

CONFIDENCE BUILT ON THE TRACK CAM2 was built on INGENUITY, VISION, STRATEGY and INNOVATION. We step forward into the future today with the same ingenuity and vision, but with

**EXPERIENCE, CONFIDENCE and PASSION TO BUILD A BETTER OIL.** 

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# **Products**

SYNAVEX™ and EURO SYNAVEX™
Full Synthetic Motor Oil
SuperPro Max Synthetic Blend Motor Oil
Protect75 High Mileage Motor Oil
dexos1™ Motor Oil
Blue Blood Racing Motor Oil
CAM2 Quality Products





Motor oil reduces wear on moving parts by preventing metal-to-metal contact. Metal touching metal causes friction and grinding, which in turn causes heat, then deterioration and distortion of the metal. Motor oil prevents this by adding a layer of film in between these parts, decreasing friction, and allowing for smooth movement and reduced heat.

Motor oil also serves other functions such as:

- Prevents dirt and deposit build-up by keeping them in suspended in the oil. Contaminants such as dust, fuel combustion products, unburned gasoline that leaks past pistons rings, carbon, and gasoline additives can get into the oil. These contaminants react chemically with the oil in the presence of oxygen to cause harmful varnish, sludge and deposits. CAM2's high quality detergent and dispersant additives keep contaminants suspended in the oil until the oil filter can remove them.
- · Cools moving engine parts by dispersing engine heat
- Keeps engine surfaces clean, preventing rust and corrosion
- Provides protection at start-up, which is when most engine wear occurs

# What is in your CAM2 motor oil?

CAM2 motor oil uses a special formula that combines:

**Base Stocks:** Base stocks make up approximately 80% of a motor oil formula. CAM2 motor oil uses premium conventional base oil, synthetic base oil or a combination of conventional and synthetic base oils.

Conventional base oils are produced by refining crude oil (only 1% to 2% of a barrel of crude oil is suitable for refining into base oil).

Synthetic base oils because they are chemically designed to eliminate impurities and can be reliably tailored to meet the requirements of modern engine manufacturers. Their properties are controlled to make them more resistant to heat, to flow easier, enhance response to additives and be less volatile.

Additives: Performance additives make up the rest of the motor oil formula, enabling the base oil to protect and clean your engine, extending its life. These additives are custom blended and must be replenished through regular oil changes.

<u>Detergents</u>: Clean your engine; prevent rust, corrosion and deposits adhesion

<u>Dispersants</u>: Remove soot and sludge and suspend it in the oil, keeping it from building up. The dirt is then removed from your engine at the next oil change.

<u>Anti-wear Additives</u>: Prevent metal-to-metal contact between engine parts by forming a protective film

Antioxidants: Prevent oxidation, delaying the degradation of your oil

<u>Friction Modifiers:</u> Reduces friction between moving parts, helping improve fuel economy

Rust and Corrosion Inhibitors: Prevent engine corrosion

Extreme Pressure Additives: Decrease wear of parts exposed to high pressure

<u>Viscosity Index Improvers:</u> Additives used to decrease viscosity-temperature dependence of lubricants.

<u>Pour Point Depressants</u>: Improve flow for cold temperatures

Anti-foaming Agents: Reduces foaming and stabilizes

# Why You Change Your Motor Oil

Over time and miles driven, your motor oil deteriorates and its effectiveness decreases due to the accumulation of contaminants in the oil and the depletion of the additives. With every mile, the amount of contaminants in your oil increases. The additives are depleted through use and can only be replenished by oil changes.

Motor oil needs to be changed before the additives are depleted and oil is saturated with contaminants to prevent engine problems. Automotive manufacturers recommend oil change intervals based on the severity of driving conditions.

Consult your owner's manual for specific recommendations for your vehicle. More frequent oil changes are recommended for stop-and-go driving, cold and high temperature weather extremes, extended high speeds, long idling periods, driving in dusty, dirty, or sandy conditions, and extra load pulling.



# **Viscosity**

Choosing a good quality motor oil can be confusing. The first step in selecting the right oil is determining the right SAE viscosity grade to use. The SAE (Society of Automotive Engineers) has classified oil based on how viscous it is, or the oil's resistance to flow at different temperatures; the more viscous (thicker), the more resistance to flowing.

