b>
<b>CNUM</b>	<b>CHEMNAME</b>	<b>Liquid Gasoline</b>			
		<b>MTBE</b>	<b>Non-Oxy</b>	<b>EtOH 2%</b>	<b>EtOH3.5%</b>
	<b>3-ethyl-2-pentene</b>	<b>0.030</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>
	<b>3-ethylpentane</b>	<b>0.280</b>	<b>0.440</b>	<b>0.490</b>	<b>0.470</b>
	<b>3-methyl-cis-2-hexene</b>	<b>0.160</b>	<b>0.130</b>	<b>0.100</b>	<b>0.090</b>
	<b>3-methyl-cis-3-hexene</b>	<b>0.040</b>	<b>0.030</b>	<b>0.020</b>	<b>0.020</b>
	<b>3-methyl-trans-2-hexene</b>	<b>0.140</b>	<b>0.110</b>	<b>0.080</b>	<b>0.080</b>
	<b>3-methyl-trans-3-hexene</b>	<b>0.050</b>	<b>0.040</b>	<b>0.030</b>	<b>0.030</b>
	<b>3-methylhexane</b>	<b>2.860</b>	<b>4.540</b>	<b>5.040</b>	<b>4.810</b>
	<b>3,3-dimethyl-1-pentene</b>	<b>0.180</b>	<b>0.140</b>	<b>0.110</b>	<b>0.100</b>
	<b>3,3-dimethylpentane</b>	<b>0.160</b>	<b>0.250</b>	<b>0.280</b>	<b>0.270</b>
	<b>3,4-dimethyl-2-pentene</b>	<b>0.020</b>	<b>0.020</b>	<b>0.010</b>	<b>0.010</b>
	<b>4-methyl-trans-2-hexene</b>	<b>0.050</b>	<b>0.040</b>	<b>0.030</b>	<b>0.030</b>
	<b>4-methyl-1-hexene</b>	<b>0.020</b>	<b>0.020</b>	<b>0.010</b>	<b>0.010</b>
	<b>4,4-dimethyl-2-pentene</b>	<b>0.070</b>	<b>0.060</b>	<b>0.040</b>	<b>0.040</b>
	<b>5-methyl-cis-2-hexene</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>
	<b>5-methyl-1-hexene</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>
<b>8</b>	<b>c-1,2-dimethylcyclohexane</b>	<b>0.030</b>	<b>0.050</b>	<b>0.050</b>	<b>0.050</b>
	<b>cis-1,3-dimethylcyclohexane</b>	<b>0.070</b>	<b>0.110</b>	<b>0.120</b>	<b>0.120</b>
	<b>cis-2-octene</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>
	<b>c8 cycloparaffins</b>	<b>0.210</b>	<b>0.330</b>	<b>0.370</b>	<b>0.350</b>
	<b>ethylbenzene</b>	<b>2.150</b>	<b>1.270</b>	<b>1.640</b>	<b>1.560</b>
	<b>m-xylene</b>	<b>3.530</b>	<b>2.080</b>	<b>2.690</b>	<b>2.570</b>
	<b>n-octane</b>	<b>0.630</b>	<b>0.500</b>	<b>0.600</b>	<b>0.570</b>
	<b>o-xylene</b>	<b>2.100</b>	<b>1.240</b>	<b>1.600</b>	<b>1.530</b>
	<b>p-xylene</b>	<b>1.820</b>	<b>1.070</b>	<b>1.390</b>	<b>1.320</b>
	<b>propylcyclopentane</b>	<b>0.040</b>	<b>0.060</b>	<b>0.070</b>	<b>0.070</b>
	<b>t-1,2-dimethylcyclohexane</b>	<b>0.070</b>	<b>0.110</b>	<b>0.120</b>	<b>0.120</b>
	<b>t-2-ethylmethylcyclopentane</b>	<b>0.060</b>	<b>0.090</b>	<b>0.110</b>	<b>0.100</b>
	<b>trans-1,3-dimethylcyclohexane</b>	<b>0.020</b>	<b>0.030</b>	<b>0.030</b>	<b>0.030</b>
	<b>trans-1,4-dimethylcyclohexane</b>	<b>0.070</b>	<b>0.110</b>	<b>0.120</b>	<b>0.120</b>
	<b>trans-2-octene</b>	<b>0.030</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>
	<b>trans-4-octene</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>

8	unidentified	2.670	2.130	2.540	2.430
	1,1-dimethylcyclohexane	0.010	0.020	0.020	0.020
	1,1-methylethylcyclopentane	0.010	0.020	0.020	0.020
CNUM	CHEMNAME	Liquid Gasoline			
		MTBE	Non-Oxy	EtOH 2%	EtOH3.5%
	1,1,2-trimethylcyclopentane	0.020	0.030	0.030	0.030
	1c,2c,3-trimethylcyclopentane	0.070	0.110	0.120	0.120
	1c,2t,3-trimethylcyclopentane	0.300	0.480	0.530	0.500
	1c,2t,4-trimethylcyclopentane	0.170	0.270	0.300	0.290
	1t,2c,3-trimethylcyclopentane	0.090	0.140	0.160	0.150
	2-methyl-3-ethylpentane	0.050	0.080	0.090	0.080
	2-methylheptane	0.690	1.090	1.220	1.160
	2,2-dimethylhexane	0.140	0.220	0.250	0.230
	2,2,3-trimethylpentane	0.130	0.210	0.230	0.220
	2,2,4-trimethylpentane	5.450	8.650	9.610	9.170
	2,3-dimethylhexane	0.600	0.950	1.060	1.010
	2,3,3-trimethylpentane	1.050	1.670	1.850	1.770
	2,3,4-trimethylpentane	1.420	2.250	2.500	2.390
	2,4-dimethylhexane	0.850	1.350	1.500	1.430
	2,5-dimethylhexane	0.620	0.980	1.090	1.040
	3-ethylhexane	0.060	0.090	0.110	0.100
	3-methyl-3-ethylpentane	0.080	0.130	0.140	0.130
	3-methylheptane	0.740	1.170	1.300	1.240
	3,3-dimethylhexane	0.050	0.080	0.090	0.080
	3,4-dimethylhexane	0.080	0.130	0.140	0.130
	4-methylheptane	0.290	0.460	0.510	0.490
9	c-1,c-3,5-trimethylcyclohexane	0.030	0.050	0.050	0.050
	cis-3-nonene	0.020	0.020	0.010	0.010
	c1,t2,t4-trimethylcyclohexane	0.020	0.030	0.030	0.030
	i-butylcyclopentane	0.140	0.220	0.250	0.230
	indan	0.170	0.100	0.130	0.120
	isopropylbenzene (cumene)	0.060	0.030	0.050	0.040
	isopropylcyclohexane	0.010	0.020	0.020	0.020
	n-butylcyclopentane	0.020	0.030	0.030	0.030
9	n-nonane	0.160	0.130	0.150	0.140

	n-propylbenzene	0.380	0.220	0.290	0.280
	trans-3-nonene	0.010	0.010	0.010	0.010
	trimethylcyclohexane	0.010	0.020	0.020	0.020
	1-methyl-2-ethylbenzene	0.370	0.220	0.280	0.270
CNUM	CHEMNAME	Liquid Gasoline			
		MTBE	Non-Oxy	EtOH 2%	EtOH3.5%
	1-methyl-3-ethylbenzene	1.340	0.790	1.020	0.970
	1-methyl-4-ethylbenzene	0.570	0.340	0.430	0.410
	1-nonene	0.010	0.010	0.010	0.010
	1,1-methylethylcyclohexane	0.030	0.050	0.050	0.050
	1,1,2-trimethylcyclohexane	0.010	0.020	0.020	0.020
	1,1,3-trimethylcyclohexane	0.010	0.020	0.020	0.020
	1,1,4-trimethylcyclohexane	0.100	0.160	0.180	0.170
	1,2,3-trimethylbenzene	0.320	0.190	0.240	0.230
	1,2,4-trimethylbenzene	1.870	1.100	1.430	1.360
	1,3,5-trimethylbenzene	0.680	0.400	0.520	0.490
	2-methyl-1-octene	0.010	0.010	0.010	0.010
	2-methyloctane	0.210	0.330	0.370	0.350
	2,2,3-trimethylhexane	0.070	0.110	0.120	0.120
	2,2,4-trimethylhexane	0.020	0.030	0.030	0.030
	2,2,5-trimethylhexane	0.690	1.090	1.220	1.160
	2,3-dimethylheptane	0.080	0.130	0.140	0.130
	2,3,4-trimethylhexane	0.110	0.170	0.190	0.180
	2,3,5-trimethylhexane	0.080	0.130	0.140	0.130
	2,4-dimethylheptane	0.010	0.020	0.020	0.020
	2,4,4-trimethylhexane	0.010	0.020	0.020	0.020
	2,5-dimethylheptane	0.150	0.240	0.260	0.250
	3-ethylheptane	0.050	0.080	0.090	0.080
	3-methyloctane	0.230	0.360	0.410	0.390
	3,3-dimethylheptane	0.050	0.080	0.090	0.080
	3,4-dimethylheptane	0.050	0.080	0.090	0.080
	3,5-dimethylheptane	0.020	0.030	0.030	0.030
	4-methyloctane	0.160	0.250	0.280	0.270
9	4,4-dimethylheptane	0.030	0.050	0.050	0.050
10	butylcyclohexane	0.010	0.010	0.010	0.010

