

**Garuda Emblem****Notification of Department of Energy Business  
Prescribing the Characteristic and Quality of Engine Oil  
B.E. 2547 (2004)**  
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In order to establish the characteristic and quality of engine oil that is appropriate and in accordance with the international standards, and to supervise the oil traders more efficiently, by virtue of provisions of the first paragraph of Section 25 of the Petroleum Trade Act, B.E. 2543 (2004), the Director-General of the Department of Energy Business hereby issues the notification as follows:

Clause 1 This notification shall be called the “Notification of the Energy Business Prescribing the Characteristic and Quality of Engine Oil, B.E. 2547”.

Clause 2 This notification shall come into force as from May 4 B.E. 2547 (2004) onwards.

Clause 3 The notification of the Department of Commercial Registration Prescribing the Characteristic and Quality of Engine Oil B.E. 2544 (2001) shall be repealed.

Clause 4 This notification shall not have legal force on the engine oil sold or to be sold to outside the kingdom.

Clause 5 In this notification

“Engine Oil” means engine oils for 4-stroke engines and diesel engines.

Clause 6 Characteristic and quality of engine oil shall be specified as 2 types as follows:

(1) Characteristic and quality regarding the chemical and physical properties shall be in accordance with the details annexed hereto.

(2) Characteristic and quality regarding the engine performance shall be in accordance with the details notified by engine oil trader and approved by the Director-General.

Clause 7 Engine oil having characteristic and quality regarding engine performance in quality levels as classified by the American Petroleum Institute (API) as the followings shall not be distributed within the kingdom.

- (1) Engine oil for 4-stroke engines having the quality levels of SA and SB
- (2) Engine oil for diesel engines having the quality levels of CA and CB

Clause 8. An engine oil trader who wishes to distribute engine oil or to possesses engine oil for distribution as follows shall notify characteristic and quality of the engine oil according to Form Nor Por 421 annexed hereto in order to obtain an approval from the Director-General.

- (1) Engine oil blender
- (2) Engine oil importer
- (3) Engine oil trader who possesses his own trade name or trade mark that is used or to be used for such engine oil

Clause 9 In notifying characteristic and quality of the engine oil, notification form and other required documents shall be submitted to the Bureau of Fuel Quality, Department of Energy Business.

Clause 10 When it appears that the documents submitted by the oil trader to obtain an approval according to Clause 9 are not correct or not complete, the Director General may give an order to the oil trader to correct the mistakes or to submit the additional documents within 30 days from the date on which the oil trader receives the order.

If the oil trader fails to correct the mistakes or to submit the additional documents within the period specified in Paragraph 1, it shall be deemed that the oil trader does not wish to continue applying for an approval.

Clause 11 When the Director-General approved the characteristic and quality of engine oil as notified by the oil trader, the Department of Energy Business will issue a certificate of approval in which a registration number is specified according to Form Nor Por 422 attached hereto.

The registration number specified by the Department of Energy Business comprises a Tor Por symbol and a registration number inside a rectangle as follow:



The certificate of approval according to Paragraph 1 is valid for 3 years as from the date of issuance and can be renewed according to Clause 12.

Clause 12 Oil trader who wishes to renew the certificate of approval according to Clause 11 shall submit an application form according to Form Nor Por 423 attached hereto within a period of 60 days prior to the expire date.

The renewed certificate of approval shall be valid for a period of 3 years as from the expire date of the certificate of approval or the expire date of the latest renewed certificate of approval as the case may be.

Clause 13 When the oil trader submit an application for renewing the certificate of approval within a period specified in Clause 12 Paragraph 1, it shall be deemed that such certificate of approval is still valid until the Director-General issues an order refusing the renewal of the certificate of approval.

Clause 14 In case where an oil trader fails to submit an application form for renewing the certificate within a period specified in Clause 12 Paragraph 1, it shall be deemed that the certificate of approval is revoked.

Clause 15 When the Director-General approved the characteristic and quality of the engine oil according to Clause 11 or permitted a renewal of the certificate of approval according to Clause 12, if it appears later that the documents submitted for the application contain discrepancies or mistakes, the Director-General may issue an order to the oil trader to submit additional documents to dissolve the discrepancies or to correct such mistakes within 30 days as from the date of receipt of such order.

If the oil trader fails to submit the documents or to make corrections within the period specified in Paragraph 1, the Director-General may issue an order to revoke the certificate of approval issued according to Clause 11 or renewed according to Clause 12.

Clause 16 In distributing an engine oil specified in the certificate of approval according to Clause 11 or in the renewed certificate of approval according to Clause 12, the oil trader shall comply to the conditions as follows:

(1) In distributing an engine oil in a container of size not exceeding 210 liters, the label shall at least contain the following information:

(a) name, viscosity grade, and quality level of the engine oil

(b) registration number displayed in a pattern as specified by the Department of Energy Business

(c) name and place of business of the blender, importer, or the oil trader who possesses his own trade name or trade mark that is used or to be used for such engine oil.