As the temperature drops the oil thickens. Selecting the proper viscosity grade ensures that the oil will flow to engine parts, reducing friction between metal surfaces, reducing high energy loss and surface wear. Viscosity should be high enough to form a protective film, but low enough not to increase energy loss.

SAE classifies oils in two ways, single-grade and multi-grade.

- Single-grade Oil: Or straight-weight oil is suitable for use within a specific temperature range; outside this range, its flow characteristics will not allow adequate lubrication. These have cold weather limitations.
- Multi-grade Oil: These oils are widely used because they allow for easy starting and pumping at low temperatures. Viscosity grades for motor oil are: 0W – 5W – 10W – 15W – 20W – 25W...

The "W" stands for Winter Service. These oils must meet viscosity and performance specifications that permit the oil to flow and pump at low temperatures. The lower the number the better the oil performs in cold operating conditions.

Always consult your owner's manual for specific recommendations for your vehicle.

# How to Pick the Best Motor Oil API Certification Mark "Starburst"

Look for the API Certification Mark "Starburst".

This symbol can only appear if the motor oil meets or exceeds the performance standards set by the American Petroleum Institute. This symbol must appear on the front label of the motor oil container. These oils provide engine protection while also delivering improved fuel economy and emission system protection.

# **API Service Symbol "Donut"**

The API "Donut" identifies oils that meet current API engine oil standards. It includes the SAE viscosity grade of the oil; API standards met by the oil, and other important performance parameters.



The top of the "Donut" displays the motor oil's API performance standard. The letter "S" followed by another letter (API SN) refers to oil suitable for gasoline engines, and the letter "C" followed by another letter and number (API CJ-4) refers to oil suitable for diesel engines. The second letter is assigned alphabetically and indicates the latest technolgy.

The center of the "Donut" shows the motor oil's SAE viscosity grade.

The bottom of the "Donut" tells whether the motor oil has resource-conserving properties when compared with a reference oil in an engine test. Motor oils labeled as "Resource Conserving" have passed this test.

#### Which CAM2 Motor Oil Should You Use:

Depending on your driving habits you can choose one of the following premium CAM2 products:

CAM2 SYNAVEX™ and EURO SYNAVEX™ Full Synthetic Motor Oil - Superior all weather protection.

CAM2 SuperPro Max Synthetic Blend Motor Oil - Best value, with increased protection over conventional oils.

**CAM2 Protect75 High Mileage Motor Oil** - Designed for engines with over 75,000+ miles, has seal conditioners to prevent oil leaks.

**CAM2 dexos1™** - Specially formulated for and licensed by General Motors to meet their Global Engine Oil Specification

**CAM2 Blue Blood Racing Oil** - Perfect for high performance engines. High Zinc formula provides unsurpassed wear protection.

# **How to Change Your Motor Oil**

These instructions are intended as general guidelines. Please consult your owner's or service manual for specific instructions on changing the oil and filter on your vehicle. Always use caution, oil may be hot. Be careful when handling, please see page 8, How to Dispose of Oil.

- 1. Check your owner's manual for recommended oil viscosity and the volume that your car requires.
- Park vehicle on level surface, engage parking brake and turn off engine.



- 3. Open hood. Locate engine oil dipstick and remove to help oil flow when draining.
- 4. Once vehicle is safely and securely supported, locate engine's oil pan and plug, which is a long bolt head at bottom of pan.
- Position oil catch pan, under drain plug. Loosen drain plug using box-end wrench or socket. Carefully remove plug by hand. Oil will flow rapidly from hole, but allow time for all old oil to drain out.
- 6. Wipe the oil pan threads and oil drain plug with a rag and visually inspect the condition of the oil pan and oil drain plug threads and gasket. Buy a replacement drain plug if you have any concerns about the condition of the plug. Replace the drain plug gasket if needed (some OEMs recommend this). Once the oil is finished draining, reinstall the oil drain plug and tighten.
- 7. When changing your motor oil always change your oil filter. Follow filter instructions. Check to make sure filter gasket fom old filter has been removed. Moisten seals and gaskets with clean oil. Do not over tighten.
- 8. Fill vehicle with recommended amount of CAM2 motor oil. Never over or under-fill your oil, check your oil dipstick for proper oil level.
- Start engine and run at idle for minimum of 30 seconds.
   Carefully inspect under vehicle for oil leaks. If leaks are visible, shut off engine immediately and repair leaks.

