



## Hydraulic Oils

**Premium Hyd AW - All-Climate Multi-Vis Hyd Oil - Ashless AW Prem Synthetic Hyd Oil  
Biodegradable Hydraulic AW - Paper Machine/Paper Mill Hyd Oils- Antiwear Special Hyd Oil  
R&O Turbine Compressor Oils (Non-EP) - R&O Turbine Compressor Oils (EP) - Utility Hyd Oil**

(10/25/11 edition)

**Rallye Premium Hydraulic Antiwear Oils** contain EP agents and chemical components to control wear, oxidation, sludge, corrosion, foaming, and to promote water separation. These oils are formulated to lubricate hydraulic systems that require wear protection, rust protection, and antioxidancy. The product is specifically formulated to provide robust pump and filtration performance in excess of 5,000 hours, even in the presence of incidental water contamination. Rallye Premium Hydraulic Antiwear Oils are formulated to exceed the requirements of all main pump, filter and control valve OEMs who have hydraulic lubricant specifications. These oils provide protection to hydraulic systems employing vane, gear and other types of pumps that require antiwear (boundary-type) protection.

**Rallye All-Climate Multi-Vis Hydraulic Oils** are high viscosity index oils formulated for applications where a wide range of temperature operation is needed. They contain EP agents and chemical components to control wear, oxidation, sludge, corrosion, foaming, and to promote water separation. These oils are formulated to lubricate hydraulic systems which require wear protection, rust protection, and antioxidancy. The product is specifically formulated to provide robust pump and filtration performance in excess of 5,000 hours, even in the presence of incidental water contamination. Rallye All-Climate Multi-Vis Hydraulic Oils are formulated to exceed the requirements of all main pump, filter and control valve OEMs who have hydraulic lubricant specifications. These oils provide protection to hydraulic systems employing vane, gear and other types of pumps that require antiwear (boundary-type) protection.

**Rallye Ash-less Premium AW Synthetic Hydraulic Oils** use full synthetic base stocks coupled with a robust ash-less additive system to form a superior multipurpose antiwear hydraulic fluid. These oils are designed for use in hydraulic systems, compressors, circulating/bearing applications and turbine applications, where either EP or non-EP use is indicated. They contain EP agents and chemical components to control wear, oxidation, sludge, corrosion, foaming, and to promote water separation. These oils are formulated to lubricate hydraulic systems which require wear protection, rust protection, and antioxidancy. The product is specifically formulated to provide robust pump and filtration performance in excess of 8,000 hours, even in the presence of incidental water contamination. Rallye Ash-less Premium AW Synthetic Hydraulic oils are formulated to exceed the requirements of all main pump, filter and control valve OEMs who have hydraulic lubricant specifications. These oils provide protection to hydraulic systems employing vane, gear and other types of pumps that require antiwear (boundary-type) protection.

**Rallye Biodegradable Hydraulic AW Oil** is formulated to lubricate hydraulic systems that require wear protection, rust protection, and antioxidancy. This oil also exhibits strong water separation characteristics, foam inhibition, thermal stability, filterability, and hydrolytic stability. The product is specifically formulated as biodegradable oil. Rallye Biodegradable Anti-Wear Hydraulic oil is formulated to operate in systems with a variety of pump, filter, and control valves where a vegetable oil based hydraulic lubricant is specified.

**Rallye Paper Machine/Paper Mill Hydraulic Oils** meet the most formidable challenge of equipment diversity that a hydraulic oil might encounter. Most modern paper machines have a “wet” end and “dry” end. The dryer section (a dry end) is exposed to very high temperatures of super heated steam used in the drying process and may possess hundreds of roller bearings requiring lubrications. These oils are formulated to allow very long service life, possessing excellent oxidation performance, thermal stability, good demulsibility and good rust protections. A high level of detergency has been added along with an EP agent and chemical components to control wear, oxidation, sludge, corrosion and foaming. The product is specifically formulated to provide robust pump and filtration performance in excess of 5,000 hours, even in the presence of incidental water contamination.

