Mobil

Mobil EAL Envirosyn H Series

Mobil Industrial , Japan

Hydraulic Fluids

Product Description

Mobil EAL Envirosyn H Series oils are super premium, high performance fully synthetic environmentally aware hydraulic and circulating oils designed to provide outstanding performance in systems operating at moderate to severe conditions. They provide excellent wide temperature range performance above and beyond the capabilities of non-synthetic environmentally aware oils. Mobil EAL Envirosyn H Series provides exceptional anti-wear and film strength characteristics necessary for hydraulic systems operating under high load and high pressures. This is verified by their excellent wear control in the ASTM D 2882 and Vickers 35VQ25 Pump Wear Tests. Their 12-stage rating in the FZG Gear Load Test demonstrates a high level of protection against wear and scuffing and the suitability of this product to protect gears and bearings used in conjunction with hydraulic systems. The Mobil EAL Envirosyn H Seriess provide excellent protection against corrosion and ensures very good multi-metal compatibility allowing its use in systems employing various metallurgy that may be used in pump and component design. They also provide very good thin oil film protection against rusting. In addition to their exceptional performance capability, they satisfy the requirements for ready biodegradability and non-toxicity making them a desirable product for severe operating conditions where leakage or spillage of conventional oils could result in damage to the environment.

Mobil EAL Envirosyn H Series oils are formulated from select, high-quality, high-VI synthetic base oil materials and high technology additive system specifically engineered to meet or exceed the performance requirements of most hydraulic pump and system builders while satisfying the stringent criteria for biodegradability and toxicity. Compared to the best vegetable oil-based and synthetic ester based hydraulic oils, these products provide improved oxidation stability and anti-foam performance, together with improved high and low temperature performance (-20º F to 200º F).

Features and Benefits

Mobil EAL Envirosyn H Series oils provide excellent wide temperature range performance. Their exceptional anti-wear, lubricity, and film strength characteristics assure performance in hydraulic and circulation systems operating under moderate to severe conditions. The ready biodegradability and virtually non-toxic nature of these products make them an excellent choice where leakage or spillage could enter environmentally sensitive areas. The inadvertent leakage of spillage of this product in environmentally sensitive areas could result in easier clean-up and lower remediation costs.

Features	Advantages and Potential Benefits
Ready Biodegradability and Non-Toxicity	Reduces potential for environmental damage Lowers potential remediation and clean-up costs caused by spills or leakage Becomes an integral part of plant environmental programs
Excellent Wide-Temperature Range Performance	Assures high level system lubrication at high and low temperatures
High Oxidation Stability	Long oil life Reduced deposit and sludge formation Extended filter life
Outstanding Load-Carrying and Anti-Wear Properties	Protects system components against wear and scuffing Provides long equipment life
Exceptional Corrosion Protection	Reduces corrosion of internal system components
Excellent Multi-Metal Compatibility	Will not react with steel or copper alloys
Good Elastomer Compatibility	Works well with same elastomers used with conventional mineral based oils. No need for special seals or elastomers

Applications

- Hydraulic systems where spills or leakage could result in damage to the environment
- In systems where readily biodegradable and virtually non-toxic fluids may be required
- Circulation systems containing gears and bearings where mild extreme-pressure characteristics are desired
- Systems containing servo-valves
- Hydraulic systems operating with oil temperatures in the range of -20F to 200F
- Marine and mobile equipment operating in environmentally sensitive areas
- Circulation systems operating under mild to moderate service conditions
- Industrial hydraulic systems where leaked or spilled fluids could get into plant effluent
- Air line oilers and some limited oil-mist generating systems
- Air-over-hydraulic fluid systems operating in environmentally sensitive areas

Specifications and Approvals

This product is recommended for use in applications requiring:	46	68
Eaton I-286-S	X	X
Eaton M-2950-S	X	X

Properties and Specifications

Property	32	46	68
Grade	ISO 32	ISO 46	ISO 68
Aquatic Toxicity, LL50, ppm, OECD 203 Mod	>5000	>5000	>5000
Biodegradability, CO2 Conversion, %, EPA560/6-82-003	>60	>60	>60
Density @ 15 C, kg/l, ASTM D4052	0.869	0.874	0.884
FZG Scuffing, Fail Load Stage, A/8.3/90, ISO 14635-1	12	12	12
Flash Point, Cleveland Open Cup, °C, ASTM D92	268	260	266
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	6.36	7.8	10.1
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	33.1	48.8	69
Pour Point, °C, ASTM D97	-39	-45	-39
Rust Characteristics, Procedure B, ASTM D665	PASS	PASS	PASS
Viscosity Index, ASTM D2270	147	145	138

Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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