



# HDAX<sup>®</sup> Low Ash Gas Engine Oil

## Gas Engine Oil

Product Data Sheet

### Customer benefits

#### Maximizes oil service life

Synergy of ISOSYN<sup>®</sup> base oils, oxidation inhibitor package and dispersant provides outstanding oxidation and nitration resistance, reducing the buildup of sludges which lead to oil thickening and filter blockage.

#### Lowers operating costs

Excellent deposit control on valves and piston reduces oil consumption. Exceptional oxidation and nitration resistance and deposit control extends oil drain capability so that equipment is in service longer generating revenue. Outstanding valve train wear protection maintains fuel economy.

#### Minimizes maintenance costs

Exceptional oxidation resistance and dispersancy minimizes sludge formation, avoiding filter plugging, cylinder head sludge, abrasive polishing wear and oil thickening.

#### Extends engine life to overhaul

High level of anti-wear additive protects against valve train wear and scuffing of highly loaded parts operating under boundary lubrication conditions. Level and type of ash producing additives reduce valve recession and keep combustion chamber deposits to a minimum with less spark plug fouling and potential for pre-ignition.

### Applications

- Four-cycle high-speed stationary spark ignition engines operating on sweet natural gas or LPG
- Four-cycle medium-speed stationary spark ignition engines operating on sweet natural gas or LPG
- Four-cycle medium-speed stationary dual-fuel pilot injection engines operating on sweet natural gas or LPG

### Product features:

• **HDAX<sup>®</sup> Low Ash Gas Engine Oil** is a premium performance, heavy-duty, low ash crankcase oil specifically designed to lubricate a wide range of four-stroke natural gas engines where low ash oils are recommended.

• **HDAX<sup>®</sup> Low Ash Gas Engine Oil** is formulated with ISOSYN<sup>®</sup> base oils and the latest additive technology to provide exceptional oxidation and nitration resistance, extended oil and filter life, and outstanding wear protection.



## Product specifications

### HDAX® LOW ASH GAS ENGINE OIL

#### KEY PROPERTIES

SAE Grade	40
Product Code	530022
Acid Number, D664, mg KOH/g	1.0
Base No., D2896, mg KOH/g	4.2
Phosphorus, m %	0.03
Sulfated Ash, m %	0.5
Viscosity, mm <sup>2</sup> /s @	
40°C	124
mm <sup>2</sup> /s @ 100°C	13.5
Viscosity Index	104
Zinc, m %	0.03

1010

## Performance standards

- Caterpillar field test requirements for 3500 series and smaller gas engines (self-certified)
- Caterpillar field test requirements for 3600 series gas engines (self-certified)
- Cummins QSV engines (provisional approval)
- GE Jenbacher approval for Type 2/3 and Type 6 engines burning natural gas, including catalyst-equipped engines (TI 1000-1109)
- Wärtsilä approval for SG and DF engines
- Waukesha approval for cogeneration applications (12-1880AE)
- Waukesha approval for AP 220GL engines burning natural gas (12-1880AE)
- Waukesha field test requirements for other engines burning natural gas (self-certified)

## ENVIRONMENT, HEALTH and SAFETY

Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal.

To obtain a MSDS for this product, visit:



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### Service considerations

The sulfated ash, alkalinity reserve and phosphorus content of gas engine oils can be properly matched to the needs of individual applications, taking account of engine design, operating conditions, fuel type and quality, with particular reference to sulfur content and whether or not the engine is fitted with an exhaust catalyst for emission control purposes.

Spark ignition, gas-fuelled engines may be sensitive to the sulfated ash level of the lubricant and to the chemical nature of the ash. Excessive ash can lead to problems such as spark plug fouling, exhaust valve guttering and build-up of pre-ignition-inducing combustion chamber deposits. On the other hand, many engines require a certain amount of lubricant ash to ensure satisfactory valve seat lubrication and to minimize valve seat recession.

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by:  
**Chevron Global Lubricants**  
- Asia Pacific