

MINUTES OF THE HOUSE AGRICULTURE COMMITTEE

The meeting was called to order by Chairman Dan Johnson at 3:30 p.m. on March 7, 2005, in Room 423-S of the Capitol.

All members were present.

Committee staff present:

Raney Gilliland, Kansas Legislative Research Department
Amy VanHouse, Kansas Legislative Research Department
Gordon Self, Revisor of Statutes Office
Kay Scarlett, Committee Secretary

Conferees appearing before the committee:

Adrian Polansky, Secretary, Kansas Department of Agriculture
Jesse McCurry, Manager, Industrial Ag Program, Ag Marketing Division, Department of Commerce
John Neufeld, General Manager, U. S. Energy Partners, Russell
Greg Krissek, Director of Marketing and Government Affairs, United Bio Energy, Wichita
Brad Harrelson, State Policy Director, Governmental Relations, Kansas Farm Bureau
Jere White, Executive Director, Kansas Corn Growers Assn./Kansas Grain Sorghum Producers Assn.
Leslie Kaufman, Government Relations Director, Kansas Cooperative Council
Lee Allison, Chair, Kansas Energy Council
Kansas Agricultural Alliance (written only)
Curt Wright, Vice President, Taylor Oil, Inc., Wellsville (written only)
Ed Roitz, President, Fleming Corporation of Kansas, Pittsburg (written only)

Others attending:

See attached list.

Minutes of the February 21 meeting were distributed. Members were asked to notify the committee secretary of any corrections or additions prior to Wednesday, March 9, or the minutes will be considered approved as presented.

Hearing on SB 56 - Elimination of motor-vehicle fuel retail pump labeling requirement regarding ethyl alcohol or other alcohol

Chairman Johnson opened the hearing on **SB 56**. Raney Gilliland explained that this bill would remove the mandatory requirement that motor-vehicle fuel pumps in Kansas be clearly labeled when the fuel contains in excess of 1.0 percent ethyl alcohol.

Adrian Polansky, Secretary, Kansas Department of Agriculture, testified in support of **SB 56** to allow the department to develop necessary rules and regulations to make labeling of E10 fuel voluntary, rather than mandatory. He stated that removal of the labeling requirement does not conflict with any other state or federal law; in fact, federal law has no special requirement for labeling E10 ethanol, it is just considered one of the many ingredients of regular gasoline. If the labeling requirement is removed by the Legislature, he said the Department of Agriculture will continue to sample fuel to ensure that it meets the correct specifications for its grade and to ensure that the ethanol volume does not exceed 10 percent, the level warranted by automobile manufacturers. (Attachment 1)

Jesse McCurry, Manager, Industrial Ag Program, Ag Marketing Division, Kansas Department of Commerce, appeared in support of **SB 56**. He stated that whatever the state can do to promote the usage of bio fuels is not only smart—it is statutory. Under Kansas Law one of the obligations of the Agriculture Value Added Center at Commerce is to “act as a catalyst for the establishment of an industrial ag industry in Kansas.” Public policy of the State of Kansas is to encourage and assist the development and expansion of new uses of agricultural products, including ethanol. He reported that there are currently six ethanol plants in Kansas and that the Department of Commerce is seriously working with five new projects with at least a dozen projects in various stages of development throughout the state. He stated that other states that have enacted similar provisions on alcohol labeling are seeing dramatic increases in utilization. (Attachment 2)

CONTINUATION SHEET

MINUTES OF THE House Agriculture Committee at 3:30 p.m. on March 7, 2005, in Room 423-S of the Capitol.

John Neufeld, General Manager, U. S. Energy Partners, and Chairman of the Kansas Association of Ethanol Processors, testified in support of **SB 56**. He explained that their plant in Russell is an unique combination of ethanol plant, custom feed production, and wheat gluten plant. They also partner with the City of Russell and have a combined heat and power plant. He believes the potential for ethanol growth is substantial, especially, since the world is recognizing that ethanol is a renewable liquid fuel that increases the nation's self-sufficiency and reduces the environmental impact of auto emissions. He urged support of this bill which will allow the retailer to decide if he wants to market the fuel as containing ethanol. ([Attachment 3](#))

Greg Krissek, Director of Marketing and Government Affairs, United Bio Energy, Wichita, a company offering professional management and marketing services to the ethanol fuel industry, appeared in support of **SB 56**. He stated that it is long-established public policy in Kansas to support development and use of ethanol fuels derived from agricultural products; that the current pump regulatory label stands out as an impediment to accomplishing this public policy; that engine and fuel technology has made this requirement obsolete. He acknowledged that not all gasoline stations will carry ethanol blends, but those who do should not be penalized with an extra regulatory burden. ([Attachment 4](#))

Brad Harrelson, State Policy Director, Governmental Relations, Kansas Farm Bureau, testified in support of **SB 56**. He stated that ethanol is unquestionably one of the most notable success stories in agriculture today. Consumption of this high-octane, low-emission fuel not only reduces our dependence on foreign oil, it enhances market demand for corn and other grains, which is good for Kansas producers and the rural Kansas economy. He felt many consumers may perceive ethanol labeling as a "warning" of inferior or adulterated product, negatively impacting demand. Repeal of mandatory ethanol labeling, KFB believes, would ease unwarranted consumer confusion and further stimulate demand. He noted that several states have already repealed mandatory labeling requirements and ethanol sales increased dramatically. ([Attachment 5](#))

Jere White, Executive Director, Kansas Corn Growers Association/Kansas Grain Sorghum Producers Association, testified in support of **SB 56**. He believes state government can play a significant role in expanding the use of ethanol blends by eliminating the often assumed to be "warning label" on the pump. He noted that eleven states have already eliminated this requirement and experienced increased ethanol sales. He provided Materials Safety Data Sheets for Chevron Regular Unleaded Gasoline, noting that ethanol was the only ingredient in gasoline that Kansas requires to be labeled. He said that it is time for the mandatory warning label to be removed to support the growing Kansas ethanol industry and Kansas farmers. ([Attachment 6](#))

Leslie Kaufman, Government Relations Director, Kansas Cooperative Council, appeared in support of **SB 56**. The KCC member owners understand the importance of adding value to the commodities they grow and appreciate the contribution bio-based fuels make in reducing reliance on non-renewable fuel sources. She stated that too often a regulatory label causes consumers to react as if reading a warning label; rather than fearing today's ethanol blended fuels, any labeling needs to be seen as a marketing tool. ([Attachment 7](#))

Lee Allison, Chair, Kansas Energy Council, testified in support of **SB 56** to remove mandatory labeling for 10 percent ethanol mixtures at the gas pump. He stated that eliminating the mandatory requirement still allows marketers to voluntarily display the label, does not reduce consumer safety, and is likely to lead to increased use of ethanol, an environmentally friendly, Kansas-produced fuel. ([Attachment 8](#))

The Kansas Agricultural Alliance submitted written testimony in support of **SB 56**. It was noted that KAA, a group of eighteen organizations representing agricultural, agribusiness and rural interests, only takes positions on specific legislation when its members are unanimous in their support of or opposition to a bill. ([Attachment 9](#))

Curt Wright, Vice President, Taylor Oil, Inc., Wellsville, submitted written testimony in opposition to **SB 56**. He stated that he is not an opponent of ethanol, that ethanol is and will be an important part of the energy equation for the United States and Kansas. As an alternative, he believes the state should take a positive approach and promote the label, helping find ways to increase the use of ethanol. ([Attachment 10](#))

CONTINUATION SHEET

MINUTES OF THE House Agriculture Committee at 3:30 p.m. on March 7, 2005, in Room 423-S of the Capitol.

Ed Roitz, President, Fleming Corporation of Kansas, Pittsburg, provided written testimony in opposition to **SB 56**. He believes those in the fuel marketing business should run to, and not hide from, this quality product that can offer many benefits to Kansans. He recommends a "Made in Kansas" campaign to tout Kansas domestic ethanol, to certify to the Kansas fuel consumer where the product comes from, that it is being offered from a reputable Kansas business, and that it is a good, high-quality product. (Attachment 11)

As there were no other conferees, the hearing on **SB 56** was closed.

Discussion and action on SB 113 - Raises the registration fees for soil amendment products

Chairman Johnson opened the floor for discussion on **SB 113**. Raney Gilliland reviewed the bill for the committee explaining that **SB 113** would increase the maximum registration fee to register a soil amendment product with the Kansas Department of Agriculture from \$60 to \$100 per product, and delete the sunset provision in current law which would have expired on June 30, 2010. The bill would also repeal a section of law which permits the Kansas Department of Agriculture to charge an inspection fee based on the tonnage of soil amendment products sold in the state and requires that registrants report to the agency tonnage distributed by county.

Gordon Self, Revisor of Statutes, explained technical amendments to **SB 113** to remove from statute all references to the tonnage report or the inspection fee on soil amendment products sold in Kansas. (Attachment 12) Representative Freeborn moved to adopt the necessary technical amendments to **SB 113**. Seconded by Representative Feuerborn, the motion carried.

Representative Freeborn moved to recommend **SB 113**, as amended, favorable for passage. Seconded by Representative Dahl, the motion carried.

The meeting adjourned at 4:30 p.m. The next meeting is scheduled for March 9, 2005.

HOUSE AGRICULTURE COMMITTEE GUEST LIST

DATE: March 7, 2005

NAME	REPRESENTING
Adrian Polansky	K D A
Jere White	KCBA - KBSPA
Greg Krissel	United Bio Energy
John Newfeld	U.S. Energy Partners
Ron Dunbar	KAEP
Duane Simpson	KAEP
David Corbin	KDOR
Tom PALACE	FMCA OF KANSAS
Chris Deines	Rep. D. Johnson's Intern
Muhammad Shaverdi	FMCA of Kansas
Mary Jane Stankiewicz	KAEP
Tom TUNNELL	KAEP
CV Cotsoradis	KS Dept of Agriculture
Melid Sorum	Kansas WIFE
Ina M. Selfidge	Women Involved in Farm Economics - WIFE
Myrna Powell	Rep Powell's wife
JOHN C. BOTTENBERG	ASSOC. OF ETHANOL PROCESSORS
BRAD HARRELSON	KFB
Jesse McCurry	Commerce

HOUSE AGRICULTURE COMMITTEE GUEST LIST

DATE: March 7, 2005

NAME	REPRESENTING
Leslie Kaufman	Ks Coop Council
Lee Allison	Ks Energy Council
Brent Haden	KS Livestock Assoc.
Jenssy Grief	KS Hg Women Involved in Farm Economics
Joyce Grief	KS Hg Women Involved in Farm Economics
BZ ARK	Rep. Jerry Henry



KANSAS

DEPARTMENT OF AGRICULTURE
ADRIAN J. POLANSKY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

**Testimony on Senate Bill 56
To
The House Committee on Agriculture**

**by Adrian J. Polansky
Secretary
Kansas Department of Agriculture**

March 7, 2005

Good afternoon Chairman Johnson and members of the committee. I am here to testify in support of SB 56. This bill will allow the Kansas Department of Agriculture to develop necessary rules and regulations to remove the current mandatory labeling requirement for E10 fuel from Kansas statutes.

