

<b>Product</b>	<b>Sinopec Antiwear Hydraulic Oil L-HM</b>
<b>Summary</b>	<b>Product description</b> Sinopec Antiwear Hydraulic Oil L-HM is a line of premium quality antiwear lubricants blended using selected and carefully refined high-quality mineral oils, combined with a multifunctional additive system and available in a wide viscosity range from ISO Grade 32 to 150. This line of oils has been designed to meet the requirements of major hydraulic pump manufacturers, and its applications include hydraulic systems used in industrial and marine applications as well as in mobile machinery.

## Applications

Sinopec Antiwear Hydraulic Oil L-HM is suitable for use in:

- Hydraulic applications in a wide variety of industrial, marine and mobile equipment.
- Vane and gear pumps operating under high loads, as recommended by pump manufacturers.
- Severe service hydraulic systems, employing axial and radial piston pumps, as recommended by pump manufacturers.

## Features and benefits

- High-quality base oils combined with multifunctional additive technology provide outstanding antiwear properties, rust protection, low varnish and deposit formation, good demulsibility, oxidation resistance, good antifoam properties and fast air release properties, to protect and extend the life of hydraulic pumps and systems.
- Good hydrolytic stability and filterability, ensure optimum product life and performance, and prevent filter blocking.
- The wide selection of viscosity grades ensures that the optimum viscosity can be used for any hydraulic system operating temperature.
- Fully compatible with common seal materials usually found in hydraulic systems, to extend seal life and prevent fluid leakage.

# Product Data Sheet

## Typical data

<b>Sinopec Antiwear Hydraulic Oil L-HM</b>					
ISO viscosity grade	32	46	68	100	150
Kinematic viscosity, ASTM D 445					
cSt @ 40°C	32.13	45.88	68.16	100.4	150.6
cSt @ 100°C	5.43	6.77	8.83	11.26	15.28
Viscosity index, ASTM D 2270	103	102	103	98	99
Air release at 50°C, mins, ASTM D 3427	4	5.2	8	–	–
Foaming characteristics, sequences 1, 2 and 3, ASTM D 892	10/0 15/0 10/0	10/0 10/0 20/0	15/0 10/0 15/0	20/0 10/0 10/0	10/0 10/0 10/0
Neutralisation number, mg KOH/g, ASTM D 974	0.69	0.72	0.71	0.72	0.69
FZG test (A/8.3/90), fail load stage, DIN 51345	12	12	12	12	12
Rust prevention, ASTM D 665					
distilled water	pass	pass	pass	pass	pass
synthetic sea water	pass	pass	pass	pass	pass
Copper corrosion, 3 hours @ 100°C, ASTM D 130	1b	1b	1b	1b	1b
Water separability, ASTM D 2711	13 (54°C)	15 (54°C)	13 (54°C)	12 (82°C)	15 (82°C)
Pour point, °C, ASTM D 97	–15	–15	–14	–13	–12
Flash point (COC), °C, ASTM D 92	228	230	234	238	260

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

## Industry and OEM specifications

<b>Sinopec Antiwear Hydraulic Oil L-HM meets the performance requirements of the following industry specifications:</b>	
DIN	51524 Pt 2
GB <sup>1</sup>	11118.1-94 (L-HM) Premium
ISO	11158 (L-HM)

<sup>1</sup> Note: 'GB' standards are the National Standards of the People's Republic of China.

<b>Sinopec Antiwear Hydraulic Oil L-HM meets the performance requirements of the following OEM specifications:</b>	
Cincinnati Lamb	P-68 (ISO 32), P-69 (ISO 68), P-70 (ISO 46)
Parker Denison	HF-0, HF-1, HF-2 (ISO 32, ISO 46, ISO 68)
Eaton Vickers	M-2950-S (ISO 46)
<b>Sinopec Antiwear Hydraulic Oil L-HM holds the following OEM approvals:</b>	
Cincinnati Lamb	P-68 (ISO 32), P-69 (ISO 68), P-70 (ISO 46)
Parker Denison	HF-0, HF-1, HF-2 (ISO 32, ISO 46, ISO 68)

# Product Data Sheet

Eaton Vickers	M-2950-S (ISO 46)
---------------	-------------------

## 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.

The SINOPEC trademark is registered and protected in Australia.

Issued: September 2011

© Sinopec 2011

14\_Sinopec-Antiwear-Hydraulic-Oil-L-HM