### **Maintenance**

In between oil changes check your oil level while engine is cold and parked on level ground. Pull out dip stick, wipe with clean cloth. Re-insert dip stick, then pull out and check. Oil should be in between the add and full lines.

# **How to Dispose of your Motor Oil**

Take your used oil in a clean container to an oil collection facility. Used oil can pollute the environment, it should never be poured down the drain. Be careful when handling used oil. Continous contact with used motor oil has caused cancer in laboratory animal tests. Avoid prolonged skin contact with used motor oil. Wash skin thoroughly with soap and water.





CAM2 SYNAVEX™ and EURO SYNAVEX™ MOTOR OIL are premium quality, full synthetic engine oils formulated from selected superior base oils and advanced high performance engine oil additive technology.

- Improves Engine Cleanliness: Detergents in SYNAVEX™
   and EURO SYNAVEX™ provide improved engine cleanliness
   and high temperature deposit protection.
- Helps Improve Fuel Economy: Low friction additives
- Excellent Cold Start-up Protection: SYNAVEX™ and EURO SYNAVEX™ provide quick flow to critical parts at start-up to reduce wear.
- Superior Protection Against Heat, Deposits and Wear
- Reduces Oil Consumption
- SYNAVEX: API SN-RC/ILSAC GF-5: Outstanding Resource Conserving performance. EURO SYNAVEX: ACEA/ API Serive SL (5W-30), ACEA/API Service SN (5W-40)

CAM2 SYNAVEX™ and EURO SYNAVEX™ MOTOR OILS are fully compatible with all other synthetic and petroleum based engine oils.

	0W-20	5W-20	5W-30	5W-40	10W-30
CAM2 SYNAVEX	383	395	393		394
CAM2 EURO SYNAVEX			299	382	

### **ALL WEATHER PROTECTION**

# FILL SYNTHETIC

SYNAVEX™: 0W-20, 5W-20, 5W-30, 10W-30 EURO SYNAVEX™: 5W-30, 5W-40





CAM2 SuperPro MAX is a synthetic blend premium motor oils that provides better low temperature pumpability and protection. It is formulated from a combination of superior synthetic and conventional base oils and an advanced additive package.

- Improved Fuel Economy: Low friction additives
- Low Oil Consumption
- Protects Critical Parts from Excessive Wear
- Excellent Protection from Deposits at All Operating Temperatures
- Start-up Protection when Cold: SuperPro Max provides quick flow to critical parts at start up to reduce wear.
- API SN-RC/GF-5 (5W-20, 5W-30, 10W-30): Meets or exceeds API Resource Conserving standards.
   SuperPro Max 10W-40, and 20W-50 and are licensed API Service SN.

| 5W-20 | 5W-30 | 10W-30 | 10W-40 | 20W-50 | CAM2 SuperPRO MAX | 408 | 409 | 414 | 416 | 417

# **BEST VALUE MAXIMUM PERFORMANCE**

# SYNTHETIC BLEND

5W-20, 5W-30, 10W-30, 10W-40, 20W-50





CAM2 PROTECT75 HIGH MILEAGE Motor Oil is formulated to meet the requirements of higher mileage engines with over 75,000 miles. Most modern engines oils are formulated to meet new car warranty requirements and are not specifically designed to address problems associated with higher mileage engines, such as oil consumption, oil leakage and lower cylinder compression. PROTECT75 is a synthetic blend designed to tackle these problems.

- Reduces Oil Leaks: Special seal conditioning agents prevent deterioration
- Maximizes Power Output: CAM2 PROTECT75 contains specific additives targeted to counter problems such as deposits and build up which can lead to a loss of power and performance.
- Reduces Oil consumption
- Resists Thermal Breakdown
- Protect75 5W-20, 5W-30 and 10W-30 are licensed API Service SN and ILSAC GF-5. 10W-40 is licensed API SN.

