AMSOIL PRESS RELEASE **Aug 1 2007**

Motor Oil Gets All New Semantics (first published by Patrick Bedard of *Car and Driver*)

Now that the meaning if "is" has gotten so slippery you need to grab it with both hands, we'd better keep an eye on longer words, too.

One's already got so squirmy on us- "synthetic," as in synthetic motor oil.

Most guys know two things about synthetic oils. First, the price is three to four times that of conventional oils. Second, they're not real oil, not made from crude.

News flash: Scratch that second part. **Now motor oils derived from crude may be labeled "synthetic." But they still cost over four bucks a quart.**

Bait and switch? That's the obvious conclusion. Except in this case the advertising ethics people have given their approval.

Here's what happened, according to a detailed account published in the trade magazine Lubricants World. Late in 1997, Castrol changed the formula of its Syntec "full synthetic motor oil", eliminating the polyalphaolefin (PAO) base stock (that's the "synthetic" part, which makes up about 70% by volume of what's in the bottle) and replacing it with a "hydroisomerized" petroleum base stock.

Mobil Oil Corporation, maker of Mobil 1, "Worlds Leading Synthetic Motor Oil," said no fair and took its complaint to the National Advertising Division (NAD) of the Council of Better Business Bureaus. NAD often arbitrates between feuding advertisers on their conflicting claims.

The notion behind synthetic motor oils as we've known them is an elegant one. Instead of relying on the cocktail of hydrocarbons contained in crude oil, why not go into the laboratory and build the perfect base stock from scratch, molecule by molecule, and builds it till it gets 10-carbon molecules, then combines three of those to form PAO. The result is a fluid more stable than the usual base oils derived from crude. It keeps flowing at low temperatures. It's more resistant to boiling off, and more resistant to oxidation, which causes thickening with prolonged exposure to high temperatures.

Still, there's more than one road to the point B of improved stability. Petroleum refiners in recent years have learned how to break apart certain undesirable molecules - wax, for example, which causes thickening of oil at low temperatures- and transform them by chemical reaction into helpful molecules. These new hydroisomerized base oils, in the view of some industry participants provided properties similar to PAO's but only cost half as much," Lubricants World reported.

The argument before NAD tiptoed around the obvious- does the consumer get four bucks' worth of value from each quart of synthetic oil?- and plunged straight into deep semantics. Mobil's experts said "synthetic" traditionally meant big molecules built up from small ones. Castrol's side held out for a looser description, defining "synthetic" as "the product of an intended chemical reaction."

What do unbiased sources say? It turns out that the Society of Automotive Engineers (SAE) and the American Petroleum Institute (API) both have technical standards covering motor oils, and both of these organizations in the '90's backed away from their old definitions of "synthetic," leaving lots of room for new interpretations.

In the end, NAD decided that the evidence constitutes a reasonable basis for the claim that Castrol Syntec, as currently formulated, is a synthetic motor oil, said Lubricants World.

The obvious question now: Has the term "synthetic motor oil" been opened up to the point that it no longer means anything? Maybe. But here's a better question: Did synthetic ever mean what we thought it meant?

"Great oil" is what most guys think it means. "At that price, it's gotta be great stuff!"

Okay, but how great? Your cars manual tells what motor oil you should use, and with few exceptions, that description will consist of only two specifications. One is for viscosity, such as 10W-30; and the other is for the API service grade, SJ being the current one for gasoline passenger cars.

The buck-a-quart multi-grades meet these standards, as do the synthetics.

The synthetics, on the back label, claim compliance with more standards, but even if you know what they mean, they seem beside the point for U.S. passenger cars. For example, should you care about diesels if you drive a gasoline burner? API service CF is the oldest of the current specs for light-duty diesels; some synthetics list that one. Synthetics may also list ACEA A1 and B1, which are European specs roughly equivelant to API gasoline and diesel specs. The Europeans grad their oils by level of performance, so that A2 and A3 are tougher specs than A1. Same for diesels. Usually the date of the spec is omitted, but A1-98 is newer than A1-96.

Completely absent is the one performance claim that would have some real meaning for all of us- some indication of longer oil life. (**except for AMSOIL which clearly states**

25,000 miles/1-year or 35,000 miles/1-year for their Severe Service 0W-30 synthetic). Automakers hold synthetics to the same oil change intervals as conventional oils. And the oil companies, promise even less. "To give added protection and life to your engine, change your oil every 3000 miles." This same language appears on the back of both Penzoil Synthetic and conventional oils. Valvoline synthetic makes a similar recommendation. (commentary: Since 1972 AMSOIL is the ONLY synthetic oil manufacturer in the world to guarantee 25,000 miles or 35,000 mile oil change intervals and utilizing full PAO synthetic technology exclusively).

Synthetics do get one unambiguous endorsement: Corvettes, Porsches, Vipers, and all AMG models from Mercedes-Benz come with Mobil 1 as the factory fill.

Most synthetics mention GM 4718M in their list of claims; that's the unique spec created by General Motors for Corvette oil. It's a high-temperature requirement that tolerates less oxidation (thickening) and volatility (boil-off) on a standard engine test called Sequence 111E according to engineer Bob Olree of GM Powertrain. (note: AMSOIL 0W-30 far surpasses GM's 4718M spec).

But don't expect to learn such details on any label (again, except for AMSOIL which clearly states test results on the back of every bottle of Series 2000 0W-30 and 20W-50 synthetic). Mobil 1 at least uses straight forward declarative sentences. Most of the others read as though they were written by a lawyer looking for an escape clause. Why else would the following claim be so rubbery? "Penzoil Synthetic motor oil is recommended for use in all engines requiring ILSACGF-1, GF-2, API SJ, SH, or SG, and in engines requiring oils meeting GM 4718M." Okay, but does it actually pass those standards?

"Yes" says James Newsom, Penzoil's motor-oil product manager.

Castrol Syntec, on its label, "exceeds" every standard it mentions. Hmm. Now that the meaning of "is" is in play, I have to wonder, does Syntec meet those standards as well?

"It does" says Castrol's Julie Ann Oberg. While I have her on the phone, I ask if there will be a Syntec price reduction now that the lower-cost base stock has been substituted for the old synthetic. She says no.

End of article.

Now, after reading that why would anybody want to spend their money on a Group 3 Hydroisomerized petroelum oil, marketed as a "synthetic" when you can use a true Group 4 synthetic, such as AMSOIL 25,000 mile/1-year or 35,000 mile/1-year synthetic motor oil?

Why not skip all the hype of other manufacturers and just use AMSOIL Synthetic Lubricants? **AMSOIL uses Group 4 synthetic technology in each of its motor oils and is the undisputed leader in synthetic engine oil technology** as well as the leader in

synthetic gear lubes, transmission fluid, greases, two-cycle oil and many other lubricants and hydraulic fluids. Today, virtually every other motor oil manufacturer has recognized the superiority of synthetic lubricants and has followed the AMSOIL lead with introductions of "synthetic" motor oils of their own.

They spend millions of dollars advertising their "new" and "revolutionary" products. No one, however, can match AMSOIL experience and technological know-how. And no one delivers products like AMSOIL. Accept no substitutes- AMSOIL is the "First in Synthetics."