



## Product Data

# Castrol Hyspin AWS

Anti-wear hydraulic oil

## Description

The Hyspin AWS™ hydraulic oil range is based upon highly refined mineral oil enhanced with a stabilised zinc additive system.

## Application

Hyspin AWS has been specially formulated to provide good anti-wear and thermal stability performance using the very latest additive technology. The careful blend of additives with a high quality base stock ensures that Hyspin AWS has excellent hydrolytic and oxidative stability while exhibiting a minimal tendency to produce sludge and deposits. In addition, Hyspin AWS provides corrosion protection to ferrous and yellow metal components found within a hydraulic system.

This range is designed for use in industrial hydraulic systems which require anti-wear protection. It is also suitable for other duties in which lubricants of high oxidation stability and lubrication performance are required, such as lightly loaded gears, variable speed units and bearings.

The Hyspin AWS range is fully compatible with elastomer materials commonly used for static and dynamic seals, such as nitrile, silicone and fluorinated (e.g. Viton) polymers.

Hyspin AWS is classified as follows:  
DIN 51502 classification – HLP  
ISO 6743/4 – Hydraulic Oils Type HM

Hyspin AWS grades meet the requirements (for appropriate viscosity grade) of:  
DIN 51524 Part 2  
Cincinnati Lamb (Milacron) P 68-69-70  
Denison (Parker Hannafin) HF-0  
US Steel 126 & 127  
Eaton (formerly Vickers) I-286-S & M-2950-S  
Bosch Rexroth RE90220

## Advantages

- Thermal and oxidative stability leads to longer operating life, reduction in lubricant costs and minimizes deposit formation giving a cleaner system.
- Excellent anti-wear performance gives wear protection and reduces downtime from unscheduled maintenance.
- Good filterability characteristics (including in the presence of water) enables cost savings to be made from increased filter life and reduced maintenance
- Excellent water separation and hydrolytic stability means reduced down time through prolonged lubricants life and increased equipment reliability.

## Additional Information

The Hyspin AWS range is classified as hazardous according to the criteria of Safe Work Australia. It is irritating to skin, may cause lung damage if swallowed and may cause long-term adverse effects in the aquatic environment. The personal protective equipment specified on the MSDS, safety goggles and appropriate gloves should be worn. For further information please refer to separate Material Safety Data Sheet available on request. It is a non Dangerous Good. It should be stored so that it can not be released to the environment.

The Hyspin AWS range is classified as C2 combustible according to AS 1940 for storage and handling purposes.

Spillage: SMALL - 20 LITRES OR LESS  
Soak up on Castrol Diatomaceous Earth or similar inert oil absorbent. Arrange for disposal through an approved facility.

LARGE - GREATER THAN 20 LITRES

Contain as soon as possible, remove by best means available and arrange recycling (preferred) or disposal through an approved facility.

Disposal: New or used material must not be allowed to enter the ground, ground water, water courses, sewers or drainage systems. Advice may be sought from the Environmental Protection Authority or from the local waste disposal authority

## Typical Characteristics

Test	Method	AWS 10	AWS 22	AWS 32	AWS 46	AWS 68	AWS 100	AWS 150	AWS 220
ISO Viscosity Grade	-	<b>10</b>	<b>22</b>	<b>32</b>	<b>46</b>	<b>68</b>	<b>100</b>	<b>150</b>	<b>220</b>
Density @ 15°C	ISO 12185 / ASTM D4052	0.86	0.87	0.88	0.88	0.88	0.89	0.89	0.898
K.V. @ 40°C	ISO 3104 / ASTM D445	10	22	32	46	68	100	150	220
K.V. @ 100°C	ISO 3104 / ASTM D445	2.45	4.31	5.44	6.82	8.77	11.28	14.59	19.00
Viscosity Index	ISO 2909 / ASTM 2270	-	>95	>95	>95	>95	>95	>95	>95
Pour Point	ISO 3016 / ASTM D97	-26	-30	-30	-27	-24	-21	-18	-18
Flash Point, COC	ISO 2592 / ASTM D92	160	205	210	215	226	226	232	265
Flash Point, PMCC	ISO 2719 / ASTM D93	150	170	200	200	220	220	220	220
Foam Seq I	ISO 6247 / ASTM D892	10/0	10/0	10/0	10/0	10/0	10/0	10/0	10/0
Water Separability @ 54°C	ISO 6614 / ASTM D1401	5	10	15	15	15	-	-	-
Water Separability @ 82°C	ISO 6614 / ASTM D1401	-	-	-	-	-	15	20	20
Air Release Value	ISO 9120 / ASTM D3427	4	4	4	8	8	12	18	18
FZG fail stage (A8.3/90)	ISO 14635-1 / DIN 51354	-	-	11	12	12	12	12	-
Rust Test (24 hrs Distilled water)	ISO 7210 / ASTM D665A	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Rust Test (24 hrs Synthetic sea water)	ISO 7210 / ASTM D665B	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

Subject to usual manufacturing tolerances.

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