

## PRODUCT NAME

**BioFlo Synthetic HFDU 46 & 68 – Fire Resistant Hydraulic Fluid**

## MANUFACTURER

BioBlend Renewable Resources, LLC.  
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Elk Grove Village IL, 60007  
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## DESCRIPTION

BioFlo Synthetic HFDU Fire Resistant Hydraulic Fluids are high performance, environmentally responsible lubricants formulated with synthetic polyol esters (POE). These esters are highly biobased and contain ashless additives to help extend equipment and fluid life. Their inherent high viscosity index and broad operating viscosity range provides natural lubricating efficiency.

BioFlo Synthetic HFDU 46 & 68 are approved by Factory Mutual for enhanced safety in applications with potential fire hazards. Including any high-pressure hydraulic systems where spills, leaks or ruptured lines could encounter an ignition source. These powerful fluids provide exceptional wear and corrosion protection and increased safety.

## FEATURES AND BENEFITS

- High performing, anti-wear hydraulic fluid for use in all applications
- High flash point for combustion resistance and low degree of evaporation
- Formulated with premium quality biobased synthetic polyol esters (POE)
- Minimally toxic - safer to use and less harmful to skin
- Naturally high viscosity index for stability in a wide temperature range
- Formulated with Zinc free, ashless antiwear additive technologies
- Readily biodegradable ( $\geq 60\%$  OECD 301A-F/ASTM D7373 testing) within 28 days, petroleum products biodegrade only 15-35%

## PACKAGING

- 5 Gallon Pails
- 55 Gallon Drums
- 275 Gallon Totes

## SUITABLE USES

Recommended for use in vane, gear and piston pump hydraulic systems that must meet the following approval specifications:

- Factory Mutual FM Standard 6930 – HFDU
- SS 15 54 34:2020 Hydraulic fluids
- HFDU according to DIN 51 502, ISO 6743/4
- OECD 301B Readily Biodegradable

## COMPATIBILITY (Seals)

### Compatible Elastomers

- Buna N, Nitrile Butadiene, nitrile content  $>25\%$  (NBR)
- Fluoroelastomers, Viton® (FKM2)
- Hydrogenated nitrile (HNBR)
- Polyurethane (AU)
- Polytetrafluoroethylene, Teflon® (PTFE)

### Non-Compatible Elastomers

- EPDM (Ethylene propylene rubber) (EPR)
- Butyl (Isobutylene Isoprene) (IIR)
- Neoprene (Polychloroprene) (NP)

## STORAGE AND SHELF LIFE

**Storage** – Keep in a cool, dry and well-ventilated place. Store in a properly labelled, original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. To help maintain product quality, do not store in heat or direct sunlight.

**Shelf Life** - Product shelf life is 24 months from date of packaging. In some cases product can last longer, please contact your BioBlend representative for proper testing and confirmation instructions.

## CAUTIONS

Ensure adequate ventilation. Do not breathe vapor/dust. Use personal protective equipment and avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. See the Safety Data Sheet (SDS) for emergency, proper handling and disposal information. Intentional misuse by concentrating and inhaling the product can be harmful or fatal.

## APPLICATION

- Follow recommendations provided in your equipment's owner's manual
- Follow your organization's manuals and/or best practices for preparation, cleaning, conversion, application and ongoing maintenance practices

- If you have further questions, please contact BioBlend Tech Services by filling out the contact us form on [bioblend.com](http://bioblend.com)

## AVAILABILITY

Worldwide

## TECHNICAL SERVICES

For additional information including the Safety Data Sheet (SDS), Frequently Asked Questions, and Glossary please visit [bioblend.com](http://bioblend.com).

## APPROVALS AND CERTIFICATIONS

- Factory Mutual FM Standard 6930 HFDU

## TYPICAL PROPERTIES

Property	ASTM Test Method	Syn HFDU 46	Syn HFDU 68
Product Code		BFSYNHFDU46	BFSYNHFDU68
ISO Grade		46	68
Appearance	Visual	Clear/Amber	Clear/Amber
Viscosity @40°C, cSt	ASTM D445	46	68
Viscosity @100°C, cSt	ASTM D445	10	13
Viscosity @20°C, cSt	ASTM D445	105	160
Viscosity Index (VI)	ASTM D2270	210	185
Pour Point °F (°C)	ASTM D97	-40 (-40)	-20 (-4)
Flash Point °F (°C)	ASTM D92	>572 (300)	>572 (300)
Fire Point °F (°C)	ASTM D92	>680 (360)	>680 (360)
Density @ 15°C (59°F)	ASTM D1298	0.92	0.93
Acid Number, mgKOH/g	ASTM D974	<1.0	<1.0
Foam Tendency, Seq.1 ml @ 25°C	ASTM D892	<50	<50
Air Release, minutes	ASTM D3427	5	8
FZG Load Stage	DIN 51354	12+	12+
Copper Corrosion	ASTM D130	1A	1A
Demulsibility, minutes to <3ml emulsion Rust	ASTM D1401	<15	<15
Readily Biodegradable (meaning>60%)		Pass	Pass
OECD 301B % in 28 day	OECD 301B	>75%	>80%
Bio-based Content %	ASTM D6866	>88%	>91%

The values quoted above are typical of normal production. They do not constitute a specification.

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