In addition to being secretary of the Kansas Department of Agriculture, the agency that regulates fuel quantity and quality in Kansas, I am a member of the Kansas Energy Council, another group that supports the removal of E10 labeling.

I also am a lifelong Kansas farmer and an agribusinessman. When I travel the state's highways, I go out of my way to look for ethanol, because I believe in this homegrown product. But many other Kansans do not. In fact, if they think about it at all, they think the label is some kind of a warning, not a positive as we in agriculture know it is.

The Kansas Department of Agriculture's weights and measures program is the regulating agency for fuel quantity and quality in the state. Experts in that program assure me that removal of the labeling requirement does not conflict with any other state or federal law. Federal law has no special requirement for labeling E10 ethanol; it is just considered one of the many ingredients of regular gasoline.

Some have expressed concerns about the consumer's right to know that ethanol is an ingredient of gasoline. They may have forgotten that gasoline is a complex mix of many different ingredients, with ethanol being only one of more than a dozen others. If the labeling requirement is removed by the Legislature, the Department of Agriculture will sample fuel to ensure that it meets the correct specifications for its grade and to ensure that the ethanol volume does not exceed 10 percent, the level warranted by automobile manufacturers.

On the very technical side, some have worried that ethanol-blend gasoline is more susceptible to separation due to water contamination and that inspectors need a label to know which standard to apply to storage tanks. Their worries are unnecessary. State inspectors will employ a simple, nationally recognized test to identify ethanol or water in storage tanks.

Some have worried about transporting ethanol fuel. I can assure them that the same safety procedures used in the transport of ethanol-blend gasoline today will apply after the labeling requirement is revoked. Labeling has no effect on transport requirements or safety.

As the secretary of agriculture and as a regulator of fuel sales in Kansas, I support SB 56. Kansas produces far more ethanol than it consumes. This is not because some Kansans dislike ethanol; it is because they do not understand its benefits and they may view the label as a negative, not the positive we in agriculture know it is.

People will buy the fuel that is available at the pump, and more sales of E10 ethanol will not only drive Kansans on the highway—it will help carry us to a healthier agriculture, a cleaner environment and more prosperous rural communities.

This bill will give the Department of Agriculture the opportunity to create the rules and regulations necessary to make labeling of E10 voluntary rather than mandatory. I intend to do this upon passage of SB 56.

Thank you and I will stand for questions at the appropriate time.



House Committee on Agriculture

March 7, 2005

Testimony by:

**Jesse McCurry, Manager, Industrial Ag Program
Ag Marketing Division
Kansas Department of Commerce**

Chairman Johnson and members of the Committee, I am Jesse McCurry with the Ag Division at Commerce and appreciate the opportunity to appear before you in support of Senate Bill 56.

Whatever the state can do to promote the usage of biofuels is not only smart — it's statutory. Under Kansas Law (K.S.A 74-50, 156) one of the obligations of the Agriculture Value Added Center at Commerce is to "act as a catalyst for the establishment of an industrial ag industry in Kansas." Indeed, the public policy of the state of Kansas is "to encourage and assist the development and expansion of new uses of agricultural products including ethanol (K.S.A. 74-5029).

By focusing resources and attention on pilot scale facilities and labs, entrepreneurial projects in the broader biosciences, and investment grade agriculture value added technologies and products, Commerce and other state agencies are responding to the call of the Prosperity Summits, the Kansas Energy Council and other forums for an energy plan and better rural development solutions. For example, ethanol has much to gain from the Roadmap process underway on biosciences and KTEC.

Ethanol is not some cottage industry producing a boutique fuel. Indeed, the Merc will launch a futures contract later this month. Last year the industry spent at least \$4.6 billion producing 3.5 billion gallons of ethanol. Ethanol production represents the third largest component of corn demand after feed use and exports and will account for 12 percent of total corn production this marketing season. Kansas capital investment should exceed \$250 million as our two newer plants are completed. When online, eight ethanol plants will produce more than 225 million gallons of ethanol/year employing 273 people. We have plants, at present, in Atchison, Colwich, Garden City, Leoti, Russell and Campus. Commerce is working seriously with five projects on the horizon. But there are at least a dozen projects in various stages of development throughout the state.

Indeed, states all around us are aggressively perusing legislative agendas to help foster an environment for this growth. There's no question states that have enacted similar provisions on alcohol labeling are seeing dramatic increases in utilization. At present, we are somewhere around 6% ethanol usage in our gas in Kansas; we can do better. States like Iowa, Illinois, Nebraska are huge producers. If Kansas wants to be the kind of player it can be (and increasingly is I would argue), the legislature should continue to take an active role in ensuring a policy climate where it can thrive, as it has done in the past.

House Agriculture Committee
March 7, 2005
Attachment 2

The age of the bio economy is upon us. According to DOE, the national average price of regular gasoline hit a record level \$2.064 per gallon in May '04. Another study has shown had ethanol not been available to provide consumers with a large supply of clean motor fuel, national average retail gasoline prices would be even higher than they already are. The need to find the additional gasoline to replace ethanol in today's tight market would result in a sharp short-term (several months) increase in the national average retail price of gasoline. Without the vibrant and growing domestic ethanol industry, consumers would be forced to pay as much as 14.6 percent more for gasoline at the pump.

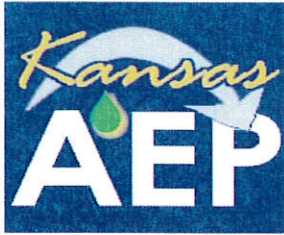
We know Kansas has recently become a net energy importer. From an agriculture perspective, major opportunities exist in the bio arena to help replace petroleum products and provide added value to our farmers and ranchers. Whether we're talking about ethanol, biodiesel, ag-based plastics/resins/fibers, compost—any non-food, non-feed utilization of agriculture commodities and waste streams--our state's vast biomass base (counted as third or fourth in the country) can help fill consumers' growing preferences for these products. And I'm excited about it.

With the continued teamwork among state agencies, successful statewide marketing efforts have been undertaken on ethanol at the fair, through and among state employees and Enterprise, and with the Governor's coming role on the Governor's Ethanol Coalition.

We stand ready to fulfill our mission to expand this industry. Thank you for your attention to ethanol, and I'm happy to try to answer any questions.

Ethanol & Economic Development

- *Ethanol production can add up to 30 cents to the value of a bushel of corn*
- *Ethanol production adds \$4.5 billion to U.S. farm income*
- *A 40 mmgpy plant can:*
 - *expand the economic base by \$110.2 million*
 - *generating an additional \$19.6 million in household income*
 - *creating as many as 694 permanent new jobs*
 - *generating at least \$1.2 million in new state and local tax revenues*
- *increasing demand for locally produced grain, which can push the price per bushel up from five to 10 cents*



Association Of Ethanol Processors

HOUSE AGRICULTURE COMMITTEE

RE: SB 56 – Motor vehicle fuels; relating to pump labeling requirements

March 7, 2005

**Presented by:
John Neufeld, General Manager
U.S. Energy Partners**

Good afternoon Chairman Johnson and members of the House Agriculture Committee. I am John Neufeld and I am the general manager for U.S. Energy Partners, an ethanol plant in Russell, Kansas. I am also the chairman of the Kansas Association of Ethanol Processors (KAEP) which is an association of ethanol plants in Kansas and the suppliers and associated service providers that support the ethanol industry. I come before you in support of SB 56.

Our ethanol plant is part of a unique combination of ethanol plant, custom feed production and wheat gluten plant. We also partner with the city of Russell and have a combined heat and power plant. Today, I am going to focus on the ethanol side of the operation. Here are some of the general facts that you might be interested in knowing about:

- We have the capacity of producing 45 million gallons of ethanol a year.
- The plant employs 80 people with a payroll in excess of \$3 million.
- 18 million bushels of grain are used by the plant each year. If possible, grain is purchased from Kansas farmers.
- The company pays approximately \$300,000 in real estate taxes.
- The plant operates 24 hours, 365 days a year.

As you can see from this brief overview of the statistics of our plant, we are an integral and important part of the Russell community. We think that the potential for ethanol growth is substantial especially since the world is recognizing that ethanol is a renewable liquid fuel that increases the nation's self-sufficiency and

reduces the environmental impact of auto emissions. These positive attributes are also supported by the fact that ethanol has a positive net energy balance of 67%.

Because of these reasons, I urge you to support SB 56, which will allow the retailer to decide if he wants to market the fuel as containing ethanol. Ethanol is good for the economy, good for agriculture and good for the environment. These are positive elements for the future. Therefore, please support passage of SB 56. I will be happy to stand for questions at the appropriate time.



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**TESTIMONY IN FAVOR OF SENATE BILL NO. 56
STATE OF KANSAS – HOUSE AGRICULTURE COMMITTEE
MARCH 7, 2005**

**PROVIDED BY
GREG KRISSEK
DIRECTOR OF MARKETING AND GOVERNMENT AFFAIRS
UNITED BIO ENERGY**

Good afternoon Chairman Johnson and members of the House Agriculture Committee. I appear before you today in support of Senate Bill No. 56 which removes the mandatory regulatory requirement for labeling fuel pumps used for sale of ethanol-blended fuels.

Other conferees will focus upon the chemical recipe of gasoline, whether or not it contains ethanol, and the unfairness of singling out ethanol for a warning label. All manufacturers of motor vehicles in the United States currently warrant, or guarantee, the use of ethanol-blends in their models. And today, growth of ethanol for environmental, octane, and economic reasons has resulted in over 30% of all gasoline in the United States containing ethanol blends. This has resulted in the projection that U.S. ethanol annual production capacity will grow to 4.4 billion gallons in 2005 of a total 140 billion gallons of gasoline that is consumed in this country annually.

I would like to focus for a few moments on the Kansas market for ethanol. As an octane-driven, or voluntary market, ethanol use in Kansas has generally been very small – under 5% of fuel typically. We have seen that generally begin to increase through promotion efforts of folks like the Kansas Corn Growers, Kansas Grain Sorghum Producers, and Kansas Farm Bureau. Also, with the growth of production in the state (currently six plants producing 130 million gallons and a seventh scheduled to begin June 1, 2005) local availability will also further this rate of increase.

United Bio Energy and one of its parent companies, ICM (one of the leading ethanol plant engineering and design firms in the United States), are both headquartered in the Wichita area. UBE offers several different professional management and marketing services to the fuel ethanol industry. UBE Ingredients markets distiller's grains for nine operating plants including in Kansas - US Energy Partners (Russell), Western Plains Energy (Campus), Golden Triangle Energy (Craig, MO) and will market for East Kansas Agri Energy (Garnett). UBE Fuels markets approximately 170 million gallons of ethanol for four plants including in Kansas – US Energy Partners (Russell) and UBE will market for its fifth plant when East Kansas Agri Energy (Garnett) opens this June.

The staff of UBE Fuels works extensively with the gasoline and oil industry – in Kansas and throughout the nation. We currently market approximately 2 million gallons per year in the state. Our experience here and elsewhere shows that especially in voluntary octane markets like Kansas, the presence of the pump label requirement is a regulatory hindrance to gasoline marketers effectively responding to opportunities presented by favorable blending economics.

