

HonuBio Synthetic HF-DU 46 & 68 (Fire Resistant Hydraulic Fluid)



Next Generation Sustainable Lubrication Technologies

PRODUCT NAME

**HonuBio Synthetic HF-DU 46 & 68
(Fire Resistant Hydraulic Fluid))**

MANUFACTURER

Honu Eco Sustainable Solutions, Inc.
200 Mayfly Way
Simpsonville, South Carolina 29680

DESCRIPTION

HonuBio Synthetic HF-DU 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.

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 anti-wear 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:

- SS 15 54 34:2020 Hydraulic fluids
- HF DU 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)

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 Honu Eco Tech Services by filling out the contact us form on honueco.com

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 Honu Eco representative

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.

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Typical Properties

Properties	ASTM Test Method	HFS-FR 46	HFS-FR 68
Product Code		HEHF-SYNFR-246	HEHF-SYNFR-268
ISO Grade		46	68
Appearance	Visual	Clear/Amber	Clear/Amber
Viscosity @40°C, cSt	D445	46	68
Viscosity @100°C, cSt	D445	10	13
Viscosity @20°C, cSt	D445	105	160
Viscosity Index	D2270	210	185
Pour Point °C	D97	-40	-4
Flash Point °C	D92	300	300
Fire Point °C	D92	360	360
Density @ 15°C (59°F)	D1298	0.92	0.93
Acid Number, mgKOH/g	D974	<1.0	<1.0
Foam Tendency, Seq.1 ml @ 25°C	D892	<50	<50
Air Release, minutes	D3427	5	8
FZG Load Stage	DIN 51354	12+	12+
Copper Corrosion	D130	1A	1A
Demulsibility, minutes to <3ml emulsion Rust	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

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