	dihydronaphthalene	0.010	0.010	0.010	0.010
	isobutylbenzene	0.040	0.020	0.030	0.030
	n-butylbenzene	0.060	0.030	0.050	0.040
	n-decane	0.060	0.050	0.060	0.050
	naphthalene	0.180	0.110	0.140	0.130
		<b>Liquid Gasoline</b>			
<b>CNUM</b>	<b>CHEMNAME</b>	<b>MTBE</b>	<b>Non-Oxy</b>	<b>EtOH 2%</b>	<b>EtOH3.5%</b>
	sec-butylbenzene	0.030	0.020	0.020	0.020
	1-methyl-2-isopropylbenzene	0.020	0.010	0.010	0.010
	1-methyl-3-isopropylbenzene	0.030	0.020	0.020	0.020
	1-methyl-3n-propylbenzene	0.240	0.140	0.180	0.170
	1-methyl-4-isopropylbenzene	0.010	0.010	0.010	0.010
	1-methyl-4n-propylbenzene	0.130	0.080	0.100	0.090
	1,2-diethylbenzene (ortho)	0.020	0.010	0.010	0.010
	1,2-dimethyl-3-ethylbenzene	0.050	0.030	0.040	0.040
	1,2-dimethyl-4-ethylbenzene	0.280	0.160	0.210	0.200
	1,2,3,5-tetramethylbenzene	0.150	0.090	0.110	0.110
	1,2,4,5-tetramethylbenzene	0.110	0.060	0.080	0.080
	1,3-diethylbenzene (meta)	0.110	0.060	0.080	0.080
	1,3-dimethyl-2-ethylbenzene	0.010	0.010	0.010	0.010
	1,3-dimethyl-4-ethylbenzene	0.140	0.080	0.110	0.100
	1,3-dimethyl-5-ethylbenzene	0.220	0.130	0.170	0.160
	1,4-dimethyl-2-ethylbenzene	0.150	0.090	0.110	0.110
	2-methylindan	0.130	0.080	0.100	0.090
	2-methylnonane	0.070	0.060	0.070	0.060
	2,2-dimethyloctane	0.010	0.010	0.010	0.010
	2,3-dimethyl-2-octene	0.010	0.010	0.010	0.010
	2,4-dimethyloctane	0.030	0.020	0.030	0.030
	2,5-dimethyloctane	0.050	0.040	0.050	0.040
	2,6-dimethyloctane	0.020	0.020	0.020	0.020
	3-ethyloctane	0.010	0.010	0.010	0.010
	3-methylnonane	0.070	0.060	0.070	0.060
<b>10</b>	3,3-dimethyloctane	0.040	0.030	0.040	0.040
	3,6-dimethyloctane	0.010	0.010	0.010	0.010
	4-methylindan	0.030	0.020	0.020	0.020

	5-methylindan	0.120	0.070	0.090	0.090
	5-methylnonane	0.030	0.020	0.030	0.030
11	c11 dialkyl benzenes	0.030	0.020	0.020	0.020
	n-undecane	0.030	0.020	0.030	0.030
	pentamethylbenzene	0.020	0.010	0.010	0.010
	s-pentylbenzene	0.030	0.020	0.020	0.020
CNUM	CHEMNAME	Liquid Gasoline			
		MTBE	Non-Oxy	EtOH 2%	EtOH3.5%
	1-ethyl-2n-propylbenzene	0.050	0.030	0.040	0.040
	1-methyl-4-t-butylbenzene	0.020	0.010	0.010	0.010
	1-methylnaphthalene	0.060	0.030	0.050	0.040
	2-methylnaphthalene	0.140	0.080	0.110	0.100
	3-ethylnonane	0.010	0.010	0.010	0.010
12	c12 dialkyl benzenes	0.010	0.010	0.010	0.010
	n-dodecane	0.030	0.020	0.030	0.030
	n-hexylbenzene	0.010	0.010	0.010	0.010
	1-methyl-4-n-pentylbenzene	0.040	0.020	0.030	0.030
	1,2-isodipropylbenzene	0.040	0.020	0.030	0.030
	1,2,4-triethylbenzene	0.010	0.010	0.010	0.010
	1,3-dipropylbenzene	0.040	0.020	0.030	0.030
	1,3-n-dipropylbenzene	0.030	0.020	0.020	0.020
	1,3,5-triethylbenzene	0.010	0.010	0.010	0.010
	Total	100.000	100.000	99.980	99.960
		Headspace Vapors			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
CNUM	CHEMNAME				
1	methyl alcohol	0.000	0.080	0.040	0.020
2	ethyl alcohol	0.000	0.000	9.350	9.560
3	n-propyl alcohol	0.000	0.030	0.010	0.010
	propane	0.280	0.000	0.000	0.000
4	cis-2-butene	0.340	0.070	0.060	0.060
	isobutane	1.300	1.740	2.920	2.920
	isobutene	0.160	0.000	0.000	0.000
	n-butane	6.290	7.420	10.310	10.360
	trans-2-butene	0.590	0.070	0.070	0.070



	1-butene	0.120	0.090	0.090	0.090
5	cis-2-pentene	0.300	0.470	0.470	0.450
	cyclopentane	0.980	0.320	0.220	0.210
	cyclopentene	0.090	0.120	0.120	0.110
	isopentane	34.880	46.780	32.030	32.170
	isoprene	0.000	0.020	0.020	0.020
	methyl t-butyl ether (MTBE)	16.830	0.000	0.000	0.000
CNUM	CHEMNAME	Headspace Vapors			
		MTBE	Non-Oxy	EtOH 2%	EtOH3.5%
	n-pentane	7.280	6.540	4.480	4.500
	trans-1,3-pentadiene	0.000	0.050	0.050	0.050
	trans-2-pentene	0.730	0.880	0.870	0.830
	1-pentene	0.220	0.330	0.320	0.310
	1,3-cyclopentadiene	0.000	0.020	0.020	0.020
	2-methyl-1-butene	0.410	0.600	0.590	0.570
	2-methyl-2-butene	1.020	1.240	1.230	1.170
	2,2-dimethylpropane	0.000	0.090	0.060	0.060
	3-methyl-1-butene	0.080	0.070	0.070	0.070
6	benzene	0.360	0.690	0.800	0.800
	cis-2-hexene	0.040	0.060	0.060	0.060
	cis-3-hexene	0.050	0.020	0.020	0.020
	cyclohexane	0.960	0.170	0.110	0.110
	cyclohexene	0.000	0.020	0.020	0.020
	methylcyclopentane	2.640	1.610	1.100	1.050
	n-hexane	1.440	1.380	0.940	0.950
6	t-amylmethylether (TAME)	0.010	0.000	0.000	0.000
	trans-2-hexene	0.090	0.120	0.120	0.120
	trans-3-hexene	0.000	0.070	0.060	0.060
	1-hexene	0.030	0.050	0.050	0.050
	1-methylcyclopentene	0.000	0.120	0.120	0.120
	2-ethyl-1-butene	0.020	0.000	0.000	0.000
	2-hexenes	0.030	0.000	0.000	0.000
	2-methyl-1-pentene	0.060	0.090	0.090	0.090
	2-methyl-2-pentene	0.180	0.140	0.140	0.130
	2-methylpentane	5.570	6.540	4.480	4.500

	2,2-dimethylbutane	1.550	0.550	0.380	0.380
	2,3-dimethyl-1-butene	0.000	0.010	0.010	0.010
	2,3-dimethylbutane	1.950	2.260	1.550	1.550
	3-methyl-cis-2-pentene	0.040	0.030	0.030	0.030
	3-methyl-trans-2-pentene	0.060	0.000	0.000	0.000
	3-methyl-1-pentene	0.000	0.020	0.020	0.020
	3-methylcyclopentene	0.000	0.080	0.080	0.080
	3-methylpentane	3.060	3.260	2.230	2.240
		Headspace Vapors			
CNUM	CHEMNAME	MTBE	Non-Oxy	EtOH 2%	EtOH3.5%
	4-methyl-cis-2-pentene	0.020	0.000	0.000	0.000
	4-methyl-trans-2-pentene	0.100	0.080	0.080	0.070
	4-methyl-1-pentene	0.030	0.030	0.030	0.020
7	cis-2-heptene	0.000	0.020	0.020	0.020
	dimethylcyclopentane	0.000	0.040	0.070	0.060
	ethylcyclopentane	0.000	0.080	0.130	0.120
	methylcyclohexane	0.380	0.340	0.530	0.500
	n-heptane	0.390	0.380	0.630	0.630
	toluene	1.590	0.860	1.310	1.240
	trans-2-heptene	0.000	0.020	0.020	0.020
	trans-3-heptene	0.000	0.040	0.040	0.030
	1-c-2-dimethylcyclopentane	0.000	0.080	0.120	0.120
	1-c-3-dimethylcyclopentane	0.000	0.290	0.460	0.430
	1-t-2-dimethylcyclopentane	0.000	0.220	0.350	0.330
7	1-t-3-dimethylcyclopentane	0.000	0.270	0.420	0.400
	2-methyl-trans-3-hexene	0.000	0.010	0.010	0.010
	2-methylhexane	0.670	1.670	2.610	2.620
	2,2-dimethylpentane	0.060	0.010	0.010	0.010
	2,2,3-trimethylbutane	0.000	0.040	0.060	0.060
	2,3-dimethylpentane	0.650	1.850	2.890	2.900
	2,4-dimethylpentane	0.510	1.600	2.490	2.510
	3-ethyl-2-pentene	0.000	0.010	0.010	0.010
	3-ethylpentane	0.040	0.160	0.250	0.250
	3-methyl-cis-2-hexene	0.000	0.040	0.040	0.040
	3-methyl-cis-3-hexene	0.000	0.010	0.010	0.010

