



**YOU GET OUT  
WHAT YOU  
PUT IN.** 

## **GT-1<sup>®</sup> Max Motor Oil with Liquid Titanium<sup>®</sup>**

Kendall<sup>®</sup> GT-1 Max Motor Oil with Liquid Titanium protection additive is a premium quality, full-synthetic automotive engine oil designed to provide excellent engine protection for both turbocharged gasoline direct-injection, conventional gasoline-fueled and flex-fueled passenger cars and light trucks under all operating conditions. It is particularly recommended for vehicles operating at extreme temperatures or under severe driving conditions, such as towing heavy loads.

GT-1 Max Motor Oil with Liquid Titanium is formulated with synthetic base stocks and a performance additive package fortified with our exclusive Liquid Titanium protection additive for extra wear protection and improved fuel savings. The full-synthetic formulation, compared with conventional engine oils, provides improved protection against viscosity breakdown and deposit formation at high temperatures; lower volatility for reduced oil consumption; and faster oil circulation at low temperatures for easier starting and better protection during cold starts. The Liquid Titanium protection additive provides increased engine protection by forming a strongly bonded titanium shield on the surface of critical engine parts, which reduces friction and wear and can help extend engine life. Reduced friction also helps improve fuel economy performance beyond ILSAC GF-5 requirements.

GT-1 Max Motor Oil with Liquid Titanium exceeds new car warranty requirements as defined by ILSAC GF-5 (except 0W-16). It is uniquely formulated to help combat low speed pre-ignition (LSPI) in turbocharged gasoline direct injection engines. GT-1 Max Motor Oil with Liquid Titanium meets or exceeds "Resource Conserving" requirements for fuel economy improvement, emission system and turbocharger protection, and protection of engines operating on ethanol-containing fuels up to E85. It is backward serviceable for use where API SN or earlier "S" category engine oils are recommended.

### **Applications**

- Turbocharged gasoline direct-injection, conventional gasoline-fueled and flex-fuel passenger cars, light trucks and sport utility vehicles, including gasoline-electric hybrids, especially when operating under severe conditions
- Four-stroke cycle gasoline engines in other mobile or stationary equipment

GT-1 Max Motor Oil with Liquid Titanium is licensed for:

- ILSAC GF-5 (except 0W-16)
- API Service SN PLUS with Resource Conserving

GT-1<sup>®</sup> Max with Liquid Titanium<sup>®</sup> meets or exceeds the requirements of:

- Chrysler MS-6395 (except 0W-16)
- Ford WSS-M2C945-B1 (SAE 5W-20)
- Ford WSS-M2C946-B1 (SAE 5W-30)
- Ford WSS-M2C947-B1 (SAE 0W-20)
- GM6094M (obsolete specification) (does not include 0W-16)

**Premium  
Full-Synthetic  
Passenger Car  
Engine Oil;  
Fortified With  
Liquid Titanium  
Protection  
Additive**



## Features/Benefits

- Helps protect against low speed pre-ignition (LSPI) in turbocharged gasoline direct-injection engines (TGDI)
- Exceeds ILSAC GF-5 requirements for new cars under warranty (except 0W-16)
- Enhanced performance benefits at extreme temperatures compared with conventional engine oils
- Exclusive Liquid Titanium protection additive provides extra wear protection and improved fuel economy
- Outstanding resistance to viscosity and thermal breakdown at high temperatures
- Protects against sludge and varnish formation
- Protects against rust and bearing corrosion
- Low volatility for reduced oil consumption
- Excellent low temperature pumpability for protection during cold starts
- Highly resistant to foaming
- Formulated to protect turbochargers and emission control system catalysts
- Formulated for use in vehicles operating on ethanol-containing fuels up to E85

## GT-1® Max Motor Oil with Liquid Titanium®

Typical Properties					
SAE Grade	0W-16	0W-20	5W-20	5W-30	10W-30
Specific Gravity @ 60°F	0.846	0.847	0.848	0.851	0.852
Density, lbs/gal @ 60°F	7.05	7.05	7.06	7.09	7.10
Color, ASTM D1500	3.0	3.0	3.0	3.0	3.0
Flash Point (COC), °C (°F)	229 (444)	229 (444)	229 (444)	235 (455)	232 (450)
Pour Point, °C (°F)	-43 (-45)	-43 (-45)	-41 (-42)	-40 (-40)	-39 (-38)
Viscosity, Kinematic					
cSt @ 40°C	37.3	46.0	45.4	61.2	63.2
cSt @ 100°C	7.3	8.8	8.4	10.9	10.4
Viscosity Index	163	174	164	171	153
Cold Cranking Viscosity, cP		5,000	3,650	4,900	3,750
@ (°C)	5,000	(-35)	(-30)	(-30)	(-25)
High Temp/High Shear Viscosity,					
cP @ 150°C	2.3	2.6	2.6	3.0	3.1
Sulfated Ash, ASTM D874, wt %	0.96	0.96	0.96	1.02	0.96
Total Base Number (TBN), ASTM D2896	8.0	8.0	8.0	8.6	8.0
Phosphorus, wt %	0.77	0.077	0.077	0.077	0.077
Titanium, wt %	0.001	0.010	0.010	0.010	0.010
Zinc, wt %	0.085	0.085	0.085	0.085	0.085

## Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <http://www.phillips66.com/SDS>.

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Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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