## **Appendix C**

## Handbook 130 - Uniform Regulation for Method of Sale of Commodities and

## **Uniform Engine Fuels and Automotive Lubricants Regulation**

1	tems	:

Item 232-2:	Uniform Method of Sale of Commodities: 2.33. Oil, 2.33.1.4. Engine Service Category, 2.33.1.4.1. Vehicle or Engine Manufacturer Standards, and 2.33.1.4.2. Inactive or Obsolete Service Category
Item 237-4:	Uniform Engine Fuels and Automotive Lubricants Regulation: 3.13. Oil, 3.13.1.4. Engine Service Category,
	3.33.1.4.1. Vehicle or Engine Manufacturer Standard, and

3.13.1.4.2. Inactive or Obsolete Service Categories)

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## **API Motor Oil Guide**



## API'S CERTIFICATION MARK AND SERVICE SYMBOL

identify quality motor oils for gasoline- and diesel-powered vehicles. Oils displaying these marks meet performance requirements set by U.S. and international vehicle and engine manufacturers and the lubricant industry. More than 500 companies worldwide participate in this voluntary program, which is backed by a marketplace sampling and testing program.

# GET MORE FROM YOUR MOTOR OIL.

Follow vehicle manufacturer's oil change recommendations. This includes using recommended SAE oil viscosity and ILSAC or API performance standard.

If you find it necessary to mix brands of oil, use the same viscosity grade and API service category to maintain performance.

Properly dispose of used oil. Learn more about recycling used oil at www.recycleoil.org. Go to www.earth911.com for used oil collection center locations.

ASK FOR API-LICENSED OIL WHENEVER YOU HAVE YOUR OIL CHANGED.

LOOK FOR THE API CERTIFICATION MARKS EVERY TIME YOU BUY MOTOR OIL.

FOR MORE INFORMATION VISIT WWW.API.ORG/EDLCS

LEARN ABOUT THE CHEMICAL ADDITIVES IN MOTOR OIL AT WWW.AMERICANCHEMISTRY.COM



# THE API CERTIFICATION MARK, ALSO KNOWN AS THE "STARBURST"

An oil displaying this mark meets the current engine protection standard and fuel economy requirements of the International Lubricant Standardization and Approval Committee (ILSAC), a joint effort of U.S. and Japanese automobile manufacturers. Automobile manufacturers recommend oils that carry the API Certification Mark. See the ILSAC STANDARD FOR PASSENGER CAR ENGINE OILS chart on the next page for descriptions of current and obsolete ILSAC standards.

# THE API SERVICE SYMBOL, ALSO KNOWN AS THE "DONUT"

## 1. PERFORMANCE LEVEL

Gasoline engine oil categories (for cars, vans, and light trucks with gasoline engines): Oils designed for gasoline engine service fall under API's "S" (Service) categories. See inside for descriptions of current and obsolete API service categories. Diesel motor oil categories (for heavy-duty trucks and vehicles with diesel engines): Oils designed for diesel-engine service fall under API's "C" (Commercial) categories. See the GASOLINE ENGINES and DIESEL ENGINES charts on the next pages for descriptions of current and obsolete API service categories.

### 2. VISCOSITY GRADE

The measure of an oil's ability to flow at certain temperatures. Vehicle requirements may vary. Follow your vehicle manufacturer's recommendations on SAE oil viscosity.

### 3. RESOURCE CONSERVING or ENERGY CONSERVING

These designations apply to oils intended for gasoline-engine cars, vans, and light trucks. Widespread use of "Resource Conserving" or "Energy Conserving" oils may result in an overall savings of fuel in the vehicle fleet as a whole.

### 4. MULTIPLE PERFORMANCE LEVELS

Oils designed for diesel engine service might also meet gasoline engine service. For these oils the designation is "C" category first followed by the "S" category. "C" category oils have been formulated primarily for diesel engines and may not provide all of the performance requirements consistent with vehicle manufacturers' recommendations for gasoline-fueled engines.

