



Mobil 1 Racing  
Product Guide

**Mobil 1**  
*Racing*

# Mobil 1 Racing Products Race Proven by Champions

Mobil 1™, the world's leading synthetic motor oil brand, has long been the lubricant of choice for race teams competing in motorsports series across the globe. Its technology is relied on for its ability to deliver exceptional all-round performance and protection under extreme operating conditions.

## Mobil 1 Products Available Include:

- Engine Oils
- Gear Oils for Transmission, Transaxle and Rear End Gear Applications
- Automatic Transmission Fluid for Transmissions and Power Steering Systems
- Greases for Wheel Bearings, Tripod Joints, Spline Shafts and Swivel Joints

Mobil 1 Racing™ oils exploit many core performance attributes found in Mobil 1 oil technology that are directly beneficial to racing engine performance, such as outstanding high temperature wear and deposit protection in turbocharger bearings.

These race-proven products are the result of extensive testing and development in a wide range of race series including:

- NASCAR Monster Energy Cup Series™
- NASCAR Xfinity Series™
- NASCAR Camping World Truck Series™
- NASCAR Whelen All-American Series™
- Formula 1™
- ARCA Racing Series™
- IMSA WeatherTech SportsCar Championship™
- FIA World Endurance Championship™
- FIA World Rally Championship
- World of Outlaws Sprint Car Series™
- World of Outlaws Late Model Series™
- Formula DRIFT
- Virgin Australia Supercars Championship



## Selecting a Racing Oil Key Considerations

**Wear Protection:** Engine configuration should dictate whether a high zinc oil is needed or not. Select an oil which offers maximum protection.

**Temperature Range:** Select an engine oil based on the operating race engine temperature for the best engine film thickness to protect your engine.

**Protection Against Deposits:** Not all race oils offer the detergency and other additive content to protect against deposits. Deposits insulate against the cooling properties of the engine oil and can shorten engine life and lower performance and efficiency.

**Viscosity Grade:** Select the viscosity grade which best suits the application and provides the best combination of power and protection. A wider viscosity range oil such as a 0W-50 is better suited for all around temperature and race performance.

### Mobil 1 Racing Oil Advantages:

- Double the zinc for protection in extreme racing conditions.
- Advanced fully synthetic proprietary base oil technology.
- Protection against high temperatures and deposits.
- Friction reduction to deliver increased horsepower.
- Detergent technology provides excellent engine component cleanliness.
- Offered in two viscosity ranges for a variety of racing applications: Mobil 1 Racing™ 0W-30 and Mobil 1 Racing™ 0W-50.

# Understanding Oil Viscosity and Zinc

## Viscosity

Viscosity refers to the weight and thickness of a motor oil. Motor oil gets thicker when it's cold and thinner when it heats up.

- The first number (i.e. 0W-50) indicates the viscosity of the oil at a cold temperature (40°C or 104°F).
- The second number (i.e. 0W-50) indicates the viscosity at operating temperatures (100°C or 212°F).

*While some racers see the "0W" and think this oil would be too light, in fact Mobil 1 Racing 0W-30 and 0W-50 are the same weight at operating temperatures as other SAE 30 and 50 grade oils.*

Mobil 1 Racing oils are designed to help protect an engine at lower temperature as well as providing excellent protection and durability at operating or race temperatures. The wider viscosity range is designed to give more efficiency which can potentially result in better fuel economy and increased horsepower.



