

# FLUID & LUBRICANT SPECIFICATION CHART

*The Right Fluids for Every Generation of Corvette*

Using the wrong fluids in a classic Corvette is one of the most common and preventable causes of engine damage. Modern oils, coolants, and lubricants are formulated for modern engines—and the chemistry that works in a 2024 sedan can harm a 1967 big block.

This guide covers the specific fluid requirements for C1 through C7 Corvettes, based on decades of hands-on experience at Corvette Connection. When in doubt, call us before pouring anything into your engine.

## THE ZINC ISSUE

Modern conventional oils have reduced zinc (ZDDP) content to protect catalytic converters. Flat tappet cam engines—found in all Corvettes through 1986 and many after—require high-zinc oil or a zinc additive to prevent premature cam and lifter failure. This is not optional.

## Engine Oil

Engine oil is the single most critical fluid decision you will make for your Corvette. The wrong weight or formulation can cause accelerated wear, oil consumption, and in extreme cases, catastrophic engine failure.

### C1 & C2 (1953–1967)

These engines were designed for oils that no longer exist on store shelves. Use **10W-30 high-zinc oil** for stock engines. Brands like Brad Penn, Driven Racing Oil, and Joe Gibbs Driven HR series are specifically formulated for flat tappet engines. If you prefer a conventional oil, add a zinc additive (such as ZDDPlus or Rislone) at every oil change. Change interval: every 3,000 miles or annually, whichever comes first.

### C3 (1968–1982)

Same zinc requirements as earlier generations. For stock engines, **10W-30** is the standard recommendation. For high-performance or rebuilt engines, **20W-50** provides additional protection at operating temperature. Always use a quality filter—AC Delco or Fram are reliable choices. The small-block Chevy is forgiving, but only if you give it the right oil.

## C4 (1984–1996)

The C4 spans the transition from carbureted to fuel-injected engines. Early C4s (L83) still use flat tappet cams and need zinc protection. The LT1 and LT4 (1992–1996) use roller cams and can run **5W-30 synthetic** safely. Mobil 1 is a popular choice in the Corvette community for these engines.

## C5 & C6 (1997–2013)

The LS-series engines are designed for **5W-30 synthetic oil**. GM's own Dexos 1 specification is the baseline. Mobil 1 and Pennzoil Platinum both meet this spec. Change intervals can extend to 7,500 miles with synthetic, but many owners prefer 5,000 miles for peace of mind. The C6 Z06's LS7 has specific oil consumption characteristics—monitor levels regularly between changes.

## C7 (2014–2019)

The LT1 and LT4 engines require **5W-30 Dexos 1 Gen 2** synthetic oil. The oil life monitor is reliable but conservative owners change at 5,000–7,500 miles regardless. The supercharged Z06 (LT4) benefits from more frequent changes if tracked.

## Coolant

Never mix coolant types. Green (conventional) and orange (Dex-Cool) are chemically incompatible and mixing them creates a gel that clogs passages and causes overheating.

- **C1–C4:** Use conventional green ethylene glycol coolant. 50/50 mix with distilled water.
- **C5–C7:** GM specifies Dex-Cool (orange, extended-life). Do not substitute green coolant without a full system flush.
- **All generations:** Flush and replace coolant every 2–3 years regardless of mileage. Corrosion inhibitors deplete over time.

## Transmission Fluid

- **Manual (Muncie, T-10, T-56):** GL-4 gear oil or GM Synchronesh. Never use GL-5 in a manual with brass synchros—it attacks the copper.
- **Automatic (Powerglide, TH350, TH400, 4L60E):** Dexron III or Dexron VI. The newer Dexron VI is backward-compatible.
- **C7 7-speed manual:** Castrol BOT 130 M or equivalent. GM part number 19259104.

## Brake Fluid

Use **DOT 3 or DOT 4** for all generations. DOT 4 has a higher boiling point and is preferred for cars that see spirited driving or track days. Flush every 2 years—brake fluid absorbs moisture from the atmosphere, lowering its boiling point and promoting corrosion inside calipers and lines.

### NEVER USE DOT 5 SILICONE FLUID

DOT 5 does not absorb water—it lets water pool at low points in the system, causing localized corrosion and unpredictable pedal feel. It is incompatible with DOT 3/4 systems and will ruin ABS components. The only exception is a ground-up restoration where the entire brake system is new and will never see DOT 3/4.

## Differential & Rear End

- **C1–C4:** 80W-90 GL-5 gear oil. Add limited-slip additive (GM 1052358 or equivalent) if equipped with Positraction.
- **C5–C6:** 75W-90 synthetic GL-5. Same limited-slip additive requirement.
- **C7:** GM specifies 75W-90 synthetic (GM 19300661). The electronic differential does not require additive.

## Power Steering

Use **GM power steering fluid** or Dexron automatic transmission fluid for all hydraulic power steering systems (C1–C6). The C7 uses an electric power steering rack and has no fluid.

### WHEN IN DOUBT, ASK

Every engine combination is different. If your Corvette has been modified, bored, stroked, or cammed, the fluid specifications may need to change. Call Corvette Connection at 860-645-0184 and we'll recommend exactly what your specific car needs.