(d) manufacturing date and / or packing date

(2) In distributing an engine oil in a container of size exceeding 210 liters, the oil trader shall provide and give the details according to (1) to the purchaser

(3) When there is a change in name or a relocation of head office, production place, packing place or storage place, from what has been approved, or there is a stoppage of production, distribution, or import of engine oil, the oil trader shall notify the change or the stoppage to the Department of Energy Business within 30 days from the date of change or stoppage of production, distribution or import as the case may be.

(4) Oil trader shall notify an annual trade volume of engine oil according to Form Nor Por 424 attached hereto to the Department of Energy Business within the January 15th of the following year.

(5) Oil trader shall have duty to collect samples of engine oil and to submit to the competent officer to perform an inspection on the characteristic and quality from time to time as ordered by the competent officer.

Clause 17 For the engine oil specified in the certificate of approval issued in accordance with the Notification of the Department of Commercial Registration Prescribing the Characteristic and Quality of the Engine Oil dated 5 April B.E. 2544 (2001), the oil trader may still use the old registration number until 31 December B.E. 2547 (2004).

When the said period elapsed, if the certificate of approval according to Paragraph 1 is not expired, the oil trader may use a new registration number as designated by the Department of Energy Business according Clause 11 Paragraph 2 until its expire date.

Clause 18 In case where the certificate of approval in accordance with the Notification of the Department of Commercial Registration Prescribing the Characteristic and Quality of the Engine Oil dated 5 April B.E. 2544 (2001) is expired before 31 December B.E. 2547 (2004), the oil trader who wishes to renew a certificate of approval shall act according to Clause 12 whereas the Department of Energy Business shall designate a new registration number in a new certificate of approval; however the oil trader may still display the old registration number in the label until 31 December B.E. 2547 (2004).

Notified on 19 April B.E. 2547

Signed : Viroj Klangboonkrong

(Viroj Klangboonkrong)

Director-General of the Department of Energy Business

**Annex of the Notification of Department of the Energy Business  
Prescribing the Characteristic and Quality of Engine Oil B.E. 2547**

**Chemical and Physical Properties of Engine Oil**

No.	Item	Limit	Viscosity Grade												Test Method	
			0W	5W	10W	15W	20W	25W	30W	40W	50W	60W	70W	80W		
1.	Viscosity															
	1.1 at Temperature of ...°C		-35	-30	-25	-20	-15	-10	-	-	-	-	-	-	-	ASTM D 5293
	Centipoise (cP)	Max	6,200	6,600	7,000	7,000	9,500	13,000								
	1.2 at 100°C	Min	3.8	3.8	4.1	5.6	5.6	9.3	5.6	9.3	12.5	16.3	21.9			ASTM D 445
	CentiStoke (cSt)	Max		-	-	-	-	-	<9.3	<12.5	<16.3	<21.9	<26.1			
2.	Viscosity Index	Min	--		--		--						92			ASTM D 2270
3.	Flash Point , °C Min			182				199					204			ASTM D 92
4.	Pour Point , °C	Max	-	-	-	-	-	-					-6			ASTM D 97
5.	Copper Strip Corrosion	Max						No. 2a								ASTM D 130
6.	Water Content , vol%	Max						0.05								ASTM D 95
7.	Sediment Content , vol%	Max						0.07								ASTM D 2273
8.	Foaming Characteristics , ml															ASTM D 892
	8.1 Tendency ,Sequence 1/2/3															
	- Quality Level Lower Than API SH and API CG-4	Max						25/150/25								
	- Quality Level of API SH (Except SAE 5W-30 , 10W-30 and 15W-40)	Max						25/150/25								
	- Quality Level of API SH (SAE 5W-30, 10W-30 and 15W-40 only) and API SJ and API SL	Max						10/50/10								
	- Quality Level of API CG-4, API CH-4 and API CI-4	Max						10/20/10								
	8.2 Stability , Sequence 1/2/3	Max						nil/nil/nil								

**Chemical and Physical Properties of Engine Oil**

No.	Item	Limit	Viscosity Grade												Test Method
			0W	5W	10W	15W	20W	25W	30W	40	50	60			
9.	Phosphorus Content , wt%														ASTM D 6443
	- Quality Level of API SH (SAE 5W-30 and 10W-30 only)	Max	0.12												
	- Quality Level of API SJ (SAE 0W-20, 5W-20, 5W-30 and 10W-30 only)	Max	0.10												
	- Quality Level of API SL (SAE 0W-20, 0W-30, 5W-20 , 5W-30 and 10W-30 only)	Max	0.10												

- Note 1. Equivalent test methods may also be used but in case of discrepancy the method specified in the above table shall be used for final judgement.
- For multigrade engine oil, its characteristic and qualities must be in accordance with those specified for both monogrades as covered in the multigrade.
  - Item 8 and 9 of the engine oil of quality levels higher than API SL and API CI-4 shall be in accordance with those specified by the American Petroleum Institute (API) or specified in ASTM D 4485. Other quality levels shall be in accordance with those specified by the standard setters.

