



GAS ENGINE OIL M40 (M)

Long-life Gas Engine Oil

The total energy system (TES) with the gas engine is the system to supply electricity and power by the gas engine which uses city gas as fuel, and performs hot water supply and the air-conditioning in facilities using the exhaust heat. Gas engine oil used for this system is always exposed to the severe condition of the high temperature. **GAS ENGINE OIL M40 (M)** is high performance low ash type gas engine oil for medium and large size gas engines, which achieves long-life by the adoption of the new additives. Also, it is classified to the designated combustible liquid category under the Fire Defense Law in Japan because of the high flash point of over 250 °C.

● Special Features

1. Long-life Type Oil

GAS ENGINE OIL M40 (M) was able to satisfy the long-life performance and contradicting demand of the reduction of the deposit in the engine by the development and adoption of the new additives. **GAS ENGINE OIL M40 (M)** is superior in long-time base number retention and is the oil of long-life type with high viscosity index, which has the good performance to restrain acid number increase and viscosity increase.

2. Outstanding Thermal & Oxidation Stability

In the case of a gas engine, the lubricant is deteriorated by the oxidation easily because it is exposed to high temperatures for a long time.

GAS ENGINE OIL M40 (M) is superior in thermal and oxidation stabilities and can maintain good performance for a long time.

3. Low Deposit Generation

In general, the gas engine oil becomes easy to generate deposit when quantity of additive such as detergent increases.

GAS ENGINE OIL M40 (M) is low ash type oil by the adoption of the new additives which can reduce deposit adhesion to a piston and a valve.

● Oil exchange period

Please follow the instruction manual of the engine manufacturer.

● Containers

200-liter drums, 20-liter pail cans

● Typical properties of GAS ENGINE OIL M40 (M)

SAE viscosity grade		40
Color (ASTM)		L3.0
Density (15 °C)	g/cm ³	0.869
Kinematic Viscosity (40 °C)	mm ² /s	101.9
	(100 °C)	13.84
Viscosity Index		137
Flash Point (COC)	°C	266
Pour Point	°C	-30.0
Acid Number	mgKOH/g	1.71
Base Number (ASTM D664)	mgKOH/g	4.71
Base Number (ASTM D2896)	mgKOH/g	8.14
Sulfated Ash	mass%	0.50

Note: the typical properties are subject to change without notice.
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Handling Precautions

▼ Follow these precautions when handling this product.

! CAUTION Handling Precautions	<ul style="list-style-type: none">● Draining oil from a hot engine can cause <u>burns</u>. Drain oil only <u>after the engine has cooled</u>.● <u>Inflammation can occur if oil enters the eyes</u>. When handling this oil, wear <u>protective goggles</u> or take other measures to <u>prevent eye contact</u>.● <u>Inflammation can occur if oil comes into contact with skin</u>. When handling this oil, wear <u>protective gloves</u> or take other measures to <u>prevent skin contact</u>.● Do not drink this oil. (Swallowing this oil can cause diarrhea and nausea.)● <u>Keep out of reach of children</u>.● Read the Safety Data Sheet (SDS) for this product before using the product. Obtain the Safety Data Sheet from where you purchased the product.
First Aid	<ul style="list-style-type: none">● In case of eye contact, rinse eyes thoroughly with clean water and consult with a physician.● In case of skin contact, wash skin thoroughly with soap and water.● If this oil is swallowed, do not induce vomiting. Consult with a physician immediately.
Disposal of Used Oil and Containers	<ul style="list-style-type: none">● Do not apply pressure to empty containers. The containers may burst if pressure is applied.● Do not weld, heat, drill, or cut the containers. The remaining oil may ignite and the containers may explode.● Follow all applicable laws and regulations when disposing of used oil or containers. If you are unsure of the proper disposal methods, consult first with the seller of the oil.
Storage Method	Seal the container tightly after use in order to prevent dirt, moisture, etc., from entering the oil. Store in a dark location. Avoid direct sunlight.