Let's face it – oil marketers have to respond quickly to oil supply pricing with great flexibility. They cannot put up and take down permanent labels in a cost-effective or timely fashion that allows them to respond to whatever direction ethanol and gasoline pricing points them toward. Without a label requirement, they can do so in the future.

And this is feasible because today's fuel-injected gasoline engines and detergent enhanced fuels have rendered engine performance questions moot. As a personal aside, I lived in the Front Range area of Colorado in the 1980's when Denver moved away from an oxygenated fuel program using MTBE and switched to ethanol blends. While this program has been very successful in addressing air quality issues in that region, it also was implemented across all types and ages of vehicles. As occurred there and in other examples throughout the country, the use of ethanol blends in all vehicles has been facilitated through driver education and driveability issues have been minimal.

Missouri has already removed their labeling requirement – so marketers in the Kansas City area on the Kansas side are now at a disadvantage to their counterparts across the state line. With current high oil prices combined with growing ethanol supplies, oil marketers have new opportunities to pursue very favorable blending economics using ethanol blends.

Currently Kansas City and Wichita do not utilize an extensive amount of ethanol blended gasoline. Overall, Kansas City could be a market for approximately 60 million gallons of ethanol and Wichita a market for 15 million gallons. When an area begins blending, construction of distribution infrastructure is required, mainly tankage at terminals, that then results in many marketers having access to ethanol blending. We are currently working with oil marketers in these areas to begin offering ethanol blends – if successful, our estimate is that our marketing alone would increase to 14 million gallons per year. And in case you were not aware, there are two other major ethanol marketers with operations in Wichita that would also compete for these markets.

It is long-established public policy in Kansas to support development and use of ethanol fuels derived from agricultural products. The current pump regulatory label stands out as an impediment to accomplishing this public policy. Engine and fuel technology has made this requirement obsolete. We are requesting that you provide gasoline marketers the flexibility to work with engine-warranted fuels based upon market conditions. Not all gasoline stations will carry ethanol blends, but those who do should not be penalized with an extra regulatory burden.

We appreciate your support and approval of SB 56.

PUBLIC POLICY STATEMENT

HOUSE COMMITTEE ON AGRICULTURE

RE: SB 56 – an act concerning motor-vehicle fuels; relating to retail pump labeling requirements; ethyl alcohol and other alcohol.

March 7, 2005
Topeka, Kansas

Testimony provided by:
Brad Harrelson
State Policy Director
KFB Governmental Relations

Chairman Johnson, and members of the House Committee on Agriculture, thank you for the opportunity to appear today in support of SB 56. I am Brad Harrelson, State Policy Director—Governmental Relations for Kansas Farm Bureau. KFB is the state's largest general farm organization representing more than 40,000 farm and ranch families through our 105 county Farm Bureau Associations.

On behalf of Kansas Farm Bureau (KFB) I would like to extend our appreciation to the Kansas Legislature for its past support for bio-fuels. You undoubtedly share our firm commitment to this valuable, renewable energy resource. We at KFB stand ready to assist you in your mission to promote these alternative fuels.

Ethanol is unquestionably, one of the most notable success stories in agriculture today. Ethanol demand continues to surge, and the industry is setting unprecedented production records with 3.3 billion gallons in 2004, up from 2.81 billion gallons in 2003. Consumption of this high-octane, low-emission fuel not only reduces our dependence on foreign oil; it enhances market demand for corn and other grains, which is good for Kansas producers, and the rural Kansas economy.

While these statistics are most encouraging, we believe there is more that can be done to promote ethanol consumption. Current Kansas law requires ethanol to be conspicuously labeled at the retail pump. We believe, however, the labeling requirement has served the original intent to inform consumers and is no longer necessary. Our members took deliberate action at their recent annual meeting supporting elimination of this constraint, emphasizing the overall goal to increase consumption.

Ethanol is now, a refined, consistent, high-quality product, much improved from the early "gasohol" days. In fact, all automobile manufacturers warranty the use of ethanol-blended fuel, which is found in over 30% of all fuel sold nationwide. Unfortunately, consumers may perceive ethanol labeling as a "warning" of inferior or adulterated product, and negatively impact demand. Repeal of mandatory ethanol labeling, we believe, would ease unwarranted consumer confusion and further stimulate already enthusiastic demand.

Several other states, including Minnesota, Indiana and Missouri have already repealed mandatory labeling requirements and ethanol sales increased dramatically. We urge you to join the farmers and ranchers of Kansas Farm Bureau and support repeal of this unnecessary impediment to increased ethanol consumption. This would be a positive step for Kansas agriculture and for all Kansans.

In summary, thank you for your consideration, your support of bio-fuels and Kansas agricultural producers. Kansas Farm Bureau respectfully urges your recommendation to pass favorably SB 56. We stand ready to assist as you consider these important measures. Thank you.



Testimony of Jere White Regarding Senate Bill No. 56 Before the House Agriculture Committee March 7, 2005

Good afternoon Chairman Johnson and members of the Committee, my name is Jere White. I am the Executive Director for both the Kansas Corn Growers Association and the Kansas Grain Sorghum Producers Association. I appreciate the opportunity to testify in support of SB 56.

The provisions of SB 56 would eliminate the statutory requirement that mandates motor vehicle fuels with blends containing ethanol to be labeled at the pump. We believe state government can play a significant role in expanding the use of ethanol blends by eliminating the often assumed to be "warning label" on the pump. Eleven states have done so and Kansas should be the next.

In 2003, the State of Michigan made ethanol labeling optional, as would be the scenario under SB-56, and ethanol sales were 31% higher than the previous year. Our neighbor to the east, Missouri, has also made ethanol labels optional, and ethanol sales in that state rose by 58% in the first year. Given the current pricing, there is little doubt that many Kansas petroleum marketers would be blending today to lower their fuel costs, if they did not have to deal with the accompanying label. Last Friday, 87 octane Regular Unleaded, picked up in Coffeyville, was \$.0855 higher per gallon than 89 octane, E-10, or 10% ethanol. Why wouldn't anyone want to sell a product that was high quality and yet cheaper, well it's this warning label, kind of like on a pack of cigarettes.

Some might argue that there is a "consumers right to know" in play when they are offered anything but pure gasoline. That would be a very tall order because gasoline is a mixture that changes from batch to batch—much like my wife's chili. It might look the same, but it doesn't always taste the same.

If you take a look at the Materials Safety Data Sheet for Chevron Regular Unleaded Gasoline, you will find a number of ingredients listed on the second page, including ethanol. Some may or may not be present at all, or up to 18%. Yet ethanol is the only ingredient Kansas requires to be labeled. You would assume ethanol must be toxic or something. But please turn to page six and you will see the relative exposure limits for these ingredients, as well as the mixture we call gasoline. You might note that the third column shows the "Time Weighted Average" exposure limit for benzene at .5 ppm. Ethanol comes in at 1000 ppm, or 2000 times higher. It is over three times higher than gasoline. The fourth column is for short term exposure and ethanol is so benign that it isn't even assessed a value.

P.O. BOX 446, GARNETT, KS 66032-0446 • PHONE (785) 448-6922

www.ksgrains.com • jwhite@ksgrains.com

House Agriculture Committee

March 7, 2005

Attachment 6



So then, it must be a mechanical thing we must warn consumers about. I think most of you are aware that all manufacturers warranty the use of ethanol blended fuels, and have done so for a couple of decades. But what about older cars, collector cars, and such? I have included an article titled "Changes in Gasoline and the Classic Auto", published by Downstream Alternatives, a fuels technical consulting and training company. It is extensive and addresses changes in gasoline over the years and the impact on older cars. In short, there have been many changes, including the removal of lead. When lead came out, the octane it provided had to be replaced. Various aromatics and oxygenates, including ethanol are used. These additives, including ethanol, are more aggressive on natural rubbers and elastomers than the fuels of the sixties. So where can you buy a gasoline, with or without ethanol, comparable to those sold when classic cars were new...you can't! That is why replacement parts for these vehicles are compatible with today's fuels and have been for two decades. If fuels today are a problem in your classic car, you won't escape them by not using ethanol. On the bottom of this page, you will find a photo of the first ethanol demonstration vehicle used by the Kansas Corn Growers Association. This was taken in 1989, and it was a 1968 Mustang running on ethanol blends. And yes, that is a 1980's version of Senator Roger Pine in the picture!

We also have recently been awarded a grant from KDOCH to do two educational mailings to assist retailers in assessing their options and requirements, if they were to add ethanol blended fuels to their retail offerings.

Chairman Johnson, members of the committee, it is time for the mandatory warning label to be removed. It is the one thing you can do that will support the growing Kansas ethanol industry and Kansas farmers...that doesn't cost the State of Kansas a dime. And that is a concept you don't hear very often! Thank you.





Material Safety Data Sheet

Chevron Regular Unleaded Gasoline

MSDS: 2655

Revision #: 34 Revision Date: 3/31/2003

Click here to search the product data sheet database

Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

CHEVRON REGULAR UNLEADED GASOLINE

Product Number(s): CPS201000 [See Section 16 for Additional Product Numbers]

Synonyms: Calco Regular Unleaded Gasoline

Company Identification

Chevron Products Company
Marketing, MSDS Coordinator
6001 Bollinger Canyon Road
San Ramon, CA 94583
United States of America

Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

Health Emergency

ChevronTexaco Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

Product Information

Technical Information: (510) 242-5357

SPECIAL NOTES: This MSDS applies to: Federal Reformulated Gasoline, California Reformulated Gasoline, Wintertime Oxygenated Gasoline, Low RVP Gasoline and Conventional Gasoline.

SECTION 2 COMPOSITION INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Gasoline	86290-81-5	100 %volume
Benzene	71-43-2	0.1 - 4.9 %volume
Ethyl benzene	100-41-4	0.1 - 3 %volume
Naphthalene	91-20-3	0.1 - 2 %volume
Ethanol	64-17-5	0 - 10 %volume
Methyl tert-butyl ether (MTBE)	1634-04-4	0 - 15 %volume
Tertiary amyl methyl ether (TAME)	994-05-8	0 - 17 %volume
Ethyl tert-butyl ether (ETBE)	637-92-3	0 - 18 %volume

Motor gasoline is considered a mixture by EPA under the Toxic Substances Control Act (TSCA). The refinery streams used to blend motor gasoline are all on the TSCA Chemical Substances Inventory. The appropriate CAS number for refinery blended motor gasoline is 86290-81-5. The product specifications of motor gasoline sold in your area will depend on applicable Federal and State regulations.

EMERGENCY OVERVIEW

- EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE
- HARMFUL OR FATAL IF SWALLOWED - MAY CAUSE LUNG DAMAGE IF SWALLOWED
- VAPOR HARMFUL
- CAUSES SKIN IRRITATION
- CAUSES EYE IRRITATION
- LONG-TERM EXPOSURE TO VAPOR HAS CAUSED CANCER IN LABORATORY ANIMALS
- KEEP OUT OF REACH OF CHILDREN
- TOXIC TO AQUATIC ORGANISMS

IMMEDIATE HEALTH EFFECTS

Eye: Contact with the eyes causes irritation. Symptoms may include pain, tearing, reddening, swelling and impaired vision.

Skin: Contact with the skin causes irritation. Skin contact may cause drying or defatting of the skin. Symptoms may include pain, itching, discoloration, swelling, and blistering. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

Ingestion: Because of its low viscosity, this material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death.

