

HonuBio AW FS

(EAL, Biodegradable, HEPR Full Synthetic Anti-Wear Hydraulic Fluid)



Next Generation Sustainable Lubrication Technologies

PRODUCT NAME

HonuBio AW (Anti-Wear Hydraulic Fluid)

MANUFACTURER

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

DESCRIPTION

HonuBio AW FS is a fully synthetic, HEPR, readily biodegradable, hydraulic fluid designed to provide better performance in extreme temperatures and over extended periods of time. It offers high thermal and oxidative stability for extended drain intervals. Friction and wear of parts is minimized in industrial and mobile hydraulic systems.

FEATURES AND BENEFITS

- High thermal and oxidative stability for extended fluid life
- Anti-wear performance for longer parts life
- Wide operating temperature range in extreme cold and extreme heat
- Zinc free – reduced risk of corrosion of certain metals. Safer for use around bodies of water
- Readily biodegradable
- High lubricity

SUITABLE USES

Any industry: construction, refuse, mining, dredging, marine, agriculture, oil & gas, plant operations, etc., utilizing mobile or stationary hydraulically powered equipment, especially hydraulic systems where a release into the environment is possible or where a leak or spill could reach a waste stream. Performs exceptionally well in temperature extremes including hot and cold.

Meets the following specifications:

- DIN 51524 - Part 2 and 3
- Parker Denison HF-1, HF-2, HF-6
- Swedish Standard SS 15 54 34
- 35VQ25 Eaton Vickers Vane Pump
- DIN ISO 15380
- VDMA 24568

APPROVALS / CERTIFICATIONS

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)

PACKAGING

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

APPLICATION / TECHNICAL SUPPORT

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

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.

CAUTIONS

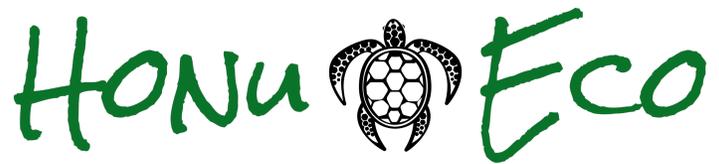
Ensure adequate ventilation. Do not breathe vapor/dust. Use personal protective equipment and avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. See the Safety Data Sheet (SDS) for emergency, proper handling, and disposal information. Intentional misuse by concentrating and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

AVAILABILITY

Worldwide.

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Typical Properties

Technical Properties	ASTM Test Method	AW FS 15	AW FS 22	AW FS 32	AW FS 46	AW FS 68
Product Code		HBAWFS 15	HBAWFS 22	HBAWFS 32	HBAWFS 46	HBAWFS 68
ISO Grade		15	22	32	46	68
Specific Gravity	ASTM D1298	0.86	0.87	0.87	0.87	0.89
Viscosity @40°C, cSt	ASTM D445	15	22	32	46	68
Viscosity @100°C, cSt	ASTM D445	3.8	4.9	6.3	8.7	11.2
Viscosity @-30°C, cSt	ASTM D445	750	2,050	3,250	4,350	9,500
Viscosity Index	ASTM D2270	>140	>140	>140	>140	>140
Pour Point °C	ASTM D97	-45.5	-44	-54	-65	-45
Flash Point °C	ASTM D92	231	231	231	231	231
Performance Properties						
FZG Load Stage	DIN 51354	12	12	12	12	12
Copper Corrosion	ASTM D4048	1A	1A	1A	1A	1A
Rust Test A & B	ASTM D665	Pass	Pass	Pass	Pass	Pass
Demulsibility 15 minutes	ASTM D1401	40-40-0	40-40-0	40-40-0	40-40-0	40-40-0
Dielectric Breakdown Voltage kV	ASTM D877	>45	>45	>45	>45	>45
Readily Biodegradable (meaning>60%)		Pass	Pass	Pass	Pass	Pass
OECD 301B % in 28 days	OECD 301B	>75	>75	>75	>75	>75
Minimally Toxic		Pass				
Algae (EC 50), 72 hr, mg/L	OECD 201	>13,000 mg/L				
Daphnia (EC 50), 48 hr, mg/L	OECD 202	>25,000 mg/L				
Fish (LC 50), 96 hr, mg/L	OECD 203	>50,000 mg/L				
Not Bioaccumulative (Calculated value as per EPA standard)		Pass	Pass	Pass	Pass	Pass

The values quoted above are typical of normal production. They do not constitute a specification. Honu Eco makes no representations, guarantees or warranties, expressed or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose, or as to the correctness or sufficiency of data herein presented. All risk and liability regarding use, conditions of use and handling of this product are assumed by the buyer and any user. No agent, representative, or employee of this company is authorized to vary any of the terms of this notice. To continue to provide superior quality, Honu Eco reserves the right to change the composition of its products without notice.