



Lubricants  
United States



## SUNOCO CHALLENGE D/E SERIES SYNTHETIC FLUIDS

### Overview

SUNOCO CHALLENGE D/E SERIES SYNTHETIC FLUIDS are fully synthetic compressor oils specially formulated with premium synthetic ester base fluids for use in a wide variety of air compressors. SUNOCO CHALLENGE D/E 32, 46, & 68 are designed from diester base oils for rotary screw compressors and will offer a typical service life of 8,000 hours under good operating conditions. SUNOCO CHALLENGE D/E 100 & 150 are designed from diester base oils for reciprocating compressors and are recommended for high pressure air compressors.

### Features & Benefits

SUNOCO CHALLENGE D/E SERIES SYNTHETIC FLUIDS provide outstanding thermal and oxidative stability, will not varnish or form carbon deposits and are suitable for use across a wide range of operating temperatures. They contain built-in detergency and offer extended drain intervals to reduce oil disposal, and thus increase cost effectiveness.

### Applications

SUNOCO CHALLENGE D/E SERIES SYNTHETIC FLUIDS are designed for use in all types of rotary screw compressors, rotary vane compressors, centrifugal compressors, reciprocating compressors, high pressure air compressors, vacuum pumps, gear boxes, and chain lubrication.

SUNOCO CHALLENGE D/E 100 & 150 are recommended for reciprocating compressors and vacuum pumps using the following gases: air, ethylene, methane, propane, butadiene, natural gas, synthesis gas, carbon monoxide, carbon dioxide (dry), helium, hydrogen sulfide (dry), nitrogen, furnace (crack) gas, hydrogen, & sulfur hexafluoride.

CAUTION: May affect some paint finishes, plastics and seals  
USDA H-2 Authorized

### Typical Properties

Product Code	9603	9613	9623	9633	TBD	TBD
ISO Viscosity Grade	32	46	68	100	150	220
Viscosity cSt @40 °C	36.3	45.4	70	99	146.5	222
Viscosity cSt @100 °C	5.9	6.5	7	10.2	13.3	v
Viscosity Index (D2270)	106	89	60	83	90	92
Flash Point, COC °F (D92)	526	496	531	500	520	531
Pour Point °F (D97)	-54	-40	-35	-27	-30	-30
Copper Corrosion	1a	1b	1a	1b	1a	-
Foaming Sequences I, II, III	Nil	Nil	Nil	Nil	Nil	-
Demulsibility	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Evaporation, %	1.0	1.0	1.0	.98	90	<1%
Carbon Residue, %	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Dielectric Strength	-	-	34.33	-	-	-
Four Ball Wear, 40 KG., 1200RPM, 75°C, 1 HER., SCAR DIAMETER, MM	-	-	-	0.38	-	-
Specific Gravity	0.96	0.96	0.96	0.95	0.93	0.92