Inhalation: The vapor or fumes from this material may cause respiratory irritation. Symptoms of respiratory irritation may include coughing and difficulty breathing. Breathing this material at concentrations above the recommended exposure limits may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.

DELAYED OR OTHER HEALTH EFFECTS:

Reproduction and Birth Defects: This material is not expected to cause birth defects or other harm to the developing fetus based on animal data.

Cancer: Prolonged or repeated exposure to this material may cause cancer. Gasoline has been classified as a Group 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

Contains benzene, which has been classified as a carcinogen by the National Toxicology Program (NTP) and a Group 1 carcinogen (carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

Contains ethylbenzene which has been classified as a Group 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

Contains naphthalene, which has been classified as a Group 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

Whole gasoline exhaust has been classified as a Group 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

Risk depends on duration and level of exposure. See Section 11 for additional information.

Eye: Flush eyes with water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get medical attention if irritation persists.

Skin: Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation: Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

Note to Physicians: Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis.

SECTION 5 FIRE FIGHTING MEASURES

See Section 7 for proper handling and storage.

FIRE CLASSIFICATION:

OSHA Classification (29 CFR 1910.1200): Flammable liquid.

NFPA RATINGS: Health: 1 Flammability: 3 Reactivity: 0

FLAMMABLE PROPERTIES:

Flashpoint: (Tagliabue Closed Cup) < -45 °C (< -49 °F)

Autoignition: > 280 °C (> 536 °F)

Flammability (Explosive) Limits (% by volume in air): Lower: 1.4 Upper: 7.6

EXTINGUISHING MEDIA: Dry Chemical, CO₂, AFFF Foam or alcohol resistant foam if >15% volume polar solvents (oxygenates).

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: Use water spray to cool fire-exposed containers and to protect personnel. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in the vicinity of the spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required. This material is covered by EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Petroleum Exclusion. Therefore, releases to the environment may not be reportable under CERCLA.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures: READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL. This product presents an extreme fire hazard. Liquid very quickly evaporates, even at low temperatures, and forms vapor (fumes) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Never siphon gasoline by mouth.

Use only as a motor fuel. Do not use for cleaning, pressure appliance fuel, or any other such use. Do not store in open or unlabeled containers. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not breathe vapor or fumes. Wash thoroughly after handling. Keep out of the reach of children.

Unusual Handling Hazards: WARNING! Do not use as portable heater or appliance fuel. Toxic fumes may accumulate and cause death.

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating an accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'. Improper filling of portable gasoline containers creates danger of fire. Only dispense gasoline into approved and properly labeled gasoline containers. Always place portable containers on the ground. Be sure pump nozzle is in contact with the container while filling. Do not use a nozzle's lock-open device. Do not fill portable containers that are inside a vehicle or truck/trailer bed.

General Storage Information: DO NOT USE OR STORE near heat, sparks or open flames. USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Chlorinated Polyethylene (or Chlorosulfonated Polyethylene), Nitrile Rubber, Polyurethane, Viton.

Respiratory Protection: Determine if airborne concentrations are below the recommended exposure limits. If not, wear an approved respirator that provides adequate protection from measured concentrations of this material, such as: Air-Purifying Respirator for Organic Vapors.

When used as a fuel, this material can produce carbon monoxide in the exhaust. Determine if airborne concentrations are below the occupational exposure limit for carbon monoxide. If not, wear an approved positive-pressure air-supplying respirator.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component	Limit	TWA	STEL	Ceiling	Notation
Benzene	ACGIH_TLV	.5 ppm	2.5 ppm		Skin A1
Benzene	OSHA_PEL	1 ppm	5 ppm		
Benzene	OSHA_Z2	10 ppm		25 ppm	
Ethanol	ACGIH_TLV	1000 ppm			A4
Ethanol	OSHA_PEL	1000 ppm			
Ethyl benzene	ACGIH_TLV	100 ppm	125 ppm		A3
Ethyl benzene	OSHA_PEL	100 ppm	125 ppm		
Ethyl tert-butyl ether (ETBE)	ACGIH_TLV	5 ppm			
Gasoline	ACGIH_TLV	300 ppm	500 ppm		A3
Gasoline	OSHA_PEL	300 ppm	500 ppm		
Methyl tert-butyl ether (MTBE)	ACGIH_TLV	50 ppm			A3
Naphthalene	ACGIH_TLV	10 ppm	15 ppm		Skin A4
Naphthalene	OSHA_PEL	10 ppm	15 ppm		
Tertiary amyl methyl ether (TAME)	CHEVRON		50 ppm		

Refer to the OSHA Benzene Standard (29 CFR 1910.1028) and Table Z-2 for detailed training, exposure monitoring, respiratory protection and medical surveillance requirements before using this product.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Colorless to yellow

Physical State: Liquid

Odor: Petroleum odor

pH: NA

Vapor Pressure: 5 psi - 15 psi (Typical) @ 37.8°C (100°F)

Vapor Density (Air = 1): 3 - 4 (Typical)

Boiling Point: 37.8°C (100°F) - 204.4°C (400°F) (Typical)

Solubility: Insoluble in water; miscible with most organic solvents.

Freezing Point: NA

Melting Point: NA

Specific Gravity: 0.7 g/ml - 0.8 g/ml @ 15.6°C (60.1°F)

Viscosity: <1 SUS @ 37.8°C (100°F)

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility With Other Materials: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products: None known (None expected)

Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS

Eye Irritation: The Draize eye irritation mean score in rabbits for a 24-hour exposure was: 0/110.

Skin Irritation: For a 4-hour exposure, the Primary Irritation Index (PII) in rabbits is: 4.8/8.0.

Skin Sensitization: This material did not cause sensitization reactions in a Modified Buehler guinea pig test.

Acute Dermal Toxicity: 24 hour(s) LD50: >3.75g/kg (rabbit).

Acute Oral Toxicity: LD50: >5 ml/kg (rat)

Acute Inhalation Toxicity: 4 hour(s) LD50: >2000ppm (rat).

ADDITIONAL TOXICOLOGY INFORMATION:

Gasolines are highly volatile and can produce significant concentrations of vapor at ambient temperatures. Gasoline vapor is heavier than air and at high concentrations may accumulate in confined spaces to present both safety and health hazards. When vapor exposures are low, or short duration and infrequent, such as during refuelling and tanker loading/unloading, neither total hydrocarbon nor components such as benzene are likely to result in any adverse health effects. In situations such as accidents or spills where exposure to gasoline vapor is potentially high, attention should be paid to potential toxic effects of specific components. Information about specific components in gasoline can be found in Sections 2, 8 and 15 of this MSDS. More detailed information on the health hazard of specific gasoline components can be obtained calling the Chevron Emergency Information Center (see Section 1 for phone numbers).

NEUROTOXICITY: Pathological misuse of solvents and gasoline, involving repeated and prolonged exposure to high concentrations of vapor is a significant exposure on which there are many reports in the medical literature. As with other solvents, persistent abuse involving repeated and prolonged exposures to high concentrations of vapor has been reported to result in central nervous system damage and eventually, death. In a study in which ten human volunteers were exposed for 30 minutes to approximately 200, 500 or 1000 ppm concentrations of gasoline vapor, irritation of the eyes was the only significant effect observed, based on both subjective and objective assessments. In an inhalation study, groups of 6 Fischer rats (3 male, 3 female) were exposed to 2056 ppm of wholly vaporized unleaded gasoline for 6 hours per day, 5 days per week for up to 18 months. Histopathology of the peripheral nervous system and spinal cord revealed no distal axonal neuropathy of

the type associated with exposure to n-hexane even though gasoline contained 1.9% n-hexane. The authors concluded that gasoline treatment may have amplified the incidence and prominence of some naturally occurring age-related (subclinical) in the nervous system. **BIRTH DEFECTS AND REPRODUCTIVE TOXICITY:** An inhalation study with rats exposed to 0, 400 and 1600 ppm of wholly vaporized unleaded gasoline, 6 hours per day on day 6 through 16 of gestation, showed no teratogenic effects nor indication of toxicity to either the mother or the fetus. Another inhalation study in rats exposed to 3000, 6000, or 9000 ppm of gasoline vapor, 6 hours per day on day 6 through 20 of gestation, also showed no teratogenic effects nor indications of toxicity to either the mother or the fetus.

CHRONIC TOXICITY/CANCER: Wholly vaporized unleaded gasoline was used in a 3 month inhalation study. Groups of 40 rats (20 males, 20 female) and 8 squirrel monkeys (4 male, 4 female) were exposed 6 hours per day and 5 days per week for 13 weeks to 384 or 1552 ppm gasoline. One group of each species served as unexposed controls. The initial conclusion of this study was that inhalation of gasoline at airborne concentrations of up to 1522 ppm caused no toxicity in rats or monkeys. However, further histopathological examination of male rat kidneys on the highest dose group revealed an increased incidence and severity of regenerative epithelium and dilated tubules containing proteinaceous deposits. Lifetime inhalation of wholly vaporized unleaded gasoline at 2056 ppm has caused increased liver tumors in female mice. The mechanism of this response is still being investigated but it is thought to be an epigenetic process unique to the female mouse.

This exposure also caused kidney damage and eventually kidney cancer in male rats. No other animal model studied has shown these adverse kidney effects and there is no physiological reason to believe that they would occur in man. EPA has concluded that mechanism by which wholly vaporized unleaded gasoline causes kidney damage is unique to the male rat. The effects in that species (kidney damage and cancer) should not be used in human risk assessment. In their 1988 review of carcinogenic risk from gasoline, The International Agency for Research on Cancer (IARC) noted that, because published epidemiology studies did not include any exposure data, only occupations where gasoline exposure may have occurred were reviewed. These included gasoline service station attendants and automobile mechanics. IARC also noted that there was no opportunity to separate effects of combustion products from those of gasoline itself. Although IARC allocated gasoline a final overall classification of Group 2B, i.e. possibly carcinogenic to humans, this was based on limited evidence in experimental animals plus supporting evidence including the presence in gasoline of benzene and 1, 3-butadiene. The actual evidence for carcinogenicity in humans was considered inadequate.

MUTAGENICITY: Gasoline was not mutagenic, with or without activation, in the Ames assay (Salmonella typhimurium), Saccharomyces cerevisiae, or mouse lymphoma assays. In addition, point mutations were not induced in human lymphocytes. Gasoline was not mutagenic when tested in the mouse dominant lethal assay. Administration of gasoline to rats did not cause chromosomal aberrations in their bone marrow cells. **EPIDEMIOLOGY:** To explore the health effects of workers potentially exposed to gasoline vapors in the marketing and distribution sectors of the petroleum industry, the American Petroleum Institute sponsored a cohort mortality study (Publication 4555), a nested case-control study (Publication 4551), and an exposure assessment study (Publication 4552). Histories of exposure to gasoline were reconstructed for cohort of more than 18,000 employees from four companies for the time period between 1946 and 1985. The results of the cohort mortality study indicated that there was no increased mortality from either kidney cancer or leukemia among marketing and marine distribution employees who were exposed to gasoline in the petroleum industry, when compared to the general population. More importantly, based on internal comparisons, there was no association between mortality from kidney cancer or leukemia and various indices of gasoline exposure. In particular, neither duration of employment, duration of exposure, age at first exposure, year of first exposure, job category, cumulative exposure, frequency of peak exposure, nor average intensity of exposure had any effect on kidney cancer or leukemia mortality. The results of the nested case-control study confirmed the findings of the original cohort study. That is, exposure to gasoline at the levels experienced by this cohort of distribution workers is not a significant risk factor for leukemia (all cell types), acute myeloid leukemia, kidney cancer or multiple myeloma.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

The 96 hour(s) LC50 for rainbow trout (*Oncorhynchus mykiss*) is 2.7 mg/l.

