

Overview ▶ BioFlo Fire Resistant HFDU is made from premium quality, readily biodegradable natural ester. HFDU is an excellent anti-wear hydraulic fluid for use in all applications requiring a Factory Mutual approved fire resistant fluid. In addition to high performance, the product also provides excellent environmental performance due to its low toxicity additives and biobased base oil. HFDU is compatible with most mineral oils and polyolester type hydraulic fluids. For phosphate esters, please contact your BioBlend rep. HFDU is not compatible with water containing fluids.



BioFlow Synthetic AW fluids are formulated featuring our proprietary **eSyn™** technology and is available in ISO grades 40, 46, 68.

Typical Properties ▼

Property	ASTM Test Method	HFDU 40	HFDU 46	HFDU 68
Product Code		BF2200140	BF2200146	BF2200168
ISO Grade		42	46	68
Specific Gravity	ASTM D1298	0.91	0.91	0.91
Viscosity @40°C, cSt	ASTM D445	42	46	68
Viscosity @100°C, cSt	ASTM D445	9	10	12
Viscosity Index (VI)	ASTM D2270	>200	>200	>200
Pour Point °F (°C)	ASTM D97	-8 (-22)	-13 (-25)	-13 (-25)
Flash Point °F (°C)	ASTM D92	590 (310)	600 (315)	600 (315)
Fire Point °F (°C)	ASTM D92	650 (343)	650 (343)	650 (343)
Foam Test	ASTM D892	41/39/1	41/39/1	41/39/1
Gear Lubrication, FZG Load Stage	DIN 51354-2	>12	>11	>11
Corrosion Protection	ASTM D665A	Pass	Pass	Pass
Readily Biodegradable (meaning>60%)		Pass	Pass	Pass
Biodegradability	OECD 301B	>70	>70	>70
Minimally Toxic		Pass	Pass	Pass
Algae (EC 50), 72 hr, mg/L	OECD 201	>40,000	>17,000	>17,000
Daphnia (EC 50), 48 hr, mg/L	OECD 202	>19,000	>6,400	>7,700
Fish (LC 50), 96 hr, mg/L	OECD 203	>43,000	>12,000	>27,000
Not Bioaccumulative (Calculated value as per EPA standard)		Pass	Pass	Pass
Bio-based Content %	ASTM D6866	>95	>95	>95

*The above numbers and values are typical of normal production and do not constitute a specification.

Key Attributes / Approvals



Any industry (foundries, steel mills, construction, mining, marine, oil & gas, plant operations, etc.) utilizing mobile or stationary hydraulically powered equipment that requires an FM Approved hydraulic fluid. Also suitable for those hydraulic systems where a release into the environment is possible or where a leak or spill could reach a waste stream.

- FM Approval for Fire Resistant Hydraulic Fluid
- USDA BioPreferred Program
- Classified as Environmentally Acceptable Lubricants (EAL's) as per the EPA's guidance document that defines standards for Environmentally Acceptable Lubricants (EPA 800-R-11-002) and as required by EPA's 2013 U.S. Vessel General Permit (VGP)

See the Safety Data Sheet (SDS) for emergency, proper handling and disposal information.

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