

# CLARION® GREEN SYNTHETIC GEAR FLUIDS



Date 05/18

**DESCRIPTION:** Clarion Green Synthetic Gear Fluids are high performance readily biodegradable extreme pressure gear lubricants. Formulated with premium synthetic fluid components and ashless additives, Clarion Green Synthetic Gear Fluids meet environmental compliance requirements while providing protection for heavily loaded machinery operating in environmentally sensitive areas.

**Clarion Green Synthetic Gear Fluids meet EPA Coast Guard Vessel General Permit (December 2013) requirements for Environmentally Acceptable Lubricants (EAL).**


- BENEFITS:**
- Readily biodegradable, fully synthetic formulation
  - Non-toxic in acute aquatic toxicity test (LC-50)
  - Zinc free ashless formulation. Zinc compounds are regulated as priority pollutants under provisions of the Clean Water Act and SARA Title 313.
  - Excellent low temperature performance
  - Outstanding rust and corrosion protection
  - Contain inhibitors to minimize foaming and air entrainment
  - Premium extreme pressure (EP) protection for heavily loaded industrial gears and plain or roller element bearings.

**APPLICATIONS:** Clarion Green Synthetic Gear Fluids are recommended for lubrication of industrial gear, plain or roller element bearing applications. Excellent for use in environmentally sensitive areas where the use of a zinc free, ashless, low aquatic toxicity readily biodegradable lubricant meeting EPA Vessel General Permit (December 2013) requirements for Environmentally Acceptable Lubricants (EAL) is desired.

Uses include:

- Marine — Marine Vessels, Offshore and Inshore Rigs, Tugs, Dredges, Dock Equipment, Cranes, Pile-Drivers, Marine Construction Equipment, Subsea Equipment
- Forestry — Scalpers, Excavators, Wheel Loaders
- Oil & Gas Exploration – Oil and Gas Drilling Rigs

Fluid monitoring through LubeAlert® Oil Analysis is recommended to maximize the service life of Clarion Green Synthetic Gear Fluids. Moisture content should be maintained at less than 500 ppm.

- MEETS EPA 2013 VGP EAL REQUIREMENTS
- READILY BIODEGRADABLE 
- NON-TOXIC PER LC-50 AQUATIC TOXICITY TEST
- EXTREME PRESSURE (EP) RATED
- ZINC FREE

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GEAR FLUIDS



Date 05/18 - (Continued)

**TYPICAL PROPERTIES:**

**CLARION® GREEN SYNTHETIC GEAR FLUIDS**

<b>ISO Viscosity Grade</b>	<b>150</b>	<b>220</b>	<b>320</b>
<b>AGMA Grade</b>	<b>4EP</b>	<b>5EP</b>	<b>6EP</b>
Material Code	633589009	633590009	633591009
Gravity, °API ASTM D4052	22.1	18.92	16.42
Flash Point, (COC) °C (°F) ASTM D92	220 (428)	225 (437)	227 (440)
Pour Point, °C (°F) ASTM D97	-45 (-49)	-42 (-44)	-36 (-33)
Viscosity ASTM D445			
cSt @ 40°C	150	220	320
cSt @ 100°C	21.4	28.2	37.2
Viscosity Index, ASTM D2270	164	165	165
Color, ASTM D1500	L2.0	L2.0	L2.0
Foam Test ASTM D892			
Seq. I, mL-mL	0-0	0-0	10-0
Seq. II, mL-mL	0-0	20-0	15-0
Seq. III, mL-mL	0-0	0-0	0-0
Water Separability@ 180°F, mL/mL/mL/min ASTM D1401	>40/40/0/30	>40/38/0/30	>40/38/0/30
Copper Corrosion, 3 hours @ 100°C, ASTM D130	1A	1A	1A
Rust Test, ASTM D665 A/B	Pass	Pass	Pass
RPVOT, minutes ASTM D2272	150	144	121
Four Ball Wear, mm ASTM D4172			
20 Kg	0.43	0.43	0.43
40 Kg	0.55	0.55	0.54
Four Ball Weld Point, Kgf ASTM D2783	315	315	500
 Biodegradability, % ASTM D7373	>60	>60	>60

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