#### 5. THE API SERVICE SYMBOL WITH CI-4 PLUS

The "CI-4 PLUS" designation identifies oils formulated to provide a higher level of protection against soot-related viscosity increase and viscosity loss due to shear in diesel engines. When originally introduced, CI-4 PLUS identified CI-4 oils meeting a higher level of performance. CI-4 oils include all CI-4 PLUS performance requirements. CI-4 PLUS appears in the lower portion of the API Service Symbol "Donut."





The current and previous ILSAC standards and API Service Categories are listed here. Vehicle owners should refer to their owner's manuals before consulting these charts. Oils may have more than one performance level.

For automotive gasoline engines, the latest ILSAC standard or API Service Category includes the performance properties of each earlier category and can be used to service older engines where earlier category oils were recommended.

ILSAC STANDARD FOR PASSENGER CAR ENGINE OILS				
NAME	STATUS	SERVICE		
GF-5	CURRENT	Introduced in October 2010 for 2011 and older vehicles, designed to provide improved high temperature deposit protection for pistons and turbochargers, more stringent sludge control, improved fuel economy, enhanced emission control system compatibility, seal compatibility, and protection of engines operating or ethanol-containing fuels up to E85.		
GF-4	OBSOLETE	Valid until September 30, 2011. Use GF-5 where GF-4 is recommended.		
GF-3	OBSOLETE	Use GF-5 where GF-3 is recommended.		
GF-2	OBSOLETE	Use GF-5 where GF-2 is recommended.		
GF-1	OBSOLETE	Use GF-5 where GF-1 is recommended.		

CATEGORY	STATUS	SERVICE
SN	CURRENT	Introduced in October 2010 for 2011 and older vehicles, designed to provide improved high temperature deposit protection for pistons, more stringent sludge control, and seal compatibility. API SN with Resource Conserving matches ILSAC GF-5 by combining API SN performance with improved fuel economy, turbocharger protection, emission control system compatibility, and protection of engines operating on ethanol-containing fuels up to E85.
SM	CURRENT	For 2010 and older automotive engines.
SL	CURRENT	For 2004 and older automotive engines.
SJ	CURRENT	For 2001 and older automotive engines.
SH	OBSOLETE	
SG	OBSOLETE	
SF	OBSOLETE	
SE	OBSOLETE	CAUTION: Not suitable for use in gasoline-powered automotive engines built after 1979.
SD	OBSOLETE	<b>CAUTION:</b> Not suitable for use in gasoline-powered automotive engines built after 1971. Use in more modern engines may cause unsatisfactory performance or equipment harm.
sc	OBSOLETE	<b>CAUTION:</b> Not suitable for use in gasoline-powered automotive engines built after 1967. Use in more modern engines may cause unsatisfactory performance or equipment harm.
SB	OBSOLETE	<b>CAUTION:</b> Not suitable for use in gasoline-powered automotive engines built after 1951. Use in more modern engines may cause unsatisfactory performance or equipment harm.
SA	OBSOLETE	<b>CAUTION:</b> Contains no additives. Not suitable for use in gasoline-powered automotive engines built after 1930. Use in more modern engines may cause unsatisfactory performance or equipment harm.

#### AMERICAN PETROLEUM INSTITUTE | ENGINE OIL LICENSING AND CERTIFICATION SYSTEM

1220 L Street, NW | Washington, DC 20005-4070 | USA | Sales: 713-964-2652 | Service: 202-682-8516 | Fax: 202-962-4739 | Email: eolcs@api.org | www.api.org/eolcs Copyright 2010 - American Petroleum Institute, all rights reserved, API, the API logo, the API Service Symbol (Donut), the API Service Symbol with CH4 PLUS logo and the API Certification Mark (Starburst) are either trademarks or registered trademarks of API in the United States and/or other countries. API Communications: 2010-140 | 12.02.10 | PDF Response to 232-2 and 237-4
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API supports the current language in Handbook 130 paragraphs 2.33.1.4.1 and 3.13.1.4.1 approved at the July 2012 National Conference on Weights and Measures meeting. In response to the comments received in support of new items 232-2 and 237-4, we offer the following comments for consideration.