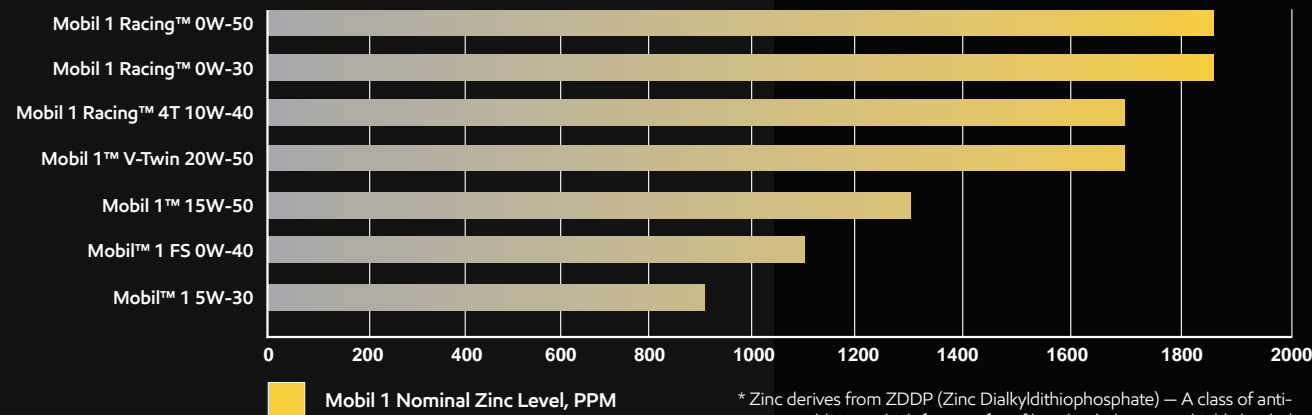
# Mobil 1 Racing™ 0W-50

## Key Features

- Recommended for higher temperature and durability racing applications.
- Boosted levels of anti-wear protection (nominal zinc level of 1850 ppm) well beyond those of typical automotive engine oils.
- Highly friction modified for maximum power.
- Recommended for a wide range of race engine applications, including highly loaded flat tappet designs.
- Exceptional high-temperature protection in high RPM engine operation, even at temperatures of over 500°F (260°C).

Provides maximum protection and durability under higher temperatures. Perfectly suited for short oval track racing to long-duration road racing.

# Mobil 1 Nominal Zinc Level



\* Zinc derives from ZDDP (Zinc Dialkyldithiophosphate) — A class of anti-wear additives which form surface films that help protect highly loaded engine components such as flat tappets.

# Mobil 1 Racing™ 0W-30

## Key Features

- Highly friction modified for maximum power.
- Boosted levels of anti-wear protection (nominal zinc level of 1850 ppm) well beyond those of typical automotive engine oils.
- Recommended for a wide range of race engine applications, including highly loaded flat tappet designs.
- Exceptional high-temperature protection in high RPM engine operation, even at temperatures of over 500°F (260°C).

A very low friction racing oil developed for a wide variety of race engines and is recommended and used by builders of engines for NASCAR and ARCA series.



Product	SKU #	Nominal Phosphorus Level, PPM	Nominal Zinc Level, PPM	Product Description	Recommended consumer applications	APL, ILSAC, and other industry approvals
<b>Mobil Racing™ 0W-30</b>	Case - 102622 55 gal. drum - 102554	1750	1850	Advanced full synthetic formula specifically designed to maximize horsepower under race conditions.	Race engines.  Not recommended for street use.	-
<b>Mobil Racing™ 0W-50</b>	Case - 104145 55 gal. drum - 104166	1750	1850	Advanced full synthetic formula specifically designed to maximize horsepower under race conditions.	Race engines.  Not recommended for street use.	-
<b>Mobil 1™ 5W-20</b>	Case - 102991 55 gal. drum - 105737	800	900	Advanced full synthetic formulation designed to meet the requirements of many newer vehicles including Hondas, Fords, Chryslers and newer Toyotas.	Vehicles that require 5W-20.	GF-5, SN
<b>Mobil 1™ 5W-30</b>	Case - 102911 55 gal. drum - 105737	800	900	Advanced full synthetic formulation designed to meet the requirements of many domestic, including GM, and imported vehicles.	Vehicles that require 5W-30. Corvette approved.	GF-5, SN Honda
<b>Mobil 1™ 10W-30</b>	Case - 102992 55 gal. drum - 106076	800	900	Advanced full synthetic formula designed for domestics and imports.	Vehicles that require 10W-30.	GF-5, SN

Product	SKU #	Nominal Phosphorus Level, PPM	Nominal Zinc Level, PPM	Product Description	Recommended consumer applications	APL, ILSAC, and other industry approvals
<b>Mobil 1™ FS 0W-40</b>	Case - 103537 55 gal. drum - 101901	1000	1100	Advanced full synthetic formulation designed to meet the requirements of many European vehicles.	Many European vehicles. HT/HS applications.	SN, Porsche A40, Nissan GT-R, Chrysler MS10850, Chrysler MS10725
<b>Mobil 1™ Turbo Diesel Truck 5W-40</b>	Case - 103171	1130	1250	Advanced full synthetic formula designed for diesel powered pick-ups and trucks.	Most diesel applications including engines with diesel particulate filters.	CJ-4, CI-4, CI-4 Plus, SN, Caterpillar ECF-2 and ECF-3
<b>Mobil 1™ FS X2 5W-50</b>	Case - 112628 55 gal. drum - 105623	1000	1100	Higher Viscosity, advanced full synthetic formula designed for performance vehicles.	Porsche. HT/HS applications.	SN, Porsche A40
<b>Mobil 1™ 15W-50</b>	Case - 103537 55 gal. drum - 101901	1200	1300	Boosted, higher viscosity, advanced full synthetic formula designed for performance vehicles.	HT/HS applications. Racing and Flat tappet applications.	SN
<b>Mobil 1 Racing™ 4T 10W-40</b>	Case - 103436	1100	1200	Advanced full synthetic formulas designed specifically for motorcycles where clutch lubrication is also important.	All motorcycles where 10W-40 is specified.	JASO MA 2011 MA2 2011
<b>Mobil 1™ V-Twin 20W-50</b>	Case - 112630	1600	1750	Advanced full synthetic formulas designed specifically for motorcycles where clutch lubrication is also important.	All motorcycles where 20W-50 is specified, especially V-Twin engines.	SL