CAM2 PROTECT75

5W-20

5W-30 693 10W-30

10W-40 698

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### IMPROVE PERFORMANCE ON ENGINES WITH 75,000 + MILES

# HIGH MILEAGE

5W-20, 5W-30, 10W-30, 10W-40





CAM2 dexos1™ Motor Oil is a premium quality engine oil specially formulated for and licensed by General Motors to meet their Global Engine Oil Specification.

GM recommends use of dexos1™ licensed products for GM vehicles to prevent engine performance problems that may result in damage not covered under warranty.

- Excellent Start-up Protection and Decreases Oil
   Consumption for Sever Conditions: Developed for vehicles
   operating under severe driving conditions or extreme
   temperatures
- Cleans Your Engine: Unsurpassed engine cleaning and increased compatibility with ethanol blended fuels.
- Outstanding Wear Protection: Protection that far exceeds the most stringent car manufacturer requirements for cleaning and protection.
- Meets or Exceeds the Latest API SN-RC Classification and ILSAC GF-5

CAM2 dexos1™ Motor Oil is fully compatible with all other

0W-20 5W-20 5W-30 CAM2 dexos1™ 797 201 118

# GM APPROVED FORMULA

dexos1<sup>™</sup>, GM approved





CAM2's legendary, yet revolutionary, high zinc formula Blue Blood Racing Oils are designed to provide enhanced racing performance and unsurpassed wear protection in today's high-revving, heavy-load competition engines.

- High Zinc Levels for Excellent Anti-Wear Protection
- Excellent Oxidation Stability in High Performance Engines
- Full Synthetic OW-30: Formulated with thermally stable synthetic base stocks and additional friction modifiers to deliver the maximum obtainable horsepower. Blue Blood is especially designed to resist thermal breakdown and can be used with a wide variety of competition fuels.
- 10W-30 and 20W-50: Formulated in combination with synthetic base oil to provide enhanced protection at high and low temperature extremes.
- "Nitro" SAE 70: Formulated for gas, alcohol and nitromethane fueled racing engines that experience extreme load and high temperature conditions. The high viscosity of the oil allows for excessive dumping of fuel "blow by" into the racing oil while maintaining critical protection.

0W-30 | 10W-30 | 20W-50 | Nitro 70 CAM2 BLUE BLOOD | 675 | 676 | 677 | 678

# HIGH ZINC FORMULA

# RACING

0W-30, 10W-30, 20W-50, Nitro 70



CAM2 offers a wide array of premium quality automotive, commercial and industrial lubricants that includes brake fluids, power steering fluids, greases and gear oils, aerosol and liquid pour chemicals, antifreeze, and washer fluid.



### **CAM2 Heavy Duty Products**

CAM2 SYNAVEX™ Ultra HD 5W-40: CJ-4/SN CAM2 Super HD 15W-40, SAE 30, SAE 40, SAE 50: API CI-4/CF-2/SL

CAM2 Super HD Premium Plus 15W-40: CJ-4/SN



#### **CAM2 Gear Oils**

CAM2 SYNAVEX SAE 75W-90 LS Synthetic Gear Oil CAM2 SYNAVEX SAE 75W-140 LS Synthetic Gear Oil CAM2 80W-90 Gear Oil CAM2 85W-140 Gear Oil



### **CAM2 Automatic Transmission Fluids**

CAM2 Dexron®-VI Multi-Vehicle Full Synthetic ATF CAM2 ATF D/M CAM2 Multi Vehicle Synthetic Blend ATF CAM2 ATF 4 CAM2 Synthetic CVT Fluid Transmission Fluid CAM2 Type A ATF



#### **CAM2** Antifreeze

CAM2 Global Prediluted 50/50 Antifreeze
CAM2 Global Full Strength Antifreeze
CAM2 Full Strength Antifreeze & Coolant
CAM2 Prediluted 50/50 Antifreeze & Coolant
CAM2 SuperLife Full Strength Antifreeze & Coolant
CAM2 SuperLife Fleet HD Truck Prediluted 50/50
Antifreeze & Coolant

#### **CAM2 Automotive Products**

CAM2 Windshield Washer Concentrate CAM2 Brake Fluid DOT 3 CAM2 Power Steering Fluid





Manufacturing and Distribution of Quality Lubricants

For more information about CAM2 International contact your CAM2 sales representative or visit us on the web at www.CAM2.com