

## ADVANTAGE ASHLESS AW HYDRAULIC OILS

### OVERVIEW

ADVANTAGE AW ASHLESS HYDRAULIC OILS are non-toxic, inherently biodegradable, zinc-free, anti-wear hydraulic oils developed to meet the requirements of high-pressure hydraulic systems operating in areas of environmental concern. These high-quality ashless, oils are non-toxic to fish and other aquatic life and are designed for use in vane, rotary, and geared pumps, and compressors, as well as circulating systems and machine tools.

### FEATURES & BENEFITS

ADVANTAGE AW ASHLESS HYDRAULIC OILS are characterized by their outstanding ability to prevent wear, rust, oxidation, foam, air and water entrainment and provide excellent thermal stability all while being non-toxic and biodegradable. ADVANTAGE AW ASHLESS HYDRAULIC OILS are recommended for applications where the use of lubricants containing toxic heavy metals is restricted because of soil or water contamination concerns.

### APPLICATIONS

ADVANTAGE AW ASHLESS HYDRAULIC OILS are designed primarily for use in hydraulic systems located near environmentally sensitive areas such as national parks, wildlife refuges and ski resorts, but can be used in any hydraulic system where quality and environmental responsibility is of concern or where a zinc-free fluid is specified by the OEM.

### SPECIFICATIONS

AIST 127 • ASTM D6158-16 • Bosch Rexroth RDE 90235, 90245 • Conestoga Pump • DIN 51524 Part II, Anti-wear Hydraulic Oils (Type HLP) • Eaton-Vickers E-FDGN-TB002-E • Fives P-68, P-69, P-70 • Hitachi Advanced Hydraulic Oil • ISO 11158 (Type HM) • JCMAS P041 HK • Parker-Hannifin (Denison) HF-0, HF-1, HF-2, • SAE MS1004

ADVANTAGE AW ASHLESS HYDRAULIC OILS HYDRAULIC are compatible with most zinc-containing hydraulic oils, however, mixing the two products will lessen the environmental and performance benefits.

#### TYPICAL PROPERTIES

Product Code	426	422	466	465	424	425
Viscosity, cSt @ 40 °C	15	22	32	46	68	100
Viscosity, cSt @ 100 °C	3.5	4.8	6.2	7.5	8.9	10.8
Viscosity Index	93	108	100	100	98	96
Flash Point, COC, °C, min.	180	190	200	210	220	240
Pour Point, °C, max.	-55	-50	-50	-42	-37	-25
TOST, D943, hrs.	10,000+	10,000+	10,000+	10,000+	10,000+	5,000+
Demulsibility, mins., max.	less than 15	less than 15	less than 15	less than 15	less than 15	less than 15
FZG Pass, Load Stage	-	-	12	12	12	-
Biodegradability in 28 days, OECD 301B, %	20-59	20-59	20-59	20-59	20-59	20-59
Dielectric Strength, kV	48	48	40	47	48	48