



Service Bulletin

File in Section: 06 - Engine

Bulletin No.: 05-06-04-022O

Date: December, 2017

INFORMATION

Subject: TOP TIER™ Detergent Gasoline and TOP TIER™ Diesel Fuel Information and Licensed Brands

Models: 2018 and Prior GM Passenger Cars and Trucks
United States, Canada and Puerto Rico

This Bulletin has been revised to add 2018 Model Year vehicles, add a TOP TIER™ Diesel Fuel Logo and diesel fuel information, update the text and the list of TOP TIER™ Detergent Gasoline and TOP TIER™ Diesel Fuel Licensed Brands. Please discard Corporate Bulletin Number 05-06-04-022N.

**TOP TIER™ – General Motors
Recommendation**



3980710

3980709



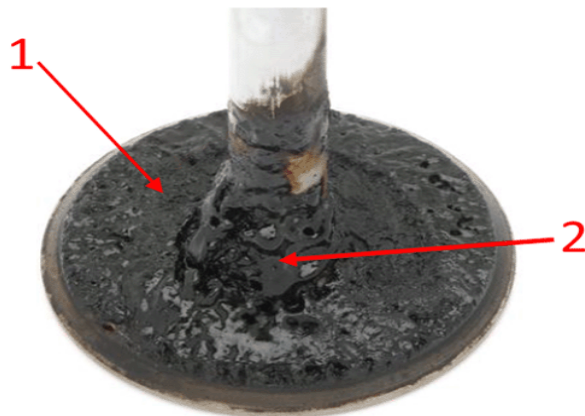
4915798

Note: This is a voluntary program for fuel marketers and not all fuel marketers will offer TOP TIER™ Detergent Gasoline or TOP TIER™ Diesel Fuel. Registration is based on certification data and marketers of all sizes including some major brands, independents and big box stores.

- A class of fuel called TOP TIER™ Detergent Gasoline is available from various fuel marketers for all octane grades of gasoline sold at their stations in the United States (including US Territories), Canada, Puerto Rico and certain Central American countries. This gasoline meets the detergent standards developed by eight automotive companies. All vehicle engines will benefit from using TOP TIER™ Detergent Gasoline over gasoline containing the “Lowest Additive Concentration” (LAC). LAC is also known as the minimum detergent treat rate, recommended by the Environmental Protection Agency (EPA) in the United States and in Canada, the Canadian General Standards Board (CGSB). Those vehicles that have experienced engine deposit related concerns may especially benefit from using TOP TIER™ Detergent Gasoline.
- The TOP TIER™ program is not just about a high detergency rate. It is a robust engine cleanliness and performance specification validating the specific chemistry within the detergent package. TOP TIER™ Detergent Gasoline must conform to the standards which specify that gasoline sold in the selected nation or region shall not contain metallic additives, including methylcyclopentadienyl manganese tricarbonyl (MMT). If a fuel marketer successfully completes all of the engine and fuel injector testing required in the TOP TIER™ specification, they can claim to be TOP TIER™. All performance testing must be conducted at an independent, ISO 17025 accredited laboratory.
- A class of fuel called TOP TIER™ Diesel Fuel is available from various fuel marketers. Since diesel fuel retailers may also sell non-additized diesel fuel or diesel fuel not meeting the TOP TIER™ requirements, always check the dispenser for TOP TIER™ Diesel Fuel designation.
- The EPA and CGSB require only a minimum amount of detergent in gasoline. This minimum amount is not adequate to keep the engine running at optimal conditions for the life of the vehicle. TOP TIER™ Detergent gasoline contains 2–3 times more detergent than the EPA and CGSB minimum requirement, resulting in a lower amount of intake valve deposits (IVD). The IVD can negatively affect fuel economy, emissions, and performance.
- General Motors, FCA, BMW, Honda, Toyota, Volkswagen, Audi and Mercedes-Benz developed the TOP TIER™ Detergent Gasoline Standards and support the use of TOP TIER™ Detergent Gasoline by recommending it in their vehicle Owner Manuals. All eight corporations recognize the benefits to the engine, the environment, and the consumer. Additionally, the companies recognize that by joining together they can better address the industry concern with low fuel detergency levels and the intentional addition of harmful organometallic additives. GM strongly recommends the use of TOP TIER™ Detergent Gasoline and TOP TIER™ Diesel Fuel.