The 48 hour(s) LC50 for water flea (*Daphnia magna*) is 3.0 mg/l.

The 96 hour(s) LC50 for sheepshead minnow (*Cyprinodon variegatus*) is 8.3 mg/l.

The 96 hour(s) LC50 for mysid shrimp (*Mysidopsis bahia*) is 1.8 mg/l.

This material is expected to be toxic to aquatic organisms. Gasoline studies have been conducted in the laboratory under a variety of test conditions with a range of fish and invertebrate species. An even more extensive database is available on the aquatic toxicity of individual aromatic constituents. The majority of published studies do not identify the type of gasoline evaluated, or even provide distinguishing characteristics such as aromatic content or presence of lead alkyls. As a result, comparison of results among studies using open and closed vessels, different ages and species of test animals and different gasoline types, is difficult.

The bulk of the available literature on gasoline relates to the environmental impact of monoaromatic (BTEX) and diaromatic (naphthalene, methylnaphthalenes) constituents. In general, non-oxygenated gasoline exhibits some short-term toxicity to freshwater and marine organisms, especially under closed vessel or flow-through exposure conditions in the laboratory. The components which are the most prominent in the water soluble fraction and cause aquatic toxicity, are also highly volatile and can be readily biodegraded by microorganisms.

ENVIRONMENTAL FATE

This material is expected to be readily biodegradable. Following spillage, the more volatile components of gasoline will be rapidly lost, with concurrent dissolution of these and other constituents into the water. Factors such as local environmental conditions (temperature, wind, mixing or wave action, soil type, etc), photo-oxidation, biodegradation and adsorption onto suspended sediments, can contribute to the weathering of spilled gasoline.

The aqueous solubility of non-oxygenated unleaded gasoline, based on analysis of benzene, toluene, ethylbenzene+xylenes and naphthalene, is reported to be 112 mg/l. Solubility data on individual gasoline constituents also available.

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Name: GASOLINE
DOT Hazard Class: 3 (Flammable Liquid)
DOT Identification Number: UN1203
DOT Packing Group: II

SECTION 15 REGULATORY INFORMATION

SARA 311/312 CATEGORIES:

1. Immediate (Acute) Health Effects:	YES
2. Delayed (Chronic) Health Effects:	YES
3. Fire Hazard:	YES
4. Sudden Release of Pressure Hazard:	NO
5. Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

4_I1=IARC Group 1	15=SARA Section 313
4_I2A=IARC Group 2A	16=CA Proposition 65
4_I2B=IARC Group 2B	17=MA RTK
05=NTP Carcinogen	18=NJ RTK
06=OSHA Carcinogen	19=DOT Marine Pollutant
09=TSCA 12(b)	20=PA RTK

The following components of this material are found on the regulatory lists indicated.

Benzene	15, 16, 17, 18, 20, 4_I1, 5, 6
Ethanol	17, 18, 20
Ethyl benzene	15, 17, 18, 20, 4_I2B
Gasoline	17, 18, 20
Methyl tert-butyl ether (MTBE)	15, 17, 18, 20, 9
Naphthalene	15, 16, 17, 18, 20, 4_I2B
Tertiary amyl methyl ether (TAME)	9

CERCLA REPORTABLE QUANTITIES(RQ)/SARA 302 THRESHOLD PLANNING QUANTITIES(TPQ):

Component	Component RQ	Component TPQ	Product RQ
Benzene	10 lbs	None	186 lbs
Ethanol	100 lbs	None	1961 lbs
Ethyl benzene	1000 lbs	None	34964 lbs
Methyl tert-butyl ether (MTBE)	1000 lbs	None	7513 lbs
Naphthalene	100 lbs	None	4000 lbs

CHEMICAL INVENTORIES:

CANADA: All the components of this material are on the Canadian DSL or have been notified under the New Substance Notification Regulations, but have not yet been published in the Canada Gazette.

UNITED STATES: All of the components of this material are on the Toxic Substances Control Act (TSCA) Chemical Inventory.

WHMIS CLASSIFICATION:

Class B, Division 2: Flammable Liquids

Class D, Division 2, Subdivision A: Very Toxic Material -
Carcinogenicity

Class D, Division 2, Subdivision B: Toxic Material -
Skin or Eye Irritation

SECTION 16 OTHER INFORMATION

NFPA RATINGS: Health: 1 Flammability: 3 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT: This revision updates the following sections of this Material Safety Data Sheet: Section 1 (Product Codes). This Material Safety Data Sheet has been prepared using the ProSteward MSDS system.

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV	-	Threshold Limit Value	TWA	-	Time Weighted Average
STEL	-	Short-term Exposure Limit	PEL	-	Permissible Exposure Limit
			CAS	-	Chemical Abstract Service Number
NDA	-	No Data Available	NA	-	Not Applicable
<=	-	Less Than or Equal To	>=	-	Greater Than or Equal To

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the ChevronTexaco Energy Research & Technology Company, 100 Chevron Way, Richmond, California 94802.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.



Changes in Gasoline & The Classic Auto (DAI Informational Document # 960501, May 1996)

 *Downstream Alternatives, Inc.* 

Introduction

The ongoing effort to alter gasoline to minimize its impact on the environment has refocused attention on fuel quality issues. The reformulation of gasoline and the addition of oxygenates such as ethanol, MTBE (methyl tertiary butyl ether) and other ethers have prompted questions and sometimes raised concerns. For the owner of a classic automobile that question is usually-Will today's fuels work in yesterday's automobiles?

Owners of classic vehicles have unique considerations. Their vehicle's fuel system may differ significantly from those of modern vehicles. The car is usually not driven often and is stored for long periods. It probably operates rich at specified air/fuel settings compared to modern vehicles. In the case of muscle cars, the compression ratio may dictate the use of very high octane gasoline and if the valve seats are not hardened, the effect of unleaded gasoline on exhaust valve seats may be an issue.

Unfortunately, limited information has been written in a manner that addresses these concerns from the perspective of the classic car owner. That is what this information paper does, address the fuel related questions and concerns of the classic auto owner.

Background

Gasoline is constantly changed and reformulated based on a variety of factors including the type of crude oil used, the mix of finished products provided, and advancements in process technology. More recently, changes have been driven by environmental concerns. The seventies saw the introduction of unleaded gasoline. The eighties and nineties saw the reduction in use of lead in automotive gasoline. Fuel volatility was reduced in 1989 and again in 1992 by requiring fuels with lower vapor pressure. The next round of environmental changes were driven by the 1990 Clean Air Act Amendments. This legislation ushered in the age of oxygenated fuels in carbon monoxide non-attainment areas in 1992 and the introduction of reformulated gasoline (RFG) in January 1995. This legislation also requires certain controls of so called "conventional gasoline" and required the complete elimination of lead

use in automotive gasoline as of December 31, 1995. Finally, the legislation required that all gasoline sold after January 1, 1995 contain a detergent effective in controlling carburetor, fuel injector and intake valve deposits.

These various legislative and regulatory requirements necessitated more alterations to gasoline formulations. It is important to note that the above requirements are environmentally driven. At the same time, gasoline must continue to meet certain performance standards and industry guidelines.

Gasoline performance standards are established by the American Society for Testing and Materials (ASTM). The standard specification for gasoline includes requirements and guidelines for such important fuel properties as octane, volatility, corrosivity, and stability.

Whether a gasoline is reformulated, oxygenated, or conventional it should still meet the ASTM performance guidelines. In addition some oil companies have requirements that exceed those of ASTM.

It is important to note that the ASTM standards do not generally dictate what should be in gasoline but rather how the gasoline should perform.

The following provides an overview of the various areas of special interest to the classic auto owner.

Fuel Oxygenates

Fuel oxygenates are comprised of hydrogen, carbon, and oxygen and therefore add oxygen to the fuel. The oxygenates include various alcohols and ethers but only a few are used today. The only alcohol being used is ethanol. The most common ether is MTBE with some use of TAME (tertiary amyl methyl ether) and ETBE (ethyl tertiary butyl ether).

These oxygenates are used in reformulated and oxygenated gasolines to comply with environmental standards and in conventional gasoline to raise octane quality.

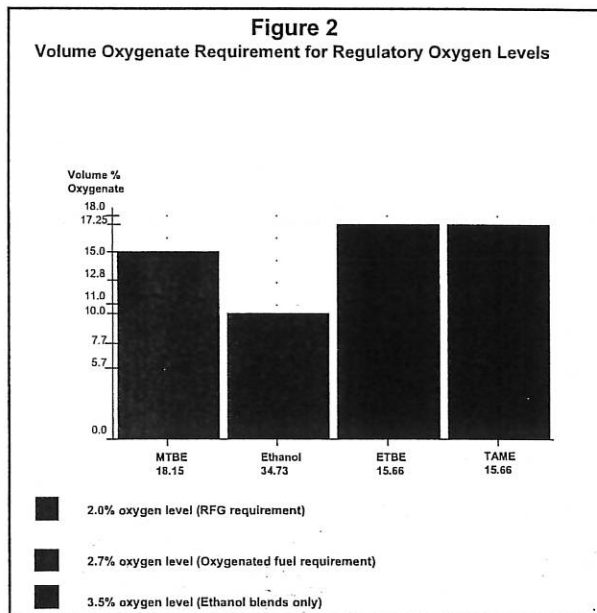
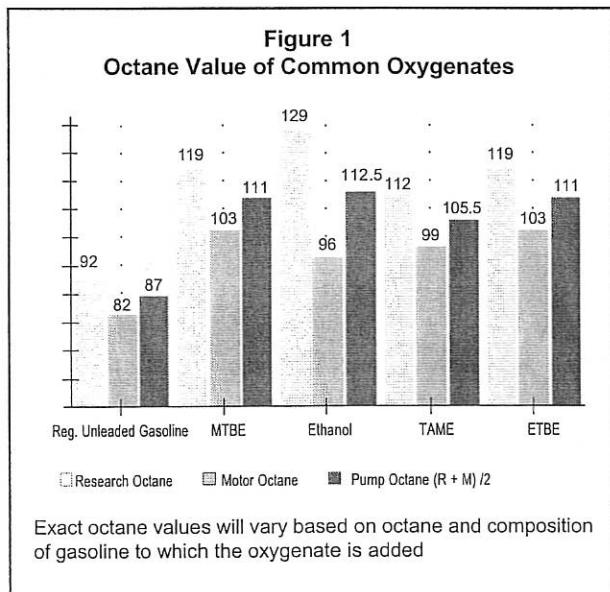
Ethanol is the same alcohol used in beverage alcohol. For fuel use it is 200 proof and denatured to make it unfit for drinking. There is an ASTM standard

for the quality of ethanol blended to gasoline. Ethanol has been used in gasoline since the late seventies and about 12% of all gasoline sold in the U.S. contains ethanol. The most common level used in gasoline is the 10% maximum allowed under federal law, although some companies blend at the 5.7% or 7.7% levels for environmental program compliance. Therefore the oxygen content of a gasoline/ethanol blend generally ranges from 2.0% to 3.5%. Ethanol is also an octane enhancer and raises the octane level of the gasoline to which it is added by approximately 2.5 numbers.

