



**TIER ONE**  
LUBRICANTS  
PRODUCT DATA SHEET

**Tier One Lubricants™ Heat Transfer Oil**

**Product Description**

Tier One Lubricants™ Heat Transfer Oils are mineral base transfer oils designed for use in secondary or indirect heating systems. These oils are manufactured using selected refined paraffinic base stocks. Tier One™ Heat Transfer Oils are non-corrosive, low odor level, excellent seal compatibility fluids that can absorb heat quickly and transport it to the material or fluid requiring heat. Their excellent thermal and oxidation stability provides long service life and cleans heat exchanger systems. The additive technology used in these oils has shown excellent performance in GM Quenchometer (ASTM D3520) and panel coker tests.

**Performance and Application**

Tier One Lubricants™ Heat Transfer Oils are recommended for use in heat transfer systems where fuel oil, gas, or electricity is used to heat a fluid, which then transfers the heat to the point of application. In closed or open systems, ISO 46 grade may be used where bulk oil temperatures do not exceed 290°C (550°F) and skin temperatures may be as high as 315°C (600°F). The oil surface in contact with air in open systems should not exceed 110°C (225°F).

In closed, forced circulation systems equipped with expansion tanks, ISO 22 grade should be used with bulk oil temperatures up to 315°C (600°F) and skin temperatures up to 371°C (700°F) where good thermal stability and pumpability are required.

*Note: Copper and copper alloys should not be used in heat transfer systems with a hydrocarbon fluid unless air (oxygen) is excluded from contact with the fluid by hermetic sealing and/or an inert gas "blanket"*

**Typical Analysis\***

	Test	ISO 22	ISO 46
Viscosity at 100°C	D445	4.2	6.7
Flash Point, °F	D92	390	420
Color	Visual	L.05	L1.0

\*The values shown here are representative of current production. Some are controlled by manufacturing specifications while others are not. All of them may vary within modest ranges.