Garuda Emblem Department of Energy Business	<b>Application Form for an Approval of                  Engine Performance</b>	Office use only
		Form No. .... Submission Date.....
Applicant Blender Importer  Engine oil trader who possesses his own trade name or trademark that is used or to be used for engine oil	Natural person      Juristic person  Name..... Juristic person registration No. ....	Registration No. Tor Por ..... Tor Por ..... Tor Por .....

I hereby notify the engine performance of engine oil of ..... sample(s) as follows:

Address/Location of Head Office	No.....Moo..... Trok/Soi..... Street..... Sub-district (Tambol).....District (Amphur).....Province..... Zip Code.....Tel.....Fax.....
Blended by/ Blending Location	Name..... No.....Moo..... Trok/Soi..... Street..... Sub-district (Tambol).....District (Amphur).....Province..... Zip Code.....Tel.....Fax.....
Packed by/ Packing Location	Name..... No.....Moo..... Trok/Soi..... Street..... Sub-district (Tambol).....District (Amphur).....Province..... Zip Code.....Tel.....Fax.....
Kept by/ Storage Location	Name..... No.....Moo..... Trok/Soi..... Street..... Sub-district (Tambol).....District (Amphur).....Province..... Zip Code.....Tel.....Fax.....
Details of Engine oil	Name of Engine Oil..... Quality Level      API (SC and higher, CC and higher).....  Others (In case that no engine test according to API is available)  ACEA..... JASO..... GLOBAL..... OEM..... Viscosity Grade SAE.....

<p>Documents Attached herewith</p>	<p><b>1. <u>Engine performance characteristic and quality</u></b></p> <p>(1) Engine performance notification form according to Form Nor Por 421/1</p> <p>(2) Engine oil formulation according to Form Nor Por 421/2</p> <p>(3) Additive data sheet which shall include at least name, function, application, dosage, TBN, elemental content, and chemical and physical properties</p> <p>(4) Base oil (used in product blending) data sheet which shall include at least production source, group as classified by API , chemical and physical characteristic such as sulfur content, viscosity index, and saturates content (required only for engine oil of quality level API SH and higher, and CG-4 and higher)</p> <p>(5) Engine test results according to Form Nor Por 421/3</p> <p>(6) Original test formulation according to Form Nor Por 421/4</p> <p>(7) Letter of the entitlement to quote from the documents previously approved according to Form Nor Por 421/5</p> <p style="text-align: center;"><b>{Item (2)-(6) are exempted if item (7) is submitted}</b></p> <p><b>2. <u>General Information</u></b></p> <p>(1) A copy of an affidavit of company registration issued not exceeding 6 months prior to the date of application (not required if on-line checking is accessible)</p> <p>(2) A copy of an identification card (in case of natural person)</p> <p>(3) Letter of attorney (if any) with copies of the identification cards of grantor(s) and grantee(s)</p> <p>(4) Other documents.....</p>
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I hereby certify that the information given in this form is correct and true.

Signature..... (Applicant)

(.....)

Date.....Month.....Year.....

Company Seal

**Engine Performance Notification Form**  
(For Application Form No. ....)

Name of Engine Oil Trader .....

Name of Engine Oil .....

Quality Level .....

SAE Viscosity Grade .....,.....,.....,.....,.....,.....

TBN / Elemental Content	Limit		Test Method <sup>(3)</sup>	
	Min	Max		
TBN <sup>(1)</sup>			ASTM D 2896	
Elemental Content <sup>(2)</sup> (wt%)	Calcium (Ca)		ASTM D 6443	
	Magnesium (Mg)			
	(P) Phosphorus			
	(Zn) Zinc			
				Other.....
	.....			
	.....			
	.....			

- Note 1. TBN shall be declared as integer and shall be within +/- 20% from the typical value.
2. All elements in main active ingredients shall be declared. Elements present at 100 ppm or higher shall be declared with 2 decimal points. Elements present at less than 100 ppm shall be declared with 3 decimal points. All figures shall be within +/- 20% from the typical values.
3. Equivalent test methods may be used but in the case of discrepancy the specified method shall be used for final judgement.

I hereby certify that the information given in this form is correct and true.