**Rallye Antiwear Special Hydraulic Oil** is blended to offer performance properties for moderate service applications. These oils are suitable for a wide variety of applications where moderately inhibited oils are required. These products are suitable in pump, compressor and circulating systems. These oils contain an EP agent and chemical components to impart anti-wear, oxidation inhibition, and extreme pressure properties.



**Rallye R&O Turbine/Compressor Oils (Non-EP)** are premium oils that offer superior rust protection and antioxidancy. They also exhibit strong water separation characteristics, foam inhibition, thermal stability, filterability, and hydrolytic stability. The product has been specifically formulated to provide robust filtration performance in the presence of water contamination and other common contaminants. These oils have been formulated to bring some resistance to electrostatic discharge, an important feature in dry climates or in high temperature applications. Rallye R&O/Turbine/Compressor Oils (Non-EP) are premium ash-less oils used in the lubrication of various compressors, turbines, circulating systems, and pumps.

**Rallye R&O Turbine/Compressor Oils (EP)** are premium oils that bring superior rust protection and antioxidancy. They also exhibit strong water separation characteristics, foam inhibition, thermal stability, filterability, and hydrolytic stability. The product has specifically been formulated to provide Extreme Pressure and Anti-Wear (EP/AW) performance for systems with gear reduction drives or hydraulic systems that call for EP/AW performances. These oils are formulated with ash-less EP/AW chemistry which is designed to pass FZG and Ryder gear tests. Rallye R&O/Turbine/Compressor Oils (EP) oils have been formulated to bring some resistance to electrostatic discharge, an important feature in dry climates or in high temperature applications. Rallye R&O/Turbine/Compressor Oils (EP) oils are premium ash-less oils used in the lubrication of various compressors, turbines, circulating systems, and pumps. The R&O/Turbine/Compressor (EP) contains a non-zinc EP system, which may be used universally in all R&O/Compressor applications, and the unique performance needs of large turbine power generating units requiring such chemistry and performance.

**Rallye Utility Hydraulic Oil Medium** is a general-purpose hydraulic oil carefully formulated from a balanced blend of selected base oils. This product is suitable for a wide variety of applications where inhibited oils are not required. This type of lubricant is particularly suitable in systems with high leakage rates or in "once-through" applications.

*Some performance levels are limited by viscosity grades. Please consult the Rallye Performance Application Chart, the Rallye Inspection Data Table for the appropriate Rallye product or contact your Rallye District Manager for more complete information and recommendations.  
Consult your Rallye District Manager for specific pack sizes and product availability.*



