



ADVANCED TECHNOLOGY IN LUBRICATION SINCE 1933

SWEPACO  
**704**

PERFORMANCE

## Synthetic AW Hydraulic Oil



**Exceptional Oil Life  
Up to 8,000 Hours**

SWEPACO 704 Synthetic Anti-Wear Hydraulic Oil delivers industry leading anti-wear performance in the most demanding stationary or mobile hydraulic applications. SWEPACO's **Syntheon™** synthetic base stock blends and proprietary **LUBIUM® II** oxidation and corrosion resistant chemistry lengthen lubricant life, insure system cleanliness, deliver unsurpassed protection from wear, improve hydraulic efficiencies and reduce energy consumption. When you want the best, choose SWEPACO 704 Synthetic Anti-Wear Hydraulic Oil.



### KEY BENEFITS

- **Syntheon™** synthetic base stock blends insure long life & less waste oil
- Truly superior anti-wear performance
- Reliable service life up to 8,000 hours or more
- Advanced **LUBIUM® II** anti-oxidant chemistry prevents carbon, varnish & other performance-robbing deposits
- Unexcelled protection from rust & corrosion
- Excellent anti-foam performance
- Rapid, complete water separation
- Energy efficient; improves hydraulic efficiency
- Remains fluid down to -40°F (-40°C) for low temperature applications
- Dependable, long service life in the most demanding stationary or mobile hydraulic applications
- UV sensitive for fast leak detection

**Get the most for your lubrication dollar...**



**MANUFACTURING**



**AGRICULTURE**



**CONSTRUCTION**



**MOTION CONTROL**

Protect your hydraulic systems and equipment with the superior lubrication of SWEPACO 704 Synthetic Anti-Wear Hydraulic Oil.

Feature	Benefit		
<b>Syntheon™ Base Stock Blends</b>	<ul style="list-style-type: none"> <li>• Gives you a more uniform viscosity over a wide temperature range</li> <li>• Improves high temperature oxidation and thermal stability</li> <li>• Better low temperature flow characteristics help reduce start-up wear</li> <li>• Extends service life</li> </ul>		
<b>LUBIUM® II Anti-Oxidant</b>	<ul style="list-style-type: none"> <li>• Improves resistance to high temperature degradation</li> <li>• Helps prevent varnish and carbon deposits that result from oxidation</li> </ul>		
<b>Anti-Wear Additive</b>	<ul style="list-style-type: none"> <li>• Protects surfaces from scuffing wear</li> </ul>		
<b>Rust &amp; Corrosion Inhibitor</b>	<ul style="list-style-type: none"> <li>• Builds a chemical bond with the surface to keep moisture and acids from penetrating and attacking the surfaces. Rust inhibitor protects metal surfaces and seals from moisture. Particularly effective during periods of shutdown, where cooling may cause condensation</li> </ul>		
<b>Anti-Foam Additive</b>	<ul style="list-style-type: none"> <li>• Lowers oil operating temperatures up to 25 degrees F. or more by dispersing foam and releasing trapped heat</li> </ul>		
<b>Pour Point Depressant Additive</b>	<ul style="list-style-type: none"> <li>• Gives oil better low temperature flow characteristics</li> <li>• Helps to reduce low temperature start-up wear</li> </ul>		
<b>Long Service Life</b>	<ul style="list-style-type: none"> <li>• Up to 8,000 hours or more; reduces consumption; reduces waste oil disposal costs</li> </ul>		
<b>LabTec<sup>SM</sup> Fluid Analysis Program</b>	<ul style="list-style-type: none"> <li>• Can maximize equipment life, life of the lubricant and pinpoint impending problems</li> <li>• Reduces waste</li> </ul>		
<b>Bottom Line</b>	<table border="0"> <tr> <td> <ul style="list-style-type: none"> <li>• Increased profits through...</li> <li>• Extended equipment life</li> <li>• Extended oil life</li> <li>• Reduced electrical utility costs</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>• Reduced waste oil disposal</li> <li>• Reduced costly scheduled/unscheduled downtime</li> <li>• Reduced labor costs</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>• Increased profits through...</li> <li>• Extended equipment life</li> <li>• Extended oil life</li> <li>• Reduced electrical utility costs</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced waste oil disposal</li> <li>• Reduced costly scheduled/unscheduled downtime</li> <li>• Reduced labor costs</li> </ul>
<ul style="list-style-type: none"> <li>• Increased profits through...</li> <li>• Extended equipment life</li> <li>• Extended oil life</li> <li>• Reduced electrical utility costs</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced waste oil disposal</li> <li>• Reduced costly scheduled/unscheduled downtime</li> <li>• Reduced labor costs</li> </ul>		