Signature..... (Applicant)  
(.....)

Date.....Month.....Year.....

Company Seal

**Formulations of Engine Oil to be Registered**

Product name .....

Quality level .....

SAE viscosity grade .....

<b>Blending component<sup>1)</sup></b>	<b>Wt %</b>
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
Total	100 %

**Note**

1) All components except dye and perfume shall be declared. For engine oil of quality level API SH and/or CG-4 or higher, group of base stock according to as classified by API , name and location of manufacturer of any base stock used shall be declared.

I hereby certify that the information contained in this form is true and correct.

**Applicant**

Signature.....

Typed name.....

Title.....

Date.....

Company seal

**Engine Oil blender**

Signature.....

Typed name.....

Title.....

Date.....

Company seal

Summary of Engine Test Results

Parameters	Test limits	Results	Oil code	Name of test sponsor	Name of testing laboratory	Test run

d by testing laboratory

y that the information contained in this form is true and correct.

.....  
.....  
.....  
.....

Engine Oil Blender  
Signature.....  
Typed name.....  
Title.....  
Date.....

Applicant  
Signature.....  
Typed name.....  
Title.....  
Date.....

Company seal

Company seal

Company seal

Formulations of Engine Oil Used During the Conduct of a Test Program

Oil Code	SAE Viscosity Grade	Formulation, wt% <sup>1)</sup>

Note

1) All components shall be declared. For engine oil of quality level API SH and/or CG-4 or higher, group of base stock as classified by API, name and location of manufacturer of any base stock used shall be declared.

I hereby certify that the information contained in this form is true and correct.

Test Sponsor

Engine Oil Blender

Signature.....

Signature.....

Typed name.....

Typed name.....

Title.....

Title.....

Date.....

Date.....

Company seal

Company seal

Applicant

Signature.....

Typed name.....

Title.....

Date.....

Company seal

**Letter of the Entitlement  
to quote from the documents previously approved**

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Date.....

1. I .....has notify the characteristic and quality and the production formulation of the engine oil named....., with quality level of ....., and viscosity grade of SAE....., ....., and has been granted an approval as in the certificate of approval number.....issued on.....

2. I entitle the engine oil trader named ....., to quote the documents regarding the engine performance of the engine oil and the production formulation that I was granted an approval according to 1 for an evaluation of the engine performance of the engine oil named..... with quality level of ....., and viscosity grade of SAE....., .....,

In this regard, I allow do not allow the said engine oil trader to view or to duplication the reference documents.

.....  
.Grantor

CompanySeal

( )

..... Witness

( )

..... Witness

( )

No.....

**Garuda Emblem**

**Certificate of Approval  
of the Engine Performance of the Engine Oil**

**This certificate of approval is issued to certify that**

An engine oil trader name.....  
Locates at.....  
is granted an approval of the engine performance of the engine oil  
named.....  
quality level.....  
viscosity grade SAE.....

**whereas the registration numbers are designated as the followings**

SAE.....		<input type="text"/>
SAE.....		<input type="text"/>
SAE.....		<input type="text"/>

**This certificate of approval is valid from .....to.....**

issued on .....

.....

Department Seal

**Annex of the Notification of Department of the Energy Business  
Prescribing the Characteristic and Quality of Engine Oil B.E. 2547**

Form Nor Por 423

<b>Garuda Emblem Department of Energy Business</b>	<b>Application Form for Renewing the Certificate of Approval</b>	Office use only
		Form No.....
		Submission Date.....
Applicant Blender    Importer  Engine oil trader who possesses his own trade name or trademark that is used or to be used for engine oil	Natural person      Juristic person  Name.....  Juristic person registration No. ....	

I hereby apply for a renewal of the certificate of Approval No. ....dated.....  
whereas the details are as follows:

renewal without cancellation of engine oil registration number

renewal with cancellation of some engine oil registration numbers as follows:

- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....
- .....

Whereas the characteristic and qualities, the production formulations of the engine oils according to the registration numbers are consistent with those previously approved by the Department of Energy Business.

I hereby certify that the information contained in this form is true and correct.

Signature.....Applicant

(.....)

Date.....Month.....Year.....

**Company Seal**

Published in the Government Gazette, General Notification Vol 121, Special Part 46 Ngor, dated April 27 B.E. 2547

Form

**Report Form for Trade Volume of Engine Oil for 4-Stroke Gasoline Engines and Diesel Engines**

Name of Engine Oil Trader.....

For Year .....

Volume : Liter

API	Name of Engine Oil	Quality Level	Viscosity Grade (SAE)	Supply Volume			Trade Volume	
				Production	Purchased from Local Blenders	Import Local	Export	
Total								

Signature.....Engine Oil Trader

(.....)

Date.....Month.....Year.....

Company Seal