SINOPEC
PERFORMANCE IN MOTION

# Product Data Sheet

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| Product | **Sinopec HD Final Drive 460** |
| Summary | **Product description**<br>Sinopec HD Final Drive 460 is an advanced axle fluid formulated with semi-synthetic base oil (mineral oil plus polyalphaolefin) and a selected additive package. It is designed to provide the required protection for the latest heavy-duty axles that require an API GL-5 quality product. The special formulation provides improved lubrication of the drive train and can lower the operating temperature, hence ensuring longer equipment and oil life than possible with a conventional mineral-oil based 85W-140 grade gear oil. |

## Applications

Sinopec HD Final Drive 460 is suitable for use in:

- Heavily loaded axle drives.
- Drive-train gears of heavy duty automotive applications as well as light-duty vehicles.
- Heavy-duty automotive gearboxes.

## Features and benefits

- Good lubricity characteristics, provided by the semi-synthetic formulation, reduce resistance at start up and during operation, lowering power consumption and operating costs.
- Advanced extreme pressure (EP) additive technology provides outstanding load-carrying capacity, and protects axles operating under severe service conditions (e.g. low speed, high torque and high speed, high load).
- Excellent thermal and oxidation stability protect against the formation of deposits and sludge that can lead to damaging wear, prolonging oil service life and extending oil drain intervals.
- The high viscosity index, provided by the semi-synthetic formulation, ensures excellent low- and high-temperature performance, and reduces wear at low-temperature start up.
- Good resistance against rust and corrosion extends component life and reduces maintenance costs and equipment down time.
- The wide 85W-140 multigrade can be used year round, without the need for seasonal change, and so can reduce oil inventory costs.

## Typical data

| **Sinopec HD Final Drive 460** | |
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| ISO viscosity grade | 460 |
| SAE grade | 85W-140 |
| Kinematic viscosity, ASTM D 445 | |
| cSt @ 40°C | 467 |
| cSt @ 100°C | 45.2 |
| Viscosity, Brookfield, ASTM D 2983 | |
| cP @ –12°C | 31,400 |
| Viscosity index, ASTM D 2270 | 151 |
| Four ball EP, weld point, N, ASTM D 2783 | 4,905 |
| Copper corrosion, 3 hours @ 121°C, ASTM D 130 | 1b |
| Pour point, °C, ASTM D 97 | –24 |
| Flash point (COC), °C, ASTM D 92 | 228 |
| Density @ 20°C, kg/l, ASTM D 4052 | 0.89 |
| Colour | brown |

These data are given as an indication of typical values and not as exact specifications.

## Industry and OEM specifications

| **Sinopec HD Final Drive 460 meets the performance requirements of the following industry specifications:** | |
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| API | GL-5 |
| GB[1] | 13895-92 |
| MIL | MIL-L-2105D |

[1] Note: 'GB' standards are the National Standards of the People's Republic of China.

## Accuracy of information

Data provided in this PDS is typical and subject to change as a result of continuing product research and development. The information given was correct at the time of printing. The typical values given are subject to variations in the testing procedures and the manufacturing process may also result in slight variations. Sinopec guarantees that its lubricants meet any industry and OEM specifications referred to on this data sheet.

Sinopec cannot be held responsible for any deterioration in the product due to incorrect storage or handling. Information on best practice is available from your local distributor.

## Product and environmental safety

This product should not cause any health problems when used in the applications suggested and when the guidance provided in the Material Safety Data Sheet (MSDS) is followed. Please consult the MSDS for more detailed advice on handling; MSDSs are available from your local distributor. Do not use the product in applications other than those suggested.

As with all products, please take care to avoid environmental contamination when disposing of this product. Used oil should be sent for reclamation/recycling or, if not possible, must be disposed of according to relevant government/authority regulations.



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