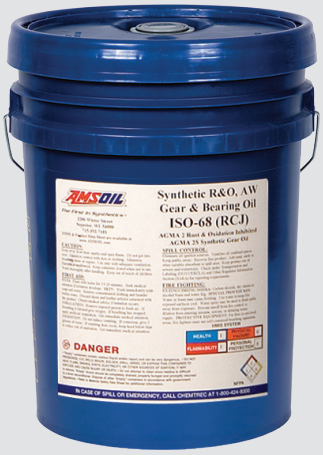
DATA BULLETIN

RC Series R&O/AW Synthetic Gear and Bearing Oil

AMSOIL RC Series R&O/AW Synthetic Gear and Bearing Oil is formulated with high-quality synthetic base stocks and additive systems that effectively reduce wear and protect equipment by maintaining viscosity, resisting thermal and oxidative breakdown, inhibiting rust and resisting the degrading effects of water.



- **Resistant** to high-temperature oxidation
- **Formulated** with anti-wear, anti-rust and anti-foam additives
- **Excellent** cold-temperature performance
- **Compatible** with yellow metals
- **Separates** readily from water
- **Extended** oil drain intervals and equipment life.

Enhances Performance

Non-detergent, ashless anti-wear additives provide an additional layer of protection against wear in severe conditions while antioxidants increase oxidation resistance and extend lubricant life. Rust inhibitors protect critical components against corrosion in the presence of water or process contaminants and foam suppressants help prevent foaming that can compromise film strength.

Resists Oxidation

AMSOIL RC Series Oil is shear-stable and oxidation-resistant, helping prevent viscosity loss from mechanical shear and viscosity increase from oxidation. RC Series Oil remains fluid at cold temperatures, providing easier startups, quick lubrication circulation and limiting the need for sump heaters. At higher temperatures, RC Series Oil maintains a thick lubricating film, reducing metal-to-metal contact and component wear.

Repels Water

RC Series Oil provides hydrolytic stability (stability in the presence of water) and demulsibility (ability to separate from water), increasing lubricant life, helping prevent oil/water emulsions and allowing reservoirs to be drained of water.

Superior Protection

ISO 32, 46 and 68 viscosity-grade RC Series Oils (RCH, RCI, RCJ) provide superior protection in high- and low-pressure gear, vane and piston hydraulic systems, compressors, high-speed bearings, small gear sets, high-speed gears and many other industrial applications. RC Series Oil, meets AGMA specifications for R&O gear oil for the lubrication of intermediate-speed equipment where mild shock-loading and intermittent service are involved. These applications include machine tools, roller chains, gear reducers, cone drives, large motor bearings, medium-speed ball and roller bearings, blowers and worm gear sets. **Consult the manufacturer for proper viscosity recommendations.**

TYPICAL TECHNICAL PROPERTIES

RC Series Synthetic Circulating Oil

	RCH	RCI	RCJ	RCK	RCL	RCM	RCN	RCO
ISO VG (ASTM D2422)	**ISO 32**	**ISO 46**	**ISO 68**	**ISO 100**	**ISO 150**	**ISO 220**	**ISO 320**	**ISO 460**
AGMA Synthetic Gear Oil Classification	0S	1S	2S	3S	4S	5S	6S	7S
Kinematic Viscosity @ 100° (ASTM D445)	6.2	7.6	10.3	13.6	19.3	25.6	33.8	44.5
Kinematic Viscosity @ 40° (ASTM D445)	33.1	43.7	67.8	100.5	154.1	225.3	330.3	470.9
Viscosity Index (ASTM D2270)	137	142	138	136	144	145	144	148
Flash Point °C (°F) (ASTM D92)	264 (507)	257 (495)	258 (496)	264 (507)	280 (536)	272 (522)	276 (529)	281 (538)
Fire Point °C (°F) (ASTM D92)	278 (532)	272 (522)	274 (525)	276 (529)	296 (565)	298 (568)	300 (572)	302 (576)
Pour Point °C (°F) (ASTM D97)	-53 (-63)	-50 (-58)	-48 (-54)	-45 (-49)	-40 (-40)	-40 (-40)	-36 (-33)	-30 (-22)
Noack Volatility, % weight lost (g/100g) (ASTM D5800)	3.8%	4.5%	3.0%	2.8%	4.0%	3.6%	3.3%	3.6%
Four-Ball Wear Test (ASTM D4172)								
Mod. (@ 40 kg, 1200 rpm, 75°C, 1 hr.)	0.45	0.45	0.45	0.45	0.37	0.37	0.37	0.37
Copper Strip Corrosion Test (ASTM D130)								
Mod. (250°F, 3 hr.)	1A	1A	1A	1A	1A	1A	1A	1A
Rust Tests (ASTM D665A & B)								
(freshwater & synthetic seawater)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Foam, ml – (ASTM D892)								
Sequence I, II, III Test End and after 10 minutes settling	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0

APPLICATIONS

AMSOIL RC Series Synthetic Oil is primarily recommended for gear and bearing applications and circulating systems requiring R&O or anti-wear additive technology. The appropriate viscosity of AMSOIL RC Series Oil meets or exceeds the following hydraulic oil applications or requirements:

- Denison HF-0, HF-1 and HF-2
- Vickers M-2950-S and I-286-S
- Cincinnati Milacron P-68, P-69 and P-70
- U.S. Steel 127 and 136
- Ford M-6C32
- GM LH-04-1, LH-06-1 and LH-15-1
- Lee Norse 100-1
- Jeffrey No. 87
- BF Goodrich 0152
- Commercial Hydraulics
- AGMA R&O Synthetic Gear Oil specifications

Note: AMSOIL RC Series Oil is not designed for applications requiring extreme-pressure (EP) agents. For EP-fortified lubricants, refer to AMSOIL SG Series Gear Oil.

SERVICE LIFE

The ability of RC Series Oil to extend drain intervals is subject to operating conditions and maintenance practices and should be monitored by oil analysis.

COMPATIBILITY

Although AMSOIL lubricants are compatible with mineral oil-based lubricants, for optimum performance it is recommended that the system be thoroughly drained and cleaned, if warranted.

AMSOIL PRODUCT WARRANTY

AMSOIL products are backed by a Limited Liability Warranty. For complete information visit www.amsoil.com/warranty.aspx.

HEALTH & SAFETY

This product is not expected to cause health concerns when used for the intended applications and according to the recommendations in the Safety Data Sheet (SDS). An SDS is available via the Internet at www.amsoil.com or upon request at (715) 392-7101. **Keep Out of Reach of Children**. Recycle used oil and bottle.

AMSOIL Industrial Synthetic Lubricants and Dealership information are available from your AMSOIL Industrial Dealer or AMSOIL INC.

AMSOIL INC., 925 Tower Ave., Superior, WI 54880 • 715-392-7101 • Printed in the USA.