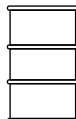


|                |   |
|----------------|---|
| <b>Product</b> | <b>Sinopec L-TSA Classic Turbine Oil</b>  |
| <b>Summary</b> | <p><b>Product description</b></p> <p>Sinopec L-TSA Classic Turbine Oil is available in ISO viscosity grades 32, 46 and 68. Formulated with high-quality base oil and selected additives, it offers good oxidation stability and corrosion protection along with good demulsibility, antifoaming and air release properties.</p> |

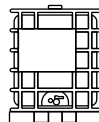
Available sizes



PAIL – 18L



DRUM – 200L



IBC – 1000L

Also  
available  
in bulk

## Applications

Sinopec L-TSA Classic Turbine Oil is suitable for use in:

- Steam turbines used in industrial power generation.
- Large to moderate marine steam turbine propulsion machinery and associated auxiliary equipment.
- Industrial steam turbines, gas turbines and water turbines.
- Circulating systems, anti-friction bearings, enclosed gears, hydraulic units and other industrial applications, providing there is no requirement for antiwear additives.
- Not so strict requirement of oil cleanliness.

## Features and benefits

- Good 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

| <b>Sinopec L-TSA Classic Turbine Oil</b>                      |                      |                      |                      |
|---|----------------------|----------------------|----------------------|
| ISO viscosity grade   | 32                   | 46                   | 68                   |
| Kinematic viscosity of base oil, ASTM D 445                   |                      |                      |                      |
| cSt @ 40°C  | 32.5                 | 45.2                 | 68.9                 |
| cSt @ 100°C   | 5.50                 | 6.81                 | 9.01                 |
| Viscosity index of base oil, ASTM D 2270                      | 105                  | 105                  | 102                  |
| Air release at 50°C, min, ASTM D 3427                         | 2.1                  | 2.7                  | 5                    |
| Foaming characteristics, sequences 1, 2 and 3, ASTM D 892     | 10/0<br>20/0<br>10/0 | 10/0<br>20/0<br>10/0 | 10/0<br>20/0<br>10/0 |
| Demulsibility @ 54°C, time to 3 ml emulsion, min, ASTM D 1401 | 8                    | 10                   | 15                   |
| Neutralisation number, mg KOH/g, ASTM D 974                   | 0.07                 | 0.08                 | 0.09                 |
| Oxidation stability, time to 2 mg KOH/g, hours, ASTM D 943    | >5500                | >5,000               | >3500                |
| Oxidation stability, RPVOT @ 150°C, min, ASTM D 2772          | 600+                 | 600+                 | 500+                 |
| 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                                     | -12                  | -12                  | -12                  |
| Flash point (COC), °C, ASTM D 92                              | 200                  | 210                  | 222                  |
| Density @ 15°C, kg/l, ASTM D 4052                             | 0.8653               | 0.8687               | 0.8705               |

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

## Industry and OEM specifications

| <b>Sinopec L-TSA Classic Turbine Oil meets the performance requirements of the following industry specifications:</b> |                     |
|---|---------------------|
| ASTM  | 4304 Rev A Type I   |
| DIN   | 51515 L-TD          |
| DIN   | 51524 Part 1        |
| GB <sup>1</sup>   | 11120-2011 (L-TSA)  |
| JIS   | K-2213 Type 2 w/add |

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

| <b>Sinopec L-TSA Classic Turbine Oil meets the performance requirements of the following OEM specifications:</b> |             |
|--|-------------|
| Alstom Power   | HTGD 90117  |
| GE   | GEK-28143b  |
| GE   | GEK-46506D  |
| Siemens Power Generation   | TLV 9013 04 |

# Product Data Sheet

## 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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Sinopec L-TSA Classic Turbine Oil