## Typical Physical Properties

ISO Viscosity Grade, ASTM 2422	22	32	46	68	100
SAE Grade	5	10	15	20	30
Density, @ 60°F, lb/gal, ASTM D1298	7.13	7.22	7.27	7.52	7.52
Specific Gravity @ 60 °F, ASTM 1298	0.85	0.87	0.87	0.90	0.90
Viscosity, ASTM D447					
cSt @ 40 °C	24.5	33	48	70	102
cSt @ 100 °C	4.8	5.5	7.1	9.1	11.7
Viscosity Index, ASTM D2270	117	109	107	105	108
Pour Point °F, ASTM D97, Max (°C)	-32 (-36)	-40 (-40)	-30 (-34)	-26 (-32)	-18 (-28)
Flash Point °F, ASTM D92, Min (°C)	400 (204)	400 (204)	420 (215)	425 (218)	425 (218)
Fire Point °F, ASTM D92, Min (°C)	470 (243)	475 (246)	505 (263)	510 (265)	515 (268)
Dielectric Strength, ASTM D877, volts	>36,000	>36,000	>36,000	>36,000	>36,000
Color	red	red	red	red	red

## Typical Performance Properties

Copper Strip Corrosion, ASTM D130, Color	1a
Rust, ASTM D665 A & B	
Distilled Water	pass
Synthetic Sea Water	pass
Acid Number, ASTM D974	0.03
Foam, ASTM D892, Seq I/II/III	10-0/0-0/10-0
Demulsibility, ASTM D1401	
oil/water/cuff (minutes)	40/40/0 (10)
Oxidation, RPVOT minutes @150°C, ASTM D2272	1578
Oxidation, hrs to 2.0 TAN, ASTM D943	8,000+
Four Ball Wear, ASTM D4172	
1800 rpm, 1hr, 400N, scar diameter, mm	0.58
FZG Gear, DIN 51354 part 2, Damage Load Stage	>11
Hydrolytic Stability, ASTM D2619	
Copper loss, mg/cm <sup>2</sup>	0.10
Acidity of water, mgKOH/25g	basic
Cincinnati Machine Thermal Stability Test Part A	
% viscosity change	1.8
Copper rod appearance	2
Copper loss, mg	3.8
Iron rod appearance	1
Iron loss, mg	1.2
Insoluble content	0.0
Sludge, mg/100ml	8.9

## Meets or Exceeds the Performance Requirements of These Specifications:

- Denison HF-0 • Cincinnati Machine P-68, P-69, P-70
- U.S. Steel 127, 136 • AFNOR NFE 48-603 • GM LS-2
- Sauer-Sunstrand • DIN 51524 Part II • NSF and Health Canada requirements for use in closed systems in federally inspected food & beverage plants

## Compatibility

Paints-Epoxy, Oil Resistant Alkyd, Acrylic Enamel  
Seals & Plastics-Acetal (Delrin), ABS, Phenolic, Polyamide-imide, Polyamide (Nylon), Polyester, Polyetherimide (Nylon), Polyimide, Polyphenylene oxide, Polystyrene, Polysulfone, PTFE (Teflon), Terephthalate Elastomers:, Fluoroelastomer (Viton), Nitrile (Buna N), Polyacrylate, TFE/P, Poly Urethane. NOT recommended for polycarbonate plastic that is not metal covered, PVC plastic and butyl, ethylene-propylene or SBR rubber.

Changeovers: Although compatible with mineral oils, PAOs and some other synthetic oils, a thorough drain and cleaning is recommended before switching over to SWEPCO 704. This will help reduce initial contamination and insure optimum performance.



**A Product of SPX Technology™.**

... the cutting edge performance SWEPCO Customers have come to expect.



## Southwestern Petroleum Corporation

Fort Worth, Texas • Phone: (800)359-5823 or (817)332-2336 • Fax: (817)348-7237 • Web: www.swepcousa.com  
Southwestern Petroleum Europe • Southwestern Petroleum Canada