## Other Mobil 1 Racing Products

Product	SKU #	Product Description	Recommended Consumer Applications	Industry Approvals
<b>Mobil 1™ Synthetic Gear Lubricant LS 75W-90 &amp; 75W-140</b>	75W-90 Case - 104361 5 gal. - 105704 75W-140 Case - 102490	Mobil 1™ Syn Gear Lube LS 75W-140 is a high performance, synthetic, multi-purpose, automotive gear lubricant designed to help meet the highest level performance requirements of many modern passenger vehicles in all types of operating conditions, from mild to severe, including limited slip applications, as well as deliver outstanding power transfer performance.	Transaxles and rear axles.	GL-5
<b>Mobil 1™ Synthetic ATF</b>	Case - 112980 55 gal. drum - 105473	Mobil 1™ Synthetic ATF is a multi-vehicle, fully synthetic fluid designed to meet the demanding requirements of modern passenger vehicles.	Power steering.	JASO 1-A Ford Mercon V
<b>Mobil 1™ Synthetic Grease</b>	Case- 102481 Cart - 121070	Mobil 1 Synthetic Grease is an NLGI No 2 high-performance automotive grease which combines a synthetic base fluid with a lithium complex soap thickener.	Wheel bearings, suspension points and engine assembly.	NLGI GC-LB
<b>Mobilith SHC 220, 460, 1500</b>	220 5 gal. pail - 105801 40 tubes - 110629 50 gal. bucket - 105792 460 40 tubes - 110630 1500 40 tubes - 110628	Mobilith SHC™ Series greases are superior performance products designed for a wide variety of applications at extremes of temperature. They combine the unique features of synthetic base fluids with those of a high quality lithium complex thickener.	Wheel bearings and tripod joints.	220 - KPHC 2N-30 460 - KPHC 1-2N-40 1500 - KPHC 1-2N-30

## Mobil 1 Gear Lubes & Greases

The same hardworking protection found in Mobil™ motor oils is available in our synthetic gear lubricants and greases.

### Mobil 1 Synthetic Gear Lubricant LS 75W-90 & 75W-140

Mobil 1 Synthetic Gear Lube LS contains a unique proprietary formulation that helps deliver optimized viscosity along with the highest level of formulation stability along with outstanding power transfer performance.

Mobil 1 Synthetic Gear Lube LS key features:

- Meets or exceeds the highest level of performance requirements of many modern passenger vehicles – including limited slip applications.
- Help protect against thermal and oxidative degradation, wear and corrosion, and viscosity loss associated with premature shearing.
- Help promote outstanding power transfer performance – even in some of the most severe driving conditions.



### Mobil Delvac 1 Gear Oil 75W-90 & 80W-140

Mobil Delvac 1 Gear Oil is a fully synthetic drivetrain lubricant designed for use in heavy-duty drivetrains that require gear lubricants with excellent load-carrying capability and where extreme pressures and shock loading are expected.

Mobil Delvac 1 Gear Oil key features:

- Exceptional thermal stability and resistance to high-temperature oxidation help to extend gear, bearing and seal life due to minimal deposits.
- Deliver exceptional shear stability helps to retain viscosity and film strength under severe operating conditions to prevent wear.
- Provide excellent rust, staining and corrosion protection of copper and its alloys helps to reduce wear and provide long component life.



### Mobil 1 Synthetic Grease

All Mobil 1™ lubricants – just like the Mobil 1 family of motor oils – protect hardworking parts from temperature extremes, rust and wear. In fact, we use the same synthetic technology from our motor oil in our fully synthetic grease.

