

## READILY BIODEGRADABLE ISO 22 HYDRAULIC FLUID

### Description

RSC *EnviroLogic*® HF 22 hydraulic fluid is a readily biodegradable, biobased high dielectric ISO 22 viscosity grade hydraulic oil for use in general purpose hydraulic systems. It is based on unique base oil technology and is a direct replacement for petroleum oil based hydraulic fluids of the same viscosity. RSC *EnviroLogic*® HF 22 is formulated for high anti-wear performance, excellent water separation, low foaming and air release characteristics, excellent corrosion and rust protection, and high oxidative stability for long fluid use. It also has a high viscosity index and will permit fluid operation over an extremely broad temperature range. RSC *EnviroLogic*® HF 22 is non-conductive and designed for use in equipment which is near high voltage, therefore protecting the equipment operator. It has reduced environmental impact in the event of a leak or spill, as it is readily biodegradable and non-sheening\*.

It is an Environmentally Acceptable Lubricant (EAL) compliant with 2013 US EPA Vessel General Permit (VGP).

**RSC *EnviroLogic*® HF series meets the requirements for various manufacturers. Visit our [website](#) or contact customer service for a full list of OEM approvals.**

| Property                              | Method | Requirements | Result |
|---------------------------------------|--------|--------------|--------|
| Kinematic Viscosity                   | D445   |              |        |
| At 40°C, cSt                          |        | 19.8 – 24.2  | 22     |
| At 100°C, cSt                         |        |              | 5.5    |
| Viscosity Index                       | D2270  | 90 min       | 206    |
| Dielectric <sup>(kV)</sup>            | D877   | Report       | 45-48  |
| Density (60°F), kg/m <sup>3</sup>     | D1298  | Report       | 880    |
| Density (60°F), lbs/gal               | D4052  | Report       | 7.30   |
| API Gravity (60°F)                    | D1298  | Report       | 29.9   |
| Pour Point, °C                        | D97    | -12 max      | -42    |
| Flash Point (COC), °C                 | D92    |              | 180    |
| Acid Number, mgKOH/g                  | D664   | Report       | 0.30   |
| Steel Pin Corrosion (24 hours, 100°C) | D665   |              |        |
| Deionized Water                       |        | Pass         | Pass   |
| Synthetic Salt Water                  |        | Pass         | Pass   |
| Copper Corrosion (3 hours, 100°C)     | D130   | 2 max        | 1B     |

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| Property                                   | Method             | Requirements          | Result            |
|--|--------------------|-----------------------|-------------------|
| Foam Properties (after 10 minutes)         | D892               |                       |                   |
| Sequence I, mL                             | Tendency-Stability | 50-0 max              | 50-0              |
| Sequence II, mL                            | Tendency-Stability | 50-0 max              | 50-0              |
| Sequence III, mL                           | Tendency-Stability | 50-0 max              | 50-0              |
| Demulse Properties (54°C)                  | D1401              |                       |                   |
| Oil / Water / Emulsion<br>Minutes          |                    | 40 / 37 / 3<br>30 max | 40 / 40 / 0<br>30 |
| Hydrolytic Stability                       | D2619              |                       |                   |
| Copper Weight Loss, mg/cm <sup>3</sup>     |                    |                       | 0.09              |
| Change in Acid Number, mgKOH/g             |                    |                       | 0.09              |
| Appearance of Copper Panel                 |                    |                       | 1B                |
| Four Ball Wear                             | D4172              |                       |                   |
| 75°C/1200 rpm/ 40 kg/ 1 Hr.                |                    |                       | 0.53              |
| Biodegradability, % in 28 Days             | D7373              | >60                   | >60               |
| Ecotoxicity                                |                    |                       |                   |
| Fathead minnow, 96h LC50, ppm              | OECD 203           | >100                  | >10,000           |
| Daphnia magna, 48h EC50, ppm               | OECD 202           | >100                  | >100              |
| Algae, 72h EC50, ppm                       | OECD 201           | >100                  | >100              |
| Elastomer SRE-NBR-1 (100°C 168 hours)      | D471               | Pass                  | Pass              |
| Elastomer HNBR (100°C 168 hours)           | D471               | Pass                  | Pass              |
| Elastomer FKM (100°C 168 hours)            | DIN 1817           | Pass                  | Pass              |
| Compatibility with Select Hydraulic Fluids |                    |                       |                   |
| Biodegradable Competitor stored @ 100°F    |                    | Pass                  | Pass              |
| Biodegradable Competitor stored @ -5°F     |                    | Pass                  | Pass              |
| Petroleum Hydraulic Fluid stored @ 100°F   |                    | Pass                  | Pass              |
| Petroleum Hydraulic Fluid stored @ -5°F    |                    | Pass                  | Pass              |

\*CFR40 Part 435B

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For more information about RSC Bio Solutions, visit us at [rscbio.com](http://rscbio.com) or call +1 704.684.6100.



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