MTBE and the other ethers are manufactured by reacting refinery petrochemicals with an alcohol. The ethers are blended in ranges up to about 17% depending on the ether used. MTBE, the most common ether used is generally blended at 11% in reformulated gasoline and 15% in winter time oxygenated fuels. This equates to an oxygen level of 2.0% to 2.7%. MTBE is used in 25% to 30% of all gasoline sold in the U.S. It also is an octane enhancer raising octane levels by around 2.5 numbers when blended at maximum permitted levels.

Figure 1 shows the octane values of common oxygenates compared to regular unleaded gasoline. Figure 2 shows the oxygen content of typical oxygenate blend levels.

Probably no fuel components have generated as much controversy and misinformation as the fuel oxygenates. Various myths have gained almost folk lore status and are therefore addressed in the appropriate sections of this paper.



Octane

Octane is nothing more than a measure of a fuels ability to resist engine knock. When octane is too low for a given engine, the fuel will spontaneously ignite resulting in an explosion that collides with the flame front initiated from the spark plug resulting in engine knock or ping.

Octane is rated in single cylinder laboratory engines using specified reference fuels. There are two test methods, the Research Method which yields a Research Octane Number (RON) and a Motor Method which yields a Motor Octane Number (MON). The number posted on the gasoline pump is an average of those two numbers, (R+M)/2.

Today, gasoline octanes range for 85 to 94 (R+M)/2 with the typical grades being regular unleaded at 87, midgrade at 89, and premium at 91 to 94. Prior to the eighties, gasoline octane was often posted based solely on the Research Octane Number which allowed postings as high as 100 octane. Premium gasolines sold today often have a research octane number of 100 or higher but must post the (R+M)/2 value. For instance, a 93 octane premium will likely have a motor octane of 85 and a research octane of 101 $(101 + 85) \div 2 = 93$.

Some classic vehicles fall into the "muscle car" category and for these higher compression ratio engines sufficient octane may be an issue. Most higher octane premiums can satisfy the octane requirements of these vehicles. However if engine ping is experienced on the highest octane gasoline available it may be necessary to take other actions.

One course is to retard the timing although this

reduces performance. Other mechanical steps could include richening the air/fuel mixture although this would increase exhaust emissions.

Since maximum octane requirement occurs at an air/fuel ratio of 14.7:1 going rich from that point will lower octane requirement. Other mechanical causes should also be checked out. A marginal cooling system that results in higher operating temperatures can increase the octane requirement of a vehicle as can excessive combustion chamber deposits. Eliminating such problems is obviously preferable to adjustments that would have a negative effect on performance.

There are also "over-the-counter" octane enhancers although most of these provide only a fraction of an octane number. Another approach is to blend a portion of racing fuel with the premium grade available to achieve the desired octane level. Racing fuels are preferred to aviation gasoline (AV-gas) because AV-gas does not have the necessary scavengers and additive packages for automotive use. However, most racing gasolines sold at race tracks and aviation gasolines are no longer legal for street use because they do not meet EPA's requirements for that use.

As mentioned, the oxygenates are octane enhancers. Furthermore all gasolines must meet the octane number posted on the pump. The oxygenates will lean the air/fuel charge by up to a half number. This is equivalent to the increased oxygen content of the atmosphere for a 30° to 40° temperature drop. If your vehicle is set leaner than factory specifications this added oxygen may necessitate richening the air/fuel ratio to compensate for the extra oxygen.

NOTE: In some areas later model classic cars are subject to Inspection and Maintenance Programs. In this case you must ensure that any adjustments do not result in the vehicle exceeding specified exhaust emissions levels.

Lead Phase Out and Exhaust Valve Seat Recession

In addition to providing cheap, albeit unhealthy, octane, lead also resulted in a buildup of lead oxide

deposits on exhaust valve seats. These lead oxides prevented metal to metal contact between the exhaust valve and exhaust valve seat thereby preventing exhaust valve seat recession (EVSR) in engines without hardened valve seats.

Over a period of time operating without lead these oxides diminish exposing the engine to possible EVSR (see Figure 3). Most tests have shown that engines are not at great risk unless they are operated at high rpms or under heavy loads (such as pulling a trailer). The mechanical fix is, of course, to install hardened valve seats. However there are also chemical fixes. There are lead replacement additives, sometimes called "lead substitutes" which can be added to gasoline. The active ingredient in these additives is usually sodium or phosphorous, both of which prevent the exhaust valve from recessing into its valve seat. These products are generally sold over the counter under such names as ValveGuard, ValvePro, Valve Tect, Instead O Lead, etc.

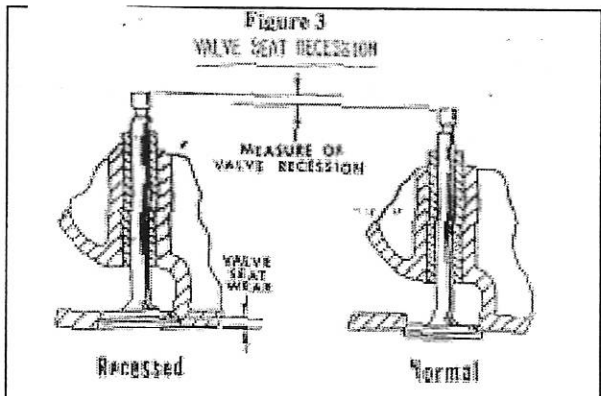
These additives should not be added at higher than the recommended dose rates since to do so could increase engine deposits.

Fuel oxygenates have not been shown to be a significant factor in EVSR. All gasolines, whether oxygenated or not, are unleaded and it is really an issue of whether or not to use a lead replacement.

Fuel Volatility

Volatility is a measure of a fuels ability to vaporize and is an important characteristic of gasoline. Fuel must be volatile enough to provide good cold start and warm-up performance. However it must not be made excessively volatile or it can contribute to hot restart problems, vapor lock/fuel foaming, and poor fuel economy. Refiners adjust gasoline based on the prevailing climate in the area in which the fuel is to be sold. More volatile gasolines are sold in the winter, less volatile in the summer. While the gasoline volatility of winter fuels has not changed much in recent years, the volatility of the summer grade has been reduced especially for reformulated gasoline. These less volatile fuels may not provide cold start and warm up performance comparable to gasolines of the late eighties. However, they will be less likely to contribute to vapor lock and similar problems.

The effect of oxygenates on volatility varies but is not of great concern since the maximum volatility of all summer grades is now regulated by the U.S. Environmental Protection Agency (EPA) and is at much lower levels than gasoline sold in the late eighties. This has eliminated any hot restart/vapor lock problems in all but



the most sensitive vehicles.

Enleanment

Oxygenates do enlean the air/fuel ratio. An oxygenated fuel usually contains between 2.0% and 3.5% oxygen. To put this into perspective, this is the same effect that would be experienced for the denser air resulting from a 30°F temperature drop or a decrease of 1500 feet in altitude. All regular street driven vehicles experience these changes in circumstances and do not require any special modifications. Unless an engine is tuned to the absolute limit (very few non-race engines are) oxygen presents no problem.

On a race car that is tuned to a specific air/fuel ratio, the enleanment from the oxygen can be offset by increasing fuel flow by a percentage comparable to the oxygen content of the fuel. This is normally accomplished by changing the carburetor jets to the next largest size since each jet size usually represents a 3 to 4% increase in fuel delivery.

Materials Compatibility

Obviously the fuel system materials used in late model vehicles are dramatically improved compared to the original equipment used in vintage/classic vehicles.

Older fuel systems could contain natural rubber or synthetic rubber much less compatible with today's fuels than the Viton® and fluoroelastomers used in modern fuel systems. Usually, however, older cars have already had most fuel system components replaced. Components provided by the aftermarket since the early eighties are compatible with today's fuel formulations.

Most questions on materials compatibility usually pertain to the oxygenates. However that is not the only gasoline ingredient to consider. As refiners decreased the use of lead, something else had to be increased or added to maintain octane quality. This is often done by increasing the aromatic level of gasoline. On an octane equivalent basis, some of the aromatics are more aggressive to elastomers than the oxygenates. Whether octane is achieved by oxygenate addition or increases in aromatics, today's gasolines are generally more aggressive to elastomers than those of the sixties and seventies. Where can one obtain a gasoline comparable to those sold in bygone years? You can't unless you have mastered time travel.

It should be kept in mind that extended storage

periods without proper treatment of gasoline can also increase elastomer deterioration. Overuse (beyond recommended treat rate or excessive frequency) of certain over-the-counter additives may also contribute to accelerated deterioration of fuel system components.

If it becomes necessary to replace fuel lines and other fuel system components, preferred materials are Viton® and fluoroelastomers such as 3M Fluorel®.

There should be no major concern about metals corrosion. While all gasoline is potentially corrosive, the ASTM specifications include guidelines for corrosivity. Petroleum companies routinely add corrosion inhibitors to their gasoline. Oxygenated fuels are treated with corrosion inhibitors to provide a level of corrosion protection comparable to that of other gasolines.

Fuel Economy

There is a great deal of misinformation about the fuel economy (miles per gallon) of various gasolines, especially those containing oxygenates. Various fuel programs that require oxygenates have traditionally been implemented in the winter when gasolines are made more volatile for good cold start and warm up performance. These "lighter" winter gasolines contain less energy. Furthermore a number of driving conditions that occur in the winter reduce fuel economy.

Besides fuel related factors, there are a number of vehicle and climate related issues to consider. Vehicle technology, state of tune, ambient temperatures, head

**Table 1
Factors That Influence Fuel Economy of Individual Vehicles**

Factor	Fuel Economy Impact	
	Average	Maximum
Ambient temperature drop from 77°F to 20°F	-5.3%	-13.0%
20 mph head wind	-2.3%	-6.0%
7% road grade	-1.9%	-25.0%
27 mph vs. 20 mph stop and go driving pattern	-10.6%	-15.0%
Aggressive versus easy acceleration	-11.8%	-20.0%
Tire pressure of 15 psi versus 26 psi	-3.3%	-6.0%

winds, road grade, tire pressure, use of air conditioners, and numerous other factors have an impact on fuel economy. Some of those that have been documented in testing are covered in Table 1. Even whether or not the car is level each time you fill it can distort fuel economy readings by several percentage points.

It is easy to see from the table why an individual using one or perhaps a few vehicles cannot make an accurate determination of the fuel economy impact of various gasolines. There are simply too many variables.

