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Product Data Sheet



NOTE: The information in this publication is the result of careful testing in our laboratories, complemented by selected literature. It does not in any way constitute a guarantee, nor does it serve as a license to operate any patent. Due to widely varying conditions of product use, which are beyond our control, it is strongly recommended that the product be tested for suitability. Product typical properties in this publication are current.

BIODEGRADABLE EP GEAR LUBRICANT

EnviroTech® EAL EP GEAR OIL SERIES

EnviroTech® EAL 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. EnviroTech® EAL 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, EnviroTech® EAL EP Gear Oils are ideal for equipment operating in environmentally sensitive areas.

EnviroTech® EAL EP Series complies with the “biodegradable”, “minimally-toxic” and “not bioaccumulative” 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	137	205	310	382
@100°C, cSt	22	30.8	44.2	52
Viscosity Index	188	194	201	202
Specific Gravity	0.900	0.903	0.900	0.908
Flash Point °F(°C)	536(280)	536(280)	536(280)	536(280)
Pour Point °F(°C)	-40(-40)	-36(-38)	-18(-36)	-11(-24)
Copper Corrosion	1A	1A	1A	1A
Rust Test	Pass	Pass	Pass	Pass
Timken OK, lbs	70	70	70	70
Four-Ball Wear	0.3	0.3	0.3	0.3
Four-Ball EP Weld Point (kg)	375	395	395	395
Four-Ball EP Load Wear Index	55	55	56	56
FZG Gear Test	>12	>12	>12	>12
Biodegradation Classification,	ultimate Pw1	ultimate Pw1	inherent	inherent
VGP/EAL Compliant	Yes	Yes	Yes	Yes

Prior to transitioning equipment on board vessels to **EnviroTech® EAL EP Series**; the ship owner/operator should verify with the equipment manufacturer that the sealing system is compatible for use with an EAL.