



**THE
GOOD
STUFF**

GT-1[®] High Performance Motor Oil with Liquid Titanium[®]

Kendall[®] GT-1 High Performance Motor Oil with Liquid Titanium protection additive is a premium quality, part-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.

GT-1 High Performance Motor Oil with Liquid Titanium is formulated with a blend of synthetic and conventional base stocks and a performance additive package fortified with our exclusive Liquid Titanium protection additive for extra wear protection and improved fuel savings. The part-synthetic formulation provides enhanced oxidation resistance and thermal stability at high temperatures and better pumpability at low temperatures compared with conventional engine oils, for extra protection under all driving conditions. 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 High Performance Motor Oil with Liquid Titanium (except SAE 10W-40 and SAE 20W-50) exceeds new car warranty requirements as defined by ILSAC GF-5. It is uniquely formulated to help combat low speed pre-ignition (LSPI) in turbocharged gasoline direct injection engines. GT-1 High Performance 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 High Performance Motor Oil with Liquid Titanium is licensed for:

- ILSAC GF-5 (except: SAE 10W-40, SAE 20W-50)
- API Service SN Plus with Resource Conserving (except SAE 10W-40 and SAE 20W-50 which are API SN Plus only)

GT-1[®] High Performance Motor Oil with Liquid Titanium[®] meets or exceeds the requirements of:

- Chrysler MS-6395
- Ford WSS-M2C945-A (SAE 5W-20), Ford WSS-M2C945-B1 (SAE 5W-20)
- Ford WSS-M2C946-B1 (SAE 5W-30), Ford WSS-M2C946-B1 (SAE 5W-30)
- Ford WSS-M2C947-B1 (SAE 0W-20), Ford WSS-M2C947-B1 (SAE 0W-20)
- GM6094M (obsolete specification)

**Premium
Synthetic Blend
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)
- Meets ILSAC GF-5 requirements for new cars under warranty (except SAE 10W-40 & 20W-50)
- Part-synthetic formulation provides enhanced protection against deposit formation and oil thickening, compared with conventional engine oils
- Exclusive Liquid Titanium® protection additive provides extra wear protection and improved fuel economy
- 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
- Helps maximize engine performance and minimize exhaust smoke
- Formulated to protect turbochargers and emissions control system catalysts
- Formulated for use in vehicles operating on ethanol-containing fuels up to E85

GT-1 High Performance Motor Oil with Liquid Titanium

Typical Properties						
SAE Grade	0W-20	5W-20	5W-30	10W-30	10W-40	20W-50
Specific Gravity @ 60°F	0.849	0.862	0.861	0.866	0.869	0.881
Density, lbs/gal @ 60°F	7.07	7.18	7.17	7.21	7.24	7.33
Color, ASTM D1500	3.0	3.0	3.0	3.0	3.0	3.0
Flash Point (COC), °C (°F)	218 (424)	218 (424)	216 (421)	229 (444)	227 (440)	230 (446)
Pour Point, °C (°F)	-41 (-42)	-39 (-38)	-39 (-38)	-39 (-38)	-39 (-38)	-30 (-22)
Viscosity, Kinematic						
cSt @ 40°C	46.0	49.9	66.2	65.7	106	176
cSt @ 100°C	8.8	8.6	11.0	10.5	15.8	19.6
Viscosity Index	174	150	158	148	150	128
Cold Cranking Viscosity, cP						
@ (°C)	5,400	6,150	6,150	4,550	6,200	7,200
@ (-35)	(-35)	(-30)	(-30)	(-25)	(-25)	(-15)
High-Temp/High-Shear Viscosity, cP @ 150°C	2.6	2.6	3.1	3.0	3.8	4.9
Sulfated Ash, ASTM D874, wt %	0.96	0.96	0.96	0.96	0.96	0.96
Total Base Number (TBN), ASTM D2896	8.0	8.0	8.0	8.0	8.0	8.0
Phosphorus, wt %	0.077	0.077	0.077	0.077	0.077	0.077
Titanium, wt %	0.010	0.010	0.010	0.010	0.010	0.010
Zinc, wt %	0.085	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 Material Safety Data Sheet via <http://www.phillips66.com/SDS>.

02-19-17

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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