



**TECHNICAL DATA SHEET FOR RADCOLUBE® LO7870**  
**MIL-PRF-7870E LUBRICATING OIL: GENERAL PURPOSE, LOW-TEMPERATURE**

| <b><u>CHARACTERISTICS</u></b>                            | <b><u>REQUIREMENT</u></b> | <b><u>RESULTS</u></b> | <b><u>TEST METHOD</u></b> |
|----------------------------------------------------------|---------------------------|-----------------------|---------------------------|
| Viscosity, mm <sup>2</sup> /s (centistokes)              |                           |                       | ASTM D445                 |
| at 38°C, minimum                                         | 10                        | 20                    |                           |
| at -40°C, maximum                                        | 4,000                     | 3119                  |                           |
| Pour Point, °C, maximum                                  | -57                       | -64                   | ASTM D97, D5949           |
| Flash Point, °C, minimum                                 | 130                       | 232                   | ASTM D92                  |
| Precipitation Number, mL, maximum                        | 0                         | 0.00                  | ASTM D91                  |
| Acid number, mg KOH/g                                    | Report                    | 0.14                  | ASTM D664                 |
| Corrosiveness and Oxidation Stability                    |                           |                       | ASTM D4636                |
| Change in acid number, mg KOH/g                          | 0.2                       | 0.20                  |                           |
| Metal specimen mass change, mg/cm <sup>2</sup> , maximum |                           |                       |                           |
| Aluminum                                                 | 0.2                       | 0.00                  |                           |
| Cadmium plated steel                                     | 0.2                       | -0.02                 |                           |
| Copper                                                   | 0.2                       | 0.02 (2e)             |                           |
| M-50 Steel                                               | 0.2                       | -0.02                 |                           |
| Magnesium                                                | 0.2                       | -0.02                 |                           |
| Percent change in viscosity at 38°C                      | -5% to +20%               | 0.93%                 |                           |
| Sludge, mL, maximum                                      | 0.0                       | 0.0                   |                           |
| Low temperature stability                                | PASS                      | PASS                  | FED-STD-791 Method 3458   |
| Evaporation loss, mass %, maximum                        | 25%                       | 0.13%                 | ASTM D972                 |
| Corrosiveness (Bimetallic Couple)                        | PASS                      | PASS                  | ASTM D6547                |
| ASTM Color, maximum                                      | 5.0                       | L1.5                  | ASTM D1500                |
| Protection of panels                                     | PASS                      | PASS                  | Paragraph 4.4.3           |
| Workmanship                                              | PASS                      | PASS                  | ISO 9001:2008             |