

ELBA ENVIRO EP GEAR OIL SERIES

BIODEGRADABLE EP GEAR LUBRICANT

Elba Enviro EP Gear Oils are environmentally responsible lubricants designed for the protection of gears and bearings in systems where high temperature and/or extreme pressure conditions exist. This biosynthetic formulation is recommended for lubricating heavy duty spur, helical, bevel, and worm gear configurations, subject to heavy loading or shock loading. Elba Enviro EP Gear Oils meet or exceed the following performance requirements:

U.S. Steel 224

- ▲ AGMA 9005/250.04
- DIN 51517, Part 3
- David Brown DB S1.53.101
- Cincinnati Machine E.P.

Classified as ultimately biodegradable (Pw1) and non-toxic, Elba Enviro EP Gear Oils are ideal for equipment operating in environmentally sensitive areas. Elba Enviro EP Gear Oils Series complies with the "biodegradable", "minimally-toxic" and "not bio-accumulative" standards as defined in Appendix A of the 2013 Vessel General Permit issued by the United States Environmental Protection Agency.

Physical Properties				
Products	EP-150	EP-220	EP-320	EP-460
ISO Grade, Approximate	150	220	320	460
AGMA #, Approximate	4 EP	5 EP	6 EP	7 EP
Viscosity				
@40°C, cSt	131	166	260	382
@100°C, cSt	20	24.1	34	49
Viscosity Index	175	177	182	191
Specific Gravity	0.900	0.903	0.900	0.908
Flash Point °F(°C)	550(288)	536(280)	536(280)	536(280)
Pour Point °F(°C)	-22(-30)	-18(-28)	-14(-25)	-8(-22)
Copper Corrosion	1A	1A	1A Pass	1A Pass
Rust Test	Pass	Pass	70	70
Timken OK, lbs	70	70	0.3	0.3
Four-Ball Wear	0.3	0.3		
Four-Ball EP				
Weld Point (kg)	250	250	250	250
Four-Ball EP Load				
Wear Index	47.86	47.86		
FZG Gear Test	12	12	47.86	47.86
Biodegradation	ultimate	ultimate	12 inherent	12 inherent
Classification,	Pw1	Pw1		
VGP/EAL Compliant	Yes	Yes	Yes	Yes

Prior to transitioning equipment on board vessels to Elba Enviro EP Gear Oils; the ship owner/operator should verify with the equipment manufacturer that the sealing system is compatible for use with an EAL.

For Technical, Quality or Product Safety Questions Please Contact:

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