



# PRODUCT DATA SHEET

## GulfSea PE Cooloil Series

*High Performance Fully Synthetic Refrigeration Compressor oil*

### Product Description

---

**GulfSea PE Cooloil** series are high performance fully synthetic refrigeration compressor oils specially designed to meet the stringent requirements of most modern refrigeration and air conditioning systems that are filled with the new ozone friendly refrigerant R-134a and other environmentally acceptable HFC refrigerants. These oils are formulated with Polyol Ester base fluids and provide excellent protection against oxidation degradation, wear and rust & corrosion. These oils are specifically designed for refrigeration systems using HFC refrigerants such as R-134a, R-23, R-404A, R-407C, R-507 and other blends of HFC refrigerants. These oils exceed the performance requirements of DIN 51503 KD and ISO 6743-3:2003 L-DRD, L-DRF and L-DRG.

### Features & Benefits

---

- Excellent thermo-oxidative stability controls deposits in evaporator tubes, improves heat transfer and improves oil life resulting in improved equipment reliability, availability and efficiency.
- Very good solubility, particularly with R-134a, R23 and comparable refrigerants as well as blends of those refrigerants over a wide range of operating temperature. Also compatible with HFC type refrigeration gases
- Excellent wear and rust protection results in reduced maintenance costs and longer equipment life.
- Completely wax free and lower pour point prevents blockage and ensures smooth operation.
- Readily biodegradable and can be disposed off through conventional methods.
- Compatible with elastomers commonly used in the refrigeration system.

### Applications

---

- Mobile air conditioning, domestic refrigeration, residential and commercial air conditioning and heat pump, commercial refrigeration including transport refrigeration, Industrial refrigeration (reciprocating and rotary units) using HFC refrigerants
- Marine refrigeration applications line food freezing and cold storage plants
- Suitable for use with most hydroflouorocarbon refrigerant gases like R-134a, R-23, R-125, R-143a, R-152a, R-404A, R-407A, R-407C, R-408A, R-410A, R-507A etc compressors where such quality oils are recommended.
- **NOTE** : These oils are not recommended for use with ammonia refrigerants



# PRODUCT DATA SHEET

## Typical Properties

| GulfSea PE Cooil Series           |             |             |       |       |       |       |       |
|-----------------------------------|-------------|-------------|-------|-------|-------|-------|-------|
|                                   |             | 32          | 46    | 68    | 100   | 150   | 220   |
| ISO Viscosity grades              |             | 32          | 46    | 68    | 100   | 150   | 220   |
| Typical Properties                |             |             |       |       |       |       |       |
| Test Parameters                   | ASTM Method | Test Values |       |       |       |       |       |
| Specific Gravity, @ 15.6°C        | D4025       | 0.984       | 0.973 | 0.968 | 0.968 | 0.967 | 0.964 |
| Kinematic viscosity, @ 40 °C, cSt | D445        | 31.6        | 47.1  | 64.9  | 95.7  | 146.1 | 221.3 |
| Viscosity Index (VI)              | D2270       | 115         | 113   | 96    | 93    | 90    | 88    |
| Flash Point, °C                   | D92         | >240        |       |       |       |       |       |
| Miscibility [10% oil], °C, R134a  |             | <-50        | <-40  | <-35  | <-35  | <-30  | <-20  |
| Pour Point, °C                    | D97         | <-40        | <-40  | <-40  | -34   | -28   | -28   |
| Water, ppm                        | D1533       | <100        |       |       |       |       |       |

July 2014