

Product	Sinopec L-TSE Turbine Oil
Summary	Product description Sinopec L-TSE Turbine Oil is a range of turbine oils with additional extreme pressure properties, suitable for use in turbines with reduction gears. Available in ISO viscosity grades 32, 46 and 68.

Applications

Sinopec L-TSE Turbine Oil is suitable for use in:

- Industrial steam turbines fitted with reduction gears that require an oil with extreme pressure properties.
- Marine steam turbines fitted with reduction gears that require an oil with extreme pressure properties.

Features and benefits

- Excellent extreme pressure and antiwear performance protects reduction gears and bearings from wear, extending equipment life and reducing maintenance costs.
- Excellent oxidation stability prolongs the service life of the oil and increases service intervals.
- Good air release properties protect against air entrainment and ensure optimum oil film thickness, protecting equipment components.
- Good antifoaming properties avoid the build up of foam, and reduce oil leakage from the system.
- Good water separation properties ensure that any water contamination can be easily separated from the oil, protecting equipment against rusting and corrosion and extending oil life.
- Anti-rust and corrosion prevention properties further protect equipment from rusting and corrosion, and extend equipment life.

Product Data Sheet

Typical data

Sinopec L-TSE Turbine Oil			
ISO viscosity grade	32	46	68
Kinematic viscosity of base oil, ASTM D 445			
cSt @ 40°C	31.36	45.2	67.71
cSt @ 100°C	5.312	6.737	8.556
Viscosity index of base oil, ASTM D 2270	101	102	99
Air release at 50°C, min, ASTM D 3427	3	3.8	5
Foaming characteristics, sequences 1, 2 and 3, ASTM D 892	10/0 20/0 20/0	10/0 20/0 20/0	10/0 20/0 20/0
Demulsibility @ 54°C, time to 3 ml emulsion, min, ASTM D 1401	10	10	20
Neutralisation number, mg KOH/g, ASTM D 974	0.12	0.15	0.16
Oxidation stability, time to 2 mg KOH/g, hours, ASTM D 943	>4,000	>3,500	>2,500
Oxidation stability, RPVOT @ 150°C, min, ASTM D 2772	450+	450+	400+
FZG test (A/8.3/90), pass load stage	8	9	10
Rust prevention, ASTM D 665			
distilled water	pass	pass	pass
synthetic sea water	pass	pass	pass
Copper corrosion, 3 hours @ 100°C, ASTM D 130	1b	1b	1b
Pour point, °C, ASTM D 97	-10	-10	-10
Flash point (COC), °C, ASTM D 92	200	218	222
Density @ 15°C, kg/l, ASTM D 4052	0.8579	0.8656	0.8675

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

Product Data Sheet

Industry and OEM specifications

Sinopec L-TSE Turbine Oil meets the performance requirements of the following industry specifications:	
ASTM	4304 Rev A Type II
DIN	51515 L-TD
DIN	51524 Part 1
GB ¹	11120-89 (L-TSA)
ISO	8068 (L-TSE)
JIS	K-2213 Type 2 w/add.

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

Sinopec L-TSE Turbine Oil meets the performance requirements of the following OEM specifications:	
Alstom Power	HTGD 90117(EP)
GE	GEK-28143A
GE	GEK-46506D
Siemens Power Generation	TLV 9013 04(EP)

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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