## TYPICAL INSPECTION DATA

	ISO grade	SAE* grade approx	API Gravity	Flash Point C.	Viscosity cSt@40C	Viscosity cSt@100C	Viscosity Index	Pour Point, C.
	15	5	31.7	180	15.4	3.4	100	-36
PREMIUM	22	10	31.3	190	22.0	4.3	100	-33
HYDRAULIC	32	10	30.4	200	31.8	5.5	100	-30
ANTIWEAR	46	20	31.8	200	45.9	6.9	100	-27
OILS	68	20	31.1	210	68.0	9.0	100	-24
	100	30	29.7	220	100	11.5	100	-18
	150	40	28.7	230	150	14.6	100	-12
	220	50	27.8	240	220	19.1	100	-9
ALL	15	5	31.7	180	16.0	3.6	100	-40
CLIMATE	22	10	31.3	190	22.5	5.0	140	-40
MULTI-VIS	32	20	30.4	190	31.8	6.2	140	-40
HYDRAULIC	46	20	31.8	200	44.5	8.0	140	-40
OILS	68	30	31.1	210	68.0	10.9	140	-40
	100	40	29.7	220	100	14.4	140	-40
ASH-LESS	15	5	37.9	180	15.3	3.6	120	-42
PREMIUM	22	10	37.1	190	22.3	4.6	120	-42
AW	32	20	36.3	200	32.2	5.9	120	-42
SYNTHETIC	46	20	35.7	200	46.2	7.6	120	-42
HYDRAULIC	68	30	35.4	210	68.8	10.2	120	-42
OILS	100	40	35.1	220	100	13.5	120	-42
BIO-DEGRADABLE								
HYDRAULIC AW	32	20	36.3	200	32.2	5.9	100	-33
	15	5	31.7	180	15.4	3.4	100	-36
PAPER	22	10	31.3	190	22.0	4.3	100	-33
MACHINE	32	10	30.4	200	31.8	5.5	100	-30
PAPER MILL	46	20	31.8	200	45.9	6.9	100	-27
HYDRAULIC	68	20	31.1	210	68.0	9.0	100	-24
OILS	100	30	29.7	220	100	11.5	100	-18
	150	40	28.7	230	150	14.6	100	-12
	220	50	27.8	240	220	19.1	100	-9
ANTIWEAR								
SPECIAL	32	10	22.5	200	28.8	-	-	-12
HYDRAULIC	46	20	22.0	200	42.6	-	-	-12
OILS	68	20	22.0	210	63.0	-	-	-9
	22	10	31.3	190	22.0	4.3	100	-21
R & O	32	10	30.5	200	32.0	5.3	100	-15
TURBINE	46	20	29.3	200	46.0	6.8	100	-12
COMPRESSOR	68	20	29.4	210	68.0	8.7	100	-12
OILS	100	30	21.5	220	96.0	11.2	100	-9
(NON-EP)	150	40	21.0	230	147.0	14.2	100	-9
R & O TURBINE	32	10	31.5	200	32.0	5.4	100	-15
COMPRESSOR OILS	46	20	31.1	200	46.0	6.9	100	-12
(EP)	68	20	28.7	210	68.0	8.6	100	-12
UTILITY HYD	Med	20	31.1	200	46.0	-	-	-9
OIL MEDIUM								



SPECIFICATIONS	Premium Hydraulic Antiwear	All Climate Multi-Vis Hydraulic	Ash-less Premium AW Synthetic	Bio-degradable HYD AW	Paper Mach Paper Mill	Anti-Wear Special Hyd.	R&O Turbine Comp. (Non-EP)	R&O Turbine Comp, (EP)	Utility Hydraulic Oil Medium*
Denison HF-0,1,2	√	√	√	HF-6	√	HF-1	HF-1	√	HF-0
Vickers M-2950-S	√	√	√	-	√	-	-	√	-
Vickers I-2860-S	√	√	√	-	√	-	-	√	-
Cin.Lamb P-68/69/70	√	√	√	-	√	-	-	√	-
Cin.Lamb P-38,54,55,57	-	-	-	-	-	-	√	√	-
US Steel 126	√	√	√	-	√	√	-	√	-
US Steel 127	√	√	√	-	√	-	-	√	-
US Steel 136	√	√	√	-	√	-	-	√	-
Sunstrand	√	√	√	-	√	-	-	√	-
Rexroth RE 90220	√	√	√	90221	√	√	-	√	-
Racine	√	√	√	-	√	-	-	√	-
Parker	√	√	√	-	√	√	-	√	-
AAMA DIN51524	Part 2	Part 2	Part 2	-	Part 2	-	Part 1	Part 1	-
AAMA DIN51515	-	-	-	-	-	-	√	√	-
SEB 181222	√	√	√	-	√	-	-	√	-
SAE MS1004	√	√	√	-	√	-	-	√	-
AFNOR NF 48-603	√	√	√	-	√	-	√	√	-
GEK 101941A	-	-	-	-	-	-	-	√	-
GEK 32568E,28143A,46506D	-	-	-	-	-	-	√	√	-
BS 489	-	-	-	-	-	-	√	√	-
Mil-L-17672D	-	-	-	-	-	-	√	-	-
Mil-L-17331H	-	-	-	-	-	-	-	√	-
Brown HTGD90117	-	-	-	-	-	-	-	√	-

## PERFORMANCE APPLICATION CHART

\* Utility Hydraulic Medium is a general purpose Hydraulic Oils that is suitable in many applications where inhibited oils are not required.