	3-methyl-trans-2-hexene	0.000	0.040	0.040	0.040
	3-methyl-trans-3-hexene	0.000	0.010	0.010	0.010
	3-methylhexane	0.740	1.720	2.670	2.680
	3,3-dimethyl-1-pentene	0.000	0.050	0.050	0.050
	3,3-dimethylpentane	0.000	0.160	0.250	0.250
	3,4-dimethyl-2-pentene	0.000	0.010	0.010	0.010
	4-methyl-trans-2-hexene	0.000	0.010	0.010	0.010
	4-methyl-1-hexene	0.000	0.010	0.010	0.010
	4,4-dimethyl-2-pentene	0.000	0.020	0.020	0.020
		Headspace Vapors			
CNUM	CHEMNAME	MTBE	Non-Oxy	EtOH 2%	EtOH3.5%
8	c-1,2-dimethylcyclohexane	0.010	0.000	0.010	0.010
	cis-1,3-dimethylcyclohexane	0.000	0.020	0.020	0.020
	c8 cycloparaffins	0.000	0.030	0.050	0.050
	ethylbenzene	0.110	0.100	0.150	0.140
	ethylcyclohexane	0.070	0.000	0.000	0.000
	m-xylene	0.320	0.140	0.220	0.210
	n-octane	0.050	0.050	0.080	0.080
	o-xylene	0.120	0.070	0.110	0.100
	p-xylene	0.100	0.080	0.120	0.110
	propylcyclopentane	0.000	0.010	0.010	0.010
	t-1,2-dimethylcyclohexane	0.000	0.010	0.020	0.020
	t-2-ethylmethylcyclopentane	0.000	0.010	0.010	0.010
8	trans-1,3-dimethylcyclohexane	0.000	0.000	0.010	0.010
	trans-1,4-dimethylcyclohexane	0.000	0.020	0.030	0.020
	unidentified	1.160	0.000	0.000	0.000
	1,1,2-trimethylcyclopentane	0.000	0.010	0.010	0.010
	1c,2c,3-trimethylcyclopentane	0.000	0.010	0.020	0.020
	1c,2t,3-trimethylcyclopentane	0.000	0.050	0.070	0.070
	1c,2t,4-trimethylcyclopentane	0.000	0.060	0.090	0.080
	1t,2c,3-trimethylcyclopentane	0.000	0.010	0.020	0.020
	2-methyl-3-ethylpentane	0.090	0.010	0.020	0.020
	2-methylheptane	0.120	0.150	0.230	0.230
	2,2-dimethylhexane	0.010	0.050	0.080	0.080
	2,2,3-trimethylpentane	0.040	0.040	0.070	0.070

	2,2,4-trimethylpentane	1.210	2.640	4.110	4.130
	2,3-dimethylhexane	0.010	0.150	0.230	0.230
	2,3,3-trimethylpentane	0.310	0.290	0.450	0.450
	2,3,4-trimethylpentane	0.310	0.390	0.610	0.620
	2,4-dimethylhexane	0.130	0.260	0.410	0.410
	2,5-dimethylhexane	0.120	0.190	0.300	0.300
	3-ethylhexane	0.000	0.010	0.020	0.020
	3-methyl-3-ethylpentane	0.000	0.020	0.040	0.040
	3-methylheptane	0.120	0.150	0.240	0.240
	3,3-dimethylhexane	0.010	0.010	0.020	0.020
		Headspace Vapors			
CNUM	CHEMNAME	MTBE	Non-Oxy	EtOH 2%	EtOH3.5%
	3,4-dimethylhexane	0.000	0.020	0.030	0.030
	4-methylheptane	0.060	0.060	0.100	0.100
9	i-butylcyclopentane	0.000	0.010	0.010	0.010
	isopropylbenzene (cumene)	0.010	0.000	0.000	0.000
	m-ethyltoluene (99912)	0.040	0.000	0.000	0.000
	n-nonane	0.010	0.000	0.010	0.010
	n-propylbenzene	0.000	0.010	0.010	0.010
	o-ethyltoluene (99915)	0.010	0.000	0.000	0.000
	p-ethyltoluene (99914)	0.020	0.000	0.000	0.000
	1-methyl-2-ethylbenzene	0.000	0.010	0.010	0.010
9	1-methyl-3-ethylbenzene	0.000	0.020	0.030	0.030
	1-methyl-4-ethylbenzene	0.000	0.010	0.010	0.010
	1,1,4-trimethylcyclohexane	0.000	0.000	0.010	0.010
	1,2,3-trimethylbenzene	0.010	0.000	0.000	0.000
	1,2,4-trimethylbenzene	0.000	0.020	0.030	0.030
	1,3,5-trimethylbenzene	0.000	0.010	0.020	0.010
	2-methyloctane	0.000	0.020	0.020	0.020
	2,2,3-trimethylhexane	0.000	0.010	0.010	0.010
	2,2,4-trimethylhexane	0.000	0.000	0.000	0.010
	2,2,5-trimethylhexane	0.140	0.120	0.190	0.190
	2,3-dimethylheptane	0.000	0.010	0.010	0.010
	2,3,4-trimethylhexane	0.000	0.020	0.020	0.020
	2,3,5-trimethylhexane	0.000	0.010	0.020	0.020

	<b>2,5-dimethylheptane</b>	<b>0.000</b>	<b>0.020</b>	<b>0.030</b>	<b>0.030</b>
	<b>3-ethylheptane</b>	<b>0.000</b>	<b>0.000</b>	<b>0.010</b>	<b>0.010</b>
	<b>3-methyloctane</b>	<b>0.000</b>	<b>0.020</b>	<b>0.030</b>	<b>0.030</b>
	<b>3,3-dimethylheptane</b>	<b>0.000</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>
	<b>3,4-dimethylheptane</b>	<b>0.000</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>
	<b>4-methyloctane</b>	<b>0.000</b>	<b>0.010</b>	<b>0.020</b>	<b>0.020</b>
	<b>4,4-dimethylheptane</b>	<b>0.000</b>	<b>0.000</b>	<b>0.010</b>	<b>0.010</b>
<b>12</b>	<b>1,2,4-triethylbenzene</b>	<b>0.040</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
	<b>1,3,5-triethylbenzene</b>	<b>0.020</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

CNUM	CHEMNAME	Catalyst Start Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
1	formaldehyde	1.310	1.170	1.230	1.190
	methane	5.280	4.790	4.820	5.200
	methyl alcohol	1.230	0.000	0.000	0.280
2	acetaldehyde	0.400	0.380	0.510	0.910
	acetylene	4.130	3.740	3.770	4.070
	ethane	0.740	0.670	0.670	0.730
	ethyl alcohol	0.090	0.000	3.000	5.280
3	ethylene	6.450	5.850	5.880	6.360
	acetone	0.340	0.310	0.310	0.330
	acrolein (2-propenal)	0.110	0.100	0.100	0.110
	propane	0.070	0.060	0.060	0.070
	propionaldehyde	0.060	0.050	0.050	0.060
	propylene	3.250	2.950	2.960	3.200
	1-propyne	0.320	0.290	0.290	0.310
	1,2-propadiene	0.230	0.210	0.210	0.230
	butyraldehyde	0.060	0.050	0.050	0.060
	cis-2-butene	0.220	0.200	0.200	0.220
4	crotonaldehyde	0.050	0.040	0.050	0.050
	isobutane	0.020	0.020	0.020	0.020
	isobutene	2.860	1.370	1.380	2.820
	methyl ethyl ketone (MEK)	0.060	0.050	0.050	0.060
	n-butane	0.560	0.510	0.510	0.550
	trans-2-butene	0.240	0.220	0.220	0.240
	vinylacetylene	0.120	0.110	0.110	0.120
	1-butene	0.530	0.480	0.480	0.280
	1,2-butadiene	0.030	0.030	0.030	0.030
	1,3-butadiene	0.700	0.690	0.690	0.680
5	1,3-butadiyne	0.020	0.020	0.020	0.020
	2-methyl-2-propenal	0.100	0.090	0.090	0.100
	cis-2-pentene	0.120	0.110	0.110	0.120
	cyclopentane	0.410	0.370	0.370	0.400

	<b>cyclopentene</b>	<b>0.220</b>	<b>0.200</b>	<b>0.200</b>	<b>0.220</b>
<b>CNUM</b>	<b>CHEMNAME</b>	<b>Catalyst Start Exhaust</b>			
		<b>MTBE</b>	<b>Non-Oxy</b>	<b>EtOH 2%</b>	<b>EtOH 3.5%</b>
<b>5</b>	<b>isopentane</b>	<b>5.360</b>	<b>5.360</b>	<b>4.890</b>	<b>5.280</b>
	<b>isoprene</b>	<b>0.210</b>	<b>0.190</b>	<b>0.190</b>	<b>0.210</b>
	<b>isovaleraldehyde</b>	<b>0.030</b>	<b>0.030</b>	<b>0.030</b>	<b>0.030</b>
	<b>methyl t-butyl ether (MTBE)</b>	<b>3.020</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
	<b>n-pentane</b>	<b>2.380</b>	<b>2.380</b>	<b>2.170</b>	<b>2.350</b>
	<b>trans-1,3-pentadiene</b>	<b>0.030</b>	<b>0.030</b>	<b>0.030</b>	<b>0.030</b>
	<b>trans-2-pentene</b>	<b>0.260</b>	<b>0.240</b>	<b>0.240</b>	<b>0.260</b>
	<b>1-pentene</b>	<b>0.140</b>	<b>0.130</b>	<b>0.130</b>	<b>0.140</b>
	<b>2-methyl-1-butene</b>	<b>0.280</b>	<b>0.250</b>	<b>0.250</b>	<b>0.280</b>
	<b>2-methyl-2-butene</b>	<b>0.440</b>	<b>0.400</b>	<b>0.400</b>	<b>0.430</b>
	<b>3-methyl-1-butene</b>	<b>0.220</b>	<b>0.200</b>	<b>0.200</b>	<b>0.220</b>
<b>6</b>	<b>benzene</b>	<b>2.470</b>	<b>2.170</b>	<b>2.370</b>	<b>2.430</b>
	<b>cis-2-hexene</b>	<b>0.060</b>	<b>0.050</b>	<b>0.050</b>	<b>0.060</b>
	<b>cyclohexane</b>	<b>0.740</b>	<b>0.740</b>	<b>0.670</b>	<b>0.730</b>
	<b>cyclohexene</b>	<b>0.070</b>	<b>0.060</b>	<b>0.060</b>	<b>0.070</b>
	<b>c6 aldehydes</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>
	<b>methylcyclopentane</b>	<b>2.920</b>	<b>2.920</b>	<b>2.660</b>	<b>2.880</b>
	<b>n-hexane</b>	<b>1.740</b>	<b>1.740</b>	<b>1.590</b>	<b>1.710</b>
	<b>trans-2-hexene</b>	<b>0.180</b>	<b>0.160</b>	<b>0.160</b>	<b>0.180</b>
	<b>trans-3-hexene</b>	<b>0.070</b>	<b>0.060</b>	<b>0.060</b>	<b>0.070</b>
	<b>1-hexene</b>	<b>0.100</b>	<b>0.090</b>	<b>0.090</b>	<b>0.100</b>
	<b>2-methyl-1-pentene</b>	<b>0.060</b>	<b>0.050</b>	<b>0.050</b>	<b>0.060</b>
	<b>2-methyl-2-pentene</b>	<b>0.100</b>	<b>0.090</b>	<b>0.090</b>	<b>0.100</b>
	<b>2-methylpentane</b>	<b>3.680</b>	<b>3.680</b>	<b>3.360</b>	<b>3.630</b>
	<b>2,2-dimethylbutane</b>	<b>0.560</b>	<b>0.560</b>	<b>0.510</b>	<b>0.550</b>
	<b>2,3-dimethyl-1-butene</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>
	<b>2,3-dimethylbutane</b>	<b>0.980</b>	<b>0.980</b>	<b>0.890</b>	<b>0.970</b>
	<b>3-methyl-trans-2-pentene</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>
	<b>3-methyl-1-pentene</b>	<b>0.080</b>	<b>0.070</b>	<b>0.070</b>	<b>0.080</b>
	<b>3-methylcyclopentene</b>	<b>0.100</b>	<b>0.090</b>	<b>0.090</b>	<b>0.100</b>
	<b>3-methylpentane</b>	<b>2.230</b>	<b>2.230</b>	<b>2.030</b>	<b>2.200</b>
	<b>3,3-dimethyl-1-butene</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>