Through the course of a year, gasoline energy content can range from 108,500 British thermal units (btu) per gallon to 117,000 btu/gal. Winter grades are made more volatile (less dense) to aid in cold start and warm up performance and typically contain 108,500 to 114,000 btu/gallon. Summer grades are of much lower volatility to minimize evaporative emissions and hot start/hot driveability problems. Summer grades will typically contain 113,000 to 117,000 btu/gallon. So the energy content, and therefore the fuel economy, can vary 3.4% to 5.0% just based on the energy content of the fuel. Furthermore comparing the highest energy content summer fuels to lowest energy content winter fuels demonstrates that the variation in energy content

	Summer grade btu	Winter grade btu
Maximum	117,000	114,000
Minimum	113,000	108,500
%	3.4	5.0
Difference between summer maximum and winter minimum-7.26%		

is up to 7.26% (see Table 2).

The lower energy content of winter fuels and the other wintertime influences on fuel economy can easily lead to reductions of 10-20% in miles per gallon during the coldest winter months.

Oxygenated fuel programs, being wintertime only programs, have therefore been incorrectly blamed for massive fuel economy losses when in fact numerous other variables also contribute to fuel economy losses during winter months.

The reduction in btu/gallon from the addition of oxygenates is generally in the 2% to 2.5% range although fuel economy may not be that much lower. As an example, ethanol contains 76,100 btu per gallon. A 10 volume percent ethanol blend would contain about 3.4% less energy per gallon. However, in controlled tests the fuel economy loss has been far less than would be indicated by the 3.4% lower energy content.

Table 3 lists the btu/gallon (energy content) of each of the four oxygenates currently in use and also the energy content of resulting fuels when those oxygen-

Oxygenate	Energy content (btu/gal)	Finished blend 2.0 wt.% oxygen btu/gallon	Finished blend 2.7 wt.% oxygen btu/gallon
Ethanol	76,100	111,836	111,082
MTBE	93,500	111,745	110,925
ETBE	96,900	111,811	111,059
TAME	100,600	112,215	111,688

ates are blended into a 114,000 btu gallon base fuel. The 2.0% oxygen level column is typical of reformulated gasoline while a 2.7% oxygen level is representative of gasoline sold in oxygenated fuel program areas.

Comparing each of the blends in Table 3, you can see that a blend containing 2.0 wt. % oxygen averages just under 2.0% lower energy content. A blend containing 2.7 wt. % oxygen will average about 2.5% lower energy content.

Older vehicles typically have a energy correlation factor of .6 meaning that 60% of any increase or drop in btus per gallon will be reflected in fuel economy. More simply put, a 2.5% reduction in energy content translates to about a 1.5% drop in miles per gallon in older vehicles.

Actually in some tests, older vehicles have shown improved miles per gallons on oxygenated fuels. This is thought to be because the enleaning effect of the oxygenates results in more complete combustion thereby improving fuel economy.

Lubrication

This is perhaps the area of most inaccurate myths. There are no special lubricant requirements for using oxygenated fuels. Some automotive writers have reported that oxygenates, particularly ethanol, might wash lubricants from cylinder walls. However, they were basing their reports on vehicles that operate on pure alcohol such as those in Brazil. When the fuel is a high percentage of ethanol or methanol (i.e. over 50%) a special motor oil is required. However tests have shown no such special needs for lower levels of ethanol such as those used in oxygenated and reformulated gasolines.

Over-Blends

Some service shops have expressed concerns about the effects of overblends, fuels containing higher than the permitted levels of ethanol or MTBE. Everyone

seems to have a favorite story of a 20% or higher blend although those tales usually date to the late seventies or early eighties.

Today, whether blended at the terminal or refinery, the blending process is very sophisticated and usually employs computerized injection blending equipment or at a minimum preset metering devices. Both ethanol and MTBE cost much more than gasoline so no refiner or blender would intentionally add them in excess since it would raise costs. The price differential and modern blending equipment eliminates any need to worry about overblends.

Fuel System Cleanliness and Detergents

Since January 1, 1995 the U.S. EPA has required that all gasolines contain a detergent/deposit control additive that is effective at controlling carburetor, fuel injector, and intake valve deposits. These standards also apply to oxygenated and reformulated gasolines and are performance specifications based on established test procedures. Therefore, regardless of the brand or grade of gasoline you purchase you will be getting a detergent treated gasoline. There is no need to add over-the-counter detergents unless excessive deposits already exist. In fact, using detergents too frequently or at higher dose rates than recommended can cause elastomer degradation (fuel lines, fuel pump diaphragms) and also oil thickening, which could contribute to insufficient lubrication.

Off Season Storage

Most owners of classic/vintage autos store their vehicles for extended periods of time at some point. Gasoline can deteriorate, weather, and take on moisture during storage. Storage considerations are therefore very important.

Gasoline stored for extended periods will "oxidize" resulting in the formation of gums which contribute to fuel system and engine deposits. Gasoline is typically stable for a period of at least 90 days but may be 30 days old when you purchase it. Therefore if you are storing your vehicle for a period in excess of 60 days you should add a fuel stabilizer. Those stabilizers are "anti-oxidants" that extend the storage life of gasoline. Examples include Gold Eagles "STA-BIL" and NAPA's "Store It-Start It". Some refiners' gasolines remain stable well in excess of 90 days but it is difficult to identify such gasolines unless they are so advertised.

Gasoline will also weather in storage. Some of the gasoline evaporates leaving a less volatile mixture. The remaining less volatile fuel may not provide cold start and warm up performance comparable to when the fuel

was first purchased.

Since gasoline volatility is adjusted seasonably, it is also possible that when the vehicle is taken out of storage it may not have the proper volatility grade for the season. For instance, a car containing a summer or fall grade of gasoline that is pulled out of storage during mid-winter may result in longer cranking time and poor warm up performance because the gasoline is not volatile enough.

Finally moisture levels and phase separation should be considered. Different types of gasoline will hold various levels of water before it phase separates and the water falls to the bottom of the tank.

A gallon of conventional gasoline containing no oxygenates can dissolve and suspend only about 0.15 teaspoon of water (at 60°F) per gallon. A gasoline/MTBE blend can suspend about a half teaspoon of water per gallon while a gasoline/ethanol blend containing 10% ethanol can suspend nearly 4 teaspoons of water per gallon.

When a non-oxygenated gasoline reaches the 0.15 teaspoon level mentioned, excess water will phase separate and form a water phase on the bottom of the tank. MTBE blends would require a half teaspoon of water before water separation occurs. Ethanol blends would require about four teaspoons of water before phase separating. It should be noted that in the case of ethanol blends, when the water begins to phase separate the ethanol will begin to separate with the water and form an ethanol/water layer on the bottom of the tank.

Since water increases corrosion, you should always take precautions to eliminate any introduction of moisture into the fuel system. The tank should be kept reasonably full during storage to minimize condensation on the tank walls.

Contrary to popular belief, it is difficult, if not nearly impossible, to absorb enough water from the atmosphere to induce phase separation. At 70°F and a 70% relative humidity, it would take over two years to saturate a gallon of non-oxygenated gasoline and much much longer than that to saturate oxygenated gasolines.

So if you have taken steps to eliminate accidental introduction of water and tank wall condensation, phase separation should not be of great concern.

Additives

As is the case for engine oil treatments, there are a number of gasoline additives available over the counter. The use of some additives may prove beneficial while others may not. Overuse of some additives cause more harm than good.

Examples of beneficial additives include "lead

replacement" or "lead supplement" additives and fuel stabilizers as covered earlier. Beyond these, gasoline generally contains the appropriate detergent/deposit control additive, corrosion inhibitors, and anti-oxidants for normal every day use.

Using additives too frequently or at too high a dose rate may lead to such problems as elastomer deterioration, oil thickening (reduced lubrication), and excessive combustion chamber deposits.

Use additives with care, follow the recommended treat rates, and use them only when it is necessary to

address a specific problem or condition.

Conclusion

The gasolines made today, whether conventional, oxygenated, or reformulated, differ somewhat from those available when vintage/classic cars were first produced. However the principles of combustion remain the same in all vehicles and today's gasolines continue to meet the ASTM performance guidelines.

By exercising a reasonable amount of care, especially regarding extended storage, the classic auto owner can run yesterday's car on today's fuel.

The information contained in this document is based on a variety of technical papers, test reports, and information sources. While presented in a condensed form, Downstream Alternatives Inc. has made every attempt to represent the information as accurately as possible, and it is believed to be accurate as of the date of printing.

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HOUSE AGRICULTURE COMMITTEE

March 7, 2005
Topeka, Kansas

RE: SB 56 – removing the pump labeling requirement for sale of ethanol.

Chairman Johnson and members of the House Agriculture Committee, thank you for the opportunity to share comments in support of SB 56. I am Leslie Kaufman and I serve the Council as Government Relations Director. The Council includes more 223 cooperative business members. Together, they have a combined membership of nearly 200,000 Kansans.

The KCC supports initiatives which promote the use of renewable fuel sources such as ethanol, bio-diesel and e-diesel. As you know, cooperatives are member-owned businesses. Our grain warehouse members are owned by agricultural producers who grow the grain that is used to make ethanol. They understand the importance of adding value to the commodities they grow and they appreciate the contribution bio-based fuels make in reducing reliance on non-renewable fuel sources.

As such, we support SB 56. The bill removes the mandatory labeling requirement. Too often a regulatory label causes consumers to react as if reading a warning label. We do not want consumers to fear today's ethanol blended fuels. Rather, any labeling needs to be seen as a marketing tool. We think the bill before you will help do just that. Thus, we respectfully encourage you to recommend favorably legislation which removes the mandatory labeling requirement for ethanol. Thank you for your consideration.

Leslie Kaufman
Government Relations Director
Kansas Cooperative Council
Cell: 785-220-4068
leslie@kansasco-op.coop

House Agriculture Committee
March 7, 2005
Attachment 7

**Testimony on SB56
presented to the
House Agriculture Committee**

March 7, 2005

**Lee Allison, Chair
Kansas Energy Council**

The Kansas Energy Council formally recommended five legislative actions in the 2005 Kansas Energy Report. One of them was to “Remove mandatory labeling for 10% ethanol mixtures at the gas pump. Rescind Subsection b of Kansas Statute No. 79-3408, which currently requires that retail gasoline pumps with ethanol blends be labeled.”

The Energy Council determined that the labels are wrongly viewed by consumers as warnings, a hold over from two decades ago, when some of the early use of alcohol additives caused problems in engines. Since then, engines have been improved, all carmakers warranty their engines for ethanol-blend gasoline and gasoline has detergents so that those problems are long past us.

A few members of the Energy Council expressed concern that some part of the public still worries about those old problems. In the end, however, the Energy Council recognized that the mandatory labels perpetuate an erroneous belief. Eliminating the mandatory requirement still allows marketers to voluntarily display the label, does not reduce consumer safety, and is likely to lead to increased use of ethanol, an environmentally-friendly, Kansas-produced fuel.

Senate Bill 56 will carry out that recommendation of the Energy Council. I urge you to pass it out favorably.



