

CHEMLUBE® DIESTER SERIES

DIESTER-BASED 8000 HOUR LUBRICANTS

PRODUCT CODES: CHEMLUBE 215, 229, 230, 501, 751, 822

PRODUCT OVERVIEW

The Chemlube® Diester series is formulated with premium synthetic ester base fluids with performance additives for use in a wide variety of air compressor technologies, especially useful in severe-duty applications. These products provide excellent wear protection, superior inherent lubricity / metal-wetting, and outstanding resistance to oxidation and thermal degradation, making them an ideal choice for high-pressure / high-temperature compressor applications.

The Chemlube® Diester series significantly reduces the potential for fires and explosions compared to mineral oil-based products, exhibiting a virtual absence of deposit formation and high flash and fire points. Their exceptional water separating characteristics reduce problems with emulsion formation and carryover into downstream piping and equipment.

Chemlube 215, 229, and 230 are designed for rotary screw, rotary vane and reciprocating compressors. Chemlube 501 and 751 are designed for reciprocating compressors and are recommended for high pressure air compressors with the following gases:

| | | | | |
|--|-------------|------------------------|-----------------|----------------------|
| Air | Ethylene | Methane | Propane | Nitrogen |
| Butadiene | Natural Gas | Synthesis Gas | Carbon Monoxide | Sulphur Hexafluoride |
| Carbon Dioxide (dry) | Helium | Hydrogen Sulfide (dry) | Hydrogen | Furnace (crack) Gas |
| Nominal Operating Range is -15°C to 230°C (5°F to 445°F) | | | | |

APPLICATION DETAIL

- Rotary Screw Compressors
- Reciprocating Compressors
- Rotary Vane Compressors
- Centrifugal Compressors
- Vacuum Pumps
- Chain

KEY BENEFITS

- Outstanding thermal and oxidative stability
- Wide operating temperature range
- Reduced varnish or carbon deposit formation through inherent detergency action
- Extended drain intervals for reduced oil disposal, increasing cost effectiveness
- Excellent demulsibility characteristics improving system efficiency and corrosion protection
- Reduced metal-to-metal wear through improved metal-wetting compared to mineral oil or PAO
- Provides a greater margin of safety than conventional petroleum products due to higher flash points, fire points and auto ignition temperatures
- Maximum safety for air lines through protection of deposit formation
- USDA H-2 authorized

QUICK POINTS...

Name: *Chemlube Diester Series*

ISO Grade: *32 -220*

Base: *Ester*

Additive System: *AW / R&O / CI*

Color: *Pale Straw*

Food Grade: *No*

Main Application: *Compressors*

TYPICAL CHARACTERISTICS**

| PRODUCT DATA | ASTM METHOD | Chemlube 215 | Chemlube 229 | Chemlube 230 | Chemlube 501 | Chemlube 750 | Chemlube 822 |
|-----------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| ISO Grade | D2422 | 32 | 46 | 68 | 100 | 150 | 220 |
| SAE Grade | SAE J-300 | 10.0 | 10W20 | 20.0 | 30.0 | 40.0 | 50 |
| Viscosity, 40 °C | D445 | 36.30 | 45.40 | 70.00 | 99.00 | 146.50 | 222 |
| Viscosity, 100 °C | D445 | 5.9 | 6.5 | 7 | 10.2 | 13.3 | 18.6 |
| Viscosity Index | D2270 | 106 | 89 | 60 | 83 | 90 | 92 |
| Flash Point, °C/°F | D92 | 274/526 | 258/496 | 277/531 | 260/500 | 272/522 | 267/531 |
| Pour Point, °C/°F | D97 | -48/-54 | -40/-40 | -42/-44 | -33/-27 | -25/-29 | -34/-30 |
| Copper Corrosion | D130 | 1a | 1b | 1a | 1a | 1a | - |
| Foaming Sequence I, II, III | D892 | <10/0 | <10/0 | <10/0 | <10/0 | <10/0 | <10/0 |
| Demulsibility, min. | D1401 | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| Evaporation, % | D972 | <1.0 | <1.0 | 1 | 1 | 1 | 1 |
| Carbon Residue, % | D189 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Specific Gravity | D4052 | 0.96 | 0.96 | 0.96 | 0.95 | 0.93 | 0.92 |

**Characteristics are typical of production. Slight variations in the actual data may occur which will not affect performance.

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SPECIFICATIONS

- DIN 51506 VDL
- ISO/DP 6521-L-DAB - medium duty
- ISO 6743-3:2003 DAB - severe duty

COMPATIBILITY NOTES

- Compatible with most mineral and synthetic oils
- Compatible with most process gases
- Not compatible with all seal materials, and some older compressors may need to have the seals changed before they can be run on the new grades.
- Acceptable with high nitrile content (SE85) >36% acrylonitrile / Majority acceptable medium nitrile content (SE70) 30 - 36% acrylonitrile
- Not recommended Low nitrile content
- Not compatible with many conventional paints, high quality epoxy paints are recommended.
- Not recommended for the lubrication of components manufactured from Aluminum or Aluminum alloys.

SHELF LIFE

- Standard shelf life of (5) years from DOM applies to this product
- Shelf life may be extended and/or recertified upon individual case – please contact your Ultrachem, Inc. representative

HEALTH & REGULATORY STATEMENTS

- Classified as non-hazardous per OSHA GHS
- TSE/BSE compliant: product does not contain any materials of animal origin or derivatives
- FALCPA compliant: product does not contain any allergens
- RoHS compliant: product does not contain any EU RoHS substances
- REACH compliant: product does not contain any SVHC substances
- Guidelines on safety and storage may be found on the associated Safety Data Sheet (SDS@ultracheminc.com)

PACKAGING & SHIPPING AVAILABILITY

- 5 gallon pail (18.9 L) 1-3 business days
- 55 gallon drum (208.2 L) 1-3 business days
- 330 gallon tote (1249.2 L) 1-3 business days
- (2) 2.5 gallon case (18.9 L) 1-3 business days
- (6) 1 gallon case (22.7 L) 3-8 business days

Please contact your Ultrachem, Inc. representative for detailed information not covered in this data sheet.



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We therefore recommend you consult a FUCHS Lubricants Co. Application Engineer to discuss application conditions and the performance criteria of the products before the product is used. It is the responsibility of the user to test the functional suitability of the product and to use it with the corresponding care.

Our products undergo continuous improvement. We therefore retain the right to change our product program, the products, and their manufacturing processes as well as all details of our Product Information sheets at any time and without warning. With the publication of this Product Information sheet, all previous editions cease to be valid.

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