Mobil 1 Synthetic Grease is suitable for:

- Wheel bearings.
- Ball joint suspensions.
- Steering linkages.
- Pin and chassis lube points.
- A wide operating range: -40°C (-40°F) to 150°C (302°F).

Mobil 1 Synthetic Grease is suitable for:

- Excellent resistance to rust and corrosion.
- Strong shock-loading protection.
- Excellent resistance to water washout.
- Outstanding lubrication over a wide temperature range.
- Certification to the NLGI GC-LB specifications for both chassis and wheel bearing lubrication.



## What Champions Say



### Bruno Massel

Owner/Driver - 2014 COPO Camaro  
2014 NHRA US Nationals Winner  
in Stock Eliminator

When pushing factory parts to their limits, Mobil 1™ is a key contributing factor to keeping our COPO moving down the strip, and at the top of the time sheets.



### Jimmy Carr

Race Director, Tony Stewart Racing  
Crew Chief, Donny Schatz No. 15  
Winged Sprint Car

We build all of our chassis and engines with one goal in mind - winning a championship. That performance goal is why we only use Mobil 1 Racing™ oils.



### Tim Brown

Driver/Owner - Brown Motorsports Inc  
10-time Bowman Gray Track Champion

I'm a vehicle dynamics specialist by trade, but a racer by heart. I know that selecting only the best parts will get me ahead of the next guy, so that's why I choose Mobil 1 Racing™ oils.



### Kevin Pranger

Katech Engines and Development  
3-time 24 Hour of Le Mans Winning  
Engine Lead Developer

With more than 30 years in the engine business, Katech has worked with many different oil companies. They all claim their products are special in some way or another. Mobil 1 products are superior in every aspect and they prove themselves on the road and the track. From winning Le Mans to our famous Track Attack Vettes, Mobil 1 products are behind every one of our successes.



### Donny Schatz

Driver, Tony Stewart Racing  
8-time and defending World of Outlaws  
Sprint Car Series Champion

Mobil 1 provides us with unmatched technology and race-proven results. It's great to be partnered with a brand that not only produces championship winning products, but has a passion for the sport.



### Ron Shaver

Engine Builder, Tony Stewart Racing

Mobil 1 Racing oils have been an incredible asset to myself and our company over the past few years. This brand has been involved in the top levels of motorsports for a long time winning countless races and championships and I'm proud to run them in the engines that I support.



### John Heinricy

13-Time SCCA National Champion

I'm an engineer first and a racer second. So no matter what racecar I look to set up, I know having Mobil 1™ under the hood will help reduce unnecessary costs and performance issues.

# Mobil 1 Racing Oils Frequently Asked Questions

## Q.01

What makes Mobil 1 Racing™ oil the best choice for my race engine?

Mobil 1™ has more than 40 years of experience in formulating lubricants for all types of racing worldwide. Engine builders, racers, and team owners have long relied on the high level of performance and engine protection of Mobil 1 engine oils. The Mobil 1 "track use only" Racing oils are the newest in our pedigree of winning formulations and are designed to help improve engine performance and protect against wear.

## Q.02

Can I run the lighter viscosity Mobil 1 Racing™ 0W-30 oil without sacrificing engine durability?

Lighter viscosity oils can be used depending on specifics such as engine design, engine operating temperatures, and type of racing. We recommend to consult your engine builder for advice on your specific application and performance needs.

## Q.03

Can I use Mobil 1 Racing™ oil in my street car?

This is not recommended due to the higher levels of additive elements such as Zinc and Phosphorus contained in Mobil 1 Racing oils which can have an adverse effect on the exhaust emission control systems fitted to street cars.

## Q.04

Do I need to run break-in oil before using Mobil 1 Racing™ oils?

No special break-in oil is recommended.

## Q.05

Can I use Mobil 1 Racing™ oils in a turbocharged application?

Yes. Mobil 1 Racing oils are specifically formulated with race-proven technology that helps combat deposit formation in high temperature areas of the engine such as the turbocharger.

## Q.06

Do you have a tech line that customers can call if they have a question?

Mobil 1 has a dedicated support line for requests regarding the complete line of Mobil 1 products.

## Q.07

How does Mobil 1 Racing™ 0W-50 react to ethanol/methanol-based fuels?

Mobil 1 advanced full synthetic motor oils are compatible with most fuels; however, excess fuel dilution may require more frequent changes and used oil analysis for quality monitoring.