



# UNITED SYN EPSILON HEAT TRANSFER OIL

## Product Description:

United Syn Epsilon Heat Transfer Oil is designed to give outstanding and much extended service in a variety of applications. United Syn Epsilon Heat Transfer Oil is blended from high nature viscosity index fully synthetic base oils and fortified with a high technology core oxidation inhibitor to enhance high temperature performance and stability as well as dramatically prolong the service life span. United Syn Epsilon Heat Transfer Oil is resistant to oxidation even at very high temperature thus minimizes degradation, giving this fluid a longer usable life and minimizing deposit formation that can be inhibit efficient heat transfer.

United Syn Epsilon Heat Transfer Oil may be used in both open and inert gas blanketed close heat transfer systems. And in the open system, Epsilon Fully Synthetic Heat Transfer Oil should not be used over 160 °C. While in the close system, the maximum operation temperature is 320 °C.

## Applications / Benefits:

- ▣ Blended with naturally high VI synthetic base oils.
- ▣ Contains high temperature oxidation inhibitors.
- ▣ Minimizes deposit formation.
- ▣ Long fluid life.

## Typical Characteristics:

| Test Description                | Method      | 22    | 32    | 46    |
|---------------------------------|-------------|-------|-------|-------|
| ISO Viscosity Grade             | -           | 22    | 32    | 46    |
| Specific Gravity @ 15 °C        | ASTM D 4052 | 0.841 | 0.843 | 0.848 |
| Flash Point, °C                 | ASTM D 92   | 218   | 228   | 232   |
| Pour Point, °C                  | ASTM D 97   | -18   | -18   | -15   |
| Kinematic Viscosity, cSt @ 40°C | ASTM D 445  | 22.2  | 30.5  | 44.2  |
| cSt @ 100°C                     | ASTM D 445  | 4.57  | 5.67  | 7.30  |
| Viscosity Index                 | ASTM D 2270 | 122   | 128   | 127   |
| Color                           | ASTM D 1500 | <0.5  | <0.5  | <0.5  |

### Specific Heat Capacity

| Temperature, °C                         | 25   | 100  | 150  | 200  | 250  | 300  |
|---|------|------|------|------|------|------|
| ISO 22 Specific Heat Capacity, kJ/kg.°C | 1.82 | 2.08 | 2.21 | 2.49 | 2.73 | 2.91 |
| ISO 32 Specific Heat Capacity, kJ/kg.°C | 1.88 | 2.16 | 2.32 | 2.51 | 2.71 | 2.87 |
| ISO 46 Specific Heat Capacity, kJ/kg.°C | 1.93 | 2.19 | 2.34 | 2.5  | 2.68 | 2.85 |

|                           |     |
|---------------------------|-----|
| Max. Film Temperature, °C | 340 |
| Max. Bulk Temperature, °C | 320 |