A Cleaner Engine Has Performance and Environmental Advantages

The following gasoline engine intake valve graphics show the difference between an engine that did not use TOP TIER™ Detergent Gasoline and an engine that did use TOP TIER™ Detergent Gasoline at 10,000 miles (16,093 km).



3979074

Engine intake valve using Non-TOP TIER™ Detergent Gasoline having the minimum detergent treat rate with more than 1,000 mg of deposits.

Deposits (1 and 2) on the intake valve reduce fuel economy by creating a porous surface that collects wet fuel, thereby affecting the air to fuel mixture in the cylinder and releases fuel late in the combustion cycle leading to increased unburnt hydrocarbon (HC) and carbon monoxide (CO) emissions. Likewise fuel injectors may become restricted with carbon deposits over time resulting in an incorrect injector spray pattern and similarly increasing HC and CO emissions.



Engine intake valve using TOP TIER™ Detergent Gasoline having a high detergent treat rate with less than 50 mg deposits.

This intake valve is significantly cleaner, resulting in optimal fuel economy and engine driveability performance as well as reduced emissions.

TOP TIER™ Licensed Brands

Notice: TOP TIER™ Detergent Gasolines and Diesel Fuels that have met the TOP TIER™ standards will appear on the list under the Licensed Brands tab at this website: <http://www.toptiergas.com/licensedbrands/>

- Additional gasoline retailers are added to the TOP TIER™ Licensed Brands list when they meet the TOP TIER™ Detergent Gasoline standards.
- Additional diesel fuel retailers are added to the TOP TIER™ Licensed Brands list when they meet the TOP TIER™ Diesel Fuel standards.

The following is the most current list of the latest TOP TIER™ Licensed Brands:

TOP TIER™ LICENSED RETAIL BRANDS

TOP TIER™ GASOLINE	Holiday	Shell
76	Irving Oil	Shell (Canada)
Aloha	Kirkland Signature Gasoline	Shell (Puerto Rico)
Amoco	Kwik Star	Shell Nitrogen Enriched (Canada)
ARCO	Kwik Trip	Shell V-Power (Canada)
Beacon	Kwik Trip Express	Shell V-Power (Puerto Rico)
BP	Mahalo	Shell V-Power NiTRO+ (Puerto Rico)
Break Time	Marathon	Shell V-Power NiTRO+ Premium (CA)
Cenex	Metro Petro	Sinclair
Chevron	MFA	Sunoco
Chevron (El Salvador)	Mobil	SuperAmerica
Chevron (Guatemala)	Mobil (Canada)	SuperFuels
Chevron (Honduras)	OAAI	Tempo
Chevron (Panama)	Ohana Fuels	Texaco
CITGO	Petro-Canada	Texaco (El Salvador)
Conoco	Phillips 66	Texaco (Guatemala)
Co-op	PUMA (El Salvador)	Texaco (Honduras)
Costco Wholesale	PUMA (Panama)	Texaco (Panama)
CountryMark	PUMA Maxxima (Puerto Rico)	Tri-Par Qwik Stop
CountryMark PLUS	QT	Valero
Diamond Shamrock	QuikTrip	
Esso	Ranger	
Express Mart	Ranger Mustang	TOP TIER™ DIESEL
Exxon	Ranger Stallion	Costco Wholesale (select locations)
Fast Fuel	Ranger Thoroughbred	Fast Stop (select locations)
Hele	Reeder's	Fast Stop Express (select locations)
HFN – Hawaii Fueling Network	Shamrock	Kirkland Signature (select locations)

4922513

Trademark Footnotes

TOP TIER™ Detergent Gasoline is a Trademark of General Motors LLC

TOP TIER™ Diesel Fuel is a Trademark of General Motors LLC

