

# HYDROPLUS AW SERIES ANTI WEAR HYDRAULIC FLUIDS

## Product Description

HYDROPLUS Hydraulic AW Series are premium high-performance oils intended for industrial and HYDROPLUS service where anti-wear lubricants are required. The HYDROPLUS Hydraulic AW Series oils are designed to satisfy the performance requirements for a wide range of hydraulic components in systems subjected to high-pressure, high-temperature operating environments. Their high level of resistance to oxidation and good thermal stability characteristics helps reduce deposit formation and help prevent sluggish system operation. They provide good protection against rust and corrosion in high humidity operations or where low levels of moisture are unavoidable. They separate water readily and have very good air release properties. These products meet the performance requirements of a wide range of hydraulic system and component OEM's and are compatible with the pump and component metallurgy used by various manufacturers.

The HYDROPLUS Hydraulic AW Series oils are formulated with high quality base stocks and a carefully selected additive system that result in finished products that provide many desirable features to improve and prolong equipment life. They are designed to work with systems operating under moderate to severe conditions where a high level of anti-wear protection is needed, yet they are suitable for use in many systems where non-anti-wear hydraulic oils are generally recommended.

The HYDROPLUS Hydraulic AW Series oils provide outstanding performance in a range of equipment operating under moderate to severe conditions. Their excellent oxidation resistance allows extension of oil and filter change intervals while assuring clean systems. Their high level of anti-wear protection and excellent film strength characteristics result in exceptional equipment performance that not only results in fewer breakdowns but helps improve production capacity. Their controlled demulsibility permits the oils to work well in systems contaminated with small amounts of water yet readily separate large amounts of water.

## Performance Standard

IS 10522: 1983

DIN 51524 Part 2 HLP

## Benefits

- Advance anti wear performance.
- Better surface properties reduce oil carryover.
- Good liquid and vapour phase rust protection.
- Provider long stand equipment life extends filter life.

## Typical Properties

PROPERTIES	TEST METHOD	HYDROPLUS AW 32	HYDROPLUS AW 46	HYDROPLUS AW 68	HYDROPLUS AW 100	HYDROPLUS AW 150
ISO Viscosity Grade		32	46	68	100	150
Density 29°C, kg/L	ASTM D 1298	0.872	0.876	0.882	0.884	0.887
cSt @ 40°C		31	45.5	66.67	98	148
cSt @ 100°C		5.4	6.7	8.5	11.1	14.6
Viscosity Index (min)	ASTM D 2270	95	95	95	95	95
Rust Characteristics	ASTM D 665B	Pass	Pass	Pass	Pass	Pass
TOST Life to 2 NN, hrs (min)	ASTM D 943	1000	1500	1500	1500	1500
Pour Point, °C, (max)	ASTM D 97	-18	-18	-12	-12	-12
Flash Point, °C, (min)	ASTM D 92	220	222	232	232	240
Emulsion, Time to 3 ml Emulsion @ 54°C, minutes (max)	ASTM D 1401	30	30	30	30	30

**Available Packs: 20, 50 and 210 Litres.**

**Shelf Life: 36 Months from manufacturing month.**

\* All related specifications are meets or exceeds.

Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly. The Material Safety Data Sheet (MSDS) are available upon request through our sales office.

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product** HYDRAULIC OIL SERIES 32 TO 150  
**Supplier** PETRELPLUS INC.  
 One World Center, Tower One, 9<sup>th</sup> Floor, Senapati Bapat Marg, Lower Parel, Mumbai-400013, Maharashtra.  
 Call # +91 22 6216 7072  
 (Monday to Friday)  
 Cell # +91 93522 25457  
[marketing@petrelplus.com](mailto:marketing@petrelplus.com)  
[www.petrelplus.com](http://www.petrelplus.com)

**2. COMPOSITION**

A composition of Base Oil and Additives.

**3. HAZARDS IDENTIFICATION**

**FIRE** -Flammable at high temperature.  
**HEALTH**  
 Eye contact -May cause mild irritation to the eyes upon direct contact.  
 Skin contact -Prolonged contact may defat the skin or can cause dermatitis.  
 Inhalation -hazards.  
 Ingestion -Harmful if swallowed.

**4. FIRST-AID MEASURES**

Inhalation -Remove person to fresh air. Seek medical help if discomfort persists.  
 Ingestion -Do not induce vomiting. Seek medical support.  
 Skin Contact -Immediately flush skin with plenty of water for at least 15 minutes.  
 Eye Contact -Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally.

**5. FIRE-FIGHTING METHODS**

Extinguishing media -Use dry chemical powder or carbon di – oxide or foam.  
 Special protective equipment -Positive pressure self-contained breathing apparatus.

**6. ACCIDENTAL RELEASE MEASURE**

Personal protection - Adequate ventilation, gloves, goggles, overalls and boots.  
 Environmental precautions - Avoid entry into water courses.  
 Clean up method - Absorb on inert material.

**7. STORAGE AND HANDLING**

Handling - Impervious gloves & eye protection ensure good ventilation. Keep away from source of ignition.  
 Storage - Store in a cool & dry place.

**8. EXPOSURE CONTROL / PERSONAL PROTECTION**

Respiratory protection - Not required under normal conditions.  
 Skin/hand protection - Impervious gloves, overalls, and boots.  
 Eye protection - Use Goggles

**9. TYPICAL PROPERTIES**

Appearance - Clear Fluid  
 Density @29°C - 0.872 to 0.887  
 Rust Test - Pass  
 Flash Point, °C, COC, (Min) - 220 to 240  
 Pour Point (max) - (-18) to (-12)

### 10. STABILITY AND REACTIVITY

Stability	- Stable
Conditions to avoid	- Excessive temperatures
Materials to avoid	- Strong oxidizers
Hazardous decomposition products	- Oxides of carbon and nitrogen

### 11. TOXICOLOGICAL INFORMATION

Skin contact	- Possible irritation
Eye contact	- Possible irritation
Inhalation	- Not applicable
Ingestion	- Irritation. May cause lung damage.
Long term effect	- Not known

### 12. ECOLOGICAL INFORMATION

Mobility	- Mobile
Degradation	- Low
Accumulation	-Not expected
Short- and Long-Term effect	- Water pollutant

### 13. DISPOSAL CONSIDERATIONS

Dispose off according to local and National Regulations.

### 14. TRANSPORT INFORMATION

CPL	- Not applicable
IMO	-Not applicable

### 15. REGULATORY INFORMATION

Symbol(s)	-Not applicable
Phrase(s)	- Not applicable
Phrase(s)	- Not applicable

### 16. OTHER INFORMATION: PRODUCT SAFETY

For safety reasons, it is IMPERATIVE that customer: -Ensure that all those within their control who use the products are supplied with all relevant information contained within the Material Safety Data Sheet and Technical Bulletin concerning the applications for which the product is designed and any instructions or warning.