6	4-methyl-trans-2-pentene	0.060	0.050	0.050	0.060
	4-methyl-1-pentene	0.030	0.030	0.030	0.030
CNUM	CHEMNAME	Catalyst Start Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
7	benzaldehyde	0.230	0.210	0.210	0.230
	cis-2-heptene	0.040	0.040	0.040	0.040
	ethylcyclopentane	0.220	0.400	0.370	0.220
	methylcyclohexane	0.790	1.430	1.320	0.780
	n-heptane	0.660	0.600	0.600	0.650
	toluene	7.250	6.570	6.610	7.140
	trans-2-heptene	0.040	0.040	0.040	0.040
	trans-3-heptene	0.060	0.050	0.050	0.060
	1-c-3-dimethylcyclopentane	0.300	0.540	0.500	0.300
	1-t-3-dimethylcyclopentane	0.330	0.600	0.550	0.320
	2-methyl-trans-3-hexene	0.010	0.010	0.010	0.010
	2-methyl-2-hexene	0.040	0.040	0.040	0.040
	2-methylhexane	0.030	0.050	0.050	0.030
	2,2,3-trimethylbutane	0.020	0.040	0.030	0.020
	2,3-dimethyl-2-pentene	0.020	0.020	0.020	0.020
	2,3-dimethylpentane	1.720	3.120	2.880	1.690
	2,4-dimethyl-1-pentene	0.010	0.010	0.010	0.010
	2,4-dimethyl-2-pentene	0.050	0.040	0.050	0.050
	2,4-dimethylpentane	0.540	0.980	0.910	0.530
	3-ethylpentane	0.330	0.600	0.550	0.320
	3-methyl-cis-2-hexene	0.040	0.040	0.040	0.040
	3-methyl-trans-3-hexene	0.010	0.010	0.010	0.010
	3-methylhexane	0.920	1.670	1.540	0.910
	3,3-dimethylpentane	0.020	0.040	0.030	0.020
	3,4-dimethyl-1-pentene	0.010	0.010	0.010	0.010
	4-methyl-trans-2-hexene	0.020	0.020	0.020	0.020
8	c-1-methyl-3-ethylcyclopentane	0.090	0.160	0.150	0.090
	c-1,2-dimethylcyclohexane	0.010	0.020	0.020	0.010
	cis-1,3-dimethylcyclohexane	0.050	0.090	0.080	0.050
	cis-2-octene	0.010	0.010	0.010	0.010
8	ethylbenzene	1.540	1.400	1.400	1.520



	ethylcyclohexane	0.020	0.040	0.030	0.020
	m-xylene	5.170	4.690	4.710	5.090
	n-octane	0.550	0.500	0.500	0.540
CNUM	CHEMNAME	Catalyst Start Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	o-xylene	1.780	1.610	1.620	1.750
	styrene	0.250	0.230	0.230	0.250
	t-1-methyl-3-ethylcyclopentane	0.160	0.290	0.270	0.160
	tolualdehyde	0.200	0.180	0.180	0.200
	trans-1,3-dimethylcyclohexane	0.070	0.130	0.120	0.070
	trans-1,4-dimethylcyclohexane	0.140	0.250	0.230	0.140
	trans-2-octene	0.010	0.010	0.010	0.010
	unidentified	0.450	0.410	0.410	0.440
	1-octene	0.020	0.020	0.020	0.020
	1,2,4-trimethylcyclopentene	0.210	0.380	0.350	0.210
	1c,2t,3-trimethylcyclopentane	0.090	0.160	0.150	0.090
	2-methylheptane	0.480	0.870	0.800	0.470
	2,2-dimethylhexane	0.100	0.180	0.170	0.100
	2,2,4-trimethylpentane	1.920	3.480	3.220	1.890
	2,3-dimethylhexane	0.380	0.690	0.640	0.380
	2,3,4-trimethylpentane	0.770	1.400	1.290	0.760
	2,4-dimethylhexane	0.380	0.690	0.640	0.380
	2,5-dimethylhexane	0.430	0.780	0.720	0.420
	3-methylheptane	0.820	1.490	1.380	0.810
	3,3-dimethylhexane	0.010	0.020	0.020	0.010
	4-methylheptane	0.270	0.490	0.450	0.270
9	indan	0.150	0.140	0.140	0.150
	isopropylbenzene (cumene)	0.060	0.050	0.050	0.060
	n-nonane	0.290	0.260	0.260	0.290
	n-propylbenzene	0.380	0.340	0.350	0.380
	1-methyl-2-ethylbenzene	0.450	0.410	0.410	0.440
	1-methyl-3-ethylbenzene	1.230	1.110	1.120	1.210
	1-methyl-4-ethylbenzene	0.530	0.480	0.480	0.520
9	1-methyl-4-ethylcyclohexane	0.060	0.110	0.100	0.060
	1-nonene	0.060	0.050	0.050	0.060

	1,2,3-trimethylbenzene	0.290	0.260	0.260	0.290
	1,2,4-trimethylbenzene	1.520	1.380	1.390	1.500
	1,3,5-trimethylbenzene	0.610	0.550	0.560	0.600
	1,3,5-trimethylcyclohexane	0.110	0.200	0.180	0.110
CNUM	CHEMNAME	Catalyst Start Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	2-methyloctane	0.050	0.090	0.080	0.050
	2,2,4-trimethylhexane	0.110	0.200	0.180	0.110
	2,2,5-trimethylhexane	0.390	0.710	0.650	0.380
	2,3-dimethylheptane	0.020	0.040	0.030	0.020
	2,3,5-trimethylhexane	0.060	0.110	0.100	0.060
	2,4-dimethylheptane	0.120	0.220	0.200	0.120
	2,4,4-trimethylhexane	0.020	0.040	0.030	0.020
	2,6-dimethylheptane	0.290	0.530	0.490	0.290
	3-methyloctane	0.400	0.720	0.670	0.390
	3,4-dimethylheptane	0.090	0.160	0.150	0.090
	3,5-dimethylheptane	0.220	0.400	0.370	0.220
	4-methyloctane	0.340	0.620	0.570	0.330
10	isobutylbenzene	0.030	0.030	0.030	0.030
	n-decane	0.130	0.120	0.120	0.130
	naphthalene	0.070	0.060	0.060	0.070
	1-methyl-2-isopropylbenzene	0.090	0.080	0.080	0.090
	1-methyl-2n-propylbenzene	0.060	0.050	0.050	0.060
	1-methyl-3-isopropylbenzene	0.070	0.060	0.060	0.070
	1-methyl-3n-propylbenzene	0.220	0.200	0.200	0.220
	1-methyl-4-isopropylbenzene	0.020	0.020	0.020	0.020
	1,2-diethylbenzene (ortho)	0.020	0.020	0.020	0.020
	1,2-dimethyl-3-ethylbenzene	0.040	0.040	0.040	0.040
	1,2-dimethyl-4-ethylbenzene	0.170	0.150	0.150	0.170
	1,2,3,4-tetramethylbenzene	0.050	0.040	0.050	0.050
	1,2,3,5-tetramethylbenzene	0.080	0.070	0.070	0.080
	1,2,4,5-tetramethylbenzene	0.060	0.050	0.050	0.060
10	1,3-diethylbenzene (meta)	0.110	0.100	0.100	0.110
	1,3-dimethyl-2-ethylbenzene	0.030	0.030	0.030	0.030
	1,3-dimethyl-4-ethylbenzene	0.130	0.120	0.120	0.130

