

# HYDROPLUS AW SERIES<sub>220/320/460 and 680</sub>

## 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

Dennison HF -2

Vickers I-286-S

## 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	HYDROPLU S AW 220	HYDROPLU S AW 320	HYDROPLUS AW 460	HYDROPLUS AW 680
ISO Viscosity Grade		220	320	460	680
cSt @ 40 <sup>o</sup> C		216.4	321	461	682
cSt @ 100 <sup>o</sup> C		18.72	24	31	39.2
Viscosity Index (min)	ASTMD 2270	96	95	96	96
Rust Characteristics	ASTM D 665B	Pass	Pass	Pass	Pass
Pour Point, <sup>o</sup> C, (max)	ASTM D 97	-6	-6	-6	-9
Flash Point, <sup>o</sup> C, (min)	ASTM D 92	240	260	288	290
Emulsion, Time to 3 ml Emulsion @ 54 <sup>o</sup> C, minutes (max)	ASTM D 1401	30	30	30	30

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

**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 OILSERIES  
**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. Keepaway 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  
Rust Test - Pass  
Flash Point, °C, COC, (Min) -240 to 290  
Pour Point (max) - (-6) to (-9)



#### 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.