



CITGO AQUAMARINE® OILS

Date 01/06

DESCRIPTION: CITGO Aquamarine Oils are high performance, anti-wear hydraulic oils, designed for use in the pumps and gears of high pressure hydraulic equipment operating in environmentally sensitive areas.

QUALITIES: CITGO Aquamarine Oils are aromatic-free, inherently biodegradable and will pass the U.S. Coast Guard static sheen test requirements. They are non-toxic to aquatic life, exceeding U.S. EPA LC₅₀ test requirements for mysidopsis-bahia shrimp, rainbow trout and fathead minnow.

CITGO Aquamarine Oils have excellent thermal and oxidative stability, exceeding 15,000 hours D 943 TOST Life. They meet the requirements of all major hydraulic pump manufacturers, including Denison HF-0, HF-2, Cincinnati Lamb P-68, P-69, P-70, and Vickers Industrial & Mobile 35 VQ 25, and are compatible with other premium mineral oil-based lubricants.

These oils are formulated with a state-of-the-art, ashless additive package that provides maximum wear protection for pump components, ensures optimum rust and corrosion protection, hydrolytic stability and longer service life. They are easily recycled.

APPLICATIONS: CITGO Aquamarine Oils are recommended for high pressure, high temperature, vane, piston, & gear-type hydraulic pumps operating in environmentally sensitive areas such as in hydraulic lifts and cranes on off-shore drilling and production platforms.

They are used in scalpers, excavators, and wheel loaders in the forestry industry and in dredges, kelp-cutters, and pile drivers in the marine industry.

TYPICAL PROPERTIES:

CITGO AQUAMARINE OILS

ISO VIS Grade	32	46	68	460
Material Code	633560001	633561001	633562001	633567001
Color	Light Green	Light Green	Light Green	Light Green
Gravity, ASTM D 4052, °API	32.6	31.8	31.0	29.3
Flash Point, COC, ASTM D 92, °F	380	400	410	410
Viscosity, ASTM D 2161, SUS at 100°F	165	238	353	2,500
ASTM D 445, cSt at 40°C	32	46	68	460
Viscosity Index, ASTM D 2270	100	100	100	96
Pour Point, ASTM D 97, °F	-20	-20	-20	-20
Oxidation Life (modified), ASTM D 943 (hrs. to 2.0 Acid No.)	15,000+	15,000+	15,000+	—
Water Separation Time, ASTM D 1401 minutes at 130°F	15	15	15	—
at 180°F	—	—	—	20
Four Ball EP Wear, mm				
ASTM D 4172-A (20kg)	0.30	0.30	0.29	0.6
ASTM D 4172-B (40kg)	0.42	0.42	0.41	0.7
Timken, OK Load (oil) ASTM D 2782A	—	—	—	60
FZG Load Stage Pass				
DIN 51354, Part 2	12	12	12	12
Dielectric Strength KV, ASTM D 877	34	34	34	N/A