IL-HMS

OVERVIEW

IL-HMS hydraulic fluids are semi-synthetic, readily biodegradable, zinc-free, anti-wear hydraulic oils formulated from renewable base stocks to meet the performance requirements of mobile and industrial hydraulic systems. These high lubricity base oils are paired with environmentally friendly additive technologies to minimize ecological impact. Lubricants offer excellent thermal and oxidative stability, assuring superior service life with minimal viscosity change over a broad range of operating temperatures. IL-HMS fluids are suitable for use in all conventional hydraulic systems, especially environmentally sensitive applications.

SPECIFICATIONS, APPROVALS AND RECOMMENDATIONS:

- USDA Bio preferred program
- Classified as Environmentally Acceptable Lubricants (EAL'S) per the EPA'S 2013 U.S. Vessel General Permit (VGP). Viscosity grades 32 & 46 only.

TYPICAL PROPERTIES

Bio-based Content, ASTM D6866, %	>75	>75	>86	>86	90
(*Calculated value as per EPA standard)					
Not Bio accumulative*	PASS	PASS	PASS	PASS	PASS
OECD 203 -Fish (LC 50), 96 hr, mg/ L	>34k mg/ L	>34k mg/ L	>34k mg/ L	>40k mg/ L	>36k mg/ L
OECD 202 -Daphnia (EC 50), 48 hr, mg/ L	>5k mg/ L	>5k mg/ L	>5k mg/ L	>10k mg/ L	>8k mg/ L
OECD 201 -Algae (EC 50), 72 hr, mg/ L	>20k mg/ L	>20k mg/ L	>20k mg/ L	>32k mg/ L	>26k mg/ L
Minimally Toxic	PASS	PASS	PASS	PASS	PASS
OECD 301B, %	>70	>70	>76	>78	>70
Readily Biodegradable (meaning>60%)	PASS	PASS	PASS	PASS	PASS
Dielectric Breakdown Volt, ASTM D877, kV	>45	>45	>45	>45	>45
4 Ball Wear, ASTM D4172, Scar, mm	<0.50	<0.50	<0.50	<0.50	<0.50
Rust Test, ASTM D665, A & B	PASS	PASS	PASS	PASS	PASS
Copper Corrosion, ASTM D4048	1A	1A	1A	1A	1A
FZG Load Stage, DIN 51354	11	11	11	11	11
Performance Properties					
Flash Point, ASTM D92, °F (°C)	>400 (204)	>325 (163)	530 (280)	>520 (270)	>470 (243)
Pour Point, ASTM D97, °F (°C)	-45 (-42)	-30 (-34)	-30 (-34)	-30 (-34)	-30 (-34)
Viscosity Index (VI), ASTM D2270	>190	>180	>215	>215	>215
Viscosity, ASTM D445 @100°C, cSt	4	5	7	10	14
Viscosity , ASTM D445 @40°C, cSt	15	22	32	46	68
Specific Gravity, ASTM D1298	.90	.87	.87	.87	.90
ISO Grade	15	22	32	46	68
Technical Properties					
TYPICAL PROPERTIES					



Canadian Product

edging, marine, agriculture, oil webs, prant blockfations, nearly marine, nearly marine, agriculture, oil webs, prant blockfations, nearly marine, nea

PRODUCT HANDLING AND SAFETY

- Keep in a cool, dry and well-ventilated place. Do not breathe vapor/dust.
- 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.
- 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.