	1,3-dimethyl-5-ethylbenzene	0.180	0.160	0.160	0.180
	1,4-diethylbenzene (para)	0.130	0.120	0.120	0.130
	1,4-dimethyl-2-ethylbenzene	0.120	0.110	0.110	0.120
	2-methylindan	0.080	0.070	0.070	0.080
	2-methylnonane	0.180	0.160	0.160	0.180
CNUM	CHEMNAME	Catalyst Start Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	2,2-dimethyloctane	0.040	0.040	0.040	0.040
	2,2,4-trimethylheptane	0.120	0.110	0.110	0.120
	2,3-dimethyloctane	0.050	0.040	0.050	0.050
	2,4-dimethyloctane	0.060	0.050	0.050	0.060
	2,5-dimethyloctane	0.070	0.060	0.060	0.070
	2,6-dimethyloctane	0.090	0.080	0.080	0.090
	3,3-dimethyloctane	0.080	0.070	0.070	0.080
	4-methylindan	0.020	0.020	0.020	0.020
	5-methylindan	0.070	0.060	0.060	0.070
11	n-pentylbenzene	0.040	0.040	0.040	0.040
	n-undecane	0.070	0.060	0.060	0.070
	1-ethyl-2n-propylbenzene	0.020	0.020	0.020	0.020
	1-methyl-2-n-butylbenzene	0.030	0.030	0.030	0.030
	1-methyl-2-t-butylbenzene	0.010	0.010	0.010	0.010
12	n-dodecane	0.020	0.020	0.020	0.020
	t-1-butyl-3,5-dimethylbenzene	0.030	0.030	0.030	0.030
	1,3-dipropylbenzene	0.020	0.020	0.020	0.020
13	2,2,5-triethylheptane	0.160	0.140	0.150	0.160
0					
TOTAL		100.000	99.990	100.000	100.010
CNUM	CHEMNAME	Catalyst Stabilized Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
1	formaldehyde	1.76	1.57	1.65	1.62
	methane	15.82	14.57	14.75	15.85
	methyl alcohol	0.42	0	0	0.21
2	acetaldehyde	0.25	0.24	0.32	0.58

	acetylene	3.44	3.17	3.21	3.45
	ethane	1.09	1	1.02	1.09
	ethyl alcohol	0.07	0	2.01	3.58
	ethylene	6.73	6.2	6.28	6.74
3	acetone	0.17	0.16	0.16	0.17
	acrolein (2-propenal)	0.14	0.13	0.13	0.14
CNUM	CHEMNAME	Catalyst Stabilized Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	propane	0.06	0.05	0.06	0.06
	propionaldehyde	0.04	0.04	0.04	0.04
	propylene	3.24	2.98	3.02	3.24
	1-propyne	0.24	0.22	0.22	0.24
	1,2-propadiene	0.15	0.14	0.14	0.15
4	butyraldehyde	0.02	0.02	0.02	0.02
	cis-2-butene	0.18	0.17	0.17	0.18
	crotonaldehyde	0.03	0.03	0.03	0.03
	isobutane	0.02	0.02	0.02	0.02
	isobutene	3.46	1.69	1.71	1.84
	methyl ethyl ketone (MEK)	0.02	0.02	0.02	0.02
	n-butane	0.81	0.75	0.76	0.81
	trans-2-butene	0.25	0.23	0.23	0.25
	vinylacetylene	0.07	0.06	0.07	0.07
	1-butene	0.44	0.4	0.41	0.44
	1,2-butadiene	0.01	0.01	0.01	0.01
	1,3-butadiene	0.57	0.56	0.56	0.56
	2-methyl-2-propenal	0.09	0.08	0.08	0.09
5	cis-2-pentene	0.12	0.11	0.11	0.12
	cyclopentane	0.37	0.34	0.35	0.37
	cyclopentene	0.2	0.18	0.19	0.2
	isopentane	7.08	7.08	6.6	7.09
5	isoprene	0.15	0.14	0.14	0.15
	isovaleraldehyde	0.04	0.04	0.04	0.04
	methyl t-butyl ether (MTBE)	2.01	0	0	0
	n-pentane	2.86	2.86	2.67	2.86
	trans-2-pentene	0.22	0.2	0.21	0.22

	1-pentene	0.14	0.13	0.13	0.14
	2-methyl-1-butene	0.3	0.28	0.28	0.3
	2-methyl-2-butene	0.43	0.4	0.4	0.43
	3-methyl-1-butene	0.24	0.22	0.22	0.24
6	benzene	2.73	2.4	2.62	2.73
	cis-2-hexene	0.04	0.04	0.04	0.04
	cyclohexane	0.63	0.63	0.59	0.63
CNUM	CHEMNAME	Catalyst Stabilized Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	cyclohexene	0.09	0.08	0.08	0.09
	c6 aldehydes	0.02	0.02	0.02	0.02
	methylcyclopentane	2.86	2.86	2.67	2.86
	n-hexane	1.64	1.64	1.53	1.64
	trans-2-hexene	0.13	0.12	0.12	0.13
	trans-3-hexene	0.05	0.05	0.05	0.05
	1-hexene	0.05	0.05	0.05	0.05
	2-methyl-1-pentene	0.07	0.06	0.07	0.07
	2-methyl-2-pentene	0.08	0.07	0.07	0.08
	2-methylpentane	3.85	3.85	3.59	3.86
	2,2-dimethylbutane	0.66	0.66	0.62	0.66
	2,3-dimethyl-1-butene	0.01	0.01	0.01	0.01
	2,3-dimethylbutane	1.09	1.09	1.02	1.09
	3-methyl-1-pentene	0.11	0.1	0.1	0.11
	3-methylcyclopentene	0.07	0.06	0.07	0.07
	3-methylpentane	2.26	2.26	2.11	2.26
	4-methyl-trans-2-pentene	0.06	0.05	0.06	0.06
	4-methyl-1-pentene	0.01	0.01	0.01	0.01
7	benzaldehyde	0.17	0.16	0.16	0.17
	cis-2-heptene	0.01	0.01	0.01	0.01
7	ethylcyclopentane	0.15	0.28	0.26	0.15
	methylcyclohexane	0.63	1.16	1.07	0.63
	n-heptane	0.52	0.48	0.48	0.52
	toluene	6.09	5.61	5.68	6.1
	trans-2-heptene	0.01	0.01	0.01	0.01
	trans-3-heptene	0.05	0.05	0.05	0.05

	1-c-3-dimethylcyclopentane	0.24	0.44	0.41	0.24
	1-t-3-dimethylcyclopentane	0.27	0.5	0.46	0.27
	2-methyl-trans-3-hexene	0.04	0.04	0.04	0.04
	2,2,3-trimethylbutane	0.01	0.02	0.02	0.01
	2,3-dimethylpentane	1.49	2.74	2.54	1.49
	2,4-dimethyl-2-pentene	0.02	0.02	0.02	0.02
	2,4-dimethylpentane	0.45	0.83	0.77	0.45
	3-ethylpentane	0.27	0.5	0.46	0.27
		<b>Catalyst Stabilized Exhaust</b>			
<b>CNUM</b>	<b>CHEMNAME</b>	<b>MTBE</b>	<b>Non-Oxy</b>	<b>EtOH 2%</b>	<b>EtOH 3.5%</b>
	3-methyl-cis-2-hexene	0.01	0.01	0.01	0.01
	3-methylhexane	0.79	1.45	1.35	0.79
	3,3-dimethylpentane	0.01	0.02	0.02	0.01
<b>8</b>	c-1-methyl-3-ethylcyclopentane	0.07	0.13	0.12	0.07
	c-1,2-dimethylcyclohexane	0.03	0.05	0.05	0.03
	cis-1,3-dimethylcyclohexane	0.08	0.15	0.14	0.08
	ethylbenzene	1.11	1.02	1.04	1.11
	m-xylene	3.77	3.47	3.52	3.78
	n-octane	0.4	0.37	0.37	0.4
	o-xylene	1.31	1.21	1.22	1.31
	styrene	0.13	0.12	0.12	0.13
	t-1-methyl-3-ethylcyclopentane	0.11	0.2	0.19	0.11
	tolualdehyde	0.23	0.21	0.21	0.23
	trans-1,3-dimethylcyclohexane	0.04	0.07	0.07	0.04
	trans-1,4-dimethylcyclohexane	0.04	0.07	0.07	0.04
	1,2,4-trimethylcyclopentene	0.13	0.24	0.22	0.13
	1c,2t,3-trimethylcyclopentane	0.06	0.11	0.1	0.06
	2-methylheptane	0.35	0.64	0.6	0.35
<b>8</b>	2,2-dimethylhexane	0.07	0.13	0.12	0.07
	2,2,4-trimethylpentane	1.78	3.28	3.03	1.78
	2,3-dimethylhexane	0.25	0.46	0.43	0.25
	2,3,4-trimethylpentane	0.62	1.14	1.06	0.62
	2,4-dimethylhexane	0.28	0.52	0.48	0.28
	2,5-dimethylhexane	0.35	0.64	0.6	0.35
	3-methylheptane	0.62	1.14	1.06	0.62

	4-methylheptane	0.16	0.29	0.27	0.16
9	indan	0.09	0.08	0.08	0.09
	isopropylbenzene (cumene)	0.01	0.01	0.01	0.01
	n-nonane	0.18	0.17	0.17	0.18
	n-propylbenzene	0.24	0.22	0.22	0.24
	1-methyl-2-ethylbenzene	0.29	0.27	0.27	0.29
	1-methyl-3-ethylbenzene	0.84	0.77	0.78	0.84
	1-methyl-4-ethylbenzene	0.35	0.32	0.33	0.35
	1-methyl-4-ethylcyclohexane	0.01	0.02	0.02	0.01
		Catalyst Stabilized Exhaust			
CNUM	CHEMNAME	MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	1,2,3-trimethylbenzene	0.18	0.17	0.17	0.18
	1,2,4-trimethylbenzene	1.02	0.94	0.95	1.02
	1,3,5-trimethylbenzene	0.41	0.38	0.38	0.41
	1,3,5-trimethylcyclohexane	0.07	0.13	0.12	0.07
	2-methyloctane	0.01	0.02	0.02	0.01
	2,2,4-trimethylhexane	0.08	0.15	0.14	0.08
	2,2,5-trimethylhexane	0.33	0.61	0.56	0.33
	2,3,5-trimethylhexane	0.02	0.04	0.03	0.02
	2,4-dimethylheptane	0.07	0.13	0.12	0.07
	2,6-dimethylheptane	0.18	0.33	0.31	0.18
	3-methyloctane	0.31	0.57	0.53	0.31
	3,4-dimethylheptane	0.04	0.07	0.07	0.04
	3,5-dimethylheptane	0.15	0.28	0.26	0.15
	4-methyloctane	0.24	0.44	0.41	0.24
10	n-decane	0.16	0.15	0.15	0.16
	naphthalene	0.05	0.05	0.05	0.05
10	1-methyl-2-isopropylbenzene	0.05	0.05	0.05	0.05
	1-methyl-2n-propylbenzene	0.01	0.01	0.01	0.01
	1-methyl-3-isopropylbenzene	0.03	0.03	0.03	0.03
	1-methyl-3n-propylbenzene	0.16	0.15	0.15	0.16
	1,2-dimethyl-3-ethylbenzene	0.01	0.01	0.01	0.01
	1,2-dimethyl-4-ethylbenzene	0.11	0.1	0.1	0.11
	1,2,3,4-tetramethylbenzene	0.02	0.02	0.02	0.02
	1,2,3,5-tetramethylbenzene	0.03	0.03	0.03	0.03