- "Older, specialty, and some non-American vehicles take engine oil not listed as active under API's private regulatory scheme"
  - API's Engine Oil Licensing and Certification System is a voluntary program based on consensus-based industry standards; it's not a private regulatory scheme.
  - API and ILSAC standards are developed in cooperation with OEMs, oil marketers, additive companies, test labs, and other interested parties. This includes AOCA.
  - API declares categories obsolete when the tests used to verify those levels of performance no longer exist.
    - For example, API SG was in use through 1993, but the engine tests used to measure SG performance are no longer available. The engine manufacturers stopped making the engines and parts used by the tests.
    - Without SG engine tests, oil marketers might be able to refer to old SG data to confirm an SG oil's ability to protect against wear and prevent sludge and varnish. Marketers seeking to develop new SG formulations don't have SG engine tests to verify performance.
- "If OEMs recommend those engine oils for their vehicles, consumers have a right to use them
  regardless of API's blessing, and installers and retailers should be able to sell them without
  obstruction"
  - API doesn't recommend engine oils for vehicles—OEMs do.
  - Most US, Japanese and South Korean OEMs recommend oils licensed to use the API Starburst.
    - The Starburst identifies oils meeting the most recent ILSAC performance standard. Today, that's GF-5. If the Starburst appears in an owner's manual, the OEM is recommending the vehicle owner use GF-5.
    - The Starburst system is possible because oils meeting ILSAC standards are backward compatible: the latest ILSAC standard meets or exceeds the previous standard. If an owner's manual for a 1998 model year vehicle includes the Starburst, the OEM is recommending the owner use the latest ILSAC standard (in this case GF-5).

Appendix C – Item 232-2: Uniform Regulation for Method of Sale of Commodities and Item 237-4: Uniform Engine Fuels and Automotive Lubricants Regulation

- If an installer stocks in bulk an oil meeting an older API performance standard (for example API SF), how would the installer ensure this older oil is not installed in a newer engine unless the installer follows the requirements in the approved National Conference language?
- "The average fast lube customer doesn't recognize API or SAE to mean anything in particular"
  - We agree—that's why API launched a new program to educate marketers, distributors, installers and consumers on the importance of oil quality.
  - This includes educating everyone on the meaning of the API Starburst and Donut.
- "When API publishes a new edition of 1509 and/or creates a new service category, a reasonable phase-in period for bulk oil stock is necessary to accommodate older vehicle owners' needs"
  - API provides a phase-in for all new API Starburst and Donut performance standards.
    - We start with a six- to nine-month waiting period before API begins licensing oils against the standard.
    - This is followed by a one-year period when the previous and new standards coexist.
    - Then, according to OEM recommendations, consumers with a Starburst in their owner's manual are recommended to start using oil's meeting the new standard.
  - API does maintain older standards where possible. Currently, three older "S" categories (SJ, SL, and SM) can still be licensed. This is possible because the engine tests for these categories are still available.
- "Although it is common for API to retain a couple of the most recent service categories as "active," API could choose to make all but the most recent service category "obsolete"
  - API declares service categories obsolete when the tests used to verify their performance are no longer available.
  - If API were to consider making a category obsolete while the engine tests were still available, API would need to ballot the change through our consensus-based standardssetting process.
- "And what about packaged engine oil products already on the shelf or in the distribution chain when API makes a unilateral decision to deactivate an engine oil category?"
  - API-licensed products packaged before category obsolescence are considered licensed after the obsolescence date. We can verify date of manufacture through the oil bottle's traceability code. All packaged API-licensed oils are required to include traceability codes.
  - Unilateral decision? No tests available results in category obsolescence.