KANSAS AGRICULTURAL ALLIANCE

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*Kansas Agribusiness
Retailers Association*

*Kansas Agricultural
Aviation Association*

Kansas Agri-Women

*Kansas Association of
Conservation Districts*

*Kansas Association of
Wheat Growers*

*Kansas Corn Growers
Association*

Kansas Cooperative Council

Kansas Dairy Association

*Kansas Electric
Cooperatives*

*Kansas Association of
Ethanol Processors*

Kansas Farm Bureau

*Kansas Grain & Feed
Association*

*Kansas Grain Sorghum
Producers*

*Kansas Livestock
Association*

Kansas Pork Association

*Kansas Seed Industry
Association*

Kansas Soybean Association

*Kansas Veterinary
Medical Association*

HOUSE AGRICULTURE COMMITTEE

RE: SB 56 – Motor vehicle fuels; relating to pump labeling requirements

March 7, 2005

Good morning Chairman Johnson and members of the House Agriculture Committee. KAA is a group of eighteen organizations representing agricultural, agribusiness and rural interests. As a point of information, the KAA only takes positions on specific legislation when its members are unanimous in their support or opposition to a bill. KAA submits this testimony in support of SB 56.

Most ethanol plants are located in rural areas and provide a significant employment opportunity in these local communities. Furthermore, this industry is significantly tied to the surrounding grain producers thus providing another outlet for our farmers to market their grain. Finally, ethanol is good for the environment.

We believe that the enactment of SB 56 would make it easier for the retailer to carry ethanol at their stations. SB 56 is about choices – giving the retailer the choice whether or not to label ethanol. We anticipate that some retailers will continue to label ethanol as a marketing tool, but each retailer should be given the right to choose.

Since there is no reason or need to label ethanol, we think it is appropriate to lessen the requirements on the retailer. Hopefully, this will spur the increase of ethanol usage which is good for the rural communities and good for the environment.

Because of these reasons, KAA urges you to support SB 56, which will allow the retailer to decide if he wants to market the fuel as containing ethanol. Ethanol is good for the economy, good for agriculture and good for the environment. These are positive elements for the future. Therefore, KAA respectfully urges your passage of SB 56.

House Agriculture Committee
March 7, 2005
Attachment 9

TAYLOR OIL, INC.

PO BOX 581, WELLSVILLE, KS 66092 800-883-2072 FAX 785-883-4194

My name is Curt Wright. I am Vice President of Taylor Oil, Inc. based in Wellsville, Kansas. We are a petroleum marketer that serves farm, commercial and retail customers in eastern Kansas and western Missouri. We also operate 4 convenience stores and 1 full service station in eastern Kansas.

I urge you to oppose Senate Bill 56. I am not an opponent of ethanol. I believe that ethanol is and will be an important part of the energy equation for the United States and Kansas. There is no doubt that the construction of an ethanol plant is an economic plus for the communities that have one. There is also no questioning the economic theory that by expanding the market for grains that prices should increase.

The central goal of many of the proponents is to increase the use of ethanol in Kansas, so we can help farmers and encourage the construction of additional ethanol plants in Kansas. These are very admirable goals. However, I do not believe that removing product information we are currently providing the consumer is the correct way to accomplish this goal. By removing the label, we make it more difficult for the consumer who wants to buy ethanol to find it. But the biggest disservice we do, is to those people who do not want to buy ethanol. There reasons may be varied: 1) the person or their family may make or have made their living in the Kansas oil and gas fields, which is a 3.5 billion dollar per year industry for the State of Kansas 2) the person may have had a bad experience with alcohol blended products that left them stranded along the road when the products were first introduced 20 to 25 years ago, even though those problems are virtually non-existent today 3) the person may simply object to the government subsidy of the product. Some people will argue that these are not valid reasons, but I believe that whether you agree or not, these people are still entitled to hold those opinions. By removing the mandatory label, these people will find it virtually impossible to satisfy their purchasing desires. The person who works at a gas station is more than likely not going to know the answer to the question, "Does your gas have ethanol in it?". According to employees at one of my locations, they are asked this question at least once per day. Over the last 4 months, I have answered this question myself more than a half dozen times in the limited time I have spent in that convenience store. Some customers leave and some stay. At some locations the answer to this question might change with each delivery. The proponents will argue that the label will be voluntary. That will not change the predicament facing the consumer who categorically does or does not want to use ethanol, they will both be left guessing in many instances.

As an alternative, I believe the state should take a positive approach and promote the label. If the central issues are truly economic development, then utilize lottery funds that are supposed to be used for economic development to create a marketing campaign that asks the people of Kansas to "Look for the Label". Local cable TV advertising is very inexpensive. In some markets, a 30 second prime time commercial on ESPN or CNN is less than \$100. Local radio is also a very effective and inexpensive media.

Ethanol will play an ever expanding role in the future of our country and our state and I believe the state should be helping find ways to increase the use of ethanol. I just don't believe we should take the shortcut approach by removing product information from consumers that we are providing today.

Thank you for giving me the opportunity to testify.

Curt Wright
VP Operations

House Agriculture Committee
March 7, 2005
Attachment 10



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LEGISLATIVE TESTIMONY

Kansas House Agriculture Committee

Monday, March 7, 2005

Good morning, Mr. Chairman and members of the committee. My name is Ed Roitz, President of Fleming Corporation of Kansas. Thank you for the opportunity to submit my testimony today, which reflects my opinions on the issue of removing the ethanol labels on fuel pumps in Kansas.

First, my qualifications to render my opinion before you:

1. Currently, my company and its customers market motor fuel in Kansas, including the metropolitan markets of Kansas City and Wichita.
2. In 1979, my company was one of the first, if not THE FIRST, to market Gasohol in the State of Kansas. I have attached a news release that shows on September 24, 1979, Roitz Oil Co., Inc. introduced "Gasohol" in Pittsburg, Kansas.

In 1979, when Gasohol was being touted, we were experiencing fuel shortages, high prices, and the clamor for greater independence from imported crude oil. Domestically produced, and agriculturally based, ethanol was being hailed as a great product that would lessen our dependence on Middle East oil. Every office holder, from mayors to governors to congressmen, were working hard to have their picture taken driving a gasohol-powered vehicle. High visibility publicity was good politics! Everybody was jumping on the bandwagon!

Even the major oil companies were getting into the act. Although almost all of the original innovation came from independent, small business, most major refiners announced trial runs in selected metropolitan markets to offer the fuel to their customers, whether it be wholesalers at selected pipeline terminals, or to the motoring public directly.

Over the years, however, usage of ethanol-laced fuels fell out of favor. Only a few retailers in mostly farm states continue to market "Gasohol". Why?

Was it product quality? Was it tax incentive policies that were changed?
Was it that public enthusiasm waned?

House Agriculture Committee
March 7, 2005
Attachment 11

1. **Product Quality** -- Gasohol, or ethanol-blended gasoline, is a good product that works very well in virtually every vehicle, whether car, truck, motorcycle, etc.. Properly maintained equipment and professionally marketed products have proven that ethanol is a very acceptable product to Kansas consumers. Part of the problem through the 80's and 90's was that there were bad retailers who didn't care how or where or what they were blending with their gasoline, just as long as they had more of it to sell. This was a major contributor to any product problem or bad misperception on the part of the consumer. This is what all of us, as conscientious tax-paying Kansas marketers, still at times have to deal with when discussing alcohol fuels with our customers.

2. **Tax Policy** -- It is a shame that at least up to recent times, that the alcohol price has been a very opportunistic one on the part of the single major U.S. producer, Archer Daniels Midland (ADM). Consequently, it's been the American and Kansas taxpayer that has been forced to subsidize the price viability in the marketplace. ADM has priced its alcohol as high as possible, regardless of the ups or downs of gasoline prices. "Whatever the market will bear". Tax policy has been hard on bridge and highway programs, as needed tax dollars have been siphoned off the subsidize alcohol fuels.

3. **Public Enthusiasm** -- I don't think that American patriotism or the desire to reduce our dependence on foreign oil sources has lessened one bit. The problem is that the motoring public does not have enough information on what product they can buy to help in the cause. In other words, if all of us are serious in our intentions of making this ethanol product more wide available, and better accepted by the consumer, then in my opinion, **MORE NOT LESS** labeling is the answer.

I would go further and recommend that we develop a "MADE IN KANSAS" campaign, to tout "Kansas Domestic" ethanol that will flow out of our emerging distillery industry, and to certify to the Kansas fuel consumer where the product comes from, and that it is being offered from a reputable Kansas business that knows what they are doing, and have for sale a good, high-quality product.

Please note that not all ethanol which will be used in our state will be made in Kansas. Major importing countries include Communist China and smaller producers in the Caribbean.

In conclusion, I see this mandatory versus voluntary issue as a consumer-protection question. All of us in the fuel marketing business should run to, and not hide from, this quality product that can offer many, many benefits to Kansans. If we keep them guessing at the pump, Kansans are a smart bunch. Kansas motorists need to know what is in the gasoline that they purchase for their cars and trucks, and once they know what they're getting, I am sure they'll vote with their pocketbook to support it! Thank you!

SENATE BILL No. 113

By Committee on Agriculture

1-26

Proposed Technical Amendment
to Senate Bill No. 113

House Agriculture Committee
March 7, 2005
Attachment 12

9 AN ACT concerning agriculture; relating to soil amendment products;
10 amending K.S.A. 2004 Supp. 2-2805 and repealing the existing section;
11 also repealing K.S.A. 2004 Supp. 2-2806.

**K.S.A. 2-2808 and
sections**

12
13 *Be it enacted by the Legislature of the State of Kansas:*

14 Section 1. K.S.A. 2004 Supp. 2-2805 is hereby amended to read as
15 follows: 2-2805. Each soil amendment product shall be registered with
16 the secretary before it is distributed in this state. Application for regis-
17 tration shall be submitted to the secretary, on a form prepared for that
18 purpose, showing the information required on the label, as provided in
19 K.S.A. 2-2804, and amendments thereto, except net weight of product.
20 The registration fee shall be fixed by rules and regulations adopted by
21 the secretary of agriculture for each product, except that such fee shall
22 not exceed \$50, or commencing July 1, 2002, and ending June 30, 2010,
23 such fee shall not exceed \$60 \$100 for each product. The soil amendment
24 product registration fee in effect on the day preceding the effective date
25 of this act shall continue in effect until the secretary of agriculture adopts
26 rules and regulations fixing a different fee therefor under this section. All
27 registrations shall expire on December 31 of the year in which such soil
28 amendment product is registered. The applicant shall submit with the
29 application for registration a copy of the label and a copy of all advertise-
30 ments, brochures, posters and television and radio announcements to be
31 used in promoting the sale of the soil amendment.

Sec. 2. K.S.A. 2-2808 see insert #1

32 ~~Sec. 2.~~ K.S.A. 2004 Supp. 2-2805 and 2-2806 are hereby repealed.

33 ~~Sec. 3.~~ This act shall take effect and be in force from and after its
34 publication in the statute book.

K.S.A. 2-2808 and

3.

4.

Insert #1

Sec. 2. K.S.A. 2-2808 is hereby amended to read as follows: 2-2808. It shall be a violation of this act for any person to:

(a) Distribute a soil amendment that is not registered with the secretary;

(b) distribute a soil amendment that is not labeled;

(c) distribute a soil amendment that is misbranded;

(d) distribute a soil amendment that is adulterated; or

(e) fail to comply with a stop sale, use or removal order; ~~or~~

~~(f) -- fail to file the tonnage report or pay the inspection fee.~~

12-2