	1,2,4,5-tetramethylbenzene	0.02	0.02	0.02	0.02
	1,3-diethylbenzene (meta)	0.03	0.03	0.03	0.03
	1,3-dimethyl-4-ethylbenzene	0.05	0.05	0.05	0.05
	1,3-dimethyl-5-ethylbenzene	0.12	0.11	0.11	0.12
	1,4-diethylbenzene (para)	0.07	0.06	0.07	0.07
	1,4-dimethyl-2-ethylbenzene	0.05	0.05	0.05	0.05
	2-methylindan	0.02	0.02	0.02	0.02
	2-methylnonane	0.09	0.08	0.08	0.09
	2,2-dimethyloctane	0.01	0.01	0.01	0.01
	2,2,4-trimethylheptane	0.02	0.02	0.02	0.02
		<b>Catalyst Stabilized Exhaust</b>			
<b>CNUM</b>	<b>CHEMNAME</b>	<b>MTBE</b>	<b>Non-Oxy</b>	<b>EtOH 2%</b>	<b>EtOH 3.5%</b>
	2,3-dimethyloctane	0.01	0.01	0.01	0.01
	2,4-dimethyloctane	0.04	0.04	0.04	0.04
	2,5-dimethyloctane	0.04	0.04	0.04	0.04
	2,6-dimethyloctane	0.01	0.01	0.01	0.01
	3,3-dimethyloctane	0.04	0.04	0.04	0.04
	4-methylindan	0.01	0.01	0.01	0.01
	5-methylindan	0.02	0.02	0.02	0.02
11	n-pentylbenzene	0.01	0.01	0.01	0.01
	n-undecane	0.01	0.01	0.01	0.01
	1-methyl-2-n-butylbenzene	0.01	0.01	0.01	0.01
12	n-dodecane	0.01	0.01	0.01	0.01
	t-1-butyl-3,5-dimethylbenzene	0.01	0.01	0.01	0.01
	1,3-dipropylbenzene	0.01	0.01	0.01	0.01
13	2,2,5-triethylheptane	0.06	0.05	0.06	0.06
<b>TOTAL</b>		<b>100</b>	<b>99.99</b>	<b>100</b>	<b>99.99</b>
		<b>Non-Catalyst Start Exhaust</b>			
<b>CNUM</b>	<b>CHEMNAME</b>	<b>MTBE</b>	<b>Non-Oxy</b>	<b>EtOH 2%</b>	<b>EtOH 3.5%</b>
1	formaldehyde	1.460	1.300	1.370	1.340
	methane	6.530	5.940	5.960	6.520
	methyl alcohol	0.840	0.000	0.000	0.190
2	acetaldehyde	0.350	0.330	0.440	0.810



	acetylene	6.730	6.130	6.140	6.720
	ethane	0.740	0.670	0.670	0.740
	ethyl alcohol	0.060	0.000	3.000	5.280
	ethylene	8.060	7.340	7.350	8.040
3	acetone	0.280	0.250	0.250	0.280
	acrolein (2-propenal)	0.130	0.120	0.120	0.130
	propane	0.040	0.040	0.040	0.040
	propionaldehyde	0.070	0.060	0.060	0.070
	propylene	3.110	2.830	2.840	3.100
	1-propyne	0.370	0.340	0.340	0.370
	1,2-propadiene	0.310	0.280	0.280	0.310
CNUM	CHEMNAME	Non-Catalyst Start Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
4	butyraldehyde	0.070	0.060	0.060	0.070
	cis-2-butene	0.210	0.190	0.190	0.210
	crotonaldehyde	0.080	0.070	0.070	0.080
	isobutane	0.010	0.010	0.010	0.010
	isobutene	1.970	0.950	0.950	1.040
	methyl ethyl ketone (MEK)	0.100	0.090	0.090	0.100
	n-butane	0.480	0.440	0.440	0.480
	trans-2-butene	0.200	0.180	0.180	0.200
	vinylacetylene	0.160	0.150	0.150	0.160
	1-butene	0.440	0.400	0.400	0.440
	1,2-butadiene	0.020	0.020	0.020	0.020
	1,3-butadiene	0.780	0.760	0.760	0.770
	1,3-butadiyne	0.020	0.020	0.020	0.020
	2-methyl-2-propenal	0.100	0.090	0.090	0.100
5	cis-2-pentene	0.070	0.060	0.060	0.070
	cyclopentane	0.490	0.450	0.450	0.490
	cyclopentene	0.150	0.140	0.140	0.150
5	isopentane	4.550	4.550	4.150	4.540
	isoprene	0.250	0.230	0.230	0.250
	isovaleraldehyde	0.020	0.020	0.020	0.020
	methyl t-butyl ether (MTBE)	3.800	0.000	0.000	0.000
	n-pentane	1.960	1.960	1.790	1.960

	<b>trans-1,3-pentadiene</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>
	<b>trans-2-pentene</b>	<b>0.330</b>	<b>0.300</b>	<b>0.300</b>	<b>0.330</b>
	<b>1-pentene</b>	<b>0.080</b>	<b>0.070</b>	<b>0.070</b>	<b>0.080</b>
	<b>2-methyl-1-butene</b>	<b>0.230</b>	<b>0.210</b>	<b>0.210</b>	<b>0.230</b>
	<b>2-methyl-2-butene</b>	<b>0.380</b>	<b>0.350</b>	<b>0.350</b>	<b>0.380</b>
	<b>3-methyl-1-butene</b>	<b>0.250</b>	<b>0.230</b>	<b>0.230</b>	<b>0.250</b>
<b>6</b>	<b>benzene</b>	<b>2.750</b>	<b>2.420</b>	<b>2.640</b>	<b>2.740</b>
	<b>cis-2-hexene</b>	<b>0.030</b>	<b>0.030</b>	<b>0.030</b>	<b>0.030</b>
	<b>cyclohexane</b>	<b>0.770</b>	<b>0.770</b>	<b>0.700</b>	<b>0.770</b>
	<b>cyclohexene</b>	<b>0.030</b>	<b>0.030</b>	<b>0.030</b>	<b>0.030</b>
	<b>c6 aldehydes</b>	<b>0.030</b>	<b>0.030</b>	<b>0.030</b>	<b>0.030</b>
	<b>methylcyclopentane</b>	<b>2.860</b>	<b>2.860</b>	<b>2.610</b>	<b>2.850</b>
<b>CNUM</b>	<b>CHEMNAME</b>	<b>Non-Catalyst Start Exhaust</b>			
		<b>MTBE</b>	<b>Non-Oxy</b>	<b>EtOH 2%</b>	<b>EtOH 3.5%</b>
	<b>n-hexane</b>	<b>1.690</b>	<b>1.690</b>	<b>1.540</b>	<b>1.690</b>
	<b>trans-2-hexene</b>	<b>0.170</b>	<b>0.150</b>	<b>0.150</b>	<b>0.170</b>
	<b>trans-3-hexene</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>
	<b>1-hexene</b>	<b>0.060</b>	<b>0.050</b>	<b>0.050</b>	<b>0.060</b>
	<b>2-methyl-1-pentene</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>
	<b>2-methyl-2-pentene</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>
	<b>2-methylpentane</b>	<b>3.500</b>	<b>3.500</b>	<b>3.190</b>	<b>3.490</b>
	<b>2,2-dimethylbutane</b>	<b>0.470</b>	<b>0.470</b>	<b>0.430</b>	<b>0.470</b>
	<b>2,3-dimethylbutane</b>	<b>0.940</b>	<b>0.940</b>	<b>0.860</b>	<b>0.940</b>
	<b>3-methyl-1-pentene</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>
	<b>3-methylcyclopentene</b>	<b>0.050</b>	<b>0.050</b>	<b>0.050</b>	<b>0.050</b>
	<b>3-methylpentane</b>	<b>2.160</b>	<b>2.160</b>	<b>1.970</b>	<b>2.160</b>
	<b>4-methyl-trans-2-pentene</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>	<b>0.040</b>
	<b>4-methyl-1-pentene</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>
<b>7</b>	<b>benzaldehyde</b>	<b>0.260</b>	<b>0.240</b>	<b>0.240</b>	<b>0.260</b>
<b>7</b>	<b>cis-2-heptene</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>
	<b>ethylcyclopentane</b>	<b>0.300</b>	<b>0.550</b>	<b>0.500</b>	<b>0.300</b>
	<b>methylcyclohexane</b>	<b>0.830</b>	<b>1.510</b>	<b>1.400</b>	<b>0.830</b>
	<b>n-heptane</b>	<b>0.720</b>	<b>0.650</b>	<b>0.660</b>	<b>0.720</b>
	<b>toluene</b>	<b>7.370</b>	<b>6.710</b>	<b>6.720</b>	<b>7.350</b>
	<b>trans-2-heptene</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>	<b>0.020</b>

	trans-3-heptene	0.050	0.050	0.050	0.050
	1-c-3-dimethylcyclopentane	0.380	0.690	0.640	0.380
	1-t-3-dimethylcyclopentane	0.340	0.620	0.570	0.340
	2-methyl-2-hexene	0.020	0.020	0.020	0.020
	2,2,3-trimethylbutane	0.030	0.050	0.050	0.030
	2,3-dimethyl-2-pentene	0.020	0.020	0.020	0.020
	2,3-dimethylpentane	1.650	3.000	2.780	1.650
	2,4-dimethyl-2-pentene	0.020	0.020	0.020	0.020
	2,4-dimethylpentane	0.590	1.070	0.990	0.590
	3-ethylpentane	0.400	0.730	0.670	0.400
	3-methyl-cis-2-hexene	0.020	0.020	0.020	0.020
	3-methyl-trans-3-hexene	0.010	0.010	0.010	0.010
	3-methylhexane	0.950	1.730	1.600	0.950
CNUM	CHEMNAME	Non-Catalyst Start Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	3,4-dimethyl-1-pentene	0.020	0.020	0.020	0.020
	4-methyl-trans-2-hexene	0.010	0.010	0.010	0.010
8	c-1-methyl-3-ethylcyclopentane	0.070	0.130	0.120	0.070
	c-1,2-dimethylcyclohexane	0.050	0.090	0.080	0.050
	cis-1,3-dimethylcyclohexane	0.180	0.330	0.300	0.180
	ethylbenzene	1.390	1.260	1.270	1.390
	m-xylene	4.750	4.320	4.330	4.740
	n-octane	0.480	0.440	0.440	0.480
	o-xylene	1.620	1.470	1.480	1.620
	styrene	0.140	0.130	0.130	0.140
	t-1-methyl-3-ethylcyclopentane	0.150	0.270	0.250	0.150
	tolualdehyde	0.260	0.240	0.240	0.260
	trans-1,3-dimethylcyclohexane	0.040	0.070	0.070	0.040
8	trans-1,4-dimethylcyclohexane	0.150	0.270	0.250	0.150
	trans-2-octene	0.010	0.010	0.010	0.010
	unidentified	1.630	1.480	1.490	1.630
	1-octene	0.010	0.010	0.010	0.010
	1,2,4-trimethylcyclopentene	0.290	0.530	0.490	0.290
	1c,2t,3-trimethylcyclopentane	0.050	0.090	0.080	0.050
	2-methylheptane	0.470	0.860	0.790	0.470

