



AEROSHELL® Fluid 31

Aviation hydraulic fluid

Product Description

AeroShell® Fluid 31 is a synthetic hydrocarbon hydraulic fluid with greatly improved fire resistance characteristics when compared with conventional petroleum products. It contains a specially developed base stock that provides a relatively high flash point, along with excellent low temperature properties and good oxidation and thermal stability. In addition, additives are incorporated to further enhance stability and lubricity.

This product can be used in both aviation and non-aviation systems with synthetic rubber components, but should not be used in systems that incorporate natural rubber or other component material not qualified for use with synthetic lubricants.

Applications

- aircraft applications where a MIL-PRF-83282D or earlier version of the MIL-H-83282 fluid is specified or recommended
- hydraulic oil systems, particularly those where increase fire protection is required
- in winter service for bucket trucks and other portable equipment subject to severe low temperature operation

Features/Benefits

- “super clean” fluid ideal for systems with close tolerances
- suitable for use in operating temperatures ranging from –40 to 400°F
- better lubricity than oil/water and water/glycol fire resistant fluids
- good anti-wear properties

Approvals

- MIL-PRF-83282D

Typical Properties of AeroShell Fluid 31

	Test Method	
Product Code		60423
Gravity, °API	D 1298	39.7
Color	Visual	Red
Viscosity		
@-40°C, cSt	D 445	2,100
@ 40°C, cSt	D 445	14.4
@100°C, cSt	D 445	3.7
@205°C, cSt	D 445	1.13
Flash Point, °F (COC)	D 92	460
Pour Point, °F	D 97	-75
Fire Point, °F	D 92	485
Neutralization No, TAN-C	D 664	0
Steel-on-steel wear test, scar diameter, mm		
1 hr./167°F/ 1 kg/ 1,200 rpm	D 4172	0.18
1 hr./167°F/10 kg/ 1,200 rpm	D 4172	0.24
1 hr./167°F/40 kg/ 1,200 rpm	D 4172	0.50
Foaming characteristics, ml, @ 75°F	D 892	
Foam volume after 5 mins Blowtime	D 892	5
Foam volume after 10 mins Setting	D 892	0
Particulate contamination, particle size, microns		
5 to 25	D 4177	1,331
16 to 25	D 4177	190
26 to 50	D 4177	55
51 to 100	D 4177	4
Over 100	D 4177	0
Gravimetric determination, mg/1	FTM-313	0.02

Handling & Safety Information

For information on the safe handling and use of this product, refer to its Material Safety Data Sheet at <http://www.equivashellmsds.com>. For more information and availability, call **1+800-782-7852** or World Wide Web: <http://www.shell-lubricants.com/>.