



# SPX ENVIRO-SAFE AW HYDRAULIC OIL

NON-TOXIC, ZINC-FREE, INHERENTLY BIODEGRADABLE, ANTI-WEAR HYDRAULIC OIL

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SPX Enviro-Safe AW Hydraulic Oil is a premium, zinc-free, anti-wear hydraulic oil for use in various industrial and mobile hydraulic systems and applications operating in environmentally sensitive areas. It is specially formulated for reduced environmental impact in case of leaks or spills. It is non-toxic to fish and aquatic species as determined by OECD Test Method 203 1-12, and is classified as inherently biodegradable by OECD Test Method 301B. It passes the visual “no sheen” requirements of the U.S. EPA Static Sheen Test. SPX Enviro-Safe AW Hydraulic Oil is formulated with a zinc-free anti-wear additive package to provide excellent wear protection for hydraulic pumps and motors. It meets the performance requirements of all major hydraulic pump manufacturers, and is recommended for use in all types of high pressure, high-speed hydraulic pumps.

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## Features & Benefits

- Excellent oxidation resistance and thermal stability resulting in reduced sludge and deposit formation
  - Protects against rust and corrosion
  - Excellent water-separating properties
  - Excellent wear protection for hydraulic pumps and motors
  - Inherently biodegradable
  - Non-toxic to aquatic organisms
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## Applications

- Hydraulic systems on industrial, mobile, and marine equipment
  - Hydraulic systems where the equipment manufacturer specifies a zinc-free anti-wear hydraulic oil
  - Hydraulic equipment used in environmentally sensitive areas, such as national parks, wildlife refuges, ski resorts, and other recreational areas
  - Elevators, service station lifts, hoists, presses, and floor jacks
  - Marine cargo winches and steering systems
  - Mobile construction equipment
  - Oil drilling rigs and offshore platforms
  - Chain drives
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## Specifications

SPX Enviro-Safe AW Hydraulic Oil meets the following industry and OEM specifications:

- Bosch Rexroth RE 90220, Type HLP
  - DIN 51524 Part 2, Anti-wear Hydraulic Oils, Type HLP
  - Parker Hannifin (Denison) HF-0, HF-1, HF-2
  - Eaton-Vickers I-286-S, M-2950-S, 35VQ25A anti-wear performance (brochure 03-401-2010 Rev 1, ISO 32, 46, and 68)
  - Fives Cincinnati P-68 (ISO 32), P-70 (ISO 46), P-69 (ISO 68)
  - German Steel Industry SEB 181222
  - ISO 11158:1997, Family H (Hydraulic Systems), Type HM
  - U.S. Steel 127
  - U.S. EPA/U.S. Coast Guard Static Sheen Test, Federal Register Vol. 58, No.41
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## TYPICAL PROPERTIES

ISO Grade	32	46	68
Specific Gravity @ 60°F	0.861	0.865	0.868
Density, lbs/gal @ 60°F	7.17	7.21	7.23
Color, ASTM D1500	0.5	0.5	1.0
Flash Point (COC), °C (°F)	227(440)	240(464)	256(493)
Pour Point, °C (°F)	-39(-38)	-36(-33)	-33(-27)
Viscosity			
cSt @ 40°C	32.0	46.0	68.0
cSt @ 100°C	5.5	6.9	8.9
SUS @ 100°F	150	214	315
SUS @ 210°F	44.3	48.8	55.6
Viscosity Index	108	105	104
Acid Number, ASTM D974, mg KOH/g	0.22	0.22	0.22
FZG Scuffing Test, ASTM D5182, Failure Load Stage	12	12	12
Oxidation Stability, TOST, ASTM D943, hours	>8,000	>8,000	>8,000
Rust Test, ASTM D665 A&B	Pass	Pass	Pass
Aquatic Toxicity, Rainbow Trout, OECD 203 1-12, 1000mg/L, 96hrs, LC50	>0.03	>0.03	>0.03
Biodegradability in 28 days, OECD 301B, %	20-59	20-59	20-59

Minor variations in typical properties data are to be expected in normal manufacturing.

## Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet (SDS).