	2,2-dimethylhexane	0.050	0.090	0.080	0.050
	2,2,4-trimethylpentane	1.580	2.880	2.660	1.580
	2,3-dimethylhexane	0.420	0.760	0.710	0.420
	2,3,4-trimethylpentane	0.680	1.240	1.140	0.680
	2,4-dimethylhexane	0.430	0.780	0.720	0.430
	2,5-dimethylhexane	0.460	0.840	0.770	0.460
	3-methylheptane	0.700	1.270	1.180	0.700
	3,3-dimethylhexane	0.010	0.020	0.020	0.010
	4-methylheptane	0.340	0.620	0.570	0.340
9	indan	0.060	0.050	0.050	0.060
	isopropylbenzene (cumene)	0.030	0.030	0.030	0.030
	n-nonane	0.270	0.250	0.250	0.270
	n-propylbenzene	0.340	0.310	0.310	0.340
	1-methyl-2-ethylbenzene	0.290	0.260	0.260	0.290
CNUM	CHEMNAME	Non-Catalyst Start Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	1-methyl-3-ethylbenzene	0.950	0.860	0.870	0.950
	1-methyl-4-ethylbenzene	0.400	0.360	0.360	0.400
	1-methyl-4-ethylcyclohexane	0.030	0.050	0.050	0.030
	1-nonene	0.020	0.020	0.020	0.020
	1,2,3-trimethylbenzene	0.220	0.200	0.200	0.220
	1,2,4-trimethylbenzene	1.100	1.000	1.000	1.100
	1,3,5-trimethylbenzene	0.480	0.440	0.440	0.480
	1,3,5-trimethylcyclohexane	0.070	0.130	0.120	0.070
	2-methyloctane	0.080	0.150	0.130	0.080
	2,2,4-trimethylhexane	0.060	0.110	0.100	0.060
	2,2,5-trimethylhexane	0.300	0.550	0.500	0.300
9	2,3-dimethylheptane	0.010	0.020	0.020	0.010
	2,3,5-trimethylhexane	0.030	0.050	0.050	0.030
	2,4-dimethylheptane	0.040	0.070	0.070	0.040
	2,4,4-trimethylhexane	0.010	0.020	0.020	0.010
	2,6-dimethylheptane	0.320	0.580	0.540	0.320
	3-methyloctane	0.570	1.040	0.960	0.570
	3,4-dimethylheptane	0.050	0.090	0.080	0.050
	3,5-dimethylheptane	0.210	0.380	0.350	0.210

	4-methyloctane	0.290	0.530	0.490	0.290
10	isobutylbenzene	0.010	0.010	0.010	0.010
	n-decane	0.060	0.050	0.050	0.060
	naphthalene	0.020	0.020	0.020	0.020
	1-methyl-2-isopropylbenzene	0.050	0.050	0.050	0.050
	1-methyl-2n-propylbenzene	0.020	0.020	0.020	0.020
	1-methyl-3-isopropylbenzene	0.050	0.050	0.050	0.050
	1-methyl-3n-propylbenzene	0.140	0.130	0.130	0.140
	1-methyl-4-isopropylbenzene	0.010	0.010	0.010	0.010
	1,2-dimethyl-3-ethylbenzene	0.010	0.010	0.010	0.010
	1,2-dimethyl-4-ethylbenzene	0.070	0.060	0.060	0.070
	1,2,3,4-tetramethylbenzene	0.020	0.020	0.020	0.020
	1,2,3,5-tetramethylbenzene	0.030	0.030	0.030	0.030
	1,2,4,5-tetramethylbenzene	0.020	0.020	0.020	0.020
	1,3-diethylbenzene (meta)	0.030	0.030	0.030	0.030
CNUM	CHEMNAME	Non-Catalyst Start Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	1,3-dimethyl-2-ethylbenzene	0.010	0.010	0.010	0.010
	1,3-dimethyl-4-ethylbenzene	0.050	0.050	0.050	0.050
	1,3-dimethyl-5-ethylbenzene	0.070	0.060	0.060	0.070
	1,4-diethylbenzene (para)	0.050	0.050	0.050	0.050
	1,4-dimethyl-2-ethylbenzene	0.050	0.050	0.050	0.050
	2-methylindan	0.020	0.020	0.020	0.020
	2-methylnonane	0.120	0.110	0.110	0.120
	2,2-dimethyloctane	0.010	0.010	0.010	0.010
	2,2,4-trimethylheptane	0.040	0.040	0.040	0.040
10	2,3-dimethyloctane	0.040	0.040	0.040	0.040
	2,4-dimethyloctane	0.020	0.020	0.020	0.020
	2,5-dimethyloctane	0.030	0.030	0.030	0.030
	2,6-dimethyloctane	0.040	0.040	0.040	0.040
	3,3-dimethyloctane	0.040	0.040	0.040	0.040
	5-methylindan	0.020	0.020	0.020	0.020
11	n-pentylbenzene	0.010	0.010	0.010	0.010
	n-undecane	0.010	0.010	0.010	0.010
	1-ethyl-2n-propylbenzene	0.010	0.010	0.010	0.010

	1-methyl-2-n-butylbenzene	0.010	0.010	0.010	0.010
12	t-1-butyl-3,5-dimethylbenzene	0.010	0.010	0.010	0.010
13	2,2,5-triethylheptane	0.080	0.070	0.070	0.080
0					
<b>TOTAL</b>		<b>100.000</b>	<b>99.990</b>	<b>99.990</b>	<b>100.000</b>
CNUM	CHEMNAME	Non-Catalyst Stabilized Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
1	formaldehyde	3.12	2.78	2.93	2.88
	methane	5.58	5.16	5.19	5.59
	methyl alcohol	0.7	0	0	0.34
2	acetaldehyde	0.75	0.71	0.95	1.74
	acetylene	2.34	2.16	2.18	2.35
	ethane	1.77	1.64	1.65	1.77
	ethyl alcohol	0.01	0	1.86	3.24
CNUM	CHEMNAME	Non-Catalyst Stabilized Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	ethylene	8.94	8.27	8.32	8.96
3	acetone	0.46	0.42	0.43	0.46
	acrolein (2-propenal)	0.18	0.17	0.17	0.18
	propane	0.09	0.08	0.08	0.09
	propionaldehyde	0.13	0.12	0.12	0.13
	propylene	4.9	4.53	4.56	4.91
	1-propyne	0.43	0.4	0.4	0.43
	1,2-propadiene	0.33	0.3	0.31	0.33
4	butyraldehyde	0.05	0.05	0.05	0.05
	cis-2-butene	0.25	0.23	0.23	0.25
	crotonaldehyde	0.13	0.12	0.12	0.13
	isobutane	0.02	0.02	0.02	0.02
	isobutene	3.95	1.94	1.95	2.1
	methyl ethyl ketone (MEK)	0.06	0.05	0.06	0.06
	n-butane	0.75	0.69	0.7	0.6
	trans-2-butene	0.35	0.32	0.33	0.35
	vinylacetylene	0.12	0.11	0.11	0.12

	1-butene	0.66	0.61	0.61	0.66
	1,2-butadiene	0.05	0.05	0.05	0.05
	1,3-butadiene	0.83	0.81	0.81	0.82
	1,3-butadiyne	0.01	0.01	0.01	0.01
	2-butyne	0.01	0.01	0.01	0.01
	2-methyl-2-propenal	0.2	0.18	0.19	0.2
5	cis-2-pentene	0.11	0.1	0.1	0.11
	cyclopentane	0.28	0.26	0.26	0.28
5	cyclopentene	0.18	0.17	0.17	0.18
	isopentane	6.56	6.56	6.11	6.58
	isoprene	0.14	0.13	0.13	0.14
	isovaleraldehyde	0.08	0.07	0.07	0.08
	methyl t-butyl ether (MTBE)	1.86	0	0	0
	n-pentane	2.19	2.19	2.04	2.2
	trans-1,3-pentadiene	0.03	0.03	0.03	0.03
	trans-2-pentene	0.19	0.18	0.18	0.19
	1-pentene	0.14	0.13	0.13	0.14
CNUM	CHEMNAME	Non-Catalyst Stabilized Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	2-methyl-1-butene	0.32	0.3	0.3	0.32
	2-methyl-2-butene	0.39	0.36	0.36	0.39
	3-methyl-1-butene	0.25	0.23	0.23	0.25
6	benzene	3.44	3.03	3.3	3.45
	cis-2-hexene	0.04	0.04	0.04	0.04
	cyclohexane	0.45	0.45	0.42	0.45
	cyclohexene	0.07	0.06	0.06	0.07
	c6 aldehydes	0.06	0.05	0.06	0.06
	methylcyclopentane	2.2	2.2	2.05	2.21
	n-hexane	1.31	1.31	1.22	1.31
	trans-2-hexene	0.13	0.12	0.12	0.13
	trans-3-hexene	0.05	0.05	0.05	0.05
	1-hexene	0.08	0.07	0.07	0.08
	2-methyl-1-pentene	0.06	0.05	0.06	0.06
	2-methyl-2-pentene	0.07	0.06	0.06	0.07
	2-methylpentane	3.21	3.21	2.99	3.22

	2,2-dimethylbutane	0.51	0.51	0.47	0.51
	2,3-dimethyl-1-butene	0.02	0.02	0.02	0.02
	2,3-dimethylbutane	0.98	0.98	0.91	0.98
	3-methyl-trans-2-pentene	0.02	0.02	0.02	0.02
	3-methyl-1-pentene	0.1	0.09	0.09	0.1
	3-methylcyclopentene	0.07	0.06	0.06	0.07
	3-methylpentane	1.93	1.93	1.8	1.93
6	3,3-dimethyl-1-butene	0.01	0.01	0.01	0.01
	4-methyl-trans-2-pentene	0.06	0.05	0.06	0.06
	4-methyl-1-pentene	0.07	0.06	0.06	0.07
7	benzaldehyde	0.61	0.56	0.57	0.61
	cis-2-heptene	0.03	0.03	0.03	0.03
	ethylcyclopentane	0.13	0.24	0.22	0.13
	methylcyclohexane	0.5	0.92	0.85	0.5
	n-heptane	0.49	0.45	0.46	0.49
	toluene	6.79	6.28	6.32	6.81
	trans-2-heptene	0.03	0.03	0.03	0.03
	trans-3-heptene	0.04	0.04	0.04	0.04
CNUM	CHEMNAME	Non-Catalyst Stabilized Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	1-c-3-dimethylcyclopentane	0.2	0.37	0.34	0.2
	1-t-3-dimethylcyclopentane	0.23	0.42	0.39	0.23
	2-methyl-trans-3-hexene	0.05	0.05	0.05	0.05
	2-methyl-2-hexene	0.02	0.02	0.02	0.02
	2,2,3-trimethylbutane	0.03	0.05	0.05	0.03
	2,3-dimethyl-2-pentene	0.01	0.01	0.01	0.01
	2,3-dimethylpentane	1.69	3.13	2.89	1.69
	2,4-dimethyl-1-pentene	0.01	0.01	0.01	0.01
	2,4-dimethyl-2-pentene	0.06	0.05	0.06	0.06
	2,4-dimethylpentane	0.53	0.98	0.91	0.53
	3-ethylpentane	0.24	0.44	0.41	0.24
	3-methyl-cis-2-hexene	0.03	0.03	0.03	0.03
	3-methyl-trans-3-hexene	0.01	0.01	0.01	0.01
	3-methylhexane	0.76	1.4	1.3	0.76
	3,3-dimethylpentane	0.02	0.04	0.03	0.02



	4-methyl-trans-2-hexene	0.01	0.01	0.01	0.01
8	c-1-methyl-3-ethylcyclopentane	0.07	0.13	0.12	0.07
	c-1,2-dimethylcyclohexane	0.01	0.02	0.02	0.01
	cis-1,3-dimethylcyclohexane	0.05	0.09	0.09	0.05
	cis-2-octene	0.01	0.01	0.01	0.01
	ethylbenzene	1.5	1.39	1.4	1.5
8	ethylcyclohexane	0.02	0.04	0.03	0.02
	m-xylene	4.45	4.11	4.14	4.46
	n-octane	0.35	0.32	0.33	0.35
	o-xylene	1.55	1.43	1.44	1.55
	styrene	0.13	0.12	0.12	0.13
	t-1-methyl-3-ethylcyclopentane	0.09	0.17	0.15	0.09
	tolualdehyde	0.6	0.55	0.56	0.6
	trans-1,3-dimethylcyclohexane	0.05	0.09	0.09	0.05
	trans-1,4-dimethylcyclohexane	0.05	0.09	0.09	0.05
	1,2,4-trimethylcyclopentene	0.11	0.2	0.19	0.11
	1c,2t,3-trimethylcyclopentane	0.07	0.13	0.12	0.07
	2-methylheptane	0.33	0.61	0.56	0.33
	2,2-dimethylhexane	0.08	0.15	0.14	0.08
CNUM	CHEMNAME	Non-Catalyst Stabilized Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	2,2,4-trimethylpentane	1.99	3.68	3.4	1.99
	2,3-dimethylhexane	0.28	0.52	0.48	0.28
	2,3,4-trimethylpentane	0.63	1.16	1.08	0.63
	2,4-dimethylhexane	0.29	0.54	0.5	0.29
	2,5-dimethylhexane	0.33	0.61	0.56	0.33
	3-methylheptane	0.53	0.98	0.91	0.53
	3,3-dimethylhexane	0.01	0.02	0.02	0.01
	4-methylheptane	0.18	0.33	0.31	0.18
9	indan	0.12	0.11	0.11	0.12
	isopropylbenzene (cumene)	0.05	0.05	0.05	0.05
	n-nonane	0.18	0.17	0.17	0.18
	n-propylbenzene	0.28	0.26	0.26	0.28
	1-methyl-2-ethylbenzene	0.37	0.34	0.34	0.37
	1-methyl-3-ethylbenzene	1.07	0.99	1	1.07

	1-methyl-4-ethylbenzene	0.46	0.42	0.43	0.46
	1-methyl-4-ethylcyclohexane	0.04	0.07	0.07	0.04
	1-nonene	0.02	0.02	0.02	0.02
	1,2,3-trimethylbenzene	0.23	0.21	0.21	0.23
	1,2,4-trimethylbenzene	1.26	1.16	1.17	1.26
9	1,3,5-trimethylbenzene	0.5	0.46	0.46	0.5
	1,3,5-trimethylcyclohexane	0.08	0.15	0.14	0.08
	2-methyloctane	0.06	0.11	0.1	0.06
	2,2,4-trimethylhexane	0.08	0.15	0.14	0.08
	2,2,5-trimethylhexane	0.35	0.65	0.6	0.35
	2,3-dimethylheptane	0.01	0.02	0.02	0.01
	2,3,5-trimethylhexane	0.05	0.09	0.09	0.05
	2,4-dimethylheptane	0.08	0.15	0.14	0.08
	2,4,4-trimethylhexane	0.01	0.02	0.02	0.01
	2,6-dimethylheptane	0.16	0.3	0.27	0.16
	3-methyloctane	0.44	0.81	0.75	0.44
	3,4-dimethylheptane	0.05	0.09	0.09	0.05
	3,5-dimethylheptane	0.13	0.24	0.22	0.13
	4-methyloctane	0.18	0.33	0.31	0.18
10	isobutylbenzene	0.01	0.01	0.01	0.01
CNUM	CHEMNAME	Non-Catalyst Stabilized Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
	n-decane	0.1	0.09	0.09	0.1
	naphthalene	0.13	0.12	0.12	0.13
	1-methyl-2-isopropylbenzene	0.1	0.09	0.09	0.1
	1-methyl-2n-propylbenzene	0.05	0.05	0.05	0.05
	1-methyl-3-isopropylbenzene	0.01	0.01	0.01	0.01
	1-methyl-3n-propylbenzene	0.28	0.26	0.26	0.28
	1-methyl-4-isopropylbenzene	0.01	0.01	0.01	0.01
	1,2-diethylbenzene (ortho)	0.01	0.01	0.01	0.01
	1,2-dimethyl-3-ethylbenzene	0.04	0.04	0.04	0.04
	1,2-dimethyl-4-ethylbenzene	0.17	0.16	0.16	0.17
	1,2,3,4-tetramethylbenzene	0.05	0.05	0.05	0.05
	1,2,3,5-tetramethylbenzene	0.08	0.07	0.07	0.08
	1,2,4,5-tetramethylbenzene	0.06	0.05	0.06	0.06

	1,3-diethylbenzene (meta)	0.1	0.09	0.09	0.1
	1,3-dimethyl-2-ethylbenzene	0.02	0.02	0.02	0.02
	1,3-dimethyl-4-ethylbenzene	0.12	0.11	0.11	0.12
	1,3-dimethyl-5-ethylbenzene	0.17	0.16	0.16	0.17
10	1,4-diethylbenzene (para)	0.12	0.11	0.11	0.12
	1,4-dimethyl-2-ethylbenzene	0.11	0.1	0.1	0.11
	2-methylindan	0.08	0.07	0.07	0.08
	2-methylnonane	0.14	0.13	0.13	0.14
	2,2-dimethyloctane	0.02	0.02	0.02	0.02
	2,2,4-trimethylheptane	0.06	0.05	0.06	0.06
	2,3-dimethyloctane	0.04	0.04	0.04	0.04
	2,4-dimethyloctane	0.05	0.05	0.05	0.05
	2,5-dimethyloctane	0.03	0.03	0.03	0.03
	2,6-dimethyloctane	0.06	0.05	0.06	0.06
	3,3-dimethyloctane	0.05	0.05	0.05	0.05
	4-methylindan	0.02	0.02	0.02	0.02
	5-methylindan	0.07	0.06	0.06	0.07
11	n-pentylbenzene	0.03	0.03	0.03	0.03
	n-undecane	0.04	0.04	0.04	0.04
	1-ethyl-2n-propylbenzene	0.01	0.01	0.01	0.01
	1-methyl-2-n-butylbenzene	0.02	0.02	0.02	0.02
CNUM	CHEMNAME	Non-Catalyst Stabilized Exhaust			
		MTBE	Non-Oxy	EtOH 2%	EtOH 3.5%
12	n-dodecane	0.01	0.01	0.01	0.01
	t-1-butyl-3,5-dimethylbenzene	0.02	0.02	0.02	0.02
	1,3-dipropylbenzene	0.03	0.03	0.03	0.03
13	2,2,5-triethylheptane	0.11	0.1	0.1	0.11
0